



State of Oregon Position Description

Company: Oregon Department of Education
Organization: Enterprise Services - ODE
Service Type:

SECTION 1. POSITION INFORMATION

Job Profile Title:	Information Systems Specialist 8	Job Profile ID:	1488
Business Title:	Ssf Modernization Systems Architect (Unfilled)	Position ID:	000000178216
Employee Name:		Company ID:	58100
Representation:	OAS	Budget Auth No:	
Location:	Salem ODE Public Service Building		
Supervisor:	Randy James (Information Technology Customer Engagement and Support Manager 2)		
Position:			
Time Type:	Full Time		
FLSA:	Exempt		
Exempt Reason:	Computer Employee Exemption		
Overtime Eligible:	No		
Employee Type:	Permanent		

SECTION 2. JOB DESCRIPTION SUMMARY

Describe the program in which this position exists. Include program purpose, who is affected, size, and scope. Include relationship to agency mission.

This position is located in the Office of Finance and Information Technology (OFIT) Unit of the Oregon Department of Education (ODE). This unit's primary functions are the support of technology to deliver on initiatives and meet ODE's technology needs in support of the ODE mission to foster excellence for every learner through innovation, collaboration, leadership and service to our education partners. The technical expertise of staff in this unit are available to school districts and ESDs to support business and financial functions. The work of OFIT affects all internal staff and every school, program, school district and ESD in the state. Nearly all students in the State of Oregon public school system are affected by the work in this unit. Data is collected from nearly every educational administrative unit.

b. Describe the primary purpose of this position, and how it functions within this program. Complete this statement. The primary purpose of this position is to:

Design, implement, and maintenance ODE's enterprise data resources and solutions for the purpose of educational data collection,

educational compliance and performance monitoring, business transactional processing, and operational decision making. This work involves evaluation of complex technology solutions (applications, systems, and data) to determine the optimal operating efficiency and maximum utilization of systems and data assets that support the Oregon Department of Education.

This position will collaborate with ODE's Information Technology staff, ODE's Data Steward, Oregon's EIS Strategy & Design staff, Oregon's DAS architecture staff as well as partner education agencies (Oregon's Department of Early Learning and Care, Higher Education Coordinating Commission, and Teacher Standards and Practices Commission) to create and manage data repositories and exchanges, systems, standards and controls, optimal methods, procedures, processes and oversight committees. This position is responsible for the strategy and execution of data resources and systems, data and solution architecture and design and provides technical assistance at the highest level to other technical staff and agency leadership.

SECTION 3. JOB DESCRIPTION

List the major duties of the position. State the percentage of time for each duty. Mark "N" for new duties, "R" for revised duties or "NC" for no change in duties. Indicate whether the duty is an "essential" (E) or "Non-Essential" (NE) function.

40% - N E - Planning

- Determines tools, technology, designs, procedures, and documentation standards considering issues such as resource utilization, acquisition planning, overall system performance, and new technologies for ODE's enterprise data repositories and solutions.
- Assess new technologies in data repositories, solution design and interfacing, and on-premises and cloud data management and evaluates and tests these new technologies with existing systems and makes recommendations for adoption.
- Designs, reviews, and approves logical data models for new constructs for conformance to department standards, overall strategic plan, and industry best practice standards within the enterprise data repository.
- Establishes and communicates data security policies and practices and enforces implementation to ensure consistent data security.
- Collaboratively establishes data privacy practices with ODE's Data Steward and Business Intelligence Architect to ensure effective data security and privacy for Oregon's students.
- Works with ODE leadership and managers to identify critical business outcomes for data repository and solutions and develops metrics, reports, and standards that support the delivery of business outcomes.
- Works with other Oregon Education policy area agencies and Department of Administrative Service partners to identify and design data architecture, data repositories and interfaces, and standards in support of education operations.
- Evaluate and recommend technical and operations strategies, and associate project plans, for exploiting on-hand or new technology for automating, improving, or redesigning workflows to support improved customer experience.
- Provide recommendations to leadership on matters involving the use of best practice frameworks and standards to meet business goals for data repositories and solutions portfolio.
- Maintains knowledge of technologies for data modeling, data storage, solution design and architecture through training, professional journals, and publications, contact with other technology professionals, and self-initiated study.
- Reports technology advancement and trends to managers and staff, recommending ways to utilize appropriate technologies to maximize future organizational benefits related to enterprise data management, warehousing, and architecture.

