

Enterprise Information Services: Overview

Terrence Woods, State Chief Information Officer

Joint Legislative Committee on Information
Management & Technology

January 18, 2023



ENTERPRISE
information services

Agenda

- Executive Branch IT Workforce Overview
- Statewide IT Organization
- Executive Branch IT Expenditures
- Enterprise IT Governance
- Statewide IT Price Agreements / Contracts
- EIS Overview
- Strategic Framework
- Legacy System Modernization Plan
- EIS Program Area Overview

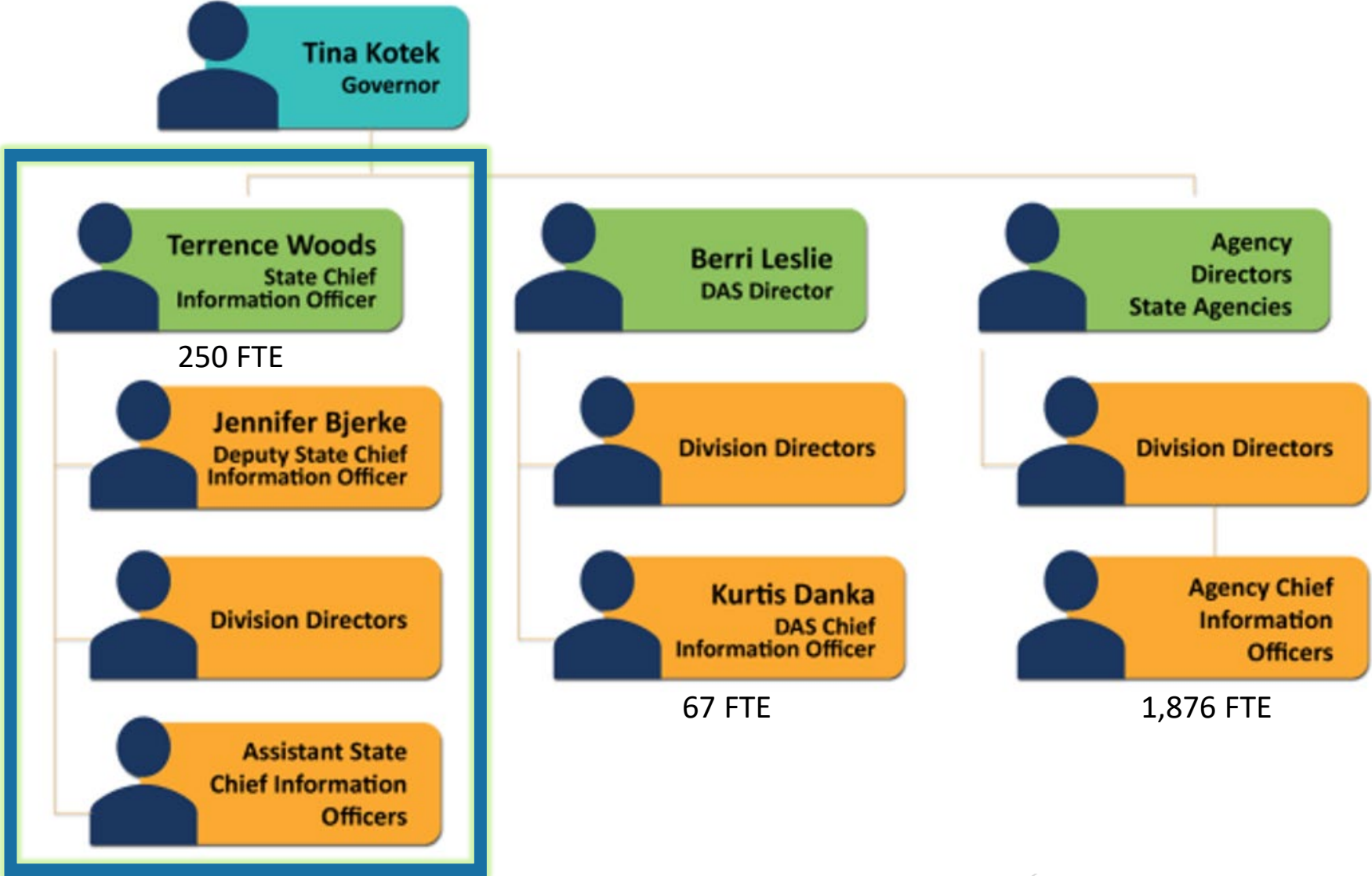


Executive Branch IT Workforce Overview

- ▶ 2,193 IT classified positions (filled/vacant) spread across 46 state agencies, boards and commissions
- ▶ 250 of the 2,193 IT classified positions reside within Enterprise Information Services
- ▶ State CIO has direct supervisory responsibility over less than 12.4% of the 2,193 IT classified positions within the Executive Branch
- ▶ 333 of the 2,193 IT classified positions were vacant as of December 31, 2022 (Vacancy ~15.2%); currently, the largest number of vacancies exist within OHA (93 positions), Employment Department (63 positions) and DAS (38 positions)
- ▶ 1,146 (~52%) of 2193 IT classified positions (filled/vacant) reside within DHS/OHA, ODOT, and DAS



