E-154-19

NIFS ID:CFIT19000002 Department: Information Technology

Capital: X

SERVICE: Computer Aided Dispatch System

Contract ID #:CFIT19000002 NIFS Entry Date: 17-APR-19 Term: from to

New	
Time Extension:	
Addl. Funds:	
Blanket Resolution:	
RES#	

1) Mandated Program:	N
2) Comptroller Approval Form Attached:	Y
3) CSEA Agmt. § 32 Compliance Attached:	N
4) Vendor Ownership & Mgmt. Disclosure Attached:	Y
5) Insurance Required	Y

Vendor Info:	
Name: **Tyler Technologies Inc.**	Vendor [redacted]
Address: [redacted]	Contact Person: [redacted]
	Phone: [redacted]

Department:
Contact Name: Nancy Stanton ****Please return final, sealed copy to Caresse Capolongo****
Address: 240 Old Country Rd Mineola, NY 11501
Phone: 516-571-4311

RECEIVED NASSAU COUNTY CLERK OF THE LEGISLATURE 2019 JUL -5 A 11:35

Routing Slip

Department	NIFS Entry: X	22-APR-19 -- CCAPOLONGO
Department	NIFS Approval: X	29-APR-19 -- NSTANTON
DPW	Capital Fund Approved: X	30-APR-19 -- CYANSICK
OMB	NIFA Approval: X	13-MAY-19 -- IQURESHI
OMB	NIFS Approval: X	29-APR-19 -- SDEWS
County Atty.	Insurance Verification: X	30-APR-19 -- NSARANDIS
County Atty.	Approval to Form: X	30-APR-19 -- MMISRA
CPO	Approval: X	10-JUN-19 -- KOHAGENCE
DCEC	Approval: X	10-JUN-19 -- JCHIARA

Dep. CE	Approval: X	25-JUN-19 -- HWILLIAMS
Leg. Affairs	Approval/Review: X	05-JUL-19 -- JSCHANTZ
Legislature	Approval:	
Comptroller	Deputy:	
NIFA	NIFA Approval:	

Contract Summary

Purpose: Tyler Technologies Inc. is to provide a Computer Aided Dispatch (CAD) system for the Nassau County Fire Commission (NCFC). The contractor will also provide professional services to convert the current CAD data from our existing mainframe system.

Method of Procurement: RFP #IT1218-1737

Procurement History: The Contract was entered into after a written request for proposals was issued on 3/1/2018. Potential proposers were made aware of the availability of the RFP by advertisement in Newsday and by publication on the County procurement website. Proposals were due on 5/22/2018. Two (2) proposals were received and evaluated. The evaluation committee consisted of four (4) staff: Tim Placilla (NCFC), Marc Bodnar (NCFC), Vincent Kehoe (NCFC), and Al Perez (IT). The proposals were scored and ranked. As a result of the of the scoring and ranking, the highest-ranking proposer was selected.

Description of General Provisions: The scope of the new Firecom CAD system includes the following:

1) Data conversion from existing mainframe application.

2) Installation, licensing, training and support of a fully integrated Computer Aided Dispatch (CAD) system which includes the following:

- CAD Mapping
- Call Entry
- Call Control Panel
- Unit Recommendations
- Unit Status and Control Panel
- Call Stacking
- CAD Messaging
- Call Scheduling
- Dispatch Questionnaire
- Fire Equipment Search/Fire Equipment Move
- GIS/Geo-File Verification
- Hazard and Location Alerts
- Hazmat Search
- Hydrant Inventory
- Note Pads /Special Dispatch Instruction Notes
- Proximity Dispatch
- Rip-n-Run Remote Printing
- Run Cards/Response Plans
- Web CAD Monitor
- CAD Pager Interface
- E-911 Interface

- Compatible with next generation E911 - Pre-Arrival Questionnaire - EMD (Integrated) - Pre-Arrival Questionnaire - Fire (Optional) - Decision Support/Dashboards
Impact on Funding / Price Analysis: $701,500.00
Change in Contract from Prior Procurement: N/A
Recommendation: (approve as submitted)

Advisement Information

BUDGET CODES	
Fund:	PWCAPCAP
Control:	
Resp:	
Object:	**00002**
Transaction:	
Project #:	**52032**
Detail:	**000**

RENEWAL	
% Increase	
% Decrease	

FUNDING SOURCE	AMOUNT
Revenue Contract:	
County	$ 0.00
Federal	$ 0.00
State	$ 0.00
Capital	$ 701,500.00
Other	$ 0.00
TOTAL	**$ 701,500.00**

LINE	INDEX/OBJECT CODE	AMOUNT
01	PWCAPCAP/52032/ 00002	$ 701,500.00
		$ 0.00
		$ 0.00
		$ 0.00
		$ 0.00
		$ 0.00
	TOTAL	$ 701,500.00

NIFA Nassau County Interim Finance Authority

Contract Approval Request Form (As of January 1, 2015)

1. Vendor: Tyler Technologies Inc.

2. Dollar amount requiring NIFA approval: $701500

Amount to be encumbered: $701500

This is a New

If new contract - $ amount should be full amount of contract
If advisement – NIFA only needs to review if it is increasing funds above the amount previously approved by NIFA
If amendment - $ amount should be full amount of amendment only

3. Contract Term: Upon Execution

Has work or services on this contract commenced? N ____

If yes, please explain:

4. Funding Source:

General Fund (GEN)
X Capital Improvement Fund (CAP)
Other

Grant Fund (GRT)
Federal % 0
State % 0
County % 0

Is the cash available for the full amount of the contract?	N
If not, will it require a future borrowing?	Y
Has the County Legislature approved the borrowing?	N/A
Has NIFA approved the borrowing for this contract?	N/A

5. Provide a brief description (4 to 5 sentences) of the item for which this approval is requested:

Tyler Technologies Inc. is to provide a Computer Aided Dispatch (CAD) system for the Nassau County Fire Commission (NCFC). The contractor will also provide professional services to convert the current CAD data from our existing mainframe system.

6. Has the item requested herein followed all proper procedures and thereby approved by the:

Nassau County Attorney as to form Y

Nassau County Committee and/or Legislature

Date of approval(s) and citation to the resolution where approval for this item was provided:

7. Identify all contracts (with dollar amounts) with this or an affiliated party within the prior 12 months:

Contract ID	Date	Amount

AUTHORIZATION

To the best of my knowledge, I hereby certify that the information contained in this Contract Approv al Request Form and any additional information submitted in connection with this request is true an d accurate and that all expenditures that will be made in reliance on this authorization are in confor mance with the Nassau County Approved Budget and not in conflict with the Nassau County Multi-Year Financial Plan. I understand that NIFA will rely upon this information in its official deliberation s.

IQURESHI	13-MAY-19
Authenticated User	***Date***

COMPTROLLER'S OFFICE

To the best of my knowledge, I hereby certify that the information listed is true and accurate and is in conformance with the Nassau County Approved Budget and not in conflict with the Nassau Cou nty Multi-Year Financial Plan.

Regarding funding, please check the correct response:

_ I certify that the funds are available to be encumbered pending NIFA approval of this contract.

If this is a capital project:

I certify that the bonding for this contract has been approved by NIFA.

Budget is available and funds have been encumbered but the project requires NIFA bonding authorization

Authenticated User ***Date***

NIFA

Amount being approved by NIFA: _

Payment is not guaranteed for any work commenced prior to this approval.

Authenticated User ***Date***

NOTE: All contract submissions MUST include the County's own routing slip, current NIFS pri ntouts for all relevant accounts and relevant Nassau County Legislature communication docu ments and relevant supplemental information pertaining to the item requested herein.

NIFA Contract Approval Request Form MUST be filled out in its entirety before being su bmitted to NIFA for review.

NIFA reserves the right to request additional information as needed.

RULES RESOLUTION NO. – 2019

A RESOLUTION AUTHORIZING THE COUNTY EXECUTIVE TO EXECUTE A PERSONAL SERVICES AGREEMENT BETWEEN THE COUNTY OF NASSAU, ACTING ON BEHALF OF THE DEPARTMENT OF INFORMATION TECHNOLOGY, AND TYLER TECHNOLOGIES, INC. ("TYLER")

WHEREAS, the County has negotiated a personal services agreement with Tyler to provide a Computer Aided Dispatch solution and system, copy of which is on file with the Clerk of the Legislature; now, therefore, be it

RESOLVED, that the Rules Committee of the Nassau County Legislature authorizes the County Executive to execute the said agreement with Tyler.

CFIT 19000002
Redacted

Jack Schnirman
Comptroller

OFFICE OF THE COMPTROLLER
240 Old Country Road
Mineola, New York 11501

COMPTROLLER APPROVAL FORM FOR PERSONAL, PROFESSIONAL OR HUMAN SERVICES CONTRACTS

Attach this form along with all personal, professional or human services contracts, contract renewals, extensions and amendments.

CONTRACTOR NAME: Tyler Technologies, Inc.

CONTRACTOR ADDRESS: 840 West Long Lake Road, Troy, Michigan 48098

FEDERAL TAX ID #: 75-2303920

Instructions: **Please check the appropriate box ("☑") after one of the following roman numerals, and provide all the requested information.**

I. ☐ The contract was awarded to the lowest, responsible bidder after advertisement for sealed bids. The contract was awarded after a request for sealed bids was published in__________________ [newspaper] on ____________ [date]. The sealed bids were publicly opened on ____________ [date]. ______ [#] of sealed bids were received and opened.

II. ☒ The contractor was selected pursuant to a Request for Proposals. The Contract was entered into after a written request for proposals was issued on 3/1/2018. Potential proposers were made aware of the availability of the RFP by advertisement in Newsday, posting on industry websites, via email to interested parties and by publication on the County procurement website. Proposals were due on 5/22/2018. Two proposals were received and evaluated. The evaluation committee consisted of: Tim Placilla (NCFC), Marc Bodnar (NCFC), Vincent Kehoe (NCFC), and Al Perez (IT).

____________________________________. The proposals were scored and ranked. As a result of the scoring and ranking, the highest-ranking proposer was selected.

III. ☐ This is a renewal, extension or amendment of an existing contract.

The contract was originally executed by Nassau County on______________________________[date]. This is a renewal or extension pursuant to the contract, or an amendment within the scope of the contract or RFP (copies of the relevant pages are attached). The original contract was entered into after ____ ____ ____ [describe procurement method, i.e., RFP, three proposals evaluated, etc.] Attach a copy of the most recent evaluation of the contractor's performance for any contract to be renewed or extended. If the contractor has not received a satisfactory evaluation, the department must explain why the contractor should nevertheless be permitted to continue to contract with the county.

IV. ☐ Pursuant to Executive Order No. 1 of 1993, as amended, at least three proposals were solicited and received. The attached memorandum from the department head describes the proposals received, along with the cost of each proposal.

☐ **A.** The contract has been awarded to the proposer offering the lowest cost proposal; **OR:**

☐ **B.** The attached memorandum contains a detailed explanation as to the reason(s) why the contract was awarded to other than the lowest-cost proposer. The attachment includes a specific delineation of the unique skills and experience, the specific reasons why a proposal is deemed superior, and/or why the proposer has been judged to be able to perform more quickly than other proposers.

V. ☐ Pursuant to Executive Order No. 1 of 1993 as amended, the attached memorandum from the department head explains why the department did not obtain at least three proposals.

☐ **A.** There are only one or two providers of the services sought or less than three providers submitted proposals. The memorandum describes how the contractor was determined to be the sole source provider of the personal service needed or explains why only two proposals could be obtained. If two proposals were obtained, the memorandum explains that the contract was awarded to the lowest cost proposer, or why the selected proposer offered the higher quality proposal, the proposer's unique and special experience, skill, or expertise, or its availability to perform in the most immediate and timely manner.

☐ **B.** The memorandum explains that the contractor's selection was dictated by the terms of a federal or New York State grant, by legislation or by a court order. (Copies of the relevant documents are attached).

☐ **C.** Pursuant to General Municipal Law Section 104, the department is purchasing the services required through a New York State Office of General Services contract no. ______________________, and the attached memorandum explains how the purchase is within the scope of the terms of that contract.

☐ **D.** Pursuant to General Municipal Law Section 119-o, the department is purchasing the services required through an inter-municipal agreement.

VI. ☐ This is a human services contract with a not-for-profit agency for which a competitive process has not been initiated. Attached is a memorandum that explains the reasons for entering into this contract without conducting a competitive process, and details when the department intends to initiate a competitive process for the future award of these services. For any such contract, where the vendor has previously provided services to the county, attach a copy of the most recent evaluation of the vendor's performance. If the contractor has not received a satisfactory evaluation, the department must explain why the contractor should nevertheless be permitted to contract with the county.

In certain limited circumstances, conducting a competitive process and/or completing performance evaluations may not be possible because of the nature of the human services program, or because of a compelling need to continue services through the same provider. In those circumstances, attach an explanation of why a competitive process and/or performance evaluation is inapplicable.

VII. ☐ This is a public works contract for the provision of architectural, engineering or surveying services. The attached memorandum provides details of the department's compliance with Board of Supervisors' Resolution No. 928 of 1993, including its receipt and evaluation of annual Statements of Qualifications & Performance Data, and its negotiations with the most highly qualified firms.

Instructions with respect to Sections VIII, IX and X: **All Departments must check the box for VIII. Then, check the box for either IX or X, as applicable.**

VIII. ☒ Participation of Minority Group Members and Women in Nassau County Contracts. The selected contractor has agreed that it has an obligation to utilize best efforts to hire MWBE sub-contractors. Proof of the contractual utilization of best efforts as outlined in Exhibit "EE" may be requested at any time, from time to time, by the Comptroller's Office prior to the approval of claim vouchers.

IX. ☐ Department MWBE responsibilities. To ensure compliance with MWBE requirements as outlined in Exhibit "EE", Department will require vendor to submit list of sub-contractor requirements prior to submission of the first claim voucher, for services under this contract being submitted to the Comptroller.

X. ☒ Vendor will not require any sub-contractors.

In addition, if this is a contract with an individual or with an entity that has only one or two employees: ☐ a review of the criteria set forth by the Internal Revenue Service, *Revenue Ruling No.* 87-41, 1987-1 C.B. 296, attached as Appendix A to the Comptroller's Memorandum, dated February 13, 2004, concerning independent contractors and employees indicates that the contractor would not be considered an employee for federal tax purposes.

Nancy Stanton

Department Head Signature

4-19-19

Date

NOTE: Any information requested above, or in the exhibit below, may be included in the county's "staff summary" form in lieu of a separate memorandum.

COUNTY OF NASSAU

POLITICAL CAMPAIGN CONTRIBUTION DISCLOSURE FORM

1. Has the vendor or any corporate officers of the vendor provided campaign contributions pursuant to the New York State Election Law in (a) the period beginning April 1, 2016 and ending on the date of this disclosure, or (b), beginning April 1, 2018, the period beginning two years prior to the date of this disclosure and ending on the date of this disclosure, to the campaign committees of any of the following Nassau County elected officials or to the campaign committees of any candidates for any of the following Nassau County elected offices: the County Executive, the County Clerk, the Comptroller, the District Attorney, or any County Legislator?

YES [ ] NO [X] If yes, to what campaign committee?

2. VERIFICATION: This section must be signed by a principal of the consultant, contractor or Vendor authorized as a signatory of the firm for the purpose of executing Contracts.

The undersigned affirms and so swears that he/she has read and understood the foregoing statements and they are, to his/her knowledge, true and accurate.

The undersigned further certifies and affirms that the contribution(s) to the campaign committees identified above were made freely and without duress, threat or any promise of a governmental benefit or in exchange for any benefit or remuneration.

Electronically signed and certified at the date and time indicated by:
Abigail Diaz [ABIGAIL.DIAZ@TYLERTECH.COM]

Dated: 06/05/2019 10:12:14 AM

Vendor: Tyler Technologies, Inc.

Title: Chief Legal Officer

Rev. 3-2016

COUNTY OF NASSAU

LOBBYIST REGISTRATION AND DISCLOSURE FORM

1. Name, address and telephone number of lobbyist(s)/lobbying organization. The term "lobbyist" means any and every person or organization retained, employed or designated by any client to influence - or promote a matter before - Nassau County, its agencies, boards, commissions, department heads, legislators or committees, including but not limited to the Open Space and Parks Advisory Committee and Planning Commission. Such matters include, but are not limited to, requests for proposals, development or improvement of real property subject to County regulation, procurements. The term "lobbyist" does not include any officer, director, trustee, employee, counsel or agent of the County of Nassau, or State of New York, when discharging his or her official duties.

James F. Capalino & Associates, Inc. 233 Broadway, Suite 710 New York, NY 10279 212-616-5810

2. List whether and where the person/organization is registered as a lobbyist (e.g., Nassau County, New York State):

Registered with New York State Joint Commission on Public Ethics and New York City Office of the City Clerk

3. Name, address and telephone number of client(s) by whom, or on whose behalf, the lobbyist is retained, employed or designated:

Tyler Technologies, Inc. 5101 Tennyson Parkway Plano, TX 75024 800-772-2260 x4642

4. Describe lobbying activity conducted, or to be conducted, in Nassau County, and identify client(s) for each activity listed. See the last page for a complete description of lobbying activities.

Representation of Tyler Technologies in connection with achieving an innovative technology solutions portfolio with Tyler Technologies' Courts & Justice and Data & Insights divisions and developing relationships with government agencies listed on Question 5 below.

5. The name of persons, organizations or governmental entities before whom the lobbyist expects to lobby:

New York State Unified Court System New York City Office of the Comptroller New York City Department of Information Technology & Telecommunications New York State Office of General Services New York State Office of Technology

6. If such lobbyist is retained or employed pursuant to a written agreement of retainer or employment, you must attach a copy of such document; and if agreement of retainer or employment is oral, attach a written statement of the substance thereof. If the written agreement of retainer or employment does not contain a signed authorization from the client by whom you have been authorized to lobby. separately attach such a written authorization from the client.

7. Has the lobbyist/lobbying organization or any of its corporate officers provided campaign contributions pursuant to the New York State Election Law in (a) the period beginning April 1, 2016 and ending on the date of this disclosure, or (b), beginning April 1, 2018, the period beginning two years prior to the date of this disclosure and ending on the date of this disclosure, to the campaign committees of any of the following Nassau County elected officials or to the campaign committees of any candidates for any of the following Nassau County elected offices: the County Executive, the County Clerk, the Comptroller, the District Attorney, or any County Legislator?

YES [ ] NO [X] If yes, to what campaign committee? If none, you must so state:

I understand that copies of this form will be sent to the Nassau County Department of Information Technology ("IT") to be posted on the County's website.

I also understand that upon termination of retainer, employment or designation I must give written notice to the County Attorney within thirty (30) days of termination.

VERIFICATION: The undersigned affirms and so swears that he/she has read and understood the foregoing statements and they are, to his/her knowledge, true and accurate.

The undersigned further certifies and affirms that the contribution(s) to the campaign committees listed above were made freely and without duress. threat or any promise of a governmental benefit or in exchange for any benefit or remuneration.

Electronically signed and certified at the date and time indicated by:
Abigail Diaz [ABIGAIL.DIAZ@TYLERTECH.COM]

Dated: 06/05/2019 10:15:08 AM

Vendor: Tyler Technologies, Inc.

Title: Chief Legal Officer

The term <u>lobbying</u> shall mean any attempt to influence: any determination made by the Nassau County Legislature, or any member thereof, with respect to the introduction, passage, defeat, or substance of any local legislation or resolution; any determination by the County Executive to support, oppose, approve or disapprove any local legislation or resolution, whether or not such legislation has been introduced in the County Legislature; any determination by an elected County official or an officer or employee of the County with respect to the procurement of goods, services or construction, including the preparation of contract specifications, including by not limited to the preparation of requests for proposals, or solicitation, award or administration of a contract or with respect to the solicitation, award or administration of a grant, loan, or agreement involving the disbursement of public monies; any determination made by the County Executive, County Legislature, or by the County of Nassau, its agencies, boards, commissions department heads or committees, including but not limited to the Open Space and Parks Advisory Committee, the Planning Commission with respect to the zoning, use, development or improvement of real property subject to County regulation, or any agencies, boards, commissions, department heads or committees with respect to requests for proposals, bidding, procurement or contracting for services for the County; any determination made by an elected county official or an officer or employee of the county with respect to the terms of the acquisition or disposition by the county of any interest in real property, with respect to a license or permit for the use of real property of or by the county, or with respect to a franchise, concession or revocable consent; the proposal, adoption, amendment or rejection by an agency of any rule having the force and effect of law; the decision to hold, timing or outcome of any rate making proceeding before an agency; the agenda or any determination of a board or commission; any determination regarding the calendaring or scope of any legislature oversight hearing; the issuance, repeal, modification or substance of a County Executive Order; or any determination made by an elected county official or an officer or employee of the county to support or oppose any state or federal legislation, rule or regulation, including any determination made to support or oppose that is contingent on any amendment of such legislation, rule or regulation, whether or not such legislation has been formally introduced and whether or not such rule or regulation has been formally proposed.

The term "lobbying" or "lobbying activities" <u>does not include:</u> Persons engaged in drafting legislation, rules, regulations or rates; persons advising clients and rendering opinions on proposed legislation, rules, regulations or rates, where such professional services are not otherwise connected with legislative or executive action on such legislation or administrative action on such rules, regulations or rates; newspapers and other periodicals and radio and television stations and owners and employees thereof, provided that their activities in connection with proposed legislation, rules, regulations or rates are limited to the publication or broadcast of news items, editorials or other comment, or paid advertisements; persons who participate as witnesses. attorneys or other representatives in public rule-making or rate-making proceedings of a County agency, with respect to all participation by such persons which is part of the public record thereof and all preparation by such persons for such participation; persons who attempt to influence a County agency in an adjudicatory proceeding, as defined by § 102 of the New York State Administrative Procedure Act.

PRINCIPAL QUESTIONNAIRE FORM

All questions on these questionnaires must be answered by all officers and any individuals who hold a ten percent (10%) or greater ownership interest in the proposer. Answers typewritten or printed in ink. If you need more space to answer any question, make as many photocopies of the appropriate page(s) as necessary and attach them to the questionnaire.

COMPLETE THIS QUESTIONNAIRE CAREFULLY AND COMPLETELY. FAILURE TO SUBMIT A COMPLETE QUESTIONNAIRE MAY MEAN THAT YOUR BID OR PROPOSAL WILL BE REJECTED AS NON-RESPONSIVE AND IT WILL NOT BE CONSIDERED FOR AWARD

1. Principal Name: John S. Marr, Jr.
   Date of birth: [redacted]
   Home address: [redacted]
   City: [redacted] State: [redacted] Zip Code: [redacted]
   Business Address: One Tyler Drive
   City: Yarmouth State: ME Zip Code: 04096
   Telephone: (207) 772-2260
   Other present address(es):
   City: State: Zip Code:
   Telephone:
   List of other addresses and telephone numbers attached

2. Positions held in submitting business and starting date of each (check all applicable)

President	07/01/2004	Treasurer	
Chairman of Board	01/01/2017	Shareholder	
Chief Exec. Officer	07/01/2004	Secretary	
Chief Financial Officer		Partner	
Vice President			
(Other)			

Type	Description	Start Date
Other	Chief Operating Officer	07/01/2003
Other	Executive Chairman of the Board	05/09/2018
Other	President of Munis	01/01/1994
Other	Director, Board of Directors	05/01/2002

3. Do you have an equity interest in the business submitting the questionnaire?
   YES [X] NO [ ] If Yes, provide details.

   See attached. John S. Marr, Jr. is a holder of Tyler Technologies stock. As of June 5, 2019, only 1.79% of shares are held by insiders.

4. Are there any outstanding loans, guarantees or any other form of security or lease or any other type of contribution made in whole or in part between you and the business submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

5. Within the past 3 years, have you been a principal owner or officer of any business or notfor-profit organization other than the one submitting the questionnaire?
   YES [X] NO [ ] If Yes, provide details.

   Handy Boat (Boat Yard and Restaurant)
   215 Foreside Road
   Falmouth, ME 04105
   Co-Owner with wife, Rebecca Marr

6. Has any governmental entity awarded any contracts to a business or organization listed in Section 5 in the past 3 years while you were a principal owner or officer?
YES [ ] NO [X] If Yes, provide details.

NOTE: An affirmative answer is required below whether the sanction arose automatically, by operation of law, or as a result of any action taken by a government agency. Provide a detailed response to all questions checked "YES". If you need more space, photocopy the appropriate page and attach it to the questionnaire.

7. In the past (5) years, have you and/or any affiliated businesses or not-for-profit organizations listed in Section 5 in which you have been a principal owner or officer:

a. Been debarred by any government agency from entering into contracts with that agency?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Been declared in default and/or terminated for cause on any contract, and/or had any contracts cancelled for cause?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Been denied the award of a contract and/or the opportunity to bid on a contract, including, but not limited to, failure to meet pre-qualification standards?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. Been suspended by any government agency from entering into any contract with it; and/or is any action pending that could formally debar or otherwise affect such business's ability to bid or propose on contract?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

8. Have any of the businesses or organizations listed in response to Question 5 filed a bankruptcy petition and/or been the subject of involuntary bankruptcy proceedings during the past 7 years, and/or for any portion of the last 7 year period, been in a state of bankruptcy as a result of bankruptcy proceedings initiated more than 7 years ago and/or is any such business now the subject of any pending bankruptcy proceedings, whenever initiated?
YES [ ] NO [X] If 'Yes', provide details for each such instance. (Provide a detailed response to all questions check "Yes". If you need more space, photocopy the appropriate page and attached it to the questionnaire.)

9.

a. Is there any felony charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Is there any misdemeanor charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Is there any administrative charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. In the past 10 years, have you been convicted, after trial or by plea, of any felony, or of any other crime, an element of which relates to truthfulness or the underlying facts of which related to the conduct of business? Y
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

e. In the past 5 years, have you been convicted, after trial or by plea, of a misdemeanor?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

f. In the past 5 years, have you been found in violation of any administrative or statutory charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

10. In addition to the information provided in response to the previous questions, in the past 5 years, have you been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency and/or the subject of an investigation where such investigation was related to activities performed at, for, or on behalf of the submitting business entity and/or an affiliated business listed in response to Question 5?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

11. In addition to the information provided, in the past 5 years has any business or organization listed in response to Question 5, been the subject of a criminal investigation and/or a civil anti-trust investigation and/or any other type of investigation by any government agency, including but not limited to federal, state, and local regulatory agencies while you were a principal owner or officer?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

12. In the past 5 years, have you or this business, or any other affiliated business listed in response to Question 5 had any sanction imposed as a result of judicial or administrative proceedings with respect to any professional license held?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

13. For the past 5 tax years, have you failed to file any required tax returns or failed to pay any applicable federal, state or local taxes or other assessed charges, including but not limited to water and sewer charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

I, John S. Marr, Jr. , hereby acknowledge that a materially false statement willfully or fraudulently made in connection with this form may result in rendering the submitting business entity and/or any affiliated entities non-responsible, and, in addition, may subject me to criminal charges.

I, John S. Marr, Jr. , hereby certify that I have read and understand all the items contained in this form; that I supplied full and complete answers to each item therein to the best of my knowledge, information and belief; that I will notify the County in writing of any change in circumstances occurring after the submission of this form; and that all information supplied by me is true to the best of my knowledge, information and belief. I understand that the County will rely on the information supplied in this form as additional inducement to enter into a contract with the submitting business entity.

CERTIFICATION

A MATERIALLY FALSE STATEMENT WILLFULLY OR FRAUDULENTLY MADE IN CONNECTION WITH THIS QUESTIONNAIRE MAY RESULT IN RENDERING THE SUBMITTING BUSINESS ENTITY NOT RESPONSIBLE WITH RESPECT TO THE PRESENT BID OR FUTURE BIDS, AND, IN ADDITION, MAY SUBJECT THE PERSON MAKING THE FALSE STATEMENT TO CRIMINAL CHARGES.

Tyler Technologies, Inc.
Name of submitting business

Electronically signed and certified at the date and time indicated by:
John S. Marr, Jr. [JOHN.MARRJR@TYLERTECH.COM]

Executive Chairman of the Board
Title

06/05/2019 10:08:13 AM
Date

PRINCIPAL QUESTIONNAIRE FORM

All questions on these questionnaires must be answered by all officers and any individuals who hold a ten percent (10%) or greater ownership interest in the proposer. Answers typewritten or printed in ink. If you need more space to answer any question, make as many photocopies of the appropriate page(s) as necessary and attach them to the questionnaire.

COMPLETE THIS QUESTIONNAIRE CAREFULLY AND COMPLETELY. FAILURE TO SUBMIT A COMPLETE QUESTIONNAIRE MAY MEAN THAT YOUR BID OR PROPOSAL WILL BE REJECTED AS NON-RESPONSIVE AND IT WILL NOT BE CONSIDERED FOR AWARD

1. Principal Name: H. Lynn Moore, Jr.
   Date of birth: [redacted]
   Home address: [redacted]
   City: [redacted] State: [redacted] Zip Code: [redacted]
   Business Address: 5101 Tennyson Parkway
   City: Plano State: TX Zip Code: 75024
   Telephone: (972) 713-3770
   Other present address(es):
   City: State: Zip Code:
   Telephone:
   List of other addresses and telephone numbers attached

2. Positions held in submitting business and starting date of each (check all applicable)

President	01/01/2017	Treasurer	
Chairman of Board		Shareholder	
Chief Exec. Officer	05/09/2018	Secretary	10/01/2000
Chief Financial Officer		Partner	
Vice President	10/01/2000		
(Other)			

Type	Description	Start Date
Other	Executive Vice President	02/01/2008
Other	General Counsel	09/01/1998

3. Do you have an equity interest in the business submitting the questionnaire?
   YES [X] NO [ ] If Yes, provide details.
   H. Lynn Moore, Jr. holds less than a 10% interest. Please see attached.

4. Are there any outstanding loans, guarantees or any other form of security or lease or any other type of contribution made in whole or in part between you and the business submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

5. Within the past 3 years, have you been a principal owner or officer of any business or notfor-profit organization other than the one submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

6. Has any governmental entity awarded any contracts to a business or organization listed in Section 5 in the past 3 years while you were a principal owner or officer?
   YES [ ] NO [X] If Yes, provide details.

NOTE: An affirmative answer is required below whether the sanction arose automatically, by operation of law, or as a result of any action taken by a government agency. Provide a detailed response to all questions checked "YES". If you need more space, photocopy the appropriate page and attach it to the questionnaire.

7. In the past (5) years, have you and/or any affiliated businesses or not-for-profit organizations listed in Section 5 in which you have been a principal owner or officer:

a. Been debarred by any government agency from entering into contracts with that agency?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Been declared in default and/or terminated for cause on any contract, and/or had any contracts cancelled for cause?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Been denied the award of a contract and/or the opportunity to bid on a contract, including, but not limited to, failure to meet pre-qualification standards?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. Been suspended by any government agency from entering into any contract with it; and/or is any action pending that could formally debar or otherwise affect such business's ability to bid or propose on contract?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

8. Have any of the businesses or organizations listed in response to Question 5 filed a bankruptcy petition and/or been the subject of involuntary bankruptcy proceedings during the past 7 years, and/or for any portion of the last 7 year period, been in a state of bankruptcy as a result of bankruptcy proceedings initiated more than 7 years ago and/or is any such business now the subject of any pending bankruptcy proceedings, whenever initiated?
YES [ ] NO [X] If 'Yes', provide details for each such instance. (Provide a detailed response to all questions check "Yes". If you need more space, photocopy the appropriate page and attached it to the questionnaire.)

9.

a. Is there any felony charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Is there any misdemeanor charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Is there any administrative charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. In the past 10 years, have you been convicted, after trial or by plea, of any felony, or of any other crime, an element of which relates to truthfulness or the underlying facts of which related to the conduct of business? Y
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action

taken.

e. In the past 5 years, have you been convicted, after trial or by plea, of a misdemeanor?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

f. In the past 5 years, have you been found in violation of any administrative or statutory charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

10. In addition to the information provided in response to the previous questions, in the past 5 years, have you been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency and/or the subject of an investigation where such investigation was related to activities performed at, for, or on behalf of the submitting business entity and/or an affiliated business listed in response to Question 5?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

11. In addition to the information provided, in the past 5 years has any business or organization listed in response to Question 5, been the subject of a criminal investigation and/or a civil anti-trust investigation and/or any other type of investigation by any government agency, including but not limited to federal, state, and local regulatory agencies while you were a principal owner or officer?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

12. In the past 5 years, have you or this business, or any other affiliated business listed in response to Question 5 had any sanction imposed as a result of judicial or administrative proceedings with respect to any professional license held?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

13. For the past 5 tax years, have you failed to file any required tax returns or failed to pay any applicable federal, state or local taxes or other assessed charges, including but not limited to water and sewer charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

I, H. Lynn Moore, Jr., hereby acknowledge that a materially false statement willfully or fraudulently made in connection with this form may result in rendering the submitting business entity and/or any affiliated entities non-responsible, and, in addition, may subject me to criminal charges.

I, H. Lynn Moore, Jr., hereby certify that I have read and understand all the items contained in this form; that I supplied full and complete answers to each item therein to the best of my knowledge, information and belief; that I will notify the County in writing of any change in circumstances occurring after the submission of this form; and that all information supplied by me is true to the best of my knowledge, information and belief. I understand that the County will rely on the information supplied in this form as additional inducement to enter into a contract with the submitting business entity.

CERTIFICATION

A MATERIALLY FALSE STATEMENT WILLFULLY OR FRAUDULENTLY MADE IN CONNECTION WITH THIS QUESTIONNAIRE MAY RESULT IN RENDERING THE SUBMITTING BUSINESS ENTITY NOT RESPONSIBLE WITH RESPECT TO THE PRESENT BID OR FUTURE BIDS, AND, IN ADDITION, MAY SUBJECT THE PERSON MAKING THE FALSE STATEMENT TO CRIMINAL CHARGES.

Tyler Technologies, Inc.
Name of submitting business

Electronically signed and certified at the date and time indicated by:
H. Lynn Moore, Jr. [LYNN.MOORE@TYLERTECH.COM]

President & Chief Executive Officer
Title

05/31/2019 12:13:11 PM
Date

PRINCIPAL QUESTIONNAIRE FORM

All questions on these questionnaires must be answered by all officers and any individuals who hold a ten percent (10%) or greater ownership interest in the proposer. Answers typewritten or printed in ink. If you need more space to answer any question, make as many photocopies of the appropriate page(s) as necessary and attach them to the questionnaire.

COMPLETE THIS QUESTIONNAIRE CAREFULLY AND COMPLETELY. FAILURE TO SUBMIT A COMPLETE QUESTIONNAIRE MAY MEAN THAT YOUR BID OR PROPOSAL WILL BE REJECTED AS NON-RESPONSIVE AND IT WILL NOT BE CONSIDERED FOR AWARD

1. Principal Name: Mark Hawkins
   Date of birth: [redacted]
   Home address: [redacted]
   City: [redacted] State: [redacted] Zip Code: [redacted]
   Business Address: 5101 Tennyson Parkway
   City: Plano State: TX Zip Code: 75024
   Telephone: (972) 713-3770
   Other present address(es):
   City: State: Zip Code:
   Telephone:
   List of other addresses and telephone numbers attached

2. Positions held in submitting business and starting date of each (check all applicable)

   President ______ Treasurer ______
   Chairman of Board ______ Shareholder ______
   Chief Exec. Officer ______ Secretary ______
   Chief Financial Officer ______ Partner ______
   Vice President ______
   (Other)

Type	Description	Start Date
Other	President, Appraisal & Tax Division	02/18/2019
Other	Senior Vice President of Operations, Appraisal & Tax Division	08/01/2015

3. Do you have an equity interest in the business submitting the questionnaire?
   YES [X] NO [ ] If Yes, provide details.
   Mark Hawkins owns less than a 10% interest. Please see attached document.

4. Are there any outstanding loans, guarantees or any other form of security or lease or any other type of contribution made in whole or in part between you and the business submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

5. Within the past 3 years, have you been a principal owner or officer of any business or notfor-profit organization other than the one submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

6. Has any governmental entity awarded any contracts to a business or organization listed in Section 5 in the past 3 years while you were a principal owner or officer?
   YES [ ] NO [X] If Yes, provide details.

NOTE: An affirmative answer is required below whether the sanction arose automatically, by operation of law, or as a result of any action taken by a government agency. Provide a detailed response to all questions checked "YES". If you need more space, photocopy the appropriate page and attach it to the questionnaire.

7. In the past (5) years, have you and/or any affiliated businesses or not-for-profit organizations listed in Section 5 in which you have been a principal owner or officer:

a. Been debarred by any government agency from entering into contracts with that agency?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Been declared in default and/or terminated for cause on any contract, and/or had any contracts cancelled for cause?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Been denied the award of a contract and/or the opportunity to bid on a contract, including, but not limited to, failure to meet pre-qualification standards?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. Been suspended by any government agency from entering into any contract with it; and/or is any action pending that could formally debar or otherwise affect such business's ability to bid or propose on contract?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

8. Have any of the businesses or organizations listed in response to Question 5 filed a bankruptcy petition and/or been the subject of involuntary bankruptcy proceedings during the past 7 years, and/or for any portion of the last 7 year period, been in a state of bankruptcy as a result of bankruptcy proceedings initiated more than 7 years ago and/or is any such business now the subject of any pending bankruptcy proceedings, whenever initiated?
YES [ ] NO [X] If 'Yes', provide details for each such instance. (Provide a detailed response to all questions check "Yes". If you need more space, photocopy the appropriate page and attached it to the questionnaire.)

9.

a. Is there any felony charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Is there any misdemeanor charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Is there any administrative charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. In the past 10 years, have you been convicted, after trial or by plea, of any felony, or of any other crime, an element of which relates to truthfulness or the underlying facts of which related to the conduct of business? Y
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action

taken.

e. In the past 5 years, have you been convicted, after trial or by plea, of a misdemeanor?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

f. In the past 5 years, have you been found in violation of any administrative or statutory charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

10. In addition to the information provided in response to the previous questions, in the past 5 years, have you been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency and/or the subject of an investigation where such investigation was related to activities performed at, for, or on behalf of the submitting business entity and/or an affiliated business listed in response to Question 5?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

11. In addition to the information provided, in the past 5 years has any business or organization listed in response to Question 5, been the subject of a criminal investigation and/or a civil anti-trust investigation and/or any other type of investigation by any government agency, including but not limited to federal, state, and local regulatory agencies while you were a principal owner or officer?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

12. In the past 5 years, have you or this business, or any other affiliated business listed in response to Question 5 had any sanction imposed as a result of judicial or administrative proceedings with respect to any professional license held?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

13. For the past 5 tax years, have you failed to file any required tax returns or failed to pay any applicable federal, state or local taxes or other assessed charges, including but not limited to water and sewer charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

I, Mark Hawkins , hereby acknowledge that a materially false statement willfully or fraudulently made in connection with this form may result in rendering the submitting business entity and/or any affiliated entities non-responsible, and, in addition, may subject me to criminal charges.

I, Mark Hawkins , hereby certify that I have read and understand all the items contained in this form; that I supplied full and complete answers to each item therein to the best of my knowledge, information and belief; that I will notify the County in writing of any change in circumstances occurring after the submission of this form; and that all information supplied by me is true to the best of my knowledge, information and belief. I understand that the County will rely on the information supplied in this form as additional inducement to enter into a contract with the submitting business entity.

CERTIFICATION

A MATERIALLY FALSE STATEMENT WILLFULLY OR FRAUDULENTLY MADE IN CONNECTION WITH THIS QUESTIONNAIRE MAY RESULT IN RENDERING THE SUBMITTING BUSINESS ENTITY NOT RESPONSIBLE WITH RESPECT TO THE PRESENT BID OR FUTURE BIDS, AND, IN ADDITION, MAY SUBJECT THE PERSON MAKING THE FALSE STATEMENT TO CRIMINAL CHARGES.

Tyler Technologies, Inc.
Name of submitting business

Electronically signed and certified at the date and time indicated by:
Mark Hawkins [MARK.HAWKINS@TYLERTECH.COM]

President, Appraisal & Tax Division
Title

05/31/2019 01:26:42 PM
Date

PRINCIPAL QUESTIONNAIRE FORM

All questions on these questionnaires must be answered by all officers and any individuals who hold a ten percent (10%) or greater ownership interest in the proposer. Answers typewritten or printed in ink. If you need more space to answer any question, make as many photocopies of the appropriate page(s) as necessary and attach them to the questionnaire.

COMPLETE THIS QUESTIONNAIRE CAREFULLY AND COMPLETELY. FAILURE TO SUBMIT A COMPLETE QUESTIONNAIRE MAY MEAN THAT YOUR BID OR PROPOSAL WILL BE REJECTED AS NON-RESPONSIVE AND IT WILL NOT BE CONSIDERED FOR AWARD

1. Principal Name: Greg Sebastian
   Date of birth: [redacted]
   Home address: [redacted]
   City: [redacted] State: [redacted] Zip Code: [redacted]
   Business Address: 840 W Long Lake Rd
   City: Troy State: MI Zip Code: 48098
   Telephone: (248) 269-1000
   Other present address(es): ______
   City: ______ State: ______ Zip Code: ______
   Telephone: ______
   List of other addresses and telephone numbers attached

2. Positions held in submitting business and starting date of each (check all applicable)

   President ______ Treasurer ______
   Chairman of Board ______ Shareholder ______
   Chief Exec. Officer ______ Secretary ______
   Chief Financial Officer ______ Partner ______
   Vice President ______
   (Other)

Type	Description	Start Date
Other	President, Public Safety Division	11/15/2015

3. Do you have an equity interest in the business submitting the questionnaire?
   YES [X] NO [ ] If Yes, provide details.
   Less than 10% interest. Only 1.79% % of Tyler Technologies, Inc. shares are held by insiders. See attached.

4. Are there any outstanding loans, guarantees or any other form of security or lease or any other type of contribution made in whole or in part between you and the business submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

5. Within the past 3 years, have you been a principal owner or officer of any business or notfor-profit organization other than the one submitting the questionnaire?
   YES [ ] NO [X] If Yes, provide details.

6. Has any governmental entity awarded any contracts to a business or organization listed in Section 5 in the past 3 years while you were a principal owner or officer?
   YES [ ] NO [X] If Yes, provide details.

NOTE: An affirmative answer is required below whether the sanction arose automatically, by operation of law, or as a result of any action taken by a government agency. Provide a detailed response to all questions checked "YES". If you need more space, photocopy the appropriate page and attach it to the questionnaire.

7. In the past (5) years, have you and/or any affiliated businesses or not-for-profit organizations listed in Section 5 in which you have been a principal owner or officer:

a. Been debarred by any government agency from entering into contracts with that agency?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Been declared in default and/or terminated for cause on any contract, and/or had any contracts cancelled for cause?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Been denied the award of a contract and/or the opportunity to bid on a contract, including, but not limited to, failure to meet pre-qualification standards?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. Been suspended by any government agency from entering into any contract with it; and/or is any action pending that could formally debar or otherwise affect such business's ability to bid or propose on contract?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

8. Have any of the businesses or organizations listed in response to Question 5 filed a bankruptcy petition and/or been the subject of involuntary bankruptcy proceedings during the past 7 years, and/or for any portion of the last 7 year period, been in a state of bankruptcy as a result of bankruptcy proceedings initiated more than 7 years ago and/or is any such business now the subject of any pending bankruptcy proceedings, whenever initiated?
YES [ ] NO [X] If 'Yes', provide details for each such instance. (Provide a detailed response to all questions check "Yes". If you need more space, photocopy the appropriate page and attached it to the questionnaire.)

9.

a. Is there any felony charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

b. Is there any misdemeanor charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

c. Is there any administrative charge pending against you?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

d. In the past 10 years, have you been convicted, after trial or by plea, of any felony, or of any other crime, an element of which relates to truthfulness or the underlying facts of which related to the conduct of business? Y
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

e. In the past 5 years, have you been convicted, after trial or by plea, of a misdemeanor?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

f. In the past 5 years, have you been found in violation of any administrative or statutory charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

10. In addition to the information provided in response to the previous questions, in the past 5 years, have you been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency and/or the subject of an investigation where such investigation was related to activities performed at, for, or on behalf of the submitting business entity and/or an affiliated business listed in response to Question 5?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

11. In addition to the information provided, in the past 5 years has any business or organization listed in response to Question 5, been the subject of a criminal investigation and/or a civil anti-trust investigation and/or any other type of investigation by any government agency, including but not limited to federal, state, and local regulatory agencies while you were a principal owner or officer?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

12. In the past 5 years, have you or this business, or any other affiliated business listed in response to Question 5 had any sanction imposed as a result of judicial or administrative proceedings with respect to any professional license held?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

13. For the past 5 tax years, have you failed to file any required tax returns or failed to pay any applicable federal, state or local taxes or other assessed charges, including but not limited to water and sewer charges?
YES [ ] NO [X] If yes, provide an explanation of the circumstances and corrective action taken.

I, Greg Sebastian, hereby acknowledge that a materially false statement willfully or fraudulently made in connection with this form may result in rendering the submitting business entity and/or any affiliated entities non-responsible, and, in addition, may subject me to criminal charges.

I, Greg Sebastian, hereby certify that I have read and understand all the items contained in this form; that I supplied full and complete answers to each item therein to the best of my knowledge, information and belief; that I will notify the County in writing of any change in circumstances occurring after the submission of this form; and that all information supplied by me is true to the best of my knowledge, information and belief. I understand that the County will rely on the information supplied in this form as additional inducement to enter into a contract with the submitting business entity.

CERTIFICATION
A MATERIALLY FALSE STATEMENT WILLFULLY OR FRAUDULENTLY MADE IN CONNECTION WITH THIS QUESTIONNAIRE MAY RESULT IN RENDERING THE SUBMITTING BUSINESS ENTITY NOT RESPONSIBLE WITH RESPECT TO THE PRESENT BID OR FUTURE BIDS, AND, IN ADDITION, MAY SUBJECT THE PERSON MAKING THE FALSE STATEMENT TO CRIMINAL CHARGES.

Tyler Technologies, Inc.
Name of submitting business

Electronically signed and certified at the date and time indicated by:
Greg Sebastian [GREG.SEBASTIAN@TYLERTECH.COM]

President, Public Safety Division
Title

05/31/2019 02:15:29 PM
Date

Business History Form

The contract shall be awarded to the responsible proposer who, at the discretion of the County, taking into consideration the reliability of the proposer and the capacity of the proposer to perform the services required by the County, offers the best value to the County and who will best promote the public interest.

In addition to the submission of proposals, each proposer shall complete and submit this questionnaire. The questionnaire shall be filled out by the owner of a sole proprietorship or by an authorized representative of the firm, corporation or partnership submitting the Proposal.

NOTE: All questions require a response, even if response is "none" or "not-applicable." No blanks.

(USE ADDITIONAL SHEETS IF NECESSARY TO FULLY ANSWER THE FOLLOWING QUESTIONS).

Date: 06/05/2019

1) Proposer's Legal Name: Tyler Technologies, Inc.

2) Address of Place of Business: 5101 Tennyson Parkway

City: Plano State: TX Zip Code: 75024

3) Mailing Address (if different):

City: State: Zip Code:

Phone:

Does the business own or rent its facilities? Own If other, please provide details:

4) Dun and Bradstreet number: 041089293

5) Federal I.D. Number: 752303920

6) The proposer is a: Corporation (Describe)

7) Does this business share office space, staff, or equipment expenses with any other business?

YES [ ] NO [X] If yes, please provide details:

8) Does this business control one or more other businesses?

YES [X] NO [ ] If yes, please provide details:

Tyler Technologies A&T Services, LLC (Delaware LLC) - wholly owned subsidiary of Tyler Technologies, Inc.
Socrata, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Micropact, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Tyler Technologies Australia PTY LTD - wholly owned subsidiary of Tyler Technologies, Inc.

9) Does this business have one or more affiliates, and/or is it a subsidiary of, or controlled by, any other business?

YES [X] NO [ ] If yes, please provide details:

Tyler Technologies A&T Services, LLC (Delaware LLC) - wholly owned subsidiary of Tyler Technologies, Inc.
Socrata, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Micropact, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Tyler Technologies Australia PTY LTD - wholly owned subsidiary of Tyler Technologies, Inc.

10) Has the proposer ever had a bond or surety cancelled or forfeited, or a contract with Nassau County or any other government entity terminated?

YES [X] NO [ ] If yes, state the name of bonding agency, (if a bond), date, amount of bond and reason for such cancellation or forfeiture: or details regarding the termination (if a contract).

Please see attached file titled Tyler Technologies Terminations.

11) Has the proposer, during the past seven years, been declared bankrupt?

YES [ ] NO [X] If yes, state date, court jurisdiction, amount of liabilities and amount of assets

12) In the past five years, has this business and/or any of its owners and/or officers and/or any affiliated business, been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency? And/or, in the past 5 years, have any owner and/or officer of any affiliated business been the subject of a criminal investigation and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency, where such investigation was related to activities performed at, for, or on behalf of an affiliated business.

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

13) In the past 5 years, has this business and/or any of its owners and/or officers and/or any affiliated business been the subject of an investigation by any government agency, including but not limited to federal, state and local regulatory agencies? And/or, in the past 5 years, has any owner and/or officer of an affiliated business been the subject of an investigation by any government agency, including but not limited to federal, state and local regulatory agencies, for matters pertaining to that individual's position at or relationship to an affiliated business.

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

14) Has any current or former director, owner or officer or managerial employee of this business had, either before or during such person's employment, or since such employment if the charges pertained to events that allegedly occurred during the time of employment by the submitting business, and allegedly related to the conduct of that business:

a) Any felony charge pending?

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

b) Any misdemeanor charge pending?

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

c) In the past 10 years, you been convicted, after trial or by plea, of any felony and/or any other crime, an element of which relates to truthfulness or the underlying facts of which related to the conduct of business?

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

d) In the past 5 years, been convicted, after trial or by plea, of a misdemeanor?

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

e) In the past 5 years, been found in violation of any administrative, statutory, or regulatory provisions?

YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

15) In the past (5) years, has this business or any of its owners or officers, or any other affiliated business had any

sanction imposed as a result of judicial or administrative proceedings with respect to any professional license held?
YES [ ] NO [X] If yes, provide details for each such investigation, an explanation of the circumstances and corrective action taken.

16) For the past (5) tax years, has this business failed to file any required tax returns or failed to pay any applicable federal, state or local taxes or other assessed charges, including but not limited to water and sewer charges?
YES [ ] NO [X] If yes, provide details for each such year. Provide a detailed response to all questions checked 'YES'. If you need more space, photocopy the appropriate page and attach it to the questionnaire.

17 Conflict of Interest:

a) Please disclose any conflicts of interest as outlined below. NOTE: If no conflicts exist, please expressly state "No conflict exists."

(i) Any material financial relationships that your firm or any firm employee has that may create a conflict of interest or the appearance of a conflict of interest in acting on behalf of Nassau County.

No conflict exists.

(ii) Any family relationship that any employee of your firm has with any County public servant that may create a conflict of interest or the appearance of a conflict of interest in acting on behalf of Nassau County.

No conflict exists.

(iii) Any other matter that your firm believes may create a conflict of interest or the appearance of a conflict of interest in acting on behalf of Nassau County.

No conflict exists.

b) Please describe any procedures your firm has, or would adopt, to assure the County that a conflict of interest would not exist for your firm in the future.

Please see attached Tyler Technologies' Code of Business Conduct and Ethics.

A. Include a resume or detailed description of the Proposer's professional qualifications, demonstrating extensive experience in your profession. Any prior similar experiences, and the results of these experiences, must be identified.

Have you previously uploaded the below information under in the Document Vault?
YES [ ] NO [X]

Is the proposer an individual?
YES [ ] NO [X] Should the proposer be other than an individual, the Proposal MUST include:

i) Date of formation;

03/14/1990

ii) Name, addresses, and position of all persons having a financial interest in the company, including shareholders, members, general or limited partner. If none, explain.

Please see attached file titled Stockholders.

iii) Name, address and position of all officers and directors of the company. If none, explain.

Please see attached file titled Directors and Officers.

iv) State of incorporation (if applicable);

DE

v) The number of employees in the firm;

4525

vi) Annual revenue of firm;

1790963

vii) Summary of relevant accomplishments

Please see attached file titled Tyler Technologies Accomplishments.

B. Indicate number of years in business.

29

C. Provide any other information which would be appropriate and helpful in determining the Proposer's capacity and reliability to perform these services.

Please see attached 2018 Annual Report.

D. Provide names and addresses for no fewer than three references for whom the Proposer has provided similar services or who are qualified to evaluate the Proposer's capability to perform this work.

Company	Fairfax County, Virginia		
Contact Person	Mr. Howard Goodie, Director Real Estate Division		
Address	Department of Tax Administration, 1200 Government Center Parkway 357		
City	Fairfax	State	VA
Telephone	(703) 324-4803		
Fax #	(703) 324-4935		
E-Mail Address	howard.goodie@fairfaxcounty.gov		

Company	Clermont County, Ohio		
Contact Person	Ms. Linda Fraley, Auditor		
Address	101 East Main Street		
City	Batavia	State	OH
Telephone	(513) 732-7150		
Fax #	(513) 732-7226		
E-Mail Address	lfraley@clermontcountyohio.gov		

Company	Leon County, Florida		
Contact Person	Ms. Kathy Doolin, Assistant Property Appraiser		
Address	Courthouse Annex, 315 South Calhoun Street		
City	Tallahassee	State	FL
Telephone	(850) 488-6102		
Fax #	(850) 922-7238		
E-Mail Address	kdoolin@leonpa.org		

I, Abigail Diaz , hereby acknowledge that a materially false statement willfully or fraudulently made in connection with this form may result in rendering the submitting business entity and/or any affiliated entities non-responsible, and, in addition, may subject me to criminal charges.

I, Abigail Diaz , hereby certify that I have read and understand all the items contained in this form; that I supplied full and complete answers to each item therein to the best of my knowledge, information and belief; that I will notify the County in writing of any change in circumstances occurring after the submission of this form; and that all information supplied by me is true to the best of my knowledge, information and belief. I understand that the County will rely on the information supplied in this form as additional inducement to enter into a contract with the submitting business entity.

CERTIFICATION

A MATERIALLY FALSE STATEMENT WILLFULLY OR FRAUDULENTLY MADE IN CONNECTION WITH THIS QUESTIONNAIRE MAY RESULT IN RENDERING THE SUBMITTING BUSINESS ENTITY NOT RESPONSIBLE WITH RESPECT TO THE PRESENT BID OR FUTURE BIDS, AND, IN ADDITION, MAY SUBJECT THE PERSON MAKING THE FALSE STATEMENT TO CRIMINAL CHARGES.

Name of submitting business: Tyler Technologies, Inc.

Electronically signed and certified at the date and time indicated by:
Abigail Diaz [ABIGAIL.DIAZ@TYLERTECH.COM]

Chief Legal Officer
Title

06/05/2019 11:08:01 AM
Date

On average, Tyler Technologies adds eleven (11) new clients each week and has a ninety-eight percent (98%) client retention rate.

Tyler Technologies' Appraisal & Tax Division has in the past five years had one (1) Appraisal & Tax Division software client that has opted to terminate its relationship with Tyler Technologies for reasons other than non-appropriation or non-renewal. That decision was mutually agreed to by Tyler Technologies without either party admitting liability. That client, and the year in which the termination took effect is:

- 2014
  - Adams County, NE (Orion) - Adams County had multiple contracts with Tyler. In 2014, the County pursued termination under the contractual "termination for cause" provision. Tyler did not concede that a for-cause termination was appropriate, but agreed to the termination. The County remains a Tyler customer on other Orion modules.

In the past five years, three (3) New World Public Safety clients have opted to terminate their relationship with Tyler for reasons other than non-appropriation or non-renewal. That decision was mutually agreed to by Tyler without either party admitting liability. Those clients, and the year in which the termination took effect, are:

- 2016
  - Great Falls, MT (remains an EnerGov & NWERP Customer)
  - O'Fallon, IL (remains a Tyler Customer on other software)
- 2019
  - Anthony, NM (remains an LGD Customer)

Out of an abundance of caution, Tyler Technologies is also reporting an anticipated termination, the terms of which have not been reached.

- 2019
  - Sacramento Regional Public Safety Communications Center ("SacFire")
    - In June 2018, SacFire filed a lawsuit against Tyler relating to a proposal submitted by Tyler's predecessor-in-interest, New World Systems Corporation, and a contract arising out of that proposal. The lawsuit is baseless, one of SacFire's claims has been dismissed and Tyler expects to file a motion for summary judgment as to the remaining claims.

Code of Business Conduct and Ethics of Tyler Technologies, Inc.

Tyler Technologies, Inc. ("Tyler") expects all officers, directors, and employees to exercise the highest degree of professional business ethics in all actions they undertake on behalf of Tyler. Accordingly, Tyler expects its officers, directors, and employees to act at all times in accordance with the policies outlined herein. These policies apply to all officers, directors, and employees, including, without limitation, Tyler's principal executive officer, principal financial officer, principal accounting officer, and all persons performing similar functions.

Any employee who has questions regarding these policies should contact their HR representative or Tyler's chief human resources officer. An employee should immediately report any violations of these policies to Tyler's chief human resources officer. The policies in this Code of Business Conduct and Ethics will be strictly enforced. Tyler will take appropriate disciplinary action with respect to those involved in any violations of these policies, including, where appropriate, dismissal. Tyler will not retaliate against an employee for reporting violations. This Code of Business Conduct and Ethics is not intended to affect the status of any employee or to enhance or diminish any employee's contract rights or rights under otherwise applicable law.

Anonymous Reporting of Accounting or Auditing Concerns

If any employee has any concerns about any accounting, auditing, internal audit controls, or related matter, they are encouraged to bring the matter to the attention of Tyler's audit committee chairperson. The audit committee is composed of three (3) or more members of Tyler's board of directors and assists the board in fulfilling its oversight responsibility to Tyler's stockholders, potential stockholders, the investment community, and others relating to Tyler's financial statements, financial reporting, and processes. The audit committee chairperson can be contacted in any of the following ways:

1. By phone at (866) 376-4128
2. By Internet at http://www.openboard.info/tyl
3. By mail at Tyler Technologies, Inc., Board of Directors, Audit Committee Chairperson, 5101 Tennyson Parkway, Plano, TX 75024.

Reports regarding accounting, auditing, or related matters will be kept strictly confidential. In addition, the employee or other person raising the issue is under no obligation to reveal their identity in connection with the reporting process. Please reference Tyler's Whistleblower Policy for additional information, including how to maintain anonymity in reporting.

Introduction and Purpose

This Code of Business Conduct and Ethics is designed to deter wrongdoing and promote the following:

- Honest and ethical conduct, including ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- Avoidance of conflicts of interest, including disclosure to the appropriate person identified herein of any material transaction or relationship that reasonably could be expected to give rise to such a conflict;
- Full, fair, accurate, timely, and understandable disclosure in reports and documents that Tyler files with, or submits to, the Securities and Exchange Commission and in other public communications by Tyler;
- Compliance with applicable governmental laws, rules, and regulations;
- Prompt internal reporting to the appropriate person identified herein of any violations of this Code of Business Conduct and Ethics; and
- Accountability for adherence to the policies contained in this Code of Business Conduct and Ethics.

General Principles for Business Conduct

- Tyler and its employee shall comply with all applicable legal requirements of any federal, state, local, or foreign jurisdiction where Tyler conducts business.
- The use of any Tyler assets for any unlawful or improper purpose is strictly prohibited.
- No undisclosed fund or asset shall be established or maintained for any purpose.

No false or misleading entries shall be made for any reason in Tyler's books, records, or other financial documents, or in any materials prepared for or submitted to Tyler's accountants or independent auditors, and no employee shall engage in any arrangement that results in such prohibited act. In addition, all employees dealing with or providing information or documentation to Tyler's accountants or independent auditors must provide complete and accurate information, and must immediately report any request, suggestion, or threat that they do otherwise to the chairperson of the Tyler audit committee, as outlined above under "Anonymous Reporting of Accounting or Auditing Concerns."

Just as Tyler expects all employees to speak honestly to clients, potential clients, and vendors, Tyler also expects all employees to display the same integrity in anything they write, whether for internal or external use. Therefore, all internal records, memoranda, and other documents must be accurate, complete, and truthful and must be maintained in that condition without any alteration, falsification, omission, or other change that would mislead someone reviewing the record about its original contents or meaning. Any employee who is asked or directed to engage in such prohibited conduct should immediately report it to their HR representative or Tyler's chief human resources officer, or if it concerns questionable accounting or auditing matters, to the chairperson of the Tyler audit committee, as outlined above under "Anonymous Reporting of Accounting or Auditing Concerns."

Retaliation against any employee as a result of their bringing forward any questions, concerns, or complaints about accounting or auditing matters, recording of information, record retention, or any other matter concerning the honesty and integrity of Tyler's operations or financial reporting is strictly prohibited. Similarly, retaliation is prohibited against any employee who provides accurate information to any law enforcement agency about the commission of any state or federal offense. Any employee who feels that they have been retaliated against or threatened with retaliation for these reasons should immediately report it to Tyler's chief human resources officer, or if it concerns questionable accounting or auditing matters, to the chairperson of the Tyler audit committee, as outlined above under "Anonymous Reporting of Accounting or Auditing Concerns."

No payment on behalf of Tyler shall be approved without adequate supporting documentation or made with the intention or understanding that any part of such payment is to be used for any purpose other than as described by the documentation supporting the payment.

No Tyler confidential information shall be used or revealed within or outside of Tyler without proper authorization and purpose.

The use of Tyler employees, materials, or equipment for personal purposes is strictly prohibited, unless specifically authorized.

Compliance with established internal control procedures is required at all times.

Political Activities and Contributions

Tyler will not make any contribution to or for any political party, committee, or candidate for any public office. Any employee requested by another employee to contribute Tyler funds to a political party, committee, or candidate for public office should decline to do so and promptly notify their human resources representative or Tyler's chief human resources officer of the details of any such request.

Payments to Government Officials and Personnel

Tyler's relationships with governmental agencies and their personnel in any federal, state, local, or foreign jurisdiction where Tyler conducts business shall be conducted so that full disclosure of the conduct will not impugn or jeopardize Tyler's integrity or reputation. Accordingly, payments to government personnel, including gifts of substantial value or lavish entertainment, is strictly prohibited, whether the payment is made from personal funds or assets or those of Tyler, and whether made directly or indirectly through consultants, advisors, suppliers, clients, or other third parties.

Use of Agents and Others to Assist in Obtaining and Performing Contracts

From time to time, Tyler may elect to use special consultants, distributors, representatives, and agents to assist in obtaining or performing contracts. These representatives must be *bona fide* professional individuals or organizations, they must render *bona fide* services, and their compensation must be limited to a reasonable fee for their services. A representative may not be employed by Tyler if they are connected directly or indirectly to the prospective client or to an official or agent of a prospective client.

Conflicts of Interest

Tyler expects the undivided loyalty of its employees in the conduct of business. It is important that employees be free from any financial interests or other relationships that might conflict with the best interests of Tyler. Accordingly, each employee shall avoid any investment or other interest in any business that would conflict with the proper performance of their duties or responsibilities for Tyler, or which might interfere with their independence of judgment with respect to the transactions between Tyler and such other business.

While it is impossible to enumerate all situations in which possible conflicts might arise, the following are some examples:

- To give or receive gifts of more than token value that are in any way connected with the business relationship;
- To lend or borrow money or other assets from individuals or concerns that do business with or compete against Tyler, except banks and other financial institutions;
- To serve as an officer, director, employee, or consultant of, or receive any income from any enterprise doing business with or competing against Tyler, or seeking to do so, or to own an interest in or engage in the management of an organization providing services or products to Tyler, or to which Tyler sells, or with which Tyler competes, except when such interest (1) comprises publicly traded securities listed on a national securities exchange, NASDAQ, or the OTC margin list and (2) is not in excess of 5% of the securities of such company;
- To accept compensation from outsiders for services for which the employee is being paid by Tyler;
- To speculate or deal in materials, equipment, supplies, products, lands, leases, or property purchased or sold by Tyler, or for which negotiations to purchase, acquire, or sell are pending or may reasonably be anticipated, or to receive (other than from Tyler) any compensation, bonus, or commission in connection with any transaction relating to Tyler's business;
- To knowingly cause, directly or indirectly, Tyler to enter into a business transaction with a close relative of a Tyler employee or business enterprise of such relative;
- To knowingly buy or sell for the employee's own account or the account of a relative of a Tyler employee any security or other interest which Tyler may be considering buying or selling, or has decided to buy or sell, until Tyler's decision has been completely executed and publicly announced; and/or

- To transmit any knowledge of any consideration or decisions of any information that might be prejudicial to the interests of Tyler to any person, except as may be necessary for the proper discharge of the employee's responsibilities on behalf of Tyler.

