The State of Oklahoma

PROGRESS ON UNIFICATION

Quarterly Report

Greetings,

As we finalize consolidation and establish unified technology services for our customers, it is important to understand what technology services OMES provides and how these services are provided. This special report takes a closer look at the technology services and the teams who support these services, the customer request process and incident process, and the service rate and cost recovery framework.

OMES Information Services has gone through an organizational evolution of staffing, customers and the services provided since it was formed in 2010. OMES went from a staff of roughly 1,500 employees from numerous state agencies with a diverse set of roles, responsibilities and titles to just under 700 employees, 11 teams and approximately 100 working titles.

Most of the staff we have today started in a different agency working within their agency's in-house technology shop. They had various skill levels and a knowledge of a variety of technology services to meet the mission of their specific agency. These staff members adapted greatly from being a technology employee dedicated to a specific agency to a team member focused on a specific technology service.

As our employees were adapting to our new teams they were also adapting to new customers. Starting in 2011 with just a handful of agencies and completing unification in 2017 with 110 agencies, OMES technology teams serve 34,000 customers and over 31,000 affiliate customers.[1] With a staff of just under 700 employees, we work with 44 percent less staff than what is recommended to support all of our customers' needs.[2]

We continue to adapt and evolve in how we approach technology disruptions and service requests. Our teams engage in a daily Operations and Intelligence Briefing, a meeting focused on a specific disruption or request that can receive input from each team for faster and more efficient resolution.

The O&I empowers our employees to work across teams to resolve recurring problems. Sharing knowledge gives the teams a deeper understanding of operations and keeps them current on changes.

Technology moves fast and we must keep up. The real work of change in today's world happens in teams with each person contributing. It's important for government IT leaders to adapt to change, staying ahead of the IT curve and meeting the demand of their customers.

Private sector leaders are motivated by competition to operate cost-efficiently and meet the changing customer demands, and our public sector customers, the citizens of Oklahoma, expect and deserve the same level of service and innovation.

Our teams ensure we provide business-minded IT solutions to our agency customers so they have the applications and technology tools they need to serve Oklahoma successfully and securely. We work with our customers to replace legacy technology with more agile solutions that help them succeed.

We take pride in our ability to evolve constantly in our roles, responsibilities and services to help our partner agencies meet their missions for our great state and the citizens they serve.

Bo Reese
Chief Information Officer

[1] *"State of Oklahoma Payroll - 2018," Office of Management and Enterprise Services, accessed Feb. 27, 2019,* https://data.ok.gov/dataset/state-oklahoma-payroll-2018.

[2] *Linda Hall, Eric Stegman, Shreya Futela, and Disha Badlani, "IT Key Metrics Data 2018: Key Industry Measures: Government – State and Local Analysis: Multi-year," Gartner, Dec. 11, 2017,* https://www.gartner.com/doc/3832572?ref=mrktg-srch.

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1 Team of Teams

"I am proud to be part of a team that is passionate about our work and intensely focused on performing at the highest levels to support our partners through unified business services."

— Bo Reese, Oklahoma Chief Information Officer.

Who are we?

The Office of Management and Enterprise Services is a service delivery and cost recovery agency as outlined in the IT Consolidation and Coordination Act[3] and the Oklahoma State Finance Act[4].

Information Services employs approximately 700 people providing core technology services such as email, workstation support, phones and internet connectivity for 110 state government agencies and various affiliate organizations.

OMES IS manages all technical issues and incidents, IT projects, infrastructure, data storage, analytics, governance and application development. We also serve Oklahoma first responders via the public safety communications network, and our Security Team proactively protects the state's information systems and data for Oklahoma state government and its citizens.

We are focused on providing unified technology services, support and consulting for 34,000 state employees and over 31,000 affiliate customers and by extension Oklahoma citizens. Affiliate organizations include higher education, K-12 school districts, tribal organizations and local governments, such as cities and counties.

From agriculture to tourism to health to education, our customers' mission is to support, lead and provide critical services for our citizens, and we are instrumental in helping every state agency meet this mission.

Why do we do this?

We have to go back to 2011, when our legislators had the foresight to create ITCCA to reduce duplicative systems and provide shared technology services in Oklahoma state government.

From 2011 to 2017, we unified, the information technology functions of 77 mandated agencies, and 33 others voluntarily joined when they saw the buying power and efficiency created.

Oklahoma is nationally recognized as one of the most impressive state technology unifications for both its breadth and its savings impact of $372 million[5].

Unification has changed the way technology in Oklahoma state government works. We now have state standards and solutions for network connectivity, workstations, support, phones and email.

We will continue optimizing the services we provide our partner agencies and expanding these services. We have completed our first IT Strategic Plan that outlines possible areas of focus. Updated annually, it provides a roadmap for technology in Oklahoma state government. We are beginning to see similar goals arise in speaking with other agencies about their strategic plans.

Our current motto is continuous improvement in expertise and innovation as we drive toward business focused technology services[6].

[3] *Title 62 O.S. § 35.1-9,* http://www.oscn.net/applications/oscn/index.asp?level=1&ftdb=STOKST62&year=#CiteID456776.

[4] *Title 62 O.S. § 34.11.1-34.33,* http://www.oscn.net/applications/oscn/index.asp?level=1&ftdb=STOKST62&year=#CiteID456776.

[5] *"Special Edition: The State of Oklahoma Progress on Unification: Unification Close-Out Report, Part 1," Office of Management and Enterprise Services, Oct. 31, 2017,* https://www.ok.gov/cio/documents/HB1304QuarterlyReport10312017.pdf.

[6] *View the "Oklahoma IT Strategic Plan: 2017-2021" here:* https://omes.ok.gov/pages/oklahoma-it-strategic-plan.

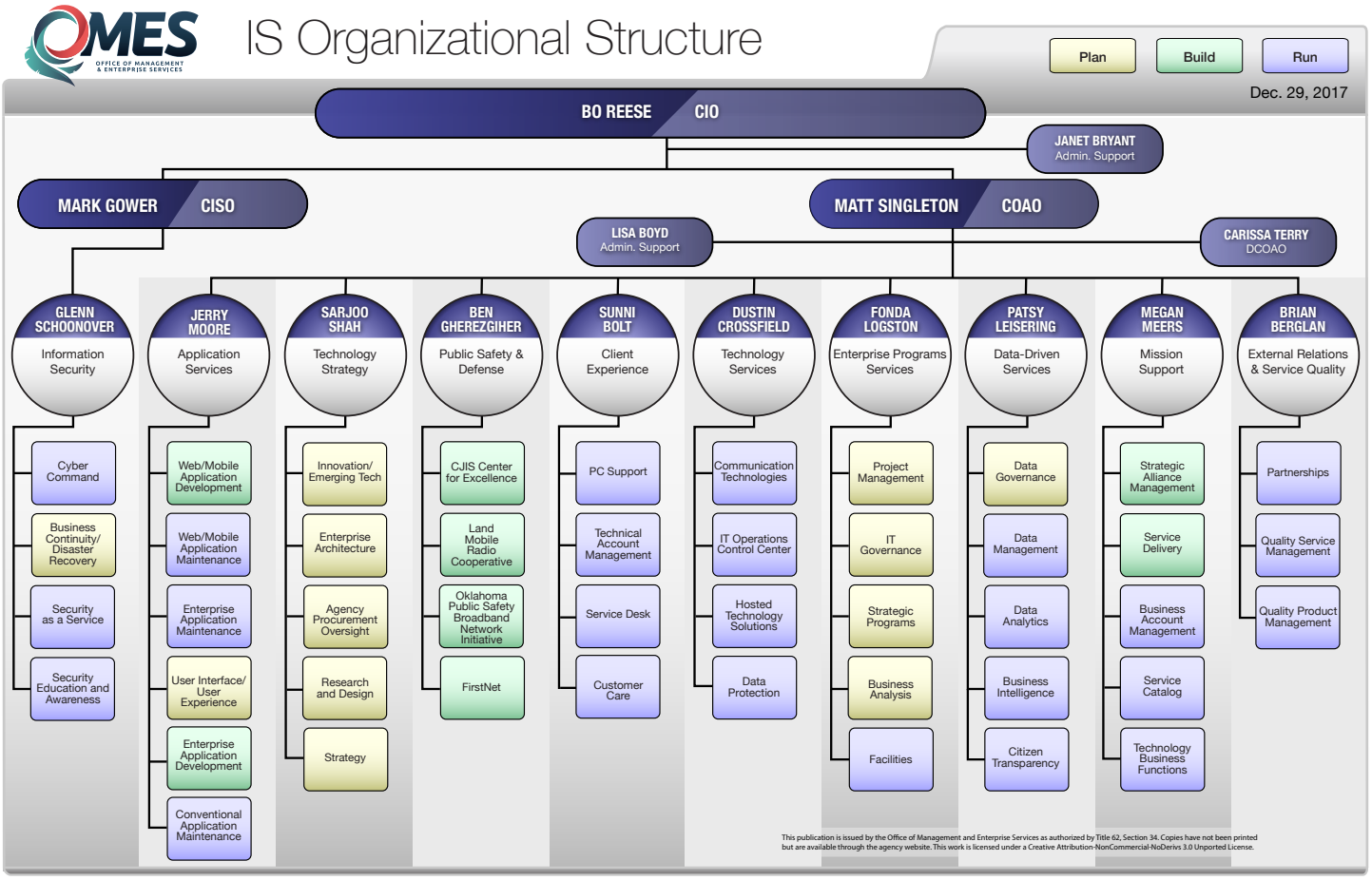
"Our current motto is continuous improvement in expertise and innovation as we drive toward business focused technology services."

— Matt Singleton, Oklahoma Chief Operations and Accountability Officer.

How do we do this?

Service Teams

OMES IS employees are organized into 11 service teams with approximately 100 working titles.



The unification of job roles has aided our recruitment efforts and increased professional development and knowledge transfer among our staff for job duties and goals as well as created clearer and more consistent career ladders and training.

All of the teams and employees engage in a daily Operations and Intelligence meeting where they listen, participate and discuss problems via video or chat window[7].

Part of our evolution was to become more transparent and communicative with our partner agencies. To do this we organized technology disruptions and service requests into two processes: the OMES Service Desk and agency dedicated roles[8].

[7]For more information on the O&I meetings watch the "Digital Transformation: Operations & Intelligence Brief" at https://youtu.be/qqEXZaen2GU.

[8]"The IT Support Expressway," Office of Management and Enterprise Services, accessed Feb. 27, 2019, https://ok.gov/cio/documents/ITSupportExpressway.pdf.

Service Desk

OMES began serving several agencies with over-the-phone technical assistance long before unification began. As unification was completed for an agency, each agency was added as a customer for the OMES Service Desk. Customers call, email or create a case online via the customer portal.

The team now processes over 375,000 customer cases each year. Serving as the main technology support line, the Service Desk has advanced its skills to include a Public Safety and Defense team as well as a Customer Care team to meet their specialized needs.

To contact the Service Desk you can create a case:

In the online portal at
http://servicedesk.ok.gov/

Via email
servicedesk@omes.ok.gov

Call
405-521-HELP

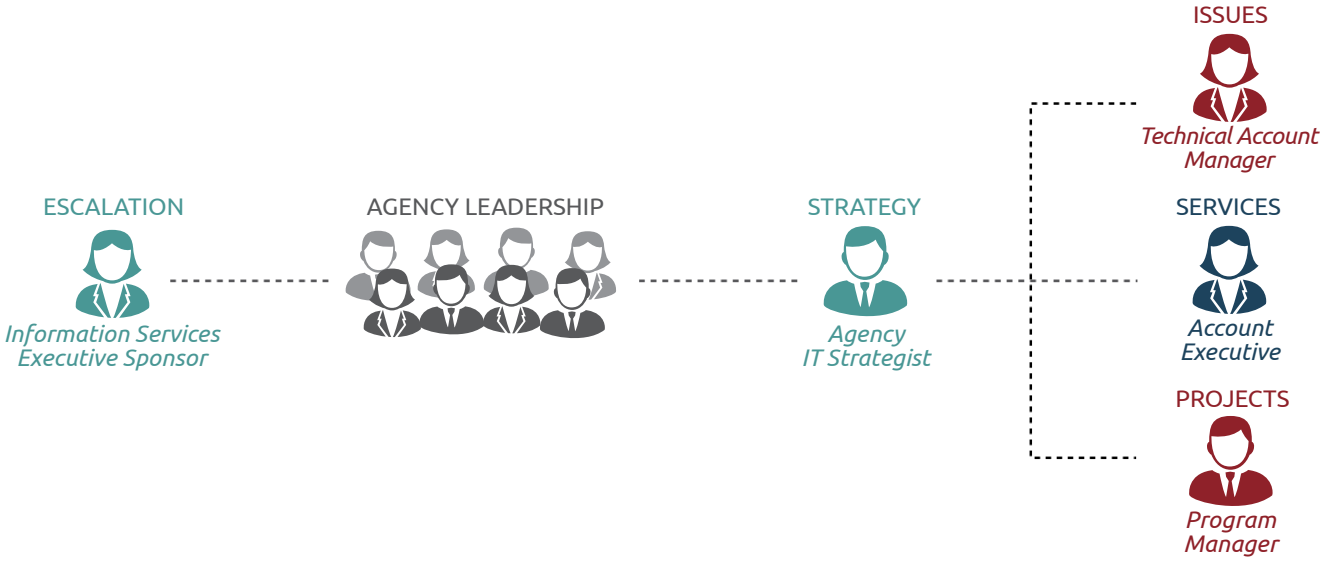
Agency Dedicated Roles

OMES aligned technology staff into service teams by skills and duties. Once agencies were unified, we saw a greater need to align specific staff within each of those teams for our agencies for improved customer support. Similar to a dotted line team, OMES assigned five different roles to each agency.