Statewide IT Organization



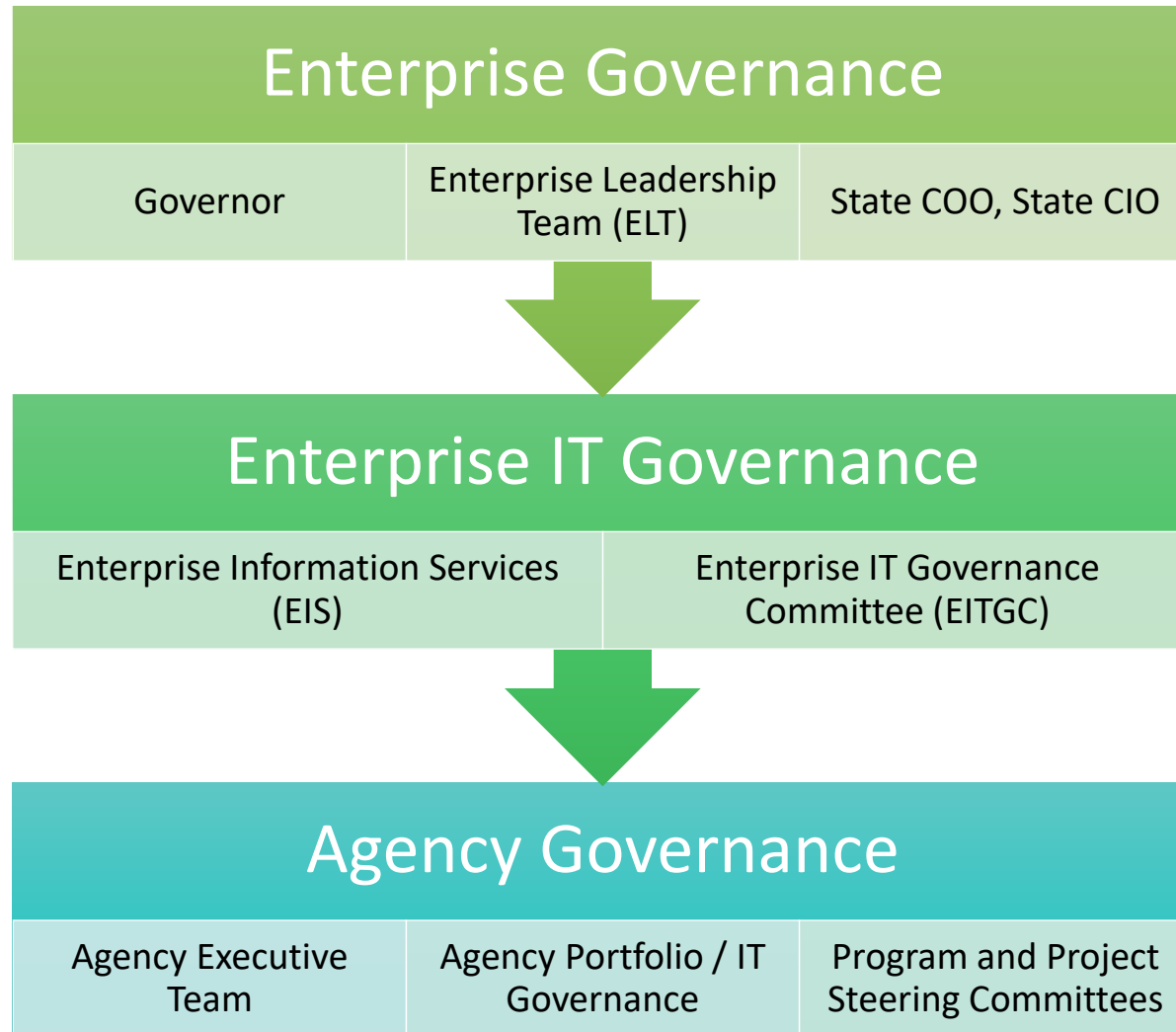
Executive Branch IT Expenditures

2021-23 Legislatively Approved Budget – Statewide IT Expenditures

Category	Budgeted Expenditures
Telecommunications	139,305,785
Data Processing	261,731,655
IT Professional Services	497,253,573
IT Expendable Property	217,709,646
Telecommunications Equipment	12,122,099
Data Processing Software	65,241,212
Data Processing Hardware	12,286,243
Total	\$1,205,650,213

*Incorporates actions taken by September 2022 Emergency Board

Enterprise IT Governance

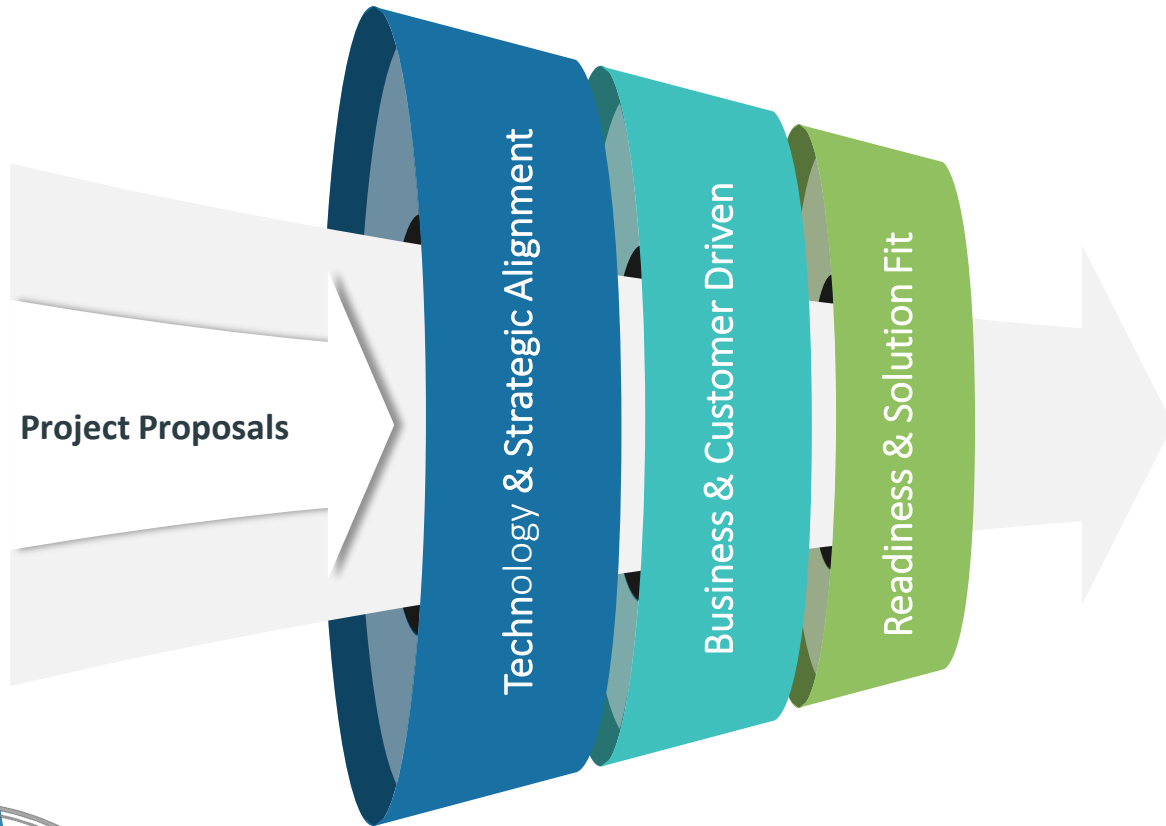


EITGC membership is a subset of ELT membership.

The Mission of the EITGC is to provide strategic guidance and recommendations to the ELT to inform and support the State's Enterprise IT Vision.



Enterprise IT Governance Committee: Project Prioritization



Technology & Strategic Alignment

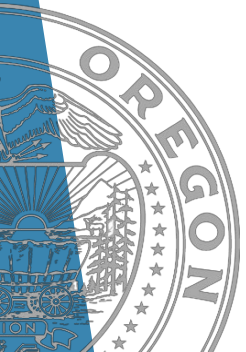
- ☐ Alignment to Strategic Plans
- Technology Best Practices and Priorities

Business & People-Centered Approach

- ☐ People-Centered Approach
- Business Process Transformation
- Investment Risk

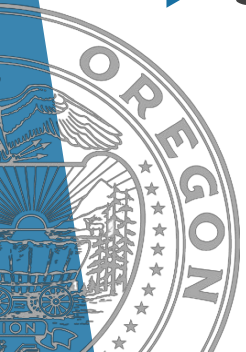
Agency Readiness & Solution Appropriateness

- ☐ Organizational Change Management (OCM)
- Solution Scale and Approach
- Governance and Project Management Processes
- Capacity

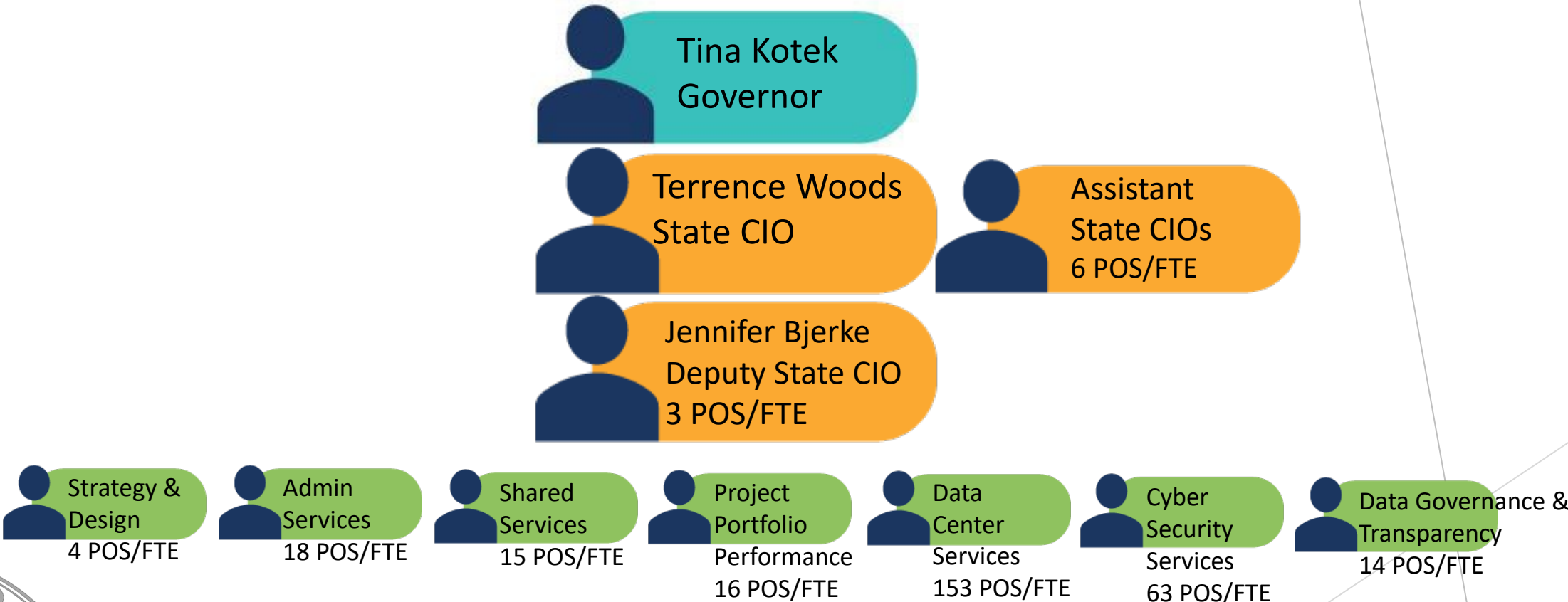


Statewide IT Price Agreements/Contracts

- ▶ IT Professional Services
- ▶ Microsoft
- ▶ E-Government
- ▶ Telecommunications
- ▶ Quality Management Services
- ▶ Lifecycle lease agreements
- ▶ Standard clauses and exhibits