If an employee finds that they have, or are considering the assumption of, a financial interest or outside relationship that might involve a conflict of interest, or if the employee has any doubt as to the proper application of this policy, they should promptly make all facts known to Tyler's chief human resources officer and refrain from any exercise of responsibility in any manner that might reasonably be considered to be affected by such adverse interest.

Protection of Confidential or Proprietary Information
Tyler's confidential and proprietary information is vital to its current operations and future success. Each employee shall use reasonable care to protect or otherwise prevent the unauthorized disclosure of such information. In no event shall confidential information be disclosed or revealed within or outside Tyler without proper authorization or a permitted purpose. If an employee is uncertain whether certain information should be treated as confidential, the employee should presume that such information is confidential and not disclose it without confirmation that there is proper authorization or a permitted purpose.

By way of example, confidential or proprietary information includes information relating to Tyler's business methods, business plans, research, development, inventions, databases, systems, systems designs, technology, intellectual property, know-how, management, business development, operations, products, services, pricing strategies, client sources, employee records, terms and conditions of arrangements of any business or clients, client lists, methods of competing, financial statements, financial projections, financing methods, and other proprietary information.

Prohibition Against Insider Trading
Insider trading is the trading of Tyler stock while in possession of material "inside" or nonpublic information. This includes the purchase or sale of Tyler stock on the open market through a stockbroker of your choice or through an online brokerage account, the exercise of stock options and corresponding sale of the underlying stock, the sale of stock acquired through Tyler's Employee Stock Purchase Plan (following the applicable holding periods), or the short sale of Tyler stock. *The prohibition against trading other than during the trading window also encompasses the fulfillment of "limit orders" placed with a broker, and the brokers with whom any such limit order is placed must be so instructed at the time it is placed.* The prohibition does not, however, include the purchase of stock under the Employee Stock Purchase Plan pursuant to previously authorized payroll deductions.

In addition to the prohibition against trading, it is also a violation of the federal securities laws to disclose (or tip) material nonpublic information to another person who subsequently uses that information to their profit.

What is "material nonpublic information?"

In general, information is "material" if its disclosure to the public would affect an investor's decision to purchase or sell Tyler stock. It is difficult to describe all the types of material nonpublic information a Tyler employee may possess that could cause problems with trading or tipping others to trade Tyler stock. Some examples of material nonpublic information about Tyler include information or knowledge about the following events:

- Tyler's quarterly or annual earnings or other important financial information;
- Changes in previously disclosed financial information, including earnings estimates;
- Tyler has suffered, or is about to suffer, extraordinary losses or costs;
- Tyler has realized, or is about to realize, extraordinary earnings;
- Tyler is making changes in previously disclosed financial information;
- Tyler has entered into, or is about to enter into, an important contract with a client, or that such a contract has been terminated or is about to be terminated;
- A merger, acquisition, or takeover;
- Acquisition or sale of a company, a division, or a significant amount of assets;
- Tyler plans to declare stock splits, stock dividends, or cash dividends;
- Tyler becomes a party to major litigation;
- Tyler is making significant changes in management;
- Tyler plans to make significant changes in operations; and/or
- Tyler has achieved a milestone.

In most cases, employees should presume that information concerning any of these events is material. If an employee has any questions about what information is material, or whether the information has been disclosed to the public, they should contact Tyler's chief legal officer.

General Trading Limitations
All employees, officers, and directors must comply with the following restrictions:

1. They may not buy or sell Tyler stock during the period beginning on the first business day after the end of each fiscal quarter through the close of trading on the second full business day after release of the quarter's operating results to the public. This blackout period is intended to remove any appearance that you may have traded based on material nonpublic information concerning the financial results.

2. If, during times other than the blackout period referred to above, they possess material information (good or bad) that is unknown to the general public (in other words, information that they have not read in the newspaper, Tyler's press releases, or annual or quarterly reports, or seen publicly displayed on the bulletin boards around Tyler's facilities), then they are prohibited from buying or selling Tyler stock until after the close of trading on the second full business day after such material information has been released to the public.

3. They are prohibited from sharing material nonpublic information with others (friends, family, stock brokers, strangers) that buy or sell our stock or recommending that they trade or hold Tyler stock based on the material nonpublic information or at any time when the employee, officer, or director possesses material nonpublic information.

4. They may not give material nonpublic information to others, even if they are not buying or selling Tyler stock, without Tyler's permission. In other words, they may not give this information except where it is required in the performance of duties as an employee, officer, or director of Tyler and they have permission to do so.

These restrictions also apply to family members and others living in the household of the employee, officer, or director.

These general trading limitations are based upon U.S. securities laws. Compliance with these general rules should mean compliance with applicable U.S. laws, as well as the regulations of the New York Stock Exchange.

Property Rights

During and subsequent to employment by Tyler, an employee must disclose to Tyler all ideas, concepts, inventions, improvements, and discoveries, including those related to software, and any and all writings including those related to software, regardless of the media that are conceived, made, or reduced to practice by the employee, provided that such ideas, concepts, inventions, improvements, and discoveries arise from or relate to work done for or on behalf of Tyler, relate to Tyler's business, involve the employee's use of Tyler equipment, facilities, or time, or arise out of any information received regarding Tyler's business. It is each employee's responsibility to fully disclose to Tyler as promptly as available all information known or possessed by the employee concerning these property rights. Where appropriate, ideas or questions should be directed to Tyler's chief legal officer for patent, copyright, trademark, or trade secret protection.

Tyler Technologies, Inc. Directors as of 04/01/2019

http://investors.tylertech.com/profiles/investor/Directors.asp?BzID=499

- Donald R. Brattain – 5101 Tennyson Parkway, Plano TX 75024
- Glenn A. Carter – 5101 Tennyson Parkway, Plano TX 75024
- Brenda A. Cline – 5101 Tennyson Parkway, Plano TX 75024
- J. Luther King, Jr. – 5101 Tennyson Parkway, Plano TX 75024
- John S. Marr, Jr. – One Tyler Drive, Yarmouth, ME 04096
- Daniel Pope – 5101 Tennyson Parkway, Plano TX 75024
- Dustin R. Womble – 5519 53rd Street, Lubbock, TX 79414
- H. Lynn Moore, Jr. – 5101 Tennyson Parkway, Plano TX 75024

Tyler Technologies, Inc. Officers as of 04/01/2019

http://www.tylertech.com/about-us/our-leadership

- John S. Marr Jr. – One Tyler Drive, Yarmouth, ME 04096
  Executive Chairman of the Board

- Brian K. Miller – 5101 Tennyson Parkway, Plano TX 75024
  Executive Vice President,
  Chief Financial Officer and Treasurer

- H. Lynn Moore Jr. – 5101 Tennyson Parkway, Plano TX 75024
  Chief Executive Officer,
  President

- Matthew B. Bieri – 5101 Tennyson Parkway, Plano TX 75024
  Chief Information Officer

- Samantha B. Crosby – 5101 Tennyson Parkway, Plano TX 75024
  Chief Marketing Officer

- Bruce Graham – 5101 Tennyson Parkway, Plano TX 75024
  Chief Strategy Officer,
  President, Courts & Justice Division

- Kelly Shimansky – One Tyler Drive, Yarmouth, ME 04096
  Chief Human Resources Officer

- W. Michael Smith – 5101 Tennyson Parkway, Plano TX 75024
  Chief Accounting Officer

- Brett Cate - 5519 53rd Street, Lubbock, TX 79414
  Chief Sales Officer

- Abigail Diaz - One Tyler Drive, Yarmouth, ME 04096
  Chief Legal Officer,
  Secretary

- Jeff Green – 1601 East Valley Rd., Ste. 200, Renton, WA 98057
  Chief Technology Officer

- Andrew D. Teed – One Tyler Way, Moraine, OH 45439
  President, Enterprise Group

- Christopher P. Hepburn - One Tyler Drive, Yarmouth, ME 04096
  President, ERP & School Division

- Dane Womble – 5519 53rd Street, Lubbock, TX 79414
  President, Local Government Division

- Mark Hawkins – One Tyler Way, Moraine, OH 45439
  President, Appraisal & Tax Division

- Bret Dixon - 5101 Tennyson Parkway, Plano, TX 75024
  President, Justice Group

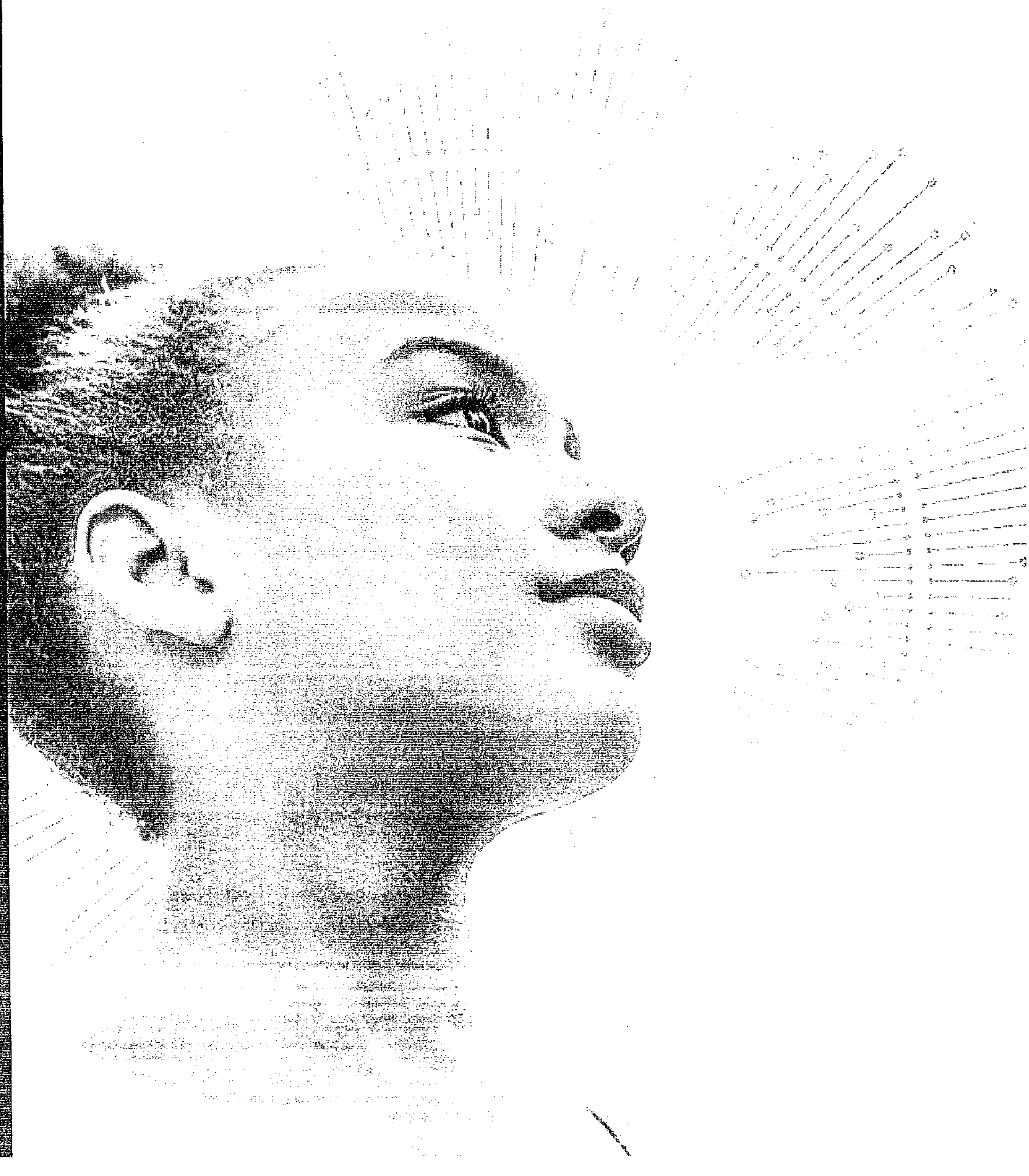
- Bruce Graham - 5101 Tennyson Parkway, Plano, TX 75024
  President, Courts & Justice Division

- Greg Sebastian – 840 West Long Lake Rd., Troy MI 48098
  President, Public Safety Division

tyler
technologies

TYLER TECHNOLOGIES ANNUAL REPORT 2018

Connecting the Data That Connects Us All



Meet the data-driven community

From the youngest school student to the everyday resident to community leaders, we all create and consume data as part of our daily lives.

For the public sector, this data can be a valuable tool to better understand the needs of constituents, focus limited resources where they can do the most good, and improve the way services are delivered.

As the leading software provider for the public sector, Tyler has solutions that collect, create, and manage data to power the performance of governing agencies and departments. In 2018, we made a significant investment in the ability of our clients to maximize their use of data. By taking data analysis, process integration, and citizen engagement to the next level, we're able to help our clients drive deeper insights, greater efficiency, and smarter outcomes.

20 years

In 1998, Tyler began executing its strategy to build the leading company focused on the unique software needs of local government.

To our fellow shareholders

A MESSAGE FROM PRESIDENT & CEO LYNN MOORE JR.

Tyler experienced another year of double-digit growth and strong financial results, with 2018 being notable as a year with a high level of strategic investment in acquisitions, research and development, and stock repurchases. Our steady growth continues to validate our long-term strategy of providing best-in-class software solutions for the public sector backed by investments that solidify and expand our market leadership.

Tyler's revenue topped $900 million for the first time, while the fourth quarter represented our 29th consecutive quarter of double-digit growth. GAAP revenue rose 11.2 percent to $935 million, while non-GAAP revenue increased 11.6 percent to $940 million. GAAP net income for the year was $147 million, or $3.68 per diluted share, down 13 percent. The decline was primarily due to the one-time tax benefit associated with the Tax Cuts and Jobs Act that was recognized in the fourth quarter of 2017. Non-GAAP net income for the year was $193 million, or $4.80 per diluted share, up 24.6 percent. Even as we increased our R&D spend by 33.7 percent, cash provided from operations grew 27.8 percent over 2017 to reach a new high of $250 million, while free cash flow grew 45.9 percent. We ended the year with a record high backlog of $1.25 billion, up 1.7 percent.

Our win rates were strong across our solution suites, with many of the year's most significant deals composed of multiple Tyler solutions or existing clients deepening their Tyler relationship. Among these were Lubbock County, Texas, with a $10 million multi-suite contract including our ERP, public safety, and courts & justice solutions; Loudoun County, Virginia, a long-time client who added EnerGov™ civic services solutions for $7 million; and Anchorage, Alaska, upgrading its tax system to the iasWorld® integrated CAMA and tax billing and collections solution for $3.6 million.

Consecutive quarters of double-digit growth

Increase in R&D spend

Cash provided by operations

Comprehensive solutions, comprehensive results

Tyler's approach to delivering software continues to distinguish us from competitors by offering clients the choice for accessing solutions in the way that makes the most sense for them, whether through on-premises, software as a service, or hybrid arrangements. In 2018, our software revenue was split between license and maintenance revenues of $478 million and subscription revenue of $221 million.

That said, we continue to see a long-term shift to the cloud by the public sector, albeit at a slower pace than the private sector. The cloud represents our fastest-growing revenue stream, with subscription revenues increasing 28.1 percent over 2017, and we've now achieved a greater than 20 percent growth in subscription revenue in 47 of the past 52 quarters. For the year, subscriptions made up 41 percent of total contract value for new software arrangements.

Although the gradual shift to more subscription arrangements creates a near-term headwind to revenue growth, it provides a long-term opportunity for higher revenues over the life of a client relationship. In addition, our bookings growth in 2018 was pressured by our intentional reduction of the initial term for most of our new software subscription contracts, as the weighted average term of new software agreements was 3.9 years in 2018, down from 5.2 years in 2017.

We continue to see a long-term shift to the cloud by the public sector, albeit at a slower pace than the private sector.

Software Revenues

License & maintenance revenue

Subscription revenue

New Cloud Contracts

41%

Percent of total contract value of new software arrangements

Up 4% over 2017

Investing in the future

Our balance sheet has never been healthier, as we finished the year with $232 million in cash and investments and zero debt, even after investing a total of $328 million in cash for acquisitions and stock repurchases. Thanks to our financial strength, Tyler remains ideally positioned to make a variety of investments designed to deliver future growth and long-term shareholder value.

We remain diligent in proactively seeking out strategic acquisitions of market leaders to broaden our capabilities, strengthen our competitive position, and expand our addressable market. As we approach a billion dollars in annual revenues, our target of double-digit revenue growth becomes increasingly challenging, and continued achievement of our targets depends on healthy growth supplemented by strategic acquisitions. We completed five acquisitions during 2018, highlighted by the addition of Socrata, Inc. for $150 million in cash — our second largest acquisition on record — along with four much smaller acquisitions that strengthen our product offerings.

Last year was also a year of elevated internal investment, with our R&D spend increasing 33.7 percent to $63.3 million. These product development efforts span our product suites as we add a number of new features and applications that will further solidify our market leadership, while responding to the ever-changing needs of our clients.

We also utilized our balance sheet to resume our stock buyback activity, repurchasing approximately 781,000 shares in 2018 for an aggregate purchase price of approximately $150 million. This exceeded the amount spent on buybacks in the prior six years combined and reflects our confidence in the company's future.

Total Growth

Leading experience

In May, John Marr assumed the role of executive chairman of the board, while I was appointed chief executive officer. My added responsibilities continue the transition of day-to-day operational oversight that began in January 2017 with my appointment as president. Since that time, my role has grown in working with operational groups, division leadership, and all aspects of Tyler operations.

As executive chairman, John continues to be actively involved in the company's management, engaging with Tyler's leadership team, as well as investors and clients. These new roles are a natural extension resulting from 19 years of a strong working partnership.

Looking ahead

This year's success was the result of the commitment Tyler made 20 years ago to singularly focus on the needs of the public sector. Through smart investments, fiscal discipline, great products and people, and unparalleled client service, we continue to fulfill our mission of empowering the people who serve the public, while continuously strengthening our market leadership. All of us at Tyler look forward to working together to make this year only the beginning of much greater success.

H. Lynn Moore Jr.
President & Chief Executive Officer

March 21, 2019

Through smart investments, fiscal discipline, great products and people, and unparalleled client service, we continue to fulfill our mission of empowering the people who serve the public, while continuously strengthening our market leadership.

2018 Financial Year in Review

GAAP REVENUE
$935 million
+11.2% from 2017

NON-GAAP REVENUE
$940 million
+11.6% from 2017

SUBSCRIPTION REVENUE
$221 million
+28.1% from 2017
23.6% revenue from subscriptions

GAAP OPERATING MARGIN
16.3%

NON-GAAP OPERATING MARGIN
26.6%

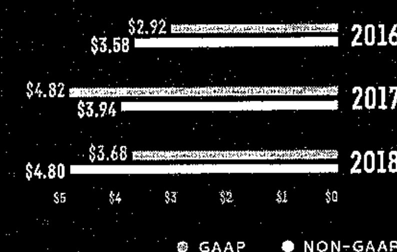
BACKLOG
$1.25 billion
+1.7% from 2017

2018 BOOKINGS
$960 million

GAAP NET INCOME
$147 million
$3.68 per diluted share

NON-GAAP NET INCOME
$193 million
+24.6% from 2017
$4.80 per diluted share

ANNUAL EARNINGS PER DILUTED SHARE

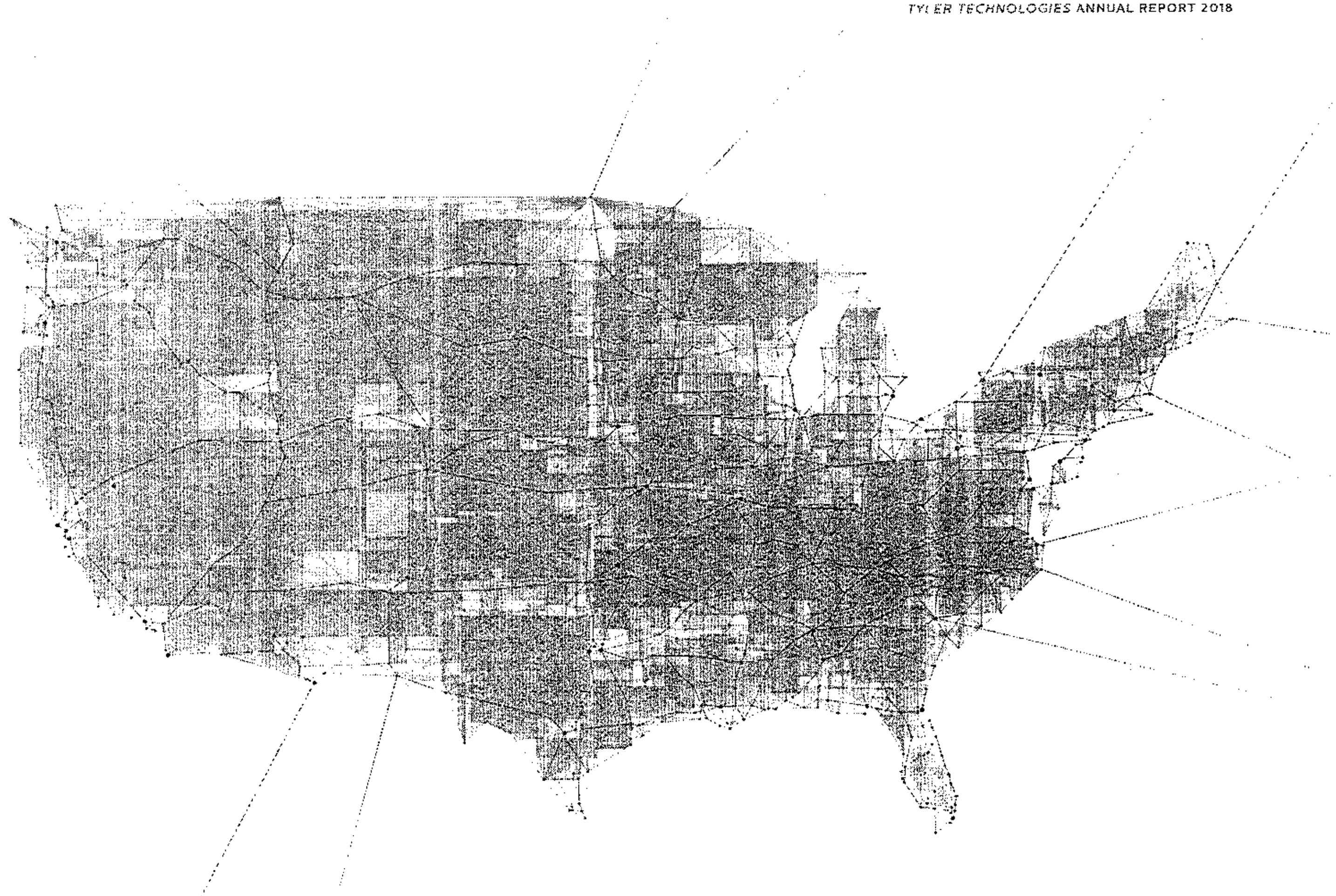


2018 Year in Review

Tyler is the largest software company in the nation solely focused on the public sector. We have implemented more than 21,000 installations in more than 10,000 local government agencies, schools, and other public organizations to help manage revenue, ensure public safety, deliver justice, administer finances, manage school transportation, and enable the thousands of other tasks for which the public sector is responsible. Healthy communities rely on local government, and Tyler helps local government to work smoothly.

In 2017, we announced our Connected Communities vision for empowering seamless connections between citizens and government, connecting data across geographic boundaries and processes between agencies. By working to connect applications and data across multiple departments and jurisdictions, we seek to improve the way local governments serve their constituents, increase employee efficiency, and heighten citizen engagement.

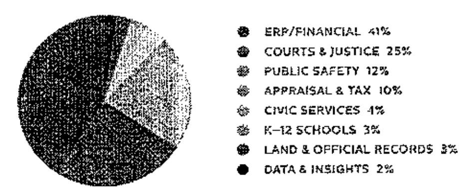
In 2018, we made progress in bringing our Connected Communities vision closer to reality. Thanks to our strategic acquisitions, product innovation, and a singular focus on client success, we helped local governments become more data driven and better connected while creating significant shareholder value.



About Tyler Technologies

4,600+	30+	42
Employees	Offices	Product suites

Revenue by Solution Area



Accelerating innovation through acquisitions

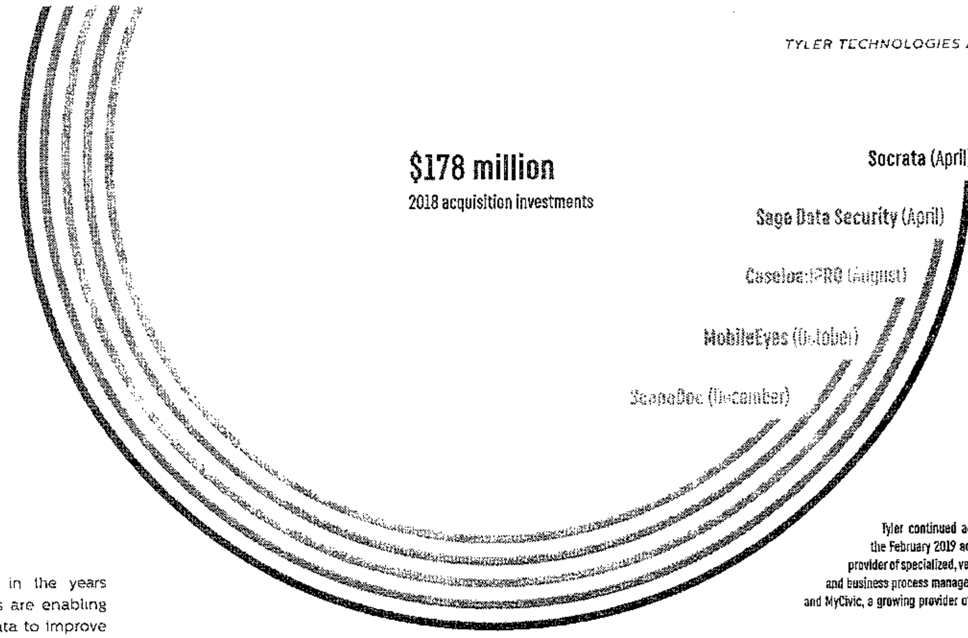
The future of a community will be determined, in part, by the way it uses data to power and improve its services. The more it can bring data together, the better it can understand the story the data is trying to tell, using the data to make smarter decisions and drive desired outcomes.

To further meet the public sector's growing need for connected data, we made five acquisitions, four of which provide native cloud applications. Each uses data in different ways to help the public sector improve performance, protect citizens, gain valuable insights, and extend citizen engagement. While this year represented a heightened level of M&A activity for Tyler, we continue to seek acquisition opportunities, as our strong financial position gives us the ability to act when we find companies that fit our strategic vision at reasonable valuations.

In April, we acquired Seattle-based Socrata, Inc. for $150 million in cash, representing our second-largest acquisition until being surpassed by MicroPact in February 2019. Socrata is the industry leader in open data and data-as-a-service solutions for government, providing cloud-based data integration, visualization, analysis, and reporting solutions. With this acquisition, Tyler created a new Data & Insights Division that will work across all Tyler solutions so that our broad footprint of clients can make data discoverable, actionable, and meaningful. The data sharing and analytical capabilities of the Socrata platform will play a key role in accelerating and advancing our Connected Communities vision in the years ahead. Our combined offerings are enabling public sector leaders to use data to improve program outcomes at the city, county, and state levels, in addition to the prominent federal clients served by the Data & Insights team.

In the time since we acquired Socrata, the team has been hard at work launching new products and integrating its technology into Tyler's other solutions to help clients get more out of data. For example, the Socrata Connected Government Cloud™ lets clients collect data from different departments or jurisdictions to create a single source of business intelligence, while Open Finance™ integrates with Tyler's financial solutions to help citizens understand how their government is collecting and spending revenues.

In April, we acquired cybersecurity firm Sage Data Security LLC, whose unique cybersecurity services are being used to further protect our clients' investments in Tyler solutions. Sage's nDiscovery™ gives us the ability to help the public sector manage data security issues as cybersecurity threats grow in scope and sophistication. Prior to the acquisition, we were greatly impressed by Sage as one of its customers. Since acquiring Sage, we have successfully piloted a new cybersecurity offering with several public sector clients and expect to begin to expand its usage throughout our client base in 2019.



Tyler continued acquisition activity into 2019 with the February 2019 acquisitions of MicroPact, a leading provider of specialized, vertically oriented case management and business process management applications for government, and MyCivic, a growing provider of citizen engagement applications.

In August, we acquired CaseloadPRO, whose comprehensive probation case management system is being used to help strengthen Tyler Alliance — our suite of applications connecting public safety and justice processes from dispatch through disposition. The product, now known as Tyler Supervision,™ helps probation and other judicial departments efficiently track and manage probationers and parolees, filling an important gap in our portfolio.

In October, we acquired MobileEyes, whose solution for fire suppression and fire prevention strengthens our public safety and civic services solutions. MobileEyes™ is used by fire prevention agencies, building departments, and sprinkler and alarm contractors to perform custom inspections, produce professional reports, and quickly communicate findings to the right constituents.

In December, we acquired SceneDoc, whose solution enables mobile-powered field reporting for law enforcement agencies through the field capture of data, electronic notes, and multimedia from smartphones, tablets, wearables, and task-specific apps, along with secure storage and access to and from the cloud.

We continue to use our ongoing whitespace analysis to guide our priorities for expanding our product offerings and growing our addressable market, either through internal product development efforts or by acquiring best-in-breed products that complement and strengthen existing offerings in our portfolio. We then further invest in these businesses to integrate their products with our existing solutions while leveraging our sales team and client base.

Supporting the people who support our communities

So much of what makes a community run smoothly is the work of public administration. These are the people and departments that help build, finance, manage resources, and provide civic services to our communities. Our products act as the operating systems for local government, with solutions like Munis® managing core functions like financial, human resources, and procurement; EnerGov™ managing land use, business, and regulatory processes; and iasWorld managing property valuations and tax collections. As an example, this year more than 1,800 clients used Munis to work smarter while better serving their constituents.

4.3 million

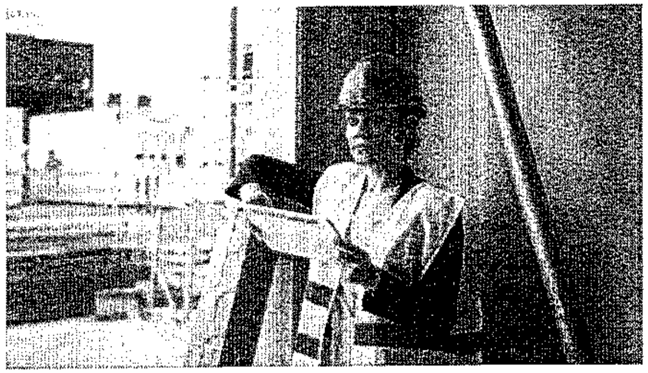
Users of [illegible] to submit payments, apply for permits [illegible], or perform other online [illegible]

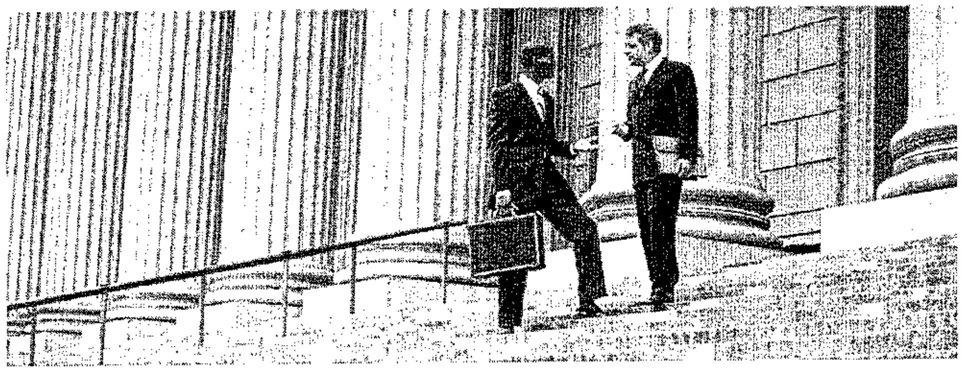
Tyler gives local government the tools and data it needs to keep our communities moving.

New products, new opportunities

Our core ERP applications continue to provide the foundation for our success, accounting for more than 40 percent of our revenue. The strength of these more mature products gives us the flexibility to nurture our R&D investments and give them the time needed to grow. This year we spent more than $63 million – a 34 percent increase over 2017 – on projects spanning across our verticals. While our R&D spending has contributed to short-term pressure on our margins in the past two years, this record level of investment allowed us to further develop the new features and applications necessary to remain a leader across our verticals while extending into new markets. As with our acquisitions, much of our R&D reflects our long-term focus on the cloud and connecting Tyler products more closely together.

$63 million R&D expense





Notable project launches in 2018 included:

Tyler EAM

Launched in April, our enterprise asset management (EAM) solution provides public sector organizations a complete view of its assets from procurement to maintenance to retirement. Tyler EAM™ is the only EAM system available today that integrates seamlessly with our enterprise resource planning (ERP), community development, utility billing customer information system (CIS), and incident management systems, increasing the overall value of a community's investment in Tyler products.

Socrata Connected Government Cloud

In May, we launched the Socrata Connected Government Cloud to give government workers a single source of trusted data they can use to measure and analyze performance across multiple departments and programs, including financial, civic services, and public safety solutions.

Traversa Multi-District Model

In July, we announced the Multi-District Model version of our popular transportation management software, enabling large student transportation service providers to easily centralize operations for all of their locations or regions within one app.

New World Enterprise Records for Public Safety

Also in July, we added a browser-based records management solution to our New World public safety solution, enabling public safety agencies to capture, process, analyze, and act on information quickly. Enterprise Records shares mission-critical data between applications with fully integrated workflow.

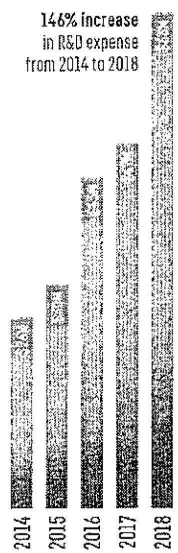
New World ShieldForce

Launched in October, this mobile-first application gives first responders, command staff, and patrol officers access to real-time, mission-critical computer-aided dispatch (CAD) data at the scene through smartphones, tablets, and watches.

Today's investments drive long-term growth

Unlike some other technology companies, our acquisitions and R&D investments are focused on our long-term success. Because of the time required to fully incorporate investments into our portfolio, along with a sales and RFP process for the public sector that can take months or even years, many investments we make today may not generate a return for several years. While we look forward to celebrating the success of this year's investments in future reports, we should also take the opportunity to appreciate past investments that began to bear fruit in 2018.

- Since the acquisition of ExecuTime in mid-2016, efforts have been focused on improving integration with the Tyler portfolio to provide a more comprehensive offering to clients. In 2018, 30 percent of all new Munis Human Capital Management™ agreements included ExecuTime.™
- Acquired in 2017, our online dispute resolution solution Modria® went live with an implementation that represented its first integration with the Odyssey court case management system. In April, Clark County, Nevada, added Modria to give its citizens and courts an alternative option for completing divorce mediation requirements. More than 50 percent of litigants used the Modria solution as a part of a pilot project, with half of those using Modria all the way through the final mediation process. This sped up the resolution of these cases while allowing the courts' mediators to spend more time facilitating more complex or contentious cases. The success of this pilot led to a decision for mandatory use in 2019
- New World CrewForce® and ShieldForce™ are Tyler's latest mobile-first applications designed and developed for fire and law enforcement. Each product brings the power of computer-aided dispatch (CAD) information into the hands of first responders via smartphones, tablets, and watches. Since being released in the spring of 2017 and fall of 2018, respectively, more than 2,500 individual user licenses have been sold for CrewForce and ShieldForce
- Launched in 2017, our case records portal re:Search® provides attorneys, judges, and constituents a more efficient way to access important case records and documents at any time and on any device. This year, the re:Search solution was added by the states of Texas, New Mexico, and Georgia, joining the initial launch by courts in Illinois.



Building products and relationships in equal measure

Our financial success is directly connected to the operational success of the local governments across the country and around the world that rely on our products. Our 98 percent client retention rate speaks to the value of both our products and our expertise.

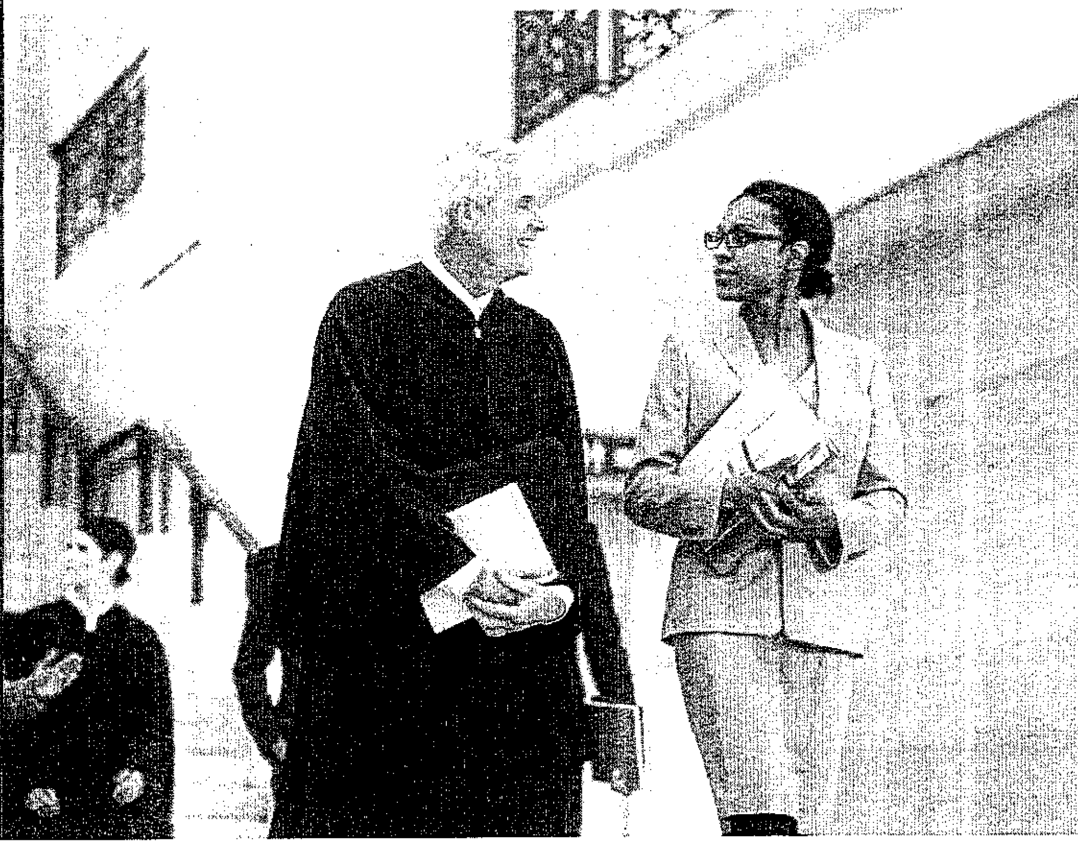
Not only do our clients stay, but they are often a source for growth. New business frequently comes from cross-sell or add-on sales opportunities, while many clients are users of more than one Tyler solution.

Time and again, we've found that a client who trusts us to manage one process, such as fund accounting, 911 dispatch, or school transportation, is more likely to trust us with another, like student records, appraisals, or court case management, opening the door for future growth. As we continue to more closely integrate our products and provide comprehensive tools for managing and analyzing client data, our clients will have more incentive to continue to invest with Tyler and add other Tyler solutions to their technology portfolio. Expanding our relationships with our existing clients and increasing the number of multiproduct clients represent a major growth opportunity in the coming years as we continue to build out our common digital infrastructure.

COURTS & PUBLIC SAFETY SOLUTIONS

Protecting communities by connecting data and processes

To help keep our communities safe, our courts and public safety solutions are used by judges, prosecutors, defenders, jails, police and fire departments, and probation officers to share data, minimize errors, eliminate redundancies, and provide citizens with greater access to justice. Even if it's just for a speeding ticket. For example, this year we implemented our Odyssey Case Manager™ software at Los Angeles Traffic Court for 850 users at 20 locations -- one of our largest go-lives ever.



Tyler provides jurisdictions the information and access required to deliver justice swiftly.

40%
U.S. population in jurisdictions using Odyssey to manage courts

40 thousand
Odyssey users (excluding e-filing)

167 million
Pages filed electronically annually using Odyssey File & Serve

49.3%
911 dispatch centers in Pennsylvania using New World Enterprise CAD

Improving our connection to our clients

In addition to investing in strategic acquisitions, new products, and creating a common foundation for our solutions, we continually invest in other areas of our business that can help us better serve our current and prospective clients.

This year our user-driven support portal, Tyler Community, grew to more than 55,000 members as users from jurisdictions across North America crowdsourced best practices and solutions. Tyler University, our online education and training tool, added 1,104 new modules of content to help users improve skills and learn about new features, while in November we expanded the Socrata Data Academy to teach government leaders and data specialists how to gain insights from data to affect change in their communities.

Along with our client support platform, we made a significant investment this year in our external support and outreach platform through the development and launch of a new corporate website. The new site helps current and prospective clients and investors navigate the site more easily, accessing content that is relevant to their interests.

Each year we reinforce client connections through our annual Tyler Connect user conference, and in 2018 we met in Boston. With 54 educational tracks and more than 1,000 training classes over a three-day period, clients engaged in discussions on a number of industry topics, such as citizen transparency, privacy and security, cloud solutions, and data analysis. The 2018 conference hosted more than 4,600 clients from all 50 states and D.C., as well as six Canadian provinces.

4,600 [illegible] 2018 [illegible] attendance | **55,179** Tyler Community members | **147,735** Tyler University online courses completed

Community is always a smart investment

Our commitment to local communities extends far beyond our products. One in every three Tyler employees worked in the public sector before joining our team. Our passion for public service not only informs the work we do for our clients, but inspires us to invest back into the community whenever possible.

Tyler employees generously contributed their time and money this year to nonprofit organizations in the communities where we live and work. Thanks to our employees, charities were able to feed the hungry, fund STEM education for at-risk children, support families in need, and more. In addition, our nonprofit Tyler Foundation provided funding for organizations across the country to improve health, human services, and technology education.

$1.1 million
Tyler Foundation charitable contributions over the past 5 years

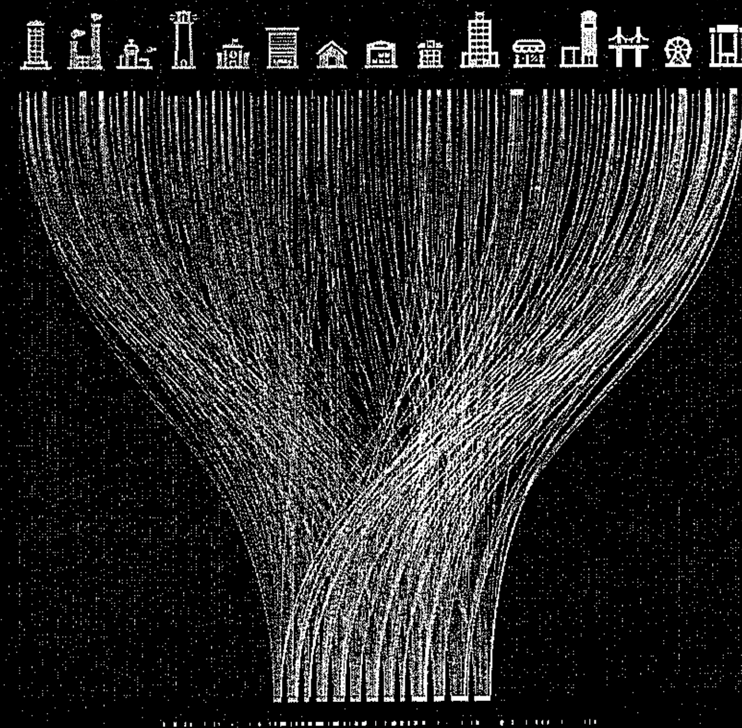
Due to natural disasters, 2018 was an especially challenging year for many of the clients we serve. We worked with hundreds of communities facing hurricanes, wildfires, tornadoes, flooding, and other disasters to ensure they had the data and support needed to coordinate services, inform constituents, and save lives. For example, our engineers developed a real-time map showing the locations of emergency shelters and other free lodging in response to Hurricane Michael, which devastated large portions of the southeastern United States, while our disaster recovery team ensured stricken communities were able to access their data even when government offices were damaged or destroyed.

DATA & INSIGHTS SOLUTIONS

Empowering insight from outside the jurisdiction

Our Data & Insights solutions are integrated across our solution areas to empower communities with a single source for financial, performance, and human data. An example of the potential of connected data can be seen with the recent adoption of the Socrata Connected Government Cloud by the Metropolitan Transportation Commission (MTC) in San Francisco, California. The MTC will be able to deliver data from more than 100 jurisdictions around the Bay Area into a single, self-service website that employees and residents can use to analyze the impact of transportation on affordable housing, climate change, and more.

Tyler brings data together from across departments for a true picture of the community.



3 million
Massachusetts' state financial transparency site reached 3 million pageviews in December, a 3x increase over 2017

2017
2018

629
New York City published 629 datasets from 38 city agencies on its open data portal

100%
The City of Cincinnati published 100% of datasets listed in the Sunlight Foundation's Open Data Census, the benchmark for municipal transparency

$17.2 million
Hawaii launched a first-of-its-kind election spending dashboard, which showed the public details on candidate contributions and loans, and expenditures totaling $17.23 million

Building the team that builds our business

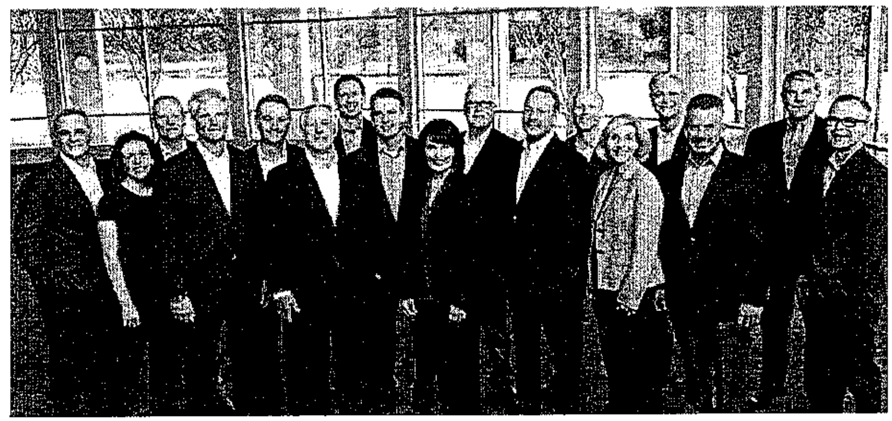
In addition to naming Lynn Moore Jr. as CEO and John Marr Jr. as executive chairman of the board, another notable change to our leadership team was the addition of Kelley Shimansky as our new chief human resources officer. Kelley assumed the role from Bob Sansone, who retired after 23 years with Tyler.

Part of Kelley's mission will be continuing to provide the best environment for our people to serve our clients. In a highly competitive job market, our talented team members continue to see Tyler as a top employer, with an average employee tenure of more than 7.5 years. This tenure means our clients continue to be served by experienced professionals who are familiar with meeting the challenges of the public sector.

New team members added in 2018

Lynn Moore Jr. and John Marr Jr.

Finding and attracting talented employees is a challenge for every company in today's economy, and while Tyler is no different, we work hard to attract great people to power Tyler's continued success. As always, a key part of our recruiting strategy is to provide great benefits and a top work environment. This year, Tyler was again recognized on multiple "Best Places to Work" lists, in addition to being named to *Forbes*' "Best Employers for Women" and "Best Employers for Diversity" lists. Our robust internship program helps us source talent from top schools in markets across the country, while our improved careers page on our new website makes it easier than ever for job seekers to explore open positions. Finally, our employee referral program helps us identify candidates who will be compatible with our culture and passion for serving the public sector. As a result of our efforts, we were able to grow our workforce by 11.3 percent in 2018, adding more than 460 new team members.



From left to right: Bret Dixon, Abigail Diaz, Dane Womble, John Marr Jr., Lynn Moore Jr., Brian Miller, Chris Hepburn, Jeff Green, Samantha Crosby, Brett Cate, Greg Sebastian, Andy Teed, Kelley Shimansky, Bruce Graham, Michael Smith, Matt Bieri, Kevin Merritt.

RECOGNITION

Voted Best Places to Work
Lubbock, TX | Dallas-Fort Worth, TX | Troy, MI | Maine

Top 100
2018 GovTech 100 List

Finalist
2018 Tech Titans Award for Corporate Innovation

#93
Fortune's "2018 Fastest-Growing Companies" List for 2018

9
Years on *Forbes*' "Best Small Companies" List

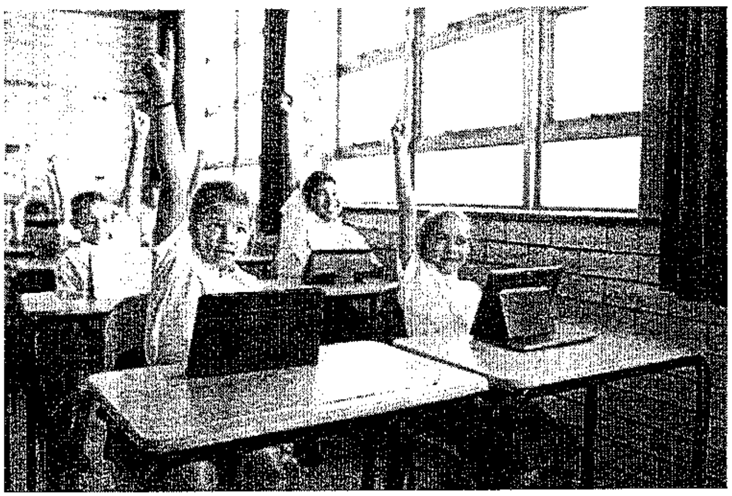
8
Years on *Barron's* "Most Promising Companies in America" List

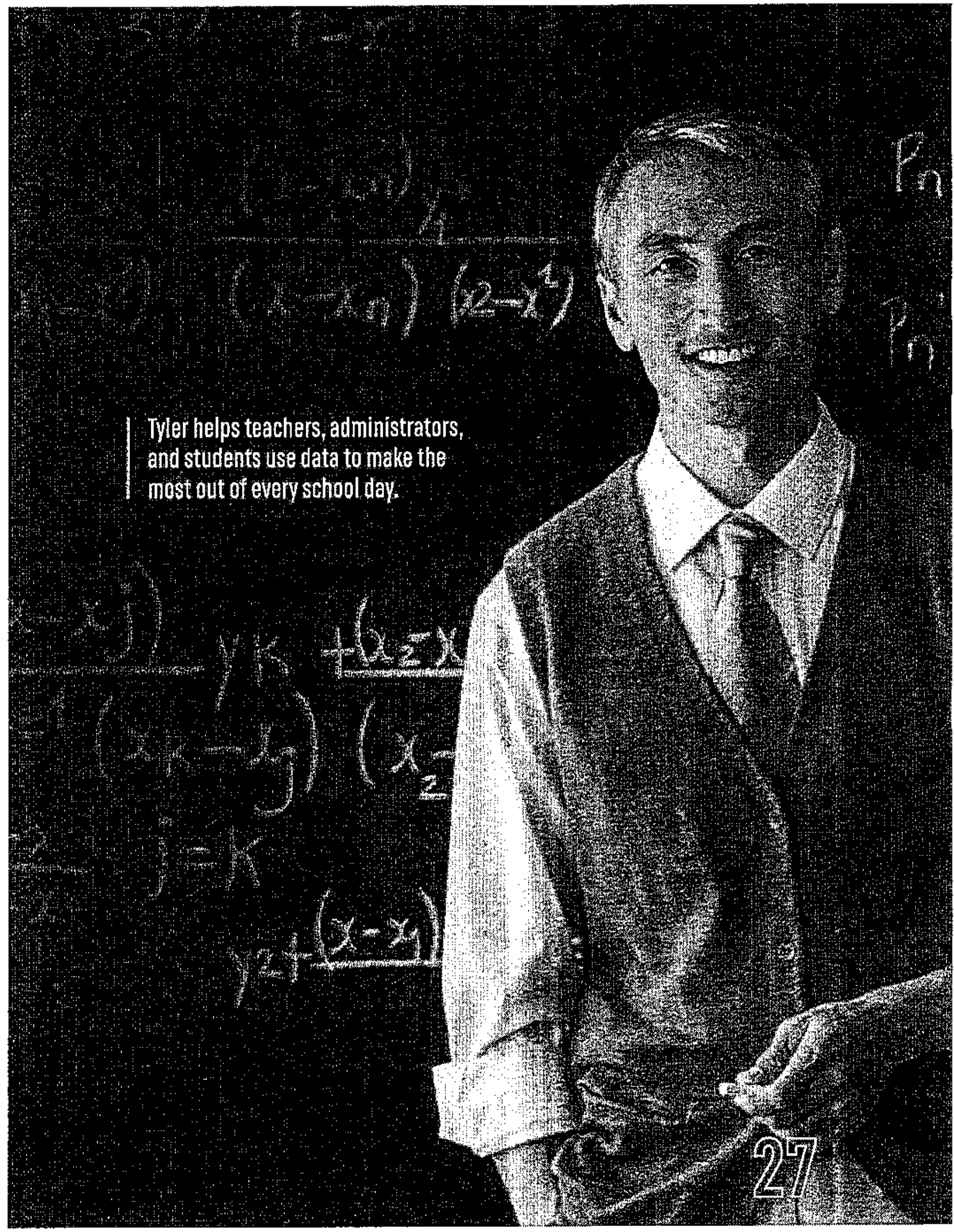
TYLER K-12 SOLUTIONS

Working to make schools work smarter

Because of their responsibility for the safety and success of our children, school districts turn to Tyler to help manage the day-to-day needs of students and the adults who support them. One example of our continued innovation in this area is the 81 new features and enhancements we added to Tyler SIS Student 360,™ such as the integration of popular learning management systems like Google Classroom™ and Canvas.™ In doing so, we've created the industry's most powerful mobile-capable portal for making data more accessible and transparent for districts, teachers, students, and parents.

5,8[illegible]	46	1,189,469
School [illegible] using Tyler school solutions for [illegible], transportation, and [illegible] systems	U.S. states and 6 Canadian provinces with districts using Tyler to manage student transportation	Students served by districts using Tyler SIS for student information management

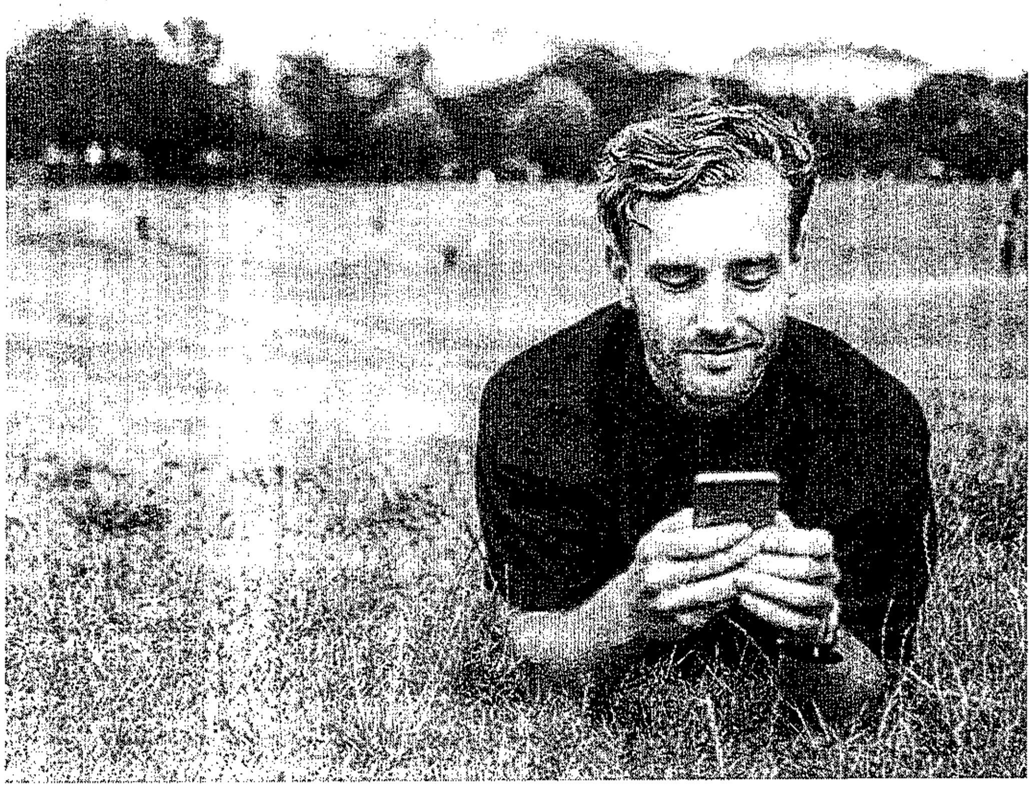




Connection makes a community

Data-driven innovation has the ability to fundamentally change the way our communities work, but only if people have the support and tools they need to analyze, understand, and act on this data. Public sector leaders, their employees, and their constituents can now interact with information in a way that improves service, reduces frustration, and increases transparency. We're proud to be the company that is leading the public sector toward a world powered by data-driven insights

Our investments, our solutions, and our people combined to make 2018 our strongest year yet. As pleased as we are with the success we experienced this year, we believe that the people, products, and strategy we have in place will allow us to look back at the investments we made in 2018 as valuable contributions to the foundation for greater success to come.



2018

Financial Information

Reconciliation of GAAP to NON-GAAP Financial Measures (Unaudited)

	2018	2017[a]	2016[a]	2015	2014
Reconciliation of non-GAAP total revenues					
GAAP total revenues	$935,282	$840,899	$759,880	$591,022	$493,101
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	4,000	663	15,063	3,186	—
Add: Amortization of acquired leases	426	444	444	37	—
Non-GAAP total revenues	$939,708	$842,006	$775,387	$594,245	$493,101
Reconciliation of non-GAAP gross profit and margin					
GAAP gross profit	$439,578	$390,377	$359,188	$277,187	$233,371
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	4,000	663	15,063	3,186	—
Add: Amortization of acquired leases	426	444	444	37	—
Add: Share-based compensation expense included in cost of revenues	13,588	9,415	6,548	3,380	2,177
Add: Amortization of acquired software	22,972	21,686	22,235	4,440	1,858
Non-GAAP gross profit	$480,564	$431,585	$403,478	$288,230	$237,406
GAAP gross margin	47.0%	47.5%	47.3%	46.9%	47.3%
Non-GAAP gross margin	51.1%	51.3%	52.0%	48.5%	48.1%
Reconciliation of non-GAAP operating income and margin					
GAAP operating income	$152,492	$162,758	$137,656	$108,043	$ 94,822
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	4,000	663	15,063	3,186	—
Add: Amortization of acquired leases	426	444	444	37	—
Add: Share-based compensation expense	52,740	37,348	29,747	20,182	14,819
Add: Employer portion of payroll tax related to employee stock transactions	1,412	1,102	1,001	1,506	514
Add: Acquisition-related costs	—	—	—	5,875	—
Add: Amortization of acquired software	22,972	21,686	22,235	4,440	1,858
Add: Amortization of customer and trade name intangibles	16,217	13,381	13,202	5,905	4,546
Non-GAAP adjustments subtotal	$ 97,767	$ 74,624	$ 81,692	$ 41,131	$ 21,737
Non-GAAP operating income	$250,259	$237,382	$219,348	$149,174	$116,559
GAAP operating margin	16.3%	19.4%	18.1%	18.3%	19.2%
Non-GAAP operating margin	26.6%	28.2%	28.3%	25.1%	23.6%
Reconciliation of non-GAAP net income and earnings per share					
GAAP net income	$147,462	$169,571	$113,701	$ 64,869	$ 58,940
Non-GAAP adjustments:					
Add: Total non-GAAP adjustments to operating income	97,767	74,624	81,692	41,131	21,737
Less: Tax impact related to non-GAAP adjustments	(52,464)	(89,440)	(56,045)	(13,318)	(6,658)
Non-GAAP net income	$192,765	$154,755	$139,348	$ 92,682	$ 74,019
GAAP earnings per diluted share	$ 3.68	$ 4.32	$ 2.92	$ 1.77	$ 1.66
Non-GAAP earnings per diluted share	$ 4.80	$ 3.94	$ 3.58	$ 2.54	$ 2.09
Detail of share-based compensation expense					
Cost of software services, maintenance and subscriptions	$ 13,588	$ 9,415	$ 6,548	$ 3,380	$ 2,177
Selling, general and administrative expenses	39,152	27,933	23,199	16,802	12,642
Total share-based compensation expense	$ 52,740	$ 37,348	$ 29,747	$ 20,182	$ 14,819

(a) Restated to reflect the impact of the adoption of Accounting Standards Update ("ASU") ASU No. 2014-09, Revenue from Contracts with Customers in fiscal year 2018. Refer to Note 1 "Summary of Significant Accounting Policies" for further discussion.

Stock Market Data

Our common stock is traded on the New York Stock Exchange under the symbol "TYL." At December 31, 2018, we had approximately 1,262 stockholders of record. Most of our stockholders hold their shares in street name; therefore, there are substantially more than 1,262 beneficial owners of our common stock.

The following table shows, for the calendar periods indicated, the high and low sales price per share of our common stock as reported on the New York Stock Exchange.

		High	Low
2017	First Quarter	$166.86	$142.75
	Second Quarter	178.09	152.00
	Third Quarter	182.49	165.14
	Fourth Quarter	188.22	168.12
2018	First Quarter	$214.33	$176.93
	Second Quarter	240.35	201.91
	Third Quarter	252.47	219.59
	Fourth Quarter	246.62	173.26

We did not pay any cash dividends in 2018 or 2017. Our bank credit agreement contains restrictions on the payment of cash dividends. We intend to retain earnings for use in the operation and expansion of our business and do not anticipate paying a cash dividend in the foreseeable future.

Selected Financial Data

Years Ended December 31,	2018	2017[a,b]	2016[a,c]	2015[d]	2014
		As Adjusted			
(In thousands, except per share data)					
STATEMENT OF OPERATIONS DATA:					
Revenues	$ 935,282	$ 840,899	$ 759,880	$ 591,022	$493,101
Cost and expenses:					
Cost of revenues	495,704	441,522	400,692	313,835	259,730
Selling, general and administrative expenses	207,005	175,914	165,176	133,317	108,260
Research and development expense	63,264	47,324	43,154	29,922	25,743
Amortization of customer and trade name intangibles	16,217	13,381	13,202	5,905	4,546
Operating income	152,492	162,758	137,656	108,043	94,822
Other income (expense), net	3,378	698	(1,998)	381	(355)
Income before income taxes	155,870	163,456	135,658	108,424	94,467
Income tax (benefit) provision[c]	8,408	(6,115)	21,957	43,555	35,527
Net income	147,462	169,571	113,701	64,869	58,940
Net earnings per diluted share	$ 3.68	$ 4.32	$ 2.92	$ 1.77	$ 1.66
Weighted average diluted shares[c]	40,123	39,246	38,961	36,552	35,401
STATEMENT OF CASH FLOWS DATA:					
Cash flows provided by operating activities[c]	$ 250,203	$ 196,755	$ 191,859	$ 134,327	$142,839
Cash flows used by investing activities	(238,255)	(85,395)	(50,770)	(398,450)	(11,555)
Cash flows (used) provided by financing activities[c]	(63,595)	39,415	138,075	91,052	(3,993)
BALANCE SHEET DATA:					
Total assets	$1,790,963	$1,011,351	$1,378,502	$1,356,570	$569,812
Revolving line of credit	—	—	10,000	66,000	—
Shareholders' equity	1,324,846	1,191,736	934,540	358,857	336,973

(a) Reflects the impact of the adoption of Accounting Standards Update ("ASU") ASU No. 2014-09, *Revenue from Contracts with Customers* in fiscal year 2018. Refer to Note — 1 "Summary of Significant Accounting Policies" for further discussion.

