ENTERPRISE information services

Oregon's Telecommunications Strategy

AUGUST 2024

Contents

Overview

The overarching strategy is to provide an enterprise level architecture with basic features built-in for standard use cases, with opportunities for agencies to take advantage of advanced features as agency adoption of the solution matures.

Strategic Objective 1:

Develop modern contact center solutions based on the state's business needs and emerging technology.

Metrics: Increase in agency customer satisfaction scores; Reduction in response times; Increased usage of digital channels; Insights gained from customer data analytics.

Tactic 1: Provide cost-efficient contact centers enhancements.
Tactic 2: Implement an artificial intelligence (AI) powered front end interactive voice response (IVR) for the state.
Tactic 3: Standardize customer service across multiple channels.
Tactic 4: Use data analytics to gain insights into customer behavior.

Strategic Objective 2:

Improve the provision of enterprise telecommunications services. (See Appendix 2)

Metrics: Post-implementation satisfaction surveys

Tactic 1: Understand agency needs which includes continued access for agencies to provide feedback.
Tactic 2: Maintain EIS expertise in telecommunications emerging technologies.
Tactic 3: Collaborate with other states.
Tactic 4: Partner with EIS Divisions.
Tactic 5: Conduct regular collaboration meetings with agencies as needed.
Tactic 6: Conduct agency forums.

Strategic Objective 3:

Ensure vendors provide secure, reliable, interoperable, redundant, and rapidly restorable critical communications services such as consistent access to 911.

Metrics: Recovery time objectives met; Business continuity plans updated

Tactic 1: Perform annual disaster recovery testing for the enterprise phone system.
Tactic 2: In partnership with all EIS Divisions develop continuity of operations, disaster recovery and business continuity plans and document the existing options.
Tactic 3: Provide resources and consulting for EIS and agency business continuity related to telecommunications.
Tactic 4: Provide weekly monitoring of Cybersecurity and Infrastructure Security Agency (CISA) reporting and auditing.

Strategic Objective 4:

Steward taxpayer funds efficiently.

Metrics: Agency cost savings.

Tactic 1: Provide agencies telecommunications options of existing on-premises environment, alternate cloud contact center, or Microsoft Teams Environment.
Tactic 2: Manage volume discounts for licensing.
Tactic 3: Freeze on-net vendor rate increases, by maintaining volume.
Tactic 4: Provide comprehensive consulting and oversight.

Strategic Objective 5:

Vendor management.

Metrics: Vendor Service Level Agreement compliance rate; Meeting frequency and satisfaction; Incident resolution times; Customer service satisfaction.

Tactic 1: Hold routine vendor meetings, including quarterly business reviews.
Tactic 2: Solicit customer input and facilitate communication between vendor and agencies.
Tactic 3: Monitor SLAs.
Tactic 4: Develop request for proposal (RFP) as required to enhance the enterprise systems.
Tactic 5: Provide support and liaison services for large projects.
Tactic 6: Incident management.
Tactic 7: Escalate vendor issues.
Tactic 8: Maintain and update managed services documented processes.

Oregon's Telecommunications Managed Services: The 10-year Horizon

Moving beyond the next two biennium where budget and planning have already been established it is important to proactively plan for the future of statewide telecommunications.

State owned systems and hardware will move to end-of-life and end-of-support, providing the opportunity and the obligation to research and select the next enterprise-wide solutions.

The next step is to collect information on providing the next resilient, stable, user-friendly solution that meets business needs, that remains flexible, and economically sound.

Step 1: Information Gathering, and Demonstrations June 2024-December 2025

Beginning now and continuing through 2025, the Telecommunications Team (TM) will research telecommunications technologies and determine in partnership with other EIS divisions (Data Center Services, Cyber Security Services, and Strategy and Design) which solutions fit best with the future direction of the state IT initiatives.

Note: During this time, a solicitation will be developed to procure an alternate enterprise managed service for agency contact centers.