EIS Overview - Organization Chart



EIS Leadership



2023-2026 Planned Initiatives

Strategy & Design

- ▶ Network Security Modernization Program
- ▶ Modernization Roadmap

Administrative Services

- ▶ EIS Website Update

Shared Services

- ▶ Continue adding to the operations and maintenance vendor service catalog to deliver remaining M365 services

Project Portfolio Performance

- ▶ Migrate to the modern user experience (UX) for the enterprise Project and Portfolio Management (PPM) tool

Data Center Services

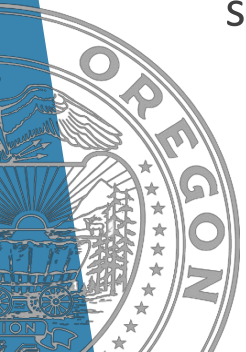
- ▶ Data Center Services Resilient Site
- ▶ Establish Cloud Managed Services

Cyber Security Services

- ▶ M365 Security Enhancements
- ▶ Enterprise Mobile Security

Data Governance & Transparency

- ▶ Geospatial Data Management and Sharing (GDMS)

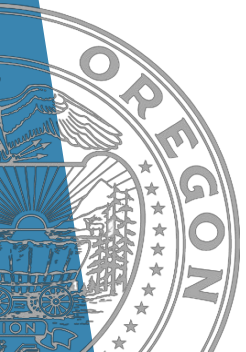


Enterprise Information Services 2021-23 Operating Budget

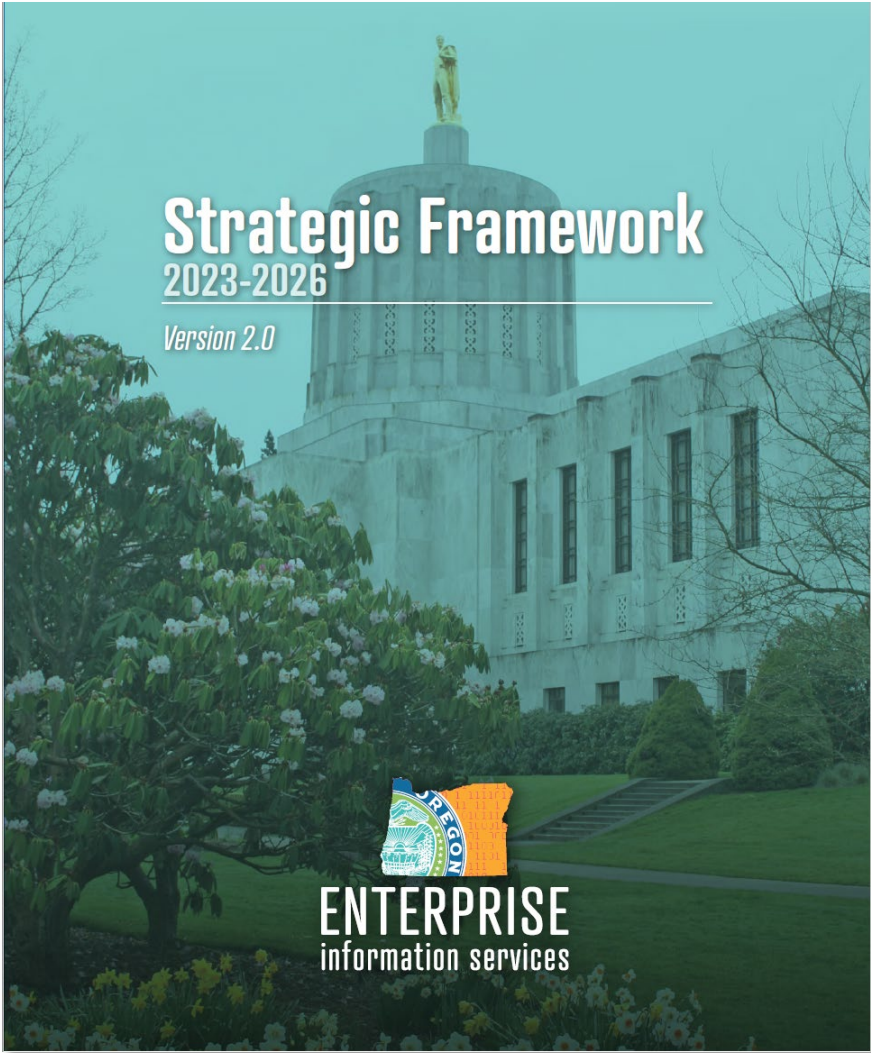
Program	Personnel Services	Services & Supplies / Capital Outlay	Total	Revenue Source
State CIO	4,609,343	339,777	4,949,120	Assessment
Administrative Services	5,593,590	540,305	6,133,895	Assessment
Cyber Security Services	19,904,350	20,638,608	40,542,958	Assessment
Data Center Services (DCS) - Operational	49,863,578	84,390,820	134,254,398	Assessment / Charge for Service
DCS - Lifecycle		25,332,305	25,332,305	Assessment
Data Governance & Transparency	4,153,552	4,287,205	8,440,757	Assessment
Pass Through		12,907,692	12,907,692	Pass Through
Project Portfolio Performance	6,033,756	423,658	6,457,414	Assessment
Shared Services (SS)	5,201,858	46,981,049	52,182,907	Assessment / Charge for Services
Shared Services – M365 M&O		3,345,000	3,345,000	General Fund
Strategy & Design	2,212,301	22,834	2,235,135	Assessment
ARPA	1,399,697	24,924,163	26,323,860	Federal Grant
Total	\$98,972,025	\$224,133,416	\$323,105,441	

Governor's Priorities

- ▶ Consistent with Governor Kotek's pledge to deliver results on issues of shared concern across the state, we will continue our work to connect our most vulnerable and needy Oregonians with critical, quality-of-life services, to include:
 - Affordable Housing/Addressing Homelessness
 - Access to Mental Health and Addiction Treatment
 - Successful Schools



Strategic Framework 2023-2026 version 2.0



EIS Mission

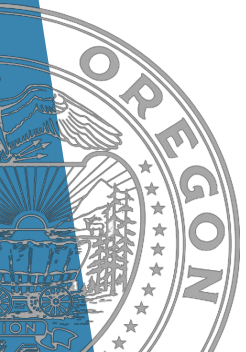
Mature enterprise technology governance, optimize investments, ensure transparency, provide oversight, and deliver secure and innovative solutions.



EIS Vision & Values

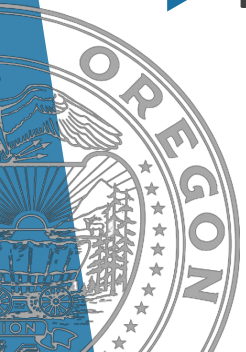
Ensuring accessible, reliable and secure state technology systems that equitably serve Oregonians.

