



OREGON | Office of the State

Chief Information Officer

JOINT COMMITTEE ON WAYS AND MEANS

GENERAL GOVERNMENT SUBCOMMITTEE – APRIL 30, 2019

2019 LEGISLATIVE SESSION



Presentation Update

- Assistant State CIO Positions (Business Technology Officers)
- Executive Branch Office 365
- IT Security/SB 90 Update
- State Data Center (SDC) Expansion and Future Agency Migration Plans



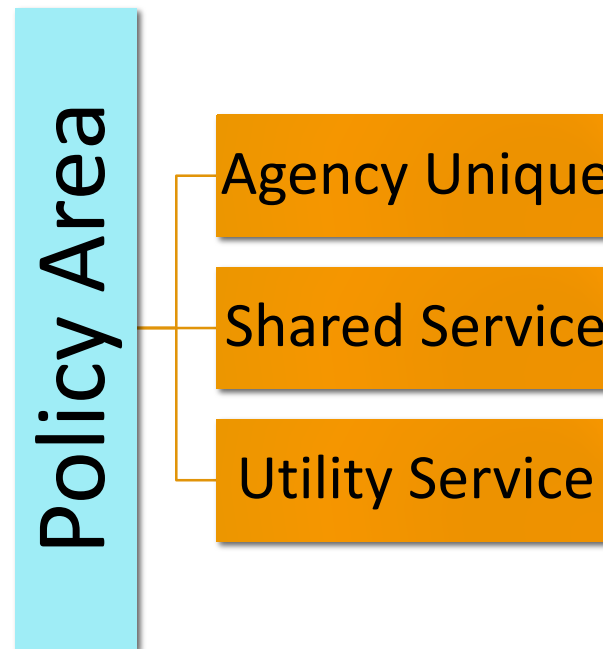
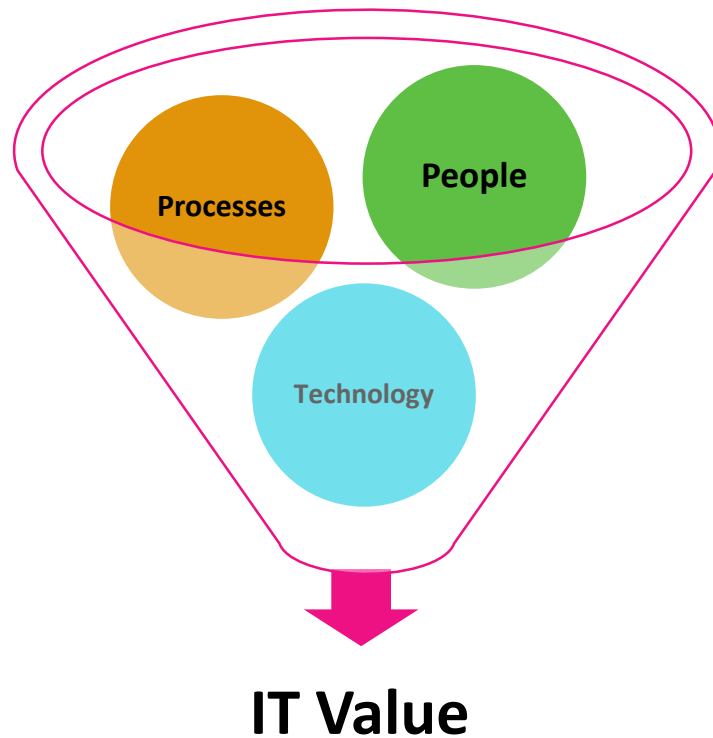
Assistant State CIOs