Step 2: Pilot Analysis January 2026-June 2026

The TM team will pilot telecommunication solutions with volunteer agencies. Pilots will run approximately six months. The pilots will be evaluated by the TM team and agencies and pilot deliverables will be used to produce artifacts for an RFP.

Step 3: Procurement and Budget Planning July 2026-December 2026

The details from the pilots, agency requirements and feedback, and information research groups (InfoTech, Gartner etc.) will be utilized to craft and release an RFP in July of 2026.

Parallel to the pilots, the agency telecommunications programs will begin working on budget requirements and partner with the budgeting teams on any required policy option package(s) (POP) so they are prepared for the budget process.

Step 4: Evaluation and Contract Negotiation January 2026-December 2027

Upon successful completion of the RFP the next phase would be completion of vendor and solution evaluations, and contract negotiations. Solutions will be evaluated for viability for use within the state network and existing infrastructure, as well as vendor and solution stability and reliability, with special emphasis on ensuring that the solution includes the required business functions that are easy to use and economical.

Step 5: Migration to New Solutions (if required) December 2027-June 2030

Upon contract execution, the enterprise will have three years to migrate and port numbers to a new solution. This strategic plan preserves the option (if required) to extend the current enterprise contract for an additional 5 years should migrations be delayed or the new solution fails to meet expectations.