ACCOUNTABILITY
CUSTOMER-FOCUS
COLLABORATION
INNOVATION



EIS Objectives

- ▶ Deliver Service Excellence
- ▶ Mature Project Transparency And Accountability
- ▶ Mature Statewide Cloud Strategy And Brokerage Services
- ▶ Mature Oregon's Data Governance
- ▶ Improve Oregon's Cybersecurity Posture
- ▶ Mature Legacy System Modernization Strategies



Legacy System Modernization Plans



- ▶ Develop business-driven agency IT Strategic plans.
- ▶ Develop a set of consistent, coordinated, and collaborative multi-year modernization strategies for each of the six policy verticals.

EIS Program Area Overview

EIS Programs – Strategy & Design



Strategy & Design works to instantiate strategic technology initiatives, enterprise technology standards and processes, and policy which align technology vision with business strategy.

Chief Technology Officer



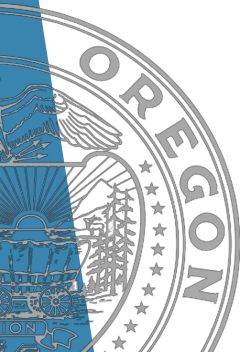
Enterprise Architecture



EIS Programs – Strategy & Design



- ▶ Guiding principles
- ▶ Critical decision points
- ▶ Cloud migration approaches and methodologies
- ▶ Cloud Center of Innovation



EIS Programs – Strategy & Design

► Significant Accomplishments for 2021-23

- Cloud Forward Strategy
- Microsoft 365 Implementation
- Network Security & Modernization Roadmap

► Significant Initiatives for 2023-2025

- Network & Security Modernization Program
- Modernization Roadmap
- Cloud Forward Implementation







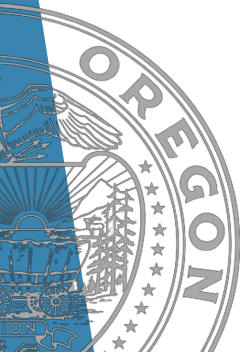
EIS Programs – Administrative Services



JoLene Swint
Chief Administrative Officer

Administrative Services is responsible for day-to-day management of the EIS Budgets, executive support services, project management and governance services.

-  **9 FTE** Project Management Office
-  **1 FTE** Administrative Support
-  **Support Services**
 -  **1 FTE** Organizational Change Management
 -  **EIS Governance**
 -  **1 FTE** EIS Budget Support
 -  **3 FTE** Project Coordination & Business Analysis
 -  **1 FTE** EIS Contract Services
 -  **1 FTE** EIS Invoice Coordination Support



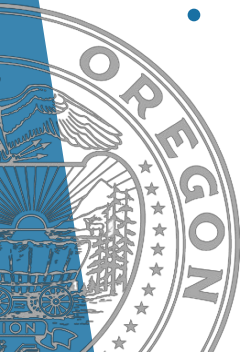
EIS Programs – Administrative Services

► Significant Accomplishments for 2021-23

- Restructured PMO under a new Administrative Services Program
- Supported Emergency Enterprise Projects (OR-Alert, Take Your Shot)
- Introduced Portfolio Master Schedule

► Significant Initiatives for 2023-25

- EIS Campus Consolidation
- Initiate EIS Risk & Issue Management Team
- Support Enterprise projects (M365 Security Enhancements, Network & Security Modernization & Resilient Site Implementation)








EIS Programs – Shared Services



Jennifer de Jong
Shared Services Director

Shared Services works to increase alignment of existing enterprise programs including E-Government, Quality Assurance and Statewide Interoperability. The program also focuses on the development of shared services models.

-  2 FTE E-Government
-  5 FTE Microsoft 365
-  3 FTE Statewide Interoperability
-  1 FTE Statewide Quality Assurance
-  3 FTE Telecommunication Services



EIS Programs – Shared Services

► Significant Accomplishments for 2021-23

- Implemented OR-Alert (statewide alerts and warnings system)
- Implemented Siteimprove for accessibility and usability across Oregon.gov websites
- Center for Digital Government recognized Oregon as a top 10 finalist in the Government Experience Award

► Significant Initiatives for 2023-25

- Improve tailoring of independent quality management services to better meet project needs and risk
- Continue adding to the operations and maintenance vendor service catalog to deliver remaining M365 services







EIS Programs – Project Portfolio Performance (P3)



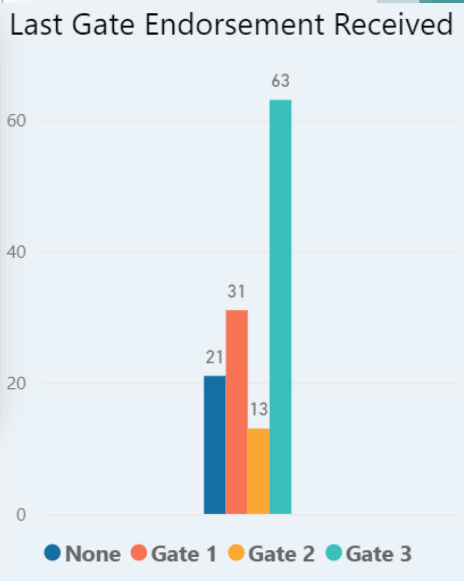
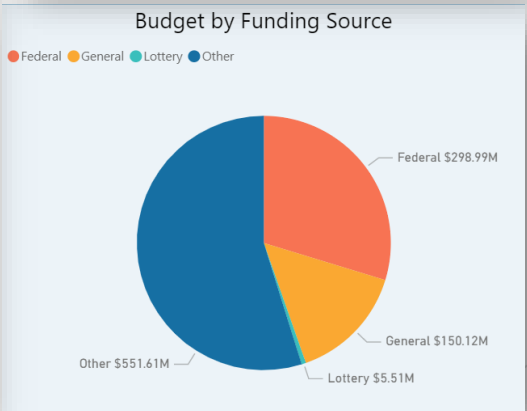
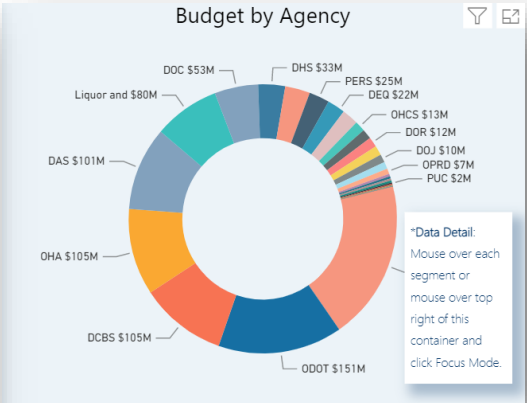
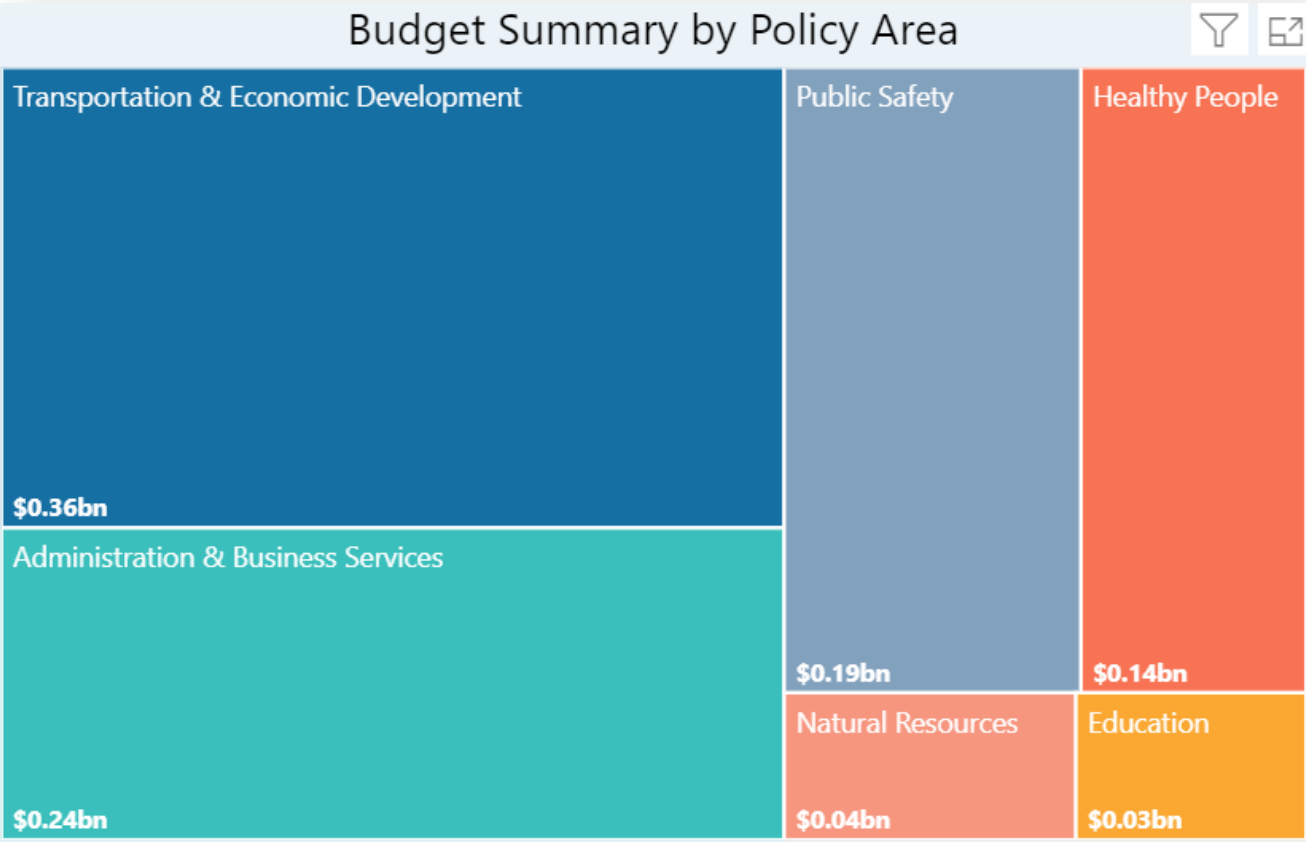
Bettina Davis
P3 Director