(b) 2017 includes the significant impact of the enactment of the Tax Cuts and Jobs Act ("Tax Act"). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $26.0 million (as adjusted) tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note — 7 "Income Tax" for further discussion on the impact of the Tax Act.

(c) During 2016, we early adopted ASU No. 2016-09 *Improvements to Employee Share-Based Payment Accounting* requiring the recognition of excess tax benefits or tax deficiencies as a component of income tax expense; these benefits or deficiencies were historically recognized in equity. As the standard requires a prospective method of adoption, our net income in 2016 includes a $29.6 million income tax benefit due to the adoption that did not occur in the comparable prior periods presented above. In 2016, ASU No. 2016-09 updated the method of calculating diluted shares resulting in the inclusion of 519,000 additional shares in our diluted earnings per share calculation, which is not comparable to the other prior periods presented. The adoption of ASU No. 2016-09 also required excess tax benefits, previously presented as financing activities, to be classified as operating activities. As retrospective adoption for this component of the standard is allowable, we have adjusted all periods presented above to reflect this change in classification.

(d) On November 16, 2015, we completed the acquisition of New World Systems Corporation ("NWS"). Operating results for the twelve months ended December 31, 2015, include $5.9 million for non-recurring financial advisory, legal, accounting, due diligence, valuation and other expenses necessary to complete the NWS acquisition.

Management's Discussion and Analysis of Financial Condition and Results of Operations

FORWARD-LOOKING STATEMENTS

In addition to historical information, this Annual Report contains forward-looking statements. The forward-looking statements are made in reliance upon safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's opinion only as of the date hereof. We undertake no obligation to revise or publicly release the results of any revisions to these forward-looking statements. Readers should carefully review the risk factors described in documents we file from time to time with the Securities and Exchange Commission.

When used in this Annual Report, the words "believes," "expects," "anticipates," "foresees," "forecasts," "estimates," "plans," "intends," "continues," "may," "will," "should," "projects," "might," "could" or other similar words or phrases are intended to identify forward-looking statements. Similarly, statements that describe our business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements.

OVERVIEW

General

We provide integrated information management solutions and services for the public sector, with a focus on local governments. We develop and market a broad line of software products and services to address the IT needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services to our clients, including software and hardware installation, data conversion, training and for certain clients, product modifications, along with continuing maintenance and support for clients using our systems. We also provide subscription-based services such as software as a service ("SaaS"), which primarily utilize the Tyler private cloud, and electronic document filing solutions ("e-filing"), which simplify the filing and management of court related documents. Revenues for e-filing are derived from transaction fees and, in some cases, fixed fee arrangements. We also provide property appraisal outsourcing services for taxing jurisdictions.

Our products generally automate seven major functional areas (1) financial management and education, (2) courts and justice, (3) public safety (4) property appraisal and tax, (5) planning, regulatory and maintenance (6) land and vital records management and (7) data and insights. We report our results in two segments. The Enterprise Software ("ES") segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as: financial management; courts and justice processes; public safety; planning, regulatory and maintenance; land and vital records management; and data analytics. The Appraisal and Tax ("A&T") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

Our total employee count increased to 4,525 at December 31, 2018, from 4,069 at December 31, 2017.

For the twelve months ended December 31, 2018, total revenues increased 11% compared to the prior year. Organic revenue growth was 9% for the twelve months ended December 31, 2018, compared to the prior year period and revenues from acquisitions contributed 2% of growth for the twelve months ended December 31, 2018.

Subscriptions revenue grew 28% for the twelve months ended December 31, 2018, due to a gradual shift toward cloud-based, software as a service business, as well as continued strong growth in our e-filing revenues from courts and the addition of new subscription revenues from the acquisition of Socrata. Organic subscriptions revenue increased 21% for the twelve months ended December 31, 2018.

Our backlog at December 31, 2018 was $1.25 billion, a 2% increase from last year.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Recent Acquisitions

On December 7, 2018, we acquired certain assets and intellectual property of SceneDoc, Inc. ("SceneDoc"), a company that provides mobile-first, software as a service (SaaS) field reporting for law enforcement agencies. The total purchase price was approximately $6.2 million, of which $5.4 million was paid in cash and approximately $759,000 accrued for a working capital holdback. As of December 31, 2018, the purchase price allocation for SceneDoc is not yet complete. The preliminary estimates of fair value assumed at the acquisition date for intangible assets, receivables and deferred revenue and related deferred taxes are subject to change as valuations are finalized.

On October 1, 2018, we acquired all of the equity interests of TradeMaster, Inc. dba MobileEyes ("MobileEyes"), a company that develops software to improve public safety by supporting fire prevention and suppression, emergency response, and structural safety. The total purchase price was approximately $5.3 million in cash.

On August 31, 2018, we acquired all of the assets of CaseloadPRO, L.P. ("CaseloadPro"), a company that provides a fully featured probation case management system. The purchase price of $9.3 million was paid in cash.

On April 30, 2018, we acquired all of the capital stock of Socrata, Inc. ("Socrata"), a company that provides open data and data-as-a-service solutions including cloud based data integration, visualization, analysis, and reporting solutions for federal, state and local government agencies. The purchase price, net of cash acquired of $1.7 million, was $147.6 million in cash.

On April 30, 2018, we acquired all of the equity interests of Sage Data Security, LLC ("Sage"), a cybersecurity company offering a suite of services that supports an entire cybersecurity lifecycle, including program development, education and training, technical testing, advisory services, and digital forensics. The total purchase price was $11.6 million paid in cash.

As of December 31, 2018, the purchase price allocations for Sage, Socrata, CaseloadPro, and MobileEyes are complete.

The operating results of all 2018 acquisitions are included with the operating results of the Enterprise Software segment since their date of acquisition. Revenues from Socrata included in Tyler's results of operations totaled approximately $13.9 million and the net loss was $11.5 million for the twelve months ended December 31, 2018. The impact of the Sage, CaseloadPRO, MobileEyes and SceneDoc acquisitions, individually and in the aggregate, on our operating results, assets and liabilities is not material.

Our balance sheet as of December 31, 2018, reflects the allocation of the purchase price to the assets acquired based on their fair value at the date of each acquisition. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

We monitor and analyze several key performance indicators in order to manage our business and evaluate our financial and operating performance. These indicators include the following:

Revenues — We derive our revenues from five primary sources: sale of software licenses and royalties; subscription-based arrangements; software services; maintenance; and appraisal services. Subscriptions and maintenance are considered recurring revenue sources and comprised approximately [illegible]% of our revenue in 2018. The number of new SaaS clients and the number of existing clients who convert from our traditional software arrangements to our SaaS model are a significant driver to our business, together with new software license sales and maintenance rate increases. In addition, we also monitor our customer base and churn as we historically have experienced very low customer turnover. During 2018, based on our number of customers, turnover was approximately 2%.

Cost of Revenues and Gross Margins — Our primary cost component is personnel expenses in connection with providing software implementation, subscription-based services, maintenance and support, and appraisal services to our clients. We can improve gross margins by controlling headcount and related costs and by expanding our revenue base, especially from those products and services that produce incremental revenue with minimal incremental cost, such as software licenses and royalties, subscription-based services, and maintenance and support. Our appraisal projects are cyclical in nature, and we often employ appraisal personnel on a short-term basis to coincide with the life of a project. As of December 31, 2018, our total employee count increased to 4,525 from 4,069 at December 31, 2017.

Selling, General and Administrative ("SG&A") Expenses — The primary components of SG&A expenses are administrative and sales personnel salaries and commissions, share-based compensation expense, marketing expense, rent and professional fees. Sales commissions typically fluctuate with revenues and share-based compensation expense generally increases as the market price of our stock increases. Other administrative expenses tend to grow at a slower rate than revenues.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Liquidity and Cash Flows — The primary driver of our cash flows is net income. Uses of cash include acquisitions, capital investments in property and equipment and discretionary purchases of treasury stock. Our working capital needs are fairly stable throughout the year with the significant components of cash outflows being payment of personnel expenses offset by cash inflows representing collection of accounts receivable and cash receipts from clients in advance of revenue being earned. In recent years, we have also received significant amounts of cash from employees exercising stock options and contributing to our Employee Stock Purchase Plan.

Balance Sheet — Cash, accounts receivable and days sales outstanding and deferred revenue balances are important indicators of our business.

Adoption of New Revenue Accounting Standard

On January 1, 2018, we adopted ASU No. 2014-09, using the full retrospective method of transition, which requires that the new standard be applied to all periods presented. The impacts of adoption are reflected in the financial information herein. For additional details, see Note 1 – "Summary of Significant Accounting Policies" to our consolidated financial statements in this report.

Recent Accounting Guidance not yet Adopted

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, *Leases* ("Topic 842"). Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

Topic 842 is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. Upon adoption, entities will be required to use a modified retrospective approach with an option to use certain practical expedients. We expect to adopt ASU 2016-02 when effective, using the transition method that allows us to initially apply the guidance at the adoption date of January 1, 2019, and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. We expect to use the package of practical expedients that allows us to not reassess: (1) lease classification for any expired or existing leases and (2) initial direct costs for any expired or existing leases. We expect ASU 2016-02 will impact our consolidated financial statements and related disclosures. We are currently evaluating the extent of the impact and expect that most of our lease commitments will be subject to the updated guidance and recognized as lease liabilities and right-of-use assets on our consolidated balance sheets upon adoption. Based on our current portfolio of leases, we estimate a range of $15.5 million to $17.8 million of lease assets and liabilities to be recognized on our balance sheet, primarily relating to office facilities.

Outlook

The local government software market continues to be active, and our backlog at December 31, 2018 reached $1.25 billion, a 2% increase from last year. We expect to continue to achieve solid growth in revenue and earnings. With our strong financial position and cash flow, we plan to continue to make significant investments in product development to better position us to continue to expand our competitive position in the public sector software market over the long term.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities at the date of the financial statements, the reported amounts of revenues, cost of revenues and expenses during the reporting period, and related disclosure of contingencies. The Notes to the Financial Statements included as part of this Annual Report describe our significant accounting policies used in the preparation of the financial statements. Significant items subject to such estimates and assumptions include the application of the progress toward completion methods of revenue recognition, estimated standalone selling price ("SSP") for distinct performance obligations, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Management's Discussion and Analysis of Financial Condition and Results of Operations

We believe the following critical accounting policies require significant judgments and estimates used in the preparation of our financial statements.

Revenue Recognition. We earn revenue from software licenses, royalties, subscription-based services, software services, post contract customer support ("PCS" or "maintenance"), hardware, and appraisal services. Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We determine revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer
- Identification of the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract
- Recognition of revenue when, or as, we satisfy a performance obligation

Most of our software arrangements with customers contain multiple performance obligations that range from software licenses, installation, training, and consulting, to software modification and customization to meet specific customer needs (services), hosting, and PCS. For these contracts, we account for individual performance obligations separately when they are distinct. We evaluate whether separate performance obligations can be distinct or should be accounted for as one performance obligation. Arrangements that include software services, such as training or installation, are evaluated to determine whether those services are highly interdependent or highly interrelated to the product's functionality. Many of our software arrangements involve "off-the-shelf" software. We recognize the revenue allocable to "off-the-shelf" software licenses and specified upgrades at a point in time when control of the software license transfers to the customer, unless the software is not considered distinct. We consider off-the-shelf software to be distinct when it can be added to an arrangement with minor changes in the underlying code, it can be used by the customer for the customer's purpose upon installation, and remaining services such as training are not considered highly interdependent or highly interrelated to the product's functionality.

For arrangements that involve significant production, modification or customization of the software, or where software services are otherwise not considered distinct, we recognize revenue over time by measuring progress-to-completion. We measure progress-to-completion primarily using labor hours incurred as it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. These arrangements are often implemented over an extended period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent. When software services are distinct, the fee allocable to the service element is recognized over the time we perform the services and is billed on a time and material basis.

Subscription-based services consist of revenues derived from SaaS arrangements, which primarily utilize the Tyler private cloud, and electronic filing transactions. Revenue from subscription-based services is generally recognized over time on a ratable basis over the contract term, beginning on the date that our service is made available to the customer. For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. We allocate contract value to each performance obligation of the arrangement that qualifies for treatment as a distinct element based on estimated SSP. When it is determined that software is distinct and the customer has the ability to take control of the software, we recognize revenue allocable to the software license fee when access to the software license is made available to the customer. We recognize hosting services ratably over the term of the arrangement, which range from one to ten years but are typically for a period of three to five years. For software services associated with certain SaaS arrangements, we have concluded that the services are not distinct, and we recognize the revenue ratably over the remaining contractual period once we have provided the customer access to the software. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

The transaction price is allocated to the separate performance obligations on a relative SSP basis. We determine the SSP based on our overall pricing objectives, taking into consideration market conditions and other factors, including the value of our contracts, the applications sold, customer demographics, and the number and types of users within our contracts. We use a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP

Management's Discussion and Analysis of Financial Condition and Results of Operations

of the various products and services. In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine SSP using the expected cost-plus margin approach. Revenue is recognized net of allowances for sales adjustments and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Typically, the structure of our arrangements does not give rise to variable consideration. However, in those instances whereby variable consideration exists, we include in our estimates additional revenue for variable consideration when we believe we have an enforceable right, the amount can be estimated reliably and its realization is probable.

We maintain allowances for doubtful accounts, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts may require revision include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products. The allowance for doubtful accounts reflects our best estimate of probable losses inherent in the accounts receivable balance. We determine the allowance based on known troubled accounts, historical experience, and other currently available evidence.

In connection with certain of our contracts, we have recorded retentions receivable or unbilled receivables consisting of costs and estimated profit in excess of billings as of the balance sheet date. Many of the contracts which give rise to unbilled receivables at a given balance sheet date are subject to billings in the subsequent accounting period. We review unbilled receivables and related contract provisions to ensure we are justified in recognizing revenue prior to billing the customer and that we have objective evidence which allows us to recognize such revenue. In addition, we have a sizable amount of deferred revenue, which represents billings in excess of revenue earned. The majority of this liability consists of maintenance billings for which payments are made in advance and the revenue is ratably earned over the maintenance period, generally one year. We also have deferred revenue for those contracts in which we receive a deposit and the conditions in which to record revenue for the service or product have not been met. On a periodic basis, we review by customer the detail components of our deferred revenue to ensure our accounting remains appropriate.

Intangible Assets and Goodwill. Our business acquisitions typically result in the creation of goodwill and other intangible asset balances, and these balances affect the amount and timing of future period amortization expense, as well as expense we could possibly incur as a result of an impairment charge. The cost of acquired companies is allocated to identifiable tangible and intangible assets based on estimated fair value, with the excess allocated to goodwill. Accordingly, we have a significant balance of acquisition date intangible assets, including software, customer related intangibles, trade name, leases and goodwill. These intangible assets (other than goodwill) are amortized over their estimated useful lives. We currently have no intangible assets with indefinite lives other than goodwill.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization. Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2018, did not result in an impairment charge. During 2018, we did not identify any triggering events that would require an update to our annual impairment review.

All intangible assets (other than goodwill) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of other intangible assets is measured by comparison of the carrying amount to estimated undiscounted future cash flows. The assessment of recoverability or of the estimated useful life for amortization purposes will be affected if the timing or the amount of estimated future operating cash flows is not achieved. Such indicators may include, among others: a significant decline in expected future cash flows; a sustained, significant decline in stock price and market capitalization; a significant adverse change in legal factors or in the business climate; unanticipated competition; and reductions in growth rates. In addition, products, capabilities, or technologies developed by others may render our software products obsolete or non-competitive. Any adverse change in these factors could have a significant impact on the recoverability of goodwill or other intangible assets.

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Share-Based Compensation. We have a stock incentive plan that provides for the grant of stock options, restricted stock units and performance stock units to key employees, directors and non-employee consultants. We estimate the fair value of share-based awards on the date of grant. Share-based compensation expense includes the estimated effects of forfeitures, which will be adjusted over the requisite service period to the extent actual forfeitures differ or are expected to differ from such estimates. Changes in estimated forfeitures are recognized in the period of change and will also impact the amount of expense to be recognized in future periods. Forfeiture rate assumptions are derived from historical data.

We estimate stock price volatility at the date of grant based on the historical volatility of our common stock. Estimated option life is determined using the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns. Determining the appropriate fair-value model and calculating the fair value of share-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates.

ANALYSIS OF RESULTS OF OPERATIONS AND OTHER

The following discussion compares the historical results of operations on a basis consistent with GAAP for the years ended December 31, 2018, 2017 and 2016.

	Percentage of Total Revenues		
	2018	2017	2016
Years Ended December 31,		As Adjusted	
Revenues:			
Software licenses and royalties	10.0%	10.3%	11.0%
Subscriptions	23.6	20.5	18.8
Software services	20.5	21.5	22.6
Maintenance	41.1	42.6	42.2
Appraisal services	2.3	3.0	3.5
Hardware and other	2.5	2.1	1.9
Total revenues	100.0	100.0	100.0
Operating expenses:			
Cost of software licenses, royalties and acquired software	2.9	3.0	3.3
Cost of software services, maintenance and subscriptions	46.9	45.1	45.8
Cost of appraisal services	1.5	1.9	2.2
Cost of hardware and other	1.7	1.5	1.3
Selling, general and administrative expenses	22.2	20.9	21.7
Research and development expense	6.8	5.6	5.7
Amortization of customer and trade name intangibles	1.7	1.6	1.7
Operating income	16.3	19.4	18.3
Other income (expense), net	0.4	0.1	(0.3)
Income before income taxes	16.7	19.5	18.0
Income tax (benefit) provision	0.9	(0.7)	2.9
Net income	15.8%	20.2%	15.1%

Management's Discussion and Analysis of Financial Condition and Results of Operations

2018 Compared to 2017

Revenues

On April 30, 2018, we acquired Socrata, a company that provides open data and data-as-a-service solutions for federal, state and local government agencies including cloud-based data integration, visualization, analysis, and reporting solutions. The following table details revenue for Socrata for the periods presented as of December 31, 2018, which is included in our consolidated statements of income:

	2018
Revenues:	
Software licenses and royalties	$ —
Subscriptions	12,106
Software services	1,751
Maintenance	—
Appraisal services	—
Hardware and other	20
Total revenues	$ 13,877

On December 7, 2018, we acquired SceneDoc, Inc., a company that provides mobile-first, software-as-a-service (SaaS) field reporting for law enforcement agencies. On October 1, 2018, we acquired MobileEyes, a company that develops software to improve public safety by supporting fire prevention and suppression, emergency response, and structural safety. On August 31, 2018, we acquired CaseloadPRO, a company that provides a fully featured probation case management system. On April 30, 2018, we also acquired Sage, a cybersecurity company offering a suite of services that supports an entire cybersecurity lifecycle. The impact of these acquisitions on our operating results is not considered material, individually and in the aggregate, and is not included in the table above. The results of these acquisitions are included with the operating results of the ES segment from their dates of acquisition. For comparative purposes, we have provided explanations for changes in operations to exclude results of operations for these acquisitions noting the exclusion.

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

			Change	
	2018	2017	$	%
($ in thousands)		As Adjusted		
ES	$83,735	$78,388	$5,347	7%
A&T	9,706	7,854	1,852	24
Total software licenses and royalties revenue	$93,441	$86,242	$7,199	8%

Software license and royalties revenue grew 8% compared to the prior year. The majority of this growth was due to an active marketplace as the result of generally positive local government economic conditions, as well as our increasingly strong competitive position, which we attribute in part to our investment in product development in recent years. An increase in the number of larger contracts related to our planning, regulatory and maintenance solutions and public safety solutions also contributed to the growth in license revenue.

Although the mix of new contracts between subscription-based and perpetual license arrangements may vary from quarter to quarter and year to year, we expect our longer-term software license growth rate to be negatively impacted by a growing number of customers choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. Subscription-based arrangements result in lower software license revenue in the initial year as compared to perpetual software license arrangements but generate higher overall revenue over the term of the contract. Our new client mix in 2018 was approximately 47% selecting perpetual software license arrangements and approximately 53% selecting subscription-based arrangements compared to a client mix in 2017 of approximately 53% selecting perpetual software license arrangements and approximately 47% selecting subscription-based arrangements.

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Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
ES	$210,740	$164,317	$ 46,423	28%
A&T	9,807	7,859	1,948	25
Total subscriptions revenue	$220,547	$172,176	$ 48,371	28%

Subscription-based revenue primarily consists of revenue derived from our SaaS arrangements, which generally utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Excluding the results of acquisitions, subscription-based revenue increased 21% compared to 2017. New SaaS clients as well as existing clients who converted to our SaaS model provided the majority of the subscription revenue increase. In 2018, we added 410 new SaaS clients and 97 existing clients elected to convert to our SaaS model. Also, e-filing services contributed approximately $6.2 million of the subscription revenue increase in 2018. The increase in e-filing revenue is attributed to new e-filing clients, as well as increased volumes as the result of several existing clients mandating e-filing. The acquisition of Socrata, which primarily has a subscription revenue model, also contributed to the increase in subscription revenues.

Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
ES	$166,921	$161,245	$ 5,676	4%
A&T	24,348	19,215	5,133	27
Total software services revenue	$191,269	$180,460	$ 10,809	6%

Software services revenue primarily consists of professional services billed in connection with implementing our software, converting client data, training client personnel, custom development activities and consulting. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Excluding the results of acquisitions, software services revenue grew 3% compared to the prior year period. This growth is due to a higher level of new software sales, through both our license and subscription models.

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Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
ES	$359,904	$337,701	$ 22,203	7%
A&T	24,617	21,618	2,999	14
Total maintenance revenue	$384,521	$359,319	$ 25,202	7%

We provide maintenance and support services for our software products and certain third-party software. Maintenance revenue grew 7% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	21,846	25,023	(3,177)	(13)
Total appraisal services revenue	$21,846	$25,023	$(3,177)	(13)%

In 2018, appraisal services revenue decreased 13% compared to the prior year primarily due to the successful completion of several large revaluation projects in mid-2017. The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states.

Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
Software licenses and royalties	$ 3,802	$ 3,321	$ 481	14%
Acquired software	22,972	21,686	1,286	6
Software services, maintenance and subscriptions	438,923	387,634	51,289	13
Appraisal services	14,299	16,286	(1,987)	(12)
Hardware and other	15,708	12,595	3,113	25
Total cost of revenues	$495,704	$441,522	$ 54,182	12%

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The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2018	2017 As Adjusted	Change
Software licenses, royalties and acquired software	71.3%	71.0%	0.3%
Software services, maintenance and subscriptions	44.9	45.6	(0.7)
Appraisal services	34.5	34.9	(0.4)
Hardware and other	33.6	28.8	4.8
Overall gross margin	47.0%	47.5%	(0.5)%

Software licenses, royalties and acquired software. Cost of software licenses, royalties and acquired software is primarily comprised of amortization expense for acquired software and third party software costs. We do not have any direct costs associated with royalties. The gross margin increase of 0.3% is due to higher software license revenues offset by an increase in amortization expense for acquired software attributed to new acquisitions completed in 2018.

Software services, maintenance and subscriptions. Cost of software services, maintenance and subscriptions primarily consists of personnel costs related to installation of our software, conversion of client data, training client personnel and support activities and various other services such as custom client development and on-going operation of SaaS and e-filing arrangements. In 2018, the software services, maintenance and subscriptions gross margin decreased 0.7% compared to the prior year. Excluding employees added through acquisitions, our implementation and support staff has grown by 57 employees since December 31, 2017 as we accelerated hiring to ensure that we are well positioned to deliver our current backlog and anticipated new business. Recognition of acquisition-related deferred revenue associated with subscriptions and maintenance also resulted in lower gross margins.

Appraisal services. Appraisal services revenue comprised approximately 2.3% of total revenue. The appraisal services gross margin decreased 0.4% compared to 2017 due to the reduction in higher margin projects substantially complete by early 2017 and lower volume of revenues in the current period to cover relatively fixed costs.

Our 2018 blended gross margin slightly decreased by 0.5% compared to 2017. Our overall gross margin decrease is mainly attributed to additions to our implementation staff and lower margin revenues from appraisal services, offset by improved margin on revenues from software licenses.

Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses consist primarily of salaries, employee benefits, travel, share based compensation expense, commissions and related overhead costs for administrative and sales and marketing employees, as well as, professional fees, trade show activities, advertising costs and other marketing related costs. The following table sets forth a comparison of our SG&A expenses for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
Selling, general and administrative expenses	$207,605	$175,914	$ 31,691	18%

SG&A as a percentage of revenue was 22.2% in 2018 compared to 20.9% in 2017. SG&A expense increased approximately 18% compared to the prior year period. In 2018, our operating results include $9.1 million of SG&A expenses for Socrata from the date of acquisition. The remaining SG&A expense increase is mainly due to compensation cost related to increased staff levels, higher stock compensation expense and increased commission expense as a result of higher sales. Excluding employees added with acquisitions, we have added 47 employees mainly to our sales and finance teams since December 31, 2017. In addition, our 2018 stock compensation expense rose $11.2 million, mainly due to increases in our stock price over the last few years.

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Research and Development Expense

Research and development expense consists primarily of salaries, employee benefits and related overhead costs associated with new product development. The following table sets forth a comparison of our research and development expense for the years ended December 31.

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
Research and development expense	$63,264	$47,324	$15,940	34%

Research and development expense increased 34% in 2018 compared to the prior year period, mainly due to a number of new Tyler product development initiatives across our product suites, including increased investments in research and development at recently acquired businesses. To support these initiatives, our research and development staff has grown by 159 since December 31, 2017.

Amortization of Customer and Trade Name Intangibles

Acquisition intangibles are comprised of the excess of the purchase price over the fair value of net tangible assets acquired that is allocated to acquired software, leases and customer and trade name intangibles. The remaining excess purchase price is allocated to goodwill that is not subject to amortization. Amortization expense related to acquired software is included with cost of revenues, while amortization expense of customer and trade name intangibles is recorded as operating expense. The estimated useful lives of both customer and trade name intangibles range from five to 25 years. The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
Amortization of customer and trade name intangibles	$16,217	$13,381	$2,836	21%

Amortization of customer and trade name intangibles increased due to the impact of intangibles added with several acquisitions completed in 2017 and 2018.

Estimated annual amortization expense relating to customer and trade name acquisition intangibles, excluding acquired software for which the amortization expense is recorded as cost of revenues, for the next five years is as follows (in thousands):

2019	$16,459
2020	15,350
2021	15,232
2022	14,740
2023	14,665
Thereafter	95,419

Amortization expense relating to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $372,000 in 2019, $313,000 in 2020, $312,000 in 2021, $312,000 in 2022, $312,000 in 2023 and $723,000 thereafter.

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Other

The following table sets forth a comparison of other income (expense), net for the years ended December 31:

($ in thousands)	2018	2017	Change $	Change %
Other income, net	$3,378	$698	$2,680	NM

Other income is comprised of interest expense and non-usage and other fees associated with our revolving credit agreement as well as interest income from invested cash. Other income, net, increased compared to the prior period due to increased interest income from significantly higher levels of cash and investments resulting from cash generated in the last year. We had no debt in the current period, as we repaid all borrowings under the revolving line of credit in January 2017.

Income Tax Provision (Benefit)

The following table sets forth a comparison of our income tax provision for the years ended December 31:

($ in thousands)	2018	2017 As Adjusted	Change $	Change %
Income tax provision (benefit)	$ 8,408	$ (6,115)	$ 14,523	(237)%
Effective income tax rate	5.4%	(3.7)%		

The increase in the income tax provision in 2018 is primarily due to the one-time tax benefit of $26.0 million (as adjusted) recognized in the fourth quarter of 2017 resulting from the remeasurement of deferred tax assets and liabilities associated with the enactment of the Tax Act which reduced the statutory U.S. federal corporate income tax rate from 35% to 21%. The increase is somewhat offset by the decrease in statutory U.S. federal corporate income tax rate for 2018. In addition, excess tax benefits from stock option exercises were lower in 2018 as compared to the prior period. Stock option exercise activity in 2018 generated excess tax benefits of $32.5 million, while stock option exercise activity in 2017 generated $[illegible] million excess tax benefits.

The increase in the effective income tax rate in 2018 compared to 2017 is also primarily attributable to the one-time tax benefit associated with the Tax Act recognized in 2017 and the decrease in excess tax benefits related to stock option exercises realized, offset by the decrease in statutory U.S. federal corporate income tax rate for 2018. Excluding the impact of the Tax Act and the excess tax benefits, our income tax provision and effective tax rate in 2018 would have been $42.6 million and 27.4% and in 2017 would have been $60.5 million (as adjusted) and 37.0%, respectively.

The effective income tax rates in both 2018 and 2017 differed from the statutory United States federal corporate income tax rate of 21% and 35%, respectively, due to state income taxes, the research tax credit, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and other non-deductible business expenses, and in 2017, the domestic production activities deduction.

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2017 Compared to 2016

Revenues

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

($ in thousands)	2017 As Adjusted	2016 As Adjusted	Change $	Change %
ES	$78,388	$78,271	$ 117	—%
A&T	7,854	5,462	2,392	44
Total software licenses and royalties revenue	$86,242	$83,733	$2,509	3%

Software license and royalties revenue increased 3% compared to the prior year. The increase in software licenses and royalties is attributed to additions to our implementation staff, which increased our capacity to deliver backlog.

Although the mix of new contracts between subscription-based and perpetual license arrangements may vary from quarter to quarter and year to year, we expect our longer-term software license growth rate to be negatively impacted by a growing number of customers choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. Subscription-based arrangements result in lower software license revenue in the initial year as compared to perpetual software license arrangements but generate higher overall revenue over the term of the contract. Our new client mix in 2017 was approximately 53% selecting perpetual software license arrangements and approximately 47% selecting subscription-based arrangements compared to a client mix in 2016 of approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements.

Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

($ in thousands)	2017 As Adjusted	2016 As Adjusted	Change $	Change %
ES	$164,317	$135,469	$28,848	21%
A&T	7,859	7,188	671	9
Total subscriptions revenue	$172,176	$142,657	$29,519	21%

Subscription-based revenue primarily consists of revenue derived from our SaaS arrangements, which generally utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Subscription-based revenue increased 21% compared to 2016. New SaaS clients as well as existing clients who converted to our SaaS model provided the majority of the subscriptions revenue increase. In 2017, we added 374 new SaaS clients and 88 existing clients elected to convert to our SaaS model. The average contract size in 2017 were 64%and 44% higher than 2016 for new clients and clients converting to our SaaS model, respectively. Also, e-filing services contributed approximately $8.5 million of the subscriptions revenue increase in 2017. The increase in e-filing revenue is attributed to new e-filing clients, as well as increased volumes as the result of several existing clients mandating e-filing.

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Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
	As Adjusted			
ES	$161,245	$155,322	$5,923	4%
A&T	19,215	16,326	2,889	18
Total software services revenue	$180,460	$171,648	$8,812	5%

Software services revenue primarily consists of professional services billed in connection with implementing our software, converting client data, training client personnel, custom development activities and consulting. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Software services revenue grew 5% compared to the prior year period. This growth is partly due to additions to our implementation and support staff, which increased our capacity to deliver backlog and partially due to completing recognition of a majority of the acquisition-related deferred service revenue that was fair valued at rates below Tyler's average service rate in prior periods.

Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
	As Adjusted			
ES	$337,701	$302,409	$35,292	12%
A&T	21,618	18,589	3,029	16
Total maintenance revenue	$359,319	$320,998	$38,321	12%

We provide maintenance and support services for our software products and certain third-party software. Maintenance revenue grew 12% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales, as well as annual maintenance rate increases. In addition, the increase is partially due to completing recognition of a majority of the acquisition-related deferred maintenance revenue that was fair valued at rates below Tyler's average maintenance rate in prior periods.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	25,023	26,287	(1,264)	(5)
Total appraisal services revenue	$25,023	$26,287	$(1,264)	(5)%

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In 2017, appraisal services revenue decreased 5% compared to the prior year primarily due to the successful completion of several large revaluation projects in mid-2017. The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states.

COST OF REVENUES AND GROSS MARGINS

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
Software licenses and royalties	$ 3,321	$ 2,964	$ 357	12%
Acquired software	21,686	22,235	(549)	N/M
Software services, maintenance and subscriptions	387,634	348,939	38,695	11
Appraisal services	16,286	16,411	(125)	(1)
Hardware and other	12,595	10,143	2,452	24
Total cost of revenues	$441,522	$400,692	$40,830	10%

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2017	2016	Change
	As Adjusted		
Software licenses, royalties and acquired software	71.0%	69.9%	1.1%
Software services, maintenance and subscriptions	45.6	45.1	0.5
Appraisal services	34.9	37.6	(2.7)
Hardware and other	28.8	30.3	(1.5)
Overall gross margin	47.5%	47.3%	0.2%

Software licenses, royalties and acquired software. Cost of software licenses, royalties and acquired software is primarily comprised of amortization expense for acquired software and third-party software costs. We do not have any direct costs associated with royalties. The gross margin increase of 1.1% is due to higher incremental margins on software license revenues, in part due to slightly lower amortization expense for acquired software resulting from acquisitions.

Software services, maintenance and subscriptions. Cost of software services, maintenance and subscriptions primarily consists of personnel costs related to installation of our software, conversion of client data, training client personnel and support activities and various other services such as custom client development and on-going operation of SaaS and e-filing arrangements. In 2017, the software services, maintenance and subscriptions gross margin increased 0.5% compared to the prior year. Our implementation and support staff grew by 220 employees in 2017. Many of these additions occurred in early to mid-2017 and are contributing to revenue in 2017. Costs related to maintenance and various other services such as SaaS and e-filing typically grow at a slower rate than related revenue due to leverage in the utilization of support and maintenance staff and economies of scale. Reduced recognition of acquisition-related deferred revenue associated with software services and maintenance obligations completed in prior periods also resulted in higher gross margins.

Appraisal services. Appraisal services revenue comprised approximately 3.0% of total revenue. The appraisal services gross margin decreased 2.7% compared to 2016 due to the reduction in higher margin projects substantially complete by early 2017 and lower volume of revenues in the current period to cover relatively fixed costs.

Our 2017 blended gross margin slightly increased 0.2% compared to 2016. Our overall gross margin was positively impacted by a product mix that included more higher-margin recurring revenues from subscriptions and maintenance and improved margin on revenues from software licenses offset by the lower-margin revenues from appraisal services as described above.

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Selling, General and Administrative Expenses

The following table sets forth a comparison of selling, general and administrative expenses for the years ended December 31:

($ in thousands)	2017 (As Adjusted)	2016 (As Adjusted)	Change $	Change %
Selling, general and administrative expenses	$175,914	$165,176	$10,738	7%

SG&A as a percentage of revenue was 20.9% in 2017 compared to 21.7% in 2016. SG&A expense increased approximately 7% mainly due to compensation costs related to increased staff levels, merit increases and higher stock compensation expense. We added 28 SG&A employees, mainly to our sales and finance teams in 2017. In addition, our 2017 stock compensation expense rose $4.7 million, mainly due to increases in our stock price over the last few years.

Research and Development Expense

The following table sets forth a comparison of our research and development expense for the years ended December 31

($ in thousands)	2017	2016	Change $	Change %
Research and development expense	$47,324	$43,154	$4,170	10%

Research and development expense consists mainly of costs associated with development of new products and technologies from which we do not currently generate revenue, as well as costs related to the ongoing development efforts for Microsoft Dynamics AX. Our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX was amended in March 2016, which significantly reduced our development commitment through March 2018. However, we continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX. License and maintenance royalties for all applicable domestic and international sales of Dynamics AX to public sector entities will continue under the terms of the contract.

Research and development expense increased 10% in 2017 compared to the prior year period, mainly due to research and development efforts related to new Tyler product development initiatives, primarily in our public safety solutions, offset by reduced development efforts for Microsoft Dynamics AX. As a result of the Microsoft Dynamics AX amendment, we have redeployed certain development resources to enhance functionality on several existing solutions and these costs are being recorded in cost of revenues – software services, maintenance and subscriptions.

Amortization of Customer and Trade Name Intangibles

The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31

($ in thousands)	2017	2016	Change $	Change %
Amortization of customer and trade name intangibles	$13,381	$13,202	$179	1%

Amortization of customer and trade name intangibles increased due to the impact of intangibles added with several small acquisitions completed in 2016 and 2017.

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Other

The following table sets forth a comparison of other income (expense), net for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
Other income (expense), net	$698	$(1,998)	$2,696	N/M

Other income (expense) is comprised of interest expense and non-usage and other fees associated with our revolving credit agreement as well as interest income from invested cash. Other income (expense), net increased compared to the prior period is attributed to significantly lower debt levels in the current period, as we repaid all borrowings under the revolving line of credit in January 2017, and correspondingly higher levels of cash investments.

Income Tax (Benefit) Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

($ in thousands)	2017 (As Adjusted)	2016 (As Adjusted)	Change $	Change %
Income tax provision	$(6,115)	$21,957	$(28,072)	(128)%
Effective income tax rate	(3.7)%	16.2%		

The decrease in the income tax provision during 2017 was primarily driven by the enactment of the Tax Act which reduced the statutory U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $26.0 million (as adjusted) tax benefit due to the remeasurement of deferred tax assets and liabilities. See Note 7 – "Income Tax" for additional information related to the Tax Act. The income tax provision is also lower due to the increase in the excess tax benefits from stock option exercises as compared to prior period. We experienced significant stock option exercise activity in 2017 and 2016 that generated excess tax benefits of $40.6 million and $29.6 million, respectively.

The change in the effective income tax rate in 2017 compared to 2016 is also primarily attributable to the impact of the Tax Act and the changes in excess tax benefits related to stock option exercises realized. Excluding the impact of the Tax Act and the excess tax benefits, our income tax provision and effective tax rate in 2017 would have been $60.5 million (as adjusted) and 37.0%, respectively. Excluding the excess tax benefits, our income tax provision and effective tax rate in 2016 would have been $51.5 million (as adjusted) and 38.0% respectively.

The effective income tax rates in both 2017 and 2016 differed from the statutory United States federal corporate income tax rate of 35% due to state income taxes, the domestic production activities deduction, the research tax credit, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and other non-deductible business expenses.

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FINANCIAL CONDITION AND LIQUIDITY

As of December 31, 2018, we had cash and cash equivalents of $134.3 million compared to $185.9 million at December 31, 2017. We also had $97.7 million invested in investment grade corporate bonds, municipal bonds and asset-backed securities as of December 31, 2018 compared to $53.8 million at December 31, 2017. These investments mature between 2018 through 2022 and we intend to hold these investments until maturity. Cash and cash equivalents consist of cash on deposit with several domestic banks and money market funds. As of December 31, 2018, we had no outstanding borrowings and no outstanding letters of credit. We believe our revolving line of credit, cash from operating activities, cash on hand and access to the credit markets provide us with sufficient flexibility to meet our long-term financial needs.

The following table sets forth a summary of cash flows for the years ended December 31:

($ in thousands)	2018	2017	2016
Cash flows provided (used) by:			
Operating activities	$ 250,203	$195,755	$ 191,859
Investing activities	(238,255)	(85,395)	(50,720)
Financing activities	(63,595)	39,415	(138,075)
Net (decrease) increase in cash and cash equivalents	$ (51,647)	$ 149,775	$ 3,064

Net cash provided by operating activities continues to be our primary source of funds to finance operating needs and capital expenditures. Other potential capital resources include cash on hand, public and private issuances of debt or equity securities, and bank borrowings. It is possible that our ability to access the capital and credit markets in the future may be limited by economic conditions or other factors. We currently believe that cash provided by operating activities, cash on hand and available credit are sufficient to fund our working capital requirements, capital expenditures, income tax obligations, and share repurchases for at least the next twelve months.

In 2018, operating activities provided cash of $250.2 million compared to $195.8 million in 2017. Operating activities that provided cash were primarily comprised of net income of $147.5 million, non-cash depreciation and amortization charges of $61.8 million and non-cash share-based compensation expense of $52.7 million. Working capital, excluding cash, increased approximately $14.0 million due to higher accounts receivable because of an increase in unbilled receivables attributed to revenues recognized from prior billings, higher accounts receivable related to annual maintenance and subscription billings, and the deferred taxes associated with stock option activity during the period. These increases were offset slightly by the growth in deferred revenue balances and timing of income tax payments.

In general, changes in the balance of deferred revenue are cyclical and primarily driven by the timing of our maintenance and subscription billings. Our renewal dates occur throughout the year, but our largest maintenance renewal cycles occur in the second and fourth quarters.

Days sales outstanding in accounts receivable were 113 days at December 31, 2018, compared to 102 days at December 31, 2017. The increase in our DSO is mainly due to an increase in unbilled receivables attributed to the increase in software license revenue for which we have recognized revenue at the point in time when the software is made available to the customer, but the billing has not yet been submitted to the customer. An increase in software services contracts accounted for using progress-to-completion method of revenue recognition in which the services are performed in one accounting period, but the billing normally occurs subsequently in another accounting period also contributed to the increase in DSO. Furthermore, our maintenance billing cycle typically peaks at its highest level in June and second highest level in December of each year and is followed by collections in the subsequent quarter. DSO is calculated based on quarter-end accounts receivable (excluding long-term receivables but including unbilled receivables) divided by the quotient of annualized quarterly revenues divided by 360 days.

Investing activities used cash of $238.3 million in 2018 compared to $85.4 million in 2017. We invested $115.6 million and received $81.2 million in proceeds from investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2018 through 2022. Approximately $27.4 million was invested in property and equipment, primarily for computer equipment, furniture and fixtures in support of internal growth, particularly with respect to our cloud-based offerings. We paid $2.2 million for the expansion of existing buildings. On December 7, 2018, we acquired certain assets and intellectual property of SceneDoc, Inc., a company that provides mobile-first, SaaS field reporting for law enforcement agencies. The total purchase price was approximately $6.2 million, of which $5.4 million was paid in cash and approximately $759,000 accrued for a working capital holdback. On October 1, 2018, we acquired all of the equity interests of MobileEyes, a company that develops software to improve public safety by supporting fire prevention and suppression, emergency response, and structural safety. The total purchase price was approximately $5.3 million in cash. On August 31, 2018, we acquired all of the assets of CaseloadPRO, a company that provides a fully featured probation case management system. The purchase price of $9.3 million was paid in cash. On April 30, 2018, we acquired all of the capital stock of Socrata, a company that provides open data and data-as-a-service solutions including cloud-based data integration, visualization, analysis, and reporting solutions for state and local government agencies. The purchase price, net of cash acquired of $1.7 million, was $147.6 million paid in cash. On April 30, 2018, we acquired all of the equity interests of Sage, a cybersecurity company offering a suite of services that supports an entire cybersecurity lifecycle, including program development, education and training, technical testing, advisory services, and digital forensics. The total purchase price was $11.6 million paid in cash. These expenditures were funded from cash generated from operations.

In 2017, we invested $59.8 million and received $28.8 million in proceeds from investment grade corporate bonds, municipal bonds and asset-backed securities. Approximately $43.1 million was invested in property and equipment. We purchased an office building in Latham, New York for approximately $2.9 million and paid $2.1 million for building improvements. We paid $19.4 million for construction to expand our office building in Yarmouth, Maine. We also made three small acquisitions with a combined cash purchase price of $11.3 million. The remaining additions were for computer equipment, furniture and fixtures in support of internal growth, particularly with respect to our cloud-based offerings. These expenditures were funded from cash generated from operations.

Financing activities used cash of $63.6 million in 2018 compared to cash provided of $39.4 million in 2017. Financing activities in 2018 were comprised of collections of $83.0 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 781,000 shares of our common stock for an aggregate purchase price of $150.1 million, of which $3.5 million was accrued as of December 31, 2018.

Financing activities in 2017 were comprised of $10.0 million net payments on our revolving line of credit offset by collections of $56.9 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 44,000 shares of our common stock for an aggregate purchase price of $6.6 million.

In February 2019, our board of directors authorized the repurchase of an additional 1.5 million shares of Tyler common stock. The repurchase program, which was approved by our board of directors, was announced in October 2002, and was amended at various times from 2003 through 2019. As of February 20, 2019, we had remaining authorization to repurchase up to 2.7 million additional shares of our common stock. Our share repurchase program allows us to repurchase shares at our discretion. Market conditions influence the timing of the buybacks and the number of shares repurchased, as well as the volume of employee stock option exercises. Share repurchases are generally funded using our existing cash balances and borrowings under our credit facility and may occur through open market purchases and transactions structured through investment banking institutions, privately negotiated transactions and/or other mechanisms. There is no expiration date specified for the authorization and we intend to repurchase stock under the plan from time to time.

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases. Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180 day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2018, our interest rate was 5.75% under the prime rate option or approximately 3.77% under the 30-day LIBOR option. The Credit Facility is secured by substantially all of our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2018, we were in compliance with those covenants.

As of December 31, 2018, we had no outstanding borrowings and had unused borrowing capacity of $300.0 million under the Credit Facility. We paid interest of $770,000 in 2018, $804,000 in 2017, and $1.9 million in 2016.

We paid income taxes, net of refunds received, of $6.8 million in 2018, $36.0 million in 2017, and $30.2 million in 2016. In 2018, we experienced significant stock option exercise activity that generated net tax benefits of $32.5 million and reduced tax payments accordingly. In 2017 and 2016, excess tax benefits were $40.6 million and $29.6 million, respectively.

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We anticipate that 2019 capital spending will be between $54 million and $56 million, including approximately $16 million related to real estate and approximately $9 million of capitalized software development. We expect the majority of the other capital spending will consist of computer equipment and software for infrastructure replacements and expansion. Capital spending is expected to be funded from existing cash balances and cash flows from operations.

On January 31, 2019, we entered into a Merger agreement to acquire 100% of the equity interests of MP Holdings, Parent, Inc. dba MicroPact ("MicroPact") for the anticipated purchase price of $185 million in cash at closing (subject to possible adjustments and holdback) plus contingent consideration not to exceed $10 million. The completion of the acquisition is subject to customary closing conditions, including the expiration or the termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act. The Federal Trade Commission granted early termination of that waiting period effective February 15, 2019. The cash portion of the merger consideration will be funded from cash on hand and proceeds from the revolving credit facility.

On February 1, 2019, we acquired all the assets of Civic, LLC ("MyCivic"), a company that provides software solutions to connect communities. The purchase price is $3.7 million of which $3.6 million was paid in cash and approximately $90,000 was accrued for a working capital holdback.

From time to time we engage in discussions with potential acquisition candidates. In order to pursue such opportunities, which could require significant commitments of capital, we may be required to incur debt or to issue additional potentially dilutive securities in the future. No assurance can be given as to our future acquisition opportunities and how such opportunities will be financed.

We lease office facilities, as well as transportation and other equipment used in our operations under non-cancelable operating lease agreements expiring at various dates through 2026.

Summarized in the table below are our obligations to make future payments under the Credit Facility and lease obligations at December 31, 2018 (in thousands):

	2019	2020	2021	2022	2023	Thereafter	Total
Revolving line of credit	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Lease obligations	5,994	5,146	3,976	1,925	1,164	2,132	20,337
Total future payment obligations	$5,994	$5,146	$3,976	$1,925	$1,164	$2,132	$20,337

As of December 31, 2018, we do not have any off-balance sheet arrangements, guarantees to third-parties or material purchase commitments, except for the operating lease commitments listed above.

CAPITALIZATION

At December 31, 2018, our capitalization consisted of no outstanding borrowings and $1.3 billion of shareholders' equity.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Market risk represents the risk of loss that may affect us due to adverse changes in financial market prices and interest rates.

In 2018, our effective average interest rate for borrowings was 5.22%. As of December 31, 2018, our interest rate was 5.75% under the prime rate option or approximately 2.77% under the 30-day LIBOR option. The Credit Facility is secured by substantially all of our assets. Loans under the Credit Facility bear interest, at Tyler's option, at a per annum rate of either (1) the Wells Fargo Bank prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180-day LIBOR rate plus a margin of 1.25% to 2.00%.

As of December 31, 2018, we had no outstanding borrowings under the Credit Facility and therefore are not subject to any interest risk.

Management's Discussion and Analysis of Financial Condition and Results of Operations

CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures — We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act) designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. These include controls and procedures designed to ensure that this information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosures. Management, with the participation of the chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2018. Based on this evaluation, the chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2018.

Management's Report on Internal Control Over Financial Reporting — Tyler's management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Securities Exchange Act Rule 13a-15(f). Tyler's internal control over financial reporting is designed to provide reasonable assurance to Tyler's management and board of directors regarding the preparation and fair presentation of published financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of Tyler's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Based on our assessment, we concluded that, as of December 31, 2018, Tyler's internal control over financial reporting was effective based on those criteria.

Tyler's internal control over financial reporting as of December 31, 2018 has been audited by Ernst & Young LLP, the independent registered public accounting firm who also audited Tyler's financial statements. Ernst & Young's attestation report on Tyler's internal control over financial reporting appears on page 42 hereof.

Changes in Internal Control Over Financial Reporting — During the quarter ended December 31, 2018, there were no changes in our internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f), that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Tyler Technologies, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of comprehensive income, cash flows and shareholders' equity for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 20, 2019 expressed an unqualified opinion thereon.

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for revenue in 2018 due to the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the related amendments.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Ernst + Young LLP

We have served as the Company's auditor since 1966.

Dallas, Texas
February 20, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Tyler Technologies, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and our report dated February 20, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Ernst + Young LLP

Dallas, Texas
February 20, 2019

Consolidated Statements of Comprehensive Income

For the years ended December 31,	2018	2017	2016
		As Adjusted	
(In thousands, except per share amounts)			
Revenues:			
Software licenses and royalties	$ 93,441	$ 86,242	$ 83,733
Subscriptions	220,547	172,176	142,657
Software services	191,269	180,460	171,648
Maintenance	384,521	359,319	320,998
Appraisal services	21,846	25,023	26,287
Hardware and other	23,658	17,679	14,557
Total revenues	935,282	840,899	759,880
Cost of revenues:			
Software licenses and royalties	3,802	3,321	2,964
Acquired software	22,972	21,686	22,235
Software services, maintenance and subscriptions	438,923	387,634	348,939
Appraisal services	14,299	16,286	16,411
Hardware and other	15,708	12,595	10,143
Total cost of revenues	495,704	441,522	400,692
Gross profit	439,578	399,377	359,188
Selling, general and administrative expenses	207,605	175,914	165,176
Research and development expense	63,264	47,324	43,154
Amortization of customer and trade name intangibles	16,217	13,381	13,202
Operating income	152,492	162,758	137,656
Other income (expense), net	3,378	698	(1,998)
Income before income taxes	155,870	163,456	135,658
Income tax provision (benefit)	8,408	(6,115)	21,957
Net income	$147,462	$169,571	$113,701
Earnings per common share:			
Basic	$ 3.84	$ 4.55	$ 3.12
Diluted	$ 3.68	$ 4.32	$ 2.92

See accompanying notes.

Consolidated Balance Sheets

December 31,	2018	2017
		As Adjusted
(In thousands, except par value and share amounts)		
ASSETS		
Current assets:		
Cash and cash equivalents	$ 134,279	$ 185,926
Accounts receivable (less allowance for losses of $4,647 in 2018 and $5,427 in 2017)	298,912	246,188
Short-term investments	44,306	43,159
Prepaid expenses	33,258	32,206
Income tax receivable	4,697	11,339
Other current assets	3,406	1,997
Total current assets	518,858	520,815
Accounts receivable, long-term	16,020	12,107
Property and equipment, net	155,177	152,315
Other assets:		
Goodwill	753,718	657,987
Other intangibles, net	276,852	229,617
Non-current investments and other assets	70,338	38,510
	$1,790,963	$1,611,351
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 6,910	$ 8,174
Accrued liabilities	66,480	64,675
Deferred revenue	350,512	298,613
Total current liabilities	423,902	371,462
Revolving line of credit	—	—
Deferred revenue, long-term	424	1,274
Deferred income taxes	41,791	46,879
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, $10.00 par value; 1,000,000 shares authorized; none issued	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 48,147,969 shares issued in 2018 and 2017	481	481
Additional paid-in capital	731,435	626,867
Accumulated other comprehensive loss, net of tax	(46)	(46)
Retained earnings	771,925	624,463
Treasury stock, at cost; 9,872,505 and 10,262,182 shares in 2018 and 2017, respectively	(178,949)	(60,029)
Total shareholders' equity	1,324,846	1,191,736
	$1,790,963	$1,611,351

See accompanying notes.

Consolidated Statements of Cash Flows

For the years ended December 31,	2018	2017	2016
		As Adjusted	
(In thousands)			
Cash flows from operating activities:			
Net income	$ 147,462	$169,571	$ 113,701
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization	61,759	53,395	49,773
Share-based compensation expense	52,740	37,348	29,747
Provision for losses – accounts receivable	2,286	4,110	4,484
Deferred income tax benefit	(5,069)	(33,664)	(26,432)
Changes in operating assets and liabilities, exclusive of effects of acquired companies:			
Accounts receivable	(53,771)	(35,170)	(34,760)
Income tax receivable	6,642	(8,444)	18,185
Prepaid expenses and other current assets	(588)	(6,958)	246
Accounts payable	(2,416)	878	387
Accrued liabilities	(2,445)	6,050	10,717
Deferred revenue	43,603	8,639	25,811
Net cash provided by operating activities	250,203	195,755	191,859
Cash flows from investing activities:			
Cost of acquisitions, net of cash acquired	(178,093)	(11,344)	(9,394)
Purchase of marketable security investments	(115,625)	(59,779)	(20,316)
Proceeds from marketable security investments	81,205	28,786	16,837
Additions to property and equipment	(27,424)	(43,057)	(37,726)
Decrease (increase) in other	1,682	(1)	(121)
Net cash used by investing activities	(238,255)	(85,395)	(50,720)
Cash flows from financing activities:			
Decrease in net borrowings on revolving line of credit	—	(10,000)	(56,000)
Purchase of treasury shares	(146,553)	(7,474)	(111,838)
Contributions from employee stock purchase plan	8,051	7,044	6,236
Proceeds from exercise of stock options	74,907	49,845	23,527
Net cash (used) provided by financing activities	(63,595)	39,415	(138,075)
Net (decrease) increase in cash and cash equivalents	(51,647)	149,775	3,064
Cash and cash equivalents at beginning of period	185,926	36,151	33,087
Cash and cash equivalents at end of period	$ 134,279	$185,926	$ 36,151

See accompanying notes.

TYLER TECHNOLOGIES ANNUAL REPORT 2018

Consolidated Statements of Shareholders' Equity

For the years ended December 31, 2018, 2017 and 2016

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
(In thousands)								
Balance at December 31, 2015 (As Adjusted)	48,148	$481	$607,755	$(46)	$341,191	(11,374)	$ (75,352)	$ 874,029
Net income	—	—	—	—	113,701	—	—	113,701
Issuance of shares pursuant to stock compensation plan	—	—	(82,273)	—	—	827	105,800	23,527
Stock compensation	—	—	29,747	—	—	—	—	29,747
Issuance of shares pursuant to employee stock purchase plan	—	—	1,434	—	—	47	4,802	6,236
Treasury stock purchases	—	—	—	—	—	(882)	(112,699)	(112,699)
Balance at December 31, 2016 (As Adjusted)	48,148	481	556,663	(46)	454,892	(11,382)	(77,449)	934,541
Net income	—	—	—	—	169,571	—	—	169,571
Issuance of shares pursuant to stock compensation plan	—	—	28,174	—	—	1,113	21,671	49,845
Stock compensation	—	—	37,348	—	—	—	—	37,348
Issuance of shares pursuant to employee stock purchase plan	—	—	4,682	—	—	51	2,362	7,044
Treasury stock purchases	—	—	—	—	—	(44)	(6,613)	(6,613)
Balance at December 31, 2017 (As Adjusted)	48,148	481	626,867	(46)	624,463	(10,262)	(60,029)	1,191,736
Net income	—	—	—	—	147,462	—	—	147,462
Issuance of shares pursuant to stock compensation plan	—	—	44,458	—	—	1,126	30,449	74,907
Stock compensation	—	—	52,740	—	—	—	—	52,740
Issuance of shares pursuant to employee stock purchase plan	—	—	7,370	—	—	45	681	8,051
Treasury stock purchases	—	—	—	—	—	(781)	(150,050)	(150,050)
Balance at December 31, 2018	48,148	$481	$731,435	$(46)	$771,925	(9,872)	$(178,949)	$1,324,846

See accompanying notes.

Notes to Consolidated Financial Statements

(Tables in thousands, except per share data)

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

We provide integrated software systems and related services for the public sector, with a focus on local governments. We develop and market a broad line of software solutions and services to address the information technology ("IT") needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services, including software and hardware installation, data conversion, training, and for certain customers, product modifications, along with continuing maintenance and support for customers using our systems. We also provide subscription-based services such as software-as-a-service ("SaaS") arrangements, which primarily utilize the Tyler private cloud, and electronic document filing solutions ("e-filing"). In addition, we provide property appraisal outsourcing services for taxing jurisdictions

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include our parent company and two subsidiaries, which are wholly owned. All significant intercompany balances and transactions have been eliminated in consolidation. Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances from non-owner sources and includes all components of net income (loss) and other comprehensive income (loss). We had no items of other comprehensive income (loss) during the years ended December 31, 2018, 2017 and 2016.

CASH AND CASH EQUIVALENTS

Cash in excess of that necessary for operating requirements is invested in short-term, highly liquid, income-producing investments. Investments with original maturities of three months or less are classified as cash and cash equivalents, which primarily consist of cash on deposit with several banks and money market funds. Cash and cash equivalents are stated at cost, which approximates market value.

REVENUE RECOGNITION

Nature of Products and Services

We earn revenue from software licenses, royalties, subscription-based services, software services, post-contract customer support ("PCS" or "maintenance"), hardware and appraisal services. Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We determine revenue recognition through the following steps

- Identification of the contract, or contracts, with a customer
- Identification of the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract
- Recognition of revenue when, or as, we satisfy a performance obligation

Most of our software arrangements with customers contain multiple performance obligations that range from software licenses, installation, training, and consulting to software modification and customization to meet specific customer needs (services), hosting, and PCS. For those contracts, we account for individual performance obligations separately when they are distinct. We evaluate whether separate performance obligations can be distinct or should be accounted for as one performance obligation. Arrangements that include software services, such as training or installation, are evaluated to determine whether those services are highly interdependent or interrelated to the product's functionality. The transaction price is allocated to the distinct performance obligations on a relative standalone selling price ("SSP") basis. We determine the SSP based on our overall pricing objectives, taking into consideration market conditions and other factors, including the value of our contracts, the applications sold, customer demographics, and the number and types of users within our contracts. Revenue is recognized net of allowances for sales adjustments and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Notes to Consolidated Financial Statements

Software Arrangements:

Software Licenses and Royalties

Many of our software arrangements involve "off-the-shelf" software. We recognize the revenue allocable to "off-the-shelf" software licenses and specified upgrades at a point in time when control of the software license transfers to the customer, unless the software is not considered distinct. We consider off-the-shelf software to be distinct when it can be added to an arrangement with minor changes in the underlying code, it can be used by the customer for the customer's purpose upon installation, and remaining services such as training are not considered highly interdependent or interrelated to the product's functionality.

For arrangements that involve significant production, modification or customization of the software, or where software services are otherwise not considered distinct, we recognize revenue over time by measuring progress-to-completion. We measure progress-to-completion primarily using labor hours incurred as it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. These arrangements are often implemented over an extended period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent

Software license fees are billed in accordance with the contract terms. Typically, a majority of the fee is due when access to the software license is made available to the customer and the remainder of the fee due over a passage of time stipulated by the contract. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

We recognize royalty revenue when the sale occurs under the terms of our third-party royalty arrangements. Currently, our third-party royalties are recognized on an estimated basis and are trued up when we receive notice of amounts we are entitled to receive. We typically receive notice of royalty revenues we are entitled to and billed on a quarterly basis in the quarter immediately following the royalty reporting period.

Software Services

As noted above, some of our software arrangements include services considered highly interdependent or highly interrelated or require significant customization to meet the customer's desired functionality. For these software arrangements, both the software licenses and related software services revenue are not distinct and are recognized over time using the progress-to-completion method. We measure progress-to-completion primarily using labor hours incurred as it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. Contract fees are typically billed on a milestone basis as defined within contract terms. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met. When software services are distinct, the fee allocable to the service element is recognized over the time we perform the services and is billed on a time and material basis.

Post-Contract Customer Support

Our customers generally enter into PCS agreements when they purchase our software licenses. PCS includes telephone support, bug fixes, and rights to upgrades on a when-and-if available basis. PCS is considered distinct when purchased with our software licenses. Our PCS agreements are typically renewable annually. PCS is recognized over time on a straight-line basis over the period the PCS is provided. All significant costs and expenses associated with PCS are expensed as incurred.

Computer Hardware Equipment

Revenue allocable to computer hardware equipment is recognized at a point in time when control of the equipment is transferred to the customer.

Notes to Consolidated Financial Statements

Subscription-Based Services:

Subscription-based services consist of revenues derived from SaaS arrangements, which primarily utilize the Tyler private cloud, and electronic filing transactions. Revenue from subscription-based services is generally recognized over time on a ratable basis over the contract term, beginning on the date that our service is made available to the customer. Our subscription contracts are generally three to five years or longer in length, billed annually in advance, and non-cancelable.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third party to host the software. We allocate contract value to each performance obligation of the arrangement that qualifies for treatment as a distinct element based on estimated SSP. When it is determined that software is distinct, and the customer has the ability to take control of the software, we recognize revenue allocable to the software license fee when access to the software license is made available to the customer. We recognize hosting services ratably over the term of the arrangement, which range from one to ten years but are typically for a period of three to five years. For software services associated with certain SaaS arrangements, we have concluded that the services are not distinct, and we recognize the revenue ratably over the remaining contractual period once we have provided the customer access to the software. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

Electronic filing transaction fees primarily pertain to documents filed with the courts by attorneys and other third-parties via our e-filing services and retrieval of filed documents via our access services. For each document filed with a court, the filer generally pays a transaction fee and a court filing fee to us and we remit a portion of the transaction fee and the filing fee to the court. We record as revenue the transaction fee, while the portion of the transaction fee remitted to the courts is recorded as cost of sales as we are acting as a principal in the arrangement. Court filing fees collected on behalf of the courts and remitted to the courts are recorded on a net basis and thus do not affect the statement of comprehensive income. For e-filing transaction fees, we have the right to charge the customer an amount that directly corresponds with the value to the customer of our performance to date. Therefore, we recognize revenue for these services over time based on the amount billable to the customer in accordance with the 'as invoiced' practical expedient in ASC 606-10-55-18. In some cases, we are paid on a fixed fee basis and recognize the revenue ratably over the contractual period.

Costs of performing services under subscription-based arrangements are expensed as incurred, except for certain direct and incremental contract origination and set-up costs associated with SaaS arrangements. Such direct and incremental costs are capitalized and amortized ratably over the useful life.

Appraisal Services:

For our property appraisal projects, we recognize revenue using the progress-to-completion method since many of these projects are implemented over one-to-three-year periods and consist of various unique activities. Appraisal services require a significant level of integration and interdependency with various individual service components, therefore, the service components are not considered distinct. Appraisal services are recognized over time by measuring progress-to-completion primarily using labor hours incurred as it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. These arrangements are often implemented over an extended period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent. Contract fees are typically billed on a milestone basis as defined within contract terms. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

Notes to Consolidated Financial Statements

Significant Judgments:

Our contracts with customers often include multiple performance obligations to a customer. When a software arrangement (license or subscription) includes both software licenses and software services, judgment is required to determine whether the software license is considered distinct and accounted for separately, or not distinct and accounted for together with the software services and recognized over time.

The transaction price is allocated to the separate performance obligations on a relative SSP basis. We determine the SSP based on our overall pricing objectives, taking into consideration market conditions and other factors, including the value of our contracts, the applications sold, customer demographics, and the number and types of users within our contracts. We use a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine SSP using the expected cost-plus margin approach.

For arrangements that involve significant production, modification or customization of the software, or where software services otherwise cannot be considered distinct, we recognize revenue as control is transferred to the customer over time using progress-to-completion methods. Depending on the contract, we measure progress-to-completion primarily using labor hours incurred, or value added. The progress-to-completion method generally results in the recognition of reasonably consistent profit margins over the life of a contract because we can provide reasonably dependable estimates of contract billings and contract costs. We use the level of profit margin that is most likely to occur on a contract. If the most likely profit margin cannot be precisely determined, the lowest probable level of profit margin in the range of estimates is used until the results can be estimated more precisely. These arrangements are often implemented over an extended time period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent.