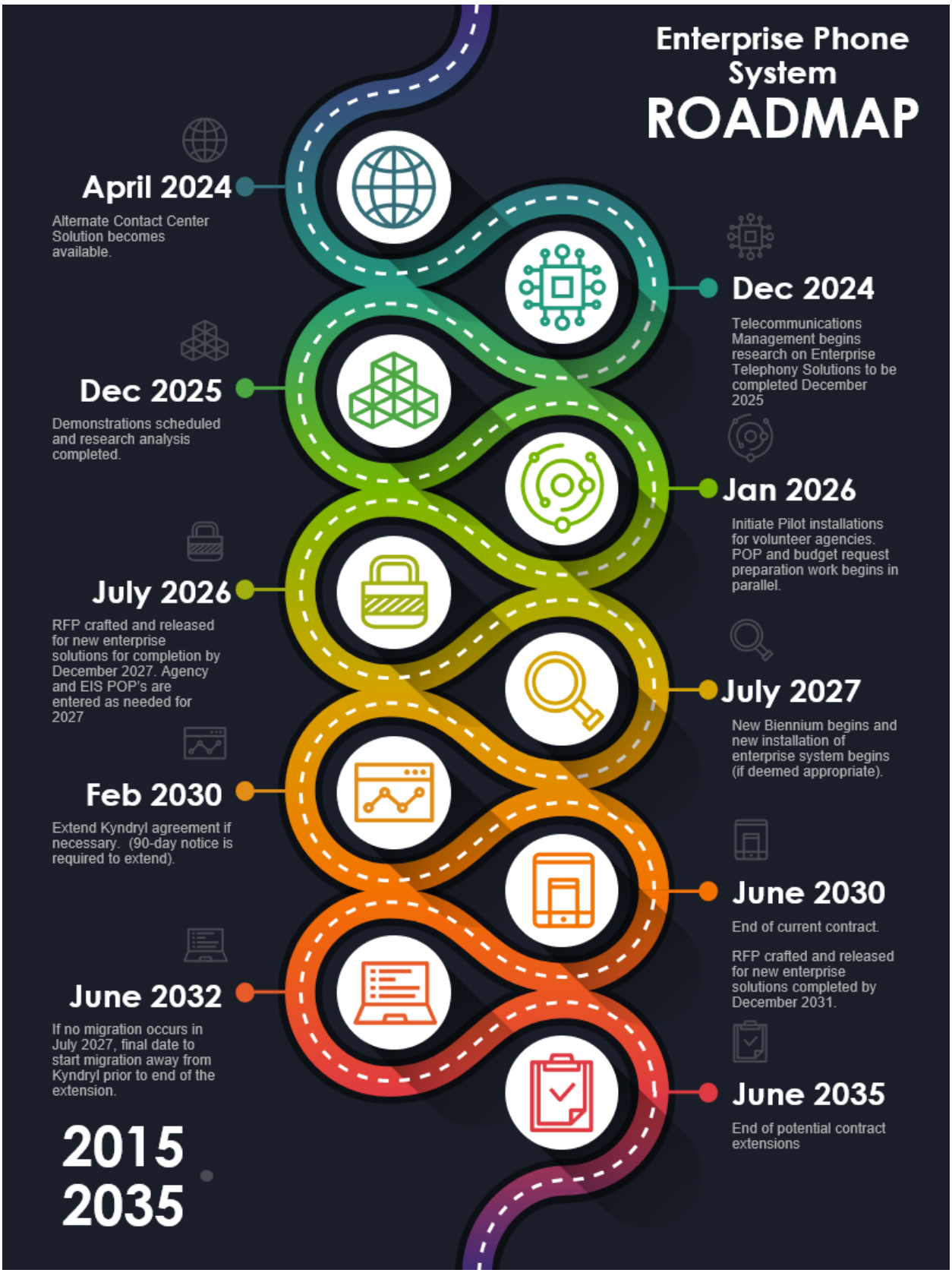
Conclusion

This strategy ensures state agencies, boards, and commissions can utilize the enterprise telecommunications system through 2030, potentially 2035, while still actively planning for modernization.

Proactive planning will be required to ensure the procurement process is successful and results in the right managed service provider and a robust contact. The TM team will manage vendors to maintain the existing enterprise system, while focusing on the delivery of emerging technology. The team will utilize the years of lessons learned, vendor management expertise, and couple it with the EIS processes to ensure proper oversite and planning.

This strategy will need to be updated upon successful negotiation of an enterprise contract December of 2027.

Appendix 1: Roadmap



Appendix 2: Strategic Objective 1 Additional Detail

This section highlights specific work efforts that will be focused upon over the next two to five years and provides additional details.

The Kyndryl contract ends June 30, 2030, with an option to extend for an additional five years.

Based on recent experience it will require three years of focused project management to fully migrate to a new platform. Lessons learned during migrations indicate that a project will accelerate over time, and it is critical that risk to agencies, and interruptions to services are limited to the maximum extent possible. Specifically, to ensure appropriate time for the project is scheduled, and an agile approach to the schedule is followed to ensure that parallel work can continue whenever possible.

During 2025-2027 existing system software will need to be upgraded, and an evaluation will take place to determine if the hardware housed in the data centers need to be upgraded, replaced, or if another enterprise solution should be implemented.

Contact Center Business Needs

The largest and most critical problem that requires solving is that agencies have increasing contact center demand and limited ability to flex staff to respond to the demand resulting in longer hold times, longer calls, and additional load on the infrastructure.

Agencies are under pressure to provide increased customer service and are seeking time saving, labor saving, and cost-efficient enhancements to assist in delivering the services currently associated with their contact centers.

The larger problem can be divided into smaller operational solutions that can provide different areas of improvement for the larger problem while also creating long term scalable solutions.

- **On-hold alternatives**. Offering callers, additional options outside of a call queue, that requires infrastructure to hold a call that is not accomplishing a task. Some of these solutions are:
    - Chat
    - Email
    - Scheduled Call Back
    - Automated systems
    - AI Powered Chat/Voice response
- **Workforce Management**. Provide agencies with detailed reporting they can use to improve their ability to respond to caller traffic. These systems provide analytics on staffing, traffic, and historical data that can be utilized for long term forecasting for staffing, recommendations for operating hours, allocation of staffing, short term temporary staffing needs, all the way down to daily attendance and break scheduling.
- **Self-service**. Integration with existing systems to provide callers with access to resources without the need for an agent. These systems could continue to work after traditional business hours, increasing end user access, and potentially reducing traffic during business hours.
- **AI multi-language natural response to voice and text**. These solutions can be deployed via text or voice to answer simple questions, provide automated services, information via email or text, password resets, URL locations of forms etc. They can also assist in ensuring when an agent is needed the caller is directed to the right queue, and to an agent with the appropriate skills.