P3 is key in implementing and using the IT Governance Framework which includes oversight and portfolio management of all major IT investments. Using a standard framework and statewide policies, staff work with all state agencies to identify and resolve IT project issues, striking a balance between central delivery and agency flexibility.

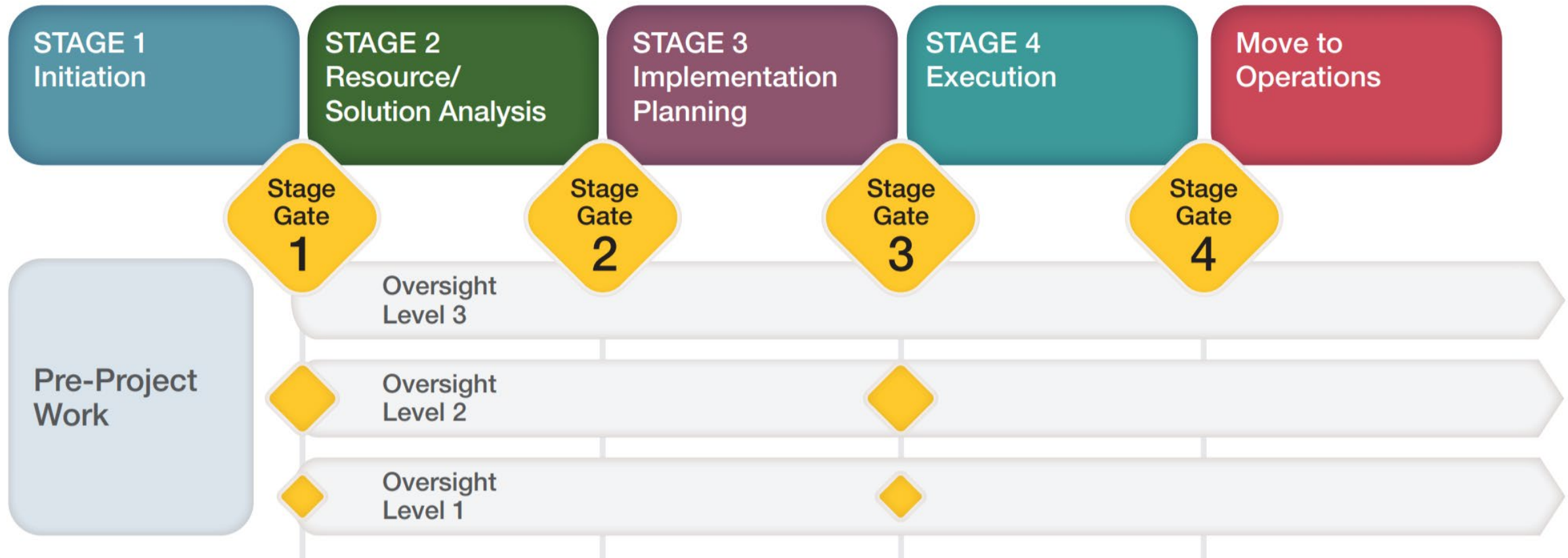
-  6 FTE Senior IT Portfolio Managers
-  6 FTE Senior IT Oversight Analysts
-  2 FTE Enterprise Business Analysts
-  1 FTE Administrative Support

Statewide IT Project Portfolio as of January 2023

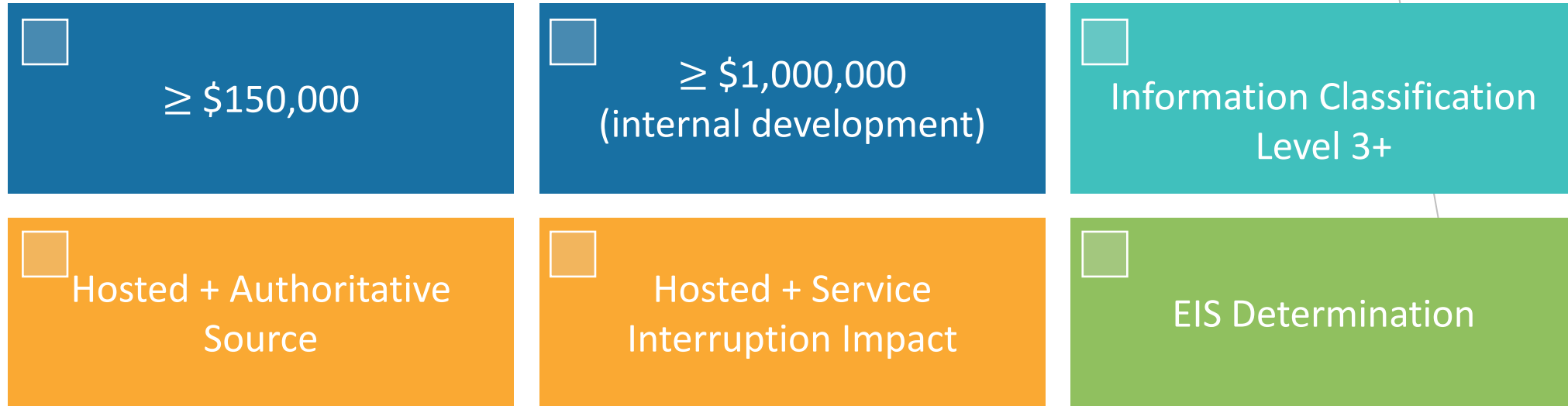
Total IT project budget within the portfolio - **\$1,006,528,825*** Total IT projects: 128



Enterprise IT Governance - Stage Gate Oversight Model



Enterprise IT Governance - Project Oversight Triggers



Statewide Policy: Information Technology Investment Oversight

[107-004-130](#)

Statewide Policy: Cloud and Hosted Systems

[107-004-150](#)

Statewide Policy: Information Asset Classification

[107-004-050](#)

Statewide Policy: Independent Quality Management Services

[107-004-030](#)

Chapter 276A – Information Technology (2019)

[ORS 276A.200-515](#)



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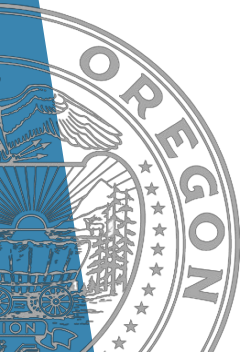
EIS Programs – Project Portfolio Performance

► Significant Accomplishments for 2021-23

- Implemented tiered Stage Gate Model with Project Oversight Levels 1-3
- Updated Budget Instructions in preparation for 2023-25 Enterprise IT Governance Committee Budget Prioritization process

► Significant Initiatives for 2023-25

- Migrate to the modern user experience (UX) for the enterprise Project and Portfolio Management (PPM) tool
- Develop a comprehensive P3 Service Map



EIS Programs – Data Center Services (DCS)



James Foster
Data Center Services
Director

Data Center Services is organized around technical domains that align with its computing and network infrastructure services. Services are determined by customer demand, funding and computing environment needs. All platforms are built using best practices and state security standards.