Typically, the structure of our arrangements does not give rise to variable consideration. However, in those instances whereby variable consideration exists, we include in our estimates additional revenue for variable consideration when we believe we have an enforceable right, the amount can be estimated reliably and its realization is probable.

Refer to Note 15 – Disaggregation of Revenue for further information, including the economic factors that affect the nature, amount, timing, and uncertainty of revenue and cash flows of our various revenue categories.

Contract Balances:

Accounts receivable and allowance for doubtful accounts

Timing of revenue recognition may differ from the timing of invoicing to customers. We record an unbilled receivable when revenue is recognized prior to invoicing, or deferred revenue when revenue is recognized subsequent to invoicing. For multi-year agreements, we generally invoice customers annually at the beginning of each annual coverage period. We record an unbilled receivable related to revenue recognized for on-premises licenses as we have an unconditional right to invoice and receive payment in the future related to those licenses.

We maintain allowances for doubtful accounts, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate the carrying amount for the allowances for doubtful accounts may require revision include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

Notes to Consolidated Financial Statements

The following table summarizes the changes in the allowances for doubtful accounts and sales adjustments:

Years Ended December 31,	2018	2017	2016
Balance at beginning of year	$ 5,427	$ 3,396	$ 1,640
Provisions for losses – accounts receivable	2,286	4,110	4,484
Collection of accounts previously written off	—	—	—
Deductions for accounts charged off or credits issued	(3,066)	(2,079)	(2,728)
Balance at end of year	$ 4,647	$ 5,427	$ 3,396

The allowance for doubtful accounts reflects our best estimate of probable losses inherent in the accounts receivable balance. We determine the allowance based on known troubled accounts, historical experience, and other currently available evidence.

In connection with our appraisal services contracts and certain software services contracts, we may perform work prior to when the software and services are billable and/or payable pursuant to the contract. Unbilled revenue is not billable at the balance sheet date but is recoverable over the remaining life of the contract through billings made in accordance with contractual agreements. The termination clauses in most of our contracts provide for the payment for the value of products delivered or services performed in the event of early termination. We have historically recorded such unbilled receivables (costs and estimated profit in excess of billings) in connection with (1) property appraisal services contracts accounted for using progress-to-completion method of revenue recognition using labor hours as a measure of progress towards completion in which the services are performed in one accounting period but the billing normally occurs subsequently and may span another accounting period; (2) software services contracts accounted for using progress-to-completion method of revenue recognition using labor hours as a measure of progress towards completion in which the services are performed in one accounting period but the billing for the software element of the arrangement may be based upon the specific phase of the implementation; (3) software revenue for which we have recognized revenue at the point in time when the software is made available to the customer but the billing has not yet been submitted to the customer; (4) some of our contracts which provide for an amount to be withheld from a progress billing (generally between 5% and 20% retention) until final and satisfactory project completion is achieved; and (5) in a limited number of cases, extended payment terms, which may be granted to customers with whom we generally have a long-term relationship and favorable collection history.

The opening balance of current and long-term accounts receivable, net of allowance for doubtful accounts, was $226.8 million (as adjusted) as of January 1, 2017.

As of December 31, 2018, and December 31, 2017, total current and long-term accounts receivable, net of allowance for doubtful accounts, was $314.9 million and $2[illegible] million (as adjusted), respectively. We have recorded unbilled receivables of $104.2 million and $64.6 million (as adjusted) at December 31, 2018, and December 31, 2017, respectively. Included in unbilled receivables are retention receivables of $12.2 million and $7.2 million at December 31, 2018, and December 31, 2017, respectively, which become payable upon the completion of the contract or completion of our fieldwork and formal hearings. Unbilled receivables expected to be collected within one year have been included with accounts receivable, current portion in the accompanying consolidated balance sheets. Unbilled receivables and retention receivables expected to be collected past one year have been included with accounts receivable, long-term portion in the accompanying consolidated balance sheets.

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 to 60 days. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component. The primary purpose of our invoicing terms is to provide customers with simplified and predictable ways of purchasing our products and services, not to receive financing from our customers or to provide customers with financing. Examples include invoicing at the beginning of a subscription term with revenue recognized ratably over the contract period, and multi-year on-premises term licenses that are invoiced annually with revenue recognized upfront.

Notes to Consolidated Financial Statements

Deferred Revenue

The majority of deferred revenue consists of deferred maintenance revenue that has been billed based on contractual terms in the underlying arrangement, with the remaining balance consisting of payments received in advance of revenue being earned under software licensing, subscription-based services, software and appraisal services and hardware installation. Refer to Note 16 – Deferred Revenue and Performance Obligations for further information, including deferred revenue by segment and changes in deferred revenue during the period.

Deferred Commissions

Sales commissions earned by our sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for initial contracts are deferred and then amortized on a straight line basis over a period of benefit that we have determined to be three to seven years. We utilized the 'portfolio approach' practical expedient in ASC 606-10-10-4, which allows entities to apply the guidance to a portfolio of contracts with similar characteristics because the effects on the financial statements of this approach would not differ materially from applying the guidance to individual contracts. Using the 'portfolio approach', we determined the period of benefit by taking into consideration our customer contracts, our technology life-cycle and other factors. Sales commissions for renewal contracts are generally not paid in connection with the renewal of a contract. In the small number of instances where a commission is paid on a renewal, it is not commensurate with the commission paid on the initial sale and is recognized over the term of renewal, which is generally one year. Amortization expense related to deferred commissions is included in selling, general and administrative expenses in the accompanying consolidated statements of income. Refer to Note 17 – Deferred Commissions for further information.

Prepaid expenses and other current assets include direct and incremental costs such as commissions associated with arrangements for which revenue recognition has been deferred. Such costs are expensed at the time the related revenue is recognized.

USE OF ESTIMATES

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include revenue recognition, determining the nature and timing of satisfaction of performance obligations, and determining the SSP of performance obligations, variable consideration, and other obligations such as returns and refunds; loss contingencies; the estimated useful life of deferred commissions; the carrying amount and estimated useful lives of intangible assets; determining share-based compensation expense; the valuation allowance for receivables; and determining the potential outcome of future tax consequences of events that have been recognized on our consolidated financial statements or tax returns. Actual results could differ from estimates.

PROPERTY AND EQUIPMENT, NET

Property, equipment and purchased software are recorded at original cost and increased by the cost of any significant improvements after purchase. We expense maintenance and repairs when incurred. Depreciation and amortization is calculated using the straight-line method over the shorter of the asset's estimated useful life or the term of the lease in the case of leasehold improvements. For income tax purposes, we use accelerated depreciation methods as allowed by tax laws.

RESEARCH AND DEVELOPMENT COSTS

We expensed research and development costs of $63.3 million in 2018, $47.3 million in 2017, and $43.2 million in 2016.

Notes to Consolidated Financial Statements

INCOME TAXES

Income taxes are accounted for under the asset and liability method. Deferred taxes arise because of different treatment between financial statement accounting and tax accounting, known as "temporary differences." We record the tax effect of these temporary differences as "deferred tax assets" (generally items that can be used as a tax deduction or credit in the future periods) and "deferred tax liabilities" (generally items that we received a tax deduction for, which have not yet been recorded in the income statement). The deferred tax assets and liabilities are measured using enacted tax rates and laws that are expected to be in effect when the temporary differences are expected to be recovered or settled. A valuation allowance would be established to reduce deferred tax assets if it is more likely than not that a deferred tax asset will not be "realized." On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the corporate U.S. federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. Under ASC 740 Income Taxes, the effects of changes in tax rates and laws are recognized in the period in which the new legislation is enacted. See Note 7 – "Income Tax" for further discussion related to the Tax Act.

SHARE-BASED COMPENSATION

We have a share-based award plan that provides for the grant of stock options, restricted stock units, and performance share units to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. Restricted stock unit grants generally vest ratably over three to five years of continuous service from the date of grant. Each performance share unit represents the right to receive one share of our common stock based on our achievement of certain financial performance targets during applicable performance periods. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, *Stock Compensation*. See Note 9 – "Share-Based Compensation" for further information.

GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired, including identifiable intangible assets, in connection with our business combinations. Upon acquisition, goodwill is assigned to the reporting unit that is expected to benefit from the synergies of the business combination, which is the reporting unit to which the related acquired technology is assigned. A reporting unit is the operating segment, or a business unit one level below that operating segment, for which discrete financial information is prepared and regularly reviewed by executive management.

We assess goodwill for impairment annually as of April 1st, or more frequently whenever events or changes in circumstances indicate its carrying value may not be recoverable. We begin with the qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying value before applying the quantitative assessment described below. If it is determined through the evaluation of events or circumstances that the carrying value may not be recoverable, we perform a comparison of the estimated fair value of the reporting unit to which the goodwill has been assigned to the sum of the carrying value of the assets and liabilities of that unit. If the sum of the carrying value of the assets and liabilities of a reporting unit exceeds the estimated fair value of that reporting unit, the carrying value of the reporting unit's goodwill is reduced to its fair value through an adjustment to the goodwill balance, resulting in an impairment charge. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

We did not record any goodwill impairment charges for the years ended December 31, 2018 and 2017. See Note 4 – "Goodwill and Other Intangible Assets" for additional information.

Notes to Consolidated Financial Statements

Other Intangible Assets

We make judgments about the recoverability of purchased intangible assets other than goodwill whenever events or changes in circumstances indicate that an impairment may exist. Customer base and acquired software each comprise approximately half of our purchased intangible assets other than goodwill. We review our customer turnover each year for indications of impairment. Our customer turnover has historically been very low. If indications of impairment are determined to exist, we measure the recoverability of assets by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. There have been no significant impairments of intangible assets in any of the periods presented.

IMPAIRMENT OF LONG-LIVED ASSETS

We periodically evaluate whether current facts or circumstances indicate that the carrying value of our property and equipment or other long-lived assets to be held and used may not be recoverable. If such circumstances are determined to exist, we measure the recoverability of assets to be held and used by a comparison of the carrying amount of the asset or appropriate grouping of assets and the estimated undiscounted future cash flows expected to be generated by the assets. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of would be separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and would no longer be depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet. There have been no significant impairments of long-lived assets in any of the periods presented.

COSTS OF COMPUTER SOFTWARE

We capitalize software development costs upon the establishment of technological feasibility and prior to the availability of the product for general release to customers. Software development costs primarily consist of personnel costs and rent for related office space. We begin to amortize capitalized costs when a product is available for general release to customers. Amortization expense is determined on a product-by-product basis at a rate not less than straight-line basis over the product's remaining estimated economic life. We have not capitalized any internal software development costs in any of the periods presented.

FAIR VALUE OF FINANCIAL INSTRUMENTS

Cash and cash equivalents, accounts receivables, accounts payables, short-term obligations and certain other assets at cost approximate fair value because of the short maturity of these instruments. The fair value of our revolving line of credit would approximate book value as of December 31, 2018, because our interest rates reset approximately every 30 days or less. See Note 6 – "Revolving Line of Credit" for further discussion.

As of December 31, 2018, we have $97.7 million in investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2018 through 2022. We intend to hold these bonds to maturity and have classified them as such. We believe cost approximates fair value because of the relatively short duration of these investments. The fair values of these securities are considered Level II as they are based on inputs from quoted prices in markets that are not active or from other observable market data. These investments are included in short-term investments and non-current investments and other assets.

As of December 31, 2018, we have $15.0 million invested in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited, a privately held Australian company specializing in digitizing the spoken word in court and legal proceedings. The investment in convertible preferred stock is accounted under the cost method because we do not have the ability to exercise significant influence over the investee and the securities do not have readily determinable fair values. Our investment is carried at cost less any impairment write-downs. Annually, our cost method investments are assessed for impairment. We do not reassess the fair value of cost method investments if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investments. There has been no impairment of our cost method investment for the periods presented. This investment is included in non-current investments and other assets in the accompanying consolidated balance sheets.

Notes to Consolidated Financial Statements

CONCENTRATIONS OF CREDIT RISK

Financial instruments that potentially subject us to significant concentrations of credit risk consist principally of cash and cash equivalents, accounts receivable from trade customers, and investments in marketable securities. Our cash and cash equivalents primarily consist of operating account balances and money market funds, which are maintained at several major domestic financial institutions and the balances often exceed insured amounts. As of December 31, 2018, we had cash and cash equivalents of $134.3 million. We perform periodic evaluations of the credit standing of these financial institutions.

Concentrations of credit risk with respect to receivables are limited due to the size and geographical diversity of our customer base. Historically, our credit losses have not been significant. As a result, we do not believe we have any significant concentrations of credit risk as of December 31, 2018.

We maintain allowances for doubtful accounts, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate the carrying amount for the allowances for doubtful accounts may require revision include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

INDEMNIFICATION

Most of our software license agreements indemnify our customers in the event that the software sold infringes upon the intellectual property rights of a third-party. These agreements typically provide that in such event we will either modify or replace the software so that it becomes non-infringing or procure for the customer the right to use the software. We have recorded no liability associated with these indemnifications, as we are not aware of any pending or threatened infringement actions that are possible losses. We believe the estimated fair value of these intellectual property indemnification clauses is minimal.

We have also agreed to indemnify our officers and board members if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. We maintain directors' and officers' liability insurance coverage to protect against any such losses. We have recorded no liability associated with these indemnifications. Because of our insurance coverage, we believe the estimated fair value of these indemnification agreements is minimal.

RECLASSIFICATIONS

Certain amounts for previous years have been reclassified to conform to the current year presentation.

RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

Revenue from Contracts with Customers. In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, *Revenue from Contracts with Customers*. ASU No. 2014-09 supersedes the revenue recognition requirements in Accounting Standards Codification ("ASC") Topic 605, *Revenue Recognition*, and requires the recognition of revenue when promised goods or services are transferred to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. Topic 606 also includes Subtopic 340-40 *Other Assets and Deferred Costs — Contracts with Customers*, which requires the deferral of incremental costs of obtaining a contract with a customer. Collectively, we refer to ASU No. 2014-09 and Subtopic 340-40 as the "new standard."

Notes to Consolidated Financial Statements

We adopted the requirements of the new standard as of January 1, 2018, utilizing the full retrospective method of transition. Adoption of the new standard resulted in changes to our accounting policies for revenue recognition, trade and other receivables, and deferred commissions as detailed below. We applied the new standard using a practical expedient where the consideration allocated to the remaining performance obligations or an explanation of when we expect to recognize that amount as revenue for all reporting periods presented before the date of the initial application is not disclosed.

The impact of adopting ASU No. 2014-09 on our total revenues for 2017 and 2016 was not material. The impact of adopting the new standard on our retained earnings and deferred commissions is material. The most significant impact of the new standard relates to our accounting for software license revenue. Specifically, under the new standard, software license fees under perpetual agreements are no longer subject to 100% discount allocations from other performance obligations in the contract. Discounts in arrangements are allocated across all performance obligations increasing license revenues and decreasing revenues allocated to other performance obligations. In addition, in most cases, net license fees (total license fees less any allocated discounts) are recognized at the point in time when control of the software license transfers to the customer versus our legacy policy of recognizing revenue upon delivery and only to the extent billable per the contractual terms. Under the new standard, time-based license fees are no longer recognized over the contractual period of the license and are instead recognized at the point in time when the control of the software license transfers to the customer. Revenues related to our PCS renewals, SaaS offerings and appraisal services remain substantially unchanged. Due to the complexity of certain contracts, the actual revenue recognition treatment required under the new standard is dependent on contract-specific terms and may vary in some instances from recognition at the time of billing.

Adoption of the new standard requires that incremental costs directly related to obtaining a contract (typically sales commissions) must be recognized as an asset and expensed on a systematic basis that is consistent with the transfer to the customer of the goods and services to which the asset relates, unless that life is less than one year. Prior to adoption of the new standard, we deferred sales commissions and recognized expense over the relevant initial contractual term, which was generally one to two years. Under the new standard, we amortize these costs over a period of benefit that we have determined to be three to seven years.

We adjusted our consolidated financial statements from amounts previously reported due to the adoption of the new standard. Select unaudited condensed consolidated statement of income line items, which reflect the adoption of the new standard, are as follows (in thousands, except per share data):

	December 31, 2017			December 31, 2016		
	As Reported	Adjustments	As Adjusted	As Reported	Adjustments	As Adjusted
Statement of Income:						
Software licenses and royalties	$ 75,694	$10,548	$ 86,242	$ 74,306	$ 9,427	$ 83,733
Subscriptions	173,510	(1,334)	172,176	142,704	(47)	142,657
Software services	187,149	(6,689)	180,460	174,804	(3,156)	171,648
Maintenance	361,569	(2,250)	359,319	322,969	(1,971)	320,998
Appraisal services	25,023	—	25,023	26,287	—	26,287
Hardware and other	17,717	(38)	17,679	14,973	(416)	14,557
Total revenues	840,662	237	840,899	756,043	3,837	759,880
Selling, general and administrative expenses	176,974	(1,060)	175,914	167,161	(1,985)	165,176
Amortization of customer and trade name intangibles	13,912	(531)	13,381	13,731	(529)	13,202
Operating income	160,930	1,828	162,758	131,305	6,351	137,656
Income tax (benefit) provision	(2,317)	(3,798)	(6,115)	19,450	2,507	21,957
Net income	$163,945	$ 5,626	$169,571	$109,857	$ 3,844	$113,701
Earnings per common share:						
Basic	$ 4.40		$ 4.55	$ 3.01		$ 3.12
Diluted	$ 4.18		$ 4.32	$ 2.87		$ 2.92

Notes to Consolidated Financial Statements

Select condensed consolidated balance sheet line items, which reflect the adoption of the new standard, are as follows (in thousands):

	December 31, 2017		
	As Reported	Adjustments	As Adjusted
Balance Sheet:			
Accounts receivable	$ 227,127	$ 19,061	$ 246,188
Prepaid expenses	27,252	4,954	32,206
Accounts receivable, long-term	7,536	4,571	12,107
Other intangibles, net	236,444	(6,827)	229,617
Total assets	1,589,592	21,759	1,611,351
Deferred revenue	309,461	(10,848)	298,613
Deferred income taxes	38,914	7,965	46,879
Retained earnings	599,821	24,642	624,463
Total liabilities and shareholders' equity	$1,589,592	$ 21,759	$1,611,351

Our adoption of ASU No. 2014-09 had no impact on our net cash provided by or used in operating, investing or financing activities for any of the periods reported.

Recent tax legislation. On December 22, 2017, the Tax Cuts and Jobs Act ("Tax Act") was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for businesses and individuals. For businesses, the Tax Act reduces the U.S. corporate federal income tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. The Tax Act also adds many new provisions including changes to bonus depreciation, the deduction for executive compensation and a tax on global intangible low-taxed income (GILTI). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate. Refer to Note 7 – Income Tax Provision for further information.

NEW ACCOUNTING PRONOUNCEMENTS

Recent Accounting Guidance not yet Adopted

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, *Leases* ("Topic 842"). Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

Topic 842 is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. Upon adoption, entities will be required to use a modified retrospective approach with an option to use certain practical expedients. We expect to adopt ASU 2016-02 when effective, using the transition method that allows us to initially apply the guidance at the adoption date of January 1, 2019, and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. We expect to use the package of practical expedients that allows us to not reassess: (1) lease classification for any expired or existing leases and (2) initial direct costs for any expired or existing leases. We expect ASU 2016-02 will impact our consolidated financial statements and related disclosures. We are currently evaluating the extent of the impact and expect that most of our lease commitments will be subject to the updated guidance and recognized as lease liabilities and right-of-use assets on our consolidated balance sheets upon adoption. Based on our current portfolio of leases, we estimate a range of $15.5 million to $17.8 million of lease assets and liabilities to be recognized on our balance sheet, primarily relating to office facilities.

Notes to Consolidated Financial Statements

(2) ACQUISITIONS

2018

On December 7, 2018, we acquired certain assets and intellectual property of SceneDoc, Inc.("SceneDoc"), a company that provides mobile-first, SaaS field reporting for law enforcement agencies. The total purchase price was approximately $6.2 million, of which $5.4 million was paid in cash and approximately $759,000 accrued for a working capital holdback, subject to certain post-closing adjustments.

On October 1, 2018, we acquired all of the equity interests of TradeMaster, Inc. dba MobileEyes ("MobileEyes"), a company that develops SaaS software to improve public safety by supporting fire prevention and suppression, emergency response, and structural safety. The total purchase price was approximately $5.3 million in cash.

On August 31, 2018, we acquired all of the assets of CaseloadPRO, L. P., a company that provides a fully featured SaaS probation case management system. The purchase price of $9.3 million was paid in cash.

On April 30, 2018, we acquired all of the capital stock of Socrata, Inc ("Socrata"), a company that provides open data and data-as-a-service solutions including cloud-based data integration, visualization, analysis, and reporting solutions for state and local government agencies. The purchase price, net of cash acquired of $1.7 million, was $147.6 million paid in cash.

We have performed a valuation analysis of the fair market value of Socrata's assets and liabilities. The following table summarizes the allocation of the purchase price as of the acquisition date:

In thousands	
Cash	$ 1,724
Accounts receivable	3,616
Other current assets	2,057
Other noncurrent assets	68
Deferred tax assets, net	20
Identifiable intangible assets	75,000
Goodwill	75,657
Accounts payable	(1,254)
Accrued expenses	(1,604)
Deferred revenue	(5,915)
Total consideration	$149,369

In connection with this transaction, we acquired total tangible assets of $7.5 million and assumed liabilities of approximately $8.8 million. We recorded goodwill of $75.7 million, none of which is expected to be deductible for tax purposes, and other identifiable intangible assets of approximately $75.0 million. The $75.0 million of intangible assets are attributable to customer relationships, acquired software, and trade name and will be amortized over a weighted average period of approximately 14 years. We recorded deferred tax assets, net of approximately $20,000 related to estimated fair value allocations. Socrata's solutions are a direct complement to our current offerings and will provide a new and important additional revenue stream. By offering Socrata within virtually every Tyler product suite, our clients will have the opportunity to make their existing data discoverable, usable and actionable, but more importantly, potentially include data from other agencies and jurisdictions to make analysis even more powerful and meaningful. Therefore, the goodwill of $75.7 million arising from this acquisition is primarily attributed to our ability to integrate Socrata's solutions with our existing portfolio and to generate increased revenues, earnings and cash flow by leveraging our sales resources and client base. Our final valuation of the fair market value of Socrata's assets and liabilities resulted in adjustments to the preliminary opening balance sheet. These adjustments related to a reduction in deferred income taxes and accrued expenses resulting in a net decrease to goodwill of approximately $3.3 million. We also incurred fees of approximately $578,000 for financial advisory, legal, accounting, due diligence, valuation and other various services necessary to complete the acquisition. These fees were expensed in 2018 and are included in selling, general and administrative expenses.

Notes to Consolidated Financial Statements

The following unaudited pro forma information of the consolidated results of operations have been prepared as if the Socrata acquisition had occurred at January 1, 2017, after giving effect to certain adjustments, including amortization of intangibles, interest, transaction costs and tax effects.

Twelve Months Ended December 31	2018	2017
Revenues	$943,723	$865,944
Net income	139,315	150,515
Basic earnings per share	3.62	4.04
Diluted earnings per share	$ 3.47	$ 3.84

Pro forma information above does not include acquisitions that are not considered material to our results of operations. The pro forma information does not purport to represent what our results of operations actually would have been had such transaction or event occurred on the dates specified or to project our results of operations for any future period.

On April 30, 2018, we acquired all of the equity interests of Sage Data Security, LLC ("Sage"), a cybersecurity company offering a suite of services that supports an entire cybersecurity lifecycle, including program development, education and training, technical testing, advisory services, and digital forensics. The total purchase price was $11.6 million paid in cash. Tyler has performed a valuation analysis of the fair market value of Sage's assets and liabilities. As a result, we acquired total tangible assets of approximately $1.8 million and assumed liabilities of approximately $730,000. We have recorded total goodwill of approximately $3.5 million, all of which is expected to be deductible for tax purposes, and other intangible assets of approximately $7.0 million. The $7.0 million of intangible assets is attributable to customer relationships, acquired software and trade name and will be amortized over a weighted average period of approximately 14 years.

As of December 31, 2018, the purchase price allocations for Sage, Socrata, CaseloadPro, and MobileEyes are complete. As of December 31, 2018, the purchase price allocation for SceneDoc is not yet complete, therefore the preliminary valuation estimates of fair value assumed at the acquisition date for intangible assets, receivables and deferred revenue and related deferred taxes are subject to change as valuations are finalized.

The operating results of all 2018 acquisitions are included with the operating results of the Enterprise Software segment since their date of acquisition. Revenues from Socrata included in Tyler's results of operations totaled approximately $13.9 million and the net loss was $11.5 million for the twelve months ended December 31, 2018. The impact of the Sage, CaseloadPRO, MobileEyes and SceneDoc acquisitions, individually and in the aggregate, on our operating results, assets and liabilities is not material.

Our balance sheet as of December 31, 2018, reflects the allocation of the purchase price to the assets acquired based on their fair value at the date of each acquisition. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

2017

On November 29, 2017, we acquired audio and digital two-way radio communications technology and related assets from Radio IQ-33, LLC. The total purchase price was $1.4 million, all of which was paid in cash.

On August 2, 2017, we acquired substantially all of the assets and assumed certain liabilities of Digital Health Department, Inc. ("DHD"), a company that provides environmental health software, offering a SaaS solution for public health compliance and inspections processes. The total purchase price, net of debt assumed, was $3.9 million, all of which was paid in cash.

On May 30, 2017, we acquired all of the capital stock of Modria.com, Inc., a company that specializes in online dispute resolution for government and commercial entities. The total purchase price, net of debt assumed, was $7.0 million, of which $6.1 million was paid in cash and $900,000 was accrued as of December 31, 2017.

The operating results of these acquisitions are included in our results of operations of the Enterprise Software segment from their respective dates of acquisition. The impact of these acquisitions, individually and in the aggregate, on our operating results, assets and liabilities is not material.

Notes to Consolidated Financial Statements

2016

On May 31, 2016, we acquired all of the capital stock of ExecuTime Software, LLC, a leading provider of time, attendance, and advanced scheduling software solutions. The total purchase price, net of debt assumed, was $7.4 million. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. The operating results of this acquisition are included in our results of operations of the Enterprise Software segment from the date of the acquisition. The impact of this acquisition on our operating results is not material.

(3) PROPERTY AND EQUIPMENT, NET

Property and equipment, net consists of the following at December 31:

	Useful Lives (years)	2018	2017
Land	—	$ 9,958	$ 9,958
Building and leasehold improvements	5-39	122,241	116,214
Computer equipment and purchased software	3-5	84,649	72,531
Furniture and fixtures	5	27,238	24,834
Transportation equipment	5	438	476
		244,524	224,013
Accumulated depreciation and amortization		(89,347)	(71,698)
Property and equipment, net		$155,177	$152,315

Depreciation expense was $21.2 million in 2018, $17.3 million in 2017, and $13.4 million in 2016.

In 2018, we paid $2.2 million for the expansion of existing buildings.

In 2017, we purchased an office building in Latham, New York for approximately $2.9 million and paid $2.1 million for improvements to that building. We also paid $19.4 million for construction to expand our office building in Yarmouth, Maine.

We own office buildings in Bangor, Falmouth and Yarmouth, Maine; Lubbock and Plano, Texas; Troy, Michigan; Latham, New York; and Moraine, Ohio. We lease space in some of these buildings to third-party tenants. These leases expire between 2019 and 2025 and are expected to provide rental income of approximately $1.3 million in 2019, $1.3 million in 2020, $1.3 million in 2021, $1.4 million in 2022, $1.4 million in 2023, and $2.4 million thereafter. Rental income from third-party tenants was $1.2 million in 2018, $1.5 million in 2017, and $1.7 million in 2016.

(4) GOODWILL AND OTHER INTANGIBLE ASSETS

Other intangible assets and related accumulated amortization consists of the following at December 31:

	2018	2017
Gross margin percentage		As Adjusted
Gross carrying amount of acquisition intangibles:		
Customer related intangibles	$ 238,219	$ 179,789
Acquired software	202,416	179,466
Trade names	16,905	11,435
Leases acquired	3,694	3,694
	461,234	374,384
Accumulated amortization	(184,382)	(144,767)
Total intangibles, net	$ 276,852	$ 229,617

Total amortization expense for intangibles was $39.6 million in 2018, $35.5 million (as adjusted) in 2017, and $35.9 million (as adjusted) during 2016.

Notes to Consolidated Financial Statements

The allocation of acquisition intangible assets is summarized in the following table.

	December 31, 2018			December 31, 2017		
	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization
Non-amortizable intangibles:						
Goodwill	$753,718	—	$ —	$657,987	—	$ —
Amortizable intangibles:						
Customer related intangibles	238,219	15 years	78,120	179,789	15 years	63,274
Acquired software	202,416	7 years	99,772	179,466	7 years	76,800
Trade names	16,905	11 years	5,139	11,435	11 years	3,768
Leases acquired	3,694	10 years	1,351	3,694	10 years	925

The changes in the carrying amount of goodwill for the two years ended December 31, 2018 are as follows:

	Enterprise Software	Appraisal and Tax	Total
Balance as of 12/31/2016	$643,680	$6,557	$650,237
Goodwill acquired with acquisitions	7,750	—	7,750
Balance as of 12/31/2017	651,430	6,557	657,987
Goodwill acquired related to the purchase of Socrata	75,657	—	75,657
Goodwill acquired related to other acquisitions	20,074	—	20,074
Balance as of 12/31/2018	$747,161	$6,557	$753,718

Estimated annual amortization expense related to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $372,000 in 2019, $313,000 in 2020, $312,000 in 2021, $312,000 in 2022, $312,000 in 2023 and $723,000 thereafter. Estimated annual amortization expense related to acquisition intangibles, including acquired software, for which the amortization expense is recorded as cost of revenues, is as follows:

2019	$ 40,222
2020	38,820
2021	38,463
2022	34,987
2023	16,990
Thereafter	105,028

Notes to Consolidated Financial Statements

(5) ACCRUED LIABILITIES

Accrued liabilities consist of the following at December 31:

	2018	2017
Accrued wages, bonuses and commissions	$40,100	$43,688
Other accrued liabilities	26,380	20,987
	$66,480	$64,675

(6) REVOLVING LINE OF CREDIT

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases.

Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180-day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2018, our interest rate was 5.75% under the prime rate option or approximately 3.77% under the 30-day LIBOR option. The Credit Facility is secured by substantially all our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2018, we were in compliance with those covenants.

As of December 31, 2018, we had no outstanding borrowings and had unused borrowing capacity of $300.0 million under the Credit Facility. In addition, as of December 31, 2018, we had no outstanding letter of credit.

We paid interest of $770,000 in 2018, $804,000 in 2017 and $1.9 million in 2016.

(7) INCOME TAX

The income tax provision (benefit) on income from operations consists of the following:

	2018	2017	2016
Years Ended December 31,		As Adjusted	
Current:			
Federal	$ 9,110	$ 22,883	$ 41,366
State	4,367	4,666	7,023
	13,477	27,549	48,389
Deferred	(5,069)	(33,664)	(26,432)
	$ 8,408	$ (6,115)	$ 21,957

Notes to Consolidated Financial Statements

Reconciliation of the U.S. statutory income tax rate to our effective income tax expense rate for operations follows.

Years Ended December 31,	2018	2017	2016
		As Adjusted	
Federal income tax expense at statutory rate	$ 32,733	$ 57,209	$ 47,486
State income tax, net of federal income tax benefit	7,953	4,754	5,091
Domestic production activities deduction	—	(2,617)	(3,947)
Excess tax benefits related to stock option exercises	(32,487)	(40,624)	(29,582)
Tax Act adjustments	(1,750)	(25,992)	—
Tax credits	(3,715)	(3,578)	—
Non deductible business expenses	5,655	4,573	2,979
Other, net	19	160	(64)
	$ 8,408	$ (6,115)	$ 21,957

On December 22, 2017, the Tax Act was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the U.S. corporate federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. The Tax Act also adds many new provisions including changes to bonus depreciation, the deduction for executive compensation and a tax on global intangible low taxed income (GILTI). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision was a $26.0 million (as adjusted) tax benefit due to the remeasurement of deferred tax assets and liabilities. We recorded an additional $1.8 million tax benefit in 2018 after our 2017 tax returns were finalized. The accounting for the income tax effects of the Tax Act was completed during the fourth quarter of 2018. Overall, the changes due to the Tax Act will favorably affect income tax expense and future U.S. earnings.

The tax effects of the major items recorded as deferred tax assets and liabilities as of December 31 are:

	2018	2017
		As Adjusted
Deferred income tax assets:		
Operating expenses not currently deductible	$ 8,989	$ 9,714
Stock options and other employee benefit plans	19,496	15,932
Loss and credit carryforwards	17,999	—
Total deferred income tax assets	46,484	25,646
Valuation allowance	(1,049)	—
Total deferred income tax assets, net of valuation allowance	45,435	25,646
Deferred income tax liabilities:		
Intangible assets	(70,752)	(60,189)
Property and equipment	(8,455)	(5,699)
Prepaid expenses	(4,079)	(190)
Deferred revenue	(3,940)	(6,447)
Total deferred income tax liabilities	(87,226)	(72,525)
Net deferred income tax liabilities	$(41,791)	$(46,879)

The above 2017 balances reflect an $8.0 million deferred tax liability related to the recognition of revenue as part of the adoption of ASU No. 2014-09.

Notes to Consolidated Financial Statements

During 2018, we acquired federal and state net operating loss and tax credit carryforwards totaling $18.0 million in connection with the acquisition of Socrata. The federal and state net operating loss and tax credit carryforwards will expire in various years beginning in 2027, if not utilized. The acquired net operating loss and tax credit carryforwards are subject to an annual limitation but are expected to be realized with the exception of certain state net operating loss carryforwards. The valuation allowance disclosed in the table above relates to state net operating losses not likely to be realized. We believe it is more likely than not that all other deferred tax assets will be realized. However, the amount of the deferred tax asset considered realizable could be adjusted in the future if estimates of reversing taxable temporary differences are revised.

In connection with the acquisition of Socrata in 2018, we recorded a $1.9 million liability for an uncertain tax position associated with acquired tax credit carryforwards. The unrecognized tax benefits are included in deferred income taxes in our consolidated balance sheets and are reflected in the opening balance sheet of Socrata. The entire amount, if recognized, would affect the effective tax rate.

The aggregate changes in the balance of unrecognized tax benefits were as follows:

	2018
Balance at beginning of year	$ —
Increases for tax positions related to prior years	1,929
Balance at end of year	$1,929

Based on the information currently available, we do not anticipate a significant increase or decrease to our tax contingencies for these issues for the next 12 months.

We are subject to U.S. federal tax, as well as income tax of multiple state, local and foreign jurisdictions. We are routinely subject to income tax examinations by these taxing jurisdictions, but we do not have a history of, nor do we expect any material adjustments as a result of these examinations. During 2017, the Internal Revenue Service issued a "no change" letter upon completion of their examination of our 2012 tax year. With few exceptions, major U.S. federal, state, local and foreign jurisdictions are no longer subject to examination for years before 2014. As of February 20, 2019, no significant adjustments have been proposed by any taxing jurisdiction.

We paid income taxes, net of refunds received, of $6.8 million in 2018, $36.0 million in 2017, and $30.2 million in 2016.

(8) SHAREHOLDERS' EQUITY

The following table details activity in our common stock.

	Years Ended December 31,					
	2018		2017		2016	
	Shares	Amount	Shares	Amount	Shares	Amount
Stock option exercises	1,126	$ 74,907	1,113	$ 49,845	827	$ 23,527
Purchases of common stock	(781)	(150,050)	(44)	(6,613)	(882)	(112,699)
Employee stock plan purchases	45	8,051	51	7,044	47	6,236

As of February 20, 2019, we had authorization from our board of directors to repurchase up to 2.7 million additional shares of our common stock.

Notes to Consolidated Financial Statements

(9) SHARE-BASED COMPENSATION

Share-Based Compensation Plan

In May 2018, stockholders approved the Tyler Technologies, Inc. 2018 Stock Incentive Plan ("the 2018 Plan") which amended and restated the existing Tyler Technologies, Inc. 2010 Stock Option Plan ("the 2010 Plan"). Upon stockholder approval of the 2018 Plan, the remaining shares available for grant under the 2010 Plan were added to the shares authorized for grant under the 2018 Plan. Additionally, any awards previously granted under the 2010 Plan that expire unexercised or are forfeited are added to the shares authorized for grant under the 2018 Plan.

During fiscal year 2018, we granted stock awards under the 2018 Plan in the form of stock options, restricted stock units and performance share units. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. Once options become exercisable, the employee can purchase shares of our common stock at the market price on the date we granted the option. Restricted stock unit grants generally vest ratably over three to five years of continuous service from the date of grant. Each performance share unit represents the right to receive one share of our common stock based on our achievement of certain financial performance targets during applicable performance periods. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, *Stock Compensation*.

As of December 31, 2018, there were 3.8 million shares available for future grants under the plan from the 22.9 million shares previously approved by the shareholders.

Determining Fair Value of Stock Compensation

Valuation and Amortization Method. We estimate the fair value of stock option awards granted using the Black-Scholes option valuation model. For restricted stock unit and performance stock unit awards, we amortize the fair value of all awards on a straight-line basis over the requisite service periods, which are generally the vesting periods.

Expected Life. The expected life of awards granted represents the period of time that they are expected to be outstanding. The expected life represents the weighted average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns.

Expected Volatility. Using the Black-Scholes option valuation model, we estimate the volatility of our common stock at the date of grant based on the historical volatility of our common stock.

Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes option valuation model on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

Expected Dividend Yield. We have not paid any cash dividends on our common stock in more than ten years and we do not anticipate paying any cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero in the Black-Scholes option valuation model.

Expected Forfeitures. We use historical data to estimate pre-vesting option forfeitures. We record share-based compensation only for those awards that are expected to vest.

Notes to Consolidated Financial Statements

The following weighted average assumptions were used for options granted.

Years Ended December 31,	2018	2017	2016
Expected life (in years)	6.0	6.0	6.0
Expected volatility	26.7%	28.1%	29.3%
Risk-free interest rate	2.7%	2.0%	1.8%
Expected forfeiture rate	—%	—%	—%

Share-Based Award Activity

The following table summarizes restricted stock unit and performance stock unit activity during fiscal year 2018 (shares in thousands).

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested at January 1, 2018	—	$ —
Granted	336	$221.29
Vested	—	$ —
Forfeited	(2)	$229.75
Unvested at December 31, 2018	334	$221.25

Options granted, exercised, forfeited and expired are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2015	5,164	$ 64.43		
Granted	846	147.25		
Exercised	(827)	28.43		
Forfeited	(27)	95.33		
Outstanding at December 31, 2016	5,156	83.64		
Granted	824	176.26		
Exercised	(1,113)	44.80		
Forfeited	(50)	134.83		
Outstanding at December 31, 2017	4,817	107.91		
Granted	432	208.21		
Exercised	(1,126)	66.53		
Forfeited	(31)	158.80		
Outstanding at December 31, 2018	4,092	129.51	7	$240,069
Exercisable at December 31, 2018	2,357	100.41	6	$201,349

We had unvested options to purchase 1.7 million shares with a weighted average grant date exercise price of $169.24 as of December 31, 2018, and unvested options to purchase 2.4 million shares with a weighted average grant date exercise price of $136.51 as of December 31, 2017.

Notes to Consolidated Financial Statements

Other information pertaining to option activity was as follows during the twelve months ended December 31:

	2018	2017	2016
Weighted average grant-date fair value of stock options granted	$ 66.52	$ 55.56	$ 46.89
Total intrinsic value of stock options exercised	176,716	137,699	103,703

Share-Based Compensation Expense

The following table summarizes share-based compensation expense related to share-based awards which is recorded in the statements of comprehensive income:

Years Ended December 31	2018	2017	2016
Cost of software services, maintenance and subscriptions	$ 13,588	$ 9,415	$ 6,548
Selling, general and administrative expenses	39,152	27,933	23,199
Total share-based compensation expenses	52,740	37,348	29,747
Tax benefit	(32,487)	(40,624)	(30,059)
Net decrease (increase) in net income	$ 20,253	$ (3,276)	$ (312)

As of December 31, 2018, we had $1[illegible]7.6 million of total unrecognized compensation cost related to unvested options and restricted stock units, net of expected forfeitures, which is expected to be amortized over a weighted average amortization period of 3 years.

Employee Stock Purchase Plan

Under our Employee Stock Purchase Plan ("ESPP") participants may contribute up to 15% of their annual compensation to purchase common shares of Tyler. The purchase price of the shares is equal to 85% of the closing price of Tyler shares on the last day of each quarterly offering period. As of December 31, 2018, there were 749,000 shares available for future grants under the ESPP from the 2.0 million shares previously approved by the stockholders.

(10) EARNINGS PER SHARE

Basic earnings and diluted earnings per share data were computed as follows:

Years Ended December 31,	2018	2017 (As Adjusted)	2016 (As Adjusted)
Numerator for basic and diluted earnings per share:			
Net income	$147,462	$169,571	$113,701
Denominator:			
Weighted-average basic common shares outstanding	38,445	37,273	36,448
Assumed conversion of dilutive securities:			
Stock options	1,678	1,973	2,513
Denominator for diluted earnings per share – Adjusted weighted-average shares	40,123	39,246	38,961
Earnings per common share:			
Basic	$ 3.84	$ 4.55	$ 3.12
Diluted	$ 3.68	$ 4.32	$ 2.92

Notes to Consolidated Financial Statements

Share-based awards representing the right to purchase common stock of 888,000 shares in 2018, 1,343,000 shares in 2017, and 786,000 shares in 2016 were not included in the computation of diluted earnings per share because their inclusion would have had an anti-dilutive effect.

(11) LEASES

We lease office facilities for use in our operations, as well as transportation and other equipment. Most of our leases are non-cancelable operating lease agreements and they expire at various dates through 2026. In addition to rent, the leases generally require us to pay taxes, maintenance, insurance and certain other operating expenses.

Rent expense was approximately $8.0 million in 2018, $6.9 million in 2017, and $6.7 million in 2016, which included rent expense associated with related party lease agreements of $150,000 in 2017, and $330,000 in 2016. We had no related party lease agreements in 2018.

Future minimum lease payments under all non-cancelable leases at December 31, 2018 are as follows:

Years Ending December 31,	
2019	$ 5,994
2020	5,146
2021	3,976
2022	1,925
2023	1,164
Thereafter	2,132
Total	$20,337

(12) EMPLOYEE BENEFIT PLANS

We provide a defined contribution plan for the majority of our employees meeting minimum service requirements. Eligible employees can contribute up to 30% of their current compensation to the plan subject to certain statutory limitations. We contribute up to a maximum of 3% of an employee's compensation to the plan. We made contributions to the plan and charged operating results $9.3 million in 2018, $7.9 million in 2017, and $6.9 million in 2016.

(13) COMMITMENTS AND CONTINGENCIES

Other than routine litigation incidental to our business, there are no material legal proceedings pending to which we are party or to which any of our properties are subject.

Notes to Consolidated Financial Statements

(14) SEGMENT AND RELATED INFORMATION

We provide integrated information management solutions and services for the public sector, with a focus on local governments.

We provide our software systems and services and appraisal services through five business units, which focus on the following products:

- financial management, education and planning, regulatory and maintenance software solutions;
- financial management, municipal courts, planning, regulatory and maintenance, and land and vital records management software solutions;
- courts and justice and public safety software solutions;
- data and insights solutions; and
- appraisal and tax software solutions and property appraisal services.

In accordance with ASC 280-10, *Segment Reporting*, the financial management, education and planning, regulatory and maintenance software solutions unit; financial management, municipal courts and land and vital records management software solutions unit; and the courts and justice and public safety software solutions unit meet the criteria for aggregation and are presented in one reportable segment, Enterprise Software ("ES"). The ES segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as financial management and courts and justice and public safety processes. The Appraisal and Tax ("A&T") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include the physical inspection of commercial and residential properties, data collection and processing, computer analysis for property valuation, preparation of tax rolls, community education, and arbitration between taxpayers and the assessing jurisdiction.

We evaluate performance based on several factors, of which the primary financial measure is business segment operating income. We define segment operating income for our business units as income before noncash amortization of intangible assets associated with their acquisition, interest expense and income taxes. Segment operating income includes intercompany transactions. The majority of intercompany transactions relate to contracts involving more than one unit and are valued based on the contractual arrangement. Segment operating income for corporate primarily consists of compensation costs for the executive management team and certain accounting and administrative staff and share-based compensation expense for the entire company. Corporate segment operating income also includes revenues and expenses related to a company-wide user conference. The accounting policies of the reportable segments are the same as those described in Note 1, "Summary of Significant Accounting Policies."

Segment assets include net accounts receivable, prepaid expenses and other current assets and net property and equipment. Corporate assets consist of cash and investments, prepaid insurance, intangibles associated with acquisitions, deferred income taxes and net property and equipment mainly related to unallocated information and technology assets.

ES segment capital expenditures included $2.2 million in 2018 and $24.4 million in 2017 for the expansion of existing buildings and purchases of buildings and land.

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Notes to Consolidated Financial Statements

For the year ended December 31, 2018	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 83,735	$ 9,706	$ —	$ 93,441
Subscriptions	210,740	9,807	—	220,547
Software services	166,921	24,348	—	191,269
Maintenance	359,904	24,617	—	384,521
Appraisal services	—	21,846	—	21,846
Hardware and other	18,745	32	4,881	23,658
Intercompany	13,155	—	(13,155)	—
Total revenues	$853,200	$90,356	$ (8,274)	$ 935,282
Depreciation and amortization expense	50,130	914	10,715	61,759
Segment operating income	237,159	23,094	(68,572)	191,681
Capital expenditures	13,973	782	10,377	25,132
Segment assets	$556,100	$63,670	$1,171,193	$1,790,963

For the year ended December 31, 2017 (As Adjusted)	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 78,388	$ 7,854	$ —	$ 86,242
Subscriptions	164,317	7,859	—	172,176
Software services	161,245	19,215	—	180,460
Maintenance	337,701	21,618	—	359,319
Appraisal services	—	25,023	—	25,023
Hardware and other	13,057	10	4,612	17,679
Intercompany	10,425	—	(10,425)	—
Total revenues	$765,133	$81,579	$ (5,813)	$ 840,899
Depreciation and amortization expense	43,987	760	8,648	53,395
Segment operating income	229,001	20,788	(51,964)	197,825
Capital expenditures	28,096	1,181	16,341	45,618
Segment assets	$365,736	$46,279	$1,199,336	$1,611,351

For the year ended December 31, 2016 (As Adjusted)	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 79,271	$ 5,462	$ —	$ 83,733
Subscriptions	135,469	7,188	—	142,657
Software services	155,322	16,326	—	171,648
Maintenance	302,409	18,589	—	320,998
Appraisal services	—	26,287	—	26,287
Hardware and other	11,526	16	3,015	14,557
Intercompany	6,742	—	(6,742)	—
Total revenues	$689,739	$73,868	$ (3,727)	$ 759,880
Depreciation and amortization expense	43,434	984	5,355	49,773
Segment operating income	196,054	18,871	(41,832)	173,093
Capital expenditures	23,843	1,432	11,448	36,723
Segment assets	$321,886	$33,005	$1,023,612	$1,378,503

Notes to Consolidated Financial Statements

	Years Ended December 31,		
	2018	2017	2016
Reconciliation of reportable segment operating income to the Company's consolidated totals:		As Adjusted	
Total segment operating income	$191,681	$197,825	$173,093
Amortization of acquired software	(22,972)	(21,686)	(22,235)
Amortization of customer and trade name intangibles	(16,217)	(13,381)	(13,202)
Other income (expense), net	3,378	698	(1,998)
Income before income taxes	$155,870	$163,456	$135,658

(15) DISAGGREGATION OF REVENUE

The tables below show disaggregation of revenue into categories that reflect how economic factors affect the nature, amount, timing, and uncertainty of revenue and cash flows.

Timing of Revenue Recognition

Timing of revenue recognition by revenue category during the period is as follows:

For the year ended December 31, 2018	Products and Services Transferred at a Point in Time	Products and Services Transferred Over Time	Total
Revenues			
Software licenses and royalties	$75,188	$ 18,253	$ 93,441
Subscriptions	—	220,547	220,547
Software services	—	191,269	191,269
Maintenance	—	384,521	384,521
Appraisal services	—	21,846	21,846
Hardware and other	23,658	—	23,658
Total	$98,846	$836,436	$935,282

For the year ended December 31, 2017 (As Adjusted)	Products and Services Transferred at a Point in Time	Products and Services Transferred Over Time	Total
Revenues			
Software licenses and royalties	$69,167	$ 17,075	$ 86,242
Subscriptions	—	172,176	172,176
Software services	—	180,460	180,460
Maintenance	—	359,319	359,319
Appraisal services	—	25,023	25,023
Hardware and other	17,679	—	17,679
Total	$86,846	$754,053	$840,899

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Recurring Revenue

The majority of our revenue is comprised of recurring revenues from maintenance and subscriptions. Virtually all of our on-premises software clients contract with us for maintenance and support, which provides us with a significant source of recurring revenue. We generally provide maintenance and support for our on-premises clients under annual, or in some cases, multi-year contracts. The contract terms for subscription arrangements range from one to 10 years but are typically contracted for initial periods of three to five years, providing a significant source of recurring revenues on an annual basis. Non-recurring revenues are derived for all other revenue categories.

Recurring revenues and non-recurring revenues recognized during the period are as follows:

For the year ended December 31, 2018	Enterprise Software	Appraisal and Tax	Corporate	Totals
Recurring revenues	$570,645	$34,424	$ —	$605,069
Non-recurring revenues	269,400	55,932	4,881	330,213
Intercompany	13,155	—	(13,155)	—
Total revenues	$853,200	$90,356	$ (8,274)	$935,282

For the year ended December 31, 2017 (As Adjusted)	Enterprise Software	Appraisal and Tax	Corporate	Totals
Recurring revenues	$502,018	$29,477	$ —	$531,495
Non-recurring revenues	252,690	52,102	4,612	309,404
Intercompany	10,425	—	(10,425)	—
Total revenues	$765,133	$81,579	$ (5,813)	$840,899

(16) DEFERRED REVENUE AND PERFORMANCE OBLIGATIONS

Total deferred revenue, including long-term, by segment is as follows:

December 31,	2018	2017 As Adjusted
Enterprise Software	$327,521	$277,198
Appraisal and Tax	20,018	20,387
Corporate	3,397	2,302
Totals	$350,936	$ 299,88

The opening balance of total deferred revenue, including long-term, was $290.1 million (as adjusted) as of January 1, 2017.

Changes in total deferred revenue, including long-term, were as follows:

	2018
Balance at beginning of year (As Adjusted)	$ 299,887
Deferral of revenue	871,498
Recognition of deferred revenue	(820,449)
Balance at end of year	$ 350,936

Notes to Consolidated Financial Statements

Transaction Price Allocated to the Remaining Performance Obligations

The aggregate amount of transaction price allocated to the remaining performance obligations represents contracted revenue that has not yet been recognized ("Backlog"), which includes deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. Backlog as of December 31, 2018 was $1.25 billion, of which we expect to recognize approximately 50% as revenue over the next 12 months and the remainder thereafter.

(17) DEFERRED COMMISSIONS

Sales commissions earned by our sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for initial contracts are deferred and then amortized commensurate with the recognition of associated revenue over a period of benefit that we have determined to be three to seven years. Deferred commissions were $23.9 million and $19.3 million (as adjusted) as of December 31, 2018, and December 31, 2017, respectively. Amortization expense was $15.6 million for the twelve months ended December 31, 2018 and $[illegible] million (as adjusted) for the twelve months ended December 31, 2017, respectively. There were no indicators of impairment in relation to the costs capitalized for the periods presented. Deferred commissions have been included with prepaid expenses in the accompanying consolidated balance sheets. Amortization expense related to deferred commissions is included in selling, general and administrative expenses in the accompanying consolidated statements of income.

(18) SUBSEQUENT EVENTS

The following events and transactions occurred subsequent to December 31, 2018:

On January 31, 2019, (i) Tyler Technologies, Inc., a Delaware corporation ("Parent"), (ii) TMP Subsidiary, Inc., a Delaware corporation and a wholly owned subsidiary of Parent ("Merger Sub"), (iii) MP Holdings Parent, Inc., dba MicroPact, a Delaware corporation ("Micropact"), and the Arlington Capital Partners III, L.P., a Delaware limited partnership ("Representative"), signed an Agreement and Plan of Merger (the "Merger Agreement").

The Merger Agreement provides for the merger of Merger Sub with and into MicroPact on the terms and subject to the conditions set forth in the Merger Agreement, with MicroPact as the surviving company and a wholly owned, direct subsidiary of Parent.

Pursuant to the Merger Agreement, Parent will pay MicroPact's shareholders aggregate merger consideration of approximately $185.0 million in cash, which shall include an amount equal to MicroPact's closing date working capital and be subject to a post-closing working capital adjustment as described in the Merger Agreement and an additional merger consideration of up to $10.0 million based on certain fiscal 2019 EBITDA thresholds. The merger consideration will be funded from cash on hand and proceeds from the revolving credit facility.

The Merger and the Merger Agreement have been approved by the boards of directors of both MicroPact, Parent and Merger Sub. The Merger Agreement contains customary representations, warranties, and covenants of MicroPact, Parent and Merger Sub. The covenants include, among others, an obligation on behalf of MicroPact to operate its business in the ordinary course until the Merger is consummated, and limitations on the right of MicroPact to solicit or engage in negotiations regarding alternative acquisition proposals during the pre-Closing period.

The completion of the Merger is subject to customary closing conditions, including the expiration or the termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act. The Federal Trade Commission granted early termination of that waiting period effective February 15, 2019. Customary closing conditions also include each party's satisfaction of the applicable representations and warranties, and compliance in all material respects with its applicable covenants. Consummation of the Merger is not subject to a financing condition.

The Merger Agreement may be terminated prior to closing under certain enumerated circumstances, including if the Merger is not consummated by May 1, 2019. Termination rights are held by Parent, MicroPact, and Representative, depending on the circumstances giving rise to the termination.

MicroPact is a leading provider of commercial off-the-shelf (COTS) solutions, including entellitrak, a low-code application development platform for case management and business process management used extensively in the public sector.

Notes to Consolidated Financial Statements

On February 1, 2019, we acquired all the assets of Civic, LLC ("MyCivic"), a company that provides software solutions to connect communities. The purchase price is $3.7 million of which $3.6 million was paid in cash and approximately $90,000 was accrued for a working capital holdback.

(19) QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following table contains selected financial information from unaudited statements of income for each quarter of 2018 and 2017:

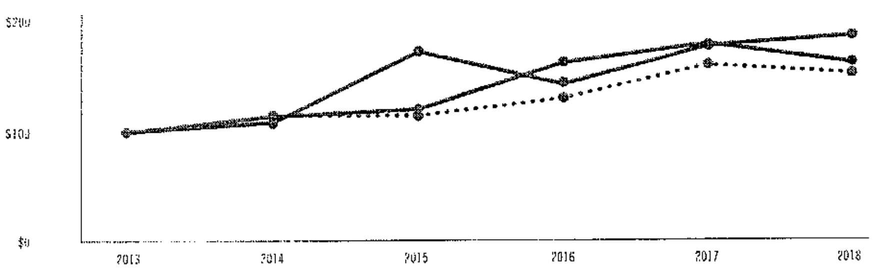
	Quarters Ended							
	2018				2017 (As Adjusted)			
	Dec. 31	Sept. 30	June 30	Mar. 31	Dec. 31[a]	Sept. 30	June 30	Mar. 31
Revenues	$241,981	$236,067	$236,060	$221,174	$217,701	$214,706	$208,763	$199,729
Gross profit	115,871	111,626	109,276	102,805	105,350	103,989	95,503	94,535
Income before income taxes	40,107	38,626	37,700	39,437	45,261	44,357	37,197	36,641
Net income	31,552	38,924	39,161	37,825	66,196	38,836	31,770	32,769
Earnings per diluted share	$ 0.79	$ 0.96	$ 0.97	$ 0.95	$ 1.68	$ 0.99	$ 0.81	$ 0.84
Shares used in computing diluted earnings per share	39,891	40,528	40,224	39,836	39,499	39,342	39,201	38,932

(a) The fourth quarter of 2017 includes the significant impact of the enactment of the Tax Act. The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $26.0 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note 7 — "Income Tax" for further discussion on the impact the Tax Act.

Performance Graph

The following table compares total shareholder returns for Tyler over the last five years to the Standard and Poor's 500 Stock Index and the Standard and Poor's 600 Information Technology Index assuming a $100 investment made on December 31, 2013. Each of the three measures of cumulative total return assumes reinvestment of dividends. The stock performance shown on the graph below is not necessarily indicative of future price performance.

COMPARISON OF CUMULATIVE FIVE YEAR TOTAL RETURN



	2013	2014	2015	2016	2017	2018
Tyler Technologies, Inc.	100	107.16	170.68	139.79	173.36	181.94
S&P 500 Stock Index	100	113.69	115.26	129.05	157.22	150.33
S&P 600 Information Technology Index	100	113.29	118.56	158.70	175.01	159.38

CORPORATE OFFICERS

H. Lynn Moore Jr.
President & Chief Executive Officer

Brian K. Miller
Executive Vice President
Chief Financial Officer & Treasurer

Matthew B. Bieri
Chief Information Officer

S. Brett Cate
Chief Sales Officer

Samantha B. Crosby
Chief Marketing Officer

Abigail M. Diaz
Chief Legal Officer & Secretary

Bruce E. Graham
Chief Strategy Officer

Jeffrey S. Green
Chief Technology Officer

Kelley B. Shimansky
Chief Human Resources Officer

W. Michael Smith
Chief Accounting Officer

BOARD OF DIRECTORS

John S. Marr Jr.[1]
Executive Chairman of the Board
Tyler Technologies, Inc.

Donald R. Brattain[2,3,4]
President
Brattain and Associates, LLC

Glenn A. Carter[3,4]
Retired Chief Executive Officer
DataProse, Inc.

Brenda A. Cline[2,4]
Executive Vice President
Kimbell Art Foundation

J. Luther King Jr.[2,4]
Chief Executive Officer
Luther King Capital Management

Daniel M. Pope
Mayor
City of Lubbock, Texas

Dustin R. Womble[1]
Retired Executive Vice President
Tyler Technologies, Inc.

[1] *Executive Committee*
[2] *Audit Committee*
[3] *Nominating and Governance Committee*
[4] *Compensation Committee*

Operational Leadership

ENTERPRISE GROUP

Andrew D. Teed
President
Enterprise Group

Mark A. Hawkins
President
Appraisal & Tax Division

Christopher P. Hepburn
President
ERP & Schools Division

Dane L. Womble
President
Local Government Division

JUSTICE GROUP

D. Bret Dixon
President
Justice Group

Bruce E. Graham
President
Courts & Justice Division

Greg T. Sebastian
President
Public Safety Division

Kevin Merritt
President
Data & Insights Division

CORPORATE HEADQUARTERS

5101 Tennyson Parkway
Plano, Texas 75024
972.713.3700
tylertech.com

TRANSFER AGENT AND REGISTRAR

American Stock Transfer & Trust Company
6201 15th Avenue
Brooklyn, New York 11219
800.937.5449
help@astfinancial.com
amstock.com

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Ernst & Young LLP
Dallas, Texas

ANNUAL MEETING OF STOCKHOLDERS

Tuesday, May 7, 2019
9:30 a.m. Central Time
Renaissance Dallas at Plano Legacy West Hotel
6007 Legacy Drive
Plano, Texas 75024

CERTIFICATIONS

We submitted an unqualified Annual CEO Certification to the New York Stock Exchange (NYSE) as required by the NYSE Listed Company rules. We also filed with the Securities and Exchange Commission the Chief Executive Officer and Chief Financial Officer certifications required under Section 302 of the Sarbanes-Oxley Act as exhibits to our Annual Report on Form 10-K.

INVESTOR INFORMATION

Our annual report on Form 10-K is available on the company's website at tylertech.com. A copy of the Form 10-K or other information may also be obtained by contacting the Investor Relations Department at corporate headquarters.

INVESTOR RELATIONS

972.713.3714
info@tylertech.com

COMMON STOCK

Listed on the New York Stock Exchange under the symbol "TYL"

TYL LISTED NYSE

Empowering people who serve the public®

5101 Tennyson Parkway | Plano, TX 75024
972.713.3700

TYLERTECH.COM

Tyler Technologies' Appraisal & Tax Division provides systems and software that automate the appraisal and assessment of real and personal property, including record keeping, mass appraisal, inquiry and protest tracking, appraisal and tax roll generation, tax statement processing and electronic state-level reporting. These systems are image and video-enabled to facilitate the storage of and access to the many property-related documents and for the online storage of digital photographs of properties for use in defending values in protest situations. Other related tax applications are available for agencies that bill and collect taxes, including cities, counties, school tax offices, and special taxing and collection agencies. These systems support billing, collections, lock box operations, mortgage company electronic payments, and various reporting requirements.

Tyler Technologies' Public Safety Division provides public safety software that is a fully unified and comprehensive solution for law enforcement, fire and EMS, including 911/computer aided dispatch ("CAD"), records management, mobile computing, corrections management, Web-based information sharing and decision support. The modules are fully integrated, utilizing a common database and providing full functionality between modules, reducing data entry. The software provides fast, efficient dispatching, and quick access to records, reports and actionable information from an agency's database.

Please also see attached 2018 Annual Report.

NYS Department of State

Division of Corporations

Entity Information

The information contained in this database is current through March 27, 2019.

Selected Entity Name: TYLER TECHNOLOGIES, INC.
Selected Entity Status Information

Current Entity Name:	TYLER TECHNOLOGIES, INC.
DOS ID #:	3168959
Initial DOS Filing Date:	FEBRUARY 25, 2005
County:	ALBANY
Jurisdiction:	DELAWARE
Entity Type:	FOREIGN BUSINESS CORPORATION
Current Entity Status:	ACTIVE

Selected Entity Address Information

DOS Process (Address to which DOS will mail process if accepted on behalf of the entity)

TYLER TECHNOLOGIES, INC.
5101 TENNYSON PARKWAY
PLANO, TEXAS, 75024

Chief Executive Officer

JOHN S MARR JR
5101 TENNYSON PARKWAY
PLANO, TEXAS, 75024

Principal Executive Office

TYLER TECHNOLOGIES, INC.
5101 TENNYSON PARKWAY
PLANO, TEXAS, 75024

Registered Agent

CAPITOL SERVICES, INC.
1218 CENTRAL AVENUE, SUITE 100
ALBANY, NEW YORK, 12205

This office does not record information regarding the names and addresses of officers, shareholders or directors of nonprofessional corporations except the chief executive officer, if provided, which would be listed above. Professional corporations must include the name(s) and address(es) of the initial officers, directors, and shareholders in the initial certificate of incorporation, however this information is not recorded and only available by viewing the certificate.

***Stock Information**

# of Shares	Type of Stock	$ Value per Share
No Information Available		

*Stock information is applicable to domestic business corporations.

Name History

Filing Date	Name Type	Entity Name
FEB 25, 2005	Actual	TYLER TECHNOLOGIES, INC.

A **Fictitious** name must be used when the **Actual** name of a foreign entity is unavailable for use in New York State. The entity must use the fictitious name when conducting its activities or business in New York State.

NOTE: New York State does not issue organizational identification numbers.

COUNTY OF NASSAU

CONSULTANT'S, CONTRACTOR'S AND VENDOR'S DISCLOSURE FORM

1. Name of the Entity: Tyler Technologies, Inc.

Address: 5101 Tennyson Parkway

City: Plano State: TX Zip Code: 75024

2. Entity's Vendor Identification Number: 752303920

3. Type of Business: Public Corp (specify)

4. List names and addresses of all principals; that is, all individuals serving on the Board of Directors or comparable body, all partners and limited partners, all corporate officers, all parties of Joint Ventures, and all members and officers of limited liability companies (attach additional sheets if necessary):

See attached file(s):
YES [X] NO [ ]

5. List names and addresses of all shareholders, members, or partners of the firm. If the shareholder is not an individual, list the individual shareholders/partners/members. If a Publicly held Corporation, include a copy of the 10K in lieu of completing this section.
If none, explain.

6. List all affiliated and related companies and their relationship to the firm entered on line 1. above (if none, enter "None"). Attach a separate disclosure form for each affiliated or subsidiary company that may take part in the performance of this contract. Such disclosure shall be updated to include affiliated or subsidiary companies not previously disclosed that participate in the performance of the contract.