These roles include the following:

- IT strategist – serves as the primary contact for operational projects and aligns agency business strategies with enterprise solutions or technology projects.
- Executive sponsor – coordinates with the executive team to identify and overcome obstacles within OMES.
- Technical account manager – serves as a primary contact for service issues, help desk cases and outages.
- Program manager – serves as the primary contact for current and proposed technology projects.
- Account executive – serves as the business liaison for an agency providing information on service catalog offerings, billing and invoicing, technology procurement, and service agreements.

To find the contact information for an agency's five dedicated roles view the Partnering with OMES Information Services list.



How do we charge for our services?

OMES is a service delivery and cost recovery agency. OMES IS provides technology services to our customers within state agencies at a rate to recover the cost of acquiring, maintaining and providing these services. The cost recovery model for OMES was established as a requirement by legislation in 2011[9].

OMES does not and cannot monetize or acquire financial gain from the services it provides. In addition, state agency eligibility for federal funds requires all service rates be charged at the same rate for all agencies whether receiving federal funds or not. OMES cannot negotiate different rates for the same service without putting all federal dollars coming into the state in jeopardy.

Hourly rates for IT professional services are derived by estimating the direct costs and other costs associated with providing the service. In order to comply with state statute, Oklahoma updated its service rate model in July 2016[10].

The service rate structure includes:

- Tech Essentials – charged per full-time equivalent: Desktop support, standard Microsoft license, email, security, user storage, backup, Service Desk support, telephone, voicemail, internet connectivity, etc.
- Tech Plus – charged per unit: Additional workstations, on-site specialized support, mobile device management, web conferencing, per-seat software, remote site connectivity, etc.
- Tech Projects – charged per project: New or enhanced agency-specific applications, cabling for new construction and remodels, Wi-Fi installations, etc.
- Tech Maintenance – charged per application: Mainframe applications for large agencies, agency-specific applications. [Pull out the above rate description and place in a graphic box(?) to highlight it.]

Communications about updated service rates are provided to customers through various mediums including an online portal with a current list of services and rate; agency view of current technology services; agency roundtable presentations; a service catalog[11]; and in-depth, one-on-one meetings between state agency leadership and OMES.

Service rates are central to creating long-term value and delivering quality, cost-effective and secure services for our partner agencies. The transparency in the new rate structure allows agencies to make informed decisions regarding technology spending.

[9] *Title 62 O.S. § 35.1-9,* http://www.oscn.net/applications/oscn/index.asp?level=1&ftdb=STOKST62&year=#CiteID456776.

[10] *For more information, view "OMES Information Services Updated Service Rates at Service Rates" at* https://youtu.be/JB1CZoJlijw.

[11] *For more information on available technology services for agencies and affiliates visit* http://openrange-ok.force.com.

2 OMES Technology Service Teams

SLA and Customer Satisfaction

When a customer calls the OMES Service Desk, a ticket is created and assigned to one of several categories each with its own service-level agreement, which measures service delivery time and successful resolution.

The OMES Service Desk and Customer Care team will attempt to resolve tickets that come through the various channels, such as phone, email and self-service allowing for resolution of issues in real time. Last year the team reviewed 375,540 cases and was able to resolve 51 percent of those cases with the customer's initial point of contact.

If the OMES Service Desk and Customer Care team is unable to resolve the incident or service request then the customer's case is routed to one of our 11 service delivery teams via an online tool. The teams complete the incident or request and are successful based on resolving the case and meeting the turnaround time as outlined by the SLA. The customer can also voluntarily complete a customer satisfaction report.

Both the SLA and customer satisfaction report for each team are important quality and success measures for our service teams. Whether a service team is specialized in its functional area and providing a high level of customer and technical expertise or just starting out, OMES has seen significant improvements in customer service.

Our teams are committed to tracking and improving service delivery metrics for every customer touchpoint, so we can make data-driven decisions to bring about the biggest improvements of our unified technology services.

Service-Level Agreement Defined

SLA – a contract providing a specific service to a customer, at a guaranteed level of availability or within a guaranteed amount of time, for a set price.

Respond SLA – the time it takes to assign a case to a technician.

Resolve SLA – the time it takes to correct the problem and close the case.

SLAs are based on the priority of a case. If a customer is requesting a service it is a service request. If a customer is reporting something is broken or not working it is an incident and is prioritized according to the SLA priority chart.

		Impact		
Severity		Multi-agency	Agency	Individual
	Outage	Priority 1	Priority 1	Priority 2
	Degradation	Priority 1	Priority 2	Priority 3
	No Impact	Priority 2	Priority 3	Priority 4

Technology Services by Team

OMES technology service teams are organized into 11 areas of focus based on similar functional roles and tasks. The teams are structured hierarchically with a director, manager and supervisor. Outlined below is each service team, its roles and responsibilities, its service-level agreement status, and its customer satisfaction rating.

Technology Strategy

Sarjoo Shah, Director of Technology Strategy

39 employees

6 managers and supervisors

The OMES Technology Strategy team was formed in January 2015. This team focuses on strategic planning, enterprise architecture methodology and implementation, and research and knowledge to create a forward-looking, cohesive plan for state agencies and Oklahoma as a whole. As a proactive unit, this team stays current on IT issues facing the state and looks for long-term, relevant solutions.

Strategy and Planning: Strategic Planning for OMES IS occurs within this team and helps OMES look forward five and sometimes 10 years to decide on the collective IT goals for the state.

Strategizing with the chief information officer and chief operating officer on privacy, security, delivery and technological solutions to establish internal direction is vital to creating an accurate and achievable strategic plan. In addition, information from the OMES IS executive sponsors and OMES IT strategists regarding agency needs and plans is critical to creating a plan that accurately addresses the needs of and trends for the state.

Agency IT Strategist: Primary duties and functions are:

- Provide technological guidance within an agency organization.
- Manage the day-to-day operations of the information technology department including directing staff, who support information technology functions.
- Consult with agency administration, department managers and agency representatives to exchange information, present new approaches and discuss equipment and system changes.
- Assess and anticipate technology projects and recommend appropriate actions and resources.
- Establish and direct the strategic and tactical goals, policies and procedures for the information technology department as they relate to the representing agency business.

Enterprise Architecture: The OMES IS executive sponsors and OMES IT strategists assist the enterprise architect in gathering information involving policies, processes, workflow, source and elements of information, IT Infrastructure, cost drivers, and complexity drivers. Collectively, the EA reports contribute to a statewide view of IT needs, which aids in strategic planning.

Guided by EA principles, policies and workflows, this team creates standard technology, hardware, software and application lists from which agencies can purchase. These pre-selected products and services work within our technology environment, meet our state architecture and security requirements, and are supportable by OMES. The EA team also vets new IT products and services for our agency customers.

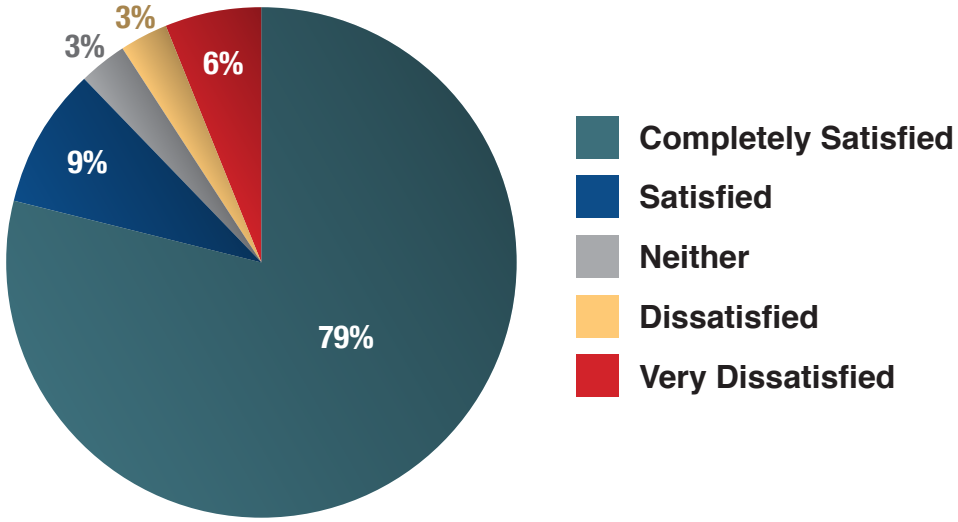
Update: Oklahoma IT Strategic Plan: 2017-2021

The Oklahoma IT Strategic Plan: 2017-2021[12] provides a guide for technology in Oklahoma state government and direction to ensure it meets the growing citizen and business needs of our state.

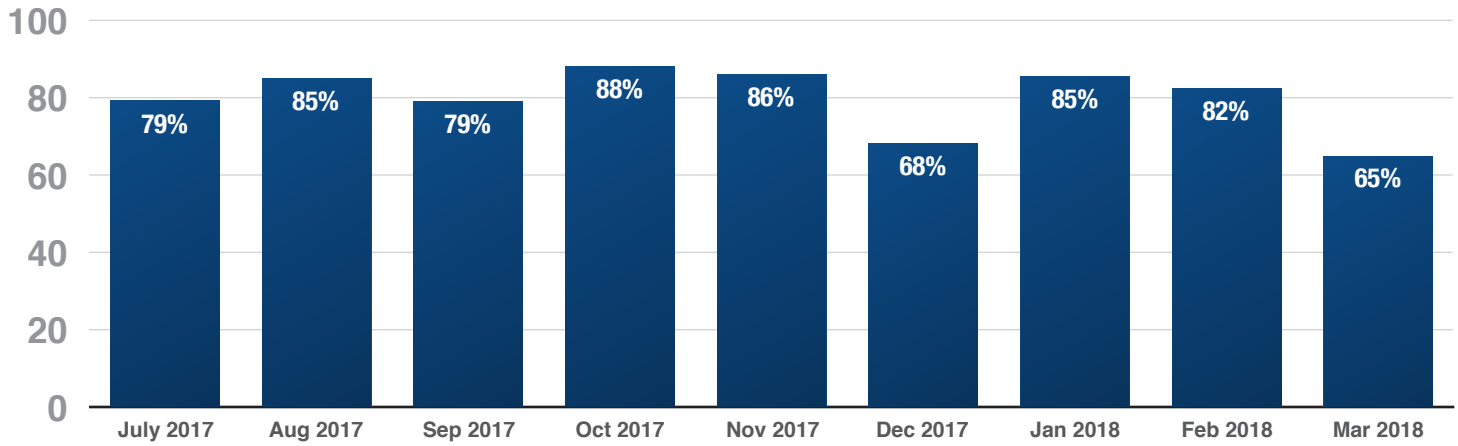
The roadmap focuses on three channels, citizen, public sector employee and innovation.

- Citizen – focuses on the experience citizens have with state government through technology from smartphones to citizen data.
- Public sector employee – focuses on the needs of our public sector employees and technology use to improve delivery of services and business processes.
- Innovation – outlines innovation technology initiatives for citizens and private sector employees, such as unmanned aerial vehicles, internet of things and blockchain technologies.

FY 2018 Customer Satisfaction Rating for Technology Strategy



IT Service Segment SLA Success % By Month for Technology Strategy



[12]*View the "Oklahoma IT Strategic Plan: 2017-2021" here:* https://omes.ok.gov/pages/oklahoma-it-strategic-plan.