Administration



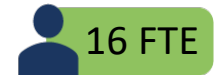
Computing Services



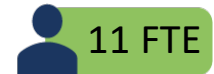
Mainframe



Computing Windows



Midrange



X86 Infrastructure



Cloud



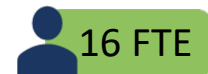
IT Business Continuity



Integrated Services



Command Center Operations



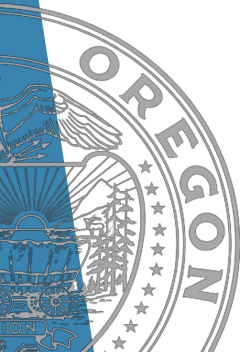
Enterprise Operations



Enterprise Network Operations



Business Support



EIS Programs – Data Center Services (DCS)

► Significant Accomplishments for 2021-23

- Incorporated the state network backbone with Link Oregon
- Implemented Immutable Backup Solution (additional recovery layer in the event of a ransomware attack) utilizing a cloud service provider
- Completed planning and began execution of Resilient Site (POP 132)
- Launched Co-Location service line

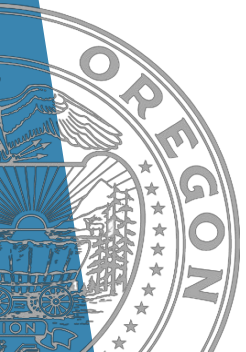
► Significant Initiatives for 2023-25

- Execute Resilient site phase 2 – utilizing both cloud and on-premise Disaster Recovery capabilities
- Build upon Cloud Brokering Service with additional tools, automation, training, monitoring, cost management software, consulting services, and managed services, and managed services



State Data Center Service Consumption

- ▶ 78 agencies, boards and commissions use at least one DCS rate-based service.
- ▶ Among the 78, 16 agencies use DCS Cloud Brokering Services and 6 agencies use DCS Colocation Services.
- ▶ All agencies, boards, commissions, as well as the Legislature use DCS for either Wide-Area-Network connectivity and/or Internet access paid through assessment.
- ▶ 7 cities or counties utilize DCS for network or Internet connectivity.

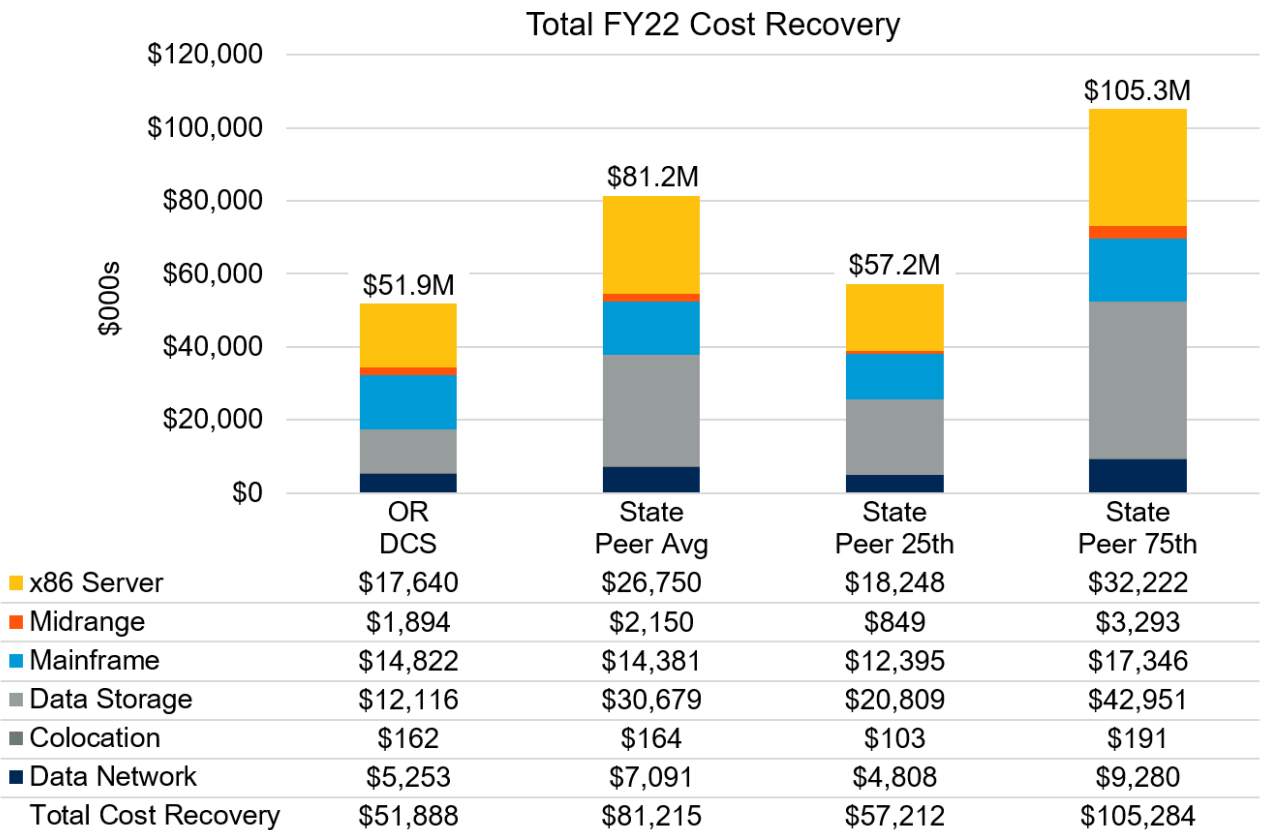


State Data Center Rate Study

Service Benchmark Summary Results

Total annual recoverable costs in FY22 by 2021-23 biennium rates is 36% (\$29.3M) less than peer average

- Based on rates for the 2021-23 biennium, total cost recovered in FY 2022 for the benchmarked services is about **36% (\$29.3M) less than the peer group average** for comparable services, \$51.9M vs \$81.2M.
- Lower cost recovery is driven primarily by lower Data Storage and x86 Server rates.
 - Data Storage is **61% (\$18.6M) less**.
 - x86 Servers is **34% (\$9.1M) less**.
- Cost recovery in other areas compared to peer average:
 - Data Network is 26% (\$1.8M) less.
 - Colocation is 1% (\$1.9K) less.
 - Midrange is 12% (\$0.3M) less.
 - Mainframe is 3% (\$0.4M) greater.
- The uplift for Cloud Services of 14% is slightly above than the peer average of 13.3%.