- **Data access and transport**. Callers can benefit from automatic case generation, automated authentication, and automated history, as well as integration with existing systems (e.g., Workday, Microsoft Teams, Power Platform, SharePoint, Oregon.gov). Proper integration will provide agents with the information automatically upon connection with their caller, speeding transaction times, and improving accuracy and security.

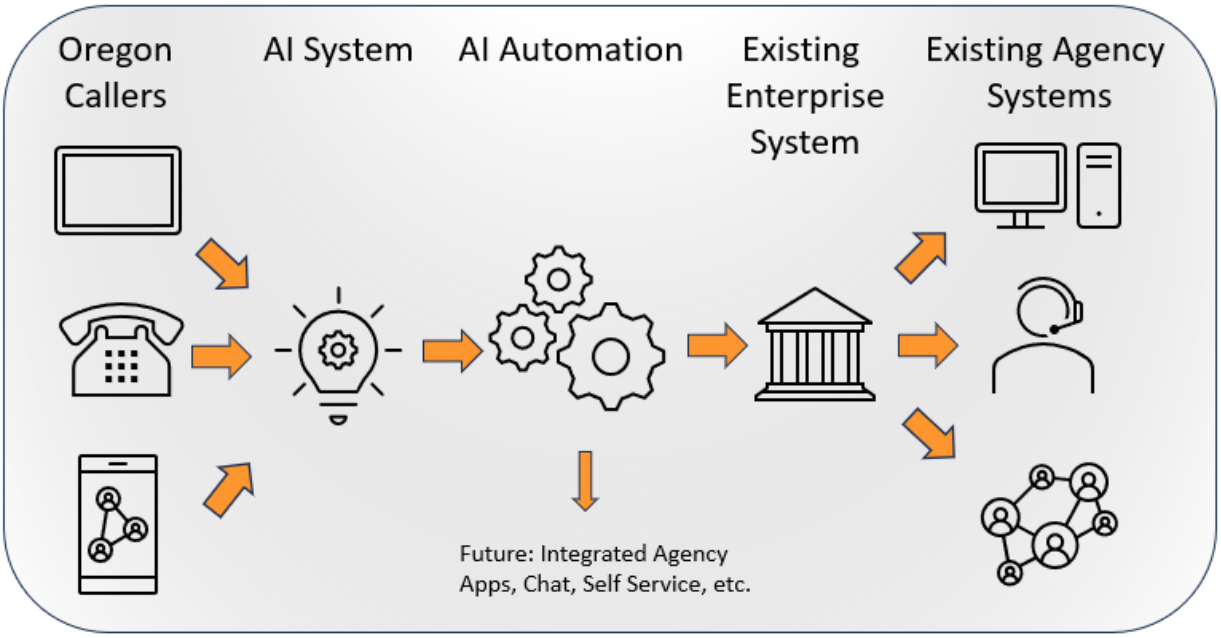
Equitable Access to Services

Oregonians in need of services aren't always sure how to get those services. They don't know or cannot determine which agency, or the phone number to call. When they do call, the expected wait time for calls to pick up can be lengthy and add to their frustration if they have called the wrong agency. Calling in from their cell phones also increases the possibility of a dropped call due to coverage, battery life, human error, or glitches in any of the multiple systems working in coordination to connect each call.

Multiple state agencies are looking into improving their customer service (time to answer, single call resolution, and accessibility). An enterprise solution can help all agencies without interfering with their short term or long-term plans.