Information Security Team

Mark Gower, Chief Information Security Officer

15 employees

4 managers and supervisors

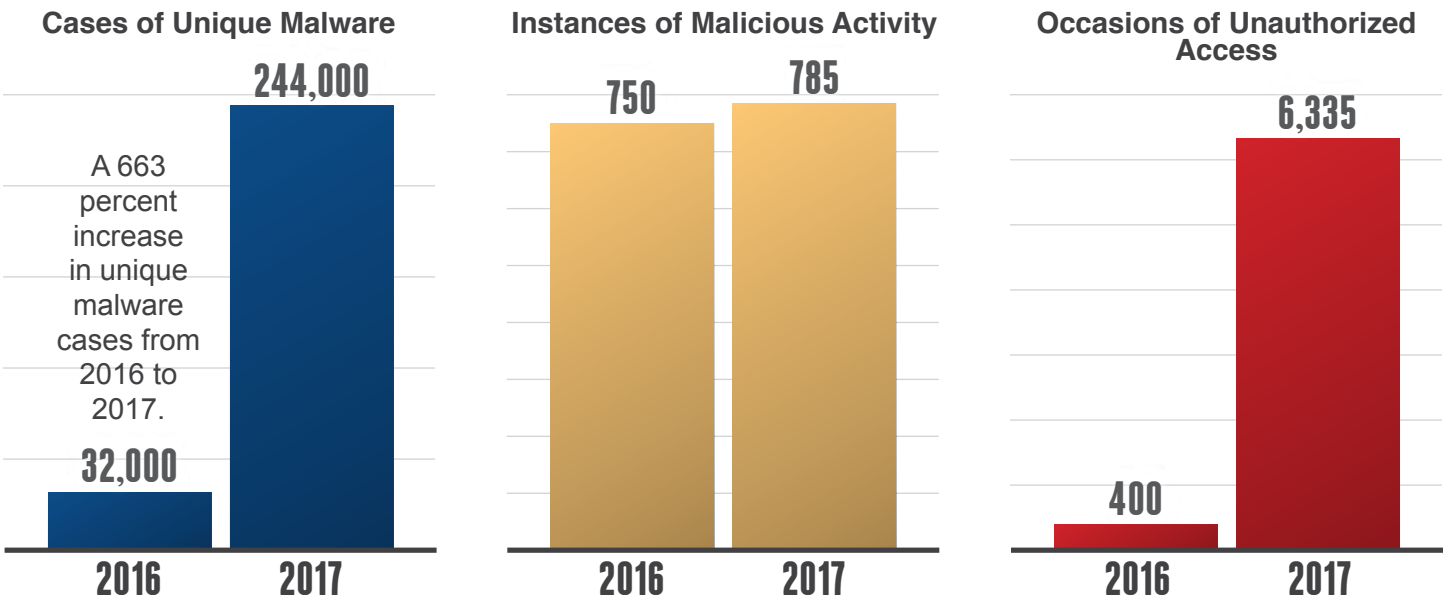
The OMES Information Security team is responsible for protecting mission-critical networks and the state's digital assets through security best practices, as well as implementing and maintaining programs that uphold the state's security posture. The OMES Information Security team fulfills multiple functions and roles including: security architecture and technology services; risk and internal controls review; security awareness and training services; systems development life-cycle management process; and general security services, such as endpoint protection and cybersecurity. The Security Team also provides a core set of security services for some affiliate organizations.

Update: Oklahoma Cyber Command and CyberWarn

The Oklahoma Cyber Command provides centralized cybersecurity services protecting mission-critical networks 24/7/365 and monitoring over 38,000 assets. Security team members respond to hackers, viruses, spam email campaigns and anything that threatens the security of the state's technology infrastructure using real-time data feeds.

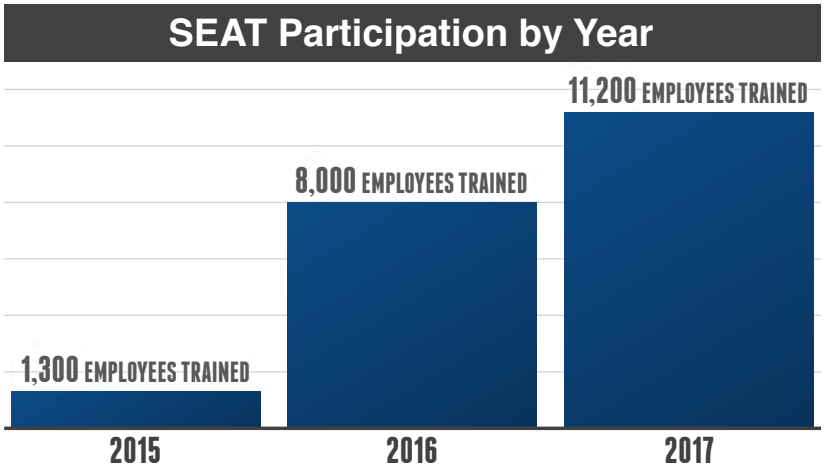
The team uses the security tool CyberWarn for monitoring state assets, a dashboard comprised of intelligence feeds where correlation engines aggregate the data into a viewable display.

Cyber Activity Overview



Update: Security Education Awareness Training

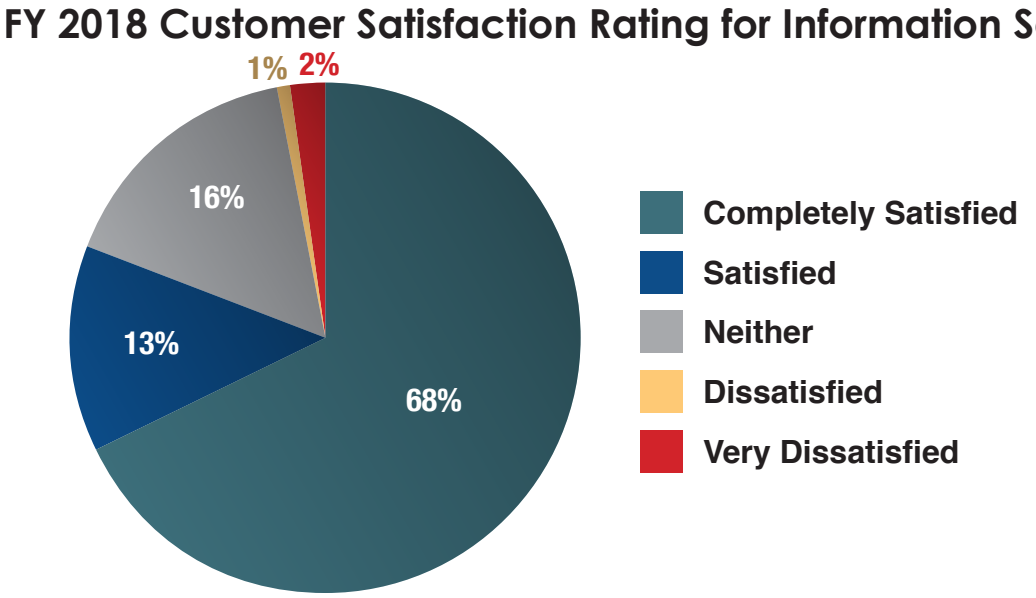
Implemented in 2014, our initiative to bring a centralized Security Education and Awareness Training, or SEAT, program to the state continues to gain success. SEAT provides online, course-based training on cybersecurity, technology and regulatory topics for more than 12,000 agency employees annually and counting. SEAT enables state agencies with the ability to assign training and track and report on training progress.

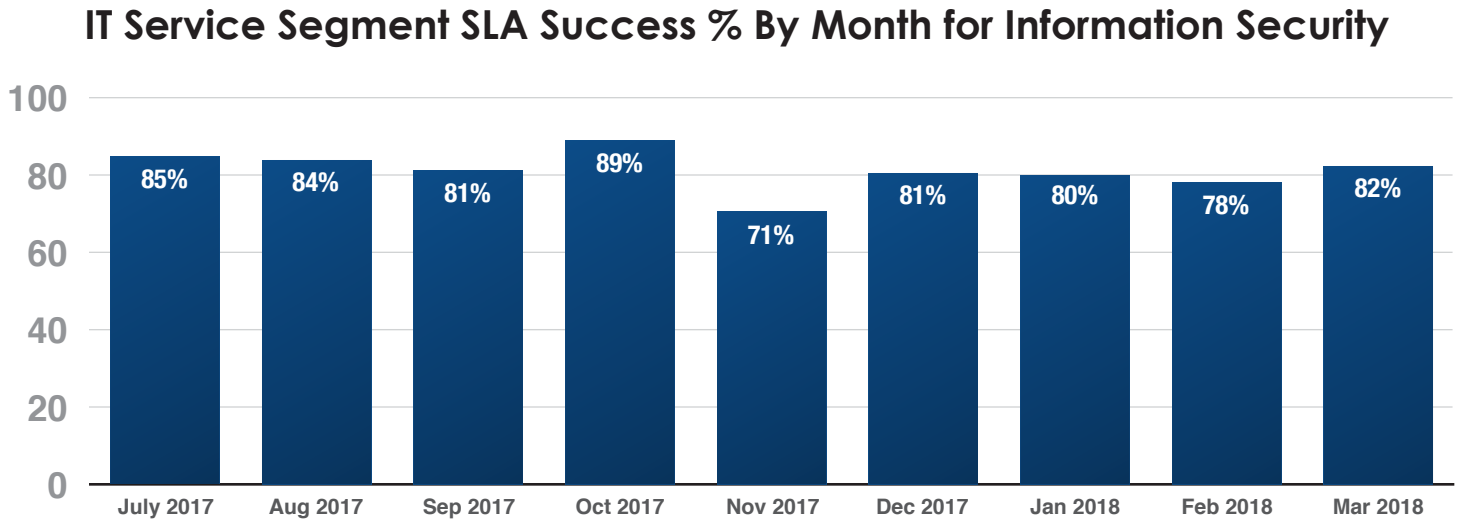


Update: Disaster Recovery and Business Continuity

In addition to the State Continuity of Government Plan maintained by the Oklahoma Department of Emergency Management, the centralized IT department maintains two alternate sites to support the formalized IT disaster recovery plan and capabilities.

There are two full-scale annual IT disaster recovery exercises to test viability and cybersecurity of the state Cyber Response Plan.





Application Services Team

Jerry Moore, Director of Application Services

172 employees

23 managers and supervisors

Application Services supports existing statewide and agency-specific technology applications and develops new applications. Application support services generally include correcting application errors and issues submitted through the Service Desk and general maintenance. Services fall under one of three categories, modernization of an application, purchase and setup of a new application or enhancement requests.

Application Services runs an internal cross-training program for the state's employee management system that involves rotating developers between three major teams, Production Support, Innovation Team and Projects/ Enhancements. Cross-training engages developers, provides fresh eyes for ongoing projects and maintains operational continuity through the team leaders.

The Applications Services Team includes the following types of services and applications:

- Conventional applications – manages product support services, enhancement requests and other projects related to conventional or legacy applications.
- Web and mobile applications – serves as the new technology and research and development team within Application Services. This team produces many public-facing products and services, designed primarily to increase citizen access to government through technology. Once launched, the team handles customer support for developed applications.
- Enterprise applications – refers to products required to be used statewide, including the state's budgeting system, the state's employee management system, the grants management system, the licensing system, the imaging system and the benefits administration system.
- Systems analysis – develops technical specifications for new projects, enhancements and integrations between systems ensuring an application's configurations will meet the business needs of our agency customers.
- User experience – ensures the look and feel of a system is accessible, easy to use and customer-focused. This team works to design well-received, intuitive user interfaces while meeting business needs and expectations. The team focuses primarily on new systems with plans to redesign existing systems in the future.

Update: Modernizing Legacy Applications

Oklahoma is currently in the process of modernizing its Human Capital Management systems by implementing cloud modules, including core human resources, benefits, recruiting, learning management and succession planning.

Oklahoma is also developing a mobile application for the Oklahoma Department of Emergency Management for both employees and citizens using the state's enterprise architecture guidelines and the state's coding standards.