Tyler Technologies A&T Services, LLC - wholly owned subsidiary of Tyler Technologies, Inc.
Tyler Appraisal & Tax Services, ULC - wholly owned subsidiary of Tyler Technologies A&T Services, LLC
Socrata, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Micropact, Inc. - wholly owned subsidiary of Tyler Technologies, Inc.
Tyler Technologies Australia PTY LTD - wholly owned subsidiary of Tyler Technologies, Inc.

None of the above listed subsidiaries will be taking part in the performance of the contracts.

7. List all lobbyists whose services were utilized at any stage in this matter (i.e., pre-bid, bid, post-bid, etc.). If none, enter "None." The term "lobbyist" means any and every person or organization retained, employed or designated by any client to influence - or promote a matter before - Nassau County, its agencies, boards, commissions, department heads, legislators or committees, including but not limited to the Open Space and Parks Advisory Committee and Planning Commission. Such matters include, but are not limited to, requests for proposals, development or improvement of real property subject to County regulation, procurements. The term "lobbyist" does not include any officer, director, trustee, employee, counsel or agent of the County of Nassau, or State of New York, when discharging his or her official duties.

Are there lobbyists involved in this matter?
YES [ ] NO [X]

(a) Name, title, business address and telephone number of lobbyist(s):
None

(b) Describe lobbying activity of each lobbyist. See below for a complete description of lobbying activities.
None

(c) List whether and where the person/organization is registered as a lobbyist (e.g., Nassau County, New York State):

None

8. VERIFICATION: This section must be signed by a principal of the consultant, contractor or Vendor authorized as a signatory of the firm for the purpose of executing Contracts.

The undersigned affirms and so swears that he/she has read and understood the foregoing statements and they are, to his/her knowledge, true and accurate.

Electronically signed and certified at the date and time indicated by:
Abigail Diaz [ABIGAIL.DIAZ@TYLERTECH.COM]

Dated: 06/05/2019 10:18:51 AM

Title: Chief Legal Officer

The term lobbying shall mean any attempt to influence: any determination made by the Nassau County Legislature, or any member thereof, with respect to the introduction, passage, defeat, or substance of any local legislation or resolution; any determination by the County Executive to support, oppose, approve or disapprove any local legislation or resolution, whether or not such legislation has been introduced in the County Legislature; any determination by an elected County official or an officer or employee of the County with respect to the procurement of goods, services or construction, including the preparation of contract specifications, including by not limited to the preparation of requests for proposals, or solicitation, award or administration of a contract or with respect to the solicitation, award or administration of a grant, loan, or agreement involving the disbursement of public monies; any determination made by the County Executive, County Legislature, or by the County of Nassau, its agencies, boards, commissions, department heads or committees, including but not limited to the Open Space and Parks Advisory Committee, the Planning Commission, with respect to the zoning, use, development or improvement of real property subject to County regulation, or any agencies, boards, commissions, department heads or committees with respect to requests for proposals, bidding, procurement or contracting for services for the County; any determination made by an elected county official or an officer or employee of the county with respect to the terms of the acquisition or disposition by the county of any interest in real property, with respect to a license or permit for the use of real property of or by the county, or with respect to a franchise, concession or revocable consent; the proposal, adoption, amendment or rejection by an agency of any rule having the force and effect of law; the decision to hold, timing or outcome of any rate making proceeding before an agency; the agenda or any determination of a board or commission; any determination regarding the calendaring or scope of any legislature oversight hearing; the issuance, repeal, modification or substance of a County Executive Order; or any determination made by an elected county official or an officer or employee of the county to support or oppose any state or federal legislation, rule or regulation, including any determination made to support or oppose that is contingent on any amendment of such legislation, rule or regulation, whether or not such legislation has been formally introduced and whether or not such rule or regulation has been formally proposed.

Tyler Technologies, Incorporated	
Corporate Officers	**Board of Directors**
H. Lynn Moore Jr. President and Chief Executive Officer 5101 Tennyson Parkway, Plano, Texas 75024	**John S. Marr Jr.** Executive Chairman of the Board, Tyler Technologies, Inc. One Tyler Drive, Yarmouth, Maine 04096
Brian K. Miller Executive Vice President, Chief Financial Officer and Treasurer 5101 Tennyson Parkway, Plano, Texas 75024	**H. Lynn Moore Jr.** President and Chief Executive Officer, Tyler Technologies, Inc. 5101 Tennyson Parkway, Plano, Texas 75024
Matthew B. Bieri Chief Information Officer 5101 Tennyson Parkway, Plano, Texas 75024	**Donald R. Brattain** President, Brattain and Associates, LLC 2827 Flight Safety Drive Vero Beach, Florida 32960
Brett Cate Chief Sales Officer 5519 53rd Street, Lubbock, Texas 79414	**Glenn A. Carter** Retired Chief Executive Officer, DataProse, Inc. 5101 Tennyson Parkway Plano, Texas 75024
Samantha B. Crosby Chief Marketing Officer 5101 Tennyson Parkway, Plano, Texas 75024	**Brenda A. Cline** Executive Vice President, Kimbell Art Foundation 301 Commerce Street Fort Worth, Texas 76102
Abigail Diaz Chief Legal Officer One Tyler Drive, Yarmouth, Maine 04096	**J. Luther King Jr.** Chief Executive Officer, Luther King Capital Management 301 Commerce Street, Suite 1600 Fort Worth, Texas 76102
Bruce E. Graham Chief Strategy Officer and Interim President, Courts & Justice Division 5101 Tennyson Parkway, Plano, Texas 75024	**Daniel M. Pope** Mayor, City of Lubbock, Texas 1625 13th Street Lubbock, Texas 79401
Jeff Green Chief Technology Officer 1601 East Valley Road, Suite 200, Renton, Washington 98057	**Dustin R. Womble** Retired Executive Vice President, Tyler Technologies, Inc. 5519 53rd Street Lubbock, Texas 79414
Kelley Shimansky, Chief Human Resources Officer One Tyler Drive, Yarmouth, Maine 04096	
W. Michael Smith Chief Accounting Officer 5101 Tennyson Parkway, Plano, Texas 75024	

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934
For the Fiscal Year Ended December 31, 2017
OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission File Number 1-10485

TYLER TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	75-2303920
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification no.)
5101 Tennyson Parkway Plano, Texas	75024
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: (972) 713-3700

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
COMMON STOCK, $0.01 PAR VALUE	NEW YORK STOCK EXCHANGE

Securities registered pursuant to Section 12(g) of the Act:

NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark if disclosure of delinquent filer pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of the Form 10-K or any amendment to the Form 10-K. YES ☐ NO ☒

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data file required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer (Do not check if smaller reporting company)	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act.) YES ☐ NO ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant was $6,107,280,000 based on the reported last sale price of common stock on June 30, 2017, which is the last business day of the registrant's most recently completed second fiscal quarter.

The number of shares of common stock of the registrant outstanding on February 20, 2018 was 37,901,000

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Part III of this annual report is incorporated by reference from the registrant's definitive proxy statement for its annual meeting of stockholders to be held on May 9, 2018.

TYLER TECHNOLOGIES, INC.
FORM 10-K
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PART I

ITEM 1. BUSINESS.

DESCRIPTION OF BUSINESS

Tyler Technologies, Inc. ("Tyler") is a major provider of integrated information management solutions and services for the public sector, with a focus on local governments. We partner with clients to make local government more accessible to the public, more responsive to the needs of citizens and more efficient in its operations. We have a broad line of software solutions and services to address the information technology ("IT") needs of major areas of operations for cities, counties, schools and other local government entities. Most of our clients have our software installed in-house. For clients who prefer not to physically acquire the software and hardware, most of our software applications can be delivered as software as a service ("SaaS"), which utilize the Tyler private cloud. We provide professional IT services to our clients, including software and hardware installation, data conversion, training and, at times, product modifications. In addition, we are the nation's largest provider of outsourced property appraisal services for taxing jurisdictions. We also provide continuing client support services to ensure product performance and reliability, which provides us with long-term client relationships and a significant base of recurring maintenance revenue. In addition, we provide electronic document filing ("e-filing") solutions, which simplify the filing and management of court documents.

Tyler was founded in 1966. Prior to 1998, we operated as a diversified industrial conglomerate, with operations in various industrial, retail and distribution businesses, all of which have been divested. In 1997, we embarked on a multi-phase growth plan focused on serving the specialized information management needs of local governments nationwide. We entered the local government IT market through a series of strategic acquisitions in 1998 and 1999.

MARKET OVERVIEW

The state and local government market is one of the largest and most decentralized IT markets in the country, consisting of all 50 states, approximately 3,000 counties, 36,000 cities and towns and 13,900 school districts. This market is also comprised of approximately 37,000 special districts and other agencies, each with specialized delegated responsibilities and unique information management requirements.

Traditionally, local government bodies and agencies performed state-mandated duties, including property assessment, record keeping, road maintenance, law enforcement, administration of election and judicial functions, and the provision of welfare assistance. Today, a host of emerging and urgent issues are confronting local governments, each of which demands a service response. These areas include criminal justice and corrections, administration and finance, public safety, health and human services, planning, regulatory and maintenance and records and document management. Transfers of responsibility from the federal and state governments to county and municipal governments and agencies in these and other areas also place additional service and financial requirements on these local government units. In addition, constituents of local governments are increasingly demanding improved service and better access to information from public entities. As a result, local governments recognize the increasing value of information management systems and services to, among other things, improve revenue collection, provide increased access to information, and streamline delivery of services to their constituents. Local government bodies are now recognizing that "e-government" is an additional responsibility for community development. From integrated tax systems to integrated civil and criminal justice information systems, many counties and cities have benefited significantly from the implementation of jurisdiction-wide systems that allow different agencies or government offices to share data and provide a more comprehensive approach to information management. Many city and county governmental agencies also have unique individual information management requirements, which must be tailored to the specific functions of each particular office.

Many local governments also have difficulties attracting and retaining the staff necessary to support their IT functions. As a result, they seek to establish long-term relationships with reliable providers of high quality IT products and services such as Tyler.

Although local governments generally face budgetary constraints in their operations, their primary revenue sources are usually property taxes, and to a lesser extent, utility billings and other fees, which historically tend to be relatively stable. In addition, the acquisition of new technology typically enables local governments to operate more efficiently, and often provides a measurable return on investment that justifies the purchase of software and related services.

Gartner, Inc., a leading information technology research and advisory company, estimates that state and local government application and vertical specific software spending will grow from $14.7 billion in 2018 to $18.3 billion in 2021. The professional services and support segments of the market are expected to expand from $30.7 billion in 2018 to $34.4 billion in 2021. Application and vertical specific software sales in the primary and secondary education segments of the market is expected to expand from $2.6 billion in 2018 to $3.3 billion in 2021 while professional services and support are expected to grow from $2.3 billion in 2018 to $2.5 billion in 2021.

PRODUCTS AND SERVICES

We provide a comprehensive and flexible suite of products and services that addresses the information technology needs of cities, counties, schools and other local government entities. We derive our revenues from five primary sources:

- Sales of software licenses and royalties
- Subscription-based arrangements
- Software services
- Maintenance and support
- Appraisal services

We design, develop, market and support a broad range of software solutions to serve mission-critical "back-office" functions of local governments. Many of our software applications include Internet-accessible solutions that allow for real-time public access to a variety of information or that allow the public to transact business with local governments via the Internet. Our software solutions and services are generally grouped in six major areas:

- Financial Management and Education
- Courts and Justice
- Public Safety
- Property Appraisal and Tax
- Planning, Regulatory and Maintenance
- Land and Vital Records Management

Each of our core software systems consists of several fully integrated applications. For clients who acquire software for use in-house, we generally license our systems under standard perpetual license agreements that provide the client with a fully paid, nonexclusive, nontransferable right to use the software. In some of the product areas, such as financial management and education and property appraisal and tax, we offer multiple solutions designed to meet the needs of different sized governments.

We also offer SaaS arrangements, which utilize the Tyler private cloud, for clients who do not wish to maintain, update and operate these systems or to make up-front capital expenditures to implement these advanced technologies. For these clients, the software and client data are hosted at our data centers or at third-party locations, and clients typically sign multi-year contracts for these subscription-based services.

Historically, we have had a greater proportion of our annual revenues in the second half of our fiscal year due to governmental budget and spending cycles and the timing of system implementations for clients desiring to "go live" at the beginning of the calendar year.

A description of our suites of products and services follows:

<u>Software Licenses</u>

Financial Management and Education

Our financial management and education solutions are enterprise resource planning systems for local governments, which integrate information across all facets of a client organization. Our financial management solutions include modular fund accounting systems that can be tailored to meet the needs of virtually any government agency or not-for-profit entity. Our financial management systems include modules for general ledger, budget preparation, fixed assets, requisitions, purchase orders, bid management, accounts payable, contract management, accounts receivable, investment management, inventory control, project and grant accounting, work orders, job costing, GASB reporting, payroll and human resources. All of our financial management systems are intended to conform to government auditing and financial reporting requirements and generally accepted accounting principles.

We sell utility billing systems that support the billing and collection of metered and non-metered services, along with multiple billing cycles. Our Web-enabled utility billing solutions allow clients to access information online such as average consumption and transaction history. In addition, our systems can accept secured Internet payments via credit cards and checks.

We also offer specialized products that automate numerous city functions, including municipal courts, parking tickets, equipment and project costing, animal licenses, business licenses, permits and inspections, code enforcement, citizen complaint tracking, ambulance billing, fleet maintenance, and cemetery records management.

In addition to providing financial management systems to K-12 schools, we sell student information systems for K-12 schools, which manage such activities as scheduling, grades and attendance. We also offer student transportation solutions to manage school bus routing optimization, fleet management, field trips and other related functions.

Tyler's financial management and education solutions include Web components that enhance local governments' service capabilities by facilitating online access to information for both employees and citizens and enabling online transactions.

Courts and Justice

We offer a complete, fully integrated suite of judicial solutions designed to handle complex, multi-jurisdictional county or statewide implementations as well as single county systems. Our solutions help eliminate duplicate data entry, promote more effective business procedures and improve efficiency across the entire justice process.

Our unified court case management system is designed to automate the tracking and management of information involved in all case types, including criminal, traffic, civil, family, probate and juvenile courts. It also tracks the status of cases, processes fines and fees and generates the specialized judgment and sentencing documents, notices and forms required in the court process. Documents received by the court can be scanned into the electronic case file and easily retrieved for viewing. Documents generated by the court can be electronically signed and automatically attached to the electronic case file. Additional modules automate the management of court calendars, coordinate judges' schedules and generate court dockets. Our targeted courtroom technologies allow courts to rapidly review calendars, cases and view documents in the courtroom. Courts may also take advantage of our related jury management system.

Our court and law enforcement systems allow the public to access, via the Internet, a variety of information, including non-confidential criminal and civil court records, jail booking and release information, bond and bondsmen information, and court calendars and dockets. In addition, our systems allow cities and counties to accept payments for traffic and parking tickets over the Internet, with a seamless and automatic interface to back-office justice and financial systems.

Our prosecutor system enables state attorney offices to track and manage criminal cases, including detailed victim information and private case notes. Investigative reports and charging instrument documents can be generated and stored for later viewing. Prosecutors can schedule and record the outcome of grand jury hearings. When integrated with the court system, prosecutors can view the electronic case file and related documents, as well as manage witness lists and subpoenas needed for court hearings.

Our supervision system allows pre-trial and probation offices to manage offender caseloads. Supervision officers can track contact schedules, risk/needs assessments and reassessments, detailed drug test results, employment histories, compliance with conditions and payments of fees and restitution. Documents and forms, like pre-sentence investigations or revocation orders, can be generated and stored for easy viewing. When integrated with the jail and court systems, supervision officers obtain easy access and quick notification of offenders that have court hearings scheduled, are arrested locally, and have new warrants issued.

We also offer a court case management solution that automates and tracks all aspects of municipal courts and offices. It is a fully integrated, graphical application that provides effective case management, document processing and cash/bond management. This system complies with all state reporting and conviction reports and includes electronic reporting and also integrates with certain of our financial management solutions and public safety solutions.

Public Safety

Our public safety software is a fully unified and comprehensive solution for law enforcement, fire and EMS, including 911 / computer aided dispatch ("CAD"), records management, mobile computing, corrections management, Web-based information sharing and decision support. The modules are fully integrated, utilizing a common database and providing full functionality between modules, reducing data entry. The software provides fast, efficient dispatching, and quick access to records, reports and actionable information from an agency's database.

Our 911 / CAD solutions provide real-time, critical response dispatch functions in either single- or multi-jurisdictional environments. When integrated with our records management software, a vital link exists between dispatch and the most comprehensive records database available. Within seconds, the dispatch operator and the officer in the field can access critical information, such as prior incidents and outstanding warrants, increasing officer knowledge and safety. The solutions offer strong geographic information systems integration to help dispatchers quickly locate and send the best response during an emergency. Tyler's 911 / CAD solutions dramatically improve performance, response time and unit safety.

Our records management solutions for law enforcement and fire track statistical, operational, investigative and management data for inquiry and reporting. The systems create an efficient case processing workflow and help solve crimes with an accessible database that maintains central files on people, places, property, vehicles and criminal activity. Tyler's public safety records management solutions enable easy access to information and simplify reporting.

Our mobile computing solutions for law enforcement and fire provide instant access to local, state, regional and federal databases via mobile devices. Officers and firefighters can experience the benefits of obtaining critical, real-time information in the field, while saving time by preparing reports directly in their vehicles.

Our jail management systems document and manage information that meets the requirements of a modern jail facility. This includes the booking and housing of persons in custody, supervising defendants on a pre-trial release, maintaining offenders sentenced to local incarceration and billing other agencies for housing inmates. Searching, reporting and tracking features are integrated, allowing reliable, up-to-date access to current arrest and incarceration data, including digital mug shots. Our systems also provide warrant checks for visitors or book-ins, inmate classification and risk assessment, commissary, property and medical processing, automation of statistics, and state and federal reporting.

Our civil processing solutions manage civil process needs from document receipt through service, payment process and final closeout. We also have a mobile electronic citation solution through which law enforcement officers can easily enter citation information in a mobile device, which is automatically uploaded into the court or public safety records management systems, rather than hand-writing citations that must be re-entered into the systems.

We significantly expanded our presence in the public safety market with our acquisition of New World Systems Corporation in November 2015.

Property Appraisal and Tax

We provide systems and software that automate the appraisal and assessment of real and personal property, including record keeping, mass appraisal, inquiry and protest tracking, appraisal and tax roll generation, tax statement processing, and electronic state-level reporting. These systems are image and video-enabled to facilitate the storage of and access to the many property-related documents and for the online storage of digital photographs of properties for use in defending values in protest situations. Other related tax applications are available for agencies that bill and collect taxes, including cities, counties, school tax offices, and special taxing and collection agencies. These systems support billing, collections, lock box operations, mortgage company electronic payments, and various reporting requirements.

Planning, Regulatory and Maintenance

Our planning, regulatory and maintenance software solutions are designed for public sector agencies such as community development, planning, building, code enforcement, tax and revenues, public works, transportation, land control, environmental, fire safety, storm water management, regulatory controls and engineering. These solutions help public sector agencies better manage their day-to-day business functions while streamlining and automating the many aspects of their land management, permitting and planning systems. Our mobile solutions extend automation to the field and Web access brings online services to citizens 24 hours a day, 365 days a year.

Land and Vital Records Management

We also offer a number of specialized software applications designed to help local governments enhance and automate operations involving records and document management. These systems record, scan and index information for the many documents maintained by local governments, such as deeds, mortgages, liens, UCC financing statements and vital records (birth, death and marriage certificates). These applications include fully integrated imaging systems with batch and scan processing capabilities and fully integrated receipting and cashiering systems, as well as Web-enabled public access.

Our content management solutions allow state and local governments and school districts to capture, deliver, manage and archive electronic information. These solutions streamline the flow of digital information throughout the organization to increase efficiency by transforming paper forms and documents into electronic images that drive key business processes.

Subscription-Based Services

Subscription-based revenue is primarily derived from our SaaS arrangements, which utilize the Tyler private cloud, as well as our transaction based offerings such as e-filing solutions.

We are able to provide the majority of our software products through our SaaS model. The clients who choose this model typically do not wish to maintain, update and operate these systems or make up-front capital expenditures to implement these advanced technologies. The contract terms for these arrangements range from one to 10 years, but are typically contracted for initial periods of three to seven years. The majority of our SaaS or hosting arrangements include additional professional services as well as maintenance and support services. In certain arrangements, the client may also acquire a license to the software.

As part of our subscription-based services, we provide e-filing solutions that simplify the filing and management of court related documents for courts and law offices. Revenues for e-filing are included in subscription-based revenues and are derived from transaction fees and in some cases, fixed fee arrangements.

Software Services

We provide a variety of professional IT services to clients who utilize our software products. Virtually all of our clients contract with us for installation, training, and data conversion services in connection with their implementation of Tyler's software solutions. The complete implementation process for a typical system includes planning, design, data conversion, set-up and testing. At the culmination of the implementation process, a data implementation team is generally onsite at the client's facility to ensure the smooth go-live with the new system. Implementation fees are charged separately to clients on either a fixed-fee or hourly charge basis, depending on the contract.

Both in connection with the installation of new systems and on an ongoing basis, we provide extensive training services and programs related to our products and services. Training can be provided in our training centers, onsite at clients' locations, or at meetings and conferences and can be customized to meet clients' requirements. The vast majority of our clients contract with us for training services, both to improve their employees' proficiency and productivity and to fully utilize the functionality of our systems. Training services are generally billed on an hourly or daily basis, along with travel and other expenses.

Maintenance and Support

Following the implementation of our software systems, we provide ongoing software support services to assist our clients in operating the systems and to periodically update the software. Support is provided to clients over the phone or via the Web through help desks staffed by our client support representatives. For more complicated issues, our staff, with the clients' permission, can log on to clients' systems remotely. We maintain our clients' software largely through releases that contain improvements and incremental additions of features and functionality, along with updates necessary because of legislative or regulatory changes.

Virtually all of our software clients contract with us for maintenance and support, which provides us with a significant source of recurring revenue. We generally provide maintenance and support for our on-premises clients under annual, or in some cases, multi-year contracts, with a typical fee based on a percentage of the software product's license fee. These fees can generally be increased on renewal and may also increase as new license fees increase. Maintenance and support fees are generally paid annually in advance. Most maintenance contracts automatically renew unless the client or Tyler gives notice of termination prior to expiration. Similar support is provided to our SaaS clients and is included in their subscription fees, which are classified as subscription-based revenues.

Appraisal Services

We are the nation's largest provider of property appraisal outsourcing services for local government taxing authorities. These services include

- The physical inspection of commercial and residential properties
- Data collection and processing
- Sophisticated computer analyses for property valuation
- Preparation of tax rolls
- Community education regarding the assessment process
- Arbitration between taxpayers and the assessing jurisdiction

Local government taxing authorities normally reappraise properties from time to time to update values for tax assessment purposes and to maintain equity in the taxing process. In some jurisdictions, law mandates reassessment cycles; in others, they are discretionary. While some taxing jurisdictions perform reappraisals in-house, many local governments outsource this function because of its cyclical nature and because of the specialized knowledge and expertise requirements associated with it. Our appraisal services business unit has been in this business since 1938.

In some instances, we also sell property tax and/or appraisal software products in connection with appraisal outsourcing projects, while other clients may only engage us to provide appraisal services. Appraisal outsourcing services are somewhat seasonal in nature to the extent that winter weather conditions reduce the productivity of data collection activities in connection with those projects.

STRATEGY

Our objective is to grow our revenue and earnings organically, supplemented by focused strategic acquisitions. The key components of our business strategy are to

- Provide high quality, value-added products and services to our clients. We compete on the basis of, among other things, delivering to clients our deep domain expertise in local government operations through the highest value products and services in the market. We believe we have achieved a reputation as a premium product and service provider to the local government market.

- Continue to expand our product and service offerings. While we already have what we believe to be the broadest line of software products for local governments, we continually upgrade our core software applications and expand our complementary product and service offerings to respond to technological advancements and the changing needs of our clients. In 2010, we began providing e-filing for courts and law offices, which simplifies the filing and management of court related documents. We believe revenue from e-filing solutions will continue to grow over time as more local and state governments mandate electronic document filings. We also offer solutions that allow the public to access data and conduct transactions with local governments, such as paying traffic tickets, property taxes and utility bills online. We believe that the addition of such features enhances the market appeal of our core products. We have also broadened our offerings of consulting and business process reengineering services. In November 2015, we significantly expanded our presence in the public safety software market through the acquisition of New World Systems Corporation.

- Expand our client base. We seek to establish long-term relationships with new clients primarily through our sales and marketing efforts. While we currently have clients in all 50 states, Canada, the Caribbean, the United Kingdom, Australia, and other international locations, not all of our solutions have achieved nationwide geographic penetration. We intend to continue to expand into new geographic markets by adding sales staff and targeting marketing efforts by solutions in those areas. We also intend to continue to expand our customer base to include more large governments. While our traditional market focus has primarily been on small and mid-sized governments, our increased size and market presence, together with the technological advances and improved scalability of certain of our solutions, are allowing us to achieve increasing success in selling to larger clients. We also expect to expand our presence in international markets by leveraging our leadership position in the United States through the disciplined pursuit of selected opportunities in other countries.

- Expand our existing client relationships. Our existing customer base offers significant opportunities for additional sales of solutions and services that we currently offer, but that existing clients do not fully utilize. Add-on sales to existing clients typically involve lower sales and marketing expenses than sales to new clients.

- Grow recurring revenues. We have a large recurring revenue base from maintenance and support and subscription-based services, which generated revenues of $535.1 million, or 64% of total revenues, in 2017. We have historically experienced very low customer turnover (approximately 2% annually) and recurring revenues continue to grow as the installed customer base increases. Subscription-based revenues have been our fastest growing revenue category over the past five years, increasing from $61.9 million in 2013 to $173.5 million in 2017.

- Maximize economies of scale and take advantage of financial leverage in our business. We seek to build and maintain a larger client base to create economies of scale, enabling us to provide value-added products and services to our clients while expanding our operating margins. Because we sell primarily "off-the-shelf" software, increased sales of the same solutions result in incrementally higher gross margins. In addition, we believe that we have a marketing and administrative infrastructure in place that can be leveraged to accommodate significant long-term growth without proportionately increasing selling, general and administrative expenses.

- Attract and retain highly qualified employees. We believe that the depth and quality of our management and staff is one of our significant strengths, and that the ability to retain such employees is crucial to our continued growth and success. We believe that our stable management team, financial strength and growth opportunities, as well as our leadership position in the local government market, enhance our attractiveness as an employer for highly skilled employees.

- Pursue selected strategic acquisitions. While we expect to primarily grow internally, from time to time we selectively pursue strategic acquisitions that provide us with one or more of the following

    - New products and services to complement our existing offerings
    - Entry into new markets related to local governments
    - New clients and/or geographic expansion

- Establish strategic alliances. In January 2007, we announced a strategic alliance with Microsoft Corporation to jointly develop core public sector functionality for Microsoft Dynamics AX to address the unique accounting needs of public sector organizations worldwide. As part of this alliance, we are enhancing Microsoft Dynamics AX with public sector-specific functionality. The arrangement has broadened the functionality of Microsoft Dynamics AX, providing both Tyler and Microsoft with a public sector accounting platform to support their existing and prospective clients well into the future. Microsoft Dynamics AX with public sector functionality was released to the market in August 2011 and is being sold in the United States and internationally through Microsoft's distribution channels. Tyler is also an authorized Microsoft reseller for the Microsoft Dynamics solutions developed under this arrangement. Tyler receives license and maintenance royalties on direct and indirect public-sector sales worldwide.

Our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX was amended in March 2016 and significantly reduced our development commitment through March 2018. However, we will continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX.

SALES, MARKETING, AND CLIENTS

We market our products and services through direct sales and marketing personnel located throughout the United States. Other in-house sales staff focus on add-on sales, professional services and support.

Sales of new systems are typically generated from referrals from other government offices or departments within a county or municipality, referrals from other local governments, relationships established between sales representatives and county or local officials, contacts at trade shows, direct mailings, and direct contact from prospects already familiar with us. We are active in numerous national, state, county, and local government associations, and participate in annual meetings, trade shows, and educational events.

Clients consist primarily of county and municipal agencies, school districts and other local government offices. In counties, clients include the auditor, treasurer, tax assessor/collector, county clerk, district clerk, county and district court judges, probation officers, sheriff, and county appraiser. At municipal government sites, clients include directors from various departments, including administration, finance, utilities, public works, code enforcement, personnel, purchasing, taxation, municipal court, and police. Contracts for software products and services are generally implemented over periods of three months to one year, although some complex implementations may span multiple years, with annually renewing maintenance and support update agreements thereafter. Although either the client or we can terminate these agreements, historically almost all support and maintenance agreements are automatically renewed annually. During 2017, approximately 43% of our revenue was attributable to ongoing support and maintenance agreements. Contracts for appraisal outsourcing services are generally one to three years in duration.

COMPETITION

We compete with numerous local, regional, and national firms that provide or offer some or many of the same solutions and services that we provide. Many of these competitors are smaller companies that may be able to offer less expensive solutions than ours. Many of these firms operate within a specific geographic area and/or in a narrow product or service niche. We also compete with national firms, some of which have greater financial and technical resources than we do, including Oracle Corporation, Infor, SAP AG, Workday, Inc., Superion, Thomson Reuters Corporation, and Constellation Software, Inc. In addition, we sometimes compete with consulting and systems integration firms, which develop custom systems, primarily for larger governments. We also occasionally compete with central internal information service departments of local governments, which requires us to persuade the end-user department to discontinue service by its own personnel and outsource the service to us.

We compete on a variety of factors, including price, service, name recognition, reputation, technological capabilities, and the ability to modify existing products and services to accommodate the individual requirements of the client. Our ability to offer an integrated system of applications for several offices or departments is often a competitive advantage. Local governmental units often are required to seek competitive proposals through a request for proposal process and some prospective clients use consultants to assist them with the proposal and vendor selection process.

SUPPLIERS

Substantially all of the computers, peripherals, printers, scanners, operating system software, office automation software, and other equipment necessary for the implementation and provision of our software systems and services are presently available from several third-party sources. Hardware is purchased on original equipment manufacturer or distributor terms at discounts from retail. We have not experienced any significant supply problems.

BACKLOG

At December 31, 2017, our estimated revenue backlog was approximately $1.1 billion, compared to $953.3 million at December 31, 2016. The backlog represents signed contracts under which the revenue has not been recognized as of year-end. Approximately $578.2 million, or 52%, of the backlog is expected to be recognized during 2018.

INTELLECTUAL PROPERTY, PROPRIETARY RIGHTS, AND LICENSES

We regard certain features of our internal operations, software, and documentation as confidential and proprietary and rely on a combination of contractual restrictions, trade secret laws and other measures to protect our proprietary intellectual property. We generally do not rely on patents. We believe that, due to the rapid rate of technological change in the computer software industry, trade secrets and copyright protection are less significant than factors such as knowledge, ability and experience of our employees, frequent product enhancements, and timeliness and quality of support services. We typically license our software products under non-exclusive license agreements, which are generally non-transferable and have a perpetual term.

EMPLOYEES

At December 31, 2017, we had 4,069 employees. None of our employees are represented by a labor union or are subject to collective bargaining agreements. We consider our relations with our employees to be positive.

INTERNET WEBSITE AND AVAILABILITY OF PUBLIC FILINGS

We file annual, quarterly, current and other reports, proxy statements and other information with the Securities and Exchange Commission, or SEC, pursuant to the Securities Exchange Act. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room by calling the SEC at 1-800-732-0330. The SEC maintains an Internet site that contains reports, proxy and other information statements, and other information regarding issuers, including us, that file electronically with the SEC. The address of this site is http://www.sec.gov.

We also maintain a website at www.tylertech.com. We make available free of charge through this site our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Forms 4 and 5, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. In addition, copies of our annual report will be made available, free of charge upon written request.

Our "Code of Business Conduct and Ethics" is also available on our website. We intend to satisfy the disclosure requirements regarding amendments to, or waivers from, a provision of our Code of Business Conduct and Ethics by posting such information on our website.

ITEM 1A. RISK FACTORS.

An investment in our common stock involves a high degree of risk. Investors evaluating our company should carefully consider the factors described below and all other information contained in this Annual Report. Any of the following factors could materially harm our business, operating results, and financial condition. Additional factors and uncertainties not currently known to us or that we currently consider immaterial could also harm our business, operating results, and financial condition. This section should be read in conjunction with the Financial Statements and related Notes and Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Annual Report. We may make forward-looking statements from time to time, both written and oral. We undertake no obligation to revise or publicly release the results of any revisions to these forward-looking statements. Our actual results may differ materially from those projected in any such forward-looking statements due to a number of factors, including those set forth below and elsewhere in this Annual Report.

Risks Associated with Our Software Products

Cyber-attacks and security vulnerabilities can disrupt our business and harm our competitive position.

Threats to IT security can take a variety of forms. Individuals and groups of hackers, and sophisticated organizations including state-sponsored organizations, may take steps that pose threats to our clients and our IT. They may develop and deploy malicious software to attack our products and services and gain access to our networks and data centers, or act in a coordinated manner to launch distributed denial of service or other coordinated attacks. Cyber threats are constantly evolving, thereby increasing the difficulty of detecting and successfully defending against them. Cyber threats can have cascading impacts that unfold with increasing speed across our internal networks and systems and those of our partners and clients. Breaches of our network or data security could disrupt the security of our internal systems and business applications, impair our ability to provide services to our clients and protect the privacy of their data, result in product development delays, compromise confidential or technical business information harming our competitive position, result in theft or misuse of our intellectual property or other assets, require us to allocate more resources to improve technologies, or otherwise adversely affect our business. Our business policies and internal security controls may not keep pace with these evolving threats.

Disclosure of personally identifiable information and/or other sensitive client data could result in liability and harm our reputation.

We store and process increasingly large amounts of personally identifiable and other confidential information of our clients. The continued occurrence of high-profile data breaches provides evidence of an external environment increasingly hostile to information security. Despite our efforts to improve security controls, it is possible our security controls over personal data, our training of employees on data security, and other practices we follow may not prevent the improper disclosure of client data that we store and manage. Disclosure of personally identifiable information and/or other sensitive client data could result in liability and harm our reputation.

Hosting services for some of our products are dependent upon the uninterrupted operation of data centers.

A material portion of our business is provided through software hosting services. These hosting services depend on the uninterrupted operation of data centers and the ability to protect computer equipment and information stored in these data centers against damage that may be caused by natural disaster, fire, power loss, telecommunications or Internet failure, acts of terrorism, unauthorized intrusion, computer viruses, and other similar damaging events. If any of our data centers were to become inoperable for an extended period, we might be unable to fulfill our contractual commitments. Although we take what we believe to be reasonable precautions against such occurrences, we can give no assurance that damaging events such as these will not result in a prolonged interruption of our services, which could result in client dissatisfaction, loss of revenue, and damage to our business.

We run the risk of errors or defects with new products or enhancements to existing products.

Our software products are complex and may contain errors or defects, especially when first introduced or when new versions or enhancements are released. Although we have not experienced material adverse effects from any such defects or errors to date, we cannot assure you that material defects and errors will not be found in the future. Any such defects could result in a loss of revenues or delay market acceptance. Our license agreements typically contain provisions designed to limit our exposure to potential liability. However, it is possible we may not always successfully negotiate such provisions in our client contracts or the limitation of liability provisions may not be effective due to existing or future federal, state, or local laws, ordinances, or judicial decisions. Although we maintain errors and omissions and general liability insurance, and we try to structure contracts to limit liability, we cannot assure you that a successful claim could not be made or would not have a material adverse effect on our future operating results.

We must timely respond to technological changes to be competitive.

The market for our products is characterized by technological change, evolving industry standards in software technology, changes in client requirements, and frequent new product introductions and enhancements. The introduction of products embodying new technologies and the emergence of new industry standards can render existing products obsolete and unmarketable. As a result, our future success will depend, in part, upon our ability to enhance existing products and develop and introduce new products that keep pace with technological developments, satisfy increasingly sophisticated client requirements, and achieve market acceptance. We cannot assure you that we will successfully identify new product opportunities and develop and bring new products to market in a timely and cost-effective manner. The products, capabilities, or technologies developed by others could also render our products or technologies obsolete or noncompetitive. Our business may be adversely affected if we are unable to develop or acquire new software products or develop enhancements to existing products on a timely and cost-effective basis, or if such new products or enhancements do not achieve market acceptance.

We may be unable to protect our proprietary rights.

Many of our product and service offerings incorporate proprietary information, trade secrets, know-how, and other intellectual property rights. We rely on a combination of contracts, copyrights, and trade secret laws to establish and protect our proprietary rights in our technology. We cannot be certain that we have taken all appropriate steps to deter misappropriation of our intellectual property. There has also been significant litigation recently involving intellectual property rights. We are not currently involved in any material intellectual property litigation; however, we may be a party to such litigation in the future to protect our proprietary information, trade secrets, know-how, and other intellectual property rights. We cannot assure you that third-parties will not assert infringement or misappropriation claims against us with respect to current or future products. Any claims or litigation, with or without merit, could be time-consuming, costly, and a diversion to management. Any such claims and litigation could also cause product shipment delays or require us to enter into royalty or licensing arrangements. Such royalty or licensing arrangements, if required, may not be available on terms acceptable to us, if at all. Therefore, litigation to defend and enforce our intellectual property rights could have a material adverse effect on our business, regardless of the final outcome of such litigation.

Clients may elect to terminate our maintenance contracts and manage operations internally.

It is possible that our clients may elect to not renew maintenance contracts for our software, trying instead to maintain and operate the software themselves using their perpetual license rights (excluding software applications that we provide on a hosted or cloud basis). This could adversely affect our revenues and profits. Additionally, they may inadvertently allow our intellectual property or other information to fall into the hands of third-parties, including our competitors, which could adversely affect our business.

Material portions of our business require the Internet infrastructure to be further developed or adequately maintained.

Part of our future success depends on the use of the Internet as a means to access public information and perform transactions electronically, including, for example, electronic filing of court documents. This in part requires the further development and maintenance of the Internet infrastructure. Among other things, this further development and maintenance will require a reliable network backbone with the necessary speed, data capacity, security, and timely development of complementary products for providing reliable Internet access and services. If this infrastructure fails to be further developed or be adequately maintained, our business would be harmed because users may not be able to access our government portals.

Risks Associated with Selling Products and Services into the Public Sector Marketplace

Selling products and services into the public sector poses unique challenges.

We derive substantially all of our revenues from sales of software and services to state, county, and city governments, other municipal agencies, and other public entities. We expect that sales to public sector clients will continue to account for substantially all of our revenues in the future. We face many risks and challenges associated with contracting with governmental entities, including

- Resource limitations caused by budgetary constraints, which may provide for a termination of executed contracts due to a lack of future funding
- Long and complex sales cycles
- Contract payments at times being subject to achieving implementation milestones, and we may have differences with clients as to whether milestones have been achieved

- Political resistance to the concept of contracting with third-parties to provide IT solutions
- Legislative changes affecting a local government's authority to contract with third-parties
- Varying bid procedures and internal processes for bid acceptance
- Various other political factors, including changes in governmental administrations and personnel

Each of these risks is outside our control. If we fail to adequately adapt to these risks and uncertainties, our financial performance could be adversely affected.

A prolonged economic slowdown could harm our operations.

A prolonged economic slowdown or recession could reduce demand for our software products and services. Local and state governments may face financial pressures that could in turn affect our growth rate and profitability in the future. There is no assurance that local and state spending levels will be unaffected by declining or stagnant general economic conditions, and if budget shortfalls occur, they may negatively impact local and state IT spending and could adversely affect our business.

The open bidding process creates uncertainty in predicting future contract awards.

Many governmental agencies purchase products and services through an open bidding process. Generally, a governmental entity will publish an established list of requirements requesting potential vendors to propose solutions for the established requirements. To respond successfully to these requests for proposals, we must accurately estimate our cost structure for servicing a proposed contract, the time required to establish operations for the proposed client, and the likely terms of any other third-party proposals submitted. We cannot guarantee that we will win any bids in the future through the request for proposal process, or that any winning bids will ultimately result in contracts on favorable terms. Our failure to secure contracts through the open bidding process, or to secure such contracts on favorable terms, may adversely affect our revenue and gross margins.

We face significant competition from other vendors and potential new entrants into our markets.

We believe we are a leading provider of integrated solutions for the public sector. However, we face competition from a variety of software vendors that offer products and services similar to those offered by us, as well as from companies offering to develop custom software. We compete based on a number of factors, including

- The attractiveness of our "evergreen" business strategy
- The breadth, depth, and quality of our product and service offerings
- The ability to modify our offerings to accommodate particular clients' needs
- Technological innovation
- Name recognition, reputation and references
- Price
- Our financial strength and stability

We believe the market is highly fragmented with a large number of competitors that vary in size, product platform, and product scope. Our competitors include consulting firms, publicly held companies that focus on selected segments of the public sector market, and a significant number of smaller, privately held companies. Certain competitors have greater technical, marketing, and financial resources than we do. We cannot assure you that such competitors will not develop products or offer services that are superior to our products or services or that achieve greater market acceptance.

We also compete with internal, centralized IT departments of governmental entities, which requires us to persuade the end-user to stop the internal service and outsource to us. In addition, our clients and prospective clients could elect to provide information management services internally through new or existing departments, which could reduce the market for our services.

We could face additional competition as other established and emerging companies enter the public sector software application market and new products and technologies are introduced. Increased competition could result in pricing pressure, fewer client orders, reduced gross margins, and loss of market share. Current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third-parties, thereby increasing the ability of their products to address the needs of our prospective clients. It is possible that new competitors or alliances may emerge and rapidly gain significant market share. We cannot assure you that we will be able to compete successfully against current and future competitors, and the failure to do so would have a material adverse effect upon our business.

Fixed-price contracts may affect our profits.

Some of our contracts are structured on a fixed-price basis, which can lead to various risks, including

- The failure to accurately estimate the resources and time required for an engagement
- The failure to effectively manage our clients' expectations regarding the scope of services delivered for a fixed fee
- The failure to timely and satisfactorily complete fixed-price engagements within budget

If we do not adequately assess and manage these and other risks, we may be subject to cost overruns and penalties, which may harm our financial performance.

Changes in the insurance markets may affect our business.

Some of our clients, primarily those for our property appraisal services, require that we secure performance bonds before they will select us as their vendor. In addition, we have in the past been required to provide letters of credit as security for the issuance of a performance bond. We cannot guarantee that we will be able to secure such performance bonds in the future on terms that are favorable to us, if at all. Our inability to obtain performance bonds on favorable terms or at all could impact our future ability to win some contract awards, particularly large property appraisal services contracts, which could negatively impact revenues. In addition, the general insurance markets may experience volatility, which may lead to future increases in our general and administrative expenses and negatively impact our operating results.

Risks Associated with Our Periodic Results and Stock Price

Software revenue recognition rules may require us to delay revenue recognition into future periods.

We have in the past had to, and may in the future be required to, defer revenue recognition for software license fees due to several factors, including

- License agreements include applications that are under development or other undelivered elements
- Client contracts require the delivery of services considered essential to the functionality of the software, including significant modifications, customization, or complex interfaces, that could delay product delivery or acceptance
- The transaction involves customer acceptance criteria with a right to refund

Because of these factors and other specific requirements for software revenue recognition under generally accepted accounting principles in the United States, we must have very precise terms in our contracts to recognize revenue upon the delivery and installation of our software or performance of services. Negotiation of mutually acceptable terms and conditions may extend the sales cycle. We are not always able to negotiate terms and conditions that permit revenue recognition at the time of delivery or even upon project completion.

Fluctuations in quarterly revenue could adversely impact our operating results and stock price.

Our revenues and operating results are difficult to predict and may fluctuate substantially from quarter to quarter for a variety of reasons, including

- Prospective clients' contracting decisions are often made in the last few weeks of a quarter
- The size of license transactions can vary significantly
- Clients may unexpectedly postpone or cancel procurement processes due to changes in strategic priorities, project objectives, budget, or personnel
- Client purchasing processes vary significantly and a client's internal approval, expenditure authorization, and contract negotiation processes can be difficult and time consuming to complete, even after selection of a vendor
- The number, timing, and significance of software product enhancements and new software product announcements by us and our competitors may affect purchase decisions
- We may have to defer revenues under our revenue recognition policies
- Clients may elect subscription-based arrangements, which result in lower software license revenues in the initial year as compared to traditional, on-premise software license arrangements, but generate higher overall subscription-based revenues over the term of the contract

In each fiscal quarter, our expense levels, operating costs, and hiring plans are based to some extent on projections of future revenues and are relatively fixed. If our actual revenues fall below expectations, we could experience a reduction in operating results. Also, if actual revenues or earnings for any given quarter fall below expectations, it may lead to a decline in our stock price.

Increases in service revenue as a percentage of total revenues could decrease overall margins.

We realize lower margins on software and appraisal service revenues than on license revenue. The majority of our contracts include both software licenses and software services. Therefore, an increase in the percentage of software service and appraisal service revenue compared to license revenue could have a detrimental impact on our overall gross margins and could adversely affect operating results.

Our stock price may be volatile.

The market price of our common stock may be volatile. Examples of factors that may significantly impact our stock price include

- Actual or anticipated fluctuations in our operating results
- Announcements of technological innovations, new products, or new contracts by us or our competitors
- Developments with respect to patents, copyrights, or other proprietary rights
- Conditions and trends in the software and other technology industries
- Adoption of new accounting standards affecting the software industry
- Changes in financial estimates by securities analysts
- General market conditions and other factors

In addition, the stock market has from time to time experienced significant price and volume fluctuations that have particularly affected the market prices of technology company stocks and may in the future adversely affect the market price of our stock. Sometimes, securities class action litigation is filed following periods of volatility in the market price of a particular company's securities. We cannot assure you that similar litigation will not occur in the future with respect to us. Such litigation could result in substantial costs and a diversion of management's attention and resources, which could have a material adverse effect upon our financial performance.

Our financial outlook may not be realized.

From time to time, in press releases and otherwise, we may publish forecasts or other forward-looking statements regarding our results, including estimated revenues or earnings. Any forecast of our future performance reflects various assumptions. These assumptions are subject to significant uncertainties, and as a matter of course, any number of them may prove to be incorrect. Further, the achievement of any forecast depends on numerous risks and other factors (including those described in this discussion), many of which are beyond our control. As a result, we cannot be certain that our performance will be consistent with any management forecasts or that the variation from such forecasts will not be material and adverse. Current and potential stockholders are cautioned not to base their entire analysis of our business and prospects upon isolated predictions, but instead are encouraged to utilize our entire publicly available mix of historical and forward-looking information, as well as other available information regarding us, our products and services, and the software industry when evaluating our prospective results of operations.

Risks Associated with Our Growth Strategy and Other General Corporate Risks

We may experience difficulties in executing our acquisition strategy.

A material portion of our historical growth has resulted from strategic acquisitions. Although our focus is on internal growth, we will continue to identify and pursue strategic acquisitions with suitable candidates. These transactions involve significant challenges and risks, including risks that a transaction does not advance our business strategy; that we do not achieve the expected return on our investment; that we have difficulty integrating business systems and technology; that we have difficulty retaining or integrating new employees; that the transactions distract management from our other businesses; that we acquire unforeseen liabilities; and other unanticipated events. Our future success will depend, in part, on our ability to successfully integrate future acquisitions into our operations. It may take longer than expected to realize the full benefits of these transactions, such as increased revenue, enhanced efficiencies, or increased market share, or the benefits may be ultimately less than we expected. Although we conduct due diligence reviews of potential acquisition candidates, we may not identify all material liabilities or risks related to acquisition candidates. There can be no assurance that any such strategic acquisitions will be accomplished on favorable terms or will result in profitable operations.

Our failure to properly manage growth could adversely affect our business.

We have expanded our operations significantly since 1998, when we entered the business of providing software solutions and services to the public sector. We intend to continue expansion in the foreseeable future to pursue existing and potential market opportunities. This growth places significant demands on management and operational resources. In order to manage growth effectively, we must implement and improve our operational systems, procedures, and controls on a timely basis. If we fail to implement these systems, our business may be materially adversely affected.

We may be unable to hire, integrate, and retain qualified personnel.

Our continued success will depend upon the availability and performance of our key management, sales, marketing, client support, and product development personnel. The loss of key management or technical personnel could adversely affect us. We believe that our continued success will depend in large part upon our ability to attract, integrate, and retain such personnel. We have at times experienced and continue to experience difficulty in recruiting qualified personnel. Competition for qualified software development, sales, and other personnel is intense, and we cannot assure you that we will be successful in attracting and retaining such personnel.

Compliance with changing regulation of corporate governance may result in additional expenses.

Changing laws, regulations, and standards relating to corporate governance and public disclosure can create uncertainty for public companies. The costs required to comply with such evolving laws are difficult to predict. To maintain high standards of corporate governance and public disclosure, we intend to invest all reasonably necessary resources to comply with evolving standards. This investment may result in an unforeseen increase in general and administrative expenses and a diversion of management's time and attention from revenue-generating activities, which may harm our operating results.

We don't foresee paying dividends on our common stock.

We have not declared nor paid a cash dividend since we entered the business of providing software solutions and services to the public sector in 1998. We intend to retain earnings for use in the operation and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Provisions in our certificate of incorporation, bylaws, and Delaware law could deter takeover attempts.

Our board of directors may issue up to 1,000,000 shares of preferred stock and may determine the price, rights, preferences, privileges, and restrictions, including voting and conversion rights, of these preferred shares. These determinations may be made without any further vote or action by our stockholders. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of preferred stock may make it more difficult for a third-party to acquire a majority of our outstanding voting stock. In addition, some provisions of our Certificate of Incorporation, Bylaws, and the Delaware General Corporation Law could also delay, prevent, or make more difficult a merger, tender offer, or proxy contest involving us.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

Not applicable.

ITEM 2. PROPERTIES.

We occupy approximately 1.0 million square feet of office space, of which approximately 746,000 square feet is in office facilities we own. We own or lease offices for our major operations in the states of Arizona, Arkansas, California, Colorado, Georgia, Iowa, Maine, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New York, Ohio, Texas, Washington and Wisconsin, and in Ontario, Canada.

ITEM 3. LEGAL PROCEEDINGS.

Other than routine litigation incidental to our business, there are no material legal proceedings pending to which we are party or to which any of our properties are subject.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock is traded on the New York Stock Exchange under the symbol "TYL." At December 31, 2017, we had approximately 1,367 stockholders of record. Most of our stockholders hold their shares in street name; therefore, there are substantially more than 1,367 beneficial owners of our common stock.

The following table shows, for the calendar periods indicated, the high and low sales price per share of our common stock as reported on the New York Stock Exchange.

		High	Low
2016	First Quarter	$ 172.50	$ 118.16
	Second Quarter	168.19	126.70
	Third Quarter	175.77	159.24
	Fourth Quarter	172.24	139.61
2017	First Quarter	$ 166.86	$ 142.75
	Second Quarter	178.09	152.00
	Third Quarter	182.49	165.14
	Fourth Quarter	188.22	168.12

We did not pay any cash dividends in 2017 or 2016. Our bank credit agreement contains restrictions on the payment of cash dividends. We intend to retain earnings for use in the operation and expansion of our business and do not anticipate paying a cash dividend in the foreseeable future.

The following table summarizes certain information related to our stock option plan and our employee stock purchase plan. There are no warrants or rights related to our equity compensation plans as of December 31, 2017.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights as of December 31, 2017	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in initial column as of December 31, 2017)
Equity compensation plans approved by security shareholders:			
Stock option plan	4,817,241	$ 107.91	2,128,560
Employee stock purchase plan	12,052	150.49	796,834
Equity compensation plans not approved by security shareholders	—	—	—
	4,829,293	$ 108.02	2,925,394

As of December 31, 2017, we had authorization to repurchase up to approximately 2.0 million additional shares of Tyler common stock. During 2017, we purchased approximately 44,000 shares of our common stock for an aggregate purchase price of $6.6 million. A summary of the repurchase activity during 2017 is as follows:

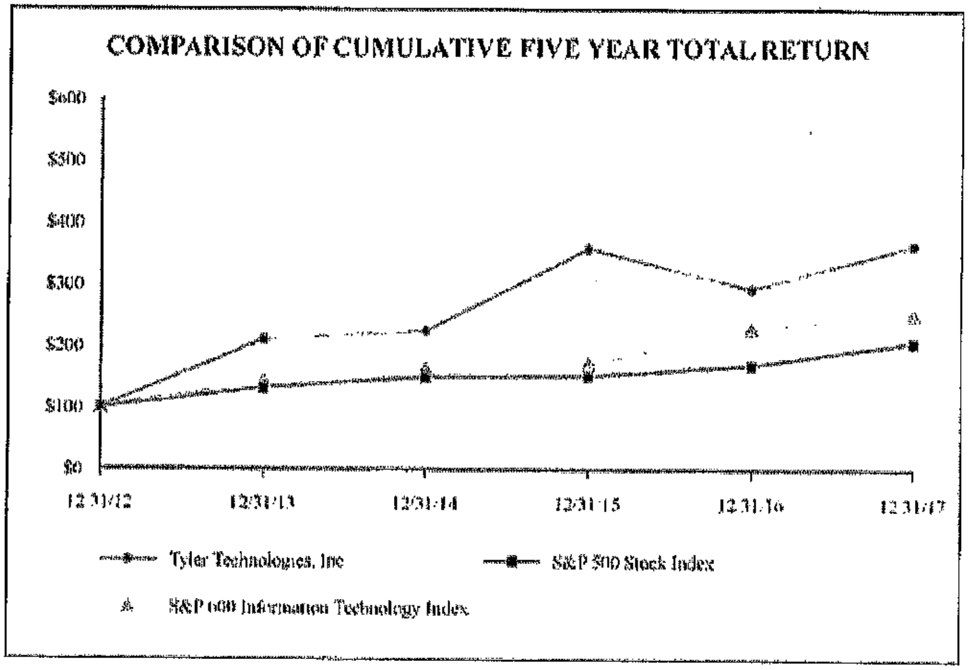
Period	Total number of shares repurchased	Additional number of shares authorized that may be repurchased	Average price paid per share	Maximum number of shares that may be repurchased under current authorization
Three months ended March 31	41,896		$ 147.30	1,976,160
Three months ended June 30	—	—	—	1,976,160
Three months ended September 30	—	—	—	1,976,160
October 1 through October 31	—	—	—	1,976,160
November 1 through November 30	2,600	—	169.93	1,973,560
December 1 through December 31	—	—	—	1,973,560
	44,496	—	$ 148.62	

The repurchase program, which was approved by our board of directors, was announced in October 2002 and was amended at various times from 2003 through 2016. There is no expiration date specified for the authorization, and we intend to repurchase stock under the program from time to time.

Performance Graph

The following Performance Graph and related information shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The following table compares total shareholder returns for Tyler over the last five years to the Standard and Poor's 500 Stock Index and the Standard and Poor's 600 Information Technology Index assuming a $100 investment made on December 31, 2012. Each of the three measures of cumulative total return assumes reinvestment of dividends. The stock performance shown on the graph below is not necessarily indicative of future price performance.



Company / Index	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17
Tyler Technologies, Inc.	100	210.84	225.93	359.87	294.74	365.30
S&P 500 Stock Index	100	132.39	150.51	152.59	170.84	208.14
S&P 600 Information Technology Index	100	144.91	164.17	171.80	229.96	253.61

ITEM 6. SELECTED FINANCIAL DATA.

(In thousands, except per share data)

	FOR THE YEARS ENDED DECEMBER 31,				
	2017 (a)	2016 (b)	2015 (c)	2014	2013
STATEMENT OF OPERATIONS DATA:					
Revenues	$ 840,662	$ 756,043	$ 591,022	$ 493,101	$ 416,643
Cost and expenses:					
Cost of revenues	441,522	400,692	313,835	259,730	223,440
Selling, general and administrative expenses	176,974	167,161	133,317	108,260	98,289
Research and development expense	47,324	43,154	29,922	25,743	23,269
Amortization of customer and trade name intangibles	13,912	13,731	5,905	4,546	4,517
Operating income	160,930	131,305	108,043	94,822	67,128
Other income (expense), net	698	(1,998)	381	(355)	(1,309)
Income before income taxes	161,628	129,307	108,424	94,467	65,819
Income tax (benefit) provision (a)	(2,317)	19,450	43,555	35,527	26,718
Net income	163,945	109,857	64,869	58,940	39,101
Net earnings per diluted share	$ 4.18	$ 2.82	$ 1.77	$ 1.66	$ 1.13
Weighted average diluted shares (b)	39,246	38,961	36,552	35,401	34,590
STATEMENT OF CASH FLOWS DATA:					
Cash flows provided by operating activities (b)	$ 195,755	$ 191,859	$ 134,327	$ 142,839	$ 94,297
Cash flows used by investing activities	(85,395)	(50,720)	(398,459)	(11,555)	(25,658)
Cash flows provided (used) by financing activities (b)	39,415	(138,075)	91,052	(3,993)	3,831
BALANCE SHEET DATA:					
Total assets	$1,589,592	$1,357,945	$1,356,570	$ 569,812	$ 444,488
Revolving line of credit	—	10,000	66,000	—	—
Shareholders' equity	1,167,094	915,525	858,857	336,973	246,319

(a) 2017 includes the significant impact of the enactment of the Tax Cuts and Jobs Act ("Tax Act"). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note - 7 "Income Tax" for further discussion on the impact of the Tax Act.

(b) During 2016, we early adopted Accounting Standards Update ("ASU") No. 2016-09 "Improvements to Employee Share-Based Payment Accounting" requiring the recognition of excess tax benefits or tax deficiencies as a component of income tax expense; these benefits or deficiencies were historically recognized in equity. As the standard requires a prospective method of adoption, our net income in 2016 includes a $29.6 million income tax benefit due to the adoption that did not occur in the comparable prior periods presented above. In 2016, ASU No. 2016-09 updated the method of calculating diluted shares resulting in the inclusion of 519,000 additional shares in our diluted earnings per share calculation, which is not comparable to the other prior periods presented. The adoption of ASU No. 2016-09 also required excess tax benefits, previously presented as financing activities, to be classified as operating activities. As retrospective adoption for this component of the standard is allowable, we have adjusted all periods presented above to reflect this change in classification.

(c) On November 16, 2015, we completed the acquisition of New World Systems Corporation ("NWS"). Operating results for the twelve months ended December 31, 2015, include $5.9 million for non-recurring financial advisory, legal, accounting, due diligence, valuation and other expenses necessary to complete the NWS acquisition.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

FORWARD-LOOKING STATEMENTS

This document contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that are not historical in nature and typically address future or anticipated events, trends, expectations or beliefs with respect to our financial condition, results of operations or business. Forward-looking statements often contain words such as "believes," "expects," "anticipates," "foresees," "forecasts," "estimates," "plans," "intends," "continues," "may," "will," "should," "projects," "might," "could" or other similar words or phrases. Similarly, statements that describe our business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements. We believe there is a reasonable basis for our forward-looking statements, but they are inherently subject to risks and uncertainties and actual results could differ materially from the expectations and beliefs reflected in the forward-looking statements. We presently consider the following to be among the important factors that could cause actual results to differ materially from our expectations and beliefs: (1) changes in the budgets or regulatory environments of our clients, primarily local and state governments, that could negatively impact information technology spending; (2) our ability to protect client information from security breaches and provide uninterrupted operations of data centers; (3) our ability to achieve growth or operational synergies through the integration of acquired businesses, while avoiding unanticipated costs and disruptions to existing operations; (4) material portions of our business require the Internet infrastructure to be adequately maintained; (5) our ability to achieve our financial forecasts due to various factors, including project delays by our clients, reductions in transaction size, fewer transactions, delays in delivery of new products or releases or a decline in our renewal rates for service agreements; (6) general economic, political and market conditions; (7) technological and market risks associated with the development of new products or services or of new versions of existing or acquired products or services; (8) competition in the industry in which we conduct business and the impact of competition on pricing, client retention and pressure for new products or services; (9) the ability to attract and retain qualified personnel and dealing with the loss or retirement of key members of management or other key personnel; and (10) costs of compliance and any failure to comply with government and stock exchange regulations. A detailed discussion of these factors and other risks that affect our business are described in Item 1A, "Risk Factors." We expressly disclaim any obligation to publicly update or revise our forward-looking statements.

OVERVIEW

General

We provide integrated information management solutions and services for the public sector, with a focus on local governments. We develop and market a broad line of software products and services to address the IT needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services to our clients, including software and hardware installation, data conversion, training and for certain clients, product modifications, along with continuing maintenance and support for clients using our systems. We also provide subscription-based services such as software as a service ("SaaS"), which utilizes the Tyler private cloud, and electronic document filing solutions ("e-filing"), which simplify the filing and management of court related documents. Revenues for e-filing are derived from transaction fees and, in some cases, fixed fee arrangements. We also provide property appraisal outsourcing services for taxing jurisdictions.

Our products generally automate six major functional areas: (1) financial management and education, (2) courts and justice, (3) public safety (4) property appraisal and tax, (5) planning, regulatory and maintenance, and (6) land and vital records management. We report our results in two segments. The Enterprise Software ("ES") segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as: financial management; courts and justice processes; public safety; planning, regulatory and maintenance; and land and vital records management. The Appraisal and Tax ("A&T") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

Total revenues increased 11% in 2017 compared to 2016.

Recent Acquisitions

On November 29, 2017, we acquired audio and digital two-way radio communications technology and related assets from Radio 10-33, LLC an audio and digital two-way radio communications company. The total purchase price was $1.4 million.

On August 2, 2017, we acquired substantially all of the assets and assumed certain liabilities of Digital Health Department, Inc. ("DHD"), a company that provides environmental health software, offering a software-as-a-service (SaaS) solution for public health compliance and inspections processes. The total purchase price, net of debt assumed, was $3.9 million.

On May 30, 2017, we acquired all of the capital stock of Modria.com, Inc., a company that specializes in online dispute resolution for government and commercial entities. The total purchase price, net of debt assumed, was $7.0 million.

The operating results of these acquisitions are included in our results of operations of the Enterprise Software segment from the date of the acquisition. The impact of these acquisitions, individually and in the aggregate, on our operating results is not material.

On December 22, 2017, the Tax Act was enacted. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the U.S. corporate federal tax rate from 35% to 21% and transitions from a worldwide tax system to a territorial tax system. The impact of the rate reduction on our 2017 income tax provision is a $21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note 7 "Income Tax" for further discussion on the impact of the Tax Act.

We monitor and analyze several key performance indicators in order to manage our business and evaluate our financial and operating performance. These indicators include the following:

Revenues – We derive our revenues from five primary sources: sale of software licenses and royalties; subscription-based arrangements; software services; maintenance; and appraisal services. Subscriptions and maintenance are considered recurring revenue sources and comprised approximately 64% of our revenue in 2017. The number of new SaaS clients and the number of existing clients who convert from our traditional software arrangements to our SaaS model are a significant driver to our business, together with new software license sales and maintenance rate increases. In addition, we also monitor our customer base and churn as we historically have experienced very low customer turnover. During 2017, based on our number of customers, turnover was approximately 2%.

Cost of Revenues and Gross Margins – Our primary cost component is personnel expenses in connection with providing software implementation, subscription-based services, maintenance and support, and appraisal services to our clients. We can improve gross margins by controlling headcount and related costs and by expanding our revenue base, especially from those products and services that produce incremental revenue with minimal incremental cost, such as software licenses and royalties, subscription-based services, and maintenance and support. Our appraisal projects are cyclical in nature, and we often employ appraisal personnel on a short-term basis to coincide with the life of a project. As of December 31, 2017, our total employee count increased to 4,069 from 3,831 at December 31, 2016.

Selling, General and Administrative ("SG&A") Expenses – The primary components of SG&A expenses are administrative and sales personnel salaries and commissions, share-based compensation expense, marketing expense, rent and professional fees. Sales commissions typically fluctuate with revenues and share-based compensation expense generally increases as the market price of our stock increases. Other administrative expenses tend to grow at a slower rate than revenues.

Liquidity and Cash Flows – The primary driver of our cash flows is net income. Uses of cash include acquisitions, capital investments in property and equipment and discretionary purchases of treasury stock. Our working capital needs are fairly stable throughout the year with the significant components of cash outflows being payment of personnel expenses offset by cash inflows representing collection of accounts receivable and cash receipts from clients in advance of revenue being earned. In recent years, we have also received significant amounts of cash from employees exercising stock options and contributing to our Employee Stock Purchase Plan.