40% - N E - Construction & Operation

- Develop and create data models based on business requirements, implement databases and configure data structures based on architecture and standards.
- Design and develop enterprise solutions to include database conceptual and physical modeling, database design, data security, data integration and migrations, and system structures.
- Design and document system, database, and data control flow diagrams. Create and update data and asset inventories. Translate data needs into technical requirements. Work with stakeholders to understand and assist with data needs. Contribute to external facing documentation for data, API, and system access.
- Work with other Oregon Education policy area agencies and Department of Administrative Services partners to design, develop, and maintain data integration/transfer solutions, state-wide data repositories, and data standards.
- Create and maintain documentation including, but not limited to, procedures, configuration management, data models, data dictionaries, ETL structures, technical specifications, and data pipelines for use by ODE staff.
- Monitor and enforce data security, data modeling, and naming standards throughout the Solution Development Life Cycle.
- Perform a Quality Assurance role in the development, maintenance, and security of the data repository environment.
- Monitor and ensure that solution architecture methodologies are identified and practiced in all design and development efforts.
- Monitor and tune database and database structures for performance, security, and integrity baselines and improvement.

- Collaborate and direct vendors/contractors in conducting project implementations and solution operation and maintenance activities.
- Direct and perform solution restoration of operations following system failures and participate in problem management to improve environment resilience.
- Collaborate and provide architectural support to various IT staff members in support of the Solution Development Life Cycle.
- Promotes and facilitates appropriate data integrity, data integration, data usage practices throughout the Agency.

5% - N E - Additional Responsibilities and Professional Expectations

- Communicate with the project team throughout the development process to ensure the outcome meets stakeholder expectations.
- Mentor staff in the use of all technologies.
- Ensure contractors meet defined ODE project requirements and follow ODE standards.
- Work with and mentor project team members.

5% - N NE - Other Duties as Assigned

SECTION 4. WORKING CONDITIONS

Describe any on-going working conditions. Include any physical, sensory, and environmental demands. State the frequency of exposure to these conditions.

Daily use of personal computer for extended period of time; often four to eight hours per day. May require statewide travel to install and support equipment at other ODE locations, other state agencies, school districts and Education Service Districts (ESD), or to conferences. Constant changes with frequent multiple deadlines; multi-tasking required. Subject to frequent interruptions. May work irregular or extended hours to meet agency deadlines.

This position is expected to be a positive example and role model for other staff. This position is to be supportive toward ODE's policies and procedures. Being a positive role model includes but is not limited to: reliability, dependability, regular and punctual attendance in order to provide consistent services and provide public safety, neat personal appearance, treating all humans with respect, and being a law-abiding citizen.

The Office Finance of Information Technology Unit has a team oriented environment. Working in a team oriented environment requires participative decision making and cooperative interactions among staff and management. Team participation requires being prepared for all meetings, bringing issues and solutions for all the team to resolve, obtaining agreement through the use of consensus when appropriate, giving and receiving feedback, committing to support and help other team members, sharing in the leadership of the team and agreeing to buy-in and actively support decisions made by functional or problem solving teams.

All ODE employees are expected to work using safe practices and to follow all policies regarding safe work practices.

SECTION 5. GUIDELINES

List any established guidelines used in the position, such as state or federal laws or regulations, policies, manuals, or desk procedures.