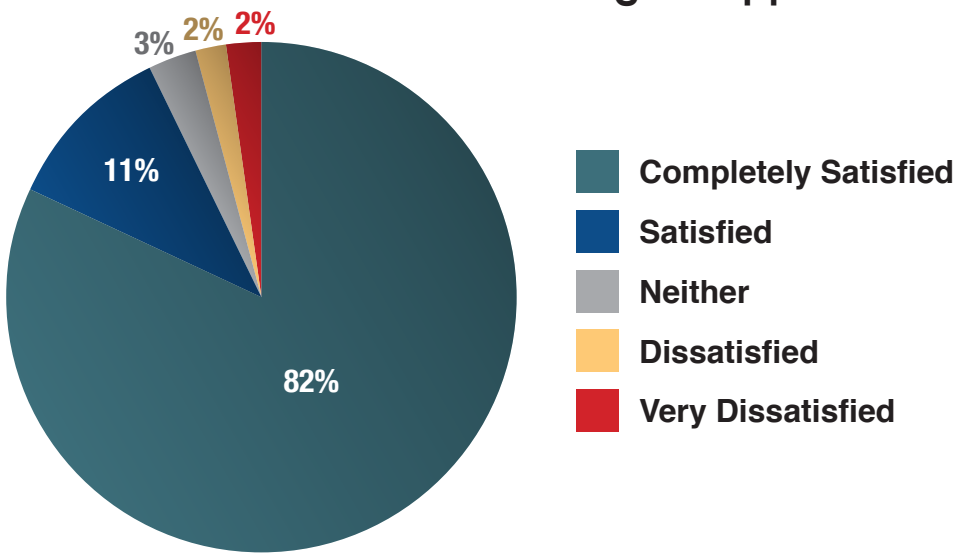
A new multifaceted web services team will provide a collection of public web services to state agencies and will maintain the state web standards. The team will maintain digital tools and web content platforms along with an accompanying set of web services to stand up useful, compliant, public-facing web solutions.

The state has begun a project to modernize its legacy human services applications. This effort will replace several systems and lower the overall total cost of ownership. The new platform will provide improved integration with other agencies, increased functionality and mobile access for citizens.

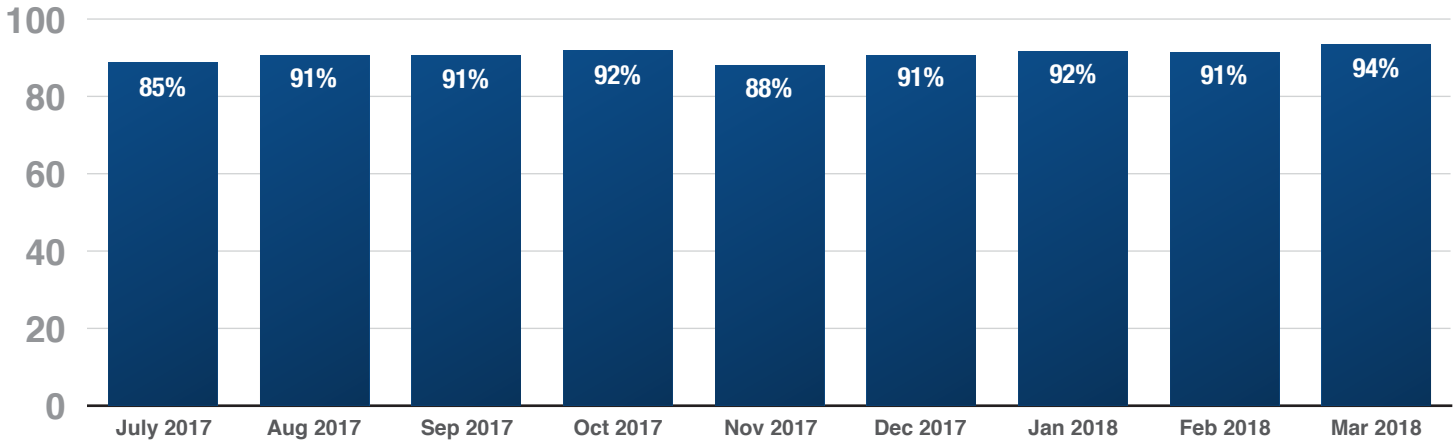
Finally, the state is engaging in a comprehensive effort to address the technical debt incurred by its

legacy applications. The state will continue to provide support for its legacy applications while focusing on modernization efforts across all state agencies.

FY 2018 Customer Satisfaction Rating for Application Services



IT Service Segment SLA Success % By Month for Application Services



Public Safety and Defense

Ben Gherezgiher, Director of Public Safety and Defense

The Public Safety and Defense team supports the mission of public safety in Oklahoma by lending technology support to state agencies that are Oklahoma's first responders. While these team members serve public safety and defense agencies and their missions they are embedded among the other service teams. PSD team members provide the level of clearance and expertise needed to protect the sensitive public safety and defense data and tasks.

Public safety agency IT support functions are broken into two primary work functions:

- Baseline – include day-to-day tasks of customer support and software updates; training-technology support; exercising the system with simulations and testing systems; developing applications, maintaining specialized police laboratory systems such as DNA lab and ballistics analysis systems and provisioning security for police sensitive data and networks; and setting up infrastructure in support of public safety agencies' missions statewide.
- Escalated – occurs during severe weather, crime scene investigations, forensic investigations and other work that involves a mobilized team or escalated events. This team is responsible for assuring mobile command posts are operational in areas of technology, radio communication and other functionality as situationally required. PSD team members are dispatched with a mobile unit during times of escalated events and maintain 24-hour, on-site support supplemented by on-call specialized technicians.

Update: Oklahoma Public Safety Broadband Network Initiative

The federal statute, Title IV of the Middle Class Tax Relief and Job Creation Act of 2012, established a federal entity called FirstNet. FirstNet's task is to build a nationwide public safety broadband network dedicated to first responders to resolve jurisdictional and technological barriers. The State of Oklahoma, along with 54 states and territories, are recipients of a federal grant to produce a plan of engagement with FirstNet.

Oklahoma is the 26th state to opt in to the FirstNet provided state plan and 28th government entity to opt in when we include U.S. territories. Phase 2 is to continue the mission of the OKPSBN to provide the public safety stakeholders and tribal nations with information, guidance and support concerning the national initiative.

Update: Center for Excellence

Senate Bill 1083, which was signed into law in April 2015 by Gov. Mary Fallin, directs the state CIO's office to establish the Criminal Justice Information Systems Center for Excellence to complete the unification of public safety IT functions into a single data center. Furthermore, the law directs the state CIO, in conjunction with the commissioner of public safety, to establish an appropriate governance model for setting priorities and shared services.

CJIS C4E provided a technology unification approach to meet the specialized security and data needs of our local, state and federal public safety and law enforcement agencies.

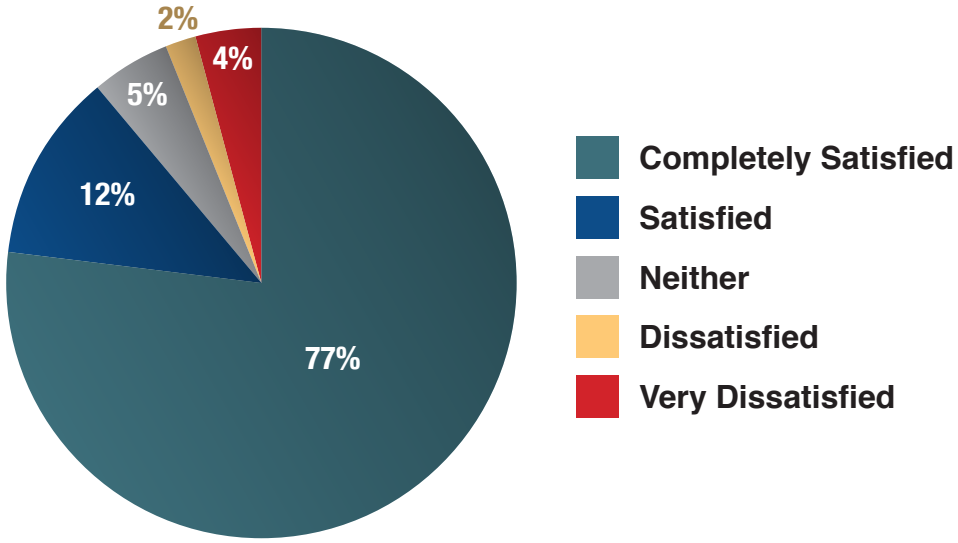
We are in the process of migrating data for nine public safety and defense state agencies. The center helps all public safety agencies meet CJIS compliance collectively and provides a common modern platform with potential for future operational cost savings and lower security risks.

There are 44 major applications that will be hosted at the CJIS C4E. Some of the applications that are being upgraded and will benefit from these improvements include:

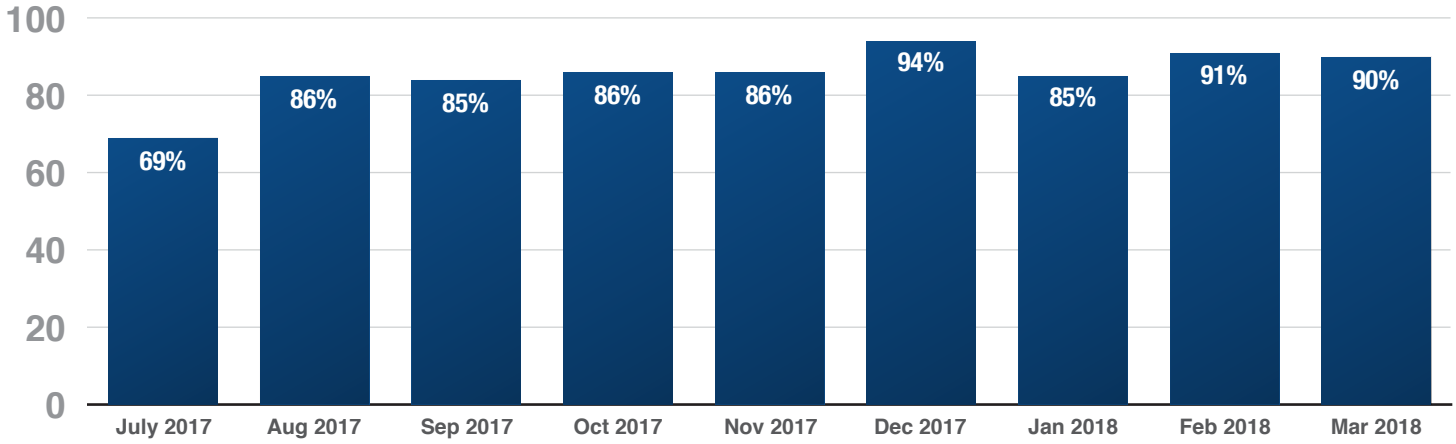
- Automated Fingerprint Identification System – provides civilian and criminal positive identity services for law enforcement agencies to identify people using multimodal biometrics technology. This system establishes the basis of the criminal history database at the state and federal levels. Currently, there are 112 Live Scan stations statewide, directly submitting booking data to the state AFIS.

- Computerized Criminal History Repository – a public safety database that interfaces with local and federal criminal history databases, including the FBI. The interface has expedited the process for producing this information for both the criminal and civilian sides of operations and the billing process associated with producing these reports. This information is used not only for public safety, but also for credentialing for jobs at state agencies.

FY 2018 Customer Satisfaction Rating for Public Safety and Defense



IT Service Segment SLA Success % By Month for Public Safety and Defense



Client Experience Team

Sunni Bolt, Director of Client Experience

179 employees

16 managers and supervisors

The Client Experience team is responsible for assuring overall client satisfaction by serving customers' needs each day.

The department oversees the following functions:

- PC Support – provides technology support services for all state employee PCs and mobile devices, performing installation, setup and configuration for devices and software; providing hardware and software technical support; and maintains patches, upgrades and inventories.
- Service Desk – provides a primary entry point for all technology service requests and disruptions. The Service Desk creates, maintains and expands a knowledge base to assist in resolving recurring issues. The Service Desk uses a customer relationship management tool to create new cases, log issues, run ad hoc reports and maintain the knowledge base. In addition, the Service Desk serves as the Capitol helpline for customer and citizen support.
- Security Provisioning – manages account provisioning and maintains file and print and email and calendaring services for the mainframe, active directory, virtual private network, secure wireless access, email, shared drive, multifunction devices, mobile devices and PeopleSoft environments.
- Customer Relationship Management – includes:
    - Technical account managers – the liaison between agencies and the technical teams at OMES, TAMs review service request tickets and cases and contact customers to assure issues are resolved. The TAMs coordinate communication of completed and in-progress cases to the agency IT strategist, customers and senior management.
    - Strategic initiatives specialists – report to the director of Client Experience for human resources purposes but receive all assignments directly from the chief information officer and the chief operating and accountability officer. This role drives business innovation through technology, promotes collaboration across state entities and assures effective and efficient utilization of all government resources.
- Customer Care Team – addresses first contact resolution by receiving tickets and cases from the Service Desk and resolves them at first line of contact. In FY 2018, the team reviewed 375,540 cases and was able to resolve 51 percent of those cases with the customer's first point of contact.