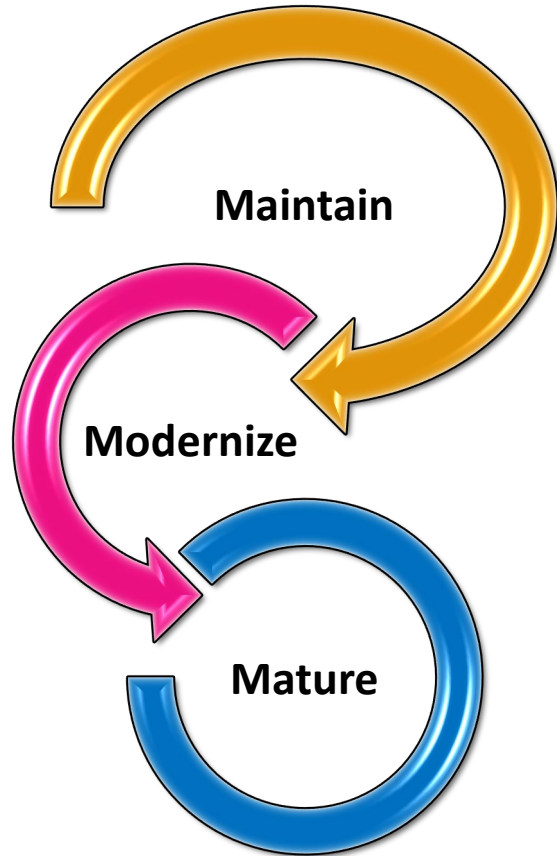
Assistant State CIOs

Policy Option Package: Business Technology Officers 19-21 (\$1.8 million)

The 2019-21 Office of the State CIO (OSCIO) budget includes establishing six (6) full-time positions as Assistant State CIOs to provide multi-agency IT strategic coordination.



Assistant State CIOs



IT Strategic Planning
Agency Legacy Systems Roadmap
Leadership Continuity
Interoperability
IT and Business Alignment