The mechanism utilized by private sector commercial call centers is to add FTE (seasonal, temporary, or permanent) to meet their customer service goals. The reality of state call centers is that the current biennial budget structure does not lend itself to flexibility for agencies to ebb and flow quickly to respond by adding and subtracting FTE to improve customer experience.

Proposed Solution: Implement an AI powered front end IVR for the entire state with a single toll-free number utilizing the existing managed service provider. End the confusion of which agency and which number to call, so people in Oregon only need to know one phone number. Once they call that number, they will be directed to the right agencies through the AI or have the information they need. We can also integrate the same logic into Oregon.gov for automated chat response, that can also forward calls into the voice AI, send emails, or texts etc.



This solution reflects the agencies desire to innovate with new technology and TM can assist from a technical and enterprise coordination perspective, while existing agency phone systems, continue as they do today with no change required.

Benefits

- **Every contact gets answered** - No calls receive a busy signal and no calls are hung up on. Every electronic contact is routed through the IVR.
- **Statewide solution** – regardless of size all agencies can modernize to leading technology on a consumption basis.
- **Oregon.gov included** – Chat, email, or social media could be included.
- **Execution efficiency** - Instead of individual agencies investing in similar solutions and executing them alone, learning lessons in a vacuum, we create a system and processes that can be used by the largest agency down to the smallest board/commission to augment their current capabilities.
- **Augment the system**- the existing features still work, exactly like they do now after calls are transferred, no changing desks, agencies do not have to rebuild all the call centers, retrain agents etc.
- **Strategic longevity** - It allows the enterprise system to continue until end of life and the end of the contract, where it can still be replaced without disruption to business.
- **Customer service survey** – a new survey would standardize and align all agencies with the same measurement for legislatively mandated surveys.

References

Applicable Oregon Revised Statutes are highlighted in yellow below:

276A.203 State Chief Information Officer; qualifications; duties; Enterprise Information Resources Management Strategy; rules. (1) The office of Enterprise Information Services is established in the Oregon Department of Administrative Services. The office shall be managed by the State Chief Information Officer. The office shall direct, coordinate and oversee state information technology and telecommunications in accordance with ORS 276A.206 and other statutes, rules and policies that govern the state's or state agencies' budgeting, planning, acquiring, managing, overseeing, and using telecommunications and information technology.

(2) The Governor shall appoint the State Chief Information Officer, who serves at the pleasure of the Governor. The State Chief Information Officer may adopt rules in accordance with ORS chapter 183 to exercise and carry out the duties, functions and powers committed to the State Chief Information Officer under ORS 276A.206 and other statutes, rules or policies that commit functions to the State Chief Information Officer.

(3) The State Chief Information Officer must be a person who, by training and experience, is well qualified to:

(a) Perform the duties that the Governor specifies; and

(b) Carry out the functions specified in ORS 276A.206 and in other statutes, rules or policies that commit functions to the State Chief Information Officer.

(4)(a) The State Chief Information Officer shall:

(A) Serve as the Governor's chief advisor concerning information resources, information technology, information systems, geographic information systems, information systems security and telecommunications.

(B) Implement and maintain an information technology governance program for the executive department.

(C) Adopt rules, policies and standards for budgeting, planning, acquiring, installing, operating, and overseeing telecommunications and information technology for the executive department.

(D) Review and make recommendations to the Governor and the Legislative Assembly concerning state agency information technology budget requests.

(E) Adopt plans, rules, policies, and standards for the executive department concerning geographic information systems and geographic data.

(F) Adopt state information systems security plans, rules, policies, and standards for the executive department.

(G) Assess state agencies each biennium to evaluate compliance with the State Chief Information Officer's rules, policies and standards and provide results of the assessments to the Governor and to the Joint Legislative Committee on Information Management and Technology.

(H) Develop and promote training programs in information technology, information systems security, geographic information systems, enterprise architecture and project and portfolio management.