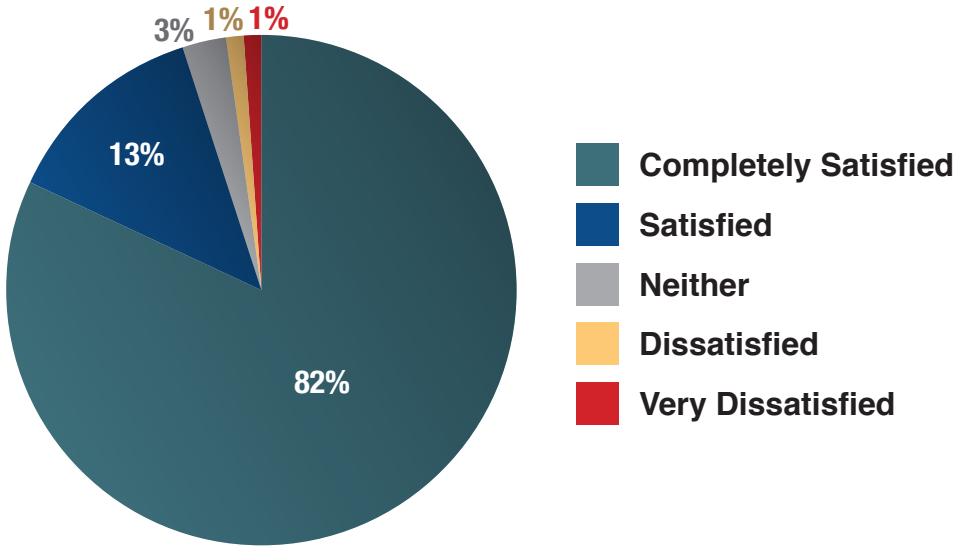
Update: State Standards for Workstations

OMES updated the state standards for workstations to better meet the needs of the modern workforce and adjusted the acquisition process in order to comply with the requirements of the IT Consolidation and Coordination Act.

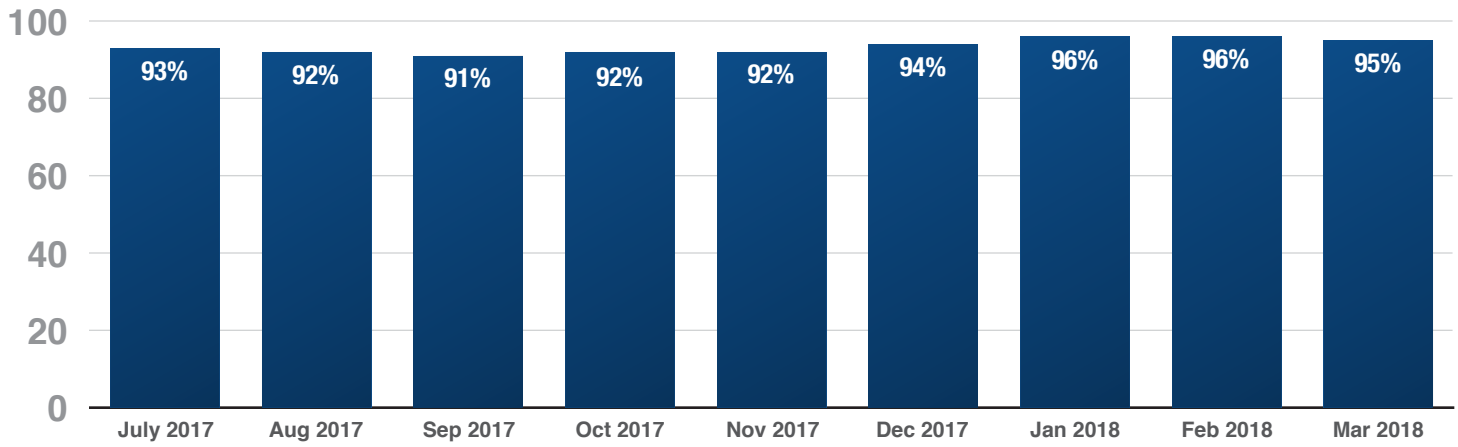
In the first six months of its implementation, the PC acquisition standard has realized over $500,000 in cost avoidance for agencies adhering to the standard. To date, Oklahoma has leased over 15,000 workstation assets.[13]

[13]*For more information on Oklahoma Workstation Standards, visit* https://www.ok.gov/openrange/Oklahoma_Workstation_Standards.html.

FY 2018 Customer Satisfaction Rating for Client Experience



IT Service Segment SLA Success % By Month for Client Experience



Technology Services Team

Dustin Crossfield, Director of Technology Services

151 employees

18 managers and supervisors

The Technology Services team supports the state with IT infrastructure, a server team and an IT Operations Command Center, as well as supports customer service requests, projects, system enhancements and more.

Technology Services includes:

- Communications Technologies – maintains the IT infrastructure for the state managing voice systems, cabling, fiber and connectivity. This team oversees 14,000 phone and voice customers, and approximately 2,500 miles of fiber statewide.
- Information Technology Operating Command Center – The Technology Services team supports the ITOCC, which is the nerve center of Oklahoma's technology infrastructure, monitoring 1,000 locations, 3,000 devices and 35,000 discrete elements. The ITOCC is often able to correct an issue before it affects the customer or becomes an outage and functions as an "IT war room" during incidents or crisis response.
- Systems Engineering and Administration – manages the state's network, mainframe and server resources through design, management and operation of the high speed networks that connect more than 1,000 sites, all server systems including more than 1,500 systems located in the state Data Center, state data storage and the unified state mainframe computing platform. The state Data Center has multiple layers of redundant capabilities to ensure that the information is safe and accessible in case of disaster.

Update: Data Center, Monitoring, Email, Passwords and Workstation Standards

Our Tier 3 Data Center, monitoring tools, core email services and workstation standards provide Oklahoma agencies and affiliates with updated core services and technology savings.

Data Center: Oklahoma houses a centralized Tier 3 state Data Center in a Leadership in Energy and Environmental Design Silver certified building that can withstand winds up to 200 miles per hour. The Data Center is 9,000 square feet of 1,850 servers from more than 108 agencies with 99.98 percent uptime. Sustainability is achieved with chillers, 50,000 gallons of water, over 28,000 gallons of diesel fuel, four diesel generators and two flywheel uninterruptible power supplies generating an additional 72 hours of runtime in case of catastrophic events, such as an EF5 tornado. The Data Center houses 4 million gigabytes of data and is on pace to add another 1 million GB in FY 2019.

Monitoring: OMES uses application insights from Microsoft Azure to detect anomalous behavior, notifying the service team if this occurs. SolarWinds is also a monitoring service in place to track service-level metrics. Microsoft Azure Security is used for security management sending logged information to our Security Team. The logs are integrated into CyberWarn, a monitoring dashboard comprised of various intelligence feeds.

Email and Passwords: The state has deployed Microsoft Office 365 as a productivity and collaboration tool to 80 percent of state users and will complete the deployment in FY 19. Office 365 provides a single tenant where 22,500 state staff can collaborate using Groups, Yammer and other products that are available on the platform.

We have identity as a service with Microsoft Azure for 22,500 state employees and implemented self-service password reset. The password reset self-service landing page can be found at passwordreset.ok.gov.

Update: State Fiber and Unified Communications

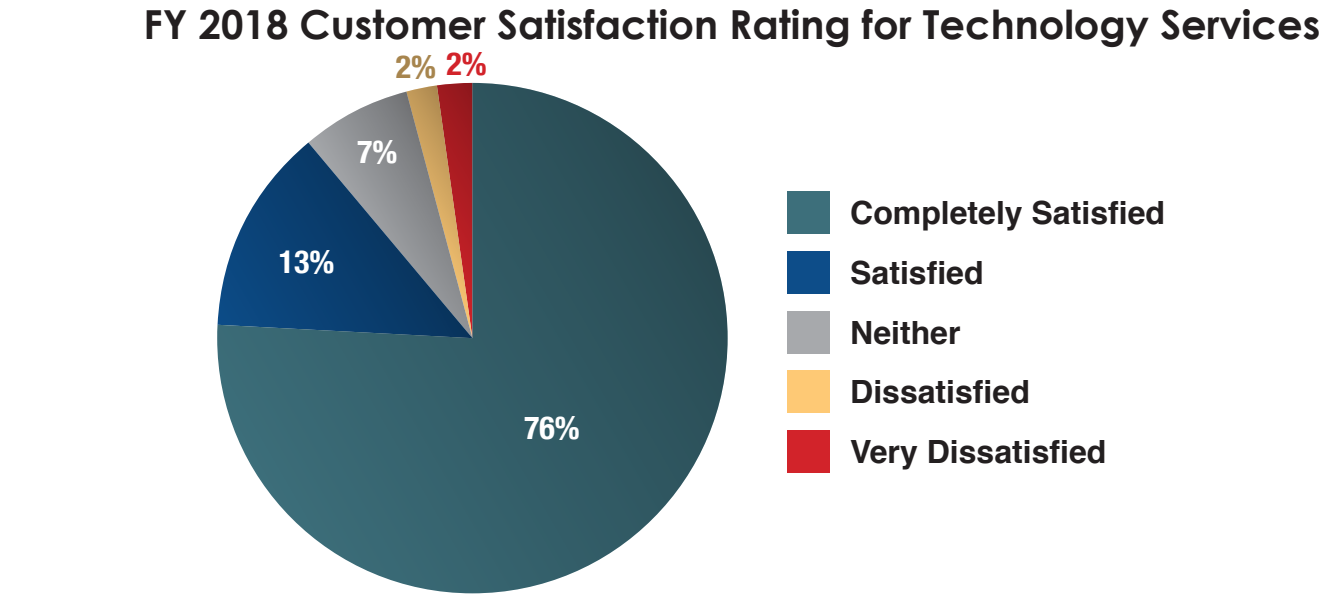
OMES operates a multiprotocol label-switching network connecting state agencies and affiliates to a 10-gigabit-per-second backbone utilizing the statewide fiber network that boasts more than 2,500 total miles of fiber assets. The state uses this network to offer managed local area network and Wi-Fi services that are the foundation upon which more transformational services like Voice over Internet Protocol, Microsoft Office 365

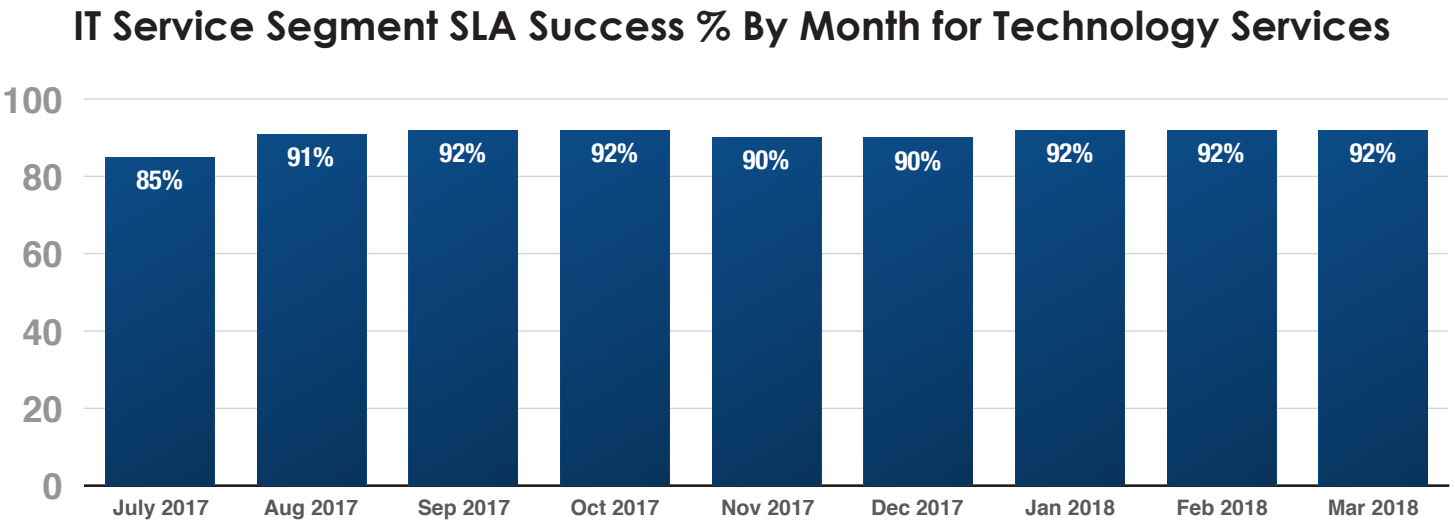
and access to a vast array of applications housed in a centralized Tier 3 state Data Center located in a LEED Silver certified building.