Balance Sheet – Cash, accounts receivable and days sales outstanding and deferred revenue balances are important indicators of our business.

Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, "Revenue from Contracts with Customers." This ASU is the result of a convergence project between the FASB and the International Accounting Standards Board. The core principle behind ASU No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for delivering those goods and services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. The ASU allows two methods of adoption: a full retrospective approach where three years of financial information are presented in accordance with the new standard, and a modified retrospective approach where the ASU is applied to the most current period presented in the financial statements. We have adopted the new standard effective January 1, 2018 using the full retrospective method which will require each prior reporting period presented to be recast in future issuance of our financial statements. In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of financial information and have reached conclusions on key accounting assessments related to the standard. During the fourth quarter of fiscal 2017, we have substantially completed data conversion activities required to recast our prior period results. We continue to perform an in-depth review of our preliminary results; therefore, we are in the process of completing our analysis necessary to recast prior period results. We do not believe there are any remaining significant implementation topics associated with the adoption of this ASU that have not yet been addressed.

This standard will have a material impact on our consolidated balance sheets and statement of shareholders' equity. The impact of the standard on consolidated revenue and costs of revenue will be dependent upon the mix of revenue streams due to our accounting for software license fees, allocation of discounts across all performance obligations and to the incremental costs of obtaining a contract. Specifically, under the new standard software license fees under perpetual agreements will no longer be subject to 100% discount allocations from other elements in the contract. Discounts in arrangements will be allocated across all deliverables increasing license revenues and decreasing revenues allocated to other performance obligations. In addition, in most cases, net license fees (total license fees less any allocated discounts) will be recognized at the point in time that control of the software license transfers to the customer versus our current policy of recognizing revenue only to the extent billable per the contractual terms. Time-based license fees currently recognized over the license term will no longer be recognized over the period of the license and will instead be recognized at the point in time that control of the software license transfers to the customer. Revenue related to our software as a service ("SaaS") offerings, post-contract customer support ("PCS") renewals and professional services remain substantially unchanged. Due to the complexity of certain contracts, the actual revenue recognition treatment required under the standard will be dependent on contract-specific terms and may vary in some instances from recognition at the time of billing.

Application of the new standard requires that incremental costs directly related to obtaining a contract (typically sales commissions plus any associated fringe benefits) must be recognized as an asset and expensed on a systematic basis that is consistent with the transfer to the customer of the goods and services to which the asset relates, unless that life is less than one year. Currently, we defer sales commissions and recognize expense over the relevant initial contractual term. With the adoption of the new standard, amortization periods will extend past the initial term.

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, "Leases (Topic 842)." Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach.

The ASU is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. We are assessing the financial impact of adopting the new standard; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We will adopt the new standard in fiscal year 2019.

Outlook

The local government software market continues to be active, and our backlog at December 31, 2017 reached $1.1 billion, a 18% increase from last year. We expect to continue to achieve solid growth in revenue and earnings. With our strong financial position and cash flow, we plan to continue to make significant investments in product development to better position us to continue to expand our competitive position in the public sector software market over the long term.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities at the date of the financial statements, the reported amounts of revenues, cost of revenues and expenses during the reporting period, and related disclosure of contingencies. The Notes to the Financial Statements included as part of this Annual Report describe our significant accounting policies used in the preparation of the financial statements. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies require significant judgments and estimates used in the preparation of our financial statements.

Revenue Recognition. We recognize revenues in accordance with the provisions of Accounting Standards Codification ("ASC") 605, Revenue Recognition and ASC 985-605, Software Revenue Recognition. Our revenues are derived from sales of software licenses and royalties, subscription-based services, appraisal services, maintenance and support, and services that typically range from installation, training and basic consulting to software modification and customization to meet specific customer needs. For multiple element software arrangements, which do not entail the performance of services that are considered essential to the functionality of the software, we generally record revenue when the delivered products or performed services result in a legally enforceable and non-refundable claim. We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Because most of our customers are governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. In a limited number of cases, we encounter a customer who is dissatisfied with some aspect of the software product or our service, and we may offer a "concession" to such customer. In those limited situations where we grant a concession, we rarely reduce the contract arrangement fee, but alternatively may perform additional services, such as additional training or creating additional custom reports. These amounts have historically been nominal. In connection with our customer contracts and the adequacy of related allowances and measures of progress towards contract completion, our project managers are charged with the responsibility to continually review the status of each customer on a specific contract basis. Also, we review, on at least a quarterly basis, significant past due accounts receivable and the adequacy of related reserves. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

We use contract accounting, primarily the percentage-of-completion method, as discussed in ASC 605-35, Construction – Type and Certain Production – Type Contracts, for those software arrangements that involve significant production, modification or customization of the software, or where our software services are otherwise considered essential to the functionality of the software. We measure progress-to-completion primarily using labor hours incurred, or value added. In addition, we recognize revenue using the proportional performance method for our property appraisal projects, some of which can range up to five years. These methods rely on estimates of total expected contract revenue, billings and collections and expected contract costs, as well as measures of progress toward completion. We believe reasonably dependable estimates of revenue and costs and progress applicable to various stages of a contract can be made. At times, we perform additional and/or non-contractual services for little to no incremental fee to satisfy customer expectations. If changes occur in delivery, productivity or other factors used in developing our estimates of expected costs or revenues, we revise our cost and revenue estimates, and any revisions are charged to income in the period in which the facts that give rise to that revision first become known. In connection with these and certain other contracts, we may perform the work prior to when the services are billable and/or payable pursuant to the contract. The termination clauses in most of our contracts provide for the payment for the value of products delivered and services performed in the event of an early termination.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. If we determine that the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition. For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate the contract value to each element of the arrangement that qualifies for treatment as a separate element based on vendor-specific objective evidence of fair value ("VSOE"), and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once hosting has gone live and we may begin billing for the hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

In connection with certain of our contracts, we have recorded retentions receivable or unbilled receivables consisting of costs and estimated profit in excess of billings as of the balance sheet date. Many of the contracts which give rise to unbilled receivables at a given balance sheet date are subject to billings in the subsequent accounting period. We review unbilled receivables and related contract provisions to ensure we are justified in recognizing revenue prior to billing the customer and that we have objective evidence which allows us to recognize such revenue. In addition, we have a sizable amount of deferred revenue, which represents billings in excess of revenue earned. The majority of this liability consists of maintenance billings for which payments are made in advance and the revenue is ratably earned over the maintenance period, generally one year. We also have deferred revenue for those contracts in which we receive a deposit and the conditions in which to record revenue for the service or product have not been met. On a periodic basis, we review by customer the detail components of our deferred revenue to ensure our accounting remains appropriate.

Intangible Assets and Goodwill. Our business acquisitions typically result in the creation of goodwill and other intangible asset balances, and these balances affect the amount and timing of future period amortization expense, as well as expense we could possibly incur as a result of an impairment charge. The cost of acquired companies is allocated to identifiable tangible and intangible assets based on estimated fair value, with the excess allocated to goodwill. Accordingly, we have a significant balance of acquisition date intangible assets, including software, customer related intangibles, trade name, leases and goodwill. These intangible assets (other than goodwill) are amortized over their estimated useful lives. We currently have no intangible assets with indefinite lives other than goodwill.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2017, did not result in an impairment charge. During 2017, we did not identify any triggering events that would require an update to our annual impairment review.

All intangible assets (other than goodwill) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of other intangible assets is measured by comparison of the carrying amount to estimated undiscounted future cash flows. The assessment of recoverability or of the estimated useful life for amortization purposes will be affected if the timing or the amount of estimated future operating cash flows is not achieved. Such indicators may include, among others: a significant decline in expected future cash flows; a sustained, significant decline in stock price and market capitalization; a significant adverse change in legal factors or in the business climate; unanticipated competition; and reductions in growth rates. In addition, products, capabilities, or technologies developed by others may render our software products obsolete or non-competitive. Any adverse change in these factors could have a significant impact on the recoverability of goodwill or other intangible assets.

Share-Based Compensation. We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. We estimate the fair value of share-based awards on the date of grant using the Black-Scholes option valuation model. Share-based compensation expense includes the estimated effects of forfeitures, which will be adjusted over the requisite service period to the extent actual forfeitures differ, or are expected to differ from such estimates. Changes in estimated forfeitures are recognized in the period of change and will also impact the amount of expense to be recognized in future periods. Forfeiture rate assumptions are derived from historical data.

We estimate stock price volatility at the date of grant based on the historical volatility of our common stock. Estimated option life is determined using the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns. Determining the appropriate fair-value model and calculating the fair value of share-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates.

ANALYSIS OF RESULTS OF OPERATIONS AND OTHER

The following discussion compares the historical results of operations on a basis consistent with GAAP for the years ended December 31, 2017, 2016 and 2015.

	Percentage of Total Revenues Years Ended December 31,		
	2017	2016	2015
Revenues:			
Software licenses and royalties	9.0 %	9.8 %	10.0%
Subscriptions	20.6	18.9	18.9
Software services	22.3	23.1	23.7
Maintenance	43.0	42.7	41.6
Appraisal services	3.0	3.5	4.2
Hardware and other	2.1	2.0	1.6
Total revenues	100.0	100.0	100.0
Operating Expenses:			
Cost of software licenses, royalties and acquired software	3.0	3.3	1.0
Cost of software services, maintenance and subscriptions	46.1	46.2	48.2
Cost of appraisal services	1.9	2.2	2.7
Cost of hardware and other	1.5	1.3	1.1
Selling, general and administrative expenses	21.1	22.1	22.6
Research and development expense	5.6	5.7	5.1
Amortization of customer and trade name intangibles	1.7	1.8	1.0
Operating income	19.1	17.4	18.3
Other income (expense), net	0.1	(0.3)	0.1
Income before income taxes	19.2	17.1	18.4
Income tax (benefit) provision	(0.3)	2.6	7.4
Net income	19.5 %	14.5 %	11.0%

2017 Compared to 2016

Revenues

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ 67,840	$ 68,844	$ (1,004)	(1)%
A&T	7,854	5,462	2,392	44
Total software licenses and royalties revenue	$ 75,694	$ 74,306	$ 1,388	2 %

Software license and royalties revenue was flat compared to the prior year. Software license revenue declined as a percentage of the revenue mix due to an increase in the percentage of new software clients choosing our subscription-based option, rather than purchasing the software under a traditional perpetual license arrangement.

Although the mix of new contracts between subscription-based and perpetual license arrangements may vary from quarter to quarter and year to year, we expect our longer-term software license growth rate to be negatively impacted by a growing number of customers choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. Subscription-based arrangements result in lower software license revenue in the initial year as compared to perpetual software license arrangements but generate higher overall revenue over the term of the contract. Our new client mix in 2017 was approximately 53% selecting perpetual software license arrangements and approximately 47% selecting subscription-based arrangements compared to a client mix in 2016 of approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements.

Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ 165,651	$ 135,516	$ 30,135	22%
A&T	7,859	7,188	671	9
Total subscriptions revenue	$ 173,510	$ 142,704	$ 30,806	22%

Subscription-based revenue primarily consists of revenue derived from our SaaS arrangements, which utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Subscription-based revenue increased 22% compared to 2016. New SaaS clients as well as existing clients who converted to our SaaS model provided the majority of the subscriptions revenue increase. In 2017, we added 374 new SaaS clients and 88 existing clients elected to convert to our SaaS model. The average contract sizes in 2017 were 64% and 44% higher than 2016 for new clients and clients converting to our SaaS model, respectively. Also, e-filing services contributed approximately $8.5 million of the subscriptions revenue increase in 2017. The increase in e-filing revenue is attributed to new e-filing clients, as well as increased volumes as the result of several existing clients mandating e-filing.

Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ 167,934	$ 158,478	$ 9,456	6%
A&T	19,215	16,326	2,889	18
Total software services revenue	$ 187,149	$ 174,804	$ 12,345	7%

Software services revenue primarily consists of professional services billed in connection with implementing our software, converting client data, training client personnel, custom development activities and consulting. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Software services revenue grew 7% compared to the prior year period. This growth is partly due to additions to our implementation and support staff, which increased our capacity to deliver backlog and partially due to completing recognition of a majority of the acquisition-related deferred service revenue that was fair valued at rates below Tyler's average service rate in prior periods.

Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ 339,951	$ 304,380	$ 35,571	12%
A&T	21,618	18,589	3,029	16
Total maintenance revenue	$ 361,569	$ 322,969	$ 38,600	12%

We provide maintenance and support services for our software products and certain third-party software. Maintenance revenue grew 12% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases. In addition, the increase is partially due to completing recognition of a majority of the acquisition-related deferred maintenance revenue that was fair valued at rates below Tyler's average maintenance rate in prior periods.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	25,023	26,287	(1,264)	(5)
Total appraisal services revenue	$ 25,023	$ 26,287	$ (1,264)	(5)%

In 2017, appraisal services revenue decreased 5% compared to the prior year primarily due to the successful completion of several large revaluation projects in mid-2017. The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states.

Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
Software licenses and royalties	$ 3,321	$ 2,964	$ 357	12 %
Acquired software	21,686	22,235	(549)	(2)
Software services, maintenance and subscriptions	387,634	348,939	38,695	11
Appraisal services	16,286	16,411	(125)	(1)
Hardware and other	12,595	10,143	2,452	24
Total cost of revenues	$ 441,522	$ 400,692	$ 40,830	10 %

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2017	2016	Change
Software licenses, royalties and acquired software	67.0%	66.1%	0.9 %
Software services, maintenance and subscriptions	46.3	45.5	0.8
Appraisal services	34.9	37.6	(2.7)
Hardware and other	28.9	32.3	(3.4)
Overall gross margin	47.5%	47.0%	0.5 %

Software licenses, royalties and acquired software. Cost of software licenses, royalties and acquired software is primarily comprised of amortization expense for acquired software and third-party software costs. We do not have any direct costs associated with royalties. The gross margin increase of 0.9% is due to higher incremental margins on software license revenues, in part due to slightly lower amortization expense for acquired software resulting from acquisitions.

Software services, maintenance and subscriptions. Cost of software services, maintenance and subscriptions primarily consists of personnel costs related to installation of our software, conversion of client data, training client personnel and support activities and various other services such as custom client development and on-going operation of SaaS and e-filing arrangements. In 2017, the software services, maintenance and subscriptions gross margin increased 0.8% compared to the prior year. Our implementation and support staff has grown by 220 employees since December 31, 2016. Many of these additions occurred in early to mid-2017 and are contributing to revenue in 2017. Costs related to maintenance and various other services such as SaaS and e-filing typically grow at a slower rate than related revenue due to leverage in the utilization of support and maintenance staff and economies of scale. Reduced recognition of acquisition-related deferred revenue associated with software services and maintenance obligations completed in prior periods also resulted in higher gross margins.

Appraisal services. Appraisal services revenue comprised approximately 3.0% of total revenue. The appraisal services gross margin decreased 2.7% compared to 2016 due to the reduction in higher margin projects substantially complete by early 2017 and lower volume of revenues in the current period to cover relatively fixed costs.

Our 2017 blended gross margin increased 0.5% compared to 2016. Our overall gross margin was positively impacted by a product mix that included more higher-margin recurring revenues from subscriptions and maintenance and improved margin on revenues from software licenses offset by the lower-margin revenues from appraisal services as described above.

Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses consist primarily of salaries, employee benefits, travel, share-based compensation expense, commissions and related overhead costs for administrative and sales and marketing employees, as well as, professional fees, trade show activities, advertising costs and other marketing related costs. The following table sets forth a comparison of our SG&A expenses for the years ended December 31:

					Change	
($ in thousands)		2017		2016	$	%
Selling, general and administrative expenses	$	176,974	$	167,161	$ 9,813	6%

SG&A as a percentage of revenue was 21.1% in 2017 compared to 22.1% in 2016. SG&A expense increased approximately 6% mainly due to compensation costs related to increased staff levels, merit increases and higher stock compensation expense. We have added 28 employees mainly to our sales and finance teams since December 31, 2016. In addition, our 2017 stock compensation expense rose $4.7 million, mainly due to increases in our stock price over the last few years.

Research and Development Expense

Research and development expense consists primarily of salaries, employee benefits and related overhead costs associated with new product development. The following table sets forth a comparison of our research and development expense for the years ended December 31:

					Change	
($ in thousands)		2017		2016	$	%
Research and development expense	$	47,324	$	43,154	$ 4,170	10%

Research and development expense consists mainly of costs associated with development of new products and technologies from which we do not currently generate revenue, as well as costs related to the ongoing development efforts for Microsoft Dynamics AX. Our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX was amended in March 2016, which significantly reduced our development commitment through March 2018. However, we will continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX. License and maintenance royalties for all applicable domestic and international sales of Dynamics AX to public sector entities will continue under the terms of the contract.

Research and development expense increased 10% in 2017 compared to the prior year period, mainly due to research and development efforts related to new Tyler product development initiatives, primarily in our public safety solutions, offset by reduced development efforts for Microsoft Dynamics AX. As a result of the Microsoft Dynamics AX amendment, we have redeployed certain development resources to enhance functionality on several existing solutions and these costs are being recorded in cost of revenues – software services, maintenance and subscriptions.

Amortization of Customer and Trade Name Intangibles

Acquisition intangibles are comprised of the excess of the purchase price over the fair value of net tangible assets acquired that is allocated to acquired software, leases and customer and trade name intangibles. The remaining excess purchase price is allocated to goodwill that is not subject to amortization. Amortization expense related to acquired software is included with cost of revenues, while amortization expense of customer and trade name intangibles is recorded as operating expense. The estimated useful lives of both customer and trade name intangibles range from five to 25 years. The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

					Change	
($ in thousands)		2017		2016	$	%
Amortization of customer and trade name intangibles	$	13,912	$	13,731	$ 181	1%

Amortization of customer and trade name intangibles increased due to the impact of intangibles added with several small acquisitions completed in 2016 and 2017.

Estimated annual amortization expense relating to customer and trade name acquisition intangibles, excluding acquired software for which the amortization expense is recorded as cost of revenues, for the next five years is as follows (in thousands):

2018	$	13,819
2019		12,534
2020		11,402
2021		11,282
2022		10,792

Amortization expense relating to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $425,000 in 2018, $373,000 in 2019, $313,000 in 2020, $312,000 in 2021, $312,000 in 2022 and $1.0 million thereafter.

Other

The following table sets forth a comparison of other income (expense), net for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
Other income (expense), net	$ 698	$ (1,998)	$ 2,696	N/M

Other income (expense) is comprised of interest expense and non-usage and other fees associated with our revolving credit agreement as well as interest income from invested cash. Other income (expense), net decrease compared to the prior period is attributed to significantly lower debt levels in the current period, as we repaid all borrowings under the revolving line of credit in January 2017, and correspondingly higher levels of cash investments.

Income Tax (Benefit) Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

($ in thousands)	2017	2016	Change $	Change %
Income tax (benefit) provision	$ (2,317)	$ 19,450	$ (21,767)	(112)%
Effective income tax rate	(1.4)%	15.0%		

The decrease in the income tax provision during 2017 was primarily driven by the enactment of the Tax Act which reduced the statutory U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. See Note 7 - "Income Tax" for additional information related to the Tax Act. The income tax provision is also lower due to the increase in the excess tax benefits from stock option exercises as compared to prior period. We experienced significant stock option exercise activity in 2017 and 2016 that generated excess tax benefits of $40.6 million and $29.6 million, respectively.

The change in the effective income tax rate in 2017 compared to 2016 is also primarily attributable to the impact of the Tax Act and the changes in excess tax benefits related to stock option exercises realized. Excluding the impact of the Tax Act and the excess tax benefits, our income tax provision and effective tax rate in 2017 would have been $59.9 million and 37.1%, respectively. Excluding the excess tax benefits, our income tax provision and effective tax rate in 2016 would have been $49.0 million and 37.9%, respectively.

The effective income tax rates in both 2017 and 2016 differed from the statutory United States federal corporate income tax rate of 35% due to state income taxes, the domestic production activities deduction, the research tax credit, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and non-deductible business expenses.

2016 Compared to 2015

Revenues

On November 16, 2015, we acquired NWS, which provides public safety and financial solutions for local governments. In May 2015, we acquired a company which provides mobile hand-held solutions primarily to law enforcement agencies for field accident reporting and electronically issuing citations. The results of their operations are included in our ES segment from their respective dates of acquisition. For comparative purposes, we have provided explanations for changes in operations to exclude results of operations for these acquisitions noting the exclusion.

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ 68,844	$ 54,376	$ 14,468	27%
A&T	5,462	4,632	830	18
Total software licenses and royalties revenue	$ 74,306	$ 59,008	$ 15,298	26%

Excluding the results of acquisitions, software license revenue increased 3% compared to the prior year. The majority of this growth was due to a more active marketplace as the result of improvement in local government economic conditions, as well as our increasingly strong competitive position, which we attribute in part to our investment in product development in recent years. This increase was offset somewhat by lower sales to our existing customer base for courts and justice related add-on solutions that assist and support the transition to a paperless environment. By the end of 2015, the majority of our courts and justice clients had implemented these add-on solutions.

Although the mix of new contracts between subscription-based and perpetual license arrangements may vary from quarter to quarter and year to year, our longer-term software license growth rate is negatively impacted by a growing number of customers choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. Subscription-based arrangements result in lower software license revenue in the initial year as compared to perpetual software license arrangements but generate higher overall revenue over the term of the contract. Our new client mix in 2016 was approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements compared to a client mix in 2015 of approximately 76% selecting perpetual software license arrangements and approximately 24% selecting subscription-based arrangements. 250 new clients entered into subscription-based software arrangements in 2016 compared to 134 new clients in 2015.

Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ 135,516	$ 107,090	$ 28,426	27%
A&T	7,188	4,843	2,345	48
Total subscriptions revenue	$ 142,704	$ 111,933	$ 30,771	27%

Subscription-based revenue primarily consists of revenue derived from our SaaS arrangements, which utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Excluding acquisitions, subscription-based revenue increased 24% compared to 2015. E-filing services contributed approximately $4.9 million of the subscriptions revenue increase in 2016. Most of the e-filing revenue increase related to several statewide contracts, several of which implemented mandatory electronic filing during 2015 and throughout 2016. New SaaS clients as well as existing clients who converted to our SaaS model provided the remainder of the subscriptions revenue increase. In 2016, we added 250 new SaaS clients and 53 existing clients elected to convert to our SaaS model. The average contract sizes in 2016 were 1% and 9% higher than 2015 for new clients and clients converting to our SaaS model, respectively.

Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ 158,478	$ 129,068	$ 29,410	23%
A&T	16,326	10,784	5,542	51
Total software services revenue	$ 174,804	$ 139,852	$ 34,952	25%

Software services revenue primarily consists of professional services billed in connection with implementing our software, converting client data, training client personnel, custom development activities and consulting. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Excluding the results of acquisitions, software services revenue grew 11% compared to the prior year period. This growth is partly due to additions to our implementation and support staff, which increased our capacity to deliver backlog, and a contract mix that included more custom development and other services.

Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ 304,380	$ 227,586	$ 76,794	34%
A&T	18,589	17,951	638	4
Total maintenance revenue	$ 322,969	$ 245,537	$ 77,432	32%

We provide maintenance and support services for our software products and certain third-party software. Excluding the results of acquisitions, maintenance revenue grew 9% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	26,287	25,065	1,222	5
Total appraisal services revenue	$ 26,287	$ 25,065	$ 1,222	5%

The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states. In 2016, appraisal services revenue increased 5% compared to prior year primarily due to the Franklin County, Ohio, revaluation project, which began late in the fourth quarter of 2015.

Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Software licenses and royalties	$ 2,964	$ 1,632	$ 1,332	82%
Acquired software	22,235	4,440	17,795	N/M
Software services, maintenance and subscriptions	348,939	285,340	63,599	22
Appraisal services	16,411	15,922	489	3
Hardware and other	10,143	6,501	3,642	56
Total cost of revenues	$ 400,692	$ 313,835	$ 86,857	28%

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2016	2015	Change
Software licenses, royalties and acquired software	66.1%	89.7%	(23.6)%
Software services, maintenance and subscriptions	45.5	42.6	2.9
Appraisal services	37.6	36.5	1.1
Hardware and other	32.3	32.5	(0.2)
Overall gross margin	47.0%	46.9%	0.1 %

Software licenses, royalties and acquired software. Cost of software licenses, royalties and acquired software is primarily comprised of amortization expense for acquired software and third-party software costs. We do not have any direct costs associated with royalties. In 2016, our software licenses, royalties and acquired software gross margin percentage declined compared to the prior year due to much higher amortization expense for acquired software resulting from our acquisition of NWS. Excluding the results of NWS, our software license, royalties and acquired software gross margin was 93.9% in 2016 compared to 93.6% in 2015.

Software services, maintenance and subscriptions. Cost of software services, maintenance and subscriptions primarily consists of personnel costs related to installation of our software, conversion of client data, training client personnel and support activities and various other services such as custom client development and on-going operation of SaaS and e-filing arrangements. In 2016, the software services, maintenance and subscriptions gross margin increased 2.9% compared to the prior year. Our implementation and support staff grew by 169 employees in 2016. To support sales growth, we began making significant investments in our implementation and support staff in early 2015. Since December 31, 2014, excluding acquisitions, we added 369 implementation and support employees. These additions contributed to the revenue growth in 2016. In addition, the NWS revenue mix included a lower proportion of software services compared to Tyler's historical revenue mix, which also benefited the gross margin. Costs related to maintenance and various other services such as SaaS and e-filing typically grow at a slower rate than related revenue due to leverage in the utilization of support and maintenance staff and economies of scale. Maintenance and subscription price increases also resulted in slightly higher gross margins.

Appraisal services. Appraisal services revenue comprised approximately 3.5% of total revenue. The appraisal services gross margin increased 1.1% compared to 2015. A high proportion of the costs of appraisal services revenue are variable, as we often hire temporary employees to assist in appraisal projects, whose term of employment generally ends with the projects' completion.

Our 2016 blended gross margin remained consistent compared to 2015. Our overall gross margin was positively impacted by improved utilization of our support and maintenance staff; however, this benefit was offset by amortization expense for acquired software related to the NWS acquisition.

Selling, General and Administrative Expenses

The following table sets forth a comparison of selling, general and administrative expenses for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Selling, general and administrative expenses	$ 167,161	$ 133,317	$ 33,844	25%

SG&A as a percentage of revenue was 22.1% in 2016 compared to 22.6% in 2015. In 2015, our SG&A expense included approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various expenses necessary to complete the NWS acquisition. Excluding NWS transaction costs and SG&A from acquisitions, SG&A expense increased approximately 12% mainly due to compensation costs related to increased staff levels, higher stock compensation expense and increased commission expense as a result of higher sales. We added 22 employees mainly to our sales and finance teams in 2016. In addition, our 2016 stock compensation expense rose $6.4 million, mainly due to increases in our stock price over the last few years.

Research and Development Expense

The following table sets forth a comparison of our research and development expense for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Research and development expense	$ 43,154	$ 29,922	$ 13,232	44%

Research and development expense consists mainly of costs associated with development of new products and technologies from which we do not currently generate revenue, as well as costs related to the ongoing development efforts for Microsoft Dynamics AX. Our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX was amended in March 2016, which significantly reduced our development commitment through March 2018. However, we will continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX. License and maintenance royalties for all applicable domestic and international sales of Dynamics AX to public sector entities will continue under the terms of the contract.

Excluding the results of acquisitions, research and development expense increased 1.5% in 2016 compared to the prior year period, mainly due to research and development efforts related to new Tyler product development initiatives. As a result of the Microsoft Dynamics AX amendment, we also redeployed certain development resources to enhance functionality on several existing solutions and these costs were recorded in cost of sales – software services, maintenance and subscriptions.

Amortization of Customer and Trade Name Intangibles

The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Amortization of customer and trade name intangibles	$ 13,731	$ 5,905	$ 7,826	133%

Amortization of customer and trade name intangibles increased substantially from the comparable prior year periods due to the acquisition of NWS in November 2015.

Other

The following table sets forth a comparison of other (expense) income, net for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Other (expense) income, net	$ (1,998)	$ 381	$ (2,379)	N/M

Other (expense) income is comprised of interest expense and non-usage and other fees associated with our revolving credit agreement as well as interest income from invested cash. In 2015, we had significantly higher invested cash balances and no outstanding debt until we completed the NWS acquisition on November 16, 2015.

Income Tax Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Income tax provision	$ 19,450	$ 43,555	$ (24,105)	(55)%
Effective income tax rate	15.0%	40.2%		

The decrease in the income tax provision during 2016 was primarily driven by the adoption of ASU No. 2016-09, which requires the excess tax benefits from stock option exercises to be recognized as a reduction of the income tax provision, whereas they previously were accounted for as an increase to shareholders' equity. The adoption of ASU No. 2016-09 resulted in a $29.6 million decrease in our full year 2016 provision for income taxes.

Excluding the excess tax benefits, our income tax provision and effective tax rate in 2016 would have been $49.0 million and 37.9%, respectively.

The effective income tax rates in both 2016 and 2015 also differed from the statutory United States federal income tax rate of 35% due to state income taxes, the domestic production activities deduction, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and non-deductible business expenses. We realized a lower domestic production activities deduction as a result of taxable income limitations and non-deductible transaction costs related to the NWS acquisition negatively impacted our 2015 effective tax rate. In the past few years a relatively high amount of excess tax benefits related to stock option exercises have resulted in a reduction in our qualified manufacturing activities deduction. The qualified manufacturing activities deduction can be limited to a certain level of taxable income on the tax return. Therefore, any significant items that reduce taxable income, such as excess tax benefits on stock options, can reduce the amount of the qualified manufacturing activities deduction. We experienced significant stock option exercise activity in 2016 and 2015 that generated excess tax benefits of $29.6 million and $45.3 million, respectively.

FINANCIAL CONDITION AND LIQUIDITY

As of December 31, 2017, we had cash and cash equivalents of $185.9 million compared to $36.2 million at December 31, 2016. We also had $63.8 million invested in investment grade corporate bonds, municipal bonds and asset-backed securities as of December 31, 2017. These investments mature between 2017 through 2021 and we intend to hold these investments until maturity. Cash and cash equivalents consist of cash on deposit with several domestic banks and money market funds. As of December 31, 2017, we had no outstanding borrowings and one outstanding letter of credit totaling $0.5 million in favor of a client contract. The letter of credit guarantees our performance under the contract and expires in 2018. We believe our revolving line of credit, cash from operating activities, cash on hand and access to the credit markets provide us with sufficient flexibility to meet our long-term financial needs.

The following table sets forth a summary of cash flows for the years ended December 31:

($ in thousands)	2017	2016	2015
Cash flows provided (used) by:			
Operating activities	$ 195,755	$ 191,859	$ 134,327
Investing activities	(85,395)	(50,720)	(398,459)
Financing activities	39,415	(138,075)	91,052
Net increase (decrease) in cash and cash equivalents	$ 149,775	$ 3,064	$ (173,080)

Net cash provided by operating activities continues to be our primary source of funds to finance operating needs and capital expenditures. Other potential capital resources include cash on hand, public and private issuances of debt or equity securities, and bank borrowings. It is possible that our ability to access the capital and credit markets in the future may be limited by economic conditions or other factors. We currently believe that cash provided by operating activities, cash on hand and available credit are sufficient to fund our working capital requirements, capital expenditures, income tax obligations, and share repurchases for at least the next twelve months.

In 2017, operating activities provided cash of $195.8 million compared to $191.9 million in 2016. Operating activities that provided cash were primarily comprised of net income of $163.9 million, non-cash depreciation and amortization charges of $53.9 million and non-cash share-based compensation expense of $37.3 million. Working capital, excluding cash, increased approximately $63.6 million million mainly due to higher accounts receivable related to annual maintenance and subscription billings as well as milestone billings for several contracts, timing of income tax payments, and the deferred taxes associated with stock option activity during the period. These increases were offset slightly by the growth in deferred revenue balances and timing of payments of payroll related taxes and vendor invoices.

In general, changes in the balance of deferred revenue are cyclical and primarily driven by the timing of our maintenance renewal billings. Our renewal dates occur throughout the year but our largest renewal cycles occur in the second and fourth quarters.

Days sales outstanding in accounts receivable were 94 days at December 31, 2017, compared to 93 days at December 31, 2016. DSO is calculated based on quarter-end accounts receivable (excluding long-term receivables, but including unbilled receivables) divided by the quotient of annualized quarterly revenues divided by 360 days.

Investing activities used cash of $85.4 million in 2017 compared to $50.7 million in 2016. We invested $59.8 million and received $28.8 million in proceeds from investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2017 through 2021. Approximately $43.1 million was invested in property and equipment. We purchased an office building in Latham, New York for approximately $2.9 million and paid $2.1 million for building improvements. We paid $19.4 million for construction to expand our office building in Yarmouth, Maine. We also made three small acquisitions with a combined cash purchase price of $11.3 million. The remaining additions were for computer equipment, furniture and fixtures in support of internal growth, particularly with respect to our cloud-based offerings. These expenditures were funded from cash generated from operations.

In 2016, we made a small acquisition for approximately $7.4 million and paid $2.0 million related to the working capital holdback in connection with the NWS acquisition. We invested $20.3 million in investment grade corporate and municipal bonds. We purchased an office building in Falmouth, Maine, that was previously leased from an entity owned by an executive's father and brother, for approximately $9.7 million and paid $8.0 million for construction to expand our office building in Yarmouth, Maine. The remaining use of cash was for capital expenditures related to computer equipment, furniture and fixtures in support of internal growth, particularly with respect to growth in our cloud-based offerings. These expenditures were funded from cash generated from operations.

In 2015, we completed the acquisition of NWS for the purchase price of $337.5 million in cash, of which $4.0 million was accrued at December 31, 2015, and 2.1 million shares of Tyler common stock valued at $362.8 million. Also, we completed a small acquisition with a purchase price of $6.1 million in cash and 12,500 shares of Tyler common stock valued at $1.5 million and we made a $15.0 million investment in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited. We also invested $30.9 million in investment grade corporate and municipal bonds. The remaining use of cash was for capital expenditures related to computer equipment, furniture and fixtures in support of internal growth, particularly with respect to growth in our cloud-based offerings. These expenditures were funded from cash generated from operations, cash on hand and bank borrowings.

Financing activities provided cash of $39.4 million in 2017 compared to cash used of $138.1 million in 2016. Financing activities in 2017 were comprised of $10.0 million net payments on our revolving line of credit offset by collections of $56.9 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 44,000 shares of our common stock for an aggregate purchase price of $6.6 million.

Financing activities in 2016 were comprised of $56.0 million net payments on our revolving line of credit offset somewhat by collections of $29.8 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 882,000 shares of our common stock for an aggregate purchase price of $112.7 million, of which $860,000 was accrued at December 31, 2016. Cash provided by financing activities in 2015 resulted from net borrowings of $66.0 million and collections of $27.8 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 5,400 shares of our common stock for an aggregate purchase price of $645,000 in 2015 and paid $2.1 million in debt issuance costs.

On May 11, 2016, our board of directors authorized the repurchase of an additional 1.5 million shares of Tyler common stock. The repurchase program, which was approved by our board of directors, was announced in October 2002, and was amended at various times from 2003 through 2016. As of December 31, 2017, we had remaining authorization to repurchase up to 2.0 million additional shares of our common stock. Our share repurchase program allows us to repurchase shares at our discretion. Market conditions influence the timing of the buybacks and the number of shares repurchased, as well as the volume of employee stock option exercises. Share repurchases are generally funded using our existing cash balances and borrowings under our credit facility and may occur through open market purchases and transactions structured through investment banking institutions, privately negotiated transactions and/or other mechanisms. There is no expiration date specified for the authorization and we intend to repurchase stock under the plan from time to time.

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases. Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180 day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. The Credit Facility is secured by substantially all of our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2017, we were in compliance with those covenants.

As of December 31, 2017, we had no outstanding borrowings and had unused borrowing capacity of $299.5 million under the Credit Facility. We paid interest of $804,000 in 2017, $1.9 million in 2016, and $223,000 in 2015.

We paid income taxes, net of refunds received, of $36.0 million in 2017, $30.2 million in 2016, and $27.3 million in 2015. In 2017, we experienced significant stock option exercise activity that generated net tax benefits of $40.6 million and reduced tax payments accordingly. In 2016 and 2015, excess tax benefits were $29.6 million and $45.3 million, respectively.

The Tax Act, enacted on December 22, 2017, reduced the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018. We expect that the Tax Act will have a positive impact on liquidity in future years due to the decrease in the U.S. corporate income tax rate.

We anticipate that 2018 capital spending will be between $22 million and $25 million, including approximately $1 million related to real estate. We expect the majority of the other capital spending will consist of computer equipment and software for infrastructure replacements and expansion. We currently do not expect to capitalize significant amounts related to software development in 2018, but the actual amount and timing of those costs, and whether they are capitalized or expensed may result in additional capitalized software development. Capital spending is expected to be funded from existing cash balances, cash flows from operations and borrowings under our revolving line of credit.

From time to time we engage in discussions with potential acquisition candidates. In order to pursue such opportunities, which could require significant commitments of capital, we may be required to incur debt or to issue additional potentially dilutive securities in the future. No assurance can be given as to our future acquisition opportunities and how such opportunities will be financed.

We lease office facilities, as well as transportation, computer and other equipment used in our operations under non-cancelable operating lease agreements expiring at various dates through 2025. Most leases contain renewal options and some contain purchase options.

Summarized in the table below are our obligations to make future payments under our Credit Facility and lease obligations at December 31, 2017 (in thousands):

	2018	2019	2020	2021	2022	Thereafter	Total
Revolving line of credit	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Lease obligations	5,428	4,201	3,644	2,366	812	499	16,950
Total future payment obligations	$ 5,428	$ 4,201	$ 3,644	$ 2,366	$ 812	$ 499	$ 16,950

As of December 31, 2017, we do not have any off-balance sheet arrangements, guarantees to third-parties or material purchase commitments, except for the operating lease commitments listed above.

CAPITALIZATION

At December 31, 2017, our capitalization consisted of no outstanding borrowings and $1.2 billion of shareholders' equity.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Market risk represents the risk of loss that may affect us due to adverse changes in financial market prices and interest rates.

In 2017, our effective average interest rate for borrowings was 2.20%. As of December 31, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. The Credit Facility is secured by substantially all of our assets. Loans under the Credit Facility bear interest, at Tyler's option, at a per annum rate of either (1) the Wells Fargo Bank prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180-day LIBOR rate plus a margin of 1.25% to 2.00%.

As of December 31, 2017, we had no outstanding borrowings under the Credit Facility and therefore are not subject to any interest risk.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The reports of our independent registered public accounting firm and our financial statements, related notes, and supplementary data are included as part of this Annual Report beginning on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures — We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act) designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. These include controls and procedures designed to ensure that this information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosures. Management, with the participation of the chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2017. Based on this evaluation, the chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2017.

Management's Report on Internal Control Over Financial Reporting — Tyler's management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Securities Exchange Act Rule 13a-15(f). Tyler's internal control over financial reporting is designed to provide reasonable assurance to Tyler's management and board of directors regarding the preparation and fair presentation of published financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of Tyler's internal control over financial reporting as of December 31, 2017. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Based on our assessment, we concluded that, as of December 31, 2017, Tyler's internal control over financial reporting was effective based on those criteria.

Tyler's internal control over financial reporting as of December 31, 2017 has been audited by Ernst & Young LLP, the independent registered public accounting firm who also audited Tyler's financial statements. Ernst & Young's attestation report on Tyler's internal control over financial reporting appears on page F-1 hereof.

Changes in Internal Control Over Financial Reporting — During the quarter ended December 31, 2017, there were no changes in our internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f), that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION.

None.

PART III

See the information under the following captions in Tyler's definitive Proxy Statement, which is incorporated herein by reference. Only those sections of the Proxy Statement that specifically address the items set forth herein are incorporated by reference. Such incorporation by reference does not include the Compensation Discussion and Analysis, the Compensation Committee Report or the Audit Committee Report, which are included in the Proxy Statement.

		Headings in Proxy Statement
ITEM 10.	DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE.	"Tyler Management" and "Corporate Governance Principles and Board Matters"
ITEM 11.	EXECUTIVE COMPENSATION.	"Executive Compensation"
ITEM 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.	"Security Ownership of Certain Beneficial Owners and Management"
ITEM 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.	"Executive Compensation" and "Certain Relationships and Related Transactions"

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information required under this item may be found under the section captioned "Proposals For Consideration – Proposal Two – Ratification of Our Independent Auditors for Fiscal Year 2018" in our Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

The following documents are filed as part of this Annual Report:

(a) (1) The financial statements are filed as part of this Annual Report.

(2) Financial statement schedules:

There are no financial statement schedules filed as part of this Annual Report, since the required information is included in the financial statements, including the notes thereto, or the circumstances requiring inclusion of such schedules are not present.

(3) Exhibits

Certain of the exhibits to this Annual Report are hereby incorporated by reference, as specified:

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of Tyler Three, as amended through May 14, 1990, and Certificate of Designation of Series A Junior Participating Preferred Stock (filed as Exhibit 3.1 to our Form 10-Q for the quarter ended June 30, 1990, and incorporated by reference herein).
3.2	Certificate of Amendment to the Restated Certificate of Incorporation (filed as Exhibit 3.1 to our Form 8-K, dated February 19, 1998, and incorporated by reference herein).
3.3	Amended and Restated By-Laws of Tyler Corporation, dated October 20, 2015 (filed as Exhibit 3.3 to our Form 10-Q for the quarter ended September 30, 2015, and incorporated by reference herein).
3.4	Certificate of Amendment dated May 19, 1999 to the Restated Certificate of Incorporation (filed as Exhibit 3.4 to our Form 10-K for the year ended December 31, 2000, and incorporated by reference herein).
4.1	Specimen of Common Stock Certificate (filed as Exhibit 4.1 to our registration statement no. 33-33505 and incorporated by reference herein).
4.2	Credit Agreement dated November 16, 2015, among Tyler Technologies, Inc. and Wells Fargo Bank, N. A. as Administrative Agent and other lenders party hereto (filed as Exhibit 10.1 to our Form 8-K dated November 16, 2015, and incorporated by reference herein).
4.3	Agreement and Plan of Merger, dated as of September 30, 2015, by and among Tyler Technologies, Inc., Brinston Acquisition, LLC, New World Systems Corporation, and Larry D. Leinweber, as the Principal Shareholder identified therein and the Shareholders' Representative identified therein. (filed as Exhibit 2.1 to our Form 8-K, dated October 1, 2015, and incorporated by reference herein).
10.2	Tyler Technologies, Inc. 2010 Stock Option Plan effective as of May 13, 2010 (filed as Exhibit 4.1 to our registration statement no. 333-168499 and incorporated by reference herein).
10.3	Employment and Non-Competition Agreement between Tyler Technologies, Inc. and John S. Marr Jr. dated February 5, 2013 (filed as Exhibit 10.3 to our Form 10-K for the year ended December 31, 2012 and incorporated by reference herein).

Exhibit Number	Description
10.4	Employment and Non-Competition Agreement between Tyler Technologies, Inc. and Dustin R. Womble dated February 5, 2013 (filed as Exhibit 10.4 to our Form 10-K for the year ended December 31, 2012 and incorporated by reference herein).
10.5	Employment and Non-Competition Agreement between Tyler Technologies, Inc. and Brian K. Miller dated February 5, 2013 (filed as Exhibit 10.5 to our Form 10-K for the year ended December 31, 2012 and incorporated by reference herein).
10.6	Employment and Non-Competition Agreement between Tyler Technologies, Inc. and H. Lynn Moore dated February 5, 2013 (filed as Exhibit 10.6 to our Form 10-K for the year ended December 31, 2012 and incorporated by reference herein).
10.7	Employee Stock Purchase Plan (filed as Exhibit 10.1 to our registration statement 333-182318 dated June 25, 2012 and incorporated by reference herein).
*23	Consent of Independent Registered Public Accounting Firm.
*31.1	Rule 13a-14(a) Certification by Principal Executive Officer.
*31.2	Rule 13a-14(a) Certification by Principal Financial Officer.
*32	Section 1350 Certification of Principal Executive Officer and Principal Financial Officer.
*101	Instance Document
*101	Schema Document
*101	Calculation Linkbase Document
*101	Labels Linkbase Document
*101	Definition Linkbase Document
*101	Presentation Linkbase Document

* — Filed herewith.

A copy of each exhibit may be obtained at a price of 15 cents per page, with a $10.00 minimum order, by writing Investor Relations, 5101 Tennyson Parkway, Plano, Texas, 75024.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TYLER TECHNOLOGIES, INC.

Date: February 21, 2018	By:	/s/ John S. Marr
		John S. Marr Chief Executive Officer and Chairman of the Board (principal executive officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, the following persons on behalf of the registrant and in the capacities and on the dates indicated have signed this report below.

Date: February 21, 2018	By:	/s/ John S. Marr
		John S. Marr Chief Executive Officer and Chairman of the Board Director (principal executive officer)
Date: February 21, 2018	By:	/s/ H. Lynn Moore
		H. Lynn Moore President and Director
Date: February 21, 2018	By:	/s/ Brian K. Miller
		Brian K. Miller Executive Vice President and Chief Financial Officer (principal financial officer)
Date: February 21, 2018	By:	/s/ W. Michael Smith
		W. Michael Smith Chief Accounting Officer (principal accounting officer)
Date: February 21, 2018	By:	/s/ Donald R. Brattain
		Donald R. Brattain Director
Date: February 21, 2018	By:	/s/ Glenn A. Carter
		Glenn A. Carter Director
Date: February 21, 2018	By:	/s/ Brenda A. Cline
		Brenda A. Cline Director

Date: February 21, 2018	By:	/s/ J. Luther King
		J. Luther King Director
Date: February 21, 2018	By:	/s/ Daniel M. Pope
		Daniel M. Pope Director
Date: February 21, 2018	By:	/s/ Dustin R. Womble
		Dustin R. Womble Director

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Tyler Technologies, Inc. (the Company) as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, cash flows and shareholders' equity for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 21, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 1966.

Dallas, Texas
February 21, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Tyler Technologies, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), consolidated balance sheets of the Company as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and our report dated February 21, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ ERNST & YOUNG LLP

Dallas, Texas
February 21, 2018

Tyler Technologies, Inc.
Consolidated Statements of Comprehensive Income
For the years ended December 31
(In thousands, except per share amounts)

	2017	2016	2015
Revenues:			
Software licenses and royalties	$ 75,694	$ 74,306	$ 59,008
Subscriptions	173,510	143,704	111,933
Software services	187,149	174,804	139,852
Maintenance	361,569	322,969	245,537
Appraisal services	25,023	26,287	25,065
Hardware and other	17,717	14,973	9,627
Total revenues	840,662	756,043	591,022
Cost of revenues:			
Software licenses and royalties	3,321	2,964	1,632
Acquired software	21,686	22,235	4,440
Software services, maintenance and subscriptions	387,634	348,939	285,340
Appraisal services	16,286	16,411	15,922
Hardware and other	12,595	10,143	6,501
Total cost of revenues	441,522	400,692	313,835
Gross profit	399,140	355,351	277,187
Selling, general and administrative expenses	176,974	167,161	133,317
Research and development expense	47,324	43,154	29,922
Amortization of customer and trade name intangibles	13,912	13,731	5,905
Operating income	160,930	131,305	108,043
Other income (expense), net	698	(1,998)	381
Income before income taxes	161,628	129,307	108,424
Income tax (benefit) provision	(2,317)	19,450	43,555
Net income	$ 163,945	$ 109,857	$ 64,869
Earnings per common share:			
Basic	$ 4.40	$ 3.01	$ 1.90
Diluted	$ 4.18	$ 2.82	$ 1.77

See accompanying notes.

Tyler Technologies, Inc.
Consolidated Balance Sheets
(In thousands, except par value and share amounts)

	December 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 185,926	$ 36,151
Accounts receivable (less allowance for losses of $5,427 in 2017 and $3,396 in 2016)	227,127	200,334
Short-term investments	43,159	20,273
Prepaid expenses	27,252	21,039
Income tax receivable	11,339	2,895
Other current assets	1,997	2,268
Total current assets	496,800	282,960
Accounts receivable, long-term	7,536	2,480
Property and equipment, net	152,315	124,268
Other assets:		
Goodwill	657,987	650,237
Other intangibles, net	236,444	267,259
Non-current investments and other assets	38,510	30,741
	$ 1,589,592	$ 1,357,945
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 8,174	$ 7,295
Accrued liabilities	64,675	55,989
Deferred revenue	309,461	298,217
Total current liabilities	382,310	361,501
Revolving line of credit	—	10,000
Deferred revenue, long-term	1,274	2,140
Deferred income taxes	38,914	68,779
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, $10.00 par value; 1,000,000 shares authorized; none issued	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 48,147,969 shares issued in 2017 and 2016	481	481
Additional paid-in capital	626,867	556,663
Accumulated other comprehensive loss, net of tax	(46)	(46)
Retained earnings	599,821	435,876
Treasury stock, at cost; 10,262,182 and 11,381,733 shares in 2017 and 2016, respectively	(60,029)	(77,449)
Total shareholders' equity	1,167,094	915,525
	$ 1,589,592	$ 1,357,945

See accompanying notes.

Tyler Technologies, Inc.
Consolidated Statements of Shareholders' Equity
For the years ended December 31, 2017, 2016 and 2015
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
Balance at December 31, 2014	48,148	$ 481	$ 201,389	$ (46)	$ 261,150	(14,679)	$ (126,001)	$ 336,973
Net income	—	—	—	—	64,869	—	—	64,869
Issuance of shares pursuant to stock compensation plan	—	—	4,332	—	—	1,118	18,828	23,160
Stock compensation	—	—	20,182	—	—	—	—	20,182
Issuance of shares pursuant to employee stock purchase plan	—	—	3,879	—	—	43	792	4,671
Federal income tax benefit related to exercise of stock options	—	—	45,314	—	—	—	—	45,314
Treasury stock purchases	—	—	—	—	—	(5)	(645)	(645)
Issuance of shares for acquisition	—	—	332,659	—	—	2,149	31,674	364,333
Balance at December 31, 2015	48,148	481	607,755	(46)	326,019	(11,374)	(75,352)	858,857
Net income	—	—	—	—	109,857	—	—	109,857
Issuance of shares pursuant to stock compensation plan	—	—	(82,273)	—	—	827	105,800	23,527
Stock compensation	—	—	29,747	—	—	—	—	29,747
Issuance of shares pursuant to employee stock purchase plan	—	—	1,434	—	—	47	4,802	6,236
Treasury stock purchases	—	—	—	—	—	(882)	(112,699)	(112,699)
Balance at December 31, 2016	48,148	481	556,663	(46)	435,876	(11,382)	(77,449)	915,525
Net income	—	—	—	—	163,945	—	—	163,945
Issuance of shares pursuant to stock compensation plan	—	—	28,174	—	—	1,113	21,671	49,845
Stock compensation	—	—	37,348	—	—	—	—	37,348
Issuance of shares pursuant to employee stock purchase plan	—	—	4,682	—	—	51	2,362	7,044
Treasury stock purchases	—	—	—	—	—	(44)	(6,613)	(6,613)
Balance at December 31, 2017	48,148	$ 481	$ 626,867	$ (46)	$ 599,821	(10,262)	$ (60,029)	$ 1,167,094

See accompanying notes.

Tyler Technologies, Inc.
Consolidated Statements of Cash Flows
For the years ended December 31
(In thousands)

	2017	2016	2015
Cash flows from operating activities:			
Net income	$ 163,945	$ 109,857	$ 64,869
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization	53,925	50,301	19,574
Share-based compensation expense	37,348	29,747	20,182
Provision for losses - accounts receivable	4,110	4,484	1,756
Deferred income tax benefit	(29,865)	(28,939)	(7,956)
Changes in operating assets and liabilities, exclusive of effects of acquired companies:			
Accounts receivable	(35,558)	(30,227)	(28,172)
Income tax receivable	(8,444)	18,185	24,255
Prepaid expenses and other current assets	(5,897)	2,229	(3,054)
Accounts payable	878	387	652
Accrued liabilities	6,050	10,717	490
Deferred revenue	9,263	25,118	41,731
Net cash provided by operating activities	195,755	191,859	134,327
Cash flows from investing activities:			
Cost of acquisitions, net of cash acquired	(11,344)	(9,394)	(339,961)
Purchase of cost method investment	—	—	(15,000)
Purchase of marketable security investments	(59,779)	(20,316)	(31,907)
Proceeds from marketable security investments	28,786	16,837	900
Additions to property and equipment	(43,057)	(37,726)	(12,501)
(Increase) decrease in other	(1)	(121)	10
Net cash used by investing activities	(85,395)	(50,720)	(398,459)
Cash flows from financing activities:			
(Decrease) increase in net borrowings on revolving line of credit	(10,000)	(56,000)	66,000
Purchase of treasury shares	(7,474)	(111,838)	(645)
Contributions from employee stock purchase plan	7,044	6,236	4,671
Proceeds from exercise of stock options	49,845	23,527	23,160
Debt issuance costs	—	—	(2,134)
Net cash provided (used) by financing activities	39,415	(138,075)	91,052
Net increase (decrease) in cash and cash equivalents	149,775	3,064	(173,080)
Cash and cash equivalents at beginning of period	36,151	33,087	206,167
Cash and cash equivalents at end of period	$ 185,926	$ 36,151	$ 33,087

See accompanying notes.

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

We provide integrated software systems and related services for the public sector, with a focus on local governments. We develop and market a broad line of software solutions and services to address the information technology ("IT") needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services, including software and hardware installation, data conversion, training, and for certain customers, product modifications, along with continuing maintenance and support for customers using our systems. We also provide subscription-based services such as software as a service ("SaaS") arrangements, which utilize the Tyler private cloud, and electronic document filing solutions ("e-filing"). In addition, we provide property appraisal outsourcing services for taxing jurisdictions.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include our parent company and two subsidiaries, which are wholly-owned. All significant intercompany balances and transactions have been eliminated in consolidation. Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances from non-owner sources and includes all components of net income (loss) and other comprehensive income (loss). We had no items of other comprehensive income (loss) during the years ended December 31, 2017, 2016 and 2015.

CASH AND CASH EQUIVALENTS

Cash in excess of that necessary for operating requirements is invested in short-term, highly liquid, income-producing investments. Investments with original maturities of three months or less are classified as cash and cash equivalents, which primarily consist of cash on deposit with several banks and money market funds. Cash and cash equivalents are stated at cost, which approximates market value.

REVENUE RECOGNITION

We earn revenue from software licenses, royalties, subscription-based services, software services, post-contract customer support ("PCS" or "maintenance"), hardware, and appraisal services.

<u>Software Arrangements:</u>

For the majority of our software arrangements, we provide services that range from installation, training, and basic consulting to software modification and customization to meet specific customer needs. If the arrangement does not require significant production, modification or customization or where the software services are not considered essential to the functionality of the software, revenue is recognized when all of the following conditions are met

- persuasive evidence of an arrangement exists
- delivery has occurred
- our fee is fixed or determinable
- collectability is probable

For multiple element arrangements, each element of the arrangement is analyzed and we allocate a portion of the total arrangement fee to the elements based on the relative fair value of the element using vendor-specific objective evidence of fair value ("VSOE"), regardless of any separate prices stated within the contract for each element. Fair value is considered the price a customer would be required to pay if the element was sold separately based on our historical experience of stand-alone sales of these elements to third-parties. For PCS, we use renewal rates for continued support arrangements to determine fair value. For software services, we use the fair value we charge our customers when those services are sold separately. We monitor our transactions to determine that we maintain and periodically revise VSOE to reflect fair value. In software arrangements in which we have the fair value of all undelivered elements but not of a delivered element, we apply the "residual method," in compliance with Accounting Standards Codification ("ASC") 985-605, Software Revenue Recognition. Under the residual method, if the fair value of all undelivered elements is determinable, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is allocated to the delivered element(s) and is recognized as revenue assuming the other revenue recognition criteria are met. In software arrangements in which we do not have VSOE for all undelivered elements, revenue is deferred until fair value is determined or all elements for which we do not have VSOE have been delivered. Alternatively, if sufficient VSOE does not exist and the only undelivered element is services that do not involve significant modification or customization of the software, the entire fee is recognized over the period during which the services are expected to be performed.

Software Licenses and Royalties

We recognize the revenue allocable to software licenses and specified upgrades upon delivery of the software product or upgrade to the customer, unless the fee is not fixed or determinable or collectability is not probable. If the fee is not fixed or determinable, software license revenue is generally recognized as payments become due from the customer. If collectability is not considered probable, revenue is recognized when the fee is collected. Arrangements that include software services, such as training or installation, are evaluated to determine whether those services are essential to the product's functionality.

A majority of our software arrangements involve "off-the-shelf" software. We consider software to be off-the-shelf software if it can be added to an arrangement with minor changes in the underlying code and it can be used by the customer for the customer's purpose upon installation. For off-the-shelf software arrangements, we recognize the software license fee as revenue after delivery has occurred, customer acceptance is reasonably assured, that portion of the fee represents a non-refundable enforceable claim and is probable of collection, and the remaining services such as training are not considered essential to the product's functionality.

For arrangements that involve significant production, modification or customization of the software, or where software services are otherwise considered essential, we recognize revenue using contract accounting and apply the provisions of the Construction type and Production type Contracts as discussed in ASC 605-35. We generally use the percentage-of-completion method to recognize revenue from these arrangements. We measure progress-to-completion primarily using labor hours incurred, or value added. The percentage-of-completion method generally results in the recognition of reasonably consistent profit margins over the life of a contract because we have the ability to produce reasonably dependable estimates of contract billings and contract costs. We use the level of profit margin that is most likely to occur on a contract. If the most likely profit margin cannot be precisely determined, the lowest probable level of profit margin in the range of estimates is used until the results can be estimated more precisely. These arrangements are often implemented over an extended time period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent. For arrangements that include new product releases for which it is difficult to estimate final profitability except to assume that no loss will ultimately be incurred, we recognize revenue under the completed contract method. Under the completed contract method, revenue is recognized only when a contract is completed or substantially complete. Historically these amounts have been immaterial.

We recognize royalty revenue when earned under the terms of our third party royalty arrangements, provided the fees are considered fixed or determinable and realization of payment is probable. Currently, our third party royalties are variable in nature and such amounts are not considered fixed or determinable until we receive notice of amounts earned. Typically, we receive notice of royalty revenues earned on a quarterly basis in the immediate quarter following the royalty reporting period.

Software Services

Some of our software arrangements include services considered essential for the customer to use the software for the customer's purposes. For these software arrangements, both the software license revenue and the services revenue are recognized as the services are performed using the percentage-of-completion contract accounting method. When software services are not considered essential, the fee allocable to the service element is recognized as revenue as we perform the services.

Computer Hardware Equipment

Revenue allocable to computer hardware equipment is recognized when we deliver the equipment and collection is probable.

Post-Contract Customer Support

Our customers generally enter into PCS agreements when they purchase our software licenses. PCS includes telephone and online support, bug fixes, and rights to upgrades on a when-and-if available basis. Our PCS agreements are typically renewable annually. Revenue allocated to PCS is recognized on a straight-line basis over the period the PCS is provided. All significant costs and expenses associated with PCS are expensed as incurred.

Subscription-Based Services:

Subscription-based services consist of revenues derived from SaaS arrangements, which utilize the Tyler private cloud, and electronic filing transactions.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. In cases where the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition.

For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements, using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate contract value to each element of the arrangement that qualifies for treatment as a separate element based on VSOE, and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. We recognize hosting services ratably over the term of the arrangement, which range from one to ten years but are typically for a period of five to seven years. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once we have provided the customer access to the software and we may begin billing for hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

Electronic filing transaction fees primarily pertain to documents filed with the courts by attorneys and other third-parties via our e-filing services and retrieval of filed documents via our access services. The elements for these arrangements are accounted for under ASC 605-25. For each document filed with a court, the filer generally pays a transaction fee and a court filing fee to us and we remit a portion of the transaction fee and the filing fee to the court. We record as revenue the transaction fee, while the portion of the transaction fee remitted to the courts is recorded as cost of sales as we are acting as a principal in the arrangement. Court filing fees collected on behalf of the courts and remitted to the courts are recorded on a net basis and thus do not affect the statement of comprehensive income. In some cases, we are paid on a fixed fee basis and recognize the revenue ratably over the contractual period.

Costs of performing services under subscription-based arrangements are expensed as incurred, except for certain direct and incremental contract origination and set-up costs associated with SaaS arrangements. Such direct and incremental costs are capitalized and amortized ratably over the related SaaS hosting term.

Appraisal Services:

For our property appraisal projects, we recognize revenue using the proportional performance method of revenue recognition since many of these projects are implemented over one to three year periods and consist of various unique activities. Under this method of revenue recognition, we identify each activity for the appraisal project, with a typical project generally calling for bonding, office set up, training, routing of map information, data entry, data collection, data verification, informal hearings, appeals and project management. Each activity or act is specifically identified and assigned an estimated cost. Costs which are considered to be associated with indirect activities, such as bonding costs and office set up, are expensed as incurred. These costs are typically billed as incurred and are recognized as revenue equal to cost. Direct contract fulfillment activities and related supervisory costs such as data collection, data entry and verification are expensed as incurred. The direct costs for these activities are determined and the total contract value is then allocated to each activity based on a consistent profit margin. Each activity is assigned a consistent unit of measure to determine progress towards completion and revenue is recognized for each activity based upon the percentage complete as applied to the estimated revenue for that activity. Progress for the fulfillment activities is typically based on labor hours or an output measure such as the number of parcel counts completed for that activity. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent.

Allocation of Revenue in Statements of Comprehensive Income

In our statements of comprehensive income, we allocate revenue to software licenses, software services, maintenance and hardware and other based on the VSOE of fair value for elements in each revenue arrangement and the application of the residual method for arrangements in which we have established VSOE of fair value for all undelivered elements. In arrangements where we are not able to establish VSOE of fair value for all undelivered elements, revenue is first allocated to any undelivered elements for which VSOE of fair value has been established. We then allocate revenue to any undelivered elements for which VSOE of fair value has not been established based upon management's best estimate of fair value of those undelivered elements and apply a residual method to determine the license fee. Management's best estimate of fair value of undelivered elements for which VSOE of fair value has not been established is based upon the VSOE of similar offerings and other objective criteria.

Other

The majority of deferred revenue consists of unearned maintenance revenue that has been billed based on contractual terms in the underlying arrangement with the remaining balance consisting of payments received in advance of revenue being earned under software licensing, subscription-based services, software and appraisal services and hardware installation. Unbilled revenue is not billable at the balance sheet date but is recoverable over the remaining life of the contract through billings made in accordance with contractual agreements. The termination clauses in our contracts generally provide for the payment for the value of products delivered and services performed in the event of an early termination.

Prepaid expenses and other current assets include direct and incremental costs such as commissions associated with arrangements for which revenue recognition has been deferred. Such costs are expensed at the time the related revenue is recognized.

USE OF ESTIMATES

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. Actual results could differ from estimates.

PROPERTY AND EQUIPMENT, NET

Property, equipment and purchased software are recorded at original cost and increased by the cost of any significant improvements after purchase. We expense maintenance and repairs when incurred. Depreciation and amortization is calculated using the straight-line method over the shorter of the asset's estimated useful life or the term of the lease in the case of leasehold improvements. For income tax purposes, we use accelerated depreciation methods as allowed by tax laws.

RESEARCH AND DEVELOPMENT COSTS

We expensed research and development costs of $47.3 million during 2017, $43.2 million during 2016, and $29.9 million during 2015.

INCOME TAXES

Income taxes are accounted for under the asset and liability method. Deferred taxes arise because of different treatment between financial statement accounting and tax accounting, known as "temporary differences." We record the tax effect of these temporary differences as "deferred tax assets" (generally items that can be used as a tax deduction or credit in the future periods) and "deferred tax liabilities" (generally items that we received a tax deduction for, which have not yet been recorded in the income statement). The deferred tax assets and liabilities are measured using enacted tax rules and laws that are expected to be in effect when the temporary differences are expected to be recovered or settled. A valuation allowance would be established to reduce deferred tax assets if it is more likely than not that a deferred tax asset will not be "realized." On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the corporate U.S. federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. Under ASC 740 Income Taxes, the effects of changes in tax rates and laws are recognized in the period in which the new legislation is enacted. In the case of U.S. corporate federal income taxes, the enactment date is the date the bill becomes law (i.e., upon presidential signature). See Note 7 - "Income Tax" for further discussion related to the Tax Act.