(I) Enhance sharing and coordination among federal, tribal, regional, state government and local government entities in this state with respect to geographic information systems and geographic data.

(J) Oversee information technology and telecommunications procurements as provided in ORS 279A.050 (7).

(K) Conduct a market analysis each biennium to determine whether the state data center is the most effective and efficient method for providing information technology and information resources to state agencies and other users. In conducting the market analysis, the State Chief Information Officer shall consider best practices and trends among federal, state, and local government entities and the extent to which new or emerging technologies affect how the state provides information technology and information resources. The State Chief Information Officer shall provide the results of the analysis to the Governor and to the Joint Legislative Committee on Information Management and Technology and may recommend changes in the information technology and information resources that the state data center provides or in methods that the state data center uses to provide information technology and information resources.

(L) Identify information technology services that the State Chief Information Officer recommends for design, delivery and management as enterprise or shared information technology services and, each biennium, report to the Governor and the Joint Legislative Committee on Information Management and Technology concerning the status of new enterprise or shared information technology services.

(M) Adopt or update each biennium an Enterprise Information Resources Management Strategy for the state. In addition to the functions described in ORS 276A.236, the Enterprise Information Resources Management Strategy must provide for integrating statewide technology initiatives, ensuring compliance with information technology rules, policies, and standards, promoting coordination, consolidation and alignment of information resources and technologies, and effectively managing the state's and state agencies' information technology portfolios. In developing the Enterprise Information Resources Management Strategy, the State Chief Information Officer shall consult with and consider advice and suggestions from the department, state agencies and local governments, from private sector information technology experts, from the Legislative Fiscal Officer, from the Joint Legislative Committee on Information Management and Technology or from individual members of the Legislative Assembly that the President of the Senate and the Speaker of the House of Representatives appoint for the purpose of consulting with the State Chief Information Officer under this subsection.

(N) Identify and recommend to the Governor, within the State Chief Information Officer's biennial budget request, resources that are necessary to implement the Enterprise Information Resources Management Strategy.

(O) Develop standards, protocols, and procedures for executive department agencies to use in searching for and identifying requested public records that are retained in electronic form and to use in fulfilling public records requests that seek records in electronic form.

(b) As used in this subsection:

(A) "Executive department" has the meaning given that term in ORS 174.112, except that "executive department" does not include the Secretary of State in performing the duties of the constitutional office of Secretary of State or the State Treasurer in performing the duties of the constitutional office of State Treasurer.

(B) "Geographic data" means digital data that consist of geographic or projected map coordinate values, identification codes and associated descriptive data to locate and describe boundaries or features on, above or below the surface of the earth, demographic data, or related data.

(C) "Geographic information system" means hardware, software, and data for capturing, managing, analyzing, and displaying geographic data.

(D) “Information system” means computers, hardware, software, storage media, networks, operational procedures, and processes used in collecting, processing, storing, sharing, or distributing information within, or with any access beyond ordinary public access to, the state’s shared computing and network infrastructure.

(E) “State government” has the meaning given that term in ORS 174.111.

(5) The State Chief Information Officer may:

(a) Organize and reorganize the office of Enterprise Information Services in the manner the State Chief Information Officer considers necessary to conduct the work of the office of Enterprise Information Services properly.

(b) Divide the office of Enterprise Information Services into administrative programs, units or sections and appoint an individual to administer each program, unit, or section that the State Chief Information Officer establishes under this subsection. The individual the State Chief Information Officer appoints serves at the pleasure of the State Chief Information Officer and must be well qualified by technical training and experience in the functions the individual will perform. The State Chief Information Officer’s actions under this paragraph are subject to ORS chapter 240.

(c) Appoint subordinate officers and employees of the office of Enterprise Information Services, prescribe the officers’ and employees’ duties and fix compensation for the officers and employees. The State Chief Information Officer’s actions under this paragraph are subject to ORS chapter 240.