Over the past two years, OMES updated core voice services of roughly 14,000 phones in more than 120 locations for over 93 state agencies as part of a VoIP update to AT&T Hosted Voice Solution service.

Part of the phone updates included the retirement of the aged system previously located in the basement of the State Capitol.[14] The SL-100 was a behemoth of a digital-switching system, occupying a large chunk of real estate slated to be incorporated into new plans with the Capitol Restoration. The new system takes up just a fraction of the space.

We will continue to update an additional 6,000 phones to HVS platform.





[14]*For more information, view "OMES Retires Old Phone System at Capitol" at* https://youtu.be/gpfG5mcPGVk.

Enterprise Programs Team

Fonda Logston, Director of Enterprise Programs

66 employees

12 managers and supervisors

Enterprise Programs team provides resources and methodology for agency services such as:

- IT Governance – a model that OMES IS provides to agencies to assist them in prioritizing IT projects and portfolios. IT projects can be expensive and resource-heavy on staffing, making prioritization of projects essential to success.
- Project Management – assists with IT project development and implementation. After an agency has prioritized IT projects, using an IT Governance model, the assigned project manager begins working with the agency using the Project Management Methodology established by this department to gather requirements, plan the project with the agency and work through implementation phases to complete the project.
- Business Analysis – assists project managers with IT projects collecting documentation; gathering business requirements; and creating flow charts, diagrams and user stories, as needed.
- Technical Writing – creates, updates, audits and publishes standard operating procedures for OMES IS, and other agencies reviewing, tracking and monitoring documents through the process of approval.
- Data Center Facility Maintenance – OMES maintains its Data Center facilities and works with other agencies that maintain data centers.
- Administrative Support – administers training and rollout of new programs or initiatives for OMES IS staff by coordinating and training all OMES IS personnel, including employees embedded in agencies across the state. Other administrative support functions include managing cost allocation, budgeting, internal purchasing documents and travel.

Update: IT Governance

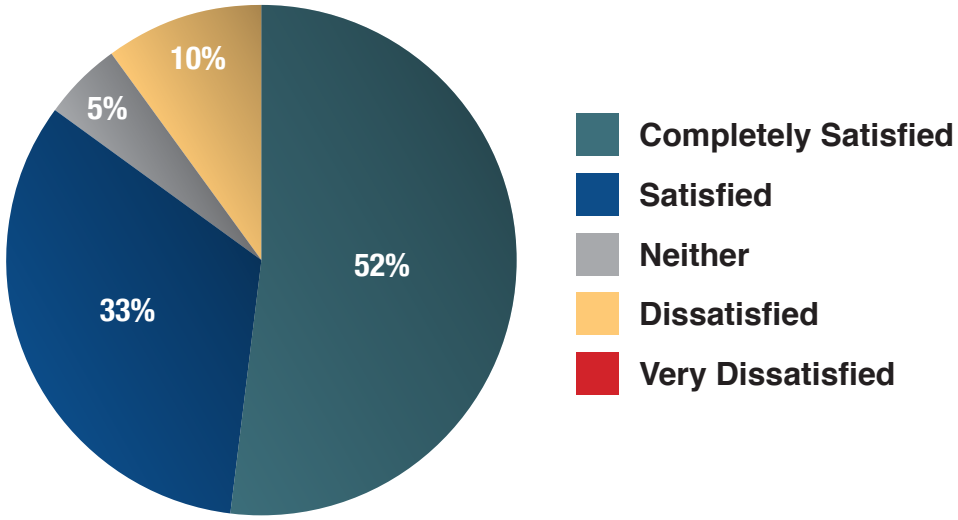
Oklahoma began recording all state IT projects to the project portfolio management tool in 2012. Since 2012, we have completed 2,689 technology projects and enhancements. Many of these projects made significant steps to address the state's technology debt and served to build a solid foundation to further the state's priorities.

Governance committees: The governance model implemented in the State of Oklahoma emphasizes the establishment of business-driven committees that set strategy to ensure IT is working on the right projects. Over the past two years, OMES has established governance committees in the areas of infrastructure, shared business application services, agency business application services and cabinet-level governance over business segments.

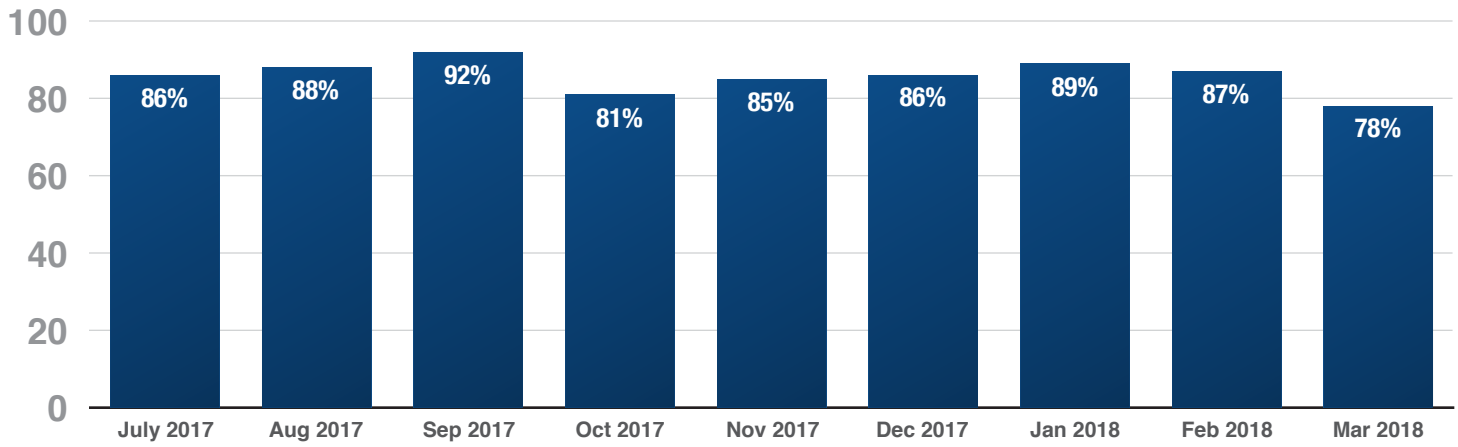
Steering committees to provide project prioritization: The IT Project Steering Committee is comprised of program managers and project managers from various business segments to review, approve and recommend priorities statewide. The Executive Steering Committee includes service team directors and the CIO, CISO, COAO and legal counsel to review project recommendations and ratifies or changes the recommendations based on technology strategy.

Agency-specific IT oversight committees: IT oversight committees have been established per agency to prioritize and approve projects, create opportunity maps, review project status and issues and approve project budget changes. These meetings include agency leadership, as well as the OMES IT strategist, program manager, technical account manager and account executive assigned to the agency.

FY 2018 Customer Satisfaction Rating for Enterprise Programs



IT Service Segment SLA Success % By Month for Enterprise Programs



Enterprise Data-Driven Services Team

Patsy Leisering, Director of Data-Driven Services

33 employees

4 managers and supervisors

The Enterprise Data-Driven Services team provides data management services for OMES and state agencies. Enterprise Data-Driven Services' responsibilities include data management functions of OMES and data consulting for other state agencies.

Data management includes the following:

- Data Governance – advocates and markets data governance best practices to agencies including awareness, best practices and examples from other states or entities. Templates are provided to assist in structuring data governance programs.
- Data Quality – manages data to meet quality standards across elements of validity, timeliness, completeness, integrity, consistency and conformity. Establishing a well-executed data management and data governance program leads to clean, quality data. Currently data quality is managed on a per project basis but a fully functional, enterprisewide data-quality program will be established for the state.

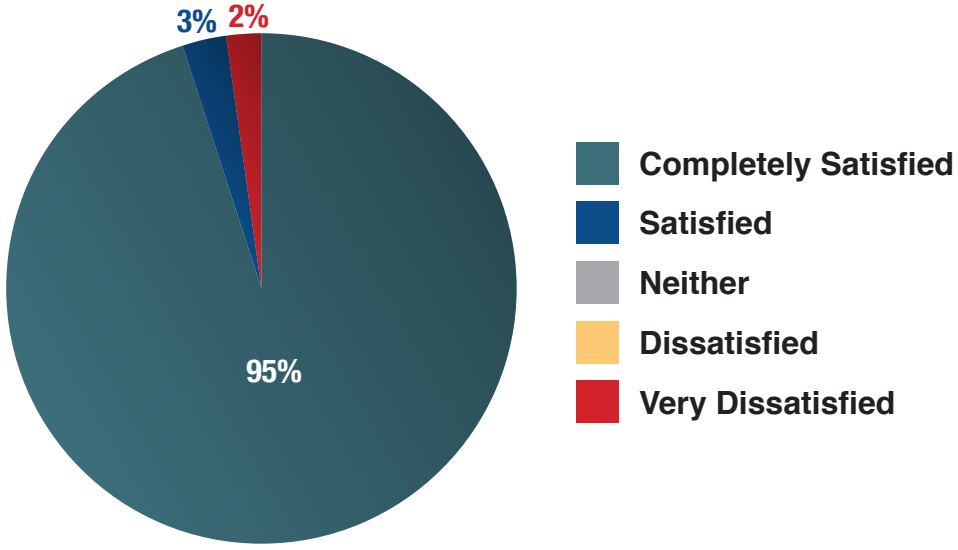
- Database Administration and Development – designs and maintains databases as needed for OMES and our partner agencies creating database standards and best practices for all aspects of database administration and development. Data architecture is also established for each database including data modeling, entity relationship diagramming and architecture for transactional data.

Other data management responsibilities include business intelligence, data warehousing, metadata management and data privacy management.

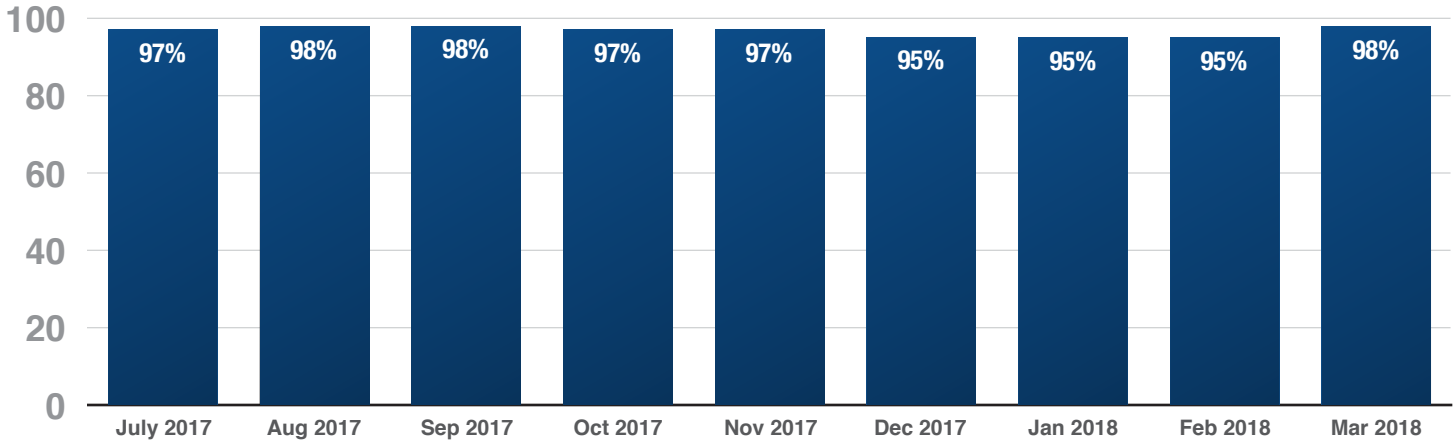
Update: Data.ok.gov

Data.ok.gov holds data points for metrics, reports and public information to accomplish transparency initiatives. The metrics for the centralized state IT Data Center are published in real time and quarterly reporting is done through the state chief information officer. These metrics are also used for accountability between the state agencies and centralized state IT Data Center functions.

FY 2018 Customer Satisfaction Rating for Data-Driven Services



IT Service Segment SLA Success % By Month for Data-Driven Services



Mission Support Team

Megan Meers, Director of Mission Support

18 employees

3 managers and supervisors

The Mission Support team provides vendor management, service delivery, business account management, service catalog administration and technology business functions.