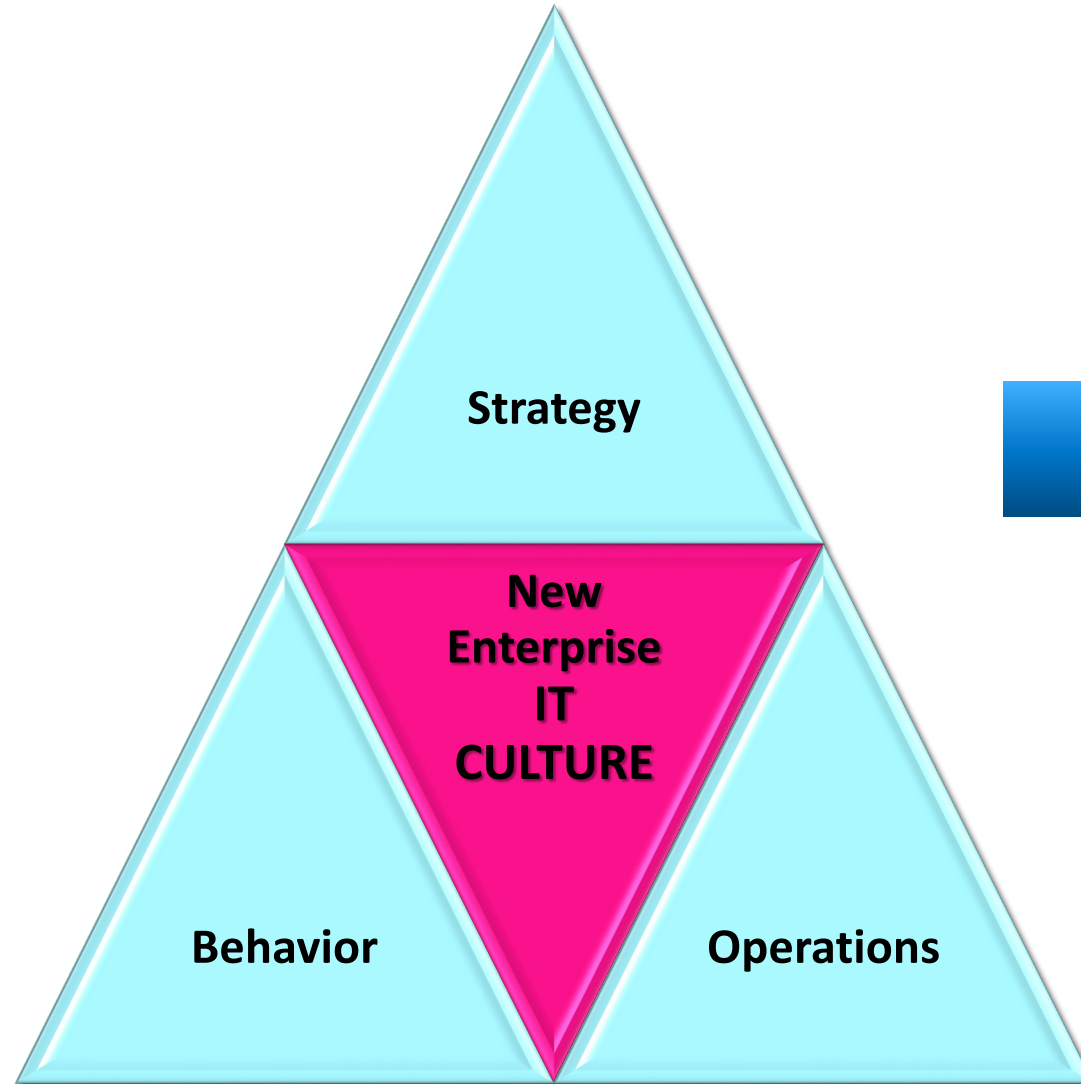


Natural Pull



Assistant State CIOs

Continuity



Consistency



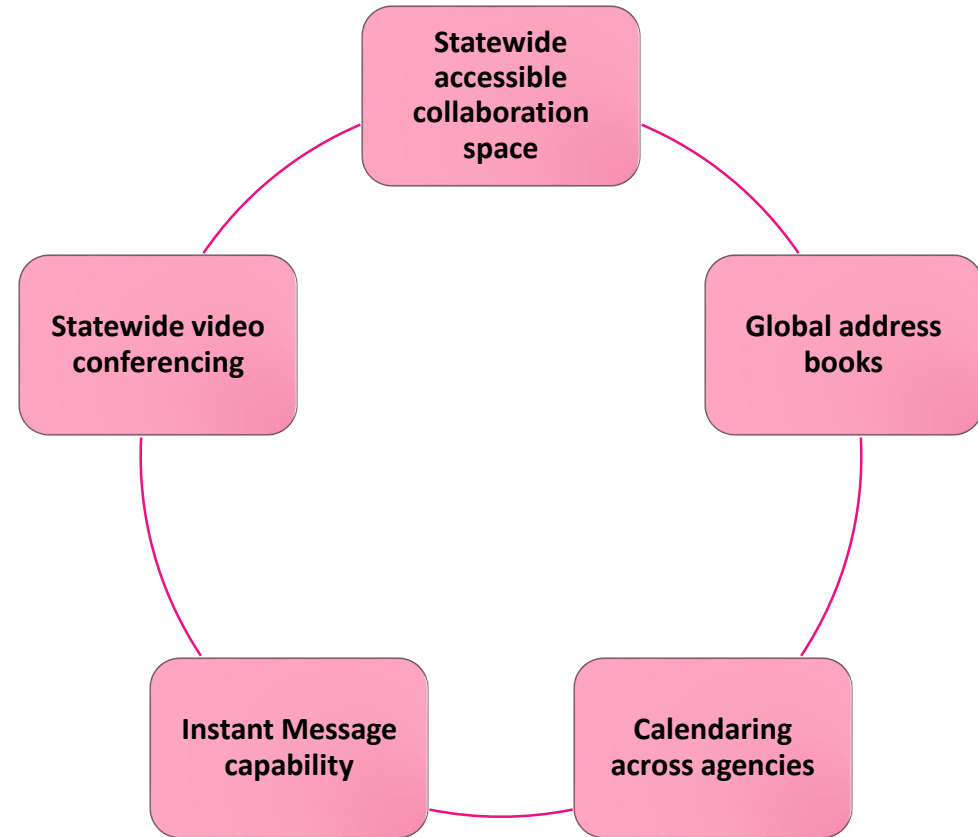
Executive Branch Office 365



Executive Branch Office 365

Strategy

- Provide a consistent, well optimized, reliable and secure customer user experience
 - Customers experience a government with modern technology platforms and systems
- Regular, repeatable risk management practices
 - Security practices and protocols are consistent and applied at an acceptable risk level across all agencies
- There will be common technology and user experience standards



Executive Branch Office 365

Policy Option Package: Office 365 (\$6.6 million)

POP enables:

- Unified Licensing
- Standardizes all Executive branch agencies to Microsoft 365 license level (\$5M of the \$6.6M POP is for licensing parity)
- Enables agencies to migrate to the cloud with the Microsoft 365 license standard
- \$1.6 of the \$6.6M POP is needed to hire staff, professional services, and organizational change management services