(d) Delegate to an employee of the office of Enterprise Information Services or to another individual any duty, function, or power that the State Chief Information Officer may exercise or perform under ORS 276A.206 or under other statutes, rules or policies that commit functions to the State Chief Information Officer. For the purpose of performing an official act in the State Chief Information Officer’s name, the State Chief Information Officer may delegate a duty, function, or power by means of an interagency agreement, an intergovernmental agreement in accordance with ORS chapter 190 or a contract. An official act that an individual performs in the name of the State Chief Information Officer under a delegation from the State Chief Information Officer under this paragraph is an official act of the State Chief Information Officer. [Formerly 291.039; 2021 c.17 §1]

276A.206 Oversight of state information and telecommunications technology by State Chief Information Officer; policy; rules; application for designation as community of interest. (1)(a) The State Chief Information Officer shall oversee and coordinate the planning, budgeting, architecture and standardization, consolidation, acquisition and oversight of all information and telecommunications technology by state government and agencies of state government so that statewide and individual state agencies’ plans and activities are addressed in the most integrated, economic and efficient manner, in a manner that minimizes duplication, fragmentation, redundancy and cost in state government operations and in a manner that most effectively meets state government and state agency program needs.

(b)(A) Except as otherwise provided by law, the office of the Secretary of State and the office of the State Treasurer, in collaboration with the State Chief Information Officer, shall develop and adopt plans, policies, standards and procedures for budgeting, planning, procuring, managing, overseeing, and using information technology and telecommunications for the Secretary of State or the State Treasurer, as appropriate. Each office shall ensure that the office’s plans, policies, standards, and procedures are, to the extent possible, compatible with the plans,

policies, standards, and procedures that the State Chief Information Officer develops and adopts for other state agencies within the executive department.

(B) The Secretary of State and the State Treasurer shall submit to the Legislative Fiscal Office:

(i) Copies of plans, policies, standards, and procedures that the Secretary of State and the State Treasurer develop and adopt under subparagraph (A) of this paragraph. The Secretary of State and the State Treasurer shall submit copies of the plans, policies, standards, and procedures within 30 calendar days after adopting or amending the plans, policies, standards, or procedures.

(ii) Copies of any independent information technology audits or quality assurance reports that are public records and are not exempt from disclosure under ORS 192.311 to 192.478. The Secretary of State and the State Treasurer shall submit copies of the audits or reports within 30 calendar days after receiving the audits or reports.

(iii) An annual report on all information technology initiatives, as defined in ORS 276A.223, and all procurements with an estimated contract price that exceeds $1 million. The Secretary of State and the State Treasurer shall submit the report not later than December 31 of each calendar year.

(2) To facilitate accomplishment of the purpose set forth in subsection (1)(a) of this section, the State Chief Information Officer shall:

(a) Adopt rules, policies, and standards to plan for, develop architecture for and standardize the state's information resources and technologies. In developing rules, policies and standards, the State Chief Information Officer shall consult with state agencies that have needs that information resources may satisfy. State agencies shall cooperate with the State Chief Information Officer in preparing and complying with rules, policies, and standards that the State Chief Information Officer adopts.

(b) Formulate rules, policies, and standards to promote electronic communication and information sharing among state agencies and programs, between state and local governments and with the public where appropriate.

(c) Formulate rules, policies, plans, standards, and specifications to ensure that information resources and technologies fit together in a statewide system capable of providing ready access to information, information technology or telecommunication resources. Plans and specifications that the State Chief Information Officer adopts must be based on industry standards for open systems to the greatest extent possible.

(3) Before adopting rules described in subsection (2) of this section, the State Chief Information Officer shall present the proposed rules to the Joint Legislative Committee on Information Management and Technology.