SHARE-BASED COMPENSATION

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation. See Note 9 – "Share-Based Compensation" for further information.

GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired, including identifiable intangible assets, in connection with our business combinations. Upon acquisition, goodwill is assigned to the reporting unit that is expected to benefit from the synergies of the business combination, which is the reporting unit to which the related acquired technology is assigned. A reporting unit is the operating segment, or a business unit one level below that operating segment, for which discrete financial information is prepared and regularly reviewed by executive management. We assess goodwill for impairment annually as of April, or more frequently whenever events or changes in circumstances indicate its carrying value may not be recoverable.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2017, did not result in an impairment charge.

Other Intangible Assets

We make judgments about the recoverability of purchased intangible assets other than goodwill whenever events or changes in circumstances indicate that an impairment may exist. Customer base and acquired software each comprise approximately half of our purchased intangible assets other than goodwill. We review our customer turnover each year for indications of impairment. Our customer turnover has historically been very low. There have been no significant impairments of intangible assets in any of the periods presented. If indications of impairment are determined to exist, we measure the recoverability of assets by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets.

IMPAIRMENT OF LONG-LIVED ASSETS

We periodically evaluate whether current facts or circumstances indicate that the carrying value of our property and equipment or other long-lived assets to be held and used may not be recoverable. If such circumstances are determined to exist, we measure the recoverability of assets to be held and used by a comparison of the carrying amount of the asset or appropriate grouping of assets and the estimated undiscounted future cash flows expected to be generated by the assets. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of would be separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet. There have been no significant impairments of long-lived assets in any of the periods presented.

COSTS OF COMPUTER SOFTWARE

We capitalize software development costs upon the establishment of technological feasibility and prior to the availability of the product for general release to customers. Software development costs primarily consist of personnel costs and rent for related office space. We begin to amortize capitalized costs when a product is available for general release to customers. Amortization expense is determined on a product-by-product basis at a rate not less than straight-line basis over the product's remaining estimated economic life. We have not capitalized any internal software development costs in any of the periods presented.

FAIR VALUE OF FINANCIAL INSTRUMENTS

Cash and cash equivalents, accounts receivables, accounts payables, short-term obligations and certain other assets at cost approximate fair value because of the short maturity of these instruments. The fair value of our revolving line of credit approximates book value as of December 31, 2017, because our interest rates reset approximately every 30 days or less. See Note 6 – "Revolving Line of Credit" for further discussion.

As of December 31, 2017, we have $63.8 million in investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2017 through 2021. We intend to hold these bonds to maturity and have classified them as such. We believe cost approximates fair value because of the relatively short duration of these investments. The fair values of these securities are considered Level II as they are based on inputs from quoted prices in markets that are not active or from other observable market data. These investments are included in short-term investments and non-current investments and other assets.

As of December 31, 2017, we have $15.0 million invested in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited, a privately held Australian company specializing in digitizing the spoken word in court and legal proceedings. The investment in convertible preferred stock is accounted under the cost method because the Company does not have the ability to exercise significant influence over the investee and the securities do not have readily determinable fair values. Our investment is carried at cost less any impairment write-downs. Annually, the Company's cost method investments are assessed for impairment. The Company does not reassess the fair value of cost method investments if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investments. This investment is included in non-current investments and other assets in the accompanying consolidated balance sheets.

CONCENTRATIONS OF CREDIT RISK AND UNBILLED RECEIVABLES

Financial instruments that potentially subject us to significant concentrations of credit risk consist principally of cash and cash equivalents, accounts receivable from trade customers, and investments in marketable securities. Our cash and cash equivalents primarily consists of operating account balances and money market funds, which are maintained at several major domestic financial institutions and the balances often exceed insured amounts. As of December 31, 2017, we had cash and cash equivalents of $185.9 million. We perform periodic evaluations of the credit standing of these financial institutions.

Concentrations of credit risk with respect to receivables are limited due to the size and geographical diversity of our customer base. Historically, our credit losses have not been significant. As a result, we do not believe we have any significant concentrations of credit risk as of December 31, 2017.

We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

The following table summarizes the changes in the allowances for doubtful accounts and sales adjustments:

	Years Ended December 31,		
	2017	2016	2015
Balance at beginning of year	$ 3,396	$ 1,640	$ 1,725
Provisions for losses - accounts receivable	4,110	4,484	1,756
Collection of accounts previously written off	—	—	153
Deductions for accounts charged off or credits issued	(2,079)	(2,728)	(1,994)
Balance at end of year	$ 5,427	$ 3,396	$ 1,640

The termination clauses in most of our contracts provide for the payment for the value of products delivered or services performed in the event of early termination. Our property appraisal outsourcing service contracts can range up to three years and, in a few cases, as long as five years, in duration. In connection with these contracts, as well as certain software service contracts, we may perform work prior to when the software and services are billable and/or payable pursuant to the contract. We have historically recorded such unbilled receivables (costs and estimated profit in excess of billings) in connection with (1) property appraisal services contracts accounted for using proportional performance accounting in which the revenue is earned based upon activities performed in one accounting period but the billing normally occurs subsequently and may span another accounting period; (2) software services contracts accounted for using the percentage-of-completion method of revenue recognition using labor hours as a measure of progress towards completion in which the services are performed in one accounting period but the billing for the software element of the arrangement may be based upon the specific phase of the implementation; (3) software revenue for which we have objective evidence that the customer-specified objective criteria has been met but the billing has not yet been submitted to the customer; (4) some of our contracts provide for an amount to be withheld from a progress billing (generally between 5% and 20% retention) until final and satisfactory project completion is achieved; and (5) in a limited number of cases, we may grant extended payment terms, generally to existing customers with whom we have a long-term relationship and favorable collection history.

We have recorded unbilled receivables of $42.6 million and $33.6 million at December 31, 2017 and 2016, respectively. Included in unbilled receivables are retention receivables of $7.2 million and $5.0 million at December 31, 2017 and 2016, respectively, and these retentions become payable upon the completion of the contract or completion of our fieldwork and formal hearings. Unbilled receivables and retention receivables expected to be collected in excess of one year have been included with accounts receivable, long-term portion in the accompanying consolidated balance sheets.

INDEMNIFICATION

Most of our software license agreements indemnify our customers in the event that the software sold infringes upon the intellectual property rights of a third-party. These agreements typically provide that in such event we will either modify or replace the software so that it becomes non-infringing or procure for the customer the right to use the software. We have recorded no liability associated with these indemnifications, as we are not aware of any pending or threatened infringement actions that are possible losses. We believe the estimated fair value of these intellectual property indemnification clauses is minimal.

We have also agreed to indemnify our officers and board members if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. We maintain directors' and officers' liability insurance coverage to protect against any such losses. We have recorded no liability associated with these indemnifications. Because of our insurance coverage, we believe the estimated fair value of these indemnification agreements is minimal.

RECLASSIFICATIONS

Certain amounts for previous years have been reclassified to conform to the current year presentation.

NEW ACCOUNTING PRONOUNCEMENTS

Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, "Revenue from Contracts with Customers." This ASU is the result of a convergence project between the FASB and the International Accounting Standards Board. The core principle behind ASU No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for delivering those goods and services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. The ASU allows two methods of adoption: a full retrospective approach where three years of financial information are presented in accordance with the new standard, and a modified retrospective approach where the ASU is applied to the most current period presented in the financial statements. We have adopted the new standard effective January 1, 2018 using the full retrospective method which will require each prior reporting period presented to be recast in future issuance of our financial statements. In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of financial information and have reached conclusions on key accounting assessments related to the standard. During the fourth quarter of fiscal 2017, we have substantially completed data conversion activities required to recast our prior period results. We continue to perform an in-depth review of our preliminary results; therefore, we are in the process of completing our analysis necessary to recast prior period results. We do not believe there are any remaining significant implementation topics associated with the adoption of this ASU that have not yet been addressed.

This standard will have a material impact on our consolidated balance sheets and statement of shareholders' equity. The impact of the standard on consolidated revenue and costs of revenue will be dependent upon the mix of revenue streams due to our accounting for software license fees, allocation of discounts across all performance obligations and to the incremental costs of obtaining a contract. Specifically, under the new standard software license fees under perpetual agreements will no longer be subject to 100% discount allocations from other elements in the contract. Discounts in arrangements will be allocated across all deliverables increasing license revenues and decreasing revenues allocated to other performance obligations. In addition, in most cases, net license fees (total license fees less any allocated discounts) will be recognized at the point in time that control of the software license transfers to the customer versus our current policy of recognizing revenue only to the extent billable per the contractual terms. Time-based license fees currently recognized over the license term will no longer be recognized over the period of the license and will instead be recognized at the point in time that control of the software license transfers to the customer. Revenue related to our software as a service ("SaaS") offerings, post-contract customer support ("PCS") renewals and professional services remain substantially unchanged. Due to the complexity of certain contracts, the actual revenue recognition treatment required under the standard will be dependent on contract-specific terms and may vary in some instances from recognition at the time of billing.

Application of the new standard requires that incremental costs directly related to obtaining a contract (typically sales commissions plus any associated fringe benefits) must be recognized as an asset and expensed on a systematic basis that is consistent with the transfer to the customer of the goods and services to which the asset relates, unless that life is less than one year. Currently, we defer sales commissions and recognize expense over the relevant initial contractual term. With the adoption of the new standard, amortization periods will extend past the initial term.

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, "Leases (Topic 842)." Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach.

The ASU is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. We are assessing the financial impact of adopting the new standard; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We will adopt the new standard in fiscal year 2019.

(2) ACQUISITIONS

2017

On November 29, 2017, we acquired audio and digital two-way radio communications technology and related assets from Radio 10-33, LLC. The total purchase price was $1.4 million, all of which was paid in cash.

On August 2, 2017, we acquired substantially all of the assets and assumed certain liabilities of Digital Health Department, Inc. ("DHD"), a company that provides environmental health software, offering a software-as-a-service (SaaS) solution for public health compliance and inspections processes. The total purchase price, net of debt assumed, was $3.9 million, all of which was paid in cash.

The purchase price allocations for the acquisitions noted above are not yet complete. As of December 31, 2017, the preliminary estimates of fair values assumed at the acquisition dates for intangibles, liabilities, deferred revenue, and related deferred taxes are subject to change as valuations are finalized.

On May 30, 2017, we acquired all of the capital stock of Modria.com, Inc., a company that specializes in online dispute resolution for government and commercial entities. The total purchase price, net of debt assumed, was $7.0 million, of which $6.1 million was paid in cash and $0.9 million was accrued as of December 31, 2017. As of December 31, 2017, the purchase price allocation for this acquisition is complete and our balance sheet reflects the allocation of the purchase price to the assets acquired based on their fair value at the date of acquisition. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The operating results of these acquisition are included in our results of operations of the Enterprise Software segment from their respective dates of acquisition. The impact of these acquisitions, individually and in the aggregate, on our operating results, assets and liabilities is not material.

2016

On May 31, 2016, we acquired all of the capital stock of ExecuTime Software, LLC, a leading provider of time, attendance, and advanced scheduling software solutions. The total purchase price, net of debt assumed, was $7.4 million. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. The operating results of this acquisition are included in our results of operations of the Enterprise Software segment from the date of the acquisition. The impact of this acquisition on our operating results is not material.

2015

On November 16, 2015, we acquired all of the capital stock of New World Systems Corporation ("NWS"), which provides public safety and financial solutions for local governments. The purchase price, net of cash acquired of $22.5 million, was comprised of $337.5 million in cash, of which $4.0 million was accrued at December 31, 2015, and 2.1 million shares of Tyler common stock valued at $362.8 million, based on the closing price on November 16, 2015. We also incurred fees of approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various services necessary to complete the acquisition. These fees were expensed in 2015 and are included in selling, general and administrative expenses.

In 2016, we paid $2.0 million related to the working capital holdback of $4.0 million and reduced the accrued liability. Our final valuation of the fair market value of NWS' assets and liabilities resulted in adjustments to the preliminary opening balance sheet. These adjustments related to a reduction in deferred revenue and related deferred income taxes and additional reserves for accounts receivable and contingencies resulting in a net decrease to goodwill of approximately $7.4 million.

On May 29, 2015, we acquired all of the capital stock of Brazos Technology Corporation ("Brazos"), which provides mobile hand held solutions, primarily to law enforcement agencies, for field accident reporting and electronically issuing citations. The purchase price, net of cash acquired of $312,000 and including debt assumed of $733,000, was $6.1 million in cash and 12,500 shares of Tyler common stock valued at $1.5 million.

The operating results of NWS and Brazos are included with the operating results of the Enterprise Software segment from their respective dates of acquisition. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

(3) PROPERTY AND EQUIPMENT, NET

Property and equipment, net consists of the following at December 31:

	Useful Lives (years)	2017	2016
Land	—	$ 9,958	$ 9,958
Building and leasehold improvements	5-39	116,214	94,924
Computer equipment and purchased software	3-5	72,531	55,627
Furniture and fixtures	5	24,834	19,897
Transportation equipment	5	476	447
		224,013	180,853
Accumulated depreciation and amortization		(71,698)	(56,585)
Property and equipment, net		$ 152,315	$ 124,268

Depreciation expense was $17.3 million during 2017, $13.4 million during 2016, and $9.1 million during 2015.

In 2017, we purchased an office building in Latham, New York for approximately $2.9 million and paid $2.1 million for improvements to that building. We also paid $19.4 million for construction to expand our office building in Yarmouth, Maine.

In 2016, we purchased an office building in Falmouth, Maine, that was previously leased from an entity owned by an executive's father and brother, for approximately $9.7 million, and paid $8.0 million for construction to expand our office building in Yarmouth, Maine.

We own office buildings in Bangor, Falmouth and Yarmouth, Maine; Lubbock and Plano, Texas; Troy, Michigan; Latham, New York; and Moraine, Ohio. We lease space in some of these buildings to third-party tenants. These leases expire between 2019 and 2025 and are expected to provide rental income of approximately $1.5 million during 2018, $1.4 million during 2019, $1.4 million during 2020, $1.4 million during 2021, $1.5 million during 2022, and $4.3 million thereafter. Rental income from third-party tenants was $1.5 million in 2017, $1.7 million in 2016, and $0.9 million in 2015.

(4) GOODWILL AND OTHER INTANGIBLE ASSETS

Other intangible assets and related accumulated amortization consists of the following at December 31:

	2017	2016
Gross carrying amount of acquisition intangibles:		
Customer related intangibles	$ 187,717	$ 186,231
Acquired software	179,466	176,096
Trade names	11,435	11,065
Leases acquired	3,694	3,694
	382,312	377,086
Accumulated amortization	(145,868)	(109,827)
Total intangibles, net	$ 236,444	$ 267,259

Total amortization expense for intangibles was $36.0 million in 2017, $36.4 million in 2016, and $10.3 million during 2015.

The allocation of acquisition intangible assets is summarized in the following table:

	December 31, 2017			December 31, 2016		
	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization
Non-amortizable intangibles:						
Goodwill	$ 657,987	—	$ —	$ 650,237	—	$ —
Amortizable intangibles:						
Customer related intangibles	187,717	15 years	64,375	186,231	15 years	51,491
Acquired software	179,466	7 years	76,800	176,096	7 years	55,115
Trade names	11,435	11 years	3,768	11,065	12 years	2,740
Leases acquired	3,694	10 years	925	3,694	9 years	481

The changes in the carrying amount of goodwill for the two years ended December 31, 2017 are as follows:

	Enterprise Software	Appraisal and Tax	Total
Balance as of 12/31/2015	$ 647,109	$ 6,557	$ 653,666
Goodwill acquired with acquisitions	3,943	—	3,943
Purchase price adjustments related to purchase of NWS	(7,372)	—	(7,372)
Balance as of 12/31/2016	643,680	6,557	650,237
Goodwill acquired with acquisitions	7,750	—	7,750
Balance as of 12/31/2017	$ 651,430	$ 6,557	$ 657,987

Estimated annual amortization expense related to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $425,000 in 2018, $373,000 in 2019, $313,000 in 2020, $312,000 in 2021, $312,000 in 2022 and $1.0 million thereafter. Estimated annual amortization expense related to acquisition intangibles, including acquired software, for which the amortization expense is recorded as cost of revenues, is as follows:

2018	$ 35,278
2019	33,920
2020	32,495
2021	32,136
2022	28,665

(5) ACCRUED LIABILITIES

Accrued liabilities consist of the following at December 31:

	2017	2016
Accrued wages, bonuses and commissions	$ 43,688	$ 38,996
Other accrued liabilities	20,987	16,993
	$ 64,675	$ 55,989

(6) REVOLVING LINE OF CREDIT

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases.

Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180-day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. The Credit Facility is secured by substantially all our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2017, we were in compliance with those covenants.

As of December 31, 2017, we had no outstanding borrowings and had unused borrowing capacity of $299.5 million under the Credit Facility. In addition, as of December 31, 2017, we had one outstanding letter of credit for $0.5 million in favor of a client contract. The letter of credit guarantees our performance under the contract and expires in 2018.

We paid interest of $804,000 in 2017, $1.9 million in 2016, and $223,000 in 2015.

(7) INCOME TAX

The income tax (benefit) provision on income from operations consists of the following:

	Years Ended December 31,		
	2017	2016	2015
Current:			
Federal	$ 22,882	$ 41,366	$ 44,841
State	4,666	7,023	6,670
	27,548	48,389	51,511
Deferred	(29,865)	(28,939)	(7,956)
	$ (2,317)	$ 19,450	$ 43,555

Reconciliation of the U.S. statutory income tax rate to our effective income tax expense rate for operations follows:

	Years Ended December 31,		
	2017	2016	2015
Federal income tax expense at statutory rate	$ 56,570	$ 45,257	$ 37,949
State income tax, net of federal income tax benefit	4,824	4,807	3,715
Domestic production activities deduction	(2,617)	(3,947)	(466)
Excess tax benefits related to stock option exercises	(40,624)	(29,582)	—
Tax Act adjustments	(21,625)	—	—
Tax credits	(3,578)	—	—
Non-deductible business expenses	4,573	2,979	2,414
Other, net	160	(64)	(57)
	$ (2,317)	$ 19,450	$ 43,555

On December 22, 2017, the Tax Act was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the U.S. corporate federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. The Tax Act also adds many new provisions including changes to bonus depreciation, the deduction for executive compensation and a tax on global intangible low-taxed income (GILTI). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. We have reported provisional amounts for the income tax effects of the Tax Act for which the accounting is incomplete but a reasonable estimate could be determined. There were no specific impacts of the Tax Act that could not be reasonably estimated which we accounted for under prior tax law. Based on a continued analysis of the estimates and further guidance on the application of the law, it is anticipated that additional revisions may occur throughout the allowable measurement period. Overall, the changes due to the Tax Act will favorably affect income tax expense and future U.S. earnings.

Due to the adoption of ASU No. 2016-09 in 2016, federal and state excess tax benefits from stock option exercises for years subsequent to 2015 are reflected as a reduction of the provision for income taxes, whereas they were previously accounted for as an increase to shareholders' equity.

The tax effects of the major items recorded as deferred tax assets and liabilities as of December 31 are:

	2017	2016
Deferred income tax assets:		
Operating expenses not currently deductible	$ 11,232	$ 18,721
Stock option and other employee benefit plans	15,932	19,665
Total deferred income tax assets	27,164	38,386
Deferred income tax liabilities:		
Intangible assets	(60,189)	(103,754)
Property and equipment	(5,699)	(3,207)
Other	(190)	(204)
Total deferred income tax liabilities	(66,078)	(107,165)
Net deferred income tax liabilities	$ (38,914)	$ (68,779)

Although realization is not assured, we believe it is more likely than not that all the deferred tax assets will be realized. Accordingly, we believe no valuation allowance is required for the deferred tax assets. However, the amount of the deferred tax asset considered realizable could be adjusted in the future if estimates of reversing taxable temporary differences are revised. There were no unrecognized tax benefits during any of the reported periods.

We are subject to U.S. federal tax, as well as income tax of multiple state, local and foreign jurisdictions. We are routinely subject to income tax examinations by these taxing jurisdictions, but we do not have a history of, nor do we expect any, material adjustments to result from these examinations. During 2017, the Internal Revenue Service issued a "no change" letter upon completion of their examination of our 2012 tax year. With few exceptions, major U.S. federal, state and foreign jurisdictions are no longer subject to examinations for years before 2013. As of February 20, 2018, no significant adjustments have been proposed by any taxing jurisdiction.

We paid income taxes, net of refunds received, of $36.0 million in 2017, $30.2 million in 2016, and $27.3 million in 2015.

(8) SHAREHOLDERS' EQUITY

The following table details activity in our common stock:

	Years Ended December 31,					
	2017		2016		2015	
	Shares	Amount	Shares	Amount	Shares	Amount
Stock option exercises	1,113	$ 49,845	827	$ 23,527	1,118	$ 23,160
Purchases of common stock	(44)	(6,613)	(882)	(112,699)	(5)	(645)
Employee stock plan purchases	51	7,044	47	6,236	43	4,671
Shares issued for acquisitions	—	—	—	—	2,149	364,333

As of February 20, 2018, we had authorization from our board of directors to repurchase up to 2.0 million additional shares of our common stock.

(9) SHARE-BASED COMPENSATION

Share-Based Compensation Plan

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. Once options become exercisable, the employee can purchase shares of our common stock at the market price on the date we granted the option. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation.

As of December 31, 2017, there were 2.1 million shares available for future grants under the plan from the 20.0 million shares previously approved by the shareholders.

Determining Fair Value of Stock Compensation

Valuation and Amortization Method. We estimate the fair value of share-based awards granted using the Black-Scholes option valuation model. We amortize the fair value of all awards on a straight-line basis over the requisite service periods, which are generally the vesting periods.

Expected Life. The expected life of awards granted represents the period of time that they are expected to be outstanding. The expected life represents the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns.

Expected Volatility. Using the Black-Scholes option valuation model, we estimate the volatility of our common stock at the date of grant based on the historical volatility of our common stock.

Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes option valuation model on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

Expected Dividend Yield. We have not paid any cash dividends on our common stock in more than ten years and we do not anticipate paying any cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero in the Black-Scholes option valuation model.

Expected Forfeitures. We use historical data to estimate pre-vesting option forfeitures. We record share-based compensation only for those awards that are expected to vest.

The following weighted average assumptions were used for options granted:

	Years Ended December 31,		
	2017	2016	2015
Expected life (in years)	6.0	6.0	6.0
Expected volatility	28.1%	29.3%	28.3%
Risk-free interest rate	2.0%	1.8%	1.7%
Expected forfeiture rate	—%	—%	1.7%

The following table summarizes share-based compensation expense related to share-based awards which is recorded in the statements of comprehensive income:

	Years Ended December 31,		
	2017	2016	2015
Cost of software services, maintenance and subscriptions	$ 9,415	$ 6,548	$ 3,380
Selling, general and administrative expenses	27,933	23,199	16,802
Total share-based compensation expenses	37,348	29,747	20,182
Tax benefit	(40,624)	(30,059)	(5,986)
Net (increase) decrease in net income	$ (3,276)	$ (312)	$ 14,196

Stock Option Activity

Options granted, exercised, forfeited and expired are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2014	5,537	$ 44.61		
Granted	747	145.71		
Exercised	(1,118)	20.71		
Forfeited	(2)	19.61		
Outstanding at December 31, 2015	5,164	64.43		
Granted	846	147.25		
Exercised	(827)	28.43		
Forfeited	(27)	95.33		
Outstanding at December 31, 2016	5,156	83.64		
Granted	824	176.26		
Exercised	(1,113)	44.80		
Forfeited	(50)	134.83		
Outstanding at December 31, 2017	4,817	107.91	7	$ 334,940
Exercisable at December 31, 2017	2,355	78.40	6	$ 232,366

We had unvested options to purchase 2.4 million shares with a weighted average grant date exercise price of $136.51 as of December 31, 2017, and unvested options to purchase 2.8 million shares with a weighted average grant date exercise price of $104.91 as of December 31, 2016. As of December 31, 2017, we had $88.2 million of total unrecognized compensation cost related to unvested options, net of expected forfeitures, which is expected to be amortized over a weighted average amortization period of 3.2 years.

Other information pertaining to option activity was as follows during the twelve months ended December 31:

	2017	2016	2015
Weighted average grant-date fair value of stock options granted	$ 55.56	$ 46.89	$ 45.17
Total intrinsic value of stock options exercised	137,699	103,703	149,542

Employee Stock Purchase Plan

Under our Employee Stock Purchase Plan ("ESPP") participants may contribute up to 15% of their annual compensation to purchase common shares of Tyler. The purchase price of the shares is equal to 85% of the closing price of Tyler shares on the last day of each quarterly offering period. As of December 31, 2017, there were 797,000 shares available for future grants under the ESPP from the 2.0 million shares previously approved by the stockholders.

(10) EARNINGS PER SHARE

Basic earnings and diluted earnings per share data were computed as follows:

	Years Ended December 31,		
	2017	2016	2015
Numerator for basic and diluted earnings per share:			
Net income	$ 163,945	$ 109,857	$ 64,869
Denominator:			
Weighted-average basic common shares outstanding	37,273	36,448	34,137
Assumed conversion of dilutive securities:			
Stock options	1,973	2,513	2,415
Denominator for diluted earnings per share - Adjusted weighted-average shares	39,246	38,961	36,552
Earnings per common share:			
Basic	$ 4.40	$ 3.01	$ 1.90
Diluted	$ 4.18	$ 2.82	$ 1.77

Stock options representing the right to purchase common stock of 1,343,000 shares in 2017, 786,000 shares in 2016, and 417,000 shares in 2015 were not included in the computation of diluted earnings per share because their inclusion would have had an anti-dilutive effect.

(11) LEASES

We lease office facilities for use in our operations, as well as transportation, computer and other equipment. Most of our leases are non-cancelable operating lease agreements and they expire at various dates through 2025. In addition to rent, the leases generally require us to pay taxes, maintenance, insurance and certain other operating expenses.

Rent expense was approximately $6.9 million in 2017, $6.7 million in 2016, and $7.2 million in 2015, which included rent expense associated with related party lease agreements of $150,000 in 2017, $330,000 in 2016, and $1.8 million in 2015.

Future minimum lease payments under all non-cancelable leases at December 31, 2017 are as follows:

Years Ending December 31,	
2018	$ 5,428
2019	4,201
2020	3,644
2021	2,366
2022	812
Thereafter	499
Total	$ 16,950

(12) EMPLOYEE BENEFIT PLANS

We provide a defined contribution plan for the majority of our employees meeting minimum service requirements. The employees can contribute up to 30% of their current compensation to the plan subject to certain statutory limitations. We contribute up to a maximum of 3% of an employee's compensation to the plan. We made contributions to the plan and charged operating results $7.9 million during 2017, $6.9 million during 2016, and $5.3 million during 2015.

(13) COMMITMENTS AND CONTINGENCIES

Other than routine litigation incidental to our business, there are no material legal proceedings pending to which we are party or to which any of our properties are subject.

(14) SEGMENT AND RELATED INFORMATION

We are a major provider of integrated information management solutions and services for the public sector, with a focus on local and state governments.

We provide our software systems and services and appraisal services through four business units, which focus on the following products:

- financial management, education and planning, regulatory and maintenance software solutions;
- financial management, municipal courts, and land and vital records management software solutions;
- courts and justice and public safety software solutions; and
- appraisal and tax software solutions and property appraisal services.

In accordance with ASC 280-10, Segment Reporting, the financial management, education and planning, regulatory and maintenance software solutions unit; financial management, municipal courts and land and vital records management software solutions unit; and the courts and justice and public safety software solutions unit meet the criteria for aggregation and are presented in one reportable segment, Enterprise Software ("ES"). The ES segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as financial management and courts and justice and public safety processes. The Appraisal and Tax ("A&T") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

We evaluate performance based on several factors, of which the primary financial measure is business segment operating income. We define segment operating income for our business units as income before noncash amortization of intangible assets associated with their acquisition, interest expense and income taxes. Segment operating income includes intercompany transactions. The majority of intercompany transactions relate to contracts involving more than one unit and are valued based on the contractual arrangement. Segment operating income for corporate primarily consists of compensation costs for the executive management team and certain accounting and administrative staff and share-based compensation expense for the entire company. Corporate segment operating income also includes revenues and expenses related to a company-wide user conference. The accounting policies of the reportable segments are the same as those described in Note 1, "Summary of Significant Accounting Policies."

Segment assets include net accounts receivable, prepaid expenses and other current assets and net property and equipment. Corporate assets consist of cash and investments, prepaid insurance, intangibles associated with acquisitions, deferred income taxes and net property and equipment mainly related to unallocated information and technology assets.

ES segment capital expenditures included $24.4 million in 2017 and $17.7 million in 2016 for the expansion of existing buildings and purchases of buildings and land.

For the year ended December 31, 2017

		Enterprise Software		Appraisal and Tax		Corporate		Totals
Revenues								
Software licenses and royalties	$	67,840	$	7,854	$	—	$	75,694
Subscriptions		165,651		7,859		—		173,510
Software services		167,934		19,215		—		187,149
Maintenance		339,951		21,618		—		361,569
Appraisal services		—		25,023		—		25,023
Hardware and other		13,094		10		4,613		17,717
Intercompany		10,425		—		(10,425)		—
Total revenues	$	764,895	$	81,579	$	(5,812)	$	840,662
Depreciation and amortization expense		44,517		760		8,648		53,925
Segment operating income		228,254		20,238		(51,964)		196,528
Capital expenditures		28,096		1,181		16,341		45,618
Segment assets	$	338,965	$	44,464	$	1,206,163	$	1,589,592

For the year ended December 31, 2016

		Enterprise Software		Appraisal and Tax		Corporate		Totals
Revenues								
Software licenses and royalties	$	68,844	$	5,462	$	—	$	74,306
Subscriptions		135,516		7,188		—		142,704
Software services		158,478		16,326		—		174,804
Maintenance		304,380		18,589		—		322,969
Appraisal services		—		26,287		—		26,287
Hardware and other		11,942		16		3,015		14,973
Intercompany		6,742		—		(6,742)		—
Total revenues	$	685,902	$	73,868	$	(3,727)	$	756,043
Depreciation and amortization expense		43,962		984		5,355		50,301
Segment operating income		190,817		18,286		(41,832)		167,271
Capital expenditures		23,843		1,432		11,448		36,723
Segment assets	$	295,260	$	31,769	$	1,030,916	$	1,357,945

For the year ended December 31, 2015

	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 54,376	$ 4,632	$ —	$ 59,008
Subscriptions	107,090	4,843	—	111,933
Software services	129,068	10,784	—	139,852
Maintenance	227,586	17,951	—	245,537
Appraisal services	—	25,065	—	25,065
Hardware and other	6,935	12	2,680	9,627
Intercompany	4,025	—	(4,025)	—
Total revenues	$ 529,080	$ 63,287	$ (1,345)	$ 591,022
Depreciation and amortization expense	15,413	867	3,294	19,574
Segment operating income	141,401	15,477	(38,490)	118,388
Capital expenditures	6,112	646	6,746	13,504
Segment assets	$ 265,877	$ 22,283	$ 1,068,410	$ 1,356,570

Reconciliation of reportable segment operating income to the Company's consolidated totals:	Years Ended December 31, 2017	2016	2015
Total segment operating income	$ 196,528	$ 167,271	$ 118,388
Amortization of acquired software	(21,686)	(22,235)	(4,440)
Amortization of customer and trade name intangibles	(13,912)	(13,731)	(5,905)
Other income (expense), net	698	(1,998)	381
Income before income taxes	$ 161,628	$ 129,307	$ 108,424

(15) QUARTERLY FINANCIAL INFORMATION (unaudited)

The following table contains selected financial information from unaudited statements of income for each quarter of 2017 and 2016:

	Quarters Ended 2017 Dec. 31 (a)	Sept. 30	June 30	Mar. 31	2016 Dec. 31	Sept. 30	June 30	Mar. 31
Revenues	$217,851	$214,146	$209,123	$199,542	$193,281	$194,497	$188,972	$179,293
Gross profit	105,500	103,429	95,863	94,348	92,817	93,480	86,936	82,118
Income before income taxes	45,173	43,522	36,974	35,959	35,119	36,419	30,195	27,574
Net income	61,798	38,263	31,578	32,306	31,196	35,430	25,007	18,224
Earnings per diluted share	$ 1.56	$ 0.97	$ 0.81	$ 0.83	$ 0.80	$ 0.91	$ 0.65	$ 0.47
Shares used in computing diluted earnings per share	39,499	39,342	39,201	38,932	38,975	39,062	38,738	39,071

(a) Fourth quarter 2017 includes the significant impact of the enactment of the Tax Act. The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a $21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note 7 - "Income Tax" for further discussion on the impact the Tax Act.

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-205983) pertaining to the Tyler Technologies, Inc. 2010 Stock Option Plan,
(2) Registration Statement (Form S-8 No. 333-168499) pertaining to the Tyler Technologies, Inc. 2010 Stock Option Plan, and

(3) Registration Statement (Form S-8 No. 333-182318) pertaining to the Tyler Technologies, Inc. Employee Stock Purchase Plan;

of our reports dated February 21, 2018, with respect to the consolidated financial statements of Tyler Technologies, Inc., and the effectiveness of internal control over financial reporting of Tyler Technologies, Inc., included in this Annual Report (Form 10-K) of Tyler Technologies, Inc. for the year ended December 31, 2017.

/s/ ERNST & YOUNG LLP

Dallas, Texas
February 21, 2018

Exhibit 31.1

CERTIFICATIONS

I, John S. Marr, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of Tyler Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over our financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for Tyler and have:

   a. Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its divisions, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (The registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):

   a. All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: February 21, 2018

By: /s/ John S. Marr, Jr.
John S. Marr, Jr.

Chief Executive Officer and Chairman of the Board

Exhibit 31.2

CERTIFICATIONS

I, Brian K. Miller, certify that:

1. I have reviewed this annual report on Form 10-K of Tyler Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over our financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for Tyler and have:

   a. Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its divisions, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (The registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):

   a. All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: February 21, 2018

By: /s/ Brian K. Miller

Brian K. Miller

Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

John S. Marr, Jr., Chief Executive Officer and Chairman of the Board of Tyler Technologies, Inc., (the "Company") and Brian K. Miller, Executive Vice President and Chief Financial Officer of the Company, each certify pursuant to section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Date: February 21, 2018

By: /s/ John S. Marr, Jr.
John S. Marr, Jr.
Chief Executive Officer and Chairman of the Board

By: /s/ Brian K. Miller
Brian K. Miller
Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Tyler Technologies, Inc. and will be retained by Tyler Technologies, Inc. and furnished to the Securities and Exchange Commission upon request.

COUNTY MASTER CONTRACT FOR SOFTWARE AND SERVICES

THIS MASTER AGREEMENT, (together with the schedules, appendices, attachments and exhibits, specifically including the attached License and Services Agreement, this "Agreement"), dated as of the date executed by the County (the "Effective Date") that this Agreement is executed by Nassau County, is entered into by and between (i) Nassau County, a municipal corporation having its principal office at 1550 Franklin Avenue, Mineola, New York 11501 (the "County" or "Client"), acting for and on behalf of the Department of Information Technology, having its principal office at 240 Old Country Road, Mineola, New York 11501 (the "Department") and (ii) Tyler Technologies, having its principal office at 840 West Long Lake Road, Troy, Michigan 48098 (the "Contractor" or "Tyler").

WITNESSETH:

WHEREAS, the County requires a Computer Aided Dispatch (CAD) system for the Nassau County Fire Commission (NCFC); and

WHEREAS, the County issued RFP # IT1218-1737 to solicit proposals for CAD system; and

WHEREAS, the County awarded a contract to Contractor on August 7, 2018; and

WHEREAS, the County desires to hire the Contractor to perform the services described in this Agreement; and

WHEREAS, the Contractor desires to perform the services described in this Agreement; and

WHEREAS, this is a personal service contract within the intent and purview of Section 2206 of the County Charter;

NOW, THEREFORE, in consideration of the promises and mutual covenants contained in this Agreement, the parties agree as follows:

1. Term. This Agreement shall commence on Effective Date and remain in effect for three (3) years, unless sooner terminated in accordance with the provisions of this Agreement. The Department may renew this Agreement under the same terms and conditions for an additional two (2) year period, at the Department's sole discretion. If Services are not completed within the five (5) year term, then the term will be extended to the completion of Services. The maintenance and support services may be renewed annually pursuant to the Maintenance and Support Agreement (Appendix A: Exhibit C).

2. Services. (a) The services to be provided by the Contractor under this Agreement shall consist of CAD solution and system, including associated products, data conversion and configuration pursuant to Appendix A (the "Services").

(b) Maintenance and Support Services. The Contractor shall provide to the County the maintenance and support services pursuant to Appendix A: Exhibit C which shall commence at Go-Live Date, and shall also include without limitation:

(i) Promptly notifying the County of any defects or malfunctions in the Licensed Software of which the Contractor is aware or becomes aware and correcting any such defects or malfunctions;

(ii) Providing to the County, without additional charge, during the maintenance and support term all corrections, enhancements, upgrades, updates, revisions, fixes, and new releases of the Licensed Software which the Contractor generally makes available to its customers;

(iii) Providing help desk assistance by toll free or local telephone service and on-line accessibility (via email or Internet) to diagnose and correct problems arising with the use of the Licensed Software; and

(iv) Replacing the Licensed Software at no charge if the media becomes destroyed or damaged to such an extent that the Licensed Software becomes unusable.

(v) To the extent that the Contractor developed Custom Products (as defined in this Agreement) in which Licensed Software is integrated, the maintenance and support obligations applicable to Licensed Software under this Section are deemed to apply to such Custom Products.

(b) "Go-Live Date" is defined as the date Contractor and County first declare Services are completed and system is in production.

(c) "Licensed Software" means individually and collectively all of the software provided, including third-party soft under the Agreement. "Licensed Software" includes error corrections, upgrades, updates, enhancements or new releases required under the license terms, and any deliverables due under maintenance and support requirements (e.g., patches, fixes, program temporary fixes, programs, code or data conversion, or custom programming).

3. Payment. (a) Amount of Consideration. (i) The maximum amount to be paid to the Contractor as full consideration for, under this Agreement shall not exceed the sum of One Million Ninety Thousand Dollars ($1,090,000.00) (the "Maximum Amount"), which shall be payable according to the payment schedule in Appendix A, Exhibit B, Schedule 1, for Services and maintenance and support.

(b) Partial Encumbrance. The Contractor understands that only Seven Hundred One Thousand Five Hundred Dollars ($701,500.00) for Services is being encumbered at this time. The Contractor is cautioned not to perform services that would cause billings to exceed this amount unless additional funds are encumbered. Subject to Section 12(c), the County shall not be liable for payment of any amounts which have not been encumbered and approved for this agreement by the Nassau County Comptroller.

(b) Vouchers; Voucher Review, Approval and Audit. Payments shall be made to the Contractor in arrears and shall be contingent upon (i) the Contractor submitting a claim voucher (the "Voucher") in a form satisfactory to the County, that (a) states with reasonable specificity the services provided and the payment requested as consideration for such services, (b) certifies that the services rendered and the payment requested are in accordance with this Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, and (ii) review, approval and audit of the Voucher by the Department and/or the County Comptroller or his or her duly designated representative (the "Comptroller").

(c) Timing of Payment Claims. The Contractor shall submit claims no later than three (3) months following the County's receipt of the services that are the subject of the claim and no more frequently than once a month.

(d) No Duplication of Payments. Payments under this Agreement shall not duplicate payments for any work performed or to be performed under other agreements between the Contractor and any funding source including the County.

(e) Payments in Connection with Termination or Notice of Termination. Unless a provision of this Agreement expressly states otherwise, payments to the Contractor following the termination of this Agreement shall not exceed payments made as consideration for services that were (i) performed prior to termination, (ii) authorized by this Agreement to be performed, and (iii) not performed after the Contractor received notice that the County did not desire to receive such services.

(f) Travel Expenses. Contractor shall be reimbursed within the maximum amount allocated under Exhibit A of the Tyler Agreement in Appendix A "Investment Summary" for travel and related expenses ("Travel Expenses"). Travel Expenses shall be reasonable, necessary and actually incurred by the Contractor in connection with performance of Services under this Agreement. Contractor will provide the County with PDF copies of non-per diem expense receipts on the County's written request at no additional charge.

4. Independent Contractor. The Contractor is an independent contractor of the County. The Contractor shall not, nor shall any officer, director, employee, servant, agent or independent contractor of the Contractor (a "Contractor Agent"), be (i) deemed a County employee, (ii) commit the County to any obligation, or (iii) hold itself, himself, or herself out as a County employee or Person with the authority to commit the County to any obligation. As used in this Agreement the word "Person" means any individual person, entity (including partnerships, corporations and limited liability companies), and government or political subdivision thereof (including agencies, bureaus, offices and departments thereof).

5. No Arrears or Default. The Contractor is not in arrears to the County upon any debt or contract and it is not in default as surety, contractor, or otherwise upon any obligation to the County, including any obligation to pay taxes to, or perform services for or on behalf of, the County.

6. Compliance with Law. (a) Generally. The Contractor shall comply with any and all applicable Federal, State and local Laws, including, but not limited to those relating to conflicts of interest, human rights, a living wage, disclosure of information, privacy laws, HIPAA (Health Insurance Portability and Accountability Act of 1996), and vendor registration in connection with its performance under this Agreement. In furtherance of the foregoing, the Contractor is bound by and shall comply with the terms of Appendix EE attached hereto and with the County's registration protocol. As used in this Agreement the word "Law" includes any and all statutes, local laws, ordinances, rules, regulations, applicable orders, and/or decrees, as the same may be amended from time to time, enacted, or adopted.

(b) Nassau County Living Wage Law. Pursuant to LL 1-2006, as amended, and to the extent that a waiver has not been obtained in accordance with such law or any rules of the County Executive, the Contractor agrees as follows:

(i) Insofar as it applies to Contractor's employees providing services directly to County under this Agreement, Contractor shall comply with the applicable requirements of the Living Wage Law, as amended;

(ii) Failure to comply with the Living Wage Law, as amended, may constitute a material breach of this Agreement, the occurrence of which shall be determined solely by the County. Contractor has the right to cure such breach within thirty days of receipt of notice of breach from the County. In the event that such breach is not timely cured, the County may terminate this Agreement as well as exercise any other rights available to the County under applicable law.

(iii) It shall be a continuing obligation of the Contractor to inform the County of any material changes in the content of its certification of compliance, attached to this Agreement as Appendix L, and shall provide to the County any information necessary to maintain the certification's accuracy.

(c) Records Access. The parties acknowledge and agree that all records, information, and data ("Information") acquired in connection with performance or administration of this Agreement shall be used and disclosed solely for the purpose of performance and administration of the contract or as required by law. The Contractor acknowledges that Contractor Information in the County's possession may be subject to disclosure under Article 6 of the New York State Public Officer's Law ("Freedom of Information Law" or "FOIL"). In the event that such a request for disclosure is made, the County shall make reasonable efforts to notify the Contractor of such request prior to disclosure of the Information so that the Contractor may take such action as it deems appropriate. Contractor reserves the right to protest the public disclosure of Contractor Information, consistent with applicable public records laws.

(d) Prohibition of Gifts. In accordance with County Executive Order 2-2018, the Contractor shall not offer, give, or agree to give anything of value to any County employee, agent, consultant, construction manager, or other person or firm representing the County (a "County Representative"), including members of a County Representative's immediate family, in connection with the performance by such County Representative of duties involving transactions with the Contractor on behalf of the County, whether such duties are related to this Agreement or any other County contract or matter. As used herein, "anything of value" shall include, but not be limited to, meals, holiday gifts, holiday baskets, gift cards, tickets to golf outings, tickets to sporting events, currency of any kind, or any other gifts, gratuities, favorable opportunities or preferences. For purposes of this subsection, an immediate family member shall include a spouse, child, parent, or sibling. The Contractor shall include the provisions of this subsection in each subcontract entered into under this Agreement.

(e) Disclosure of Conflicts of Interest. In accordance with County Executive Order 2-2018, the Contractor has disclosed as part of its response to the County's Business History Form, or other disclosure form(s), any and all instances where the Contractor employs any spouse, child, or parent of a County employee of the agency or department that contracted or procured the goods and/or services described under this Agreement. The Contractor shall have a continuing obligation, as circumstances arise, to update this disclosure throughout the term of this Agreement.

7. Minimum Service Standards. Regardless of whether required by Law: (a) The Contractor shall, and shall cause Contractor Agents to, conduct its, his or her activities in

connection with this Agreement so as not to endanger or harm any Person or property.

(b) Contractor warrants that it will perform services in a professional, workmanlike manner, consistent with industry standards. In the event Contractor provides services that do not conform to this warranty, Contractor will re-perform the services at no additional cost to the County.

8. Insurance.

(a) Insurance. During the course of performing services under this Agreement, we agree to maintain the following levels of insurance: (a) Commercial General Liability of at least $1,000,000; (b) Automobile Liability of at least $1,000,000; (c) Professional Liability of at least $1,000,000; (d) Workers Compensation complying with applicable statutory requirements; and (e) Excess/Umbrella Liability of at least $5,000,000. Tyler will add County as an additional insured to Tyler's Commercial General Liability and Automobile Liability policies, which will automatically add County as an additional insured to our Excess/Umbrella Liability policy as well. Tyler will provide County with copies of certificates of insurance upon County's written request. Tyler shall obtain such additional insurance as mutually agreed to by parties.

(b) Acceptability; Deductibles; Subcontractors. All insurance obtained and maintained by the Contractor pursuant to this Agreement shall be (i) written by one or more commercial insurance carriers licensed to do business in New York State and acceptable to the County, and which is (ii) in form and substance acceptable to the County. The Contractor shall be solely responsible for the payment of all deductibles to which such policies are subject. The Contractor shall require any subcontractor hired in connection with this Agreement to carry insurance with the same limits and provisions required to be carried by the Contractor under this Agreement.

(c) Delivery; Coverage Change; No Inconsistent Action. Prior to the execution of this Agreement, copies of current certificates of insurance evidencing the insurance coverage required by this Agreement shall be delivered to the Department. Not less than thirty (30) days prior to the date of any expiration or renewal of, or actual, proposed or threatened reduction or cancellation of coverage under, any insurance required hereunder, the Contractor shall provide written notice to the Department of the same and deliver to the Department renewal or replacement certificates of insurance. The Contractor shall cause all insurance to remain in full force and effect throughout the term of this Agreement and shall not take or omit to take any action that would suspend or invalidate any of the required coverages. The failure of the Contractor to maintain Workers' Compensation Insurance shall render this contract void and of no effect. The failure of the Contractor to maintain the other required coverages shall be deemed a material breach of this Agreement upon which the County reserves the right to consider this Agreement terminated as of the date of such failure.

9. Ownership/Right to Works/Return of Works.

(a) County shall retain ownership and intellectual property rights in all reports, documents, data, databases, photographs, deliverables, and/or other materials created by County and provided by the County to the Contractor or maintained by the Contractor on behalf of the County pursuant to this Agreement or made accessible by the County to the Contractor pursuant to the Agreement ("County Works"). The Contractor does not have the right to retain County Works beyond the scope of this Agreement.

(b) Within thirty (30) days of the County's request at any time during the Agreement term or after expiration or early termination of the Agreement, the Contractor shall, at no cost to the County, perform the following actions as requested by the County:

(i) transmit the County Works to the County in a format that is easily usable by the County and does not contain any proprietary software or other materials of the Contractor or third parties; or

(ii) destroy the County Works and any copies, extracts, descriptions, and summaries thereof contained in the Contractor's records or systems; and provide the County with a written certification of such destruction.

(c) The provisions of this Section shall survive the termination of this Agreement.

10. Warranty of Non-Infringement.

(a) The Contractor represents and warrants that the Custom Products, Existing Products (excluding Existing Products licensed from third parties), and any enhancements thereto: (i) are wholly original material not published elsewhere (except for material that is in the public domain); (ii) do not violate any copyright, patent, trademark or trade secrets law; (iii) are not an infringement of any kind of any rights of any third-party; and (iv) do not constitute defamation or invasion of the right of privacy or publicity.

(b) To the extent that the Custom Products or Existing Products incorporate any non-original material, the Contractor represents and warrants that it has obtained all necessary permissions and clearances, in writing, for the use of such non-original material under the Agreement, copies of which shall be provided to the County upon execution of the Agreement or upon the County's request.

(c) To the extent that the Contractor is procuring Existing Products from a third-party for the County's benefit, the Contractor represents and warrants that it has obtained all necessary permissions and clearances, in writing, to provide such Existing Products, copies of which shall be provided to the County upon execution of the Agreement or upon the County's request. County's sole remedy under this provision is contained in Appendix A, Section H, Subsection 1.

(d) "Products" means hardware, software, documentation, data, or other equipment or supplies furnished by or through the Contractor under the Agreement, including, but not limited to: (i) hardware components; (ii) printed materials, preliminary, final or otherwise, whether printed in hard or on electronic media (including, but not limited to, training manuals, documentation for software, systems or users, reports, designs and drawings); (iii) software programs and related documentation; (iv) data, databases, and other data compilations; (v) photographs, film, CDs, DVDs, or other pictorial forms of media; (vi) modifications, customizations, custom programs, program listings, programming tools, modules, and components; (vii) system(s); and (viii) any properties embodied therein, whether tangible or intangible (including, but not limited to, utilities, interfaces, templates, subroutines, algorithms, formulas, source code, and object code). Products do not include County Works.

(e) "Custom Products" means Products, preliminary, final or otherwise, that are created or developed by the Contractor, its employees, agents, subcontractors or partners for the County under and particular to the Agreement. Where such a Product is software, the Custom Product includes both the source code and the object code.

(f) "Existing Products" means Products, Licensed Software, and other licensed products that exist prior to the commencement of the Services under the Agreement or are not developed at the County's expense.

(g) "Licensed Software" means Tyler Software as defined in Appendix A, Section A.

10. Third Party Products.

(a) "Third Party Products" is defined in Appendix A, Section A.

(b) Where the Services involve the delivery of Third-party Products, the Contractor shall coordinate delivery and installation (if applicable) with third-party suppliers.

(c) The vast majority of delivery is intended to be electronic. In the event of any physical delivery, risk of loss passes to the County upon inspection and acceptance of delivery by the County.

11. Binding Effect; No Assignment. This Agreement shall be binding on, and shall be for the benefit of, either your or our successor(s) or permitted assign(s). Neither party may assign this Agreement without the prior written consent of the other party; provided, however, your consent is not required for an assignment by us as a result of a corporate reorganization, merger, acquisition, or purchase of substantially all of our assets to a responsible entity with capability to provide at a minimum same quality of Services as Contractor under this Agreement. Contractor acknowledges any assignment under this Agreement is subject to New York State GML Section 109.

12. Termination

(a) For Cause. If you believe we have materially breached this Agreement, you will invoke the Dispute Resolution clause set forth in Section I(3). You may terminate this Agreement for cause in the event we do not cure, or create a mutually agreeable action plan to address, a material breach of this Agreement within the thirty (30) day window set forth in Section I(3). In the event of termination for cause, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have received, or we have incurred or delivered, prior to the effective date of termination.

(b) For Convenience or Mutual Written Agreement. No earlier than one (1) year after the Effective Date (i) County may terminate this Agreement for any reason upon sixty (60) days' written notice to the Contractor or (ii) upon mutual written agreement of the County and the Contractor.

(c) Lack of Appropriations. If the County should not appropriate or otherwise make available funds sufficient to purchase, lease, operate, or maintain the software or services set forth in this Agreement, the County may unilaterally terminate this Agreement. The County will make best effort to give Contractor at least thirty (30) days written notice prior to a termination for lack of appropriations. In the event of termination due to a lack of appropriations, the County shall pay for undisputed fees and expenses incurred in accordance with this Agreement prior to the termination date. Any disputed fees and expenses must have been submitted to the Invoice Dispute process set forth in Appendix A: Section F(2) at the time of termination in order to be withheld at termination. The County will not be entitled to a refund or offset of previously paid license and other fees.

(d) Force Majeure. Neither party will be liable, you or we may terminate this Agreement if a Force Majeure event suspends performance of scheduled tasks for a period of forty-five (45) days or more. In the event of termination due to Force Majeure, you will pay us for all undisputed fees and expenses related to the software and/or services you have received, or we have incurred or delivered, prior to the effective date of termination. Any disputed fees and expenses must have been submitted to the Invoice Dispute process set forth in Appendix A: Section F(2) at the time of termination in order to be withheld at termination. You will not be entitled to a refund or offset of previously paid license and other fees.

13. Contractor Assistance upon Termination. In connection with the termination or impending termination of this Agreement the Contractor shall, regardless of the reason for termination, take all actions reasonably requested by the County (including those set forth in other provisions of this Agreement) to assist the County in transitioning the Contractor's responsibilities under this Agreement ("Transitional Period Services"). During the Transitional Period Services, Contractor shall be paid in accordance with the following fee schedule: $165 per hour for Project Management services and otherwise $145 per hour. The provisions of this subsection shall survive the termination of this Agreement.

14. Accounting Procedures; Records. The Contractor shall maintain and retain, for a period of six (6) years following the later of termination of or final payment under this Agreement, complete and accurate records, documents, accounts and other evidence, whether maintained electronically or manually ("Records"), pertinent to performance under this Agreement. Records shall be maintained in accordance with Generally Accepted Accounting Principles Such Records shall at all times be available for audit and inspection by the Comptroller, the Department, any other governmental authority with jurisdiction over the provision of services hereunder and/or the payment therefore, and any of their duly designated representatives. The Comptroller may audit Contractor's Records relating directly to the contract on one week advance written notice and at County's expense. The provisions of this Section shall survive the termination of this Agreement.

15. Limitations on Actions and Special Proceedings against the County. No action or special proceeding shall lie or be prosecuted or maintained against the County upon any claims arising out of or in connection with this Agreement unless:

(a) Notice. At least thirty (30) days prior to seeking relief the Contractor shall have presented the demand or claim(s) upon which such action or special proceeding is based in writing to the Applicable DCE for adjustment and the County shall have neglected or refused to make an adjustment or payment on the demand or claim for thirty (30) days after presentment. The Contractor shall send or deliver copies of the documents presented to the Applicable DCE under this Section to each of (i) the Department and the (ii) the County Attorney (at the address specified above for the County) on the same day that documents are sent or delivered to the Applicable DCE. The complaint or necessary moving papers of the Contractor shall allege that the above-described actions and inactions preceded the Contractor's action or special proceeding against the County.

(b) Time Limitation. Such action or special proceeding is commenced within the earlier of (i) one (1) year of the first to occur of (A) final payment under or the termination of this Agreement, and (B) the accrual of the cause of action, and (ii) the time specified in any other provision of this Agreement.

16. Work Performance Liability. The Contractor is and shall remain primarily liable for the successful completion of all work in accordance this Agreement irrespective of whether the Contractor is using a Contractor Agent to perform some or all of the work contemplated by this Agreement, and irrespective of whether the use of such Contractor Agent has been approved by the County.

17. Consent to Jurisdiction and Venue; Governing Law. Unless otherwise specified in this Agreement or required by Law, exclusive original jurisdiction for all claims or actions with respect to this Agreement shall be in the Supreme Court in Nassau County in New York State or a federal court serving Nassau County in New York State and the parties expressly waive any objections to the same on any grounds, including venue and forum non conveniens. This Agreement is intended as a contract under, and shall be governed and construed in accordance with, the Laws of New York State, without regard to the conflict of laws provisions thereof.

18. Notices. Any notice, request, demand or other communication required to be given or made in connection with this Agreement shall be (a) in writing, (b) delivered or sent (i) by hand delivery, evidenced by a signed, dated receipt, (ii) postage prepaid via certified mail, return receipt requested, or (iii) overnight delivery via a nationally recognized courier service, (c) deemed given or made on the date the delivery receipt was signed by a County employee, three (3) business days after it is mailed or one (1) business day after it is released to a courier service, as applicable, and (d)(i) if to the Department, to the attention of the Commissioner at the address specified above for the Department, (ii) if to an Applicable DCE, to the attention of the Applicable DCE (whose name the Contractor shall obtain from the Department) at the address specified above for the County, (iii) if to the Comptroller, to the attention of the Comptroller at 240 Old Country Road, Mineola, NY 11501, and (iv) if to the Contractor, to the attention of the person who executed this Agreement on behalf of the Contractor at the address specified above for the Contractor, or in each case to such other persons or addresses as shall be designated by written notice.

19. All Legal Provisions Deemed Included; Severability; Supremacy. (a) Every provision required by Law to be inserted into or referenced by this Agreement is intended to be a part of this Agreement. If any such provision is not inserted or referenced or is not inserted or referenced in correct form then (i) such provision shall be deemed inserted into or referenced by this Agreement for purposes of interpretation and (ii) upon the application of either party this Agreement shall be formally amended to comply strictly with the Law, without prejudice to the rights of either party.

(b) In the event that any provision of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(c) Unless the application of this subsection will cause a provision required by Law to be excluded from this Agreement, in the event of an actual conflict between the terms and conditions set forth above the signature page to this Agreement and those contained in any schedule, exhibit, appendix, or attachment to this Agreement, the terms and conditions set forth above the signature page shall control. To the extent possible, all the terms of this Agreement should be read together as not conflicting.

(d) Each party has cooperated in the negotiation and preparation of this Agreement. Therefore, in the event that construction of this Agreement occurs, it shall not be construed against either party as drafter.

20. Section and Other Headings. The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

21. Appendices, Exhibits and Attachments.

Conflicts between the various documents shall be resolved in the following order of precedence, such documents constituting the entire Agreement between the parties:

(i) This document, including County Appendices, EE and L
(ii) Contractor License Agreement (Appendix A)
   - Investment Summary (Exhibit A)
   - Invoicing and Payment Policy (Exhibit B)
   - Maintenance and Support Agreement (Exhibit C)
   - Support Call Process (Exhibit C, Schedule 1)
   - Statement of work (Exhibit E)
   - Professional Services (Exhibit E, Schedule 1)
   - Data File Conversion Assistance (Exhibit E, Schedule 2)

(iii) Contractor's BAFO (Appendix A, Exhibit B, Schedule 1)
(iv) Contractor's Proposal (Appendix C)
(v) County RFP (Appendix D)

22. Administrative Service Charge. The Contractor agrees to pay the County an administrative service charge of Five Hundred and Thirty-three Dollars ($533.00) for the processing of this Agreement pursuant to Ordinance Number 74-1979, as amended by Ordinance Number 128-2006. The administrative service charge shall be due and payable to the County by the Contractor upon signing this Agreement.

23. Executory Clause. Notwithstanding any other provision of this Agreement:

(a) Approval and Execution. The County shall have no liability under this Agreement (including any extension or other modification of this Agreement) to any Person unless (i) all County approvals, third party approvals and other governmental approvals have been obtained, including, if required, approval by the County Legislature, and (ii) this Agreement has been executed by the County Executive (as defined in this Agreement).

(b) Availability of Funds. Subject to Section 12(c) above, the County shall have no liability under this Agreement (including any extension or other modification of this Agreement) to any Person beyond funds appropriated or otherwise lawfully available for this Agreement, and, if any portion of the funds for this Agreement are from the state and/or federal governments, then beyond funds available to the County from the state and/or federal governments.

24. Entire Agreement. This Agreement represents the full and entire understanding and agreement between the parties with regard to the subject matter hereof and supersedes all prior agreements (whether written or oral) of the parties relating to the subject matter of this Agreement.

[Remainder of Page Intentionally Left Blank.]

IN WITNESS WHEREOF, the Contractor and the County have executed this Agreement as of the Effective Date.

TYLER TECHNOLOGIES

By: ______________________

Name: Greg Sebastian

Title: President, Public Safety

Date: 3-4-19

NASSAU COUNTY

By: ______________________

Name: ______________________

Title: County Executive

□ Deputy County Executive

Date: ______________________

PLEASE EXECUTE IN BLUE INK

STATE OF MICHIGAN)
)ss.:
COUNTY OF OAKLAND)

On the 4th day of March in the year 2019 before me personally came Greg Sebastian to me personally known, who, being by me duly sworn, did depose and say that he or she resides in the County of Oakland; that he or she is the President of Public Safety Div Tyler Technologies Inc, the corporation described herein and which executed the above instrument; and that he or she signed his or her name thereto by authority of the board of directors of said corporation.

NOTARY PUBLIC

JOHN WRIGHT
Notary Public, State of Michigan
County of Wayne
My Commission Expires 8/23/24
Acting in the County of Oakland

STATE OF NEW YORK)
)ss.:
COUNTY OF NASSAU)

On the _____ day of __________________ in the year 20__ before me personally came __________________________ to me personally known, who, being by me duly sworn, did depose and say that he or she resides in the County of _________________; that he or she is the County Executive of the County of Nassau, the municipal corporation described herein and which executed the above instrument; and that he or she signed his or her name thereto pursuant to Section 205 of the County Government Law of Nassau County.

NOTARY PUBLIC

Appendix EE
Equal Employment Opportunities for Minorities and Women

The provisions of this Appendix EE are hereby made a part of the document to which it is attached.

The Contractor shall comply with all federal, State and local statutory and constitutional anti-discrimination provisions. In addition, Local Law No. 14-2002, entitled "Participation by Minority Group Members and Women in Nassau County Contracts," governs all County Contracts as defined herein and solicitations for bids or proposals for County Contracts. In accordance with Local Law 14-2002:

(a) The Contractor shall not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status in recruitment, employment, job assignments, promotions, upgradings, demotions, transfers, layoffs, terminations, and rates of pay or other forms of compensation. The Contractor will undertake or continue existing programs related to recruitment, employment, job assignments, promotions, upgradings, transfers, and rates of pay or other forms of compensation to ensure that minority group members and women are afforded equal employment opportunities without discrimination.

(b) At the request of the County contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, union, or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability, or marital status and that such employment agency, labor union, or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein.

(c) The Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the County Contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

(d) The Contractor shall make best efforts to solicit active participation by certified minority or women-owned business enterprises ("Certified M/WBEs") as defined in Section 101 of Local Law No. 14-2002, for the purpose of granting of Subcontracts.

(e) The Contractor shall, in its advertisements and solicitations for Subcontractors, indicate its interest in receiving bids from Certified M/WBEs and the requirement that Subcontractors must be equal opportunity employers.

(f) Contractors must notify and receive approval from the respective Department Head prior to issuing any Subcontracts and, at the time of requesting such authorization, must submit a signed Best Efforts Checklist.

(g) Contractors for projects under the supervision of the County's Department of Public Works shall also submit a utilization plan listing all proposed Subcontractors so that, to the greatest extent feasible, all Subcontractors will be approved prior to commencement of work. Any additions or changes to the list of subcontractors under the utilization plan shall be approved by the Commissioner of the Department of Public Works when made. A copy of the utilization plan any additions or changes thereto shall be submitted by the Contractor to the Office of Minority Affairs simultaneously with the submission to the Department of Public Works.

(h) At any time after Subcontractor approval has been requested and prior to being granted, the contracting agency may require the Contractor to submit Documentation Demonstrating Best Efforts to Obtain Certified Minority or Women-owned Business Enterprises. In addition, the contracting agency may require the Contractor to submit such documentation at any time after Subcontractor approval when the contracting agency has reasonable cause to believe that the existing Best Efforts Checklist may be inaccurate. Within ten working days (10) of any such request by the contracting agency, the Contractor must submit Documentation.

(i) In the case where a request is made by the contracting agency or a Deputy County Executive acting on behalf of the contracting agency, the Contractor must, within two (2) working days of such request, submit evidence to demonstrate that it employed Best Efforts to obtain Certified M/WBE participation through proper documentation.

(j) Award of a County Contract alone shall not be deemed or interpreted as approval of all Contractor's Subcontracts and Contractor's fulfillment of Best Efforts to obtain participation by Certified M/WBEs.

(k) A Contractor shall maintain Documentation Demonstrating Best Efforts to Obtain Certified Minority or Women-owned Business Enterprises for a period of six (6) years. Failure to maintain such records shall be deemed failure to make Best Efforts to comply with this Appendix EE, evidence of false certification as M/WBE compliant or considered breach of the County Contract.