Executive Branch Office 365 Improvements

- Maximizes Software License Negotiation Outcomes
 - Identifies Risky Software Terms
 - Prioritizes Terms for Negotiations
 - Normalizes Terms
 - Enables Leverage Potential and Negotiation Strategy
- Exploits License Consumption
- Good stewardship of taxpayer dollars
- Best value
 - Get the best pricing, discounts, and added benefits designed to support server and cloud technologies
 - Get the best savings by deploying a common IT platform across the organization
 - Consistent 24x7 technical support, planning services, end-user and technical training
 - Minimize up-front costs and budget more effectively by locking in pricing and spreading payments over three years (avoids overspend)



Executive Branch Office 365 Impact

- **Flexible**

- Respond to the rapidly changing technology landscape by accessing the latest versions of cloud and on-premises software
- Meet the unique requirements of an organization based on its size and technology needs
- Automatically access the latest software and technologies with Software Assurance
- Choose from Microsoft cloud services, on-premises software, or a mix of both

- **Manageable**

- Streamline license management with a single, organization-wide agreement
- Simplify purchasing with predictable payments through a single agreement for cloud services and software
- Manage licensing throughout the life of the agreement with the help of a Microsoft Certified Partner or a Microsoft representative
- Move to a pure, per-user licensing model and simplify licensing with no more device counting
- Common IT governance based on industry-best practice



Executive Branch Office 365 Timeline

- **Phase 1 (proposed date Sept 1, 2019):**
 - Unified Licensing (Sept 1, 2019 start date)
 - Standardizes all Executive branch agencies to Microsoft 365 license level (\$5M of the \$6.6M POP is for licensing)
 - Enables phase 2 (Agency Migrations). Agencies can't migrate to the cloud without the Microsoft 365 license standard
- **Phase 2 (proposed start date Oct 1, 2019):**
 - Develop Agency Migration Plan (move to Microsoft cloud and standardize services for Executive branch agencies)
 - \$1.6 of the \$6.6M POP needed for phase 2 to hire staff, professional services, and organizational change management services



Risk of not implementing Executive Branch Office 365

- Continued redundant systems
 - Inability to consolidate into common enterprise solutions (ex. e-mail)
- Disparate environments unable to utilize efficient and effective collaboration
- Lost capabilities and economy of scale
- Does not position the state for increased data sharing, single sign-on, etc.
- Increased security risks/Non-standardized security levels