(4) The State Chief Information Officer has the responsibility to review, oversee and ensure that state agencies' rules and planning, acquisition and implementation activities related to information technology and telecommunications align with and support the Enterprise Information Resources Management Strategy. State agencies shall cooperate with the State Chief Information Officer to ensure that the state agencies' rules and planning, acquisition and implementation activities align with and support the Enterprise Information Resources Management Strategy. If the Oregon Department of Administrative Services procures information technology or the Director of the Oregon Department of Administrative Services delegates authority under ORS 279A.075 to procure information technology, the department and a state contracting agency, as defined in ORS 279A.010, shall procure information technology

fairly, competitively and in a manner that is consistent with the State Chief Information Officer's rules, policies, and standards.

(5)(a) The policy of the State of Oregon is that state government telecommunications networks should be designed to provide state-of-the-art services where economically and technically feasible, using shared, rather than dedicated, lines and facilities.

(b) The State Chief Information Officer shall, when procuring telecommunications network services, consider the goals and objectives outlined within the Enterprise Information Resources Management Strategy and the policy, acquisition, coordination, and consolidation objectives for information technology that are specified in ORS 276A.400 to 276A.412 and 276A.415.

(6)(a) The State Chief Information Officer, upon request, may furnish and deliver statewide integrated videoconferencing and statewide online access service to a public or private entity that primarily conducts activities for the direct good or benefit of the public or community at large in providing educational, economic development, health care, human services, public safety, library, or other public services. The State Chief Information Officer shall adopt rules with respect to the State Chief Information Officer's furnishing of the service.

(b) The State Chief Information Officer shall establish statewide integrated videoconferencing and statewide online access user fees, services, delivery, rates, and long-range plans. The rates must reflect the State Chief Information Officer's cost in providing the service.

(c) The State Chief Information Officer by rule shall restrict the Internet access service that the State Chief Information Officer furnishes or delivers to private entities if the service would directly compete with two or more local established providers of Internet access services within the local exchange telecommunications service area.

(d) The rates and services established and provided under this section are not subject to the Public Utility Commission's regulation or authority.

(7) An organization or organizations recognized as tax exempt under section 501(c)(3) of the Internal Revenue Code that primarily conduct activities for the direct good or benefit of the public or community at large in providing educational, economic development, health care, human services, public safety, library or other public services and that have formed an affiliation with one or more federal, state or local governmental units within this state may apply to the State Chief Information Officer for designation as a community of interest. The application must be in the form that the State Chief Information Officer prescribes and contain information about the governmental affiliation relationship, the tax-exempt status of each organization and the public benefit services the organization provides or intends to provide. The State Chief Information Officer shall establish an application review and appeal process to ensure that designating the organizations as a community of interest for the purposes of including the organization in telecommunications contracts under ORS 276A.412 will result in providing educational, medical, library or other services for public benefit.

(8) This section does not apply to any public university listed in ORS 352.002.

(9) As used in this section and ORS 276A.203:

(a) "Information resources" means media, instruments, plans and methods for collecting, processing, transmitting, and storing data and information, including telecommunications.

(b) "Information technology" means present and future forms of hardware, software and services for data processing, office automation and telecommunications.

(c) "Internet access service" means electronic connectivity to the Internet and the services of the Internet.

(d) “Open systems” means systems that allow state agencies freedom of choice by providing a vendor-neutral operating environment where different computers, applications, system software and networks operate together easily and reliably.

(e) “State-of-the-art services” means the highest level at which equipment, facilities, and the capability to distribute digital communication signals that transmit voice, data, video, and images over a distance have developed at the time during which the equipment, facility or capability was installed or operating.

(f) “Statewide integrated videoconferencing” means a statewide electronic system capable of transmitting video, voice, and data communications.

(g) “Statewide online access” means electronic connectivity to information resources such as computer conferencing, electronic mail, databases, and Internet access.

(h) “Telecommunications” means hardware, software and services for transmitting voice, data, video, and images over a distance. [Formerly 291.038]