Mission Support includes:

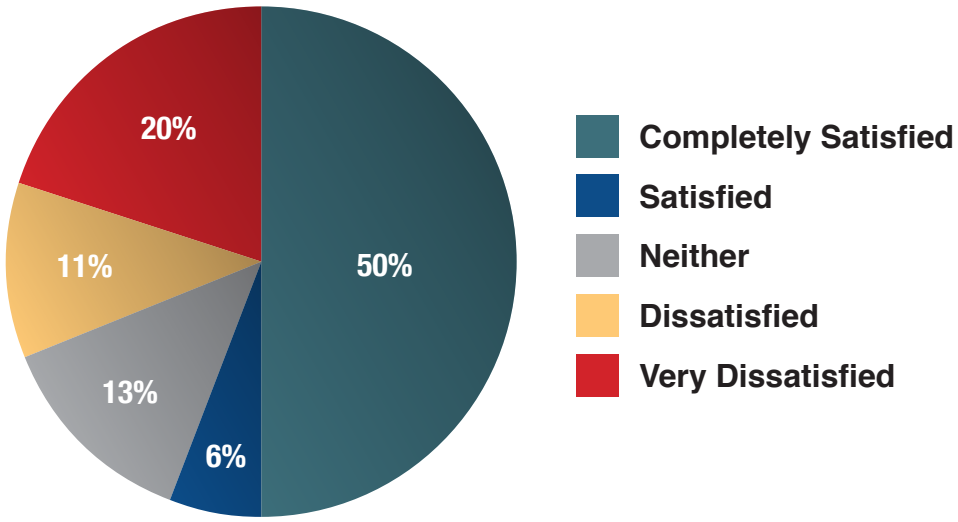
- Service Delivery – provides administration of technology services provisioning. They are responsible for delivery of accurate, reliable and timely data on order entry of services and provide customer service on repair, billing or general questions. The Service Delivery team updates the service catalog and rate calculator for our customers.
- Account Executive – executives provide a single point of contact for agencies and affiliates for assistance with business inquiries or issues related to current technology services and new service requests. Each agency or affiliate organization that is involved with OMES has a service agreement that details the current services for that specific entity. The account executive updates the service agreement with additional services or changes that occur throughout the year.
- Strategic Alliance Management – serves as the main point of contact between technology vendors and OMES and assists in identifying IT purchasing vehicles for the state. SAM also manages the relationships of existing vendors by coordinating meetings, presentations and demos between IT vendors and OMES. SAM serves as a liaison facilitating conversation between vendors, agencies and Central Purchasing.

Update: Projects.ok.gov

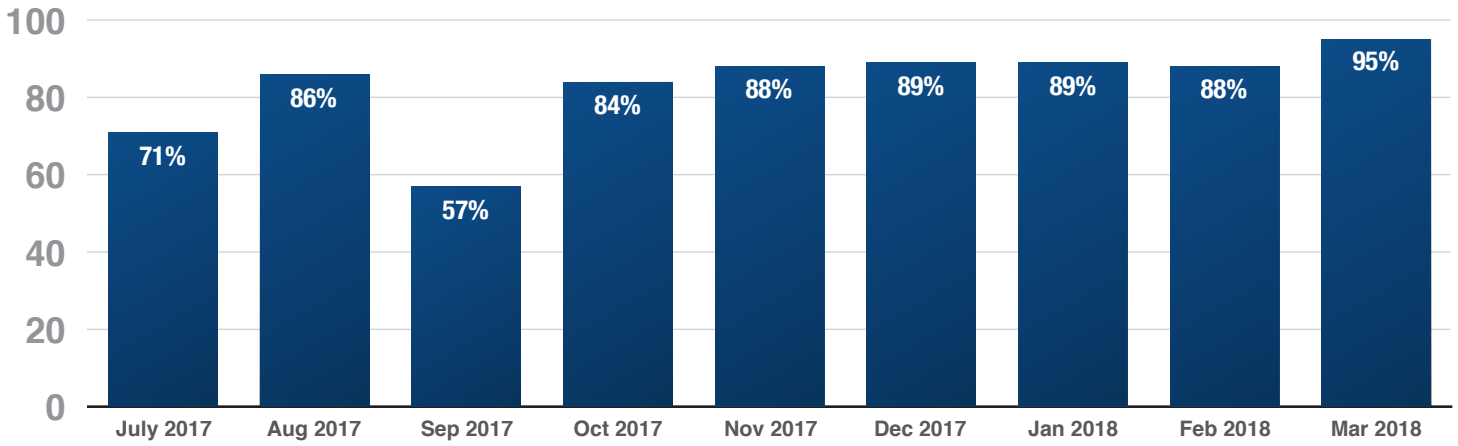
In 2017, Oklahoma announced a new quarterly webinar review of upcoming state IT projects. Projects.ok.gov is a service provided to Oklahoma to access data about information technology projects resulting in expenditures in excess of $100,000.

Upcoming projects are provided on the website for discussion with the public and the State of Oklahoma vendor community. Additionally, vendors can register for the quarterly project presentation webinars to provide an overview of upcoming technology projects and roadmaps, collaboration among industry partners for upcoming technology projects, and an open forum for question-and-answer sessions.

FY 2018 Customer Satisfaction Rating for Mission Support



IT Service Segment SLA Success % By Month for Mission Support



External Relations and Service Quality Team

Brian Berglan, Director External Relations and Service Quality

12 employees

2 managers and supervisors

- The External Relations and Service Quality team maintains life-cycle accountability of all state IT assets and leases and change and problem management as part of the Information Technology Infrastructure Library approach to align IT Services with the needs of our partner agencies.
- External Relations and Service Quality includes:
- IT Asset Management – maintains statewide inventory records for hardware, software and related assets. Accountability of IT assets is maintained through the life cycle from acquisition to disposal. The Configuration Management Database houses all information regarding IT assets, including relationships between assets and users.
- Service Quality – charged with the ownership of the Information Technology Infrastructure Library processes, specifically change management and problem management for OMES and our agency customers. Change and problem management helps facilitate impact assessment for requested changes and identify standards and improvements for notification of alerts and updates to critical technology services.
- Quality Assurance and Control – ensures services offered result in the desired outcomes and that quality control checks are associated with all technology operations. The team uses standard testing procedures, checklists, performance of gap analyses and alignment of key performance indicators to identify and address problems within technology service delivery and processes.
- Partnerships – coordinates and structures engagements for potential strategic venture opportunities with public and private sector entities. Strategic Ventures focuses on providing agencies and affiliates with access to services and procurement contracts as well as support for their own mission-critical initiatives. Programs include OpenRange and eGov, providing the opportunity to drive real and innovative changes through public/private collaboration, such as better internet connections to rural schools, and assisting school districts with IT issues.

Update: Oklahoma Connect and Learn Initiative

The State of Oklahoma has more than 500 K-12 school districts serving Oklahoma communities and their 692,000 students. As Oklahoma school districts move toward technology advancement, it is imperative they have the proper tools needed for 21st-century education.

Announced in September 2016, Gov. Mary Fallin and state leaders established the Oklahoma Connect and

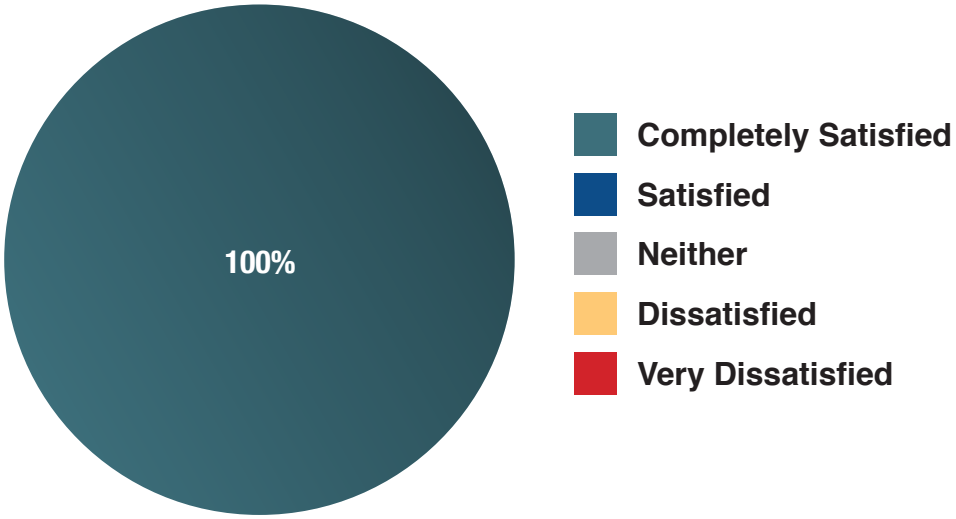
Learn Initiative to maximize state and Federal Communications Commission E-rate funds available to upgrade school internet connectivity.
The Oklahoma Connect and Learn team will work with school districts and local telecommunication service providers to focus on achieving the following:

- Providing every school district with fiber-based connections.
- Empowering all school districts to meet the 2018 broadband objective of 1.5 Mbps per student.
- Establishing Wi-Fi in every classroom.
- Enhancing the affordability with a cost of less than $3 per Mbps per student.

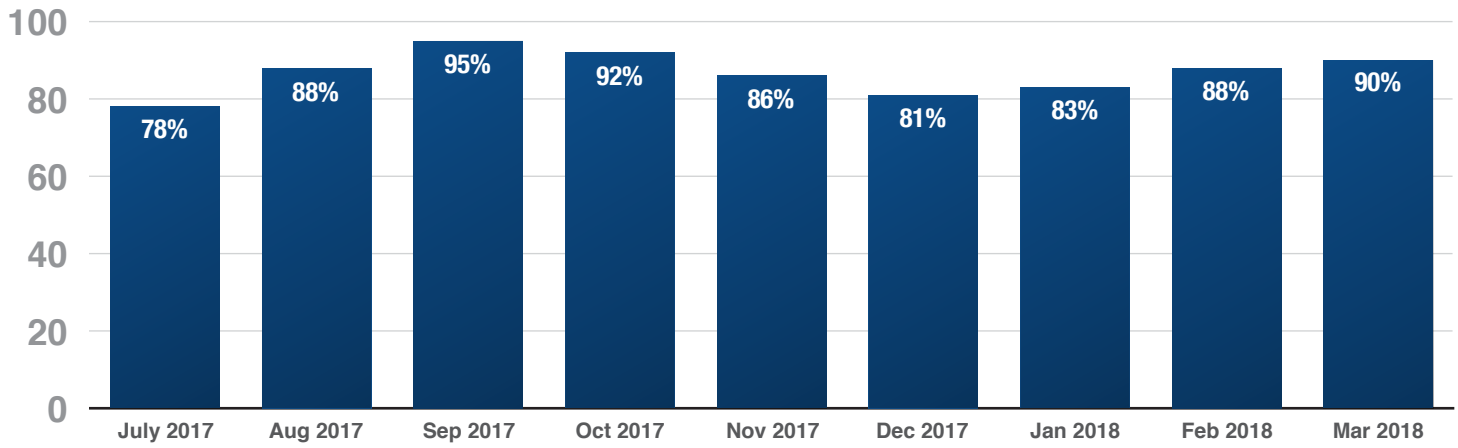
We are on track to complete these goals by 2020. We are closing the K-12 connectivity gap. Oklahoma now has approximately 90 percent of our school districts with fiber connections, up from 77 percent when it began.

The Oklahoma Connect and Learn Initiative will continue with its efforts to provide training, network planning, procurement vehicles and communications to close the K-12 connectivity gap in Oklahoma.[15]

FY 2018 Customer Satisfaction Rating for External Relations and Service Quality



IT Service Segment SLA Success % By Month for External Relations and Service Quality



[15]*"Oklahoma State Progress," 2018 State of the States, Education Superhighway, accessed Feb. 28, 2019,* http://stateofthestates.educationsuperhighway.org/?postalCd=OK#state.

Business Services Team

Carol McFarland, Director of Business Services

The Business Services Office provides oversight of business and financial operations of IS to ensure business and financial plans are implemented and control systems are designed and monitored to preserve assets and report accurate financial results.

The IS BSO is an internal team and serves as a primary adviser regarding financial and business processes for OMES technology services. The IS BSO ensures results are achieved through the use and allocation of proper resources.

The Business Services Office provides the following main functions:

- Collaborates to set financial management objectives.
- Contributes to the development of the agency business plan.
- Reviews and enhances business processes.
- Provides analysis and interpretation of financial data to measure budget performance and provide consultation to division and agency leadership.
- Accurately gathers and analyzes financial data to communicate performance and direction.