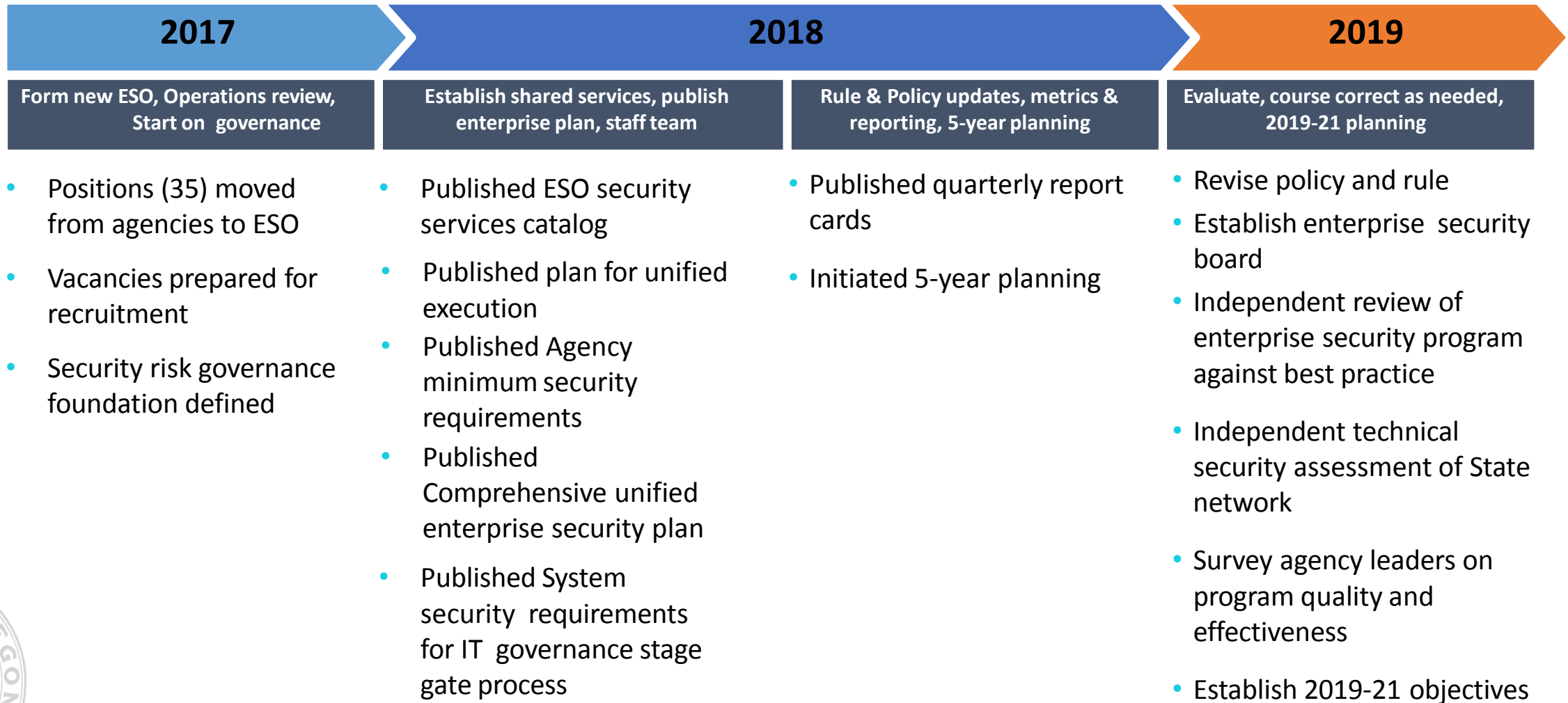
IT Security and SB 90 Update



IT Security/SB 90 Update 17-19






Roadmap and Execution



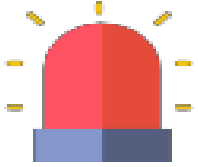
Information Security Budget Requests

Policy Option Package: IT Security Compliance 19-21 (\$15.8 million)

Budget request prioritizes closing assessment gaps, addressing audit findings, and maturing capability to manage highest risks.

-  • **Security Operations Center 2.0:** Rapidly mature state's capability to detect and respond to malicious activities
-  • **Firewall Update:** Upgrade aging technology to improve protection of state networks
-  • **Risk Management Tool:** Shared tool to identify, monitor, and track state cybersecurity risks





Security Operations Center 2.0

- **Rapid detection and prevention of intrusions**
 - Acquire an enterprise intrusion detection and prevention system
 - Past risk assessments demonstrated weakness in the state's ability to detect and respond to cyber threats
- **Logging to improve detection of malicious activity**
 - Quicker attack detection while limiting the duration of potential incidents
 - Ensure agencies are compliant with Federal regulatory requirements





Firewall Update

- **Upgrade aging technology**
 - Replaces a total of 30 core devices for executive branch agencies that will no longer be supported after 2019
- **Stop malicious traffic and ensure connectivity**
 - Firewalls are an essential component of network defense that provide perimeter defense for the state network





