

**FRESNO UNIFIED SCHOOL DISTRICT**  
**Position Description**

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<b>TITLE:</b>	Systems Engineer	<b>REPORTS TