2016 Digital States Survey

The Center for Digital Government's Digital States Performance Institute (DSPI) identifies and promotes best and emerging practices in the public sector IT community. Central to that work is the Digital States Survey; the nation's original and only sustained assessment of state use of information and communications technology (ICT).[1]

In 2016, the survey builds upon what we began in 2012 and continues to focus on outcomes (i.e. the results achieved through the use of technology). Specifically, our goal is to assess how technology is aligned with and is being used to achieve the stated policy objectives of the Governor. Maintaining this consistency of format was the clear consensus of states that participated in the survey review process.

Due to the upcoming presidential election and ensuing transition, there will be significant changes in the federal government. During this time of transition, many citizens will look to and rely even more on their state governments to provide a balance of both innovation and service provision. The 2016 survey benchmarks outline a roadmap for states seeking to make smart investments for the future that build upon and take full advantage of their legacy infrastructure, keeping in mind the end goal of improving public service.

The Center thanks Accela, Deloitte, EMC, NIC, SHI, Symantec, Veritas and Verizon for underwriting the 2016 Digital States Survey, and for supporting state governments and their efforts to better serve their constituents.

The deadline for submissions is Wednesday, June 15, 2016.

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[1] Information and Communications Technology (ICT) connotes connectivity in multiple dimensions. It is used here to underscore the importance of connectivity, both in terms of the network infrastructure to make it work and the making of connections between government and citizens.

2016 DIGITAL STATES SURVEY

BACKGROUND INFORMATION AND RESOURCES FOR COMPLETING SURVEY

Overall Approach: For the main survey questions, answers are evaluated and scored. Points are awarded for participation by responding to the Trending Questions (at the beginning of the survey), and the 'For Data Collection Only' questions throughout. An Aggregated Benchmark Index Score compiled and calculated based on a number of third-party measures and evaluations is included this year.

In addition to the CIO's office responding, we recommend that the functional areas (survey questions two and three) be completed by individuals in the specific agencies involved to ensure that a business perspective is provided.

Digital States Survey: *Programmatic Impacts and Transformation: You are asked to complete questions 1, 2, 4 and 5, and for question 3, your choice of three of the five components. In answering all questions, please focus on outcomes and results!*

The survey includes questions about outcomes/results in each of the following areas:

- o   Trending Questions A-E (completion points only–not scored)

- o   Question 1. Adaptive Leadership in Information and Communications Technology (ICT)
     - **A.**   Policy Alignment
     - **B.**   Computing
     - **C.**   Network
     - **D.**   Applications
     - **E.**   1. Data and Cyber Security
     - **F.**   Smart and Sustainable
     - **G.**   Governance, Project Management and Funding
     - **H.**   Business Continuity and Disaster Recovery
     - **I.**   Performance Benchmark Reporting
     - **J.**   Policies and Best Practices
     - **K.**   2. Privacy (OTHER)

- o   Question 2. Specific Service Delivery Highlights
     - **A.**   Finance, Administration, Procurement and Human Resource Management
     - **B.**   Public Safety, Emergency Management, Criminal Justice and Corrections
     - **C.**   Health, Social and Human Services
     - **D.**   Transportation and Motor Vehicles

- o   Question 3. Specific Service Delivery Highlights-State Selections (Three of Five Required)
     - Licensing and Permitting—Non-DMV
     - Commerce, Labor and Taxation—Economic, Business and Workforce Development
     - Natural Resources, Parks, and Agriculture
     - Education
     - Legislative and/or Judiciary Branch Support

- o   Question 4 Citizen Engagement
     - **A.**   Open and Transparent Government
     - **B.**   Citizen Online Services
     - **C.**   Mobile Services
     - **D.**   Social Media

- o   Question 5 Innovation, Collaboration and Jurisdictional Differentiators
     - **A.**   Innovation
     - **B.**   Collaboration

C. Jurisdictional Differentiator (critical success factors)

Scoring and Criteria: *State Letter Grades and Awards*
- Responses to survey questions will be evaluated and scored except where otherwise noted. Please see Appendix A for criteria, points, and scoring methodology.
- Responses to the trending questions at the beginning of the survey and the 'For Data Collection Only' questions will *not* be scored but credit will be provided for completion.

Length of Responses: *Streamlining the Process, Shortening the Answers*

- The Center and DSPI recognize the commitment of time and expertise needed to complete the survey.
- Per feedback from the states, the 2016 survey retains the format of a streamlined number of narrative scored responses and matrices.

Sharing Lessons Learned/ Best and Emerging Practices

- Full state participation contributes to a complete view of the state landscape.
- We ask these questions to learn, and we learn so that we can give advice and contribute to informed collaboration among states and the identification of best and emerging practices.
- Aggregated results will be shared with participating states to encourage an ongoing dialogue among practitioners related to lessons learned and best (and emerging) practices; and provide examples of excellence for articles, reports, webinars, etc.

Recognition
- States will be recognized for strong overall performance. Responses to survey questions will be evaluated and scored by a team of evaluators and, together with credit-for-completion questions will be the basis of assigning a letter grade for overall performance. Scoring details are included in Appendix A of the survey.
- In addition to an overall grade, states will be awarded in functional categories, to be determined during the judging process.

Survey and all supporting documents

- *This document includes* all documents in Word; including the Survey Questions and all Appendices: Instructions for the online entry form, Scoring Criteria and the Glossary. Use the Word doc to compose responses and for a backup copy (it cannot be uploaded into the online survey form).

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2016 Digital States Survey

Adaptive Leadership
Outcomes
Results
The Survey

Adaptive Leadership and Innovation in Information and Communications Technology (ICT)

A word of context about these questions:

Being a digital state is about bringing value quickly and consistently; it is also about adaptive CIO leadership, collaboration across the ICT community and creating trust among public officials – the state that does these things well is the 'Digital State'.

Since 1997, the Digital States Survey has measured and prodded in this direction. A "Digital State" recognizes the strategic transformational value of ICT and focuses on leveraging ICT investments to improve services and efficiencies across all aspects of government.

ICT agencies that can demonstrate this kind of value-added service will find themselves well positioned at the center of public service delivery within their state. Efficient and effective ICT implementation both meets the public's expectations and transcends partisanship, thereby presenting what is best about government.

Completing this survey provides the opportunity for states to assess and measure ICT progress against nationwide best practices. It is designed to respect the realities of differing priorities and organizational structures among states while consistently identifying states and programs that are worthy of being emulated. The survey is intended to bring positive recognition to those who have earned it and encouragement and guidance to those who can benefit from it.

Center for Digital Government's 2016 Digital States Survey

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The contacts named above will be sent relevant information regarding the Center for Digital Government's Digital States Survey and Digital States Performance Institute.

Trending Questions-For trending purposes only, please answer questions A-E below (responses are not scored, but will receive credit-for-completion points). If any of these created a benefit or improved outcome, we invite you to discuss the benefits and improvements in the scored narrative questions that follow.

A. ***Please list*** <u>***in priority order***</u> ***the following technologies and initiatives which are likely to have an increased focus in the next biennium (two years). Click and drag (online) to the top to show priority order. For this document, we suggest numbering them 1 thru 18 (1 being highest priority).***

x5. Shared or Collaborative services

x3. Hire and Retain Competent IT Personnel

x4. Business Intelligence/ Analytics

☐ Data Center Consolidation

☐ Virtualization: Server, Desktop/Client, Storage, Applications

☐ Mobility: Mobile Devices/ Applications

☐ Open Government / Transparency / Open Data

X 1. Cyber Security

☐ Disaster Recovery/ Continuity of Operations 2

☐ Citizen Engagement

☐ Budget and Cost Control

☐ Governance

☐ Health Care

☐ Cloud Computing

☐ Networking: Broadband and Connectivity

☐ Portal/ E-government

☐ Business Process Automation

x2. Other: Privacy_____

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A1. *Of the above priorities, list your top five below, and slide the bar (online) and note the percentage of increased funding in the next 12-24 months:*

       #1_Cyber Security _____   %__25%__

       #2___Privacy_____   %_150%___

       #3   Workforce   15%
       #4_____BI_____   %___25%_

       #5_____Shared Services_____   %__25%__

A2. *Please include additional clarifying information for the top priorities listed above:*

Creating a modern and responsive approach to addressing cyber security and digital privacy is Washington's top priority for the next biennium.

Protecting Washington's digital infrastructure is both a national security and an economic priority. Home to Microsoft, Amazon, Boeing, f5, Expedia, and multiple breakthrough start-ups, much of the world's business runs through companies and networks located in Washington.

The newly-created Office of Cyber Security works with federal partners to build a national model for a shared, connected response to cyber threats, and have a strong history building resiliency through breakthrough partnerships between universities, private companies, the public sector, and cyber security professionals.

The immense challenge posed by the latest cyber threats cannot be met in isolation. In recognition of this, Washington built a framework for cyber security based around the goal of protecting public safety and the continuity of commerce. This goal is much broader than just network defense of the IT systems maintained by the state. Rather, at the most fundamental level, Washington must protect the health and safety of its seven million citizens, and to ensure the economic security of the region.

Washington's framework is made up of six major layers: government IT infrastructure; law enforcement; critical infrastructure; emergency response; economic development; and education and research.

Washington's cyber security model enables more effective engagement with policy-level decision-makers in both the public and private sectors. In January 2016 Washington hosted the first Governor's Summit on Cyber Security and Privacy, which set the cyber security legislative agenda for the coming year. It brought together government officials, state legislators, private sector leaders and academics, all with the common goal of exploring the latest ideas for maintaining the virtual and physical systems that enable the continuity of commerce. Microsoft President Brad Smith, FireEye CEO Kevin Mandia, and officials from the FTC, FCC, DHS, FBI, The National Protection and Programs Directorate and the Aviation Information Sharing & Analysis Center contributed their latest thinking to the conference.

In addition, Governor Inslee issued an Executive Order at the Conference, creating a new office of Privacy and Data Protection charged with establishing best practices for safeguarding the data the state collects from our citizens in order to render basic services, from issuing a driver's license to delivering social and health services. Washington thus became the third state to elevate privacy to a statewide office and a full-time Chief Privacy Officer, whose mission is to collaborate with local and county government in the state and to examine the impact of new technology on privacy.

The legislature supported the governor on privacy by passing into law the Office of Privacy and Data Protection. This office shall play a leading role in creating partnerships between agencies on privacy issues, consumer protection and education, and advising the governor and the legislature on digital privacy issues.

Workforce remains a top priority as well. With nearly 50% of Washington's ICT workforce eligible for retirement within the next five years, the state CIO has prioritized workforce development and recruitment of the next generation of technologists. This challenge is compounded by the fact that the State competes for talent in a region that has some of the biggest brand names in technology in the world including Microsoft, Amazon, Disney, Expedia, Valve, Apple plus many more.

Business intelligence and reporting has joined the list of top priorities, not as building a specific team, but as a broader cultural shift towards data-driven decision making. The IT project oversight team is in its third year of using a multivariate decision-making framework provided by DecisionLens to prioritize IT investments for the governor and the legislature. The open data program held a data visualization summer internship program in partnership with local businesses and institutions, raising the collective awareness and use of data visualization tools and techniques within state agencies.

The state continues as the largest public sector practitioner of Technology Business Management (TBM) to quantify the value produced by the state's $900+ million IT spend. Going forward, Washington state government and agency leaders will have business intelligence to compare and benchmark against other governments and private companies because adoption of technology and financial principles using standardized Cost Pools and IT Resource Towers has become more prevalent.

By legislation, state agencies are directed to locate all existing and new servers in the state data center. TBM will be used to monitor investment costs and savings along with progressive movement of state agencies to the data center.

Shared services will be an area of increased focus, as the state CIO drives increased partnerships with agencies to target and graduate services to the enterprise level. What makes Washington's approach unique is its focus on sector-specific services and increased data sharing within sectors.

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B. *Which of the following are the state's candidates for shared services in the next two years? Please select all that apply.*

- ✓ *Software Licenses
- ✓ Networks/ Telecomm
- ✓ Storage
- ✓ Disaster Recovery/ Back Up
- ✓ Data Centers
- ✓ Servers
- ✓ Security
- ✓ IT Development and Operations Staff
- ☐ Help Desk
- ✓ Email
- C Automation Tools
- ✓ GIS
- ☐ Data Management
- ✓ Next Generation Networks
- ☐ CHECK THIS All of the above
- ☐ None of the above (Please clarify below)
- ✓ OTHER: Identity and Access Management

B1. *Please include additional clarifying information for the selections above:*

Over the next 24 months Washington shall implement a modern vision for shared services, with a dynamic marketplace of both centrally-administered and brokered services.

Over the next year, most agencies will move their Office Professional software licenses to an Office 365 subscription. Licenses will be managed by the central IT agency in a shared Office 365 tenant.

The state has historically operated the enterprise-wide area networks as a shared service. In 2015, funding was changed to a budget allocation model, rather than fee for

service, which should increase participation and encourage better capacity planning. Design changes will continue over the next few years as the state consolidates data and voice networks, migrates to IPv6, and optimizes for high-bandwidth workloads such as cloud storage, video, VDI, and disaster recovery. Also in 2015, a new shared service for enterprise Wireless networking was rolled out. This new "WiFi-as-a-Service" is an innovation that fully integrates local wireless networks into the state's enterprise network and identity management infrastructure. State employees can roam to any serviced facility and enjoy exactly the same access and user experience as if they were working in their regular office.

Telephony will continue as a statewide shared service and supports both digital and VoIP services. Over the next two years, telephony services will continue to evolve towards 100% VoIP.

Storage is currently a shared service. Over the next two years services will be enhanced to improve performance, reliability and resiliency.

All shared services are designed with redundant components and have alternate paths, off-site backup, and disaster recovery systems located in a geographically separate facility. Backup is available as a shared service.

The state continues to execute its plan to consolidate data centers. Agencies can move their production systems to the state's primary data center in Olympia and their disaster recovery equipment to the state's secondary data center in Eastern Washington.

Servers have been a shared services for many years, evolving from physical to virtual and now to private cloud. Private Cloud 2.0 will be implemented in 2016 with enhanced load balancing, replication and recovery services.

Security is currently a shared service and funded through budget allocations. Statewide security capabilities are being upgraded or newly implemented over the next two years including: new generation firewalls, central logging and monitoring, mobility support, Web application firewall, discovery tool service, Web proxy, and data loss prevention.

Mainframe operations have long been a shared service and will continue to be in the future. As agencies consolidate and co-locate their servers to the state's two shared data centers, many agencies find it cumbersome to send operations staff to perform routine tasks, especially if they are required at the Eastern Washington DR center. The state data center is implementing new Remote Hands services at both locations, to augment agencies' operations staff.

The state's email has been consolidated into a centrally managed, shared service for many years. Over the next two years, shared services email will integrate with Office

365 in a hybrid architecture to begin migrating the 60,000+ mailboxes. Email will continue as a statewide shared service even after migration to the Office 365 platform.

GIS continues to be a shared service, and has added the Washington Master Address Service offering to increase efficiency by reducing duplicative activities and taxpayer errors by centralizing address storage and maintenance.

WaTech is engaged in a strategy to converge statewide data, voice and video networks into a single IP infrastructure. These changes will occur over the next several years.

The state has operated a central identity management infrastructure for many years offering access control and single sign-on for enterprise systems. Recently the service was enhanced to extend identity management to many cloud-based Software-as-a-Service applications. In the next two years, this infrastructure will be enhanced further, extended to more cloud services, and fully integrated with the Microsoft Office 365 / Azure Active Directory environment.

C. The Cloud - Many states are looking to 'the cloud' as part of their future infrastructure plans. Please let us know if the state is using or planning to use the cloud to deliver any of the technologies/ services listed below.

C1. Cloud environments: *Please indicate which of the following cloud environments are being used:* *Select all that apply.*

	Plans to Implement in the Next 18-24 Months	In Use Currently	Note the Percentage (of this item) of Total Systems In Use
On Premise Private Cloud (State Run)	X	X	60%
On Premise Private Cloud (Vendor Run)			0%
Off Premise Private Cloud			0%
Off Premise Public Cloud	X	X	40%

C2. Cloud Applications: *Please indicate which of the following applications are CURRENTLY being serviced from the cloud.* *Select all that apply.*

	On Premise Private Cloud (State Run)	On Premise Private Cloud (Vendor Run)	Off Premise Private Cloud	Off Premise Public Cloud
Enterprise Resource Planning (ERP)	X			
Customer Relationship Management (CRM)	X			X
Email	X			

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Content and Document Management	X			X
Captured Video	X			X
Business Intelligence	X			X
Health Applications	X			X
Geographic Information Systems (GIS)	X			X
Licensing and Permitting	X			X
Cybersecurity	X			X
Case Management	X			X
Identity Management	X			X
Other: _____				

C3. *Please indicate which of the following applications WILL BE serviced from the cloud in the NEXT 18-24 MONTHS.* Select all that apply.

(2016) C.3 Cloud Applications: Please indicate which of the following applications WILL BE serviced from the cloud in the NEXT 18-24 MONTHS:	On Premise Private Cloud (State Run)	On Premise Private Cloud (Vendor Run)	Off Premise Private Cloud	Off Premise Public Cloud
Enterprise Resource Planning (ERP)	X			
Customer Relationship Management (CRM)	X			X
Email	X			X
Content and Document Management	X			X
Captured Video	X			X
Business Intelligence	X			X
Health Applications	X			X
Geographic Information Systems (GIS)	X			X
Licensing and Permitting	X			X
Cybersecurity	X			X
Case Management	X			X
Identity Management	X			X
Continuity of Operations / Disaster Recovery (NOTE: Not in C.2)	X			X
Other:				

C4. Virtualized Environment*: Please indicate which of the following "virtualized environments" are being used. Select all that apply.*

	On Premise Private Cloud (State Run)	On Premise Private Cloud (Vendor Run)	Off Premise Private Cloud	Off Premise Public Cloud
Data Center / Server capacity	X			X
Software as a Service (SaaS)	X			X
Platform as a Service (PaaS)	X			X
Infrastructure as a Service (IAAS)	X			X
Backup as a Service (BaaS)	X			X
Desktop Virtualization	X			
Storage	X			X
Other: _____				

C5. The Cloud – *Clarifying or additional information:*

The Washington State CIO's recommended direction is, "think cloud first," but cloud *first* does not mean cloud *only*. When analyzing business and technical requirements, public, private, and hybrid cloud solutions are considered before traditional IT platforms. Custom, one-off solutions are generally the least desirable.

Software as a Service (SaaS) solutions have proliferated to cover the entire spectrum of business needs. The state has federated our enterprise identity management services to deliver a single sign-on user experience to 16 different SaaS vendors, with more planned.

Adoption of both private and public cloud infrastructure as a service (IaaS) has progressed at a measured pace. Some smaller agencies, the Utilities and Transportation Commission for example, have moved their entire data center into the state's private cloud, improving agility and resilience and reducing overhead costs. Some larger agencies use public cloud services to increase data center capacity. For example, the Department of Transportation uses public cloud servers to deliver traffic video during times of inclement weather when demand is unusually high. At least one public health agency is planning to move a significant portion of their data center to a secured public cloud environment and to use public cloud resources for a big data project.

Overall cloud adoption rates are expected to accelerate in the next two years as the state builds a hybrid cloud environment. Private network connections, security and identity services will be extended to leading public cloud providers, creating high-performance access to secured, virtual private clouds, integrated with on-premises services.

Over the next several years, the state will migrate current on-premises Exchange, Skype and SharePoint services to the Office 365 platform. This will be a hybrid implementation that integrates cloud and on-premises services but retains authoritative identity information on-premises. This facilitates a sensible, managed migration of critical data while delivering upgraded capabilities and a more agile and productive business environment. The state's central IT organization will administer a single enterprise tenant shared by most agencies, with a few separate tenants for agencies with exceptional business requirements.

Information and Communications Technology Workforce

D1. *For which of the following areas does the state have at least one dedicated FTE (full-time equivalent) position with state-wide responsibility for the area listed?* *(Select all that apply)*

X_ Cybersecurity (Agnes Kirk)
X_ Data Analytics/ Business Intelligence (Doug Buster)
X _ Innovation (Michael DeAngelo)
X_ Open Data (Will Sanders)
X_ Performance metrics (Wendy – Results WA)
X_ Privacy – protection of personal information (Alex Alben)

D2. *What percentage of the state IT workforce will be retiring in the coming year?*

X Less than 5% (based on data from State HR)
___ 5-10%
___ 11-20%
___ 21-30%
___ 31 - 40%
___ 41% or more

D3. *Where do you see an increasing need for ICT workforce over the next few years?* *(Select all that apply)*

_X__Business intelligence and data analytics
_X_Application building, integration, and modernization
____Software management
____Vendor-managed IT services
____Data infrastructure updates
_X__Cybersecurity: data protection, compliance auditing, mobile/remote security
____Data center operation consolidation
_X__IT support and helpdesk activities
_X _Shared IT services
____Hired contractors or temporary labor

D4. *Due to the constant change in technology, most CIOs report that one of their greatest challenges is retraining a workforce and/or replacing an older, retiring workforce. Please identify the future training needs that you face and rank them in terms of priority (click and drag to the top to show priority order):*

- Operating System Knowledge/Certifications – specify: __6_____

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- Networking Knowledge/Certifications – specify: _____4_____

- Cyber Security Knowledge/Certifications - specify: _____1_____

- Application Systems Knowledge – specify: _____2_____

- Project Management Knowledge/Certifications – specify: ___5_____

- IT Services Contract Management – specify: _____7_____

- Other (specify): Agile principles, SCRUM, XP_____3_____

D5. Workforce Training – *please discuss briefly how the state is currently meeting their training needs, and any additional clarifying information:*

Cybersecurity is a fact of life and security training is mandated for all State agencies. In 2014, the State purchased 65,000 two-year "Securing the Human" training licenses from the SANS Institute. This training is used by state agency employees and contractors to increase the state's overall level of IT security awareness. The training modules are loaded onto the state's Learning Management System (LMS) where agencies, and WaTech, can track individual's participation and course completion. Combining SANS training and LMS ensure a standardized and high-level of cyber security training at all levels of government.

Attracting and retaining highly-skilled IT personnel in a region that is home to some of the biggest software and aeronautics companies is a huge challenge for state agencies. WaTech has started several programs and partnerships to bring veterans and employees up to speed on current development methods and to attract younger employees. For example, Agile Friday webinars, Agile coaching via master contracts, and cloud contract vendor sponsored training are available to all state employees. The Information Processing Management Association (IPMA), a public/private partnership with a board consisting of state government IT and business leaders, provides free or low-cost training and professional development to government employees, plus three two-day conferences each year open to all state employees.

Internships are another creative method the state uses to mentor, recruit and hire talented workers. WaTech partnered with five local Colleges, eight Universities, two technical schools, four professional organizations, and ten military programs to build a robust channel for talent and professional development. The program has place interns into fourteen different agencies across twenty-six different disciplines and programs. To date, WaTech has had nearly 100 inters run through the program with 59% of them converted to State employment. Over 25% of the interns have been veterans. The

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"desire to work in State" has increased from 70% before starting the internship program to 100% after completing the internship program.

A significant advantage of the Governor's emphasis on lean management is the business process re-engineering which takes place. Employees organize into teams within departments to examine their existing business practices. The Governor encourages innovative thinking about the processes. Just re-engineering business processes often produces faster, streamlined procedures, even without the adoption and use of information technology.

Innovation and experimentation is a valued path to learning by applying a "learn by doing" approach innovation. For example, WaTech has partnered with the Governor's office, the Union, and State HR to experiment in two new areas: 1) the impact and power physical space has on influencing the culture of an organization as well as the ability to attract new knowledge workers and 2) the plausibility of a self-management framework, like Holacracy, in State government to systemically empower workers, improve employee and organizational outcomes, and attract the next generation of workers.

E. *Are you actively considering the potential of the Internet of Things (IoT) in your strategic planning?*

    ____No
    __X__Yes

    E1. *If yes, please discuss how you are planning for the IoT*:

At a state level, we expect transportation and natural resources agencies to deploy new monitoring and tracking systems, and law enforcement agencies to modernize vehicles with new tracking and communications devices. Governor Inslee recently signed executive order 16-07 which directs state agencies to adopt technology and policies that support a mobile workforce. The use of wearable technology will proliferate. All of these Internet-enabled devices represent the first wave of the Internet of Things (IoT). The IoT will grow to thousands, if not millions, of intelligent edge devices generating exceptionally large volumes of data. The state is planning and preparing in these ways:

Internet Protocol version 6 (IPv6): The state has purchased a large block of IPv6 addresses and is planning a multi-year migration project, beginning with the network edge. This will make more than $79.2 \times 10e27$ (Octillion) internet protocol addresses available for IoT devices and systems.

Traffic Shaping: QoS and other network optimization technologies are being used or planned to ensure that mission critical systems are not impacted by the massive amount of data transferred by IoT devices.

Capacity Planning and Monitoring Tools: The state's central IT organization is investing in upgraded monitoring and capacity management tools and training to better manage capacity on the state's enterprise wide area network.

QUESTION 1: Adaptive Leadership and Innovation in Information and Communications Technology

Question 1 is all about how Information and Communications Technology (ICT) is aligned with the policy goals of the governor and his/her administration.

Question 1A is regarding the 'big picture' and is focused on the policy initiatives at the governor's level, what the governor has stated as specific goals, and the ICT actions taken to address the specific stated policy goals. It is designed to afford states the freedom and flexibility to tell their story. *However, the key is to demonstrate alignment between ICT strategy and the administration's priorities.*

 In developing responses, consider the following:

- Describe the immediate challenges that the state is facing.
- Specific plans discussed in the most recent "State of the State" Address.
- Imperatives for openness, transparency and accountability. Is the state measuring and reporting performance outcomes?
- Assuming that ICT is being asked to be more efficient, how is it accomplishing that goal; was a target set, is it measured, and was it achieved? How is ICT providing leadership to other agencies in meeting their efficiency targets?
- Innovation - Is ICT leading innovation programs in the state?
- What improvements have been implemented to further collaboration across agencies and with other jurisdictions?

Questions 1B through 1J allow the state to discuss specific ICT initiatives. With the response to the 'big picture' question (1A) as context, we want to understand how those priorities and dynamics are aligned in the areas of ICT policy, strategy, governance, infrastructure, operations and development.

Please describe the major changes made in the last biennium, including the level of scope, collaboration, investment and the results that were achieved. Also where desired, describe major changes planned for the next year or two. While future plans may be important for context, scoring will be based on results and outcomes already achieved.

(Note scoring will be based on accomplishments, not future plans)

1A. The Big Picture*: What are the major policies that the governor has established and how is ICT being asked to respond? Specifically, list the policies of the administration (with a reference to a document or where this is publicly stated) and describe what the ICT leadership is doing to meet the demands of government programs as they change.*

Responses will be limited to 6,200 characters (as measured in the survey online form – character count will appear while inputting text online), approximately 1,000 words.

Washington continues to set the pace for the global digital economy, with Microsoft, Amazon, f5, Expedia, and countless startups delivering new innovations on a daily basis.

However, even amongst favorable economic conditions, state revenue growth continues to fall behind demand for state government goods and services. With an unfavorable political climate for additional revenue, Washington's status as the most regressive tax structure in the nation,* and a court-ordered obligation to provide an additional $2+ billion dollars in funding for education under the McCleary ruling, Washington must innovate to survive.

Governor Jay Inslee continues to leverage ICT to save money, provide better services and deliver more value to the people of Washington. In tough budget cycles, he kept or increased investments in ICT systems and solutions to support his five priorities for government as measured by Results Washington at results.wa.gov.

However, confidence in ICT has been recently shaken by a thirteen-year-old programming error within Washington's Department of Corrections (DOC), leading to up to 3,200 inmates being released early since 2002 by an average of 55 days. While this error was brought to the governor's office by the new DOC CIO immediately after he learned about it in December 2015, the problem was first identified within the DOC in November 2012, languishing in bureaucracy and neglected bug lists. This failure to identify and address this software error led to two deaths caused by inmates released early, spurring multiple legislative hearings, investigations, news coverage and, ultimately, the dismissal of multiple state employees.

To restore confidence and provide acceptable accountability to IT systems, the Governor immediately worked with the state CIO to release Governor's Directive 16-01: Providing Accountability for State Systems Responsible for Critical Functionality. This directive requires all agencies to enforce a clear line of accountability and ownership for each critical system and the known issues associated with it. This proactive approach helped Washington's ICT community react swiftly to the failing at the DOC, building trust with the legislature, and developing a stronger posture moving forward.

The Office of the CIO (OCIO) continues to work with the Governor's office and the legislature to evaluate and rank IT Decision Packages according to a set of criteria developed by the OCIO. This process improvement transformed the important, yet inconsistent IT budgeting proposal process to become more data-driven and integrated with the Governor's priorities. Agencies now have a common process and know the criteria the legislature will use to review funding proposals and can consider the criteria—and the questions about alignment to the big picture strategies—before they submit projects. In the three years since the new IT budgeting proposal process was implemented, there has been a much stronger correlation between IT investments that rank high and ones that are ultimately funded by the Governor and the legislature.

Governor Inslee continues to mandate that agencies operate with efficiency and become more data-driven. Implementation of Technology Business Management across all of IT falls in-line with this goal, by giving the state a tool to accurately measure and evaluate the value of IT spend. Going forward, Washington state government and agency leaders will also have business intelligence to compare and benchmark against other governments and private companies because adoption of technology and financial principles using standardized Cost Pools and IT Resource Towers has become more prevalent.

The promotion of Agile development increased during the past biennium. Incremental delivery and adoption of Agile development practices are now a scored criteria in the evaluation if new IT investments for the budgeting process. The state also completed the Agile Master Contract, providing a contracting vehicle for the procurement of Agile coaching, training and project management.

The Governor also created a new central IT services agency, Washington Technology Solutions (WaTech), charged with advancing a modern approach to shared services through tighter integration with state agencies and more holistic integration between public and private sector infrastructure and application capabilities.

Creating a unique and effective approach to addressing cyber security, focused on protecting the continuity of commerce, remains a top focus of the state CIO and the Governor. The newly-created Office of Cyber Security works with federal partners to build a national model for a shared, connected response to cyber threats, and have a strong history building resiliency through breakthrough partnerships between universities, private companies, the public sector, and cyber security professionals. The immense challenge posed by the latest cyber threats cannot be met in isolation. In recognition of this, Washington built a framework for cyber security based around the goal of protecting public safety and the continuity of commerce. This goal is much broader than just network defense of the IT systems maintained by the state. Rather, at the most fundamental level, Washington must protect the health and safety of its seven million citizens, and to ensure the economic security of the region.

The Office of Cyber Security directly influenced the passage of two bills: SHB 2875- Establishing the office of data privacy, protection and equity access, and ESSB 6528- Cyber Security Jobs Act.

In addition, Governor Inslee issued an Executive Order at the Conference, creating a new office of Privacy and Data Protection charged with establishing best practices for safeguarding the data the state collects from our citizens.

In summary, Washington concentrated not just on technology innovation, but also on policy, budget prioritization, alignment of technology to state objectives, regional public/private leadership, IT reorganization, and developing a modern approach to cyber security and privacy.

*Institute on Taxation and Economic Policy 2015 "Who Pays" report.

With the response to the 'big picture' question as context, we want to understand how those priorities and dynamics are playing themselves out in key areas of ICT infrastructure, operations and development.

In each of the nine questions below (1B-J), first identify in the matrix the status of the initiatives and technologies currently in place in that category, and in the narrative that follows, describe the major changes made in the last two years. Most importantly describe the outcomes achieved. Where appropriate include references to published reports/information (Web addresses or other publicly available information). The narrative should be specific and provide support for the responses in the matrix. See Appendix A – Criteria and Scoring - for additional information.

By design there is not enough room to address every initiative/application/technology in the matrix as part of the narrative, plus there may be accomplishments that are not listed in the matrix. Please select what is most innovative, most successful, most significant - the best solutions for your state – and concisely tell us about them.

1B. Computing

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1B1. *From an enterprise viewpoint, what is the status of the following computing initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
1B1a. Consolidated IT Operations/Shared Services (if applicable, describe below):	☐	☐	☐	**x**
1B1b. Server Virtualization-- indicate % physical server reduction _____%	☐	☐	☐	x
1B1c. Client Virtualization/Thin Clients	☐	☐	x	
1B1d. Storage Virtualization	☐	☐	x	
1B1e. Bring Your Own Device (BYOD) Support	☐	☐	☐	x
1B1f. Outsourcing (If applicable, describe in detail below):	☐	☐	☐	x
1B1g. Software-defined Data Center	☐	☐	☐	x
1B1h. Converged Infrastructure	☐	☐	☐	x
1B1i. Service Desk Management	☐	☐	☐	x
1B1j. Other (specify below)	☐	☐	☐	☐

1B2. *Computing: Describe actions taken and results achieved including but not limited to consolidation, virtualization, co-location, shared services and combined (on premises, cloud, hybrid) services best suited to the needs and policy priorities of the state. Specify examples showing support for the above-identified initiatives and technologies.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Consolidation continues to be a primary focus of Washington Technology Solutions (WaTech), in accordance with Governor Inslee's Results Washington Goal 5: Efficient, Effective, Accountable Government.

To date, more than 30 state agencies have consolidated a portion of their IT operations to the central State Data Center, co-locating more than 400 racks of IT equipment into 24,000 sq. ft. of shared data center space. Data center consolidation continues at a deliberate pace that is both expedient and mindful of the unique business needs and timetables of state agencies. The strategy continues to be one of opportunity rather than mandate. Opportunities for consolidation are considered as agencies plan a major equipment refresh or data center infrastructure investment.

WaTech has provided email as an enterprise shared service for more than four years, growing to more than 60,000 mailboxes served. Over the next two years, that environment will transition to a hybrid cloud service with a migration to Office 365.

Enterprise network services were transitioned from a consumption model to a budget allocation model. This is a more equitable model for shared services in Washington state and follows the same model as our shared security services.

The Department of Revenue (DOR) Research and Fiscal Analysis (RFA) Division has created an easier, more user-friendly way to provide tax incentive information featuring data visualizations using Tableau software. The 2016 Tax Exemption Study, a compilation of state tax exemptions, deductions, credits and preferential tax rates was compiled using Tableau, including information on 694 tax exemptions.

Server virtualization has continued as agencies consolidate assets to the State Data Center. After many years of steady progress and multiple equipment refresh cycles, it is generally observed that 100% of servers that can be virtualized have been.

A hybrid IT strategy was adopted a year ago. This strategy combines the state's private cloud with IaaS services from Amazon and Azure as well as certain PaaS and SaaS platforms. The state plans to build a secure, high performance, private network for public cloud connectivity and a virtual private cloud environments that are compliant with all state security standards.

Use of both converged and hyperconverged infrastructure is common across state agencies. Many of the state's financial and human resources applications are operated on hyperconverged systems as well as virtual desktop infrastructure.

Virtual clients are in limited use by a few agencies, but interest is increasing. There is a plan in place to pilot a centrally managed virtual desktop offering using hyperconverged infrastructure.

Outsourcing is a common practice where there is a business case. The state engaged private vendor support for its Provider One system, and the Department of Enterprise Services (DES) is required by the Governor to implement Competitive Contracting to bring in more vendors to the state.

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1C. Network

1C1. *From an enterprise viewpoint, what is the status of the following network initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
1C1a. Enterprise-wide network service (if multiple networks in place explain below)	☐	☐	☐	**x**
1C1b. Unified Communications (using an IP network to integrate various communication services. Also see the Glossary Appendix E)	☐	☐	☐	x
1C1c. Collaboration Tools (Audio/Web Conferencing, Instant Messaging, Internal Social Media Network, Data Sharing,) (specify below)	☐	☐	☐	x
1C1d. Voice Over IP (VOIP)	☐	☐	☐	x
1C1e. Video Services (specify below)	☐	☐	x	
1C1f. Broadband Infrastructure	☐	☐	☐	x
1C1g. Wireless Infrastructure	☐	☐	☐	x
1C1h. Next Generation – LTE (Long Term Evolution) Networks	☐	☐	☐	x
1C1i. Software-defined Networks	☐	☐	x	☐
1C1j. Incident Management	☐	☐	☐	x
1C1k. Right of Way Agreements (fiber, etc.)	☐	☐	☐	x
1C1l. Edge computing	x	☐	☐	
1C1m. Other (specify below)	☐	☐	☐	☐

1C2. Network: *Describe actions taken and results achieved including but not limited to broadband and wireless initiatives. Specify examples showing support for the above initiatives and technologies.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington Technology Solutions (WaTech), formed in 2015, operates the telecommunications networks used by most state agencies and many local and tribal governments. The State Government Network (SGN) is a private, statewide MPLS network that connects state government offices to the state's two central data centers. It enables agencies to securely share applications and data within the SGN as well as access approved cloud services through a centrally managed security perimeter. WaTech also oversees the Intergovernmental Network

(IGN). The IGN connects about 90 cities and counties across the state. The IGN allows, for example, local police agencies to query criminal history databases at the Washington State Patrol (WSP). Also, all county and municipal courts use the IGN to access the technology systems of the Administrative Office of the Courts (AOC). Both the IGN and SGN are undergoing redesign and upgrades to improve speed, service, quality and security.

WaTech also manages the State Metro Optical Network (SMON), which is a redundant metropolitan fiber network connecting state office buildings in the greater Olympia metropolitan area. In addition, WaTech operates the campus fiber network that delivers voice, video, and data communications to more than 30 buildings on the state Capitol Campus in Olympia.

Enterprise data and voice networks are converging as the state transitions to VOIP. This includes integration of voice services with unified communication and collaboration tools such as, instant messaging, video web conferencing, and desktop and application sharing. These services are seeing rapid growth with over 6000 seats in the first year. Today, these services are offered on-premises, but over the next few years will transition to hybrid cloud services as the state transitions to Office 365.

Voice systems are managed as a shared service, operated by WaTech. Most customer agencies still use digital PBX service but several agencies have made the transition to VOIP. WaTech expects at least 40% of customer handsets to be VOIP in the next two years with a full transition to VOIP by 2020.

Over the last two years, WaTech has launched a state-wide initiative designed to blanket all state government offices with Wireless network access. This is "network-as-a-service" as agencies subscribe and pay for use of the service rather than incurring the capital cost of infrastructure. This state-wide system is centrally managed and tied into the enterprise identity management infrastructure, allowing employees to freely roam to any office and seamlessly connect to their home virtual LAN, all without the cost and complexity of VPN. Currently in 109 locations across the state with 24 more in progress (https://www.google.com/maps/d/viewer?mid=1IPwhFoTd-1_-ntEXt4VaR5EXKeo).

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1D. Applications

1D1. *From an enterprise viewpoint, what is the status of the following application initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to 1Procure/ Deploy/ Upgrade in next 18- 24 mos.	D) In Use Now
1D1a. ERP-Budgeting/Accounting	☐	☐	☐	☐ **x**
1D1b. ERP-Human Resources & Payroll	☐	☐	☐	☐ x
1D1c. ERP-Procurement/Admin/Asset Tracking etc.	☐	☐	☐ x	☐
1D1d. Business Intelligence/ Advanced Analytics	☐	☐	☐	☐ x
1D1e. Mobile Apps for Finance, Administration, Procurement & HR	☐	x	☐	☐
1D1f. Mobile Apps for Public Safety, EM, Criminal Justice & Corrections	☐	☐ X	☐	☐
1D1g. Mobile Apps for Health, Social and Human Services	☐	☐	☐ X	☐
1D1h. Mobile Apps for Transportation & Motor Vehicles	☐	☐	☐	☐ x
1D1i. Application Modernization	☐	☐	☐	☐ X
1D1j. Multi-Agency Development	☐	☐	☐	☐ X
1D1k. Other (specify below)	☐	☐	☐	☐

1D2. Applications*: Describe actions taken and results achieved including but not limited to any of the above internal services - such as enterprise applications, internal line of business (LOB) services, business intelligence, and analytics; and external citizen and business-facing online services.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington state, led by the Office of the CIO, focuses on both the value of applications and how they are built. Agile development practices have been established as an essential requirement for new application funding as defined by the OCIO's IT Decision Package Prioritization model. Delivering value to the customer sooner, through incremental releases, is fast becoming the state model for application delivery.

The Department of Revenue (DOR) in 2016 completed Rollout 1 of the tax and licensing systems replacement with the launch of the Automated Tax and Licensing Administration System, or ATLAS, in June 2016. This increment delivered a modern,

web-based interface offering more than 200 endorsements from 10 state agency partners and 70 licenses from 67 city partners. In FY16, the percentage of license renewals filed online is 92.6%, and business license applications filed online is 83.8%.

Several state agencies in addition to DOR are planning for, or are actively engaged on application modernization efforts under the guidance of the state's Enterprise Strategic Information Technology plan. Specific examples include the Department of Licensing's replacement of that state's Fuel Tax Prorate system, as well as planned replacements of Drivers, Vehicles and Vessels systems within the next year. Each modernization effort is currently working with the OCIO to develop and execute on an incremental delivery model.

Washington state has components of an ERP operating at an Enterprise level, including a Core Financial System as well as Human Resource, Payroll and Employee Benefits management application. However as part of our Application Modernization plan the state is performing preliminary planning and business process re-engineering in preparation for replacement of several of the components in the future budget cycles.

The Child Welfare program within the Department of Social and Health Services has recently procured an integrator to begin systematically making components of their case management system mobile enabled, Unlock mobile device features to include video, photography, location identification, and live access to case records.

The state's education longitudinal data system, P20W, brings business intelligence capabilities to the entire education system from primary level through college. This system, maintained by the Education Research and Data Center, allows policy makers to make data-driven education and policy decisions. This cross-jurisdictional effort over 40 data feeds from 12 partner organizations representing approximately 350 organizations.

A critical multi-agency development is currently underway between the Department of Health and Human Services (DSHS) and the Health Care Authority (HCA) to implement a provider payroll system, known as Individual ProviderOne (IP One).

DSHS has deployed customer-facing applications that are mobile-enabled for benefit administration and are currently developing mobile-enabled applications to support staff functions.

1E. Data and Cyber Security

1E1. *From an enterprise viewpoint, what is the status of the following Data Management and Cyber Security Technologies?* Select all that apply.	A) No plans to use or deploy	B) No Plans, but considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 months	D) In Use Now
1E1a. Intrusion Prevention System	☐	☐	☐	X
1E1b. Data Encryption Enforcement	☐	☐	☐	X
1E1c. Anti-Virus/End Point Protection	☐	☐	☐	X
1E1d. Security Server Patch Enforcement	☐	☐	☐	X
1E1e. Public Key Infrastructure (PKI)	☐	☐	☐	X
1E1f. Program Integrity Strategy	☐	☐	☐	x
1E1g. Identity/Access Management	☐	☐	☐	X
1E1h. Single Sign-On	☐	☐	☐	X
1E1i. Data Classification/Cataloging Software	☐	☐	☐	X
1E1j Security-as-a-Service	☐	☐	☐	X
1E1k. Big Data Management (non-structured data)	☐	☐	☐	X
1E1l. Data Analytics	☐	☐	☐	X
1E1m. Web Analytics	☐	☐	☐	X
1E1n. Cyber Insurance	☐	☐	x	Limited
1E1o. Other (specify below)	☐	☐	☐	☐

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1E2. Data and Cyber Security: ***Describe actions taken and results achieved*** including measures to increase the data and security availability, accuracy, integrity and share-ability (through common data standards, architectures, protocols and practices). Specify examples showing support for the above-identified technologies.

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

The new Office of Cyber Security (OCS) defends against enterprise-level cyber attacks, provides policy and technology leadership for state government, and promotes cooperation and coordination between regional and national governments and corporations.

OCS develops statewide IT Security Policy and Standards and ensures new and redesigned systems comply with the state's approved security architecture through security design reviews of IT systems being deployed. In 2015 the Policy & Compliance team reviewed 235 systems for compliance.

OCS also conducts proactive security assessments for agencies to identify security weaknesses, assists agency security incident response teams and implements statewide security initiatives that accelerate the ability to identify, prevent and respond to vulnerabilities. These activities significantly advance the security posture of the state.

OCS serves as the central point for statewide cyber security education and awareness activities. A popular awareness activity requested of staff is to perform cyber safety training in area schools, teaching them how to protect their identity and remain safe online.

OCS has implemented technology to identify, block and alert on infiltration attempts against the statewide network. The Security Operations Center (SOC) provided 736 security alerts to agencies in calendar year 2015, and 311 alerts so far in 2016. The alerts sent by the SOC to State of Washington organizations are verified by experienced security analysts as being actionable events requiring immediate attention and mitigation. The Security Policy & Compliance team conducted 235 security design reviews of systems providing services to state citizens and businesses.
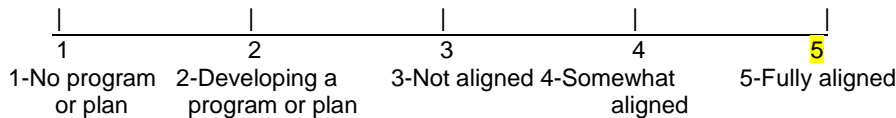
The Computer Emergency Readiness Team (CERT) has performed security incident response efforts for 14 cases in 2016 and 35 cases in 2015; the response efforts have included areas such as: web site defacements, ransomware, breach investigations, device theft, and threat assessments.

The CERT performed 15 security assessments for state agencies, reporting to executive stakeholders of potentially high impact risks discovered through this comprehensive review. This work effort has also helped to establish an enterprise baseline of security posture in areas such as awareness, benchmarking, and administrative controls.

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OCS also hosts a monthly security presentation, with a rotational topic of either technical or policy. This presentation series is available to all interested state employees and has covered security topics for first responders, penetration testers, and performing network hunting.

1F. Smart and Sustainable

1F1. *To what degree are the IT strategies and practices aligned with the state's sustainability program or climate action plan? (Select one)*

1	2	3	4	5
1-No program or plan	2-Developing a program or plan	3-Not aligned	4-Somewhat aligned	5-Fully aligned

1F2. *Smart and Sustainable – Energy, Environment, Infrastructure Management: Describe actions taken and results achieved in terms of sustainability, energy and environment conservation, and the state's physical and communications infrastructure; including both activities within the ICT domain, and other innovative programs within the government.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Governor Inslee places high priority in energy efficiency, signing Executive Order 14-04 on pollution reduction and clean energy action. For Washington, energy efficiency is one of the most cost-effective ways to cut emissions, reduce costs, and increase productivity and competitiveness.

Washington Technology Solutions (WaTech) manages the state's new, more energy efficient State Data Center, and both the agency and the center are housed in a state-of-the-art, LEED platinum certified building. In June 2015, WaTech completed the migration of all state agency equipment, data and applications to the new State Data Center. Decommissioning the forty-year-old data center saves more than $3 million each year in power costs, and avoids tens of millions in renovation expenditures. Electricity is responsible for nearly a quarter of Washington's greenhouse gas emissions, and the state's new data center helps reduce these emissions through efficient operations – the most recent average for May 2016 being 1.8 PUE.

Agency telecommunications are currently being migrated from legacy phone systems to Voice over IP (VOIP), reducing energy expenditure and footprint. Over 40% of the enterprise will be transitioned to VOIP by the end of 2016, with a strategy to be 100% VOIP by 2020.

The Department of Enterprise Services (DES) continues to innovate through their Energy Program, developed in alignment with the Governor's Executive Order 14-04 on pollution reduction and energy conservation.

The program's Energy Life Cycle Cost Analysis provides state building reviews for new construction or major remodels of facilities to identify and encourage the consideration of cost-effective building technologies to reduce energy usage.

DES designed an Energy Saving Performance Contracting program focused on the most cost-effective processes for completing building energy upgrades.

DES uses the EPA Portfolio Manager to identify under-performing buildings, identify opportunities for efficiency improvements, track agency goals for reducing energy use, and collect building energy use data for reporting greenhouse gas emissions.

Washington established a consolidated Wireless service offering in 2015 after a successful pilot program, eliminating the need for multiple agencies to deploy, manage and maintain individual Wireless services. After a year in production, the Wireless Service now has a presence in over 100 locations with more than 135 expected by year's end.

Across the enterprise, agencies continue to reduce the use of paper. The Aquatics Contact Document Center (ACDC), for example, took a manual, paper-based process and streamlined and automated the business processes to include online approval and final lease document generation from over 1,000 templates. Built on the Force1 (Salesforce) platform with an integration into Esri's ArcGIS Online (AGOL), ACDC tracks more than 140 unique pieces of information needed to generate an aquatic land lease. DNR estimates a 35% staff time savings per lease renewal.

1G. Governance, Management and Funding

1G1. *From an enterprise viewpoint, what is the status of the following governance initiatives and methodologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
1G1a. Project Review Mechanism for initiating and overseeing IT investments	☐	☐	☐	**x**
1G1b. IT Steering Committee with Executive Level Members	☐	☐	☐	x
1G1c. Project Management Office	x	☐	☐	
1G1d. Enterprise Architecture (EA) Model	☐	☐	x	
1G1e. Portfolio Management Model (specify below)	☐	☐	x	
1G1f. Agile Project Management Methodology	☐	☐	☐	x
1G1g. Other (specify below) New IT Investment Decision Criteria	☐	☐	☐	x

1G2. *Governance, Management and Funding: For the above initiatives, and any other governance initiatives, provide explanations of what was implemented in the most recent biennium; including structures, management disciplines and funding approaches that deliver sustained value and ensure the continued viability of ICT operations in an era of fiscal constraints and at a time when infrastructure, applications and data are shared across previously separate entities and governance structures. Specify examples showing support for the above-identified initiatives and methodologies.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

The Office of the CIO (OCIO) uses a prioritization process to support Legislative decision making on technology funding requests. The process uses weighted prioritization criteria based on the published and regularly updated Technology Strategic Plan. The OCIO evaluate agency funding requests against these criteria and creates priority ranking of funding requests using a SaaS product, DecisionLens. This process identifies the funding requests most closely aligned with the State's technology strategy and priorities.

In January 2016, in response to a critical technology system issue, Governor Inslee signed Governor's Directive 16-01, requiring increased focus on IT system governance. This directive requires systems to have a business sponsor, clear lines of accountability, and transparency around technology issues that may have policy-level impact.

In creating Washington Technology Solutions (WaTech) in 2015 to administer state

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central IT, additional governance was implemented to increase engagement with stakeholders, including the authorizing environment and customers. WaTech established an Executive Board with members including the Governor's Chief of Staff, representative from the Office of Financial Management, and customers. The Executive Board gives both visibility and direct input into the service delivery priorities of WaTech, and represents a significant shift in the relationship of central IT to customers, becoming more collaborative.

Because of how technology is organized in Washington, agencies provide project management support. The OCIO maintains a 'virtual PMO' to support major projects. The Project Management Framework, provide common tools, vocabulary and approaches. In the most recent biennial budget, the Legislature established a 'technology pool', creating a gated approach to funding of an identified set of projects. To move from gate to gate, agencies must demonstrate effective project management, policy alignment and progress towards business outcomes. As the statewide Enterprise Architecture program continues to mature, the virtual PMO will mature to increase visibility to high priority initiatives. Recent activities include focus on key project success factors in order to support early identification of project stress and effective intervention. The OCIO has forged stronger relationships with project Quality Assurance providers, through policy and practice, to support this role.

The OCIO is required by law to develop an enterprise architecture for the state, and is in the process of developing an innovative, sector-specific approach. This will drive common architectures and information-sharing across domains, including administrative services; business and regulatory, health and human services and education. This approach shall allow state agencies to realize efficiencies and additional customer-facing value through greater information-sharing and collaboration. Through the enterprise architecture and technology business programs, portfolio management practices will continue to mature.

1H. Business Continuity and Disaster Recovery

1H1.   ***What steps has the state taken for business continuity and disaster recovery to ensure systems and data continuity?*** *Select all that apply.*
    X State disaster/emergency/safety crisis management plan is completed
    X State has included cyber disruptions in its completed crisis management plan.
    X Mission-critical systems have been inventoried and business continuity/ contingency plans have been established for them, including essential services
    X Back-up for technology systems and data is in place.

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□ State's plan has been coordinated with local disaster response authorities including interoperability communications plan

X State personnel have been trained on the plan's technology systems' recovery aspects

X Emergency alerting and notification system is in place

X State authorities can securely access communications and data from a remote or mobile location, in the event state facilities are affected by the emergency

□ State's E 9-1-1 capability allows first responders to be dispatched to the exact location of the emergency

□ None of the above

1H2. *Business Continuity and Disaster Recovery: Please elaborate on the above and other results achieved for the state's business continuity and disaster recovery efforts.*

Washington's Comprehensive Emergency Management Plan (CEMP) required by state law is based on the hazards that are present in the state and was updated in May 2016.There is a published schedule of required updates to various sections of the CEMP that is part of the CEMP. Each agency is required by state law to complete a continuity of operations plan and exercise the plan annually.

State level mission critical functions are detailed in the CEMP Emergency Support Functions (ESFs) with appropriate assignments to state agencies. The governor established a standing committee comprised of representatives of all agencies to cataloging essential functions and interdependencies amongst agencies.

Washington state is working with the First Responder Network Authority (FirstNet) to develop a state plan for the deployment of the Nationwide Public Safety Broadband Network (NPSBN). Development of the state plan includes outreach and engagement to the state's public safety community. 2015 activities included the collection of data related to public safety communications, mapping of existing statewide broadband coverage.

The Washington OneNet, the program office working on the FirstNet initiative, worked with state, local and tribal responder agencies and radio system operators to develop the Statewide Communications Interoperability Plan (SCIP). The plan was adopted by the State Interoperability Executive Committee as the official plan for the state.

The state Emergency Management Division conducts regular monthly training for functional activities, information technology divisions within agencies ensure critical systems back up per Governor's Directive 16-01, and all agencies are now required by law to conduct continuity exercises at least annually to ensure recovery of essential services is possible. The state Emergency Management Division operates an Alert and Warning center that operates 24/7/365.

Washington state continues to be a leader in the First Responder communications realm

our pursuit of a state plan for deployment of the Nationwide Public Safety Broadband Network (FirstNet). This will provide emergency responders with the ability to quickly alert responders to an emergency and deploy necessary resources. The network will allow for data interoperability and voice communications between all levels of the incident command structure, providing unprecedented interoperability across jurisdictions and disciples.

The state Emergency Management Division operates a fully operational fixed and mobile command center capable of accessing any functioning data / communications nodes including satellite telephones for state agency directors. WaTech has implemented an out of region backup data center.

The state Emergency Management Division coordinates an enhanced 911 system capable of providing emergency location information to first responders through the state's Public Safety Answering Points. This system is currently being upgraded to a digital based system (Next Generation 911).

1I. Performance Benchmark Reporting

1I1. Has the state established a process for performance benchmark measurement and reporting? Was an established benchmark and measurement process used to compare the cost structure of the earlier way of conducting business and a new model based on the improvements in the use of technology? (NOTE: this question applies to any responses to questions 1A-1H)

- o No
- o Yes, but the results are not disclosed
- X Yes, and results are public

1I2. Performance Benchmark Reporting:

Describe how data and performance reports have been used in decision-making (regardless of whether the results are public) over the past two years. For programs with publicly reported results, describe specific programs and include an http address or other reference to the location of such disclosure.

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington state government spends nearly $1 billion annually on technology staff, infrastructure, applications, maintenance, and operations, but state leaders often see technology as a mystery black box where money goes in, but nobody can explain what you get for it.

In response, the state's Chief Information Officer implemented a Technology Business Management program, contracting with Apptio to develop a tool to support the program. The goal was to improve the state's accountability, insight, and transparency in the area of technology spending.

The program established a common language associated with IT cost, and state agencies now embrace the reporting functionality made available through Apptio. The program has resulted in improved governance, optimization, and cost control, including better statewide IT management policies; guidelines related to technology spending; and more consistent, defined, and consolidated IT cost standards.

For Washington State, TBM needed to serve multiple audiences. The reports produced would need to be leveraged by the Legislature, state CIO, state agency leaders, and their respective agency CIOs.

Finance and labor information is foundational for Technology Business Management. Given the size of the statewide finance and labor data files loaded into Apptio, the state and vendor implemented an automated data load process with the expectation this automation solution could be used by all 44 agencies to load their monthly data files.

Foundational to the Technology Business Management program is transparency. Agencies were initially hesitant to participate because the new level of transparency could potentially expose coding and data errors. The program helped agencies overcome fears by starting conversations about ways to address these errors.

As the program matures through 2016, agencies found that transparency could be used to support their technology investment requests. Other ways agencies now are leveraging Apptio reports include:

- Agency CIOs can compare their labor base against like-sized agencies and use this information to support business requests.

- Detailed reports on IT chargebacks across all agencies are now available.

- CIOs can identify technology costs in non-technology business areas.

- Coding errors are more easily identified and corrected to create a more accurate picture for investment requests.

- CIOs now have a common language for use in conversations with their respective Chief Financial Officer.

At an enterprise level, the State and Deputy CIOs meet with agency business and IT leaders, using the high-level Cost Pool breakdown as well as comparative benchmark reporting in the IT Resource Towers as conversation starters. Information reporting by Cost Pools and IT Resource Towers is anticipated to be used in the Governor's Operating Budget to inform elected officials about agency-level technology spending.

1J. Policies and Best Practices

1J1. *Select the status of state policies/ best practices listed below, then elaborate in question* 1J2: *Select all that apply.*

IJ1. Policies/ Best Practices: *Select the status of the state policies and best practices below.* Select all that apply.	No Plans to Use/ Deploy	Reflected in ICT policy framework	Implemented in Single or Multiple Agencies	Implemented at Enterprise Level
1J1a. Have a Current (updated in 2014-2016) Strategic IT Plan URL: https://ocio.wa.gov/washington-state-strategic-information-technology-framework	☐	☐	☐	☐ X
1J1b. IT Investment Oversight/ Project Review Mechanism	☐	☐	☐	☐ X
1J1c. IT Security Policies, Plans and Procedures	☐	☐	☐	☐ X
1J1d. Privacy and Data-sharing Policies	☐	☐	☐	x
1J1e. Mobile Device Management Strategy	☐	☐	☐	☐ X
1J1f. Social Media Policy	☐	☐	☐	☐ X
1J1g. Open Data / Transparency Policy	☐	☐	☐	☐ X
1J1h. NIST 800/171 (security framework- see the Glossary)	☐	☐	☐	☐ X
1J1i. SANS 20 (security framework- see the Glossary)	☐	☐	☐ X	☐
1J1j. Smart, Sustainable Initiatives (such as energy, infrastructure)	☐	☐	☐	☐ X
1J1k. NIMS (National Incident Management System) used in response plans	☐	☐	☐	☐ X
1J1l. Other (describe below)	☐	☐	☐	☐ X

1J2. Policies and Best Practices: *For the above state policies and best practices listed, and any others you wish to include, provide explanations of what was accomplished and note which were accomplished in the most recent biennium. Specify examples showing support.*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

The current Washington State Strategic IT Framework: https://ocio.wa.gov/washington-state-strategic-information-technology-framework

Washington's Office of the CIO utilizes policy as a primary lever for modernization and positive change. To these ends, some policies adopted over the past biennium include:

- Business Application/System Governance. This policy was implemented to support Governor's Directive 16-01: Providing Accountability for State Systems Responsible for Critical Functionality. This policy requires that all business IT systems are to have accountable business owners and governance processes that support identification and prioritization of business needs. This directive was developed in collaboration between WaTech and the Governor's office.
- PC Procurement Policy. Provides agencies guidance on defining a strategy to buy/lease desktops and laptops in a prudent, defendable way.
- Commonly Used Software Retirement. Defines requirement for agencies to retire specific software in a timely fashion and establishes advocacy and communication roles for state CIO to support agency needs.
- Project Quality Assurance Policy. The OCIO conducted a survey of Quality Assurance partners who work with the state on major IT projects to determine common risk factors and look for enterprise-level focus points to produce better project outcomes. The results of this survey led to the development of this policy.
- Technology Business Management (TBM) policy and supporting taxonomy standards. Creates a standard taxonomy for reporting technology spend.
- Data Center Investments. As part of statewide strategy to reduce redundant data center costs, this policy confirms for agencies that added investments in agency specific data centers are not allowed.
- Open Data. Requires agencies to create/maintain an open data plan and to periodically report progress against the plan
- IT Security Incident Communication. The purpose of this policy is to ensure that the scope and impact of state government IT security incidents are properly evaluated and mitigated, and that communication regarding incidents is contained so that vulnerabilities are not exposed to adversarial parties. In addition, this policy is intended to ensure that a coordinated, centralized approach is used to determine how and when to communicate notification of an incident within the state and when required by state law.
- Establishing Enterprise Services. Provides the CIO a mechanism to recognize standard business processes that should be supported by shared or common

technology.

Question 2: Specific Service Delivery Highlights - Programmatic Impacts and Transformation (Required)

With the responses to the 'big picture' question and those about ICT as background, we want to understand how those priorities and dynamics are playing themselves out in the work of government through four important programmatic areas:

> 2A. Finance, Administration, Procurement and Human Resources Management
> 2B. Public Safety, Emergency Management, Criminal Justice and Corrections
> 2C. Health, Social and Human Services
> 2D. Transportation and Motor Vehicles

In each of the four questions below (2A-2D), first identify in the matrix the status of the initiatives and technologies currently in place in that category, and in the narrative that follows, describe the major changes made in the last two years. Most importantly describe the outcomes achieved. Where appropriate include references to published reports/information (Web addresses or other publicly available information). The narrative should be specific and provide support for the responses in the matrix.

By design there is not enough room to address every initiative/service in the matrix as part of the narrative; also there may be accomplishments/initiatives/ technologies that are not listed in the matrix that you wish to include in the narrative. Please select what is most innovative, most successful, most significant - the best solutions for your state – and concisely tell us about them.

2A: Finance, Administration, Procurement and Human Resources Management

2A1. *From an enterprise viewpoint, what is the status of the following initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
2A1a. Financial Transparency	☐	☐	☐	**x**
2A1b. Data Analytics	☐	☐	☐	**x**
2A1c. eProcurement	☐	☐	☐	x
2A1d. Strategic Sourcing (provide specifics below)	☐	☐	☐	x
2A1e. Online Employee Self-service	☐	☐	☐	x
2A1f. Unemployment Insurance Self-service	☐	☐	☐	x
2A1g. MOBILE payment process for government business	☐	☐	☐	x
2A1h Online Tax Revenue Management	☐	☐	x	☐
2A1i. Other (specify below)	☐	☐	☐	x

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Specific Service Delivery Highlight: Please describe the major changes made in the last two years in the category:

- *Finance, Administration, Procurement and Human Resource Management*

2A2. *Finance, Administration, Procurement and Human Resource Management: Specify examples showing support for the above-identified initiatives and technologies.* *Please include scope (state-wide, specific agencies, etc.), level of collaboration, innovation, investment and specific outcomes achieved. If possible, please quantify the benefits. In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. (Note: scoring will be based on accomplishments, not future plans).*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Led by the Office of Financial Management, the One Washington initiative will replace the state's core financial systems with an Enterprise Resource Planning (ERP) solution http://one.wa.gov/.

Key to the success of this multi-year, statewide initiative, which will touch all the above initiative topics from Financial Transparency through Online Tax Revenue, is solid preparation, planning and a roadmap forward. Establishing, staffing and empowering a Project Management Office (PMO) to lead the overall plan, design development, communications, and implementation has been completed. Clearly articulating the roles of all the stakeholders from governance, to oversight, to product development, to testing and beyond has been a large part of the initial efforts. A statewide readiness assessment that identifies resource requirements to support the initiative in the forward facing phases has also been completed.

Currently the creation and the incremental adoption of a new Statewide "Chart of Accounts" has been built and adopted using a collaborative approach leveraging the knowledge and expertise of a broad range of State Agencies. This foundational and readiness work has set-up the initiative to effectively move into subsequent phases.

Technology Business Management (TBM) is staffed by the Office of the Chief Information Officer is a set of best practices and tools for running IT effectively and consistently using a data-driven agreed upon framework. 44 agencies, each with an annual technology spend of $250,000 or more engage in an automated upload of data that allows for longitudinal data analysis and helps with data driven decision making. TBM communicates to three major stakeholder groups: the Legislature, State CIOs and Agency Business Leaders. The TBM Program roadmap includes identifying and defining Business Services at a statewide level and integrating Total Cost of Ownership (TCO) reporting into Portfolio Management Lifecycle.

Facilities Inventory System (FIS) is a collaborative effort of State Agencies led by the Office of Financial Management. A commercial-off-the shelf system the tool will gather, validate, visualize, and store facilities inventory information for all state entities. The inventory of state-owned and leased facilities represents a significant investment by Washington State and includes approximately 112 million square feet of facilities (13.5 million square feet leased and

984 million square feet of owned). The inventory contains more than 10,500 facilities records and drives projections for the 6 year Capital Budget.

The Department of Enterprise Services (DES) leads the charge on eProcurement in the State. The IT tools used for State procurement efforts are robust and varied from master contract search tools, to transparency reporting tools to online human resource training and beyond.

IT Project Oversight and Decision Package Prioritization, led by the Office of the Chief Information Officer takes all IT Investments from concept, to funding, to project delivery, to final value.

2A3. For Data Collection Only: *Thinking about IT systems and infrastructure initiatives, what are the Top 5 priorities for the coming biennium in Finance, Administration, Procurement and Human Resources Management?*

2A3 - 1) One Washington – Office of Financial Management - http://one.wa.gov
2A3 - 2) Technology Business Management (TBM) – Office of the Chief Information Officer - *https://ocio.wa.gov/programs/technology-business-management-tbm*
2A3 - 3) Tax and Licensing Replacement System (TLSR) – Department of Revenue - http://dor.wa.gov/Content/Home/TLSR/
2A3 - 4) Driver and Vehicle Replacement System (DRIVES) – Department of Licensing - http://waocio.force.com/ProjectDetail?id=a06U000000G3oE0IAJ
2A3 - 5) Facilities Inventory System (FIS) – Office of Financial Management - http://www.ofm.wa.gov/budget/facilities/facilityoversight.asp

2A4. For Data Collection Only: *What plans or processes are in place to support the above priorities?*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

All Information Technology projects that rise to the level of a major project are supported by an investment planning process https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight agencies and the Office of the Chief Information Officer (OCIO) engage in collaboratively.

Major projects are defined using a Risk and Severity calculator https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight/121-appendix-severity-and-risk-assessment. This tool being updated with the IT Project Assessment Tool, which was developed collaboratively with the OCIO and stakeholders across state government.

Once an investment is considered "major" the consultation process begins. Plans, consultation and other activities the agency and state engage in are made transparent through the IT Dashboard. Investment plans must clearly articulates the goals, risks, mitigation strategies, outcomes and pathway to success for the projects and have a clear and specific link to business outcomes. The entire oversight support process is described here. In addition to the above the OCIO requires an independent and experienced quality assurance provider on all investments. They provide valuable insight into activities and help the

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agencies, and the OCIO, to anticipate problems before they occur and to ensure business value is realized. The OCIO also provides support through Geospatial Services and the Cyber Security office provides a robust security and design review process for every investment in the state.

Investments are also supported through a shared services model provided by Washington Technology Solutions. These services range from Hosting, to storage, to backup, to disaster recovery, etc. Individual Customer Service Representatives (CAMs) are provide to navigate these services.

In addition the Office of Financial Management provides Budget and Policy support for Investments at the agency level and works collaboratively with the OCIO in the oversight process. The Department of Enterprise Services provides contract and purchasing support for agencies engaging in IT Investments, as well as training support specifically directed at IT Investments.

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2B: Public Safety, Emergency Management, Criminal Justice and Corrections

2B1. *From an enterprise viewpoint, what is the status of the following online initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
2B1a. Integration with Real-time Criminal Data Bases	☐	☐	☐	**X**
2B1b. Predictive Analytics	☐	☐	**X**	☐
2B1c. Criminal Justice Information System	☐	☐	☐	**X**
2B1d. Corrections Offender Management	☐	☐	☐	**X**
2B1e. Inmate Electronic Funds Management	☐	☐	☐	**X**
2B1f. Geospatial Data Integration	☐	☐	☐	**X**
2B1g. Statewide Interoperable Public Safety Communications	☐	☐	**X**	☐
2B1h. Next Generation 9-1-1	☐	☐	**X**	☐
2B1i. FirstNet	☐	☐	**X**	☐
2B1j. Redundant Off-site Data Storage	☐	☐	☐	**X**
2B1k. Integrated Video Surveillance		☐ **X**	☐	☐
2B1l. Body cameras		☐ **X**	☐	☐
2B1m. Fixed surveillance		☐	☐	☐ **X**
2B1n. Drones	**X**	☐	☐	☐
2B1o. Data Analytics	☐	☐	**X**	☐
2B1p. Other (specify below)	☐	☐	☐	☐

Specific Service Delivery Highlight: Please describe the major changes made in the last two years in the category:

- *Public Safety, Emergency Management, Criminal Justice and Corrections*

2B2. *Public Safety, Emergency Management, Criminal Justice and Corrections: Specify examples showing support for the above-identified initiatives and technologies. Please include scope (state-wide, specific agencies, etc.), level of collaboration, innovation, investment and specific outcomes achieved. If possible, please quantify the benefits. In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible.* <u>*In this question, additional value will be placed on examples that span multiple agencies.*</u> *(Note: scoring will be based on accomplishments, not future plans).*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.
The state's emergency management system was put to full use in April 2014 when a massive

landslide wiped out a community taking 43 lives, and closed a major travel route, SR530. DNR geologists were at the scene within hours using aerial photography and LiDAR technology to map the devastation. The Governor and Snohomish County Executive convened a panel of experts who rendered a report with 15 recommendations in December, 2014. It included two specific technology initiatives (13) Activate the First Responder Network Authority and (14) Update the State Communication Interoperability Plan. Recommendation 14 was completed in June, 2015 and recommendation 13 will be realized when FirstNet delivers its state plan to the Governor in mid-2017.

WSP's OMNIXX Central Computerized Enforcement System implemented in 2014 provides access to state, national, and international public safety information to local law enforcement agencies across the state. The system processes about 20 million messages per month.

The WSP patrol cars have laptops and tablets equipped with Electronic Ticket and Online Reporting, In-Vehicle Digital Video Camera, and an application that allows instant querying of warrants and criminal history. WSP also has deployed the Statewide Electronic Collision and Ticket Online Records system, SECTOR, which is unique to Washington, complies with the nationwide Police Traffic Collision Report (PTCR) standard, and is now widely used by local law enforcement as well as WSP. Over 107,000 collisions occurred in 2014.

DOC uses a comprehensive Offender Management Network Information. OMNI tracks over 500,000, prisoners, probationers, parolees and former inmates.

Washington Technology Solutions has deployed a statewide Master Address Validation System based on its Geospatial System that provides services and to multiple state and local agency systems.

The State Interoperability Executive Committee (SIEC) is quite active, charged with overseeing wireless communications for all responders throughout the state. The SIEC's program to work with FirstNet, a federal agency charged with building a nationwide wireless responder network, is nationally known due to use of innovative outreach techniques, blogs, video and social media. Over 13,400 stakeholders have been to Washington's FirstNet meetings and over 258,300 documents have been delivered or viewed to Washington's responders. These numbers are the second highest of the 56 states and territories involved in the FirstNet effort.

For interoperable radio, WSP is 95% finished with a $40 million upgrade of its statewide voice radio system. OCIO led and in December, 2015 completed a $24 million 10 year effort to reband or upgrade WSDOT and DOC radio, which replaced 10,000 handheld and mobile radios,

upgraded radio systems in 12 DOC Facilities,16 Work Camps and DOC HQ, plus130 WSDOT Radio Sites and throughout the State Ferry system.

2B3. For Data Collection Only: *Thinking about IT systems and infrastructure initiatives, what are the Top 5 priorities for the coming biennium in Public Safety, Emergency Management, Criminal Justice and Corrections?*

2B3 - 1) Implement Next Generation 911 NG911
2B3 - 2) Implement new Superior Court Case Management System
2B3 - 3) Implement offender risk management and analytics system
2B3 - 4) Improve criminal history systems
2B3 - 5) Implement FirstNet in Washington State

2B4. For Data Collection Only*: What plans or processes are in place to support the above priorities?*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

1. Washington Military Department/Emergency Management Division will deploy a Next Generation capable IP network in 2017. Acquisition activities are underway
2. Superior Court Case Management System is funded and has been implemented in two pilot counties.   It will be extended through all other participating counties over the next biennium. At least one County of 39 will implement its own parallel system.
3. Department of Corrections will deploy in 2017 an offender risk assessment and analytics system to guide and target offender programs to offender needs with a goal to reduce recidivism.
4. Washington State Patrol will replace and modernize its criminal history and crime information systems with major deployments in 2017 through 2019.
5. FirstNet issued its RFP in January, 2016 and intends to award a contract in November, 2016. This will be followed by delivery of a plan to the Governor in mid-2017. If acceptable FirstNet will implement in 2018.

2C: Health, Social and Human Services

2C1. *From an enterprise viewpoint, what is the status of the following online initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now	
2C1a. Benefits Eligibility, Application and Status Checking	☐	☐	☐	☐	X
2C1b. HHS Program Integrity Strategy	☐	☐	☐	☐	X
2C1c. Case Management Integration	☐	☐	☐	☐	X
2C1d. Data Analytics	☐	☐	☐	☐	X

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2C1e. Health Information Exchange	☐	☐	☐	☐ X
2C1f. Health Insurance/ Health Benefits Exchange	☐	☐	☐	☐ X
2C1g. Telemedicine	☐	☐	☐	☐ X
2C1h. Integrated Identity Management	☐	☐	☐	☐ X
2C1i. Authentication	☐	☐	☐	☐ X
2C1j. Mobile device strategy in place	☐	☐	☐ X	☐
2C1k. Other (specify below)	☐	☐	☐	☐

Specific Service Delivery Highlight: Please describe the major changes made in the last two years in the category:

- **Health, Social and Human Services**

2C2. Health, Social and Human Services*: Specify examples showing support for the above-identified initiatives and technologies. Please include scope (state-wide, specific agencies, etc.), level of collaboration, innovation, investment, and specific outcomes achieved. If possible, please quantify the benefits. In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. In this question, we are generally interested in work that spans multiple agencies (for example unified eligibility, case management, etc.) work that has been accomplished for Health Information Exchanges, and to meet the changes resulting from the Patient Protection and Affordable Care Act. (Note scoring will be based on accomplishments, not future plans.*

 Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington's implementation of the Affordable Care Act continues to be successful. Based on the most recent open enrollment, over 1.6 million Washingtonian's receive health care through the Exchange, including 169,000 enrolling in Qualified Health Plans – a 10% increase over 2015. The number of Medicaid Expansion enrollees continues to exceed early estimates. During the first year of implementation (the most current information available), Washington's uninsured rate decreased from 14% to 8.2% and moving towards the target of 6%. The agencies involved (HBE, DSHS and HCA) work collaboratively to improve user experience and access with enhancements to online systems and call center technology. In 2015, Washington became the first and only state to offer on-line plan shopping for Medicaid enrollees.

Data Analytics continues to be a key area of focus across HHS. The Healthier Washington initiative and the associated AIM project which is a collaborative effort with HCA, DOH and DSHS along with Accountable Communities of Health established across the state and various partners. At the core of this effort to improve health outcomes and manage costs are investments to improve data quality and data analytics. A common measure set has been collaboratively established. AIM is multi-year effort that began in 2015.

One Health Port is Washington's Health Information Exchange implementation and is recognized as a national leader in HIE. OneHealthPort acts as the clinical data repository (Link4Health) receiving information from Apple Health Managed Care organizations simplifying data exchange between EHR systems and care providers. It also provides reporting and analytics for participating organizations. HCA acts as lead agency on the HIE with DOH supplying critical public health data and support.

Juvenile Rehabilitation within DSHS uses telemedicine for children in custodial care in remote facilities as well as within community facilities to ensure continuity of care. Telemedicine is primarily used for providing complex psychiatric care but also supports medical treatment, providing high quality care and reducing cost of service delivery and improving outcomes for the youth served.

A modernization strategy for the state's core eligibility system and related systems is being developed with partner agencies (DSHS, HCA, HBE and DEL) to support goals for seamless, low touch client service and ever increasing efficiency for field staff and partners. An early business

vision and a conceptual technical model, which could support a variety of business models, completed in December 2015. This model adopts many of the concepts of the federal MITA architecture and stresses modularity and reuse of common components between programs and agencies. Additional cross-agency business vision is underway and the legacy modernization strategy should be identified in 2017.

2C4. For Data Collection Only: *Thinking about IT systems and infrastructure initiatives, what are the Top 5 priorities for the coming biennium in Health, Social and Human Services?*

2C4 -1) Creation and implementation of cohesive enterprise architecture and strategic plan for HHS
2C4 - 2) Increasing mobility and mobile options for staff and external customers/citizens
2C4 - 3) Legacy system replacement/modernization
2C4 - 4) Improvements in data analytics across all HHS disciplines: informatics, business intelligence, decision support and predictive analytics
2C4 - 5) Automate all remaining paper based processes

2C5. For Data Collection Only*: What plans or processes are in place to support the above priorities?*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

Enterprise Architecture: The Legislature funded OCIO to develop strategic architecture around several core HHS functions. Preliminary work has completed and more is planned. This work will support integration of eligibility/case management and reuse of technology across HHS agencies. The CIO was provided technical oversight for solutions supporting common business functions. This oversight will accelerate architecture work and reuse of existing technology resources. It will also support the identification and automation of manual processes.

Mobility: DSHS is in process of installing foundational infrastructure components for mobility and will deploy mobile apps to support child welfare field staff and foster parents in 2016. All HHS agencies are actively planning for mobility both for internal operations/staff as well as for public facing applications. A recent Governor's Executive Order on telework will support identification of remaining barriers to staff mobility in the near future and increase awareness of mobile capabilities or applications that can improve staff effectiveness and efficiency.

Legacy System: The ACES Modernization Strategy project will develop concrete plans to modernize not only the core eligibility system in the state but also a number of supporting systems. Based on availability of funding, the current social service payment system intends to migrate remaining payments to a SaaS solution. Active planning is underway to modernize the application supporting case management for developmental disability and long term in-home care. The child welfare system (FamLink) is planning modernized to comply with new CCWIS rules and architectural concepts. The project to replace the existing WIC case management system and to migrate WIC payments to EBT has a planned completion date of 12/2016.

Data Analytics – As noted, the AIM project will implement significant business intelligence and decision support technology foundation over the next few years. DEL will significantly increase its analytic capacity to support quality assessments and school readiness.

SURVEY QUESTION 2D: Transportation and Motor Vehicles

2D1. *From an enterprise viewpoint, what is the status of the following initiatives and technologies?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-24 mos.	D) In Use Now
2D1a. Vehicle Registration Renewal	x	☐	☐	☐
2D1b. Driver's License Renewal	☐	**x**	☐	☐
2D1c. Traffic Web Service/ Road Conditions	☐	☐	x	☐
2D1d. Intelligent Transportation Systems	☐	☐	☐	☐
2D1e. Vehicle Titling and Lien Processing	☐	☐	☐	x
2D1f. Commercial Driver Testing Results Database	☐	☐	☐	x
2D1g. Mobile Inspections	☐	☐	☐	x
2D1h. Video Surveillance	☐	☐	☐	x
2D1i. Data Analytics	☐	☐	☐	x
2D1j. Other (Describe below)	☐	☐	☐	x

Specific Service Delivery Highlight: *Please describe the major changes made in the last two years in the category:*

- **Transportation and Motor Vehicles**

2D2. Transportation and Motor Vehicles*: Specify examples showing support for the above identified initiatives and technologies. Please include scope (state-wide, specific agencies, etc.), level of collaboration, innovation, investment and specific outcomes achieved. If possible, please quantify the benefits. In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. (Note: scoring will be based on accomplishments, not future plans.)*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

In the past year WSDOT developed and implemented the Save a Spot Vehicle Reservation System (VRS) to manage demand and alleviate the need to build larger vessels and terminals for Washington State Ferries. The result is approximately $280 million savings. The project was guided by meaningful engagement with community members and customers during the design, development, and implementation. Facilitated meetings with the community partnerships were held regularly to develop program policies that met the needs of the ferry users and communities. Benefits of the system include: reduced traffic back-up; better predictability for vehicle riders that they can make a certain boat; and levelled demand across more sailings. The system also supports mobile devices.
https://secureapps.wsdot.wa.gov/Ferries/Reservations/Vehicle/default.aspx

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WSDOT has partnered with the City of Dupont and Joint Base Lewis and Mchord (JBLM) in providing Road Conditions for the Off and On Ramps along the JBLM I5 Corridor. The information should help the Military Staff make an informed decision about which access to use to enter I5 North or South. Wait times at the on ramps should be more uniform with informed decision making. The project was completed in the fall of 2015. Here is the link to the JBLM and Dupont Washington Traffic and Camera Page: http://www.wsdot.com/traffic/dupont/default.aspx

This page leverages Intelligent Transportation Systems such as Cameras (for Surveillance of the Traffic), Ramp meters and Bluetooth technology.

2D3. For Data Collection Only*: Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in Transportation and Motor Vehicles?*

2D3 - 1) `Assess the WSDOT Traffic Operations Data Collection System by the end of August 2016.`
2D3 - 2) `Develop a Road Map for Traffic Data Collection by Jan 1, 2017.`

2D3 - 3)
2D3 - 4)
2D3 - 5)

2D4. For Data Collection Only: *What plans or processes are in place to support the above priorities?*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

WSDOT regularly collects ridership data as well as conducts thorough customer satisfaction surveys regarding the Save a Spot system.

WSDOT has started planning for assessing current Traffic Data Collection Systems. Scoping of work and identifying stakeholders is under way and should be completed by July 1, 2016.

SURVEY QUESTION 3: Specific Service Delivery Highlights – State Selections

With the responses to the 'big picture' question and those about ICT as background, we also want to understand how those priorities and dynamics are playing themselves out in the work of government through examples drawn from three important programmatic areas (self-selected from the following five areas):

1. Licensing and Permitting (non-DMV)
2. Commerce, Labor and Taxation—Economic, Business and Workforce Development
3. Natural Resources, Parks, and Agriculture
4. Education

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5. Legislative and/or Judiciary Branch Support

3A. *Please select one of the following categories for your response (to question 3A1 below) from the list:*

(Drop-down menu online- one selection allowed):
- *Licensing and Permitting (non-DMV)*
- *Commerce, Labor and Taxation- Economic, Business, and Workforce Development*
- *Natural Resources, Parks, and Agriculture*
- *Education*
- *Legislative and/or Judiciary Branch Support*

3A1. *Describe the major changes made in the past two years in initiatives/ services/ technologies in the category selected above; including scope, level of collaboration, innovation, investment and with what results.* *In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. (Note: scoring will be based on accomplishments, not future plans).*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.
- *Commerce, Labor and Taxation- Economic, Business, and Workforce Development*

The Department of Revenue (DOR) is pivotal to the state's economic vitality and business climate. The Tax and Licensing System Replacement (TLSR) modernizes DOR systems and provides time-saving improvements for citizens and business owners. DOR is responsible for collecting $19.6 billion in state and local taxes and processes more than 560,000 business license applications and renewals. TLSR implements an integrated system to enable more online services, create a self-serve environment, allows for increased access to information and makes it easy to register and comply with business licensing and tax obligations. DOR, collaborating with Fast Enterprises (FAST), is updating the current system to a browser-based, highly-configurable solution. The system is implemented incrementally in three rollouts. The first, focusing on business licensing services, just launched. Rollouts 2 and 3 are focused on tax functions and will launch in 2017 and 2018.

Washington State voters passed initiative 502 requiring the Liquor and Cannabis Board (LCB) to regulate a state-licensed recreational Marijuana System. The Seed to Sale Inventory Tracking System was the first technology pieces put in place to support these new regulations. Using a configured Commercial Off the Shelf Solution, adapted for this use case, the system is a vital tool for tracking and monitoring all marijuana plants from germination or cloning, through the growth cycle, processing and packaging, monitoring quality assurance lab test results, and retail transaction data by marijuana licensees through all stages of the supply chain to help prevent diversion, promote public safety, and collect tax revenue.

The Employment Security Division (ESD) has just finished implementing the Next Generation Tax System (NGTS) which replaced the current mainframe Unemployment Insurance (UI) tax system and 14 ancillary systems while addressing 109 gaps in the previous systems. NGTS provides ESD with a modern Service Oriented Architecture system on the Microsoft .Net platform. It accounts for and collects UI taxes within an architecture providing consistent application of business rules and flexibility to modify those rules to accommodate changes in the law, regulation, or business practice.

The Department of Labor & Industries' (L&I) partnered with OneHealthPort to build the Health Information Exchange for health care providers to share clinical data with L&I. Until now, health care providers have been faxing or mailing more than 7.4 million pages of medical information to the department. The department projects savings of $4.1 million savings during the first four years following implementation.

Washington Technology Solutions (WaTech) supports the Employer of Choice IT Workforce Development project. Finding and retaining a cutting-edge technology workforce is the single most important and impactful challenge for the public sector. In Washington nearly half of the government workforce is eligible to retire in the next five years.

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3A2. For Data Collection Only*: Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in the above-selected area?*

3A2 - 1) *Tax and Licensing Replacement System (TLSR) – Department of Revenue (DOR) – http://dor.wa.gov/Content/Home/TLSR/*

3A2 - 2) *Marijuana Seed to Sale Traceability System – Liquor Cannabis Board (LCB) – http://liq.wa.gov/*

3A2 - 3) *The Next Generation Tax System (NGTS) – Employment Security Division (ESD) – https://esd.wa.gov/*

3A2 - 4) *Secure Health Information Exchange – Labor and Industries (L&I) – http://www.lni.wa.gov/*

3A2 – 5) *Employer of Choice IT Workforce Development – Office of the Chief Information Officer – https://ocio.wa.gov/initiatives/it-workforce-development*

3A3. For Data Collection Only*: What plans or processes are in place to support the above priorities?*

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

All Information Technology projects that rise to the level of "major" project are supported by an investment planning process https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight agencies and the Office of the Chief Information Officer (OCIO) engage in collaboratively.

Major projects are defined using a Risk and Severity calculator https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight/121-appendix-severity-and-risk-assessment. This tool being updated with the IT Project Assessment Tool, which was developed collaboratively with the OCIO and stakeholders across state government.

Once an investment is considered "major" the consultation process begins. Plans, consultation and other activities the agency and state engage in are made transparent through the IT Dashboard http://waocio.force.com/. Investment plans must clearly articulates the goals, risks, mitigation strategies, outcomes and pathway to success for the projects and have a clear and specific link to business outcomes https://ocio.wa.gov/policies/114-business-application/system-governance. The entire oversight support process is described here https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight/121-procedures. In addition to the above the OCIO requires an independent and experienced quality assurance provider on all investments https://ocio.wa.gov/policies/132-project-quality-assurance. They provide valuable insight into activities and help the agencies, and the OCIO, to anticipate problems before they occur and to ensure business value is realized. The OCIO also provides support through Geospatial Services https://ocio.wa.gov/programs/geospatial-program-office and the Cyber Security office provides a robust security and design review process for every investment in the state http://watech.wa.gov/solutions/it-services/network-security-design-reviews.

In addition the Office of Financial Management provides Budget and Policy support for Investments at the agency level http://www.ofm.wa.gov/budget/contacts/default.asp and works collaboratively with the OCIO in the oversight process. The Department of Enterprise Services provides contract and purchasing support for agencies engaging in IT Investments, as well as training support specifically directed at IT Investments http://www.des.wa.gov/services/ContractingPurchasing/CurrentContracts/Pages/default.aspx

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3B. *Please select one of the following categories for your response (to question 3B1 below) from the list:*

> *(Drop-down menu online - one selection allowed):*
- *Licensing and Permitting (non-DMV)*
- *Commerce, Labor and Taxation- Economic, Business, and Workforce Development*
- *Natural Resources, Parks, and Agriculture*
- *Education*
- *Legislative and/or Judiciary Branch Support*

3B1. *Describe the major changes made in the past two years in initiatives/ services/ technologies in the category selected above; including scope, level of collaboration, innovation, investment and with what results.* *In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. (Note scoring will be based on accomplishments, not future plans).*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

- Natural Resources, Parks, and Agriculture

The Washington State Department of Transportation's Save a Spot Vehicle Reservation System manages demand, spreads vehicle traffic, improves asset utilization, reduces wait times, and minimizes terminal and vessel expansion projects. Ferries are a critical part of Washington's transportation network and economy. With 10 routes and 20 terminals served by 23 vessels they annually make 160,000 trips, with 10.5 million vehicles, and over 23 million riders. Historically operated on a first-come, first-served basis. With this new tool almost 1 million reservations were made by over 300,000 customers. Shifting from an asset-management strategy to a demand-management strategy is expected to save approximately $280 million.

The Department of Ecology (ECY) collects data from facilities that store hazardous materials on site, and then, through the Emergency Responder Data Tool distributes this information to emergency planners and first responders via mobile devices so they will know about chemical hazards in their communities. For nearly thirty years this data was distributed via paper or scanned reports. ECY compiles the data received from 4,771 facilities reporting 18,307 hazardous substances in 34,256 locations. WA EPCRA is available as a free download in the Apple Store and Google Play.

The Washington Internet Licensing Database System (WILD) is a critical part of Washington Department of Fish and Wildlife (WDFW) mission and operations and provides 25% of WDFW's budget. This project replaces the legacy licensing system with a modern system that provides for the sale of recreational documents, such as fishing and hunting licenses and permits, is a key source of information for constituents, providing a way of promoting recreational opportunity to the diverse segments of the state's population.

The Washington State Trails Database Project is a collaboration between the Office of the Chief Information Officer's Geospatial Program Office and the Recreation and Conservation Office (RCO) it was finalized on September 30, 2015. It represents close to 12,000 miles of trails data collected from federal, state and local agencies and links to standardized data and metadata, the mapping application and collection tools, as well as the associated technical information. The project was partially funded through an RCO grant.

The Department of Fish and Wildlife helps manage and maintain the Fish Passage Barriers and Screening Data Collection which includes ownership, condition and other critical details. The data collected with this tool helps in the development of strategies for management of the barriers. It provides a means to prepare, collect and submit inventory data and helps identify places where culverts are too small or otherwise inadequate. A single removed barrier improves fish access for miles protecting and restoring fish populations and benefits commercial and recreational fishing industries.

3B2. For Data Collection Only: Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in the above-selected area?

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3B2 - 1) Ferry Reservation System – Washington State Department of Transportation (WSDOT)
– http://www.wsdot.wa.gov/Ferries/TakeaFerry/
3B2 - 2) Emergency Responder Data – Department of Ecology (ECY) – http://www.ecy.wa.gov/epcra/
3B2 - 3) Washington Internet Licensing Database System (WILD) – Department of Fish and Wildlife (DFW)
– https://fishhunt.dfw.wa.gov/wdfw/oc_system/index.html
3B2 - 4) Washington State Trails Database – Office of the Chief Information Officer (OCIO)
– https://ocio.wa.gov/programs/geospatial-program-office/washington-state-trails-database-project
3B2 - 5) Fish Passage Barriers and Screening Data Collection Project – Department of Fish and Wildlife
– http://www.wsdot.wa.gov/Projects/FishPassage/default.htm

3B3. For Data Collection Only:
What plans or processes are in place to support the above priorities?

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

Investments are also supported through a shared services model provided by Washington Technology Solutions http://watech.wa.gov/solutions/it-services. These services range from Hosting, to storage, to backup, to disaster recovery, etc. Individual Customer Service Representatives (CAMs) are provide to navigate these services http://watech.wa.gov/sites/default/files/customer-acct-mgrs.pdf

In addition the Office of Financial Management provides Budget and Policy support for Investments at the agency level http://www.ofm.wa.gov/budget/contacts/default.asp and works collaboratively with the OCIO in the oversight process. The Department of Enterprise Services provides contract and purchasing support for agencies engaging in IT Investments, as well as training support specifically directed at IT Investments
http://www.des.wa.gov/services/ContractingPurchasing/CurrentContracts/Pages/default.aspx

3C. *Please select one of the following categories for your response (to question 3C1 below) from the list:*
        (Drop-down menu online - one selection allowed):
- *Licensing and Permitting (non-DMV)*
- *Commerce, Labor and Taxation- Economic, Business, and Workforce Development*
- *Natural Resources, Parks, and Agriculture*
- *Education*
- *Legislative and/or Judiciary Branch Support*

3C1. *Describe the major changes made in the past two years in initiatives/ services/ technologies in the category selected above; including scope, level of collaboration, innovation, investment and with what results. In the case of a major multi-year program, please indicate the percentage of work completed to date, and an anticipated date for achievement of the stated goals. Please include Web addresses of any relevant documentation and also include quantitative examples of results whenever possible. (Note: scoring will be based on accomplishments, not future plans).*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.
- *Licensing and Permitting (non-DMV)*

The Washington Information System for Architectural and Archaeological Records Data (WISAARD) updated the Department of Archaeology and Historic Preservation's (DAHP) existing database into a single web-based, GIS-oriented application incorporating the archaeological site form, survey, and environmental review process. DAHP is responsible, under both federal and state law, for protecting cultural resources and serves as the central repository for all the state's cultural resource information. A customer's ability to transmit data to DAHP through the workflow and historic property inventory portal has reduced the

cumbersome process of reporting and delivering information on paper. The National Historic Preservation Act allows agencies 30 days to respond to reviews, Washington's State policy requires a 14-day response time. WISAARD has reduced the agency response rate to 4 days. WISAARD moves the agency to a paperless digital environment.

Licensing and Enforcement System Modernization at the Liquor Cannabis Board (LCB) replaces LCB's legacy licensing, enforcement, and imaging applications with an integrated solution. LCB used a Commercial Off-the-Shelf product managed in a cloud environment. The solution is significantly less technical complex and allows for changes to license types and integrated the new regulations around recreational Marijuana. The system allows for more and better access to data; license holders and applicants experience reduced processing time and improved self service capabilities.

The Educator Certification project completed by the Office of the Superintendent of Public Instruction will replaced the current manual system with an online certification application system that resulted in online self-service process for educators to submit required documents and fees to obtain certification, a reduction in the processing time for educator certificates, a reduction in the number of emergency and temporary permits currently issued because of the processing backlog, and the connection of existing and new educator data with other databases for analysis.

Online Licensing and Information Collection at the Department of Health seeks to streamlining the application process so providers and facilities are available to provide care sooner. By implementing online initial license application for all health professions and a subset of health facilities and online collection and reporting of enhanced demographic information for the health care workforce this tool will also improve health care workforce information to support health care system planning.

SOLAR 2,the publicly facing web application provided by the Department of Licensing (DOL) and used for renewing professional licenses within the state of Washington. DOL currently licenses approximately 268,000 professionals and businesses across 44 professions, using mostly manual paper processes. This project provides the ability for businesses and professionals to apply for and renew their licenses online and upload and manage their required licensure documentation.

3C2. For Data Collection Only*:*
Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in the above-selected area?

3C2 - 1) Washington Information System for Architectural and Archaeological Records Data (WISAARD) – The   Department of Archaeology and Historic Preservation (DAHP) http://www.dahp.wa.gov/
3C2 - 2) Licensing and Enforcement System Modernization – Liquor and Cannabis Board (LCB) –
http://liq.wa.gov/
3C2 - 3) Educator Certification (eCert) – The Office of the Superintendent of Public Instruction (OSPI)
        – http://www.k12.wa.us/Certification/e-Cert/default.aspx
3C2 - 4) Online Licensing and Information Collection (OLIC) – The Department of Health (DOH)
        – http://www.doh.wa.gov/
3C2 – 5) SOLAR 2 – The Department of Licensing (DOL) –
http://www.dol.wa.gov/business/?hcwp

3C3*.* **For Data Collection Only:**
What plans or processes are in place to support the above priorities?

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

All Information Technology projects that rise to the level of "major" project are supported by an investment planning process https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight agencies and the Office of the Chief Information Officer (OCIO) engage in collaboratively.

Major projects are defined using a Risk and Severity calculator https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight/121-appendix-severity-and-risk-assessment. This tool being updated with the IT Project Assessment Tool, which was developed collaboratively with the OCIO and stakeholders across state government.

Once an investment is considered "major" the consultation process begins. Plans, consultation and other activities the agency and state engage in are made transparent through the IT Dashboard http://waocio.force.com/. Investment plans must clearly articulates the goals, risks, mitigation strategies, outcomes and pathway to success for the projects and have a clear and specific link to business outcomes https://ocio.wa.gov/policies/114-business-application/system-governance. The entire oversight support process is described here https://ocio.wa.gov/policies/121-it-investments-approval-and-oversight/121-procedures. In addition to the above the OCIO requires an independent and experienced quality assurance provider on all investments https://ocio.wa.gov/policies/132-project-quality-assurance. They provide valuable insight into activities and help the agencies, and the OCIO, to anticipate problems before they occur and to ensure business value is realized. The OCIO also provides support through Geospatial Services https://ocio.wa.gov/programs/geospatial-program-office and the Cyber Security office provides a robust security and design review process for every investment in the state http://watech.wa.gov/solutions/it-services/network-security-design-reviews.

SURVEY QUESTION 4: CITIZEN ENGAGEMENT

Public disclosure, a hallmark of open government, was first codified at the state level a century ago. The origins of the modern sunshine laws in state and federal government date from the mid-1960s.[2] In the 1990s, the Internet rekindled the movement with a dual promise of digital government (information and transactions) and digital democracy (citizen participation and visibility on how decisions are made). In short order, it established the portal and online services as a permanent part of the service delivery landscape.

The practice of public disclosure of expenditures was made even more visible with the American Recovery and Reinvestment Act of 2009 when each state was required to publish through a website, information about the funds they had received, and how those funds were being used. Perhaps more than any other practice this placed an entirely new focus on open government reporting.

More recently, transparency and a campaign to make available and mash up government-held data – coupled with a rise in social media and the wide-scale adoption of mobile computing – has again begun to reset the public's expectations about its access to and interactions with its government. Taken together, it signifies tremendous opportunity and responsibility for government in the stewardship of the data and other information it holds.

In order to properly understand what each state is doing to foster citizen engagement we are asking questions in four critical areas:

4A. Open and Transparent Government

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[2] Florida's tradition of open government dates back over a century to the passage of the Public Records Act in 1909. Its 1967 Sunshine Law is better known. At the federal level, Congress passed the Freedom of Information Act (FDIA) in 1966.

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4B. Citizen Online Services

4C. Mobile Services

4D. Social Media

4. Citizen Engagement: *What is the status of the following citizen engagement methods?* Select all that apply.	A) No Plans to Use/ Deploy	B) No Plans, but Considering/ Under Discussion	C) Definite Plans to Procure/ Deploy/ Upgrade in next 18-	D) In Use Now
4.1. Responsive Design/ Mobile-enabled Website	☐	☐	☐	**x**
4.2. Mobile Applications	☐	☐	☐	x
4.3. Social Networks	☐	☐	☐	x
4.4. GeoIP/ Location-based Services	☐	☐	☐	x
4.5. Integration with Call Center(s)	☐	☐	☐	x
4.6 Integration with One-Stop Service Centers	☐	☐	x	☐
4.7 Customer Relationship Management	☐	☐	☐	x
4.8. User Satisfaction Surveys	☐	☐	☐	x
4.9. Live Help	☐	☐	☐	x
4.10 Open Data (describe below)	☐	☐	☐	x
4.11 Online Elections Management/ Citizen Voting Systems	☐	x	☐	☐
4.12 Participatory Budgeting	☐	x	☐	☐
4.13 Other (specify below)	☐	☐	☐	☐

**4A. Open and Transparent Government*: Please describe the state's policy and approach (strategic and tactical) to citizen engagement through open and transparent government initiatives.* *Please be specific describing precisely what information is made public and in what format. Provide specific Web addresses of this data on the state Web portal. If data is provided in an open format to the general public, please explain what data is provided, how it has been used, and what benefits the public has realized as a result of these offerings.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington continues its tradition of sustainable and progressive transparency through expanded support for the successful open data initiative and the development of an open data policy, with resources for agencies.

The variety of data offered by the state has roughly doubled in the last 2 years, and agencies have added or updated over 8 million rows of data in the first half of 2016 alone. The state CIO's office has partnered with libraries, businesses and universities to advance the availability and visibility of state data.

The Governor's Executive Order 13-04 ordered the creation of Results Washington to improve government transparency and provide for continuous engagement of citizens. Specific measures for openness and

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transparency are reported in Goal 5.

The State CIO's Policy 187 (2015) requires agencies to plan for open data and to report on progress. The state has 5 themed portals for open data: Fiscal.wa.gov for budgets, public salaries and an open checkbook,Results.wa.gov for performance measures and accountability; Geo.wa.gov for open geospatial data, Business.wa.gov for business data and licensing, and Data.wa.gov for all other categories. In addition, many agencies publish structured, downloadable data on their websites, including education data from erdc.wa.gov, transportation data from WSDOT.wa.gov, labor data from ESD.wa.gov, and economic data from OFM.wa.gov.

Documented and supported API's are available for all legislative activity, corporations, traveler information and several other services.

As reported in Results Washington, the state's data assets have been used by companies, agencies and the Governor to improve management, optimize highway and ferry traffic, reduce staff work needed to confirm licenses for health professionals, recover salmon populations, and monitor tax policy.

Washington State has a longstanding legal and practical commitment to open government, rooted in the state's Public Records Act.

4B.Citizen Online Services*: Please describe how technology has been used to improve citizen engagement through online service delivery, and the effects of those changes on internal operations.* *Please include the benchmarks and metrics used to measure results including the number of actual services that are online, and the number that were implemented online in the last biennium. (For example only - citizen services management, 311 response, permitting requests.) (Include URLs in the response as appropriate.)*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington continues to take steps forward to simplify the online regulatory experience for small business owners.

The Department of Revenue (DOR) completed their first increment of the Tax and Licensing Systems replacement, focused on business licenses. To-date in FY16, the percentage of license renewals filed online is 92.6%, and the percentage of business license applications filed online is 83.8%. Continued investments in Live Chat allows customers to quickly and conveniently talk with a tax information specialist and get answers to basic tax questions. Since the launch of Live Chat, Revenue has responded to nearly 22,000 chats with citizens; 95.7% of chats are answered within 60 seconds, with the average wait time being 5 seconds. The majority of questions are indeed quick and easy to respond to.

In 2015 the Washington Business Hub team launched multiple increments of an online

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content portal, giving new and aspiring business owners a fast, easy, and accurate source of regulatory information, and simple and direct paths to regulatory compliance. This content portal, Business.WA.gov, is an important step towards the construction of an integrated back-end system to present a unified view of state agency relationships and requirements. Development of the Washington Business Hub is incremental: guided by customer input, which is collected through constant engagement with Washington business owners.

To address how contemporary users find and retrieve information, Washington Business Hub added an innovative, natural language search of Unified Business Identifier (UBI) agency content, which is designed to get business owners the answers to their most pressing questions at the speed and convenience of Google or Bing. This federated search also serves to make modern search engines operate more accurately and efficiently by guiding essential cross-agency questions to the appropriate cross-agency content.
By focusing on customer requirements and cross-agency content first, the Business Hub team delivered value quickly to business customers and is now working on the next phases of the project over the remaining 1.5 years of the 2015-17 biennium.

Washington Technology Solutions (WaTech) is also establishing a standard web development platform for all state agencies that is responsive and mobile-enabled. The platform allows for continuous integration and contains an easy content authoring environment for agencies. The OCIO continues to develop policies to support higher standards for both mobility and accessibility.

4C. Mobile Services*: Mobile devices and applications (apps) continue to grow in popularity, overtaking traditional online PC services in popularity. **Please describe how mobile technology has been used to improve citizen engagement through online/ mobile service delivery, and the effects of those changes on internal operations.** Please include the benchmarks and metrics used to measure results including both:*

- the number of mobile apps/services, and

- the number provided in the last biennium.

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington has built a solid foundation for robust mobile services. According to a November 2014 Technology Business Management (TBM) survey, agencies reported a combined 87 mobile-enabled applications and services, with many agencies also

reporting planned or in-development projects.

SecureAccess Washington provides self-administered single sign-on access to multiple agency applications, shields online services from harmful activity, and allows access only to known users. Over 2.1 million Washington residents currently have a SecureAccess Washington account, which provide selective access to their online documents or services. Examples of these documents and services include Master Business Licenses, Vehicle Tab Renewals and Employment Security Job Search Resources.

Washington has also implemented several innovative mobile applications:

WA EPCRA
Upon request from the Washington State Emergency Response Commission, the Department of Ecology team developed the "WA EPCRA" mobile application—the agency's first-ever mobile app—that gives first responders rapid access to critical chemical information and facility emergency contacts during an event. The app is the first of its kind in the United States and available as a free download in the Apple Store and Google Play.

Through the app, responders have access to: Data security to ensure that only authorized personnel have access; Chemical specific information, including physical and health hazards, quantities, and locations of chemicals on the site; Information for each facility's 24-hour emergency contacts; Access to information, even if Wi-Fi or data connections are not available; A mapping feature to help responders quickly get to the scene of the event.

Save a Spot Vehicle Reservation System
Ferries are a critical and unique part of Washington's transportation network and the state's economy. The system has 10 routes and 20 terminals that are served by 23 vessels. Annually, the ferries make more than 160,000 trips and carry 10.5 million vehicles — over 23 million riders.

The Ferries Division of the Washington State Department of Transportation (WSDOT) developed Save a Spot, a mobile-first, responsive vehicle reservation system to manage ferry demand, and alleviate the need to build larger vessels and terminals, saving approximately $280 million.

The Save a Spot vehicle reservation system now allows customers and the Customer Service team to make, change, and cancel reservations for the ferry routes that allow reservations. Customers who are frequent users also may set up a Save a Spot account that saves their personal information, vehicle configuration, and credit card information. This account allows them to make a quicker reservation. Save a Spot provides the latest technologies, including a mobile website, text notifications, and reservation redemption via a smart phone or tablet.

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4D. Social Media: Web 2.0 technology is now fully established with social media, crowd sourcing and other two-way communications between government and its constituents becoming status quo. ***Please describe how social media has been used to improve citizen engagement and the effects of those changes on internal operations. Please include the benchmarks and metrics used to measure results.***

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Social media is a valuable tool to enhance communication between citizens and their government while encouraging their engagement in keeping their values heard. It also provides a means to stay involved that fits into busy schedules and reaches out to people who would not otherwise be connected.

Through the leadership of Governor Inslee, use of social media has become a paramount priority. Now, state agencies are able to get information out to citizens quickly and efficiently, reaching more people than would otherwise be informed. Similarly, members of the public can contribute comments and concerns directly where they want to be heard.

The challenge facing agencies is to continue engagement as more and more users are mobile based. Often users are looking at one social media channel but not others, creating distinct pockets of audiences, requiring extra steps in a workflow. This can mean everything from truncating a statement to 140 characters (or less), to finding ways to display text within an image, changing the aspect ratio of an image, or clipping a video to fit the limitations of one service or another. The message remains the same, but maximizing engagements with the unique constraints of a platform adds to thinking through the content that is distributed.

Improving engagement also means improving accessibility. Recently the Governor's office has promoted accessibility options introduced by Facebook and Twitter. Twitter recently enabled images to have descriptions embedded for screen reader software used by the visually impaired. Facebook has the ability to display captions on videos, which helps for both the hearing impaired and the ever increasing number of people who watch videos without sound on their mobile devices.

Video is another communications tool that is time intensive but often rewarded with increased engagements. Facebook promotes video at a higher rate in its news feed algorithm, resulting in a vastly increased number of people reached over a traditional text post. The old adage of a picture being worth a thousand words is outdated as video is now the unquantifiable superior to a static image.

The other increasing trend is people viewing content primarily or solely on their mobile devices. A content provider cannot mandate which device a person will use to view their content, so responsive design and content is critical. This means thinking through how content is presented on a small narrow screen, and what content is linked to that on a desktop browser wouldn't require a second thought.

Staying connected directly with the public through social media increases effective and valuable communication. State agencies are able to reach citizens on the sites they already frequent, giving them a convenient way to stay connected. Additionally, it is important for our government to stay updated on new technologies being used by our citizens. That way, state agencies can best involve people in advantageous communication.

4E. For Data Collection Only:
Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in Citizen Engagement: Open and Transparent Government, Citizen Online Services, Mobile Services and Social Media?

4E - 1) Open Data
4E - 2) Technology Business Management
4E - 3) IT Project Transparency
4E - 4) Digital Service Development
4E – 5) Digital Access Equity

4F. For Data Collection Only*:
What plans or processes are in place to support the above priorities?

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

The state recently published an open data plan, detailing the enterprise strategy and steps state agencies must take to make Washington government more open and transparent.

Technology Business Management is currently in use throughout state agencies. Next, the state shall evaluate what portions of this data can be made public.

The Office of the CIO currently maintains "I.T.'s Transparent" – a transparency dashboard for all major IT projects in the state. This includes a progress dashboard and all relevant project documents and status reports.

WaTech, in collaboration with agencies, must continue to modernize digital service delivery to match expectations set by the private sector.

In 2016 the legislature passed SHB 2875, and act relating to establishing the Office of Data Privacy, Protection and Access Equity. From this act, the Office must issue a report detailing inequity in access to the digital economy, through lack of broadband or effective broadband connections. From this report, the state will identify multiple areas to increase citizen ability to engage with their government and the world.

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QUESTION 5: Innovation, Collaboration and Jurisdictional Differentiator:

5A: Innovation: *Please tell us about the most innovative or greatest breakthrough ICT accomplishment in the last two years.* *How has ICT been used to create a new support or service capability or accomplish something organizationally never before thought possible? How is success being measured or demonstrated? Provide examples.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Washington, like many states, faces an ICT workforce crisis, with half of all technology workers eligible to retire within the next five years. Faced with stiff competition from area technology leaders including Microsoft, Amazon and more, Washington must find a unique value proposition to compete. To develop this value proposition, the e-gov group runs multiple experiments on space, culture-focused hiring, and self-organization.

The experiment for self-organization is a year-long pilot of the emerging self-organization management system Holacracy, in conjunction with Harvard Business School researchers to conduct the first-ever study on its effectiveness. This Holacracy experiment is Washington's most breakthrough accomplishment, involving over 200 state employees within Washington Technology Solutions (WaTech) from April 2016 to April 2017.

Fredric Laloux, in his book "Reinventing Organizations", describes the evolution of hierarchy and the emergence of "Teal" organizations which empower employees through various self-organizing and self-governing systems of management. The relationship between employee satisfaction, engagement, and empowerment to customer and employer outcomes are well understood.

e-gov first implemented a small Holacracy pilot in February of 2015 within the Office of the CIO to learn more about self-organizing systems and begin the conversation with the authorizing environment to identify impediments to implementing a self-organizing system in government.

The one-year pilot created an opportunity to experience self-organization in practice begin conversations about the applicability and ability to operate a self-organizing system in government. From this experience e-gov learned three key points: there are no legal or structural impediments identified to self-organization in government; participating employees felt more empowered, engaged, and do not want to return to a hierarchical form of management; the cycle time for decision making reduced by over 90%
In addition, e-gov partnered with the Washington Federation of State Employees (WFSE) to ensure that union member concerns and rights remained at the forefront.

In partnership with WFSE and e-gov, Harvard Business School created a formalized experiment for a period of one year with a subset of teams in WaTech and measure employee outcomes. During the experiment nine key areas of employee outcomes will be measured at the individual level, team level, and organizational level:

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- Employees ability to experiment on the job

- Power and voice

- Role flexibility

- Individual cognitive growth

- Role clarity

- Learning and experimentation

- Team dynamics

- Team performance

- Social networks

These measure will be collected through on-line surveys and interviews done by the Harvard Business School on a quarterly basis after an initial baseline measure.

The results of this experiment will provide Washington with invaluable data around creating an empowered workplace culture and attracting the workforce of the future.

5B: Collaboration: *Please provide examples where collaboration among multiple entities either within the state government executive branch, or outside the executive branch, or outside of the state government (multi-jurisdictional) resulted in a major improvement in governmental services in the past two years.*

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

Affordable Care Act Implementation
Implementation of the Affordable Care Act stands out as a collaboration success story, bringing together the Health Benefits Exchange (HBE), Department of Social and Health Services (DSHS), Health Care Authority (HCA). Working collaboratively, HBE operates HealthPlanFinder. DSHS operates the eligibility service supporting affordability program determinations as well as the conduit of Medicaid eligibility to the State's MMIS, called ProviderOne, which is operated by HCA. In its first year of operation, rates of uninsured in Washington dropped significantly from 14.08% to 8.2%. Among adults, the decrease was 16.4% to 9.5%. 2014 is the latest available data. As of June 2016, over 1.6 million Washington residents receive health care through the exchange.

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Trails Database
The Trails Database project was a successful collaboration between the OCIO's Geospatial program and the Recreation & Conservation Office to map the State's trails.

Most states do not coordinate or integrate their state's trails data, with an initial cost estimate to do so in Washington in 2006 being $1.7-$2.3 million. However, through this partnership and a $177,000 Nonhighway and Off-road Vehicle Activities (NOVA) grant of $177,000, the Trails team built a modern cloud-based database mapping over 530 trailheads and 12,000 miles of trails. Within the online mapping application, users can see trail and trailhead features as well as attribute information for those locations. The database reflects the diversity of recreational opportunities in Washington and illustrates the complexity of Washington's vast trail networks.

Washington Business Hub (BizHub)
Eleven state agencies, led by WaTech, entered into a collaboration to produce the state's unified business portal, business.wa.gov. Through a distributed governance model, the BizHub team produced customer-centric content that is natively cross-agency. The BizHub team also led a coordinated approach to system modernization across the four major state agencies that interact with businesses: Department of Revenue, Secretary of State, Labor and Industries and Employment Services Division. This coordinated approach will lend to increased data sharing and, ultimately, a more seamless experience for business owners with single sign on and integration between multiple agency accounts.

Open Data Virtualization Internship
Washington agencies have not realized the value data virtualization can bring. To increase knowledge of both modern practice and tools, the Office of the CIO created an internship program that brought together state agency programs, local universities, students, data virtualization software providers, and private sector mentors. The Department of Revenue's Research and Fiscal Analysis group participated in the program, producing data visualizations for the 2016 Tax Exemption Study, a compilation of state tax exemptions, deductions, credits and preferential tax rates. This report directly influenced policy-level decisions at both Department of Revenue and in the legislature.

5C. For Data Collection Only:
Thinking about IT systems and infrastructure initiatives what are the Top 5 priorities for the coming biennium in Innovation and Collaboration Initiatives?

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5C - 1) Cyber Security – forming breakthrough partnerships between other governments and the private sector
5C - 2) Privacy – positioning the Office of Privacy and Data Protection as a hub for collaboration for local, state agency and federal government partners
5C - 3) Workforce modernization – partner with state agencies to attract the technology workforce of the future
5C - 4) Procurement reform for IT purchasing and contracts
5C– 5) Business Hub – integrating systems to provide a more seamless customer experience for businesses

5D. For Data Collection Only:
What plans or processes are in place to support the above priorities?

Responses will be limited to 2,500 characters (as measured in the survey online form), approximately 300 words.

The Department of Homeland Security (DHS) is partnering with the Washington State Office of Cyber Security to better protect critical government services and infrastructure from cyber attacks. One outcome of this pilot effort will be to develop proven and repeatable defense strategies. The pilot will also help build relationships between critical infrastructure providers and state and local government. Common defense strategies will help avoid duplication of effort, reduce organizational learning curves, and accelerate the deployment of attack mitigations. The ultimate goal of the partnership is to strengthen government cyber security by speeding the deployment of defenses against cyber attacks.

The Office of Privacy and Data Protection recently was awarded a grant from the Hewlett Foundation to develop a "Privacy by Design" approach to software development for governments. The office will collaborate with private sector partners and state agencies to detail how privacy considerations and protections can be built in to software development, rather than added on after the software is completed.

To attract the technology workforce of the future, WaTech partnered with the Governor's office, Office of Financial Management, and multiple other state agencies to develop a comprehensive, statewide strategy for workforce development. State government may never be able to compete on salary, but WaTech believes it can create a value proposition for prospective hires that is compelling and competitive.

Procurement reform is supported through focused collaboration among agencies and the vendor community to break down barriers and onboard more vendors to the state.

WaTech coordinates architecture and data sharing between the major agencies that regulate small businesses, to allow for a front-end customer experience that integrates agency data sets.

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5E. Jurisdictional Differentiator: *What critical factors: for example; political, organizational, community, leadership or others have most contributed to overall ICT challenges and constraints, as well as success in the previous biennium? What are you most proud of and what makes your state unique in its approach to using ICT to support and improve the delivery of public service?*

Examples may include things leadership provided in the broader IT community; historical, technical or organizational barriers overcome; development of public/private partnerships or anything else you would like to submit for consideration.

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

State government in Washington is pioneering a collaborative, holistic approach to cyber defense that relies on cooperation, information-sharing, workforce development, and digital privacy protection.

Washington's state CIO has worked closely with policymakers and elected officials to education them about the need for a robust cyber security program and the importance of digital privacy. As a result, Washington Governor Jay Inslee in 2015 created the state's first Office of Cyber Security and the first Office of Privacy and Data Protection to respond to the ever-increasing threats to individual privacy, infrastructure stability, and continuity of commerce. The governor's actions were accompanied by an executive order on privacy, and the state legislature later wrote these two offices into law.

The new Office of Cyber Security (OCS) defends against enterprise-level cyber attacks, provides policy and technology leadership for state government, and promotes cooperation and coordination between regional and national governments and corporations.

OCS is structured to mirror the federal structure for cyber defense:
- Cyber Security Communications Integration Center (WA-CCIC). This team is responsible for protecting our State's infrastructure from cyber threats and coordination with the National Cyber Security Communications Integration Center (NCCIC) at the Department of Homeland Security.

- Computer Emergency Readiness Team (WA-CERT). This team brings advanced analysis expertise for the mitigation of security incidents, as well as data sharing with US-CERT at the federal level.

- State of Washington Information Security Program (WA-SISP). This team manages the timely deployment of industry-leading security technologies, and maintains robust information sharing at the federal level through the Multi-State

Information Sharing and Analysis Center (MS-ISAC).

- Security Policy and Compliance. This team sets and enforces modern security standards across Washington State government and integrates with federal government and congressional policy movements and opportunities.

Already this new model has opened the door for greater federal engagement and partnership. In the first week of January of 2016, Governor Inslee announced that the Office of Cyber Security had entered into a partnership with the Department of Homeland Security to protect government services and our state's critical infrastructure.

In addition, State Chief Information Security Officer Agnes Kirk was named a member of the Homeland Security Advisory Council (HSAC) for the Department of Homeland Security (DHS) in June 2016 to bring a holistic approach to national cyber defense across federal, state and local governments and the private sector. Councilmember Kirk recently served on the HSAC Cyber Security Subcommittee.

For Context: Comments and Context about the responses:
Is there anything else we should know that provides context for your responses?

Responses will be limited to 3,100 characters (as measured in the survey online form), approximately 500 words.

You have reached the end of the survey response back-up document. Be sure to enter your responses online at:

www.govtech.com/cdg/DSS2016

DEADLINE: WEDNESDAY, JUNE 15, 2016

For assistance or feedback, please contact Janet Grenslitt, Director of Surveys and Awards, at jgrenslitt@centerdigitalgov.com

THANK YOU FOR YOUR PARTICIPATION IN THE DIGITAL STATES SURVEY!

Appendix A – Criteria and Scoring

SCORING APPROACH

The Center for Digital Government generally believes that a highly coordinated and consistent or "enterprise" approach to the planning, acquisition, implementation and management of information and communications technology returns the best results. However, we also realize that in some cases the political and or operational reality of State structure makes this difficult or even impossible in some functional or programmatic areas. Therefore, we have implemented evaluation and scoring criteria that encourage and reward an enterprise approach while still leaving room to recognize and not penalize those states that operate, by necessity, in a more decentralized fashion.

The matrices contained in most questions provide benchmark areas/initiatives and context for the narrative responses. To receive maximum credit states are encouraged to connect the answers they give in each question's matrices/selection lists with that question's narrative response. Telling the state's story well would mainly emphasize what the state is doing now (the "in use now" column of the matrix), and may also include where the state is headed in the future for context (the "in the next 18-24 months" column). You may provide links to specific examples or supporting documentation and/or **succinct** clarifying explanations/narratives. Questions that do not contain matrices will be evaluated on the content of the written response.

By design there is not enough room to address every initiative/application/technology in the matrix; also there may be accomplishments/ initiatives/ technologies that are not listed in the matrix that you wish to include in the narrative. Please select what is most innovative, most successful, most significant - the best solutions for your state – and concisely tell us about them.

The following criteria will be used to evaluate all scored responses.

CRITERIA

- Strategy, approach, implementation or actions are shown to be consistent with and in support of State priorities and policies to improve operations and/or services (30%)
- Provision of specific examples of your achievements in quantifiable and demonstrable return-on-investment, in hard dollar savings and/or soft dollar benefits that demonstrate that IT has increased government's capacity to meet growing demand for service more efficiently (20%)
- Demonstrated and verifiable progress over the previous two years; either through a new initiative or through incremental improvement of an existing program or effort (15%)
- Innovation or creativity of solutions or approaches (15%)
- Demonstration of effective collaboration including multi-jurisdictional and inter-departmental (10%)
- Demonstration of successful measures of transparency, privacy and security (10%)

SCORING

- Responses to survey questions will be evaluated and scored by a team of evaluators and, together with completion credit will be the basis of assigning a letter grade for overall performance.
- Criteria are not mutually exclusive (e.g. unique forms of collaboration may also be considered innovative)
- Responses to the non-scored Trending and data collection questions will not be scored but contribute credit-for-completion points.

SCORED QUESTIONS

Survey Question # 1 has ten (10) scored components.
The first (A) is worth up to 200 points; the remainder
are worth up to 100 points each (B-J).

                                        Combined Question Total = 1100

Survey Questions # 2-5 receive up to 100 points for each
        of the scored components:
Question 2 (four scored components)
Question 3 (three scored components)
Question 4 (four scored components)
Question 5 (three scored components)
        Subtotal Fourteen (14) scored components

                                        14 x 100 = 1,400
                                        Scored points total = 2,500

COMPLETION CREDIT:
The five "Trending* questions each earn 8 points for
completion.

                                        5 x 8 = 40

The 18 "For Data Collection Only" questions
each earn 5 points of completion credit.   18 x 5 = 90
                                        Completion credit points total = 130

                        Total Available Points: 2,630

Appendix B: Lessons Learned/ Best and Emerging Practices

The results of the survey will be the subject of reports, articles, conference sessions, Webinars and other media content.

Aggregated results will be shared with participating states to encourage an ongoing dialogue among practitioners related to lessons learned and best (and emerging) practices.

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Appendix C: Instructions for the Online System

- The survey link: When you have opened your unique survey entry form, it is not necessary to complete the survey in one session. **As long as you are using the same computer or mobile device and browser each time, you may open the link and enter data at additional times** until you click on the Submit button on the last page, or until your cookies are cleared. If you open the link from another computer or device, you will not see your saved data - it will be a new entry form.

- The Center for Digital Government strongly recommends that you and your team use the Word document copy – linked to page four of the online survey - to compose and save your responses as a back-up to the online submission. **The Word document cannot be saved to the survey online; it should be downloaded and used as a backup copy of the online submission.**

- **Be sure to move forward one page to save responses before closing your browser.** When returning to the survey link online, it will open to the page you were on, or click the "Restart Survey" button at the top to go back to the beginning without deleting your responses. However, if you open the link from another computer or mobile device, you will not see your saved data - it will be a new entry form.

  If you start the survey on your smart phone (not recommended), tablet, or computer/laptop, you must complete it from that same device and browser.

- **Back and Forward Arrows**: Use the arrows at the bottom of each page to navigate through the online entry form. **DO NOT USE the browser Back button**. Each time you click on the arrows it will save your responses up to that page. In order to save responses on the same page you entered them, click on the forward (">>") arrows.

- **Do not clear your cookies until after submission** as that will sever the link and delete your responses. However contact us if this happens as we may be able to recover your data and send it to you to complete.

- Please write clear, concise and plain language statements, and spell out or expand acronyms and initials on first use. *All narrative text is converted into one continuous paragraph within the text box for each question's response,* so if your response is lengthy, use a numbering system or all-capitals for each new topic (for increased readability).

- Tables, graphs, screen shots, etc. will not transfer into the online form, so if you wish to present them for judging, post them on your website or other location that will generate a URL, and include that URL/Web address in the online entry.

- Please note: The survey tool does not support embedded hyperlinks; the website addresses must be entered. **Do not list addresses of sensitive or protected data.**

- **The online submission is the complete, official entry**. You must click on the Submit button on the last page after completing your responses to submit your entry.
- **PDF of your response:** After you click "submit", you will see a copy of your response (with some extra survey tool numbering and statistics since it's the unformatted version). CLICK ON THE TINY PDF ICON ON THE TOP RIGHT (and select "portrait", then "Export", then open the PDF and save with your entry title) - to download a PDF initial copy of your submission.

AFTER SUBMISSION: Please wait three (3) minutes before closing your browser.

NOTE: Once you have submitted your entry you will need to contact Janet Grenslitt if it is necessary to edit your responses. Upon request a copy of your (formatted) submission will be available after the survey and awards process is complete.

For assistance, contact Janet Grenslitt, Surveys and Awards Director at jgrenslitt@centerdigitalgov.com.

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Appendix D - 2016 Digital States Survey Glossary – Working Definitions

Agile Development: Agile software development is a group of software development methods based on iterative and incremental development, where requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. It promotes adaptive planning, evolutionary development and delivery, a time-boxed iterative approach, and encourages rapid and flexible response to change. It is a conceptual framework that promotes foreseen interactions throughout the development cycle. (Wikipedia).

GeoIP: GeoIP (geographic Internet Protocol address) is the identification of the real-world geographic location of an Internet-connected computer, mobile device, website visitor or other. GeoIP data can include information such as country, region, city, postal/zip code, latitude, longitude and time zone.

ICT – Information and Communications Technology: This term reflects the study of the technology used to handle information and aid communication. In addition to the subjects included in Information Technology (IT), ICT encompasses areas such as telephony, broadcast media and all types of audio and video processing and transmission.

NIST 800/171: National Institute of Standards and Technology standards to protect sensitive information not stored within federal systems. See http://www.nist.gov/itl/csd/20150618_sp800-171.cfm,

SAN: A storage area network (SAN) is a secure high-speed data transfer network that provides access to consolidated block-level storage. An SAN makes a network of storage devices accessible to multiple servers. SAN devices appear to servers as attached drives, eliminating traditional network bottlenecks. (Techopedia.com)

SANS 20: The SANS Institute's (a cooperative research and education organization providing security training and certification since 1989) standard of security exemplified in the Twenty Critical Security Controls – also commonly known as the "SANS 20".

Shared Services: Shared Services refers to the provision of a technology service by one part of an organization or group where that service had previously been found in more than one part of the organization or group. Thus the funding and resourcing of the service is shared and the providing department effectively becomes an internal service provider. The key is the idea of 'sharing' within an organization or group.

Unified Communications: Unified communications (UC) is the integration of real-time communication services such as instant messaging, presence information, telephony, video conferencing, call control and speech recognition with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS and fax). UC is not a single product, but a set of products that provides a consistent unified user interface and user experience across multiple devices and media types.