Update: Service Rates

An overarching objective has been the establishment and implementation of a full-cost recovery model for the statewide IT shared-service environment. By moving to a cost recovery and service rate model, OMES and the State of Oklahoma have fulfilled statutory obligations, as well as federal guidelines, while also providing value in the form of more transparency and financial granularity to our customers.

Additionally, IT Unification projects uncovered tremendous technology debt for the state:

- Critical systems remain at end-of-life with some hardware eight to 10 years past end-of-life.
- Legacy technology creates significant security vulnerabilities and costs more every year with no new benefit.
- Software licenses are out of compliance resulting in large unbudgeted costs and increased risk of lawsuits.
- Custom applications have no documentation and no remaining support staff, requiring use of consultants to discover how applications function.

The updated service rates structure addresses a majority of known technology debt and will help drive modernization as OMES works with agencies to develop project and technology roadmaps.

3 Digital Transformation: Operations and Intelligence Briefing

The Office of Management and Enterprise Services met the challenging task of aligning 700 information technology team members to work together quickly and efficiently.

Part of our mission to become a technology leader for Oklahoma was to transform our role as regulator to one of trusted adviser. To do this we challenged our staff to:

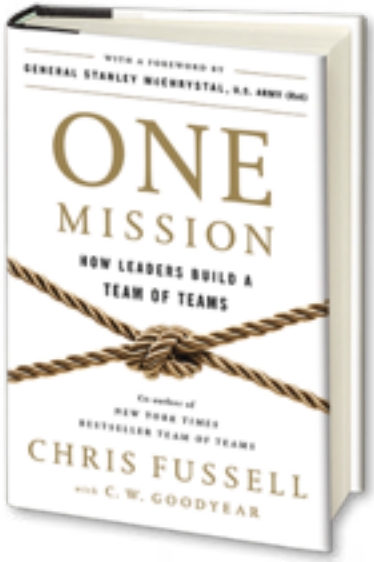
- Add value to every interaction with our agencies and affiliates.
- Quickly adapt to the needs of our partners.
- Provide quality, innovative and secure solutions.
- Communicate meaningfully with our partners.

A cultural shift began to occur, but we needed a collaborative space to empower employees to interact, improve trust and create a sense of common urgency.

To do this, we borrowed an approach from the book, Team of Teams, by retired U.S. Army Gen. Stanley McChrystal. OMES IS implemented daily video teleconferences accessible across the entire organization. Typically running 20-40 minutes, the calls focus on current issues, identifying what needs to be accomplished and what new intelligence has been uncovered.

This tool has allowed OMES to become more efficient while maintaining, and in many cases improving, resolution.

In the next book, One Mission, OMES is presented as a case study of interconnection. The authors document the successes and lessons learned in our approach to organizational leadership. It is possible to employ innovative concepts to reshape government and the services we provide.



The technology behind the O&I

Once OMES had tested and securely launched Microsoft's Skype for Business, the updated technology allowed for an online collaborative meeting where all of our employees could participate from their desk or laptops in real time. Known by many OMES employees as the Operations and Intelligence Briefing, the tool also provides recording capability for later reference use, such as instructional demos or security updates. Using Microsoft's Skype for Business as an efficient, cost-saving and collaborative tool got Microsoft's attention. Once again, the O&I received national recognition. Read the published article below or view it online.

[16]*For more information on the O&I meetings watch the "Digital Transformation: Operations & Intelligence Brief" at* https://youtu.be/qqEXZaen2GU.

Oklahoma's Office of Management and Enterprise Services brings the whole state together with Skype

August 7, 2018

"Labor Omnia Vincit" is Oklahoma's state motto; translated from Latin it means "Work Conquers All Things." If there's any organization that embodies this motto and continues to demonstrate how work unites people in trying times, it's Oklahoma's Office of Management and Enterprise Services.

In 2010, the State of Oklahoma conducted a feasibility study of its IT departments and their subsequent budgets and needs. The study recommended the following action items:

- Integrating Oklahoma's 1,500 IT positions, all geographically and bureaucratically segregated among existing agencies, into an entirely new enterprise.
- Creating a bond of $100 million dollars for the IT consolidation effort and migrating all existing IT budgets into one single budget (for what would become OMES), equaling about $233 million/year.
- Managing all technical issues and incidents, IT projects, infrastructure, security and all other IT initiatives under this enterprise.

Unfortunately, neither the bond money nor the IT budget migration ended up happening. What was called the "unification" became an unfunded mandate. OK House Bill 1304: The Information Technology Consolidation and Coordination Act, passed in 2011, officially forming OMES.

OMES in 2012: "The Rapture"

After OMES was formed, the office had one arduous task to take on after another. OMES staff refers to this tumultuousness period as "The Rapture." First, they had to get all IT staff from various state agencies unified under OMES. Second, OMES had to perform 78 legislatively-mandated mergers and acquisitions by June 30th, 2017. Additionally, they picked up 33 volunteer mergers and acquisitions from agencies that wanted OMES to support their IT needs. Altogether, that's a merger or acquisition every other week. Third, the office had to perform 1,923 system enhancements to both agency-specific and statewide systems. Last, OMES had 1,298 agency-specific and statewide IT projects that needed to be performed.

"The first few years of consolidation and unification were definitely full of lessons for us as a young agency," said State Chief Information Officer Bo Reese. "I came on as interim CIO after my agency had gone through IT consolidation and I felt coming into the interim CIO position that my perspective, as a former OMES customer, was valuable as I could see both sides of the process and try to help employees find the right touch that the effort needed."

Operations & Intelligence Brief: "The Secret Sauce"

OMES needed a way to unite their employees and build morale quickly. Enter Microsoft's Skype for Business. This technology provided what they needed to align employees from across the state and to solve problems in real time. Via Skype for Business, OMES started holding a daily meeting—the Operations & Intelligence Brief (O&I). If this title sounds a bit militaristic, it's because it comes from General Stanley McChrystal's meetings for the Army's Joint Special Operations Command created during the war in Afghanistan. Matt Singleton, Chief Operations Officer for OMES, took the name from McChrystal's bestselling book: Team of Teams: New Rules of Engagement for a Complex World.

Every day at 10 a.m. sharp, employees can access the O&I Skype for Business meeting, which begins by addressing the most pressing cases of the day. They can also use the chat bar to solve issues in real time. Attendance isn't mandatory, but it is open to the entire organization. In addition to discussing issues during the O&I meetings, employees who previously felt disjointed from the organization have the opportunity to speak candidly with management. The meetings make everyone feel like they are finally a team of teams, as McChrystal documented. The O&I meetings have been essential to the unification process and have directly contributed to the successes and cost savings OMES has realized.

“I’ve seen the difference the O&I meetings have made in terms of the team responding to issues both large and small,” said OMES Director Denise Northrup. “To have a set time for the whole division to air out problems and find possible interconnected issues that they might have missed individually has transformed the way OMES responds to our customers.”

These successes, and the transforming of government, aren’t just being recognized in Oklahoma; other states are seeing them as well. “I’m actually having this conversation a lot with other states around the Operations & Intelligence Brief,” Singleton explains. “All of them want to know what the secret sauce is. Those are the conversations that get us talking about Skype and O365.” OMES is getting the word out about their O&I meetings, too, through the follow-up to Team of Teams called One Mission: How Leaders Build a Team of Teams by Chris Fussell. There’s an entire case study that features OMES and their O&I meetings in Chapter 4: Interconnection.

Why Microsoft? What OMES was looking for after “The Rapture”

After “The Rapture” and the implementation of the O&I meetings, OMES still had a long way to go in uniting its offices. Across all offices, there was still physical hardware that was outdated, security compliances that weren’t being adhered to, and incongruences in tech-knowledge. Ashton Carmichael, Strategic Initiative Specialist at OMES, says, “The key word is stabilization.” To stabilize their offices, they turned to Microsoft again, this time leveraging Microsoft Azure and Office 365.

With an infrastructure in Azure and an Office 365 rollout across offices, OMES is limiting hardware, driving down costs, and meeting security and compliance requirements. “We’ll pass the 50 percent mark of having the majority of our state agencies on 365 by mid-summer [2018],” says Carmichael. “No doubt, if anyone is having trouble with their O365, they can bring it up at the next O&I meeting.”

The OMES mission is supporting its partners through unified business services, requiring a highly-qualified workforce committed to making government run in the most efficient, innovative manner possible. Partnering with Microsoft has helped fulfill the mission, pairing team-oriented, solutions-driven professionals with tech solutions that fit the present and future needs of the State of Oklahoma.

In not quite 7 years, OMES has unified 1,200 employees with Skype, built an infrastructure on Azure, and started rolling out Office 365. “I’m incredibly proud of what this team has done over the last six years,” Singleton says. “When you look at the totality of the work that was being done, this organization was bringing home a major milestone every 13 hours. Not business hours. Every 13 calendar hours this organization brought home a major deliverable.”

But as Singleton explains, “I left out the biggest metric. We did all of this work; got a whole bunch of stuff done with no money; and actually saved the State of Oklahoma $372 million through the course of this.” It’s no wonder other states, authors, booksellers, etc. are starting to take notice—OMES is the definition of an underdog who continues to conquer obstacles through hard work, and everyone loves a good underdog story.

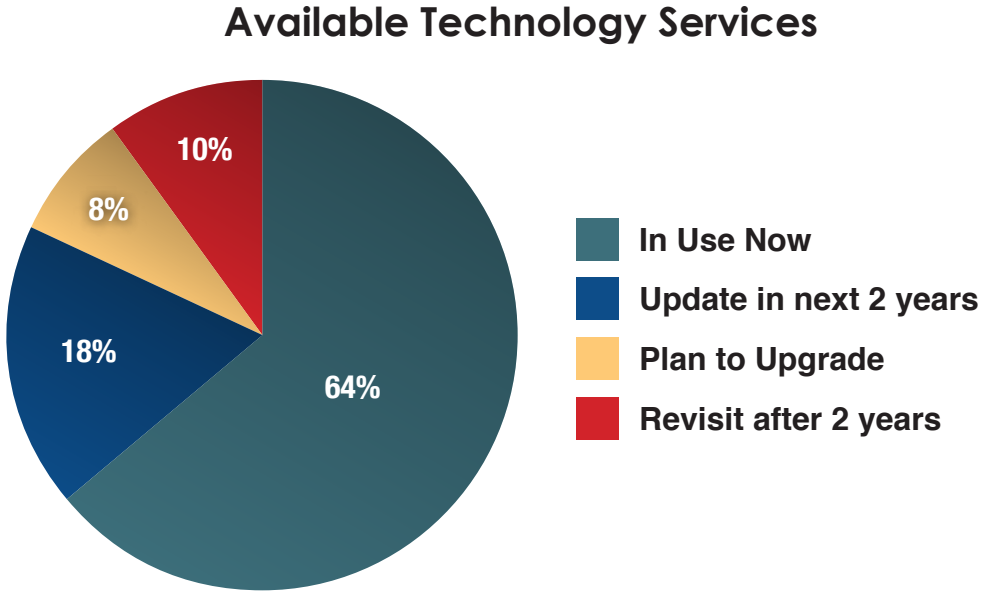
4 A Test of the State's Enterprise Technology Solutions – National Digital Government Survey Results

Every two years Oklahoma participates in a national comprehensive survey of the maturity of technology initiatives conducted by the Center for Digital Government and Government Technology. The survey consists of over 45 questions and is a comprehensive study that examines best practices, policies and progress made by state governments in their use of digital technologies to better serve their citizens and streamline operations.

At the end of this process, the states are ranked nationally in categories of A, B, C or D. Proudly Oklahoma has gradually increased its rating from a C to a B over the past six years.

The criteria for a B says: "These states are trending up. They show results in many survey categories, and their leaders use modernization to change entrenched practices to prepare for more sustainable operations. Incentives for collaboration are in place, and performance measures are used in key areas."[17]

Within the survey are charts categorizing the enterprise technology initiatives our state has in place ranging from standard services such as email and internet connectivity to more complex services such as Chatbots and Blockchain applications. With over 187 various enterprise services listed in the survey, OMES provides 64 percent of the innovative services listed already.[18]



[17] *Janet Grenslitt, "Digital States Survey 2018 Results," Center for Digital Government, Oct. 2, 2018,* http://www.govtech.com/cdg/digital-states/Digital-States-Survey-2018-Results.html.

[18] *Adam Stone, "Digital States Survey 2018: Raising the Bar," Government Technology, Oct. 2, 2018,* http://www.govtech.com/computing/Digital-States-2018.html.