Oregon Revised Statutes Related to Education; Oregon Administrative Rules Related to Education; Documentation, Project Management, Application Development, and Database standards as Adopted by the Department of Education

How are these guidelines used?

ORSs and OARs specify requirements for school districts, and in turn, state procedures to ensure compliance (e.g., school improvement visits, state program evaluations). Departmental standards are used when designing, maintaining, implementing, and documenting new and existing application systems.

SECTION 6. WORK CONTACTS

With whom, outside of co-workers in this work unit, must the employee in this position regularly come in contact?

Who	How	Purpose	How Often?
Agency Staff	In Person, by mail, email or telephone	Provide Technology Services	Daily
Public	In Person, by mail, email or telephone	Provide Technology Services	As Needed
School Districts & Education Service Districts	In Person, by mail, email or telephone	Provide Technology Services	As Needed
Stakeholders, project managers, system and business analysts, development staff, and other technical and project staff	In Person, by mail, email or telephone	Collaboration for projects	As Needed
State and Federal Agencies, Legislature, Vendors	In Person, by mail, email or telephone	Provide Technology Services	As Needed

SECTION 7. POSITION RELATED DECISION MAKING

Describe the typical decisions of this position. Explain the direct effect of these decisions.

All decisions that introduce changes to the systems must be made with extreme care and technical accuracy to ensure minimal interference with enterprise operations. This position will identify and recommend the most efficient system/program design specifications, the proper programming language, and the proper hardware/commercial software necessary to accomplish the most efficient system. Improper design and programming would mean excessive costs to the user. Eventually such a system would have to be rewritten. The end result is inefficient system operation requiring costly redesign and reprogramming. Position adjusts assigned work to reflect priorities agreed to with management. This position also collaborates with management to determine training for the team. Planning and coordination with the ODE Partners and School District IT departments is required. Decisions made will affect multiple separate governmental agencies', school districts and ESD's ability to use multiple ODE systems. This position will design the database configurations for the ODE. This position will implement the designs with the assigned technical teams. Decision made will impact the reliability, speed, and ability of the ODE IT to support the major business objectives of ODE. Standards for Implementation of Software - This position will develop and implement standards for software. Decisions made will impact ODE's ability to adequately support the ODE mission with limited resources. This position will design security schemes to safeguard ODE's information stored on SQL systems. Decisions made will impact protection and recovery from inadvertent error, disaster recovery, and protection from intrusion from external sources. Decisions made will impact agency's ability to secure, protect and recover information systems.

SECTION 8. REVIEW OF WORK

Job Profile	Position ID	How	How Often	Purpose of Review
Information System Specialist 8, Team Lead		In Person, by mail, email or telephone	Regularly	To keep the lead informed of progress and to discuss issues needing resolution
IT Application Development Manager 2	178093	In Person, by mail, email or telephone	Regularly	To keep the manager informed of progress and to discuss issues needing resolution

SECTION 9. OVERSIGHT

What are the oversight activities for this position?

SECTION 10. ADDITIONAL POSITION RELATED INFORMATION

List any knowledge and skills needed at time of hire that are not already required in the classification specification:

A valid driver's license and acceptable driving record and/or be able to provide an alternate method of transportation.

Position requires CJIS certification which includes fingerprint/back-ground check (state and FBI), and completion of the CJIS certification test.

SQL Systems architecture, design and integration. Experience with Visual Studio 2014 and higher
Expertise with M/S SQL Server Stack (e.g. SSIS, SSAS, SSRS) Expertise with Azure DevOps
Design, implementation and management of SQL instances and clusters Database modeling

SECTION 11. BUDGET AUTHORITY

If this position has authority to commit agency operating money, indicate the following:

Operating Area	Biennial Amount	Fund Type
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SECTION 12. ORGANIZATIONAL CHART

See Organizational Chart (attach copy or view within Workday).

SECTION 13. SIGNATURES

_____ Employee	_____ Date
_____ Manager	_____ Date
_____ Appointing Authority	_____ Date