



Orange County Department of Education
Human Resources Department
Classified Management Class Specification

Cloud Engineer

Class Code: 1692

Work Days: 225

GENERAL PURPOSE

Design, implement, administer, and maintain secure, scalable cloud, hybrid, on-premises, and database infrastructure; develop systems and database solutions for data storage, retrieval, integration, and reporting; ensure system performance, availability, security, compliance, backup, recovery, and business continuity; and provide technical expertise and support to higher level management staff.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from higher level supervisory and management staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES

This position description is intended to describe the general nature and level of work being performed by an employee assigned to this position. This description is not an exhaustive list of all duties, responsibilities, knowledge, skills, abilities, and working conditions associated with this position. All requirements are subject to possible modification to reasonably accommodate individuals with a disability.

1. Recommend and assist in the implementation of goals, objectives, and a strategic plan for secure, scalable cloud and hybrid infrastructure; establish service delivery methods, project schedules, and operational procedures.
2. Collaborate with Applications Development, Network, Security, and Applications Support staff in assessing, testing, and integrating hardware, software, databases, and cloud services; ensure system performance, availability, security, compliance, backup, recovery, and business continuity.
3. Manage, plan, organize, and administer cloud infrastructure services and related platforms within the Information Technology Division.
4. Monitor, optimize, and maintain cloud infrastructure performance, availability, reliability, and security; troubleshoot issues and perform corrective maintenance as required.
5. Assess existing infrastructure and applications for cloud readiness, operational efficiency, scalability, and cost efficiency; recommend enhancements and modernization strategies.
6. Manage enterprise storage solutions across on-premises and cloud environments, including performance, resiliency, backup integration, and capacity planning.
7. Provision, configure, and maintain cloud resources, servers, and virtual infrastructure to meet business and technical requirements.
8. Implement and support enterprise cloud productivity, messaging, collaboration, and identity platforms (e.g., Microsoft 365 and related enterprises cloud services).
9. Provide enterprise support for cloud, hybrid, and on-premises platforms, applications, and operating systems.

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10. Implement and maintain backup, disaster recovery, and business continuity solutions for critical infrastructure and services.
 11. Perform patching, maintenance, upgrades, and lifecycle management for infrastructure platforms and services.
 12. Establish and maintain infrastructure standards for naming, tagging, configuration, and documentation.
 13. Support cloud database services, data platform integration, and migration activities.
 14. Research, test, deploy, and verify patches, fixes, and updates to maintain system integrity, security, and performance.
 15. Respond to incidents, troubleshoot service disruptions, and restore operations following outages or failures.
 16. Develop and maintain technical documentation, procedures, and training materials.
 17. Enforce cloud governance, operational procedures, and configuration standards.
 18. Enforce security, compliance, identity, and access management standards across infrastructure environments.
 19. Demonstrate attendance sufficient to complete the duties of the position as required.
 20. Perform related duties similar to the above in scope and function as required.

QUALIFICATIONS (KNOWLEDGE, SKILL, ABILITY REQUIREMENTS)

Knowledge of:

1. Cloud computing concepts, architecture, deployment models, and enterprise cloud services.
2. Cloud infrastructure architecture, administration, and support principles.
3. Physical, virtual, and cloud-based server environments.
4. Operating systems and related server administration practices (e.g., Microsoft Windows).
5. Identity and access management concepts and technologies (e.g., Microsoft Active Directory and cloud-based identity services).
6. Enterprise messaging and collaboration platforms (e.g., Microsoft Exchange, Exchange Online, and Microsoft 365).
7. Infrastructure automation, scripting, and Infrastructure-as-Code (IaC) methodologies.
8. System monitoring, performance optimization, troubleshooting, and incident response techniques.
9. Upgrade, patch, and change management processes for infrastructure and cloud services.
10. Backup, archiving, disaster recovery, and business continuity solutions.
11. Enterprise storage technologies, including Storage Area Networks and cloud-based storage solutions.
12. Network, system, and application security principles, standards, and best practices.
13. Database design, support, and administration principles.
14. Database Management Systems and cloud-hosted database platforms (e.g., Microsoft SQL Server).

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15. Performance tuning, troubleshooting, replication, partitioning, query optimization, indexing, and schema design for database systems.
 16. Business intelligence, reporting, and data visualization solutions (e.g., Business Objects or Tableau).
 17. Procedures, methods, and techniques of project management, workflow organization, and technical documentation.

Ability and Skill to:

1. Manage multiple competing priorities efficiently and effectively.
2. Interpret the organizational and division strategic plan and create relevant goals and plans for assigned areas.
3. Effectively adapt and adjust program services to meet changing priorities and customer-specific needs.
4. Establish and maintain effective working relationships with various constituencies.
5. Understand, interpret, and explain laws, codes, contracts, regulations, policies, and procedures.
6. Prepare clear and concise correspondence, reports, and other written materials.
7. Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
8. Communicate clearly and concisely, both orally and in writing, in English, and present information effectively in front of both large and small groups.
9. Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
10. Effectively adapt and adjust program services to meet changing priorities and customer-specific needs.

Education, Training, and Experience:

A typical way of obtaining the knowledge, skills, and abilities outlined above is a bachelor's degree in computer science, information systems, information technology, or a related field and two (2) years of extensive recent experience supporting and administering cloud, hybrid, and enterprise infrastructure environments, including server systems, operating systems, storage platforms, cloud services, backup and recovery solutions, identity services, and related infrastructure technologies; or an equivalent combination of training and experience.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class.

Physical Demands

Employees must be able to perform the essential functions of the position with or without accommodation. Employees in this classification must be able to travel countywide to a variety of sites within a reasonable time frame, read written and electronic materials, and communicate clearly with those contacted through the course of work (typically in person, on the phone, and via email); perform deskwork for extended periods; and access and operate all required equipment for job duties. The

position may include occasional need to traverse uneven surfaces and move items weighing up to 25 pounds.

Mental Demands

While performing the duties of this class, employees are regularly required to use written and oral communication skills; read and interpret information; analyze and solve problems; use mathematical reasoning; make observations; learn and apply new information or skills; perform highly detailed work; work on multiple, concurrent tasks with frequent interruptions; work under intensive deadlines and meet productivity requirements; and interact successfully with various groups of people encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employee typically works in an office environment that is fast-paced with high pressure.