(l) The Contractor shall be bound by the provisions of Section 109 of Local Law No. 14-2002 providing for enforcement of violations as follows:

a. Upon receipt by the Executive Director of a complaint from a contracting agency that a County Contractor has failed to comply with the provisions of Local Law No. 14-2002, this Appendix EE or any other contractual provisions included in furtherance of Local Law No. 14-2002, the Executive Director will try to resolve the matter.

b. If efforts to resolve such matter to the satisfaction of all parties are unsuccessful, the Executive Director shall refer the matter, within thirty days (30) of receipt of the complaint, to the American Arbitration Association for proceeding thereon.

c. Upon conclusion of the arbitration proceedings, the arbitrator shall submit to the Executive Director his recommendations regarding the imposition of sanctions, fines or penalties. The Executive Director shall either (i) adopt the recommendation of the arbitrator (ii) determine that no sanctions, fines or penalties should be imposed or (iii) modify the recommendation of the arbitrator, provided that such modification shall not expand upon any sanction recommended or impose any new sanction, or increase the amount of any recommended fine or penalty. The Executive Director, within ten days (10) of receipt of the arbitrators award and recommendations, shall file a determination of such matter and shall cause a copy of such determination to be served upon the respondent by personal service or by certified mail return receipt requested. The award of the arbitrator, and the fines and penalties imposed by the Executive Director, shall be final determinations and may only be vacated or modified as provided in the civil practice law and rules ("CPLR").

(m) The contractor shall provide contracting agency with information regarding all subcontracts awarded under any County Contract, including the amount of compensation paid to each Subcontractor and shall complete all forms provided by the Executive Director or the Department Head relating to subcontractor utilization and efforts to obtain M/WBE participation.

Failure to comply with provisions (a) through (m) above, as ultimately determined by the Executive Director, shall be a material breach of the contract constituting grounds for immediate termination. Once a final determination of failure to comply has been reached by the Executive Director, the determination of whether to terminate a contract shall rest with the Deputy County Executive with oversight responsibility for the contracting agency.

Provisions (a), (b) and (c) shall not be binding upon Contractors or Subcontractors in the performance of work or the provision of services or any other activity that are unrelated, separate, or distinct from the County Contract as expressed by its terms.

The requirements of the provisions (a), (b) and (c) shall not apply to any employment or application for employment outside of this County or solicitations or advertisements therefor or any existing programs of affirmative action regarding employment outside of this County and the effect of contract provisions required by these provisions (a), (b) and (c) shall be so limited.

The Contractor shall include provisions (a), (b) and (c) in every Subcontract in such a manner that these provisions shall be binding upon each Subcontractor as to work in connection with the County Contract.

As used in this Appendix EE the term "Best Efforts Checklist" shall mean a list signed by the Contractor, listing the procedures it has undertaken to procure Subcontractors in accordance with this Appendix EE.

As used in this Appendix EE the term "County Contract" shall mean (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of twenty-five thousand dollars ($25,000), whereby a County contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the County; or (ii) a written agreement in excess of one hundred thousand dollars ($100,000), whereby a County contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon. However, the term "County Contract" does not include agreements or orders for the following services: banking services, insurance policies or contracts, or contracts with a County contracting agency for the sale of bonds, notes or other securities.

As used in this Appendix EE the term "County Contractor" means an individual, business enterprise, including sole proprietorship, partnership, corporation, not-for-profit corporation, or any other person or entity other than the County, whether a contractor, licensor, licensee or any other party, that is (i) a party to a County Contract, (ii) a bidder in connection with the award of a County Contract, or (iii) a proposed party to a County Contract, but shall not include any Subcontractor.

As used in this Appendix EE the term "County Contractor" shall mean a person or firm who will manage and be responsible for an entire contracted project.

As used in this Appendix EE "Documentation Demonstrating Best Efforts to Obtain Certified Minority or Women-owned Business Enterprises" shall include, but is not limited to the following:

a. Proof of having advertised for bids, where appropriate, in minority publications, trade newspapers/notices and magazines, trade and union publications, and publications of general circulation in Nassau County and surrounding areas or having verbally solicited M/WBEs whom the County Contractor reasonably believed might have the qualifications to do the work. A copy of the advertisement, if used, shall be included to demonstrate that it contained language indicating that the County Contractor welcomed bids and quotes from M/WBE Subcontractors. In addition, proof of the date(s) any such advertisements appeared must be included in the Best Effort Documentation. If verbal solicitation is used, a County Contractor's affidavit with a notary's signature and stamp shall be required as part of the documentation.

b. Proof of having provided reasonable time for M/WBE Subcontractors to respond to bid opportunities according to industry norms and standards. A chart outlining the schedule/time frame used to obtain bids from M/WBEs is suggested to be included with the Best Effort Documentation

c. Proof or affidavit of follow-up of telephone calls with potential M/WBE subcontractors encouraging their participation. Telephone logs indicating such action can be included with the Best Effort Documentation

d. Proof or affidavit that M/WBE Subcontractors were allowed to review bid specifications, blue prints and all other bid/RFP related items at no charge to the M/WBEs, other than reasonable documentation costs incurred by the County Contractor that are passed onto the M/WBE.

e. Proof or affidavit that sufficient time prior to making award was allowed for M/WBEs to participate effectively, to the extent practicable given the timeframe of the County Contract.

f. Proof or affidavit that negotiations were held in good faith with interested M/WBEs, and that M/WBEs were not rejected as unqualified or unacceptable without sound business reasons based on (1) a thorough investigation of M/WBE qualifications and capabilities reviewed against industry custom and standards and (2) cost of performance The basis for rejecting any M/WBE deemed unqualified by the County Contractor shall be included in the Best Effort Documentation

g. If an M/WBE is rejected based on cost, the County Contractor must submit a list of all sub-bidders for each item of work solicited and their bid prices for the work.

h. The conditions of performance expected of Subcontractors by the County Contractor must also be included with the Best Effort Documentation

i. County Contractors may include any other type of documentation they feel necessary to further demonstrate their Best Efforts regarding their bid documents.

As used in this Appendix EE the term "Executive Director" shall mean the Executive Director of the Nassau County Office of Minority Affairs; provided, however, that Executive Director shall include a designee of the Executive Director except in the case of final determinations issued pursuant to Section (a) through (l) of these rules.

As used in this Appendix EE the term "Subcontract" shall mean an agreement consisting of part or parts of the contracted work of the County Contractor.

As used in this Appendix EE, the term "Subcontractor" shall mean a person or firm who performs part or parts of the contracted work of a prime contractor providing services, including construction services, to the County pursuant to a county contract. Subcontractor shall include a person or firm that provides labor, professional or other services, materials or supplies to a prime contractor that are necessary for the prime contractor to fulfill its obligations to provide services to the County pursuant to a county contract. Subcontractor shall not include a supplier of materials to a contractor who has contracted to provide goods but no services to the County, nor a supplier of incidental materials to a contractor, such as office supplies, tools and other items of nominal cost that are utilized in the performance of a service contract.

Provisions requiring contractors to retain or submit documentation of best efforts to utilize certified subcontractors and requiring Department head approval prior to subcontracting shall not apply to inter-governmental agreements. In addition, the tracking of expenditures of County dollars by not-for-profit corporations, other municipalities, States, or the federal government is not required.

Appendix L

Certificate of Compliance

In compliance with Local Law 1-2006, as amended (the "Law"), the Contractor hereby certifies the following:

1. The President of the Public Safety Division of Tyler Technologies, Inc. is:

   Greg Sebastian
   ____ (Name)

   840 W. Long Lake Rd., Troy, MI 48098
   ____ (Address)

   (248) 269-1000
   ____ (Telephone Number)

2. The Contractor agrees to either (1) comply with the requirements of the Nassau County Living Wage Law or (2) as applicable, obtain a waiver of the requirements of the Law pursuant to section 9 of the Law. In the event that the Contractor does not comply with the requirements of the Law or obtain a waiver of the requirements of the Law, and such Contractor establishes to the satisfaction of the Department that at the time of execution of this Agreement, it had a reasonable certainty that it would receive such waiver based on the Law and Rules pertaining to waivers, the County will agree to terminate the contract without imposing costs or seeking damages against the Contractor

3. In the past five years, Contractor ______ has __X____ has not been found by a court or a government agency to have violated federal, state, or local laws regulating payment of wages or benefits, labor relations, or occupational safety and health. If a violation has been assessed against the Contractor, describe below:

   ____

   ____

   ____

4. In the past five years, an administrative proceeding, investigation, or government body-initiated judicial action ______ has __X____ has not been commenced against or relating to the Contractor in connection with federal, state, or local laws regulating payment of wages or benefits, labor relations, or occupational safety and health. If such a proceeding, action, or

investigation has been commenced, describe below:

____

____

____

5. Contractor agrees to permit access to work sites and relevant payroll records by authorized County representatives for the purpose of monitoring compliance with the Living Wage Law and investigating employee complaints of noncompliance.

I hereby certify that I have read the foregoing statement and, to the best of my knowledge and belief, it is true, correct and complete. Any statement or representation made herein shall be accurate and true as of the date stated below.

3-4-19
Dated

Signature

Greg Sebastian, President, Public Safety Division

Sworn to before me this

4th day of March, 2019.

Notary Public

JOHN WRIGHT
Notary Public, State of Michigan
County of Wayne
My Commission Expires 8/23/24
Acting in the County of Oakland

Contract No.: 2018-0121

Appendix A:
LICENSE AND SERVICES AGREEMENT

This License and Services Agreement is made between Tyler Technologies, Inc. and Client.

WHEREAS, Client selected Tyler to license the software products and perform the services set forth in the Investment Summary and Tyler desires to perform such actions under the terms of this Agreement;

NOW THEREFORE, in consideration of the foregoing and of the mutual covenants and promises set forth in this Agreement, Tyler and Client agree as follows:

SECTION A – DEFINITIONS

- **"Tyler Agreement"** means this License and Services Agreement.
- **"Business Travel Policy"** means our business travel policy. A copy of our current Business Travel Policy is available upon request.
- **"Client"** means **NASSAU COUNTY, NEW YORK.**
- **"County Master Contract"** means the County Master Contract for Software and Services.
- **"Defect"** means a failure of the Tyler Software to substantially conform to the functional descriptions set forth in our written proposal to you, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through our maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in our then-current Documentation.
- **"Developer"** means a third party who owns the intellectual property rights to Third Party Software.
- **"Documentation"** means any online or written documentation related to the use or functionality of the Tyler Software that we provide or otherwise make available to you, including instructions, user guides, manuals and other training or self-help documentation.
- **"Effective Date"** means the date as defined in County Master Contract.
- **"Force Majeure"** means an event beyond the reasonable control of you or us, including, without limitation, governmental action, war, riot or civil commotion, fire, natural disaster, or any other cause that could not with reasonable diligence be foreseen or prevented by you or us.
- **"Investment Summary"** means the agreed upon cost proposal for the software, products, and services attached as Exhibit A.
- **"Invoicing and Payment Policy"** means Section 3 of the County Master Contract and Tyler invoicing and payment policy. A copy of our current Invoicing and Payment Policy is attached as Exhibit B.
- **"Maintenance and Support Agreement"** means the terms and conditions governing the provision of maintenance and support services to all of our customers. A copy of our current Maintenance and Support Agreement is attached as Exhibit C.
- **"Statement of Work"** means the industry standard implementation plan describing how our professional services will be provided to implement the Tyler Software, and outlining your and our roles and responsibilities in connection with that implementation. The Statement of Work is attached as Exhibit E.

- **"Support Call Process"** means the support call process applicable to all of our customers who have licensed the Tyler Software. A copy of our current Support Call Process is attached as Schedule 1 to Exhibit C.
- **"Third Party Hardware"** means the third party hardware, if any, identified in the Investment Summary.
- **"Third Party Products"** means the Third Party Software and Third Party Hardware.
- **"Third Party Software"** means the third party software, if any, identified in the Investment Summary.
- **"Tyler"** means Tyler Technologies, Inc., a Delaware corporation, as successor-in-interest to New World Systems.
- **"Tyler Software"** means our proprietary software, including any integrations, custom modifications, and/or other related interfaces identified in the Investment Summary and licensed by us to you through this Tyler Agreement.
- **"we", "us", "our"** and similar terms mean Tyler.
- **"you"** and similar terms mean Client.

SECTION B – SOFTWARE LICENSE

1. License Grant and Restrictions.

1.1 We grant to you a license to use the Tyler Software for your internal business purposes only, in the scope of the internal business purposes disclosed to us as of the Effective Date. You may make copies of the Tyler Software for backup and testing purposes, so long as such copies are not used in production and the testing is for internal use only. Your rights to use the Tyler Software are perpetual but may be revoked with prior written ten (10) days' notice to County conspicuously mentioning revocation of Tyler Software if you do not comply with the terms of this Section B.1; provided however, Tyler may agree to not to revoke County's right to use Tyler Software if parties have initiated dispute resolution after written notice of revocation to resolve claim.

1.2 The Documentation is licensed to you and may be used and copied by your employees for internal, non-commercial reference purposes only.

1.3 You may not: (a) transfer or assign the Tyler Software to a third party; (b) reverse engineer, decompile, or disassemble the Tyler Software; (c) rent, lease, lend, or provide commercial hosting services with the Tyler Software; or (d) publish or otherwise disclose the Tyler Software or Documentation to third parties.

1.4 The license terms in this Tyler Agreement apply to updates and enhancements we may provide to you or make available to you through your Maintenance and Support Agreement.

1.5 The right to transfer the Tyler Software to a replacement hardware system is included in your license. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.

1.6 We reserve all rights not expressly granted to you in this Tyler Agreement. The Tyler Software and Documentation are protected by copyright and other intellectual property laws and treaties. We own the title, copyright, and other intellectual property rights in the Tyler Software and the Documentation. **The Tyler Software is licensed, not sold.**

2. License Fees. You agree to pay us the license fees in the amounts set forth in the Investment Summary.

Those amounts are payable in accordance with the Invoicing and Payment Policy.

3. Escrow. We maintain an escrow agreement with a third party under which we place the source code for each major release of the Tyler Software. You may be added as a beneficiary to the escrow agreement by completing a standard beneficiary enrollment form and paying the annual beneficiary fee set forth in the Investment Summary. You will be responsible for maintaining your ongoing status as a beneficiary, including payment of the then-current annual beneficiary fees. Release of source code for the Tyler Software is strictly governed by the terms of the escrow agreement.

4. Limited Warranty. We warrant that the Tyler Software will be without Defect(s) as long as you have a Maintenance and Support Agreement in effect. If the Tyler Software does not perform as warranted, we will use all reasonable efforts, consistent with industry standards, to cure the Defect as set forth in the Maintenance and Support Agreement.

SECTION C – PROFESSIONAL SERVICES

1. Services. We will provide you the various implementation-related services itemized in the Investment Summary and described in the Statement of Work.

2. Professional Services Fees. You agree to pay us the fixed professional services fees for the scope and amounts set forth in the Investment Summary. Those amounts are payable in accordance with the Invoicing and Payment Policy. Fixed fee for the scope of services in accordance with the Investment Summary

3. Additional Services. The Investment Summary contains, and the Statement of Work describes, the scope of services and related costs (including programming and/or interface estimates) required for the project based on our understanding of the specifications you supplied. If additional work is required, or if you use or request additional services, we will provide you with an addendum or change order, as applicable, outlining the costs for the additional work. The price quotes in the addendum or change order will be valid for forty five (45) days from the date of the quote and shall remain valid for an additional ninety (90) days after the addendum or change order is executed by Tyler.

4. Cancellation. We make all reasonable efforts to schedule our personnel for travel, including arranging travel reservations, at least two (2) weeks in advance of commitments. Therefore, if you cancel services less than two (2) weeks in advance (other than for Force Majeure or breach by us), you will be liable for all (a) non-refundable expenses incurred by us on your behalf, and (b) daily fees associated with cancelled professional services if we are unable to reassign our personnel. We will make all reasonable efforts to reassign personnel in the event you cancel within two (2) weeks of scheduled commitments.

5. Services Warranty. We will perform the services in a professional, workmanlike manner, consistent with industry standards. In the event we provide services that do not conform to this warranty, we will re-perform such services at no additional cost to you.

6. Site Access and Requirements. At no cost to us, you agree to provide us with full and free access to your personnel, facilities, and equipment as may be reasonably necessary for us to provide implementation services, subject to any reasonable security protocols or other written policies provided to us as of the Effective Date, and thereafter as mutually agreed to by you and us. You further agree to provide a reasonably suitable environment, location, and space for the installation of the Tyler Software and any Third Party Products, including, without limitation, sufficient electrical circuits, cables, and other reasonably necessary items required for the installation and operation of the Tyler Software and any Third Party

Products.

7. Client Assistance. You acknowledge that the implementation of the Tyler Software is a cooperative process requiring the time and resources of your personnel. You agree to use all reasonable efforts to cooperate with and assist us as may be reasonably required to meet the agreed upon project deadlines and other milestones for implementation. This cooperation includes at least working with us to schedule the implementation-related services outlined in this Agreement. We will not be liable for failure to meet any deadlines and milestones when such failure is due to Force Majeure or to the failure by your personnel to provide such cooperation and assistance (either through action or omission).

SECTION D – MAINTENANCE AND SUPPORT

This Tyler Agreement includes the period of free maintenance and support services identified in Appendix A: Exhibit C and the Invoicing and Payment Policy. If you have purchased ongoing maintenance and support services, and continue to make timely payments for them according to the Invoicing and Payment Policy, we will provide you with maintenance and support services for the Tyler Software under the terms of our standard Maintenance and Support Agreement.

SECTION E – THIRD PARTY PRODUCTS

To the extent there are any Third Party Products set forth in the Investment Summary, the following terms and conditions will apply:

1. Third Party Hardware. We will sell and deliver onsite the Third Party Hardware, if you have purchased any, for the price set forth in the Investment Summary. Those amounts are payable in accordance with and the Invoicing and Payment Policy.

2. Third Party Software. Upon payment in full of the Third Party Software license fees and the Invoicing and Payment Policy, you will receive a non-transferable license to use the Third Party Software and related documentation for your internal business purposes only. Your license rights to the Third Party Software will be governed by the Third Party Terms.

   2.1 If the Developer charges a fee for future updates, releases, or other enhancements to the Third Party Software, you will be required to pay such additional future fee.

   2.2 The right to transfer the Third Party Software to a replacement hardware system is governed by the Developer. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.

3. Third Party Products Warranties.

   3.1 We are authorized by each Developer to grant or transfer the licenses to the Third Party Software.

   3.2 The Third Party Hardware will be new and unused, and upon payment in full pursuant to the Invoicing and Payment Policy, you will receive free and clear title to the Third Party Hardware.

   3.3 You acknowledge that we are not the manufacturer of the Third Party Products. We do not warrant or guarantee the performance of the Third Party Products. However, we grant and pass through to you any warranty that we may receive from the Developer or supplier of the Third Party Products.

4. Maintenance. If you have a Maintenance and Support Agreement in effect, you may report defects and other issues related to the Third Party Software directly to us, and we will (a) directly address the defect or issue, to the extent it relates to our interface with the Third Party Software; and/or (b) facilitate resolution with the Developer, unless that Developer requires that you have a separate, direct maintenance agreement in effect with that Developer. In all events, if you do not have a Maintenance and Support Agreement in effect with us, you will be responsible for resolving defects and other issues related to the Third Party Software directly with the Developer.

SECTION F – INVOICING AND PAYMENT; INVOICE DISPUTES

1. Invoicing and Payment. We will invoice you for all fees set forth in the Investment Summary per our the Invoicing and Payment Policy, subject to Section F(2) and the Invoicing and Payment Policy.

2. Invoice Disputes. If you believe any delivered software or service does not conform to the warranties in this Agreement, you will provide us with written notice within thirty (30) days of your receipt of the applicable invoice. The written notice must contain reasonable detail of the issues you contend are in dispute so that we can confirm the issue and respond to your notice with either a justification of the invoice, an adjustment to the invoice, or a proposal addressing the issues presented in your notice. We will work with you as may be necessary to develop an action plan that outlines reasonable steps to be taken by each of us to resolve any issues presented in your notice. You may withhold payment of the amount(s) actually in dispute, and only those amounts, until we complete the action items outlined in the plan. If we are unable to complete the action items outlined in the action plan because of your failure to complete the items agreed to be done by you, then you will remit full payment of the invoice. We reserve the right to suspend delivery of all services, including maintenance and support services, if you fail to pay an invoice not disputed as described above within thirty (30) days of notice of our intent to do so.

SECTION G – Intentionally Omitted.

SECTION H – INDEMNIFICATION, LIMITATION OF LIABILITY AND INSURANCE

1. Intellectual Property Infringement Indemnification.

   1.1 We will defend you against any third party claim(s) that the Tyler Software or Documentation infringes that third party's patent, copyright, or trademark, or misappropriates its trade secrets, and will pay the amount of any resulting adverse final judgment (or settlement to which we consent). You must notify us promptly in writing of the claim and give us sole control over its defense or settlement; provided, however, that you shall have the right to approve any proposed settlement that does not release you from any and all liability, or that imposes an obligation or restriction on you. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.

   1.2 Our obligations under this Section H(1) will not apply to the extent the claim or adverse final judgment is based on your: (a) use of a previous version of the Tyler Software and the claim would have been avoided had you installed and used the current version of the Tyler Software, and we provided notice of that requirement to you; (b) combining the Tyler Software with any product or device not provided, contemplated, or approved by us; (c) altering or modifying the Tyler Software, including any modification by third parties at your direction or otherwise permitted by you; (d) use of the Tyler

Software in contradiction of this Agreement, including with non-licensed third parties; or (e) willful infringement, including use of the Tyler Software after we notify you to discontinue use due to such a claim.

1.3 If we receive information concerning an infringement or misappropriation claim related to the Tyler Software, we may, at our expense and without obligation to do so, either: (a) procure for you the right to continue its use; (b) modify it to make it non-infringing; or (c) replace it with a functional equivalent, in which case you will stop running the allegedly infringing Tyler Software immediately. Alternatively, we may decide to litigate the claim to judgment, in which case you may continue to use the Tyler Software consistent with the terms of this Agreement.

1.4 If an infringement or misappropriation claim is fully litigated and your use of the Tyler Software is enjoined by a court of competent jurisdiction, in addition to paying any adverse final judgment (or settlement to which we consent), we will, at our option, either: (a) procure the right to continue its use; (b) modify it to make it non-infringing; (c) replace it with a functional equivalent; or (d) terminate your license and refund the license fees paid for the infringing Tyler Software, as depreciated on a straight-line basis measured over seven (7) years from the Effective Date. We will pursue those options in the order listed herein. This section provides your exclusive remedy for third party copyright, patent, or trademark infringement and trade secret misappropriation claims.

2. General Indemnification.

2.2 We will indemnify and hold harmless you and your agents, officials, and employees from and against any and all third-party claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for (a) personal injury or property damage to the extent caused by our negligence or willful misconduct; or (b) our violation of a law applicable to our performance under this Agreement. You must notify us promptly in writing of the claim and give us sole control over its defense or settlement, provided, however, that you shall have the right to approve any proposed settlement that does not release you from any and all liability, or that imposes an obligation or restriction on you. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.

3. **DISCLAIMER. EXCEPT FOR THE EXPRESS WARRANTIES PROVIDED IN THIS TYLER AGREEMENT AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, WE HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES, DUTIES, OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.LIMITATION OF LIABILITY. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, OUR LIABILITY FOR DAMAGES ARISING OUT OF THIS TYLER AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED TO YOUR ACTUAL DIRECT DAMAGES, NOT TO EXCEED TWO TIMES THE TOTAL ONE-TIME FEES SET FORTH IN THE INVESTMENT SUMMARY. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE PRICES SET FORTH IN THIS TYLER AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY AND TO THE MAXIMUM EXTENT ALLOWED UNDER APPLICABLE LAW, THE EXCLUSION OF CERTAIN DAMAGES, AND EACH SHALL APPLY REGARDLESS OF THE FAILURE OF AN ESSENTIAL PURPOSE OF ANY REMEDY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO: TYLER'S INDEMNIFICATION OBLIGATIONS IN SECTION H, BREACH OF CONFIDENTIALITY OBLIGATIONS IN SECTION I UNDER THIS AGREEMENT, AND TO THE EXTENT PROHIBITED BY LAW.**

4. EXCLUSION OF CERTAIN DAMAGES. **IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

SECTION I – GENERAL TERMS AND CONDITIONS

1. Additional Products and Services. You may purchase additional products and services at the rates set forth in the Investment Summary for twelve (12) months from the Effective Date, and thereafter at our then-current list price, by executing a mutually agreed addendum. If no rate is provided in the Investment Summary, or those twelve (12) months have expired, you may purchase additional products and services at our then-current list price, also by executing a mutually agreed addendum. The terms of this Tyler Agreement will control any such additional purchase(s), unless otherwise specifically provided in the addendum.

2. Dispute Resolution. You agree to provide us with written notice within thirty (30) days of becoming aware of a dispute. You agree to cooperate with us in trying to reasonably resolve all disputes, including, if requested by either party, appointing a senior representative to meet and engage in good faith negotiations with our appointed senior representative. Senior representatives will convene within thirty (30) days of the written dispute notice, unless otherwise agreed. All meetings and discussions between senior representatives will be deemed confidential settlement discussions not subject to disclosure under Federal Rule of Evidence 408 or any similar applicable state rule. If we fail to resolve the dispute, then the parties shall participate in non-binding mediation in an effort to resolve the dispute. If the dispute remains unresolved after mediation, then either of us may assert our respective rights and remedies in a court of competent jurisdiction. Nothing in this section shall prevent you or us from seeking necessary injunctive relief during the dispute resolution procedures.

3. Taxes. The fees in the Investment Summary do not include any taxes, including, without limitation, sales, use, or excise tax. If you are a tax-exempt entity, you agree to provide us with a tax-exempt certificate. Otherwise, we will pay all applicable taxes to the proper authorities and you will reimburse us for such taxes. If you have a valid direct-pay permit, you agree to provide us with a copy. For clarity, we are responsible for paying our income taxes, both federal and state, as applicable, arising from our performance of this Agreement.

4. Nondiscrimination. We will not discriminate against any person employed or applying for employment concerning the performance of our responsibilities under this Tyler Agreement. This discrimination prohibition will apply to all matters of initial employment, tenure, and terms of employment, or otherwise with respect to any matter directly or indirectly relating to employment concerning race, color, religion, national origin, age, sex, sexual orientation, ancestry, disability that is unrelated to the individual's ability to perform the duties of a particular job or position, height, weight, marital status, or political affiliation. We will post, where appropriate, all notices related to nondiscrimination as may be required by applicable law.

5. E-Verify. We have complied, and will comply, with the E-Verify procedures administered by the U.S. Citizenship and Immigration Services Verification Division for all of our employees assigned to your project.

6. Subcontractors. We will not subcontract any services under this Agreement without your prior written consent, not to be unreasonably withheld.

7. Force Majeure. Except for your payment obligations, neither party will be liable for delays in performing its obligations under this Agreement to the extent that the delay is caused by Force Majeure; provided, however, that within ten (10) business days of the Force Majeure event, the party whose performance is delayed provides the other party with written notice explaining the cause and extent thereof, as well as a request for a reasonable time extension equal to the estimated duration of the Force Majeure event.

8. No Intended Third Party Beneficiaries. This Agreement is entered into solely for the benefit of you and us. No third party will be deemed a beneficiary of this Agreement, and no third party will have the right to make any claim or assert any right under this Agreement. This provision does not affect the rights of third parties under any Third Party Terms.

9. Entire Agreement; Amendment. Maintained. County Master Contract, Section 27.

10. Severability. Maintained. County Master Contract, Section 22.

11. No Waiver. In the event that the terms and conditions of this Agreement are not strictly enforced by either party, such non-enforcement will not act as or be deemed to act as a waiver or modification of this Agreement, nor will such non-enforcement prevent such party from enforcing each and every term of this Agreement thereafter.

12. Independent Contractor. We are an independent contractor for all purposes under this Agreement.

13. Notices. Maintained. County Master Contract, Section 20.

14. Client Lists. You agree that we may identify you by name in client lists, marketing presentations, and promotional materials.

15. Confidentiality. Both parties recognize that their respective employees and agents, in the course of performance of this Agreement, may be exposed to confidential information and that disclosure of such information could violate rights to private individuals and entities, including the parties. Confidential information is nonpublic information that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information (*e.g.*, social security numbers) and trade secrets, each as defined by applicable state law. Each party agrees that it will not disclose any confidential information of the other party and further agrees to take all reasonable and appropriate action to prevent such disclosure by its employees or agents. The confidentiality covenants contained herein will survive the termination or cancellation of this Agreement. This obligation of confidentiality will not apply to information that:

    (a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents;
    (b) a party can establish by reasonable proof was in that party's possession at the time of initial disclosure;
    (c) a party receives from a third party who has a right to disclose it to the receiving party; or
    (d) is the subject of a legitimate disclosure request under the open records laws or similar applicable public disclosure laws governing this Agreement; provided, however, that in the event you receive an open records or other similar applicable request, you will give us prompt notice and otherwise perform the functions required by applicable law.

16. Business License. In the event a local business license is required for us to perform services hereunder, you

will promptly notify us and provide us with the necessary paperwork and/or contact information so that we may timely obtain such license.

17. Governing Law. Maintained. County Master Contract, Section 19.

18. Multiple Originals and Authorized Signatures. This Agreement may be executed in multiple originals, any of which will be independently treated as an original document. Any electronic, faxed, scanned, photocopied, or similarly reproduced signature on this Agreement or any amendment hereto will be deemed an original signature and will be fully enforceable as if an original signature. Each party represents to the other that the signatory set forth below is duly authorized to bind that party to this Agreement.

Contract No.: 2018-0121

Exhibit A
Investment Summary

The following Investment Summary details the software, products, and services to be delivered by us to you under the Tyler Agreement. This Investment Summary is effective as of the Effective Date. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Tyler Agreement.

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new world
a tyler public safety solution

Quoted By:	Lisa Sunderlin
Date:	7/10/2018
Quote Expiration:	6/30/2019
Quote Name:	Nassau County Fire, NY - Fire CAD
Quote Number:	2018-24333-4
Quote Description:	BAFO - Enterprise CAD

Sales Quotation For
Nassau County Fire Communications
1194 Prospect Ave
Westbury , NY 11590-2723
Phone: +1 (516) 573-9900

Tyler Software and Related Services

Description	License	Discount	License Total	Year One Maintenance
Computer Aided Dispatch				
CAD Auto Routing	$28,000	$6,440	$21,560	$4,528
Unit Management	$30,000	$6,900	$23,100	$4,851
Web CAD Monitor	$60,000	$13,800	$46,200	$9,702
CAD Paging Interface	$28,000	$6,440	$21,560	$4,528
E-911 Interface	$28,000	$6,440	$21,560	$4,528
Pre-Arrival Questionnaire Interface	$28,000	$6,440	$21,560	$4,528
New World Enterprise Fire/EMS Single & Multi-Jurisdictional CAD	$179,200	$41,216	$137,984	$28,977
CAD GFS (xml) Export Interface	$52,000	$11,960	$40,040	$8,408
Other Software				
CAD Data Mart / Includes 5-6 users	$20,000	$4,600	$15,400	$3,234
CAD Dashboards	$44,000	$10,120	$33,880	$7,115
Sub-Total:	*$497,200*	*$114,356*	*$382,844*	*$80,399*
Less Discount:	*$114,356*			*$80,399*
BAFO Discount	*$35,000*		$35,000	
TOTAL:	$347,844		$347,844	$0

Services

Description	Quantity	Unit Price	Unit Discount	Extended Price
GIS Implementation	1	$18,125	$0	$18,125
Travel and Living Expenses	1	$40,000	$0	$40,000
Decision Support Software Implementation Fee	1	$4,350	$0	$4,350
Project Management	1	$44,640	$0	$44,640
Disaster Recovery System Assurance and Software Installation	1	$15,080	$0	$15,080
Conversions				$42,250
Web CAD Monitor Installation Fee	1	$1,160	$0	$1,160
E-911 Interface Installation Fee	1	$1,160	$0	$1,160
Pre-Arrival Questionnaire Interface Installation Fee	2	$1,160	$0	$2,320
CAD Paging Interface Installation Fee	1	$1,160	$0	$1,160
CAD Export Installation Fee	1	$2,320	$0	$2,320
CAD Training (10 users ea.)	4	$4,350	$0	$17,400
CAD Go-Live	1	$21,750	$0	$21,750
Fire/EMS or Combined CAD Configuration (6 or more fire agencies)	1	$28,420	$0	$28,420
TOTAL:				$240,135

tyler

Third Party Hardware, Software and Services

Description	Quantity	Unit Price	Total Price	Unit Maintenance	Year One Maintenance
Elasticsearch Professional Edition (Annual Subscription-1 node)	1	$0	$0	$1,500	$1,500
Embedded Third Party Software	1	$50,000	$50,000	$10,500	$10,500
Esri ArcGIS Engine Runtime for CAD Workstations	40	$500	$20,000	$105	$4,200
Lantronix UDS-1100	2	$175	$350	$0	$0
3rd Party Hardware Sub-Total:			*$350*		*$0*
3rd Party Software Sub-Total:			*$70,000*		*$16,200*
Less Discount:					*$14,700*
TOTAL:			**$70,350**		**$1,500**

Summary	One Time Fees	Recurring Fees
Total Tyler Software	$347,844	$80,399
Total Tyler Services	$240,135	
Total Other Costs	$0	
Total Third Party Hardware, Software and Services	$70,350	$16,200
Summary Total	**$658,339**	**$96,599**

Detailed Breakdown of Conversions (Included in Summary Total)

Description	Quantity	Unit Price	Extended Price
Computer Aided Dispatch			
CAD Conversion to New World Enterprise CAD (One Source)	1	$15,000	$15,000
Data File Conversion			
Data Conversion Analysis and Assessment	1	$4,000	$4,000
Base Conversion (One Source); Master Files including Master Name (Jackets); Addresses; and Narratives / Includes one source of data. Does not include everything the Name is linked to (e.g. tickets, arrests, etc.)	1	$17,000	$17,000
Address Re-Verification	1	$6,250	$6,250
TOTAL:			**$42,250**

Assumptions

- Personal Computers must meet the minimum hardware requirements for New World products. Microsoft Windows 7/8.1/10 32/64 bit or later is required for all client machines. Windows Server 2012/2016 and SQL Server 2012/2014/2016 are required for the Application and Database Server(s)
- New World product requires Microsoft Windows Server 2012/2016 and SQL Server 2012/2016, including required Client Access Licenses (CALs) for applicable Microsoft products. Servers must meet minimum hardware requirements provided by Tyler. The supported Microsoft operating system and SQL versions are specific to Tyler's release versions.
- New World product requires Microsoft Excel or Windows Search 4.0 for document searching functionality; Microsoft Word is required on the application server for report formatting.
- Tyler recommends a 100/1000MB (GB) Ethernet network for the local area network. Wide area network requirements vary based on system configuration. Tyler will provide further consultation for this environment.
- Does not include servers, workstations, or any required third-party hardware or software unless specified in this Investment Summary. Customer is responsible for any third-party support.
- Licensed Software, and third-party software embedded therein, if any, will be delivered in a machine readable form to Customer via an agreed upon network connection. Any taxes or fees imposed are the responsibility of the purchaser and will be remitted when imposed.
- Tyler's GIS implementation services are to assist the Customer in preparing the required GIS data for use with the Licensed New World Software. Depending upon the Licensed Software the Customer at a minimum will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard Esri file format (Personal Geodatabase, File Geodatabase, Shape Files). Customer is responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary Tyler will assist Customer in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. Tyler is not responsible for the accuracy of or any ongoing maintenance of the GIS data used within the Licensed New World Software.
- Client is responsible for any ongoing annual maintenance on third-party products, and is advised to contact the third-party vendor to ensure understanding of and compliance with all maintenance requirements
- All Tyler Customers are required to use Esri's ArcGIS Suite to maintain GIS data. All maintenance, training and ongoing support of this product will be contracted with and conducted by Esri. Maintenance for Esri's ArcGIS suite of products that are used for maintaining Customer's GIS data will be contracted by Customer separately with Esri.
- CAD Maintenance includes 24/7 Support.
- Custom interface will be operational with existing third party software. Any subsequent changes to third party applications may require additional services.
- When State/NCIC is included, Client is responsible for obtaining the necessary State approval and any non-Tyler hardware and software. Includes state-specific standard forms developed by Tyler. Additional forms can be provided for an additional fee.
- Unless a Workstation License is included, New World CAD includes 20 licenses.
- Configuration and end user training for Decision Support Software to occur after Client has been live for 3 months or longer on an application. Classes are limited to 10 trainees maximum; service and travel costs will be incurred for additional classes.

Other than for Mobile Software, a Workstation License for up to 40 users is included for the Exhibit A Licensed Standard Software. The Workstation License includes the following agencies as authorized users:

- Nassau County Fire Commission

Exhibit B
Invoicing and Payment Policy

We will provide you with the software and services set forth in the Agreement. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

Invoicing: We will invoice you for the applicable license and services fees in the Investment Summary as set forth below. Payments will be pursuant to the Invoicing and Payment Policy. Your rights to dispute any invoice are set forth in the Agreement.

Tyler Software.

1.1 *License Fees*: License fees will be invoiced 100% on the Effective Date.

1.2 *Subscription Fees*: Your initial subscription fees, as identified in Appendix A: Exhibit A, are invoiced when we make the product available to you. Subsequent subscription fees for ElasticSearch are due annually in advance on the anniversary of that date at our then-current rates.

1.3 *Maintenance and Support Fees (including Esri and Embedded Third Party Software)*: Year 1 maintenance and support fees are invoiced on the Effective Date and due at go-live or fifteen (15) months after the Effective date, whichever occurs first. Maintenance and Support fees and due dates for Years 2, 3, 4 and 5 are described in Schedule 1 of this Exhibit. Subsequent maintenance and support fees, at our then-current rates, are invoiced annually in advance of each anniversary thereof.

1.4 Maintenance and Support Fee Cap. Tyler agrees that any change to annual maintenance and support fee beyond the initial term (term as provided in Exhibit C, Section 1 above) shall not exceed the fee charged for the preceding year's maintenance and support by more than three percent (3%) for five (5) years after the initial term. Tyler shall provide Client with written notice of fee prior to the expiration of annual maintenance term. Funding for the annual maintenance is subject to encumbrance of funds by the County.

2. Professional Services.

2.1 *Implementation and Other Professional Services (including training)*: Implementation and other professional services (including training) are billed and invoiced as delivered, at the rates set forth in the Investment Summary.

2.2 *Consulting Services*: If you have purchased any Business Process Consulting services, if they have been quoted as fixed-fee services, they will be invoiced 50% upon delivery of the Best Practice Recommendations, by module, and 50% upon delivery of custom desktop procedures, by module. If you have purchased any Business Process Consulting services and they are quoted as an estimate, then we will bill you the actual services delivered on a time and materials basis.

2.3 *Conversions*: Fixed-fee conversions are invoiced 50% upon acceptance of the Conversion Analysis Document, and 50% upon initial delivery of converted data into Live/Production environment, by conversion option. Where conversions are quoted as estimated, we will bill you the actual services delivered on a time and materials basis.

2.4 *Requested Custom Software Interfaces:* Requested custom software interfaces are invoiced 100% upon initial delivery of the interface.

2.5 *Other Fixed Price Services*: Except as otherwise provided, other fixed price services are invoiced upon complete delivery of the service. For the avoidance of doubt, where "Project Planning Services" are provided, payment will be due upon delivery of the Implementation Planning document. Dedicated Project Management services, if any, will be billed monthly in arrears, beginning on the first day of the month immediately following the project kick-off meeting.

3. Third Party Products.

3.1 *Third Party Software License Fees*: License fees for Third Party Software, if any, are invoiced when we make it available to you for downloading.

3.2 *Third Party Software Maintenance (excluding Esri and Embedded Third Party Software)*: The first year maintenance fees for the Third Party Software, if any, is invoiced when we make that Third Party Software available to you for downloading.

3.3 *Third Party Hardware*: Third Party Hardware costs, if any, are invoiced upon delivery.

4. Expenses. The service rates in the Investment Summary do not include travel expenses. Expenses will be billed as incurred and only in accordance with our then-current Business Travel Policy, plus a 10% travel agency processing fee. Our current Business Travel Policy is attached to this Exhibit B at Schedule 1. Copies of receipts will be provided upon request; we reserve the right to charge you an administrative fee depending on the extent of your requests. Receipts for miscellaneous items less than twenty-five dollars and mileage logs are not available.

Payment. Payment for undisputed invoices is due within sixty (60) days of the invoice date in accordance with the Invoicing and Payment Policy. We prefer to receive payments electronically. Our electronic payment information is:

Bank:	Wells Fargo Bank, N.A. 420 Montgomery San Francisco, CA 94104
ABA:	121000248
Account:	4124302472
Beneficiary:	Tyler Technologies, Inc. – Operating

Exhibit B Schedule 1

Payment Schedule

Milestone	Payment due	Amount
Contract confirmed	invoice license fees - payment due net 90 days pursuant Section 3 of the Agreement.	$ 347,844.00
Subscription products available to NC	invoice subscription fees due	$ 70,350.00
Complete and Approve Project Plan	invoice upon successful completion	$ 22,649.00
Complete System Hardware Setup and Install Licensed Software	invoice upon successful completion	$ 22,649.00
Complete Configuration of Software	invoice upon successful completion	$ 22,649.00
Conduct On-site Conversion Mapping Activity and Initial Conversion Run	invoice upon successful completion	$ 27,885.00
Conduct User Training	invoice upon successful completion	$ 22,649.00
Conduct Go-Live	invoice upon successful completion	$ 37,014.00
On site visits completed	invoice after each on site visits (not to exceed $40Kin total)	$ 40,000.00
Ongoing project management	invoice monthly $2790 throughout project (15 months)	$ 44,640.00
Misc. Professional Services (if needed)	invoice after service is provided (if needed)	$ 41,671.00
	Total	$ 700,000.00
Annual Maintenance and support fees	year 1 at go-live or fifteen (15) months after the Effective date, whichever comes first	$ 1,500.00
Annual Maintenance and support fees	year 2 - One Year After the first year's maintenance due date.	$ 96,599.00
Annual Maintenance and support fees	year 3 - Two Years After the first year's maintenance due date.	$ 96,599.00
Annual Maintenance and support fees	year 4 Three Years After the first year's maintenance due date.	$ 96,599.00
Annual Maintenance and support fees	year 5 Four Years After the first year's maintenance due date.	$ 96,599.00
	Total	$ 1,087,896.00

Business Travel Policy

1. Air Travel

   A. Reservations & Tickets

   Tyler's Travel Management Company (TMC) will provide an employee with a direct flight within two hours before or after the requested departure time, assuming that flight does not add more than three hours to the employee's total trip duration and the fare is within $100 (each way) of the lowest logical fare. If a net savings of $200 or more (each way) is possible through a connecting flight that is within two hours before or after the requested departure time and that does not add more than three hours to the employee's total trip duration, the connecting flight should be accepted.

   Employees are encouraged to make advanced reservations to take full advantage of discount opportunities. Employees should use all reasonable efforts to make travel arrangements at least two (2) weeks in advance of commitments. A seven (7) day advance booking requirement is mandatory. When booking less than seven (7) days in advance, management approval will be required.

   Except in the case of international travel where a segment of continuous air travel is six (6) or more consecutive hours in length, only economy or coach class seating is reimbursable. Employees shall not be reimbursed for "Basic Economy Fares" because these fares are non-refundable and have many restrictions that outweigh the cost-savings.

   B. Baggage Fees

   Reimbursement of personal baggage charges are based on trip duration as follows:

   - Up to five (5) days = one (1) checked bag
   - Six (6) or more days = two (2) checked bags

   Baggage fees for sports equipment are not reimbursable.

2. Ground Transportation

   A. Private Automobile

   Mileage Allowance – Business use of an employee's private automobile will be reimbursed at the current IRS allowable rate, plus out of pocket costs for tolls and parking. Mileage will be calculated by using the employee's office as the starting and ending point, in compliance with IRS regulations.

Employees who have been designated a home office should calculate miles from their home.

B. Rental Car

Employees are authorized to rent cars only in conjunction with air travel when cost, convenience, and the specific situation reasonably require their use. When renting a car for Tyler business, employees should select a "mid-size" or "intermediate" car. "Full" size cars may be rented when three or more employees are traveling together. Tyler carries leased vehicle coverage for business car rentals; except for employees traveling to Alaska and internationally (excluding Canada), additional insurance on the rental agreement should be declined.

C. Public Transportation

Taxi or airport limousine services may be considered when traveling in and around cities or to and from airports when less expensive means of transportation are unavailable or impractical. The actual fare plus a reasonable tip (15-18%) are reimbursable. In the case of a free hotel shuttle to the airport, tips are included in the per diem rates and will not be reimbursed separately.

D. Parking & Tolls

When parking at the airport, employees must use longer term parking areas that are measured in days as opposed to hours. Park and fly options located near some airports may also be used. For extended trips that would result in excessive parking charges, public transportation to/from the airport should be considered. Tolls will be reimbursed when receipts are presented.

3. Lodging

Tyler's TMC will select hotel chains that are well established, reasonable in price, and conveniently located in relation to the traveler's work assignment. Typical hotel chains include Courtyard, Fairfield Inn, Hampton Inn, and Holiday Inn Express. If the employee has a discount rate with a local hotel, the hotel reservation should note that discount and the employee should confirm the lower rate with the hotel upon arrival. Employee memberships in travel clubs such as AAA should be noted in their travel profiles so that the employee can take advantage of any lower club rates.

"No shows" or cancellation fees are not reimbursable if the employee does not comply with the hotel's cancellation policy.

Tips for maids and other hotel staff are included in the per diem rate and are not reimbursed separately.

Employees are not authorized to reserve non-traditional short-term lodging, such as Airbnb, VRBO, and HomeAway. Employees who elect to make such reservations shall not be reimbursed.

4. Meals and Incidental Expenses

Employee meals and incidental expenses while on travel status within the continental U.S. are in accordance with the federal per diem rates published by the General Services Administration. Incidental expenses include tips to maids, hotel staff, and shuttle drivers and other minor travel expenses. Per diem rates are available at www.gsa.gov/perdiem.

Per diem for Alaska, Hawaii, U.S. protectorates and international destinations are provided separately by the Department of Defense and will be determined as required.

A. Overnight Travel

For each full day of travel, all three meals are reimbursable. Per diems on the first and last day of a trip are governed as set forth below.

Departure Day

Depart before 12:00 noon	Lunch and dinner
Depart after 12:00 noon	Dinner

Return Day

Return before 12:00 noon	Breakfast
Return between 12:00 noon & 7:00 p.m.	Breakfast and lunch
Return after 7:00 p.m.*	Breakfast, lunch and dinner

*7:00 p.m. is defined as direct travel time and does not include time taken to stop for dinner.

The reimbursement rates for individual meals are calculated as a percentage of the full day per diem as follows:

- Breakfast 15%
- Lunch 25%
- Dinner 60%

B. Same Day Travel

Employees traveling at least 100 miles to a site and returning in the same day are eligible to claim lunch on an expense report. Employees on same day travel status are eligible to claim dinner in the event they return home after 7:00 p.m.*

*7:00 p.m. is defined as direct travel time and does not include time taken to stop for dinner.

5. Internet Access – Hotels and Airports

Employees who travel may need to access their e-mail at night. Many hotels provide free high speed internet access and Tyler employees are encouraged to use such hotels whenever possible. If an employee's hotel charges for internet access it is reimbursable up to $10.00 per day. Charges for internet access at airports are not reimbursable.

6. International Travel

All international flights with the exception of flights between the U.S. and Canada should be reserved through TMC using the "lowest practical coach fare" with the exception of flights that are six (6) or more consecutive hours in length. In such event, the next available seating class above coach shall be reimbursed.

When required to travel internationally for business, employees shall be reimbursed for photo fees, application fees, and execution fees when obtaining a new passport book, but fees related to passport renewals are not reimbursable. Visa application and legal fees, entry taxes and departure taxes are reimbursable.

The cost of vaccinations that are either required for travel to specific countries or suggested by the U.S. Department of Health & Human Services for travel to specific countries, is reimbursable.

Section 4, Meals & Incidental Expenses, and Section 2.b., Rental Car, shall apply to this section.

Exhibit C
Maintenance and Support Agreement

We will provide you with the following maintenance and support services for the Tyler Software. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

1. Term. We provide maintenance and support services on an annual basis. The initial term commences at go-live or fifteen (15) months after the Effective Date, whichever comes first, and remains in effect for five (5) years. The term will renew automatically for additional one (1) year terms unless terminated in writing by either party at least thirty (30) days prior to the end of the then-current term.

2. Maintenance and Support Fees.

   2.1 Your year 1 maintenance and support fees for the Tyler Software are listed in the Investment Summary, and payment obligations are set forth in the Invoicing and Payment Policy. We reserve the right to suspend maintenance and support services if you fail to pay undisputed maintenance and support fees within thirty (30) days of our written notice. We will reinstate maintenance and support services only if you pay all past due maintenance and support fees, including all fees for the periods during which services were suspended.

3. Maintenance and Support Services. As long as you are not using the Help Desk as a substitute for our training services on the Tyler Software, and you timely pay your undisputed maintenance and support fees, we will, consistent with our then-current Support Call Process:

   3.1 perform our maintenance and support obligations in a professional, good, and workmanlike manner, consistent with industry standards, to resolve Defects in the Tyler Software (limited to the then-current version and the immediately prior version); provided, however, that if you modify the Tyler Software without our consent, our obligation to provide maintenance and support services on and warrant the Tyler Software will be void;

   3.2 provide telephone support during our established support hours: a) currently Monday through Friday from 8:00 a.m. to 9:00 p.m. (Eastern Time Zone); b) emergency 24-hour per day telephone support, for New World CAD only, seven (7) days per week for Licensed Standard Software. Normal service is available from 8:00 a.m. to 9:00 p.m. (Eastern Time Zone). After 9:00 p.m., the New World CAD phone support will be provided via pager and a support representative will respond to CAD service calls within 30 minutes of call initiation;

   3.3 maintain personnel that are sufficiently trained to be familiar with the Tyler Software and Third Party Software, if any, in order to provide maintenance and support services;

   3.4 provide you with a copy of all major and minor releases to the Tyler Software (including updates and enhancements) that we make generally available without additional charge to customers who have a maintenance and support agreement in effect; and

3.5 provide non-Defect resolution support of prior releases of the Tyler Software in accordance with our then-current release life cycle policy.

4. Client Responsibilities. We will use all reasonable efforts to perform any maintenance and support services remotely. Currently, we use a third-party secure unattended connectivity tool called Bomgar, as well as GotoAssist by Citrix. Therefore, you agree to maintain a high-speed internet connection capable of connecting us to your PCs and server(s). You agree to provide us with a login account and local administrative privileges as we may reasonably require to perform remote services. We will, at our option, use the secure connection to assist with proper diagnosis and resolution, subject to any reasonably applicable security protocols. If we cannot resolve a support issue remotely, we may be required to provide onsite services. In such event, we will be responsible for our travel expenses, unless it is determined that the reason onsite support was required was a reason outside our control. Either way, you agree to provide us with full and free access to the Tyler Software, working space, adequate facilities within a reasonable distance from the equipment, and use of machines, attachments, features, or other equipment reasonably necessary for us to provide the maintenance and support services, all at no charge to us. We strongly recommend that you also maintain a VPN for backup connectivity purposes.

5. Hardware and Other Systems. If you are a self-hosted customer and, in the process of diagnosing a software support issue, it is discovered that one of your peripheral systems or other software is the cause of the issue, we will notify you so that you may contact the support agency for that peripheral system. We cannot support or maintain Third Party Products except as expressly set forth in the Agreement.

   In order for us to provide the highest level of software support, you bear the following responsibility related to hardware and software:

   (a) All infrastructure executing Tyler Software shall be managed by you;
   (b) You will maintain support contracts for all non-Tyler software associated with Tyler Software (including operating systems and database management systems, but excluding Third-Party Software, if any); and
   (c) You will perform daily database backups and verify that those backups are successful.

6. Other Excluded Services. Maintenance and support fees do not include fees for the following services: (a) initial installation or implementation of the Tyler Software; (b) onsite maintenance and support (unless Tyler cannot remotely correct a Defect in the Tyler Software, as set forth above); (c) application design; (d) other consulting services; (e) maintenance and support of an operating system or hardware, unless you are a hosted customer; (f) support outside our normal business hours as listed in our then-current Support Call Process; or (g) installation, training services, or third party product costs related to a new release. Requested maintenance and support services such as those outlined in this section will be billed to you on a time and materials basis at our then current rates. You must request those services with at least one (1) weeks' advance notice.

7. Current Support Call Process. Our current Support Call Process for the Tyler Software is attached to this Exhibit C at Schedule 1.

Exhibit C
Schedule 1
Support Call Process

If, after you have cut over to live production use of the Tyler Software, you believe that the Tyler Software is Defective, as "Defect" is defined in the Agreement, then you will notify us by phone, in writing, by email, or through the support website. Please reference http://www.tylertech.com/client-support for information on how to use these various means of contact.

Documented examples of the claimed Defect must accompany each notice. We will review the documented notice and when there is a Defect, we shall resolve it at no additional cost to you beyond your then-current maintenance and support fees.

In receiving and responding to Defect notices and other support calls, we will follow the priority categorizations below. These categories are assigned based on your determination of the severity of the Defect and our reasonable analysis. If you believe a priority categorization needs to be updated, you may contact us again, via the same methods outlined above, to request the change.

In each instance of a Priority 1 or 2 Defect, prior to final Defect correction, the support team may offer you workaround solutions, including patches, configuration changes, and operational adjustments, or may recommend that you revert back to the prior version the Tyler Software pending Defect correction.

(a) **Priority 1:** *A Defect that renders the Tyler Software inoperative; or causes the Tyler Software to fail catastrophically.*

After initial assessment of the Priority 1 Defect, if required, we shall assign a qualified product technical specialist(s) within one business (1) hour. The technical specialist(s) will then work to diagnose the Defect and to correct the Defect, providing ongoing communication to you concerning the status of the correction until the Tyler Software is operational without Priority 1 defect.

The goal for correcting a Priority 1 Defect is 24 hours or less.

(b) **Priority 2:** *A Defect that substantially degrades the performance of the Tyler Software, but does not prohibit your use of the Tyler Software.*

We shall assign a qualified product technical specialist(s) within four (4) business hours of our receipt of your notice. The product technical specialist will then work to diagnose and correct the Defect. We shall work diligently to make the correction, and shall provide ongoing communication to you concerning the status of the correction until the Tyler Software is operational without Priority 2 Defect.

The goal for correcting a Priority 2 event is to include a correction in the next Tyler Software release.

(c) **Priority 3:** *A Defect which causes only a minor impact on the use of the Tyler Software.*

We may include a correction in subsequent Tyler Software releases.

Exhibit D

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Exhibit E
Statement of Work

We will deliver the services set forth in the Investment Summary as set forth in the Agreement and, as applicable, as further detailed in this Statement of Work. Except as expressly stated in the Agreement, none of the services we provide you under the Statement of Work are services related to hardware or third-party products. Whenever possible, we will provide services remotely so as to control travel expenses. All service fees and expenses are payable according to the Invoicing and Payment Policy.

Exhibit E
Schedule 1
Professional Services

1. Project Management Services

We shall act as Project Manager to assist you in implementing the Tyler Software. Project Management Services include:

a) Developing an Implementation Plan;
c) Providing revised Implementation Plans (if required);
d) Providing monthly project status reports; and
e) Facilitating project status meetings
- a project review (kickoff) meeting at your location
- progress status meeting(s) during implementation via telephone conference or at your location; and
- a project close-out meeting at your location to conclude the project.

f) Consultation with other vendors or third parties, if necessary.

2. Implementation and Training Support Services

Implementation and training support services have been allocated for this project as described in the Investment Summary. Avoiding or minimizing custom or modified features will aid in keeping the support costs to the amount allocated. The recommended implementation and training support services include:

a) Implementation of the Tyler Software; and
b) Training you or assisting with your training on the Tyler Software.

The project management, implementation and training support services provided by us may be performed at your premises and/or at our headquarters in Troy, Michigan (e.g., portions of project management are performed in Troy).

3. Interface and/or Fixed Installation Services

We shall provide interface installation services as described in the Investment Summary.

Our GIS implementation services are to assist you in preparing the required GIS data for use with the Tyler Software. At a minimum, you will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard ESRI file format (Personal

Geodatabase, File Geodatabase, Shape Files). You are responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary, we will assist you in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. We are not responsible for the accuracy of or any ongoing maintenance of the GIS data used within the Tyler Software.

4. Hardware Quality Assurance Service

We shall provide Hardware Systems Assurance of your .NET server(s).

a) Hardware Quality Assurance Services (Disaster Recovery Environment):
Hardware Systems Assurance and Software Installation:
- Assist with High Level System Design/Layout
- Validate Hardware Configuration and System Specifications
- Validate Network Requirements, including Windows Domain
- Configure Disaster Recovery (VMware SRM)
- Install Operating System and Apply Updates
- Install SQL Server and Apply Updates
- Install New World Applications Software and Apply Updates
- Establish Base SQL Database Structure
- Configure System for Electronic Customer Support (i.e. NetMeeting)
- Tune System Performance Including Operating System and SQL Resources
- Test High Availability/Disaster Recovery Scenarios (if applicable)
- Provide Basic System Administrator Training and Knowledge Transfer
- Document Installation Process and System Configuration

Contract No.: 2018-0121

Exhibit E
Schedule 2
Data File Conversion Assistance

We will provide conversion assistance to you to help convert the existing data files specified below. If additional files are identified after contract execution, estimates will be provided to you prior to us beginning work on those newly identified files.

General

1. A data conversion analysis and assessment to verify the scope of effort for the project will be conducted. A revised cost estimate for the data conversion may be provided at the conclusion of the assessment. You may elect to cancel or proceed with the conversion effort based on the revised estimate.

2. This conversion effort includes data coming from one unique database or source, not multiple sources.

3. No data cleansing, consolidation of records, or editing of data will be part of the data conversion effort. Any data cleansing, removal of duplicate records, or editing must take place by you prior to providing the data to us.

Our Responsibilities

1. We will create and provide you with a conversion design document for signoff prior to beginning development work on the data conversion. No conversion programming by us will commence until you approve this document.

2. We will provide the data conversion programs to convert your data from a single data source to the Tyler Software for the specified files that contain 500 or more records.

3. As provided in the approved project plan for conversions, we will schedule on-site trips to your location in order to conduct the following:

   a. Conversion Analysis,
   b. Assistance for Mapping and Testing, and
   c. Conversion Go-Live Implementation and Support.

   You will be responsible for travel expenses as set forth in the Invoicing and Payment Policy.

4. We will provide you up to three (3) test iterations of converted data. One test iteration consists of:

   a. Running a conversion test in your test environment,

b. Your reviewing a conversion test and responding in writing to us (see Client responsibilities paragraph 3 below),
c. We correct or otherwise respond to issues discovered and reported by you,
d. We will conduct internal testing to verify corrections, and
e. Both parties planning for the next test iteration and/or the live implementation.

5. Tyler will provide warranty coverage for any conversion-procedure-related issue reported by Client to Tyler within thirty (30) days after the conversion is run in the live database.

Client Responsibilities

1. You will extract data from the legacy system to submit to us. Data will be submitted to us in one or more of the following formats:

   a. AS/400 files (SAV files),
   b. Microsoft SQL Server database,
   c. Microsoft Access database,
   d. Microsoft Excel spreadsheet,
   e. Visual Fox Pro database or similar format (.dbf files),
   f. An ASCII-format delimited text file (including embedded column headings and text delimiters), or
   g. An ASCII-format fixed-width file (along with structured column definitions in an electronic format suitable for parsing, such as a spreadsheet or document table).

   Data may be delivered using any common media or data-delivery format such as ¼-inch tape (AS400), Ultrium 1 Tape (AS/400), CD, DVD, USB device, hard drive, or FTP server.

   In the event that you request data extraction assistance from us, data extraction services shall be billed at our then-current rates, according to the Agreement.

2. You will respond to each test iteration in writing, on a form provided by us, either:

   a. Indicating acceptance that the Data Conversion Process is ready for the final conversion, or
   b. Indicating a list of changes that need to be applied to the Data Conversion Process for the next test iteration.

   Up to three (3) test iterations are provided as part of the Data Conversion Process. After the third (3rd) test iteration, you shall pay our then-current flat fee for each additional test iteration. You will promptly review each test iteration when delivered by us. Prompt review by you will reduce the likelihood that a need for additional test iteration(s) may arise due to an extended delay between delivery of a test iteration and its review.

3. A data dictionary (data descriptors) containing all data elements must be provided to us for each file submitted with the media.

4. As provided in the project plan for conversions, you will provide a dedicated resource in each application area to focus on conversion mapping and testing. This includes dedicating a support person(s) whenever our staff is on site regarding conversions. Roughly a one to one ratio exists for your commitment and our commitment. You understand that thorough and timely testing of the converted data by your personnel is a key part of a successful data conversion.

5. You agree to promptly review and signoff on both the conversion design document, and on the final conversions after appropriate review.

Only one data source for each of the files described in the Investment Summary.

APPENDIX C

Contractor's Proposal

eCopy

A SOLUTION PROPOSAL FOR:
Nassau County, New York

Request for Proposal #IT1218-1737
Nassau County Fire Commission Computer Aided Dispatch System

PRESENTED BY:
Tyler Technologies

May 22, 2018

Tyler Technologies, Public Safety Division, 840 West Long Lake Road, Troy, Michigan 48098
248-269-1000 · 248-879-2284 fax · www.tylertech.com

Restrictions on Disclosure

This proposal from Tyler Technologies, Inc. ("Tyler") contains proprietary and confidential information, including trade secrets, belonging to Tyler or Tyler's partners. Tyler is submitting this proposal on the express condition that the following portions, if included, will not be duplicated, disclosed, or otherwise made available, except for internal evaluation purposes:

- Response to the Functional Requirements, or "Checklist"
- Line-item pricing (total proposed contract amount may be disclosed)
- Screen shots
- Customized Statement of Work/Implementation Plan

Each of these sections, if included, has separately been labeled "Proprietary and Confidential – Subject to Restrictions on Disclosure."

To the extent disclosure of those portions is requested or ordered, Tyler requires written notice of the request or order. If disclosure is subject to Tyler's permission, Tyler will grant that permission in writing, in Tyler's sole discretion. If disclosure is subject to a court or other legal order, Tyler will take whatever action Tyler deems necessary to protect its proprietary and confidential information, and will assume all responsibility and liability associated with that action.

Tyler agrees that any portions not listed above and marked accordingly are to be made available for public disclosure, as required under applicable public records laws and procurement processes.

Trademarks Disclaimer

Because of the nature of this proposal, third-party hardware and software products may be mentioned by name. These names may be trademarked by the companies that manufacture the products. It is not Tyler's intent to claim these names or trademarks as our own.

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/28/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Hays Companies Inc.
133 Federal Street, 4th Floor
Boston MA 02110

CONTACT NAME: Moira Crosby
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS: mcrosby@hayscompanies.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Hartford Fire Insurance Company	19682
INSURER B : Hartford Casualty Insurance Company	29424
INSURER C : Lloyds of London Syndicates	048337 & 048945
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Tyler Technologies, Inc.
5101 Tennyson Parkway
Plano TX 75024

COVERAGES CERTIFICATE NUMBER: 19-20 GL Auto REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY; CLAIMS-MADE; X OCCUR; GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY; PRO-JECT; LOC; OTHER:			08UENAY8572	4/1/2019	4/1/2020	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY; X ANY AUTO; ALL OWNED AUTOS; SCHEDULED AUTOS; X HIRED AUTOS; X NON-OWNED AUTOS			08UENAY8572	4/1/2019	4/1/2020	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB; OCCUR; EXCESS LIAB; CLAIMS-MADE; DED; RETENTION $			08XHUAZ8392	4/1/2019	4/1/2020	EACH OCCURRENCE	$ 25,000,000
							AGGREGATE	$ 25,000,000
								$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N; ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH); If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		08WEEL5271	4/1/2019	4/1/2020	X PER STATUTE; OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
C	Cyber/Privacy Prof Liab			B0621PTYLE000218	12/17/2018	12/17/2019	Occurence Limit	$20,000,000
C	Cyber/Privacy Prof Liab			B0621PTYLE000318	12/17/2018	12/18/2019	Aggregate Limit	$20,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Evidence of Insurance.

CERTIFICATE HOLDER

County of Nassau
240 Old County Rd
Mineola, NY 11501

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
James Hays/MCROSB