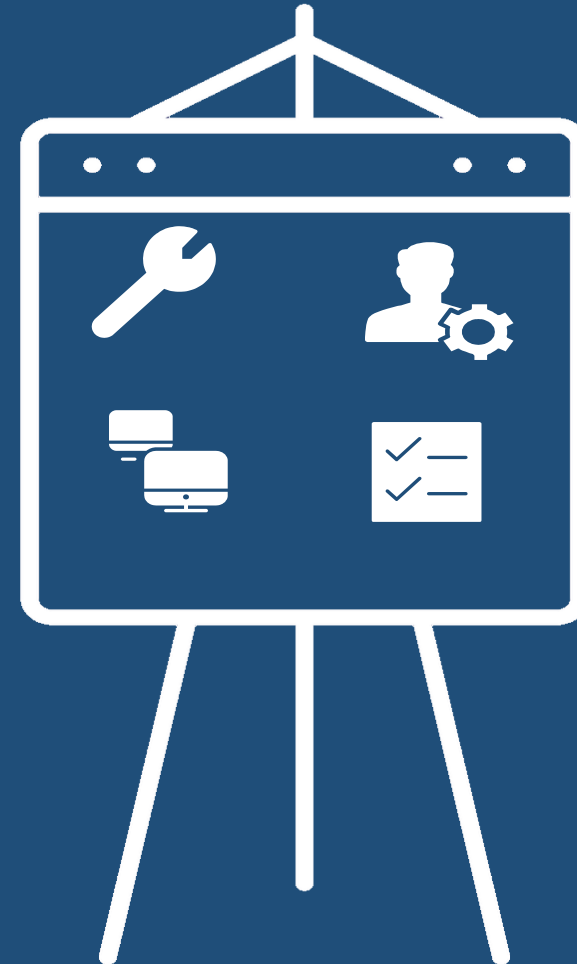
Risk Management Tool

Identify and manage risk

Provide a common tool to record and monitor security risks

Use data-driven security risk governance

Prioritize security remediation



SDC Expansion and Future Migrations



SDC Expansion and Future Migrations

Policy Option Package: ETS Lifecycle (\$15.3 million) and Co-Location Services (\$930,000)

- **ETS Lifecycle Replacement**

- This initiative includes lifecycle replacement of core systems, network and storage equipment supporting shared IT infrastructure services at the SDC as well as several major projects to implement enterprise-class software

- **Co-Location Services**

- Establishes a new Co-location Service in ETS that will enable existing agency facilities to increase their recovery resiliency and utilize services not currently available in their own data center



Why are we requesting Lifecycle funding?

- Investment in Lifecycle management has proven to have a positive impact on system performance
- Research provided by third-party IT consultants (Gartner, IDC) state equipment passing four years of age has a high risk of failure
- Outages at the State Data Center can affect all state agencies, impacting mission critical systems and services to Oregonians



Lifecycle Replacement

- **Software also becomes end of life:**
 - Ticket Tracking / Asset Management / Customer Portal Tools are beyond 10 years old
 - Customer Billing System is 12 years old
 - Monitoring Tools are 8 – 10 years old
- **Limitations:**
 - Tools do not meet current security standards
 - Limited features force agencies to purchase their own tools for reporting and monitoring
 - Dated tools are inefficient and force duplicate data entry
 - Modern tool set would allow for better communication and earlier notifications
 - Modern tools set would provide better workflow and automated work processes



Without Lifecycle Replacement

- Potential increase in hardware failure rate and system outages
- Services delivered to Oregonians will become less reliable as mission critical systems begin to fail
- Increase in maintenance costs and performance lags as systems start to age
- Replacement costs grow as more systems become outdated



Co-location Services

Utilization of an existing State asset and the only purpose-built data center in State Government.

- Space
- Power
- Cooling
- Fire Protection
- Networking
- Physical Security



Why Co-Location?

- Existing agency data centers have become outdated – cost avoidance of replacement infrastructure
- Realize advantages in utilizing purpose-built Data Center
- Increased security needs (24x7 onsite services)
- Ability to reclaim agency data center space for other agency needs



Without Co-Location Services

- Under-utilization of a state asset
- Agencies will request funding for maintenance or expansion of their own data center space
- Inefficient use of funds as agencies go to more expensive commercial data centers, while a state asset sits partially vacant
- Continued risk of agency data center system failures due to lack of resiliency