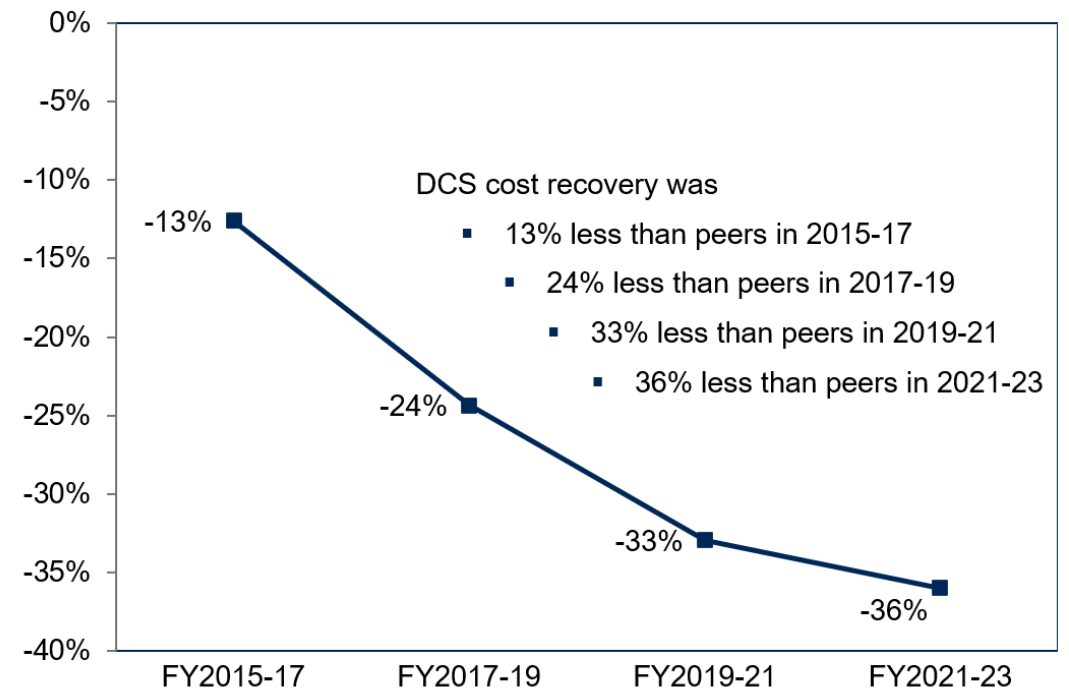
State Data Center Rate Study

Service Benchmark Summary Results

Total recoverable cost continues to drop faster than peers

- Gartner has conducted rate comparisons for DCS since the 2015-2017 biennium.
- Compared to peer average, **total costs recovered are dropping faster than peer cost recovery** would for the same services and service volumes.
 - The rate structure and the scope of services included in these analyses has varied over the years, so a direct comparison of costs recovered is not possible.
- DCS has improved efficiency over the years, and has also worked to:
 - Improve its budget and forecast accuracy
 - Better align incurred cost with recovery
 - More closely align costs with specific service offerings.

Total Cost Recovered vs. Peer Average



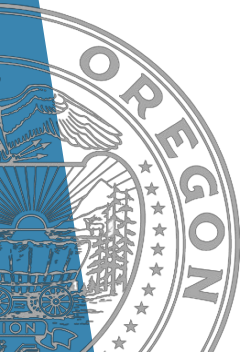
EIS Programs – Cyber Security Services (CSS)



Ben Gherezgiher
Chief Information
Security Officer

Cyber Security Services brings together enterprise security-governance, policy, procedure and operations - under a single, accountable enterprise organization. This allows for end-to-end direction setting and execution for enterprise security. CSS personnel work collaboratively with Data Center domain teams to deliver secure solutions to customers.

-  3 FTE Cybersecurity Administration
-  20 FTE Security Policy and Controls (Security Governance)
-  5 FTE Security Solutions (security architecture)
-  12 FTE Network Security Services (Enterprise)
-  14 FTE Security Operations Center
-  7 FTE Cybersecurity Risk Assessment
-  1 FTE Security Awareness Training



EIS Programs – Cyber Security Services (CSS)

► Significant Accomplishments for 2021-23

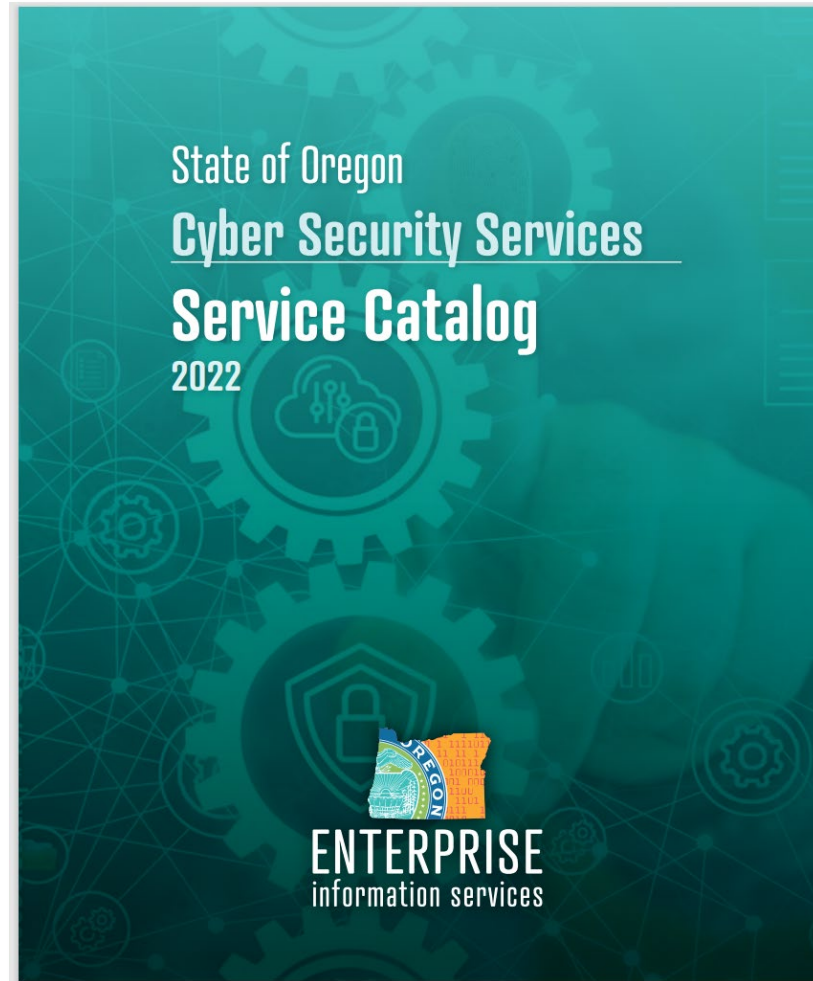
- Published CSS Service Catalog
- Deployed Enterprise MFA
- Deployed VPN (SSL) as an enterprise service option for a safe a secure method to connect to state resources
- 100% agency adoption of Tenable Vulnerability Scanning services

► Significant Initiatives for 2023-25

- Infrastructure Investment and Jobs Act Cybersecurity Grant Program
- Enterprise Mobile Security implementation
- Security Standards revision
- Integrated Risk Management Program implementation



CSS Service Catalog



Format of Service Descriptions

Each service catalog entry contains:

- **Service Description**
 - A brief description of the service and what purpose it serves
 - A list of objectives for the service
- **Engagement Model**
 - CSS' responsibilities associated with the execution of the service
 - The requesting agency's responsibilities regarding execution of the service
 - Service level objectives

Icons



Mandatory
Service



Requested
Service

CSS RACI

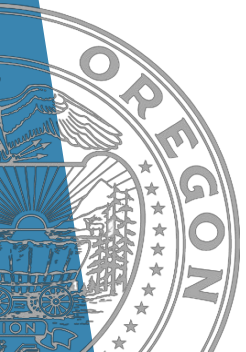
	EIS			
Cyber Security Responsibilities	CSS	CTO	DCS	Agency
Vulnerability Management				
Tenable Vulnerability Scanning				
Determine/Assess deployment requirements	AR		C	CI
Provide hardware/software	AR		C	
Implement scanning	R		I	AR
Enterprise reporting	AR			CI
Vulnerability remediation	CI			AR
Public-Facing Vulnerability Scanning (CISA CyHy)				
Ensure all routable IP address space for the state is being scanned	AR		C	
Ensure all routable IP address space for agency is being scanned	A		C	R

R: Responsible
 A: Accountable
 C: Consulted
 I: Informed



Infrastructure Investment and Jobs Act Cybersecurity Grant Program

- ▶ The Infrastructure Investment and Jobs Act (IIJA), Congress established the State and Local Cybersecurity Grant Program (SLCGP) to **“award grants to eligible entities to address cybersecurity risks and cybersecurity threats to information systems owned or operated by, or on behalf of, state, local, or tribal governments.”**
- ▶ Grant recipients are highly encouraged to prioritize the following which are statutorily required as a condition of receiving the grant:
 - Establish a Cybersecurity Planning Committee.
 - Develop a statewide Cybersecurity Plan.
 - Conduct assessment and evaluations as the basis for individual projects throughout the life of the program.
 - Adopt key cybersecurity best practices.







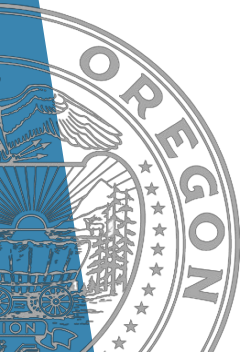
EIS Programs – Data Governance & Transparency



Kathryn Darnall Helms
Chief Data Officer

Data Governance & Transparency is tasked with the establishment of Open Data standards, providing technical guidance on the proactive release of publishable data, development of an enterprise data and information strategy, maintaining the data.Oregon.gov web portal for the release of publishable data, and managing the Oregon Transparency and Geospatial programs.

-  2 FTE Transparency & Open Data
-  7 FTE Data Delivery
-  2 FTE Program & Performance Management
-  2 FTE Enterprise Data Policy & Research



EIS Programs – Data Governance & Transparency

► Significant Accomplishments for 2021-23

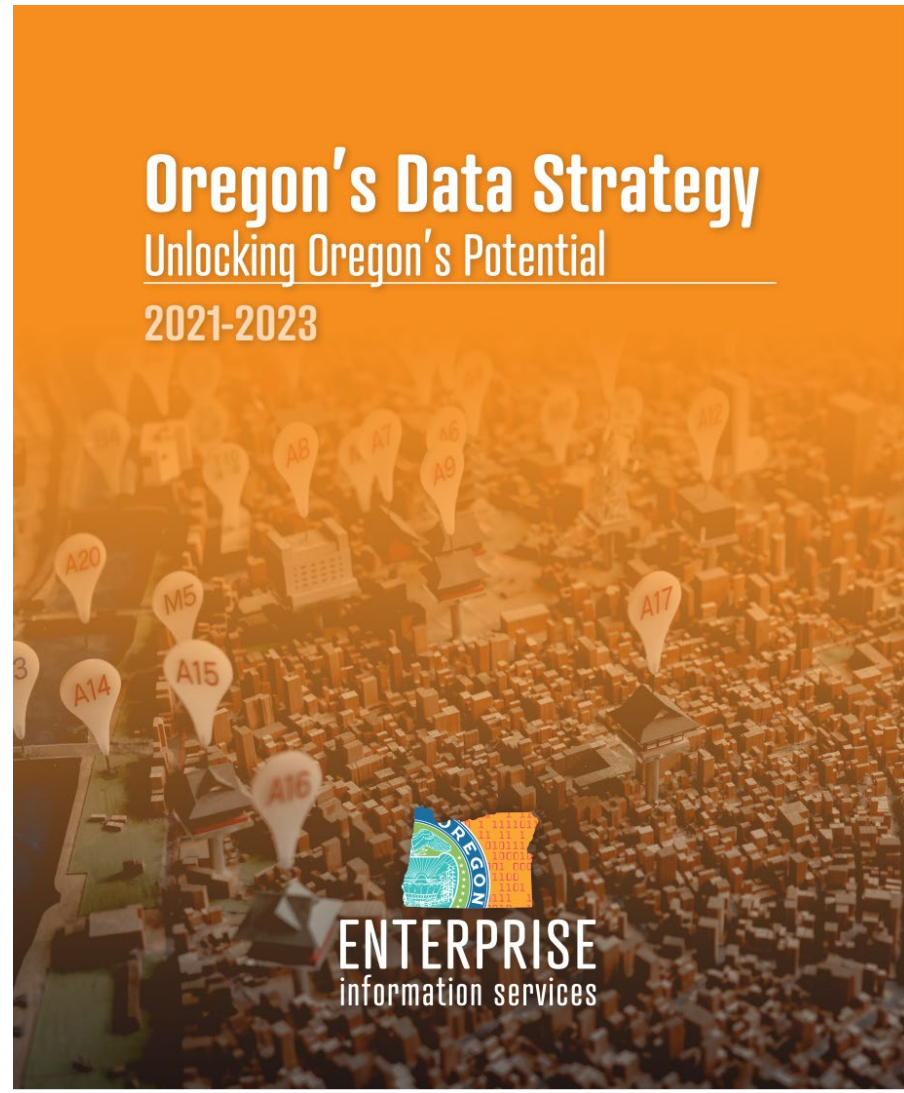
- Released the first Oregon Data Strategy
- Launched Oregon's Open Data Program
- Published the first Statewide Data Inventory
- Established Oregon's first Data Governance Policy

► Significant Initiatives for 2023-25

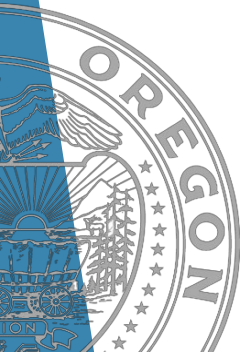
- Advance data sharing by providing tools and templates to agencies
- Mature open data and transparency statewide
- Deliver high quality data products for use and analysis



EIS Programs – Data Governance & Transparency

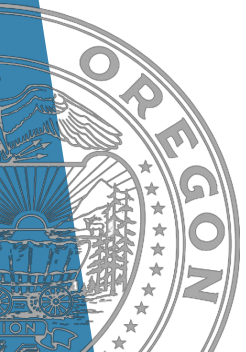


- ▶ Establish guiding themes and principles
- ▶ Increase maturity through foundational data actions
- ▶ Create value by focusing on use cases and strategic priorities
- ▶ Develop frameworks and mechanism to center equity and justice



Transparency Oregon Advisory Commission

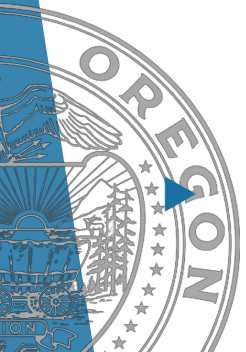
- ▶ The Transparency Oregon Advisory Commission (TOAC) advises EIS on the operations of the Oregon Transparency Website (ORS 276A.259)
- ▶ The Oregon Transparency Website provides constituents the ability to meaningfully engage with and learn about how state government operates.
- ▶ **Transparency Outcomes:**
 - **Govern:** Published data is timely, accurate and complete with appropriate context and metadata.
 - **Leverage:** Published data is reflective of how state government operates and provides constituents the tools to learn about state government financial operations.
 - **Show:** Proactive transparency is modeled through publication of open datasets that reflect user needs.



Oregon Geographic Information Council (OGIC)

OGIC is legislatively empowered to:

- ▶ Serve as the statewide governing body for sharing and managing geospatial framework data;
- ▶ Oversee the preparation and maintenance of a plan to enhance geographic framework information sharing and management and to enhance coordination with respect to geographic framework information among public bodies within this state; and
- ▶ Lead and coordinate efforts to accumulate, disseminate, analyze and manage geographic information, including efforts that:
 - Provide a statewide forum for discussing and resolving issues related to geographic information management;
 - Develop strategies to improve geospatial framework data sharing, to reduce duplication of effort and to improve the coordination;
 - Disseminate information about projects that various public bodies are undertaking with respect to geospatial framework data and other geographic information;
 - Invite participation in developing, reviewing and updating the strategic plan to manage geospatial framework data



Thank you

Shirlene A Gonzalez
Legislative & Communications Director
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