Recent Migrations/Future Customers

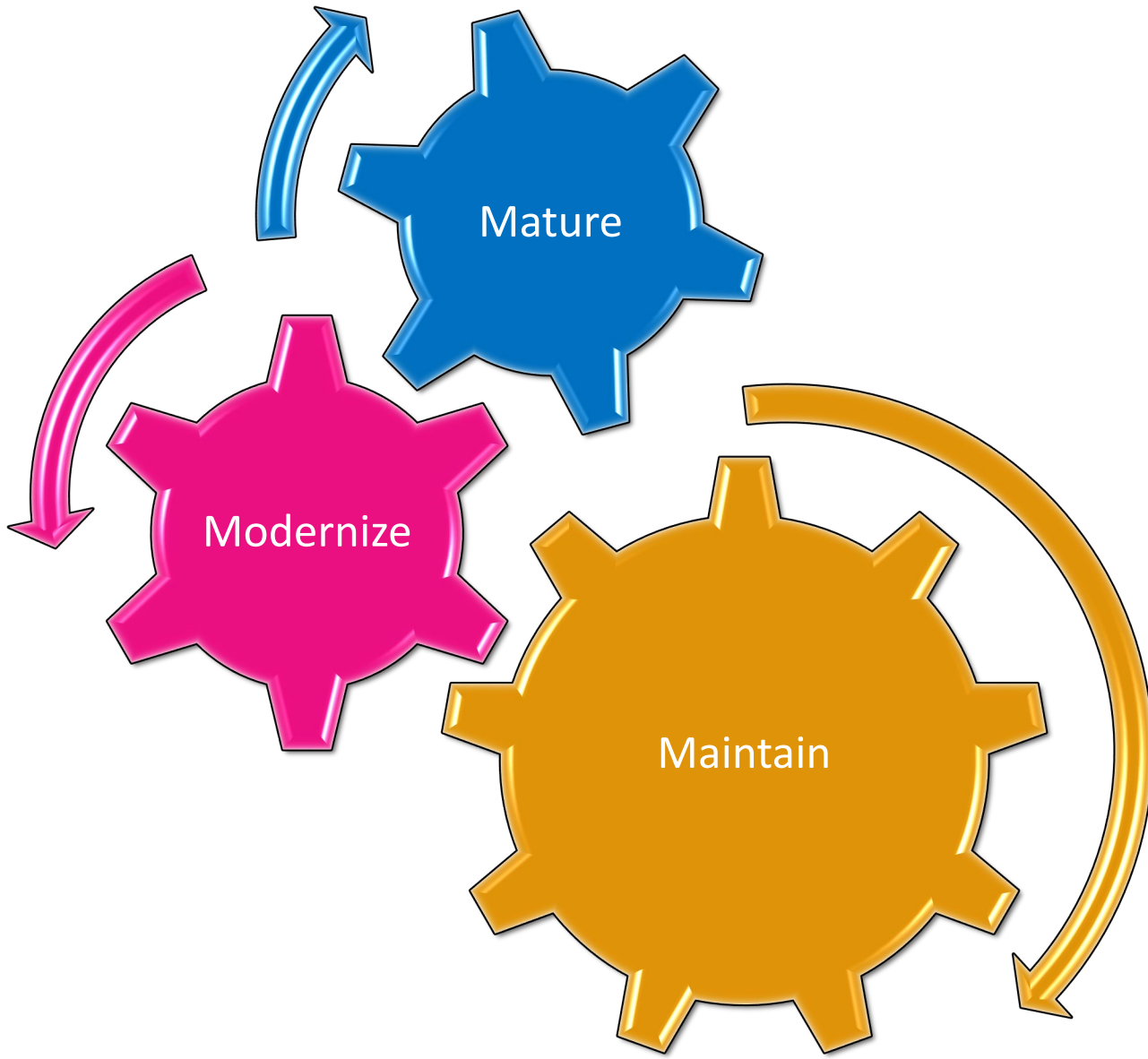
Managed Service Customers – Recently Migrated into ETS:

- Oregon Liquor Control Commission (OLCC)
Migration: In Progress
Services: Network, Backup, Storage, X86 Server
- Oregon Youth Authority (OYA)
Migration: In Progress
Services: Backup, Mainframe, Midrange, Network, Storage, X86 Server
- Department of Environmental Quality (DEQ)
Migration: April 2019
Services: Backup, Mainframe, Storage, X86 Server
- Oregon State Library (OSL)
Migration: July 2018
Services: Mainframe, Network, Storage, X86 Server
- Department of Consumer & Business Services (DCBS)
Migration: January 2018
Services: Backup, Mainframe, Midrange, Network, Storage, X86 Server
- Public Health Lab (PHL)
Migration: May 2018
Services: Backup, Mainframe, Network, Storage, X86 Server

Agencies expressing interest in Colocation at ETS:

- Lottery Department
- Secretary of State
- ODOT – Intelligent Transportation System
- Dept. of Justice (DOJ)
- PERS
- Education (ODE)
- City of Woodburn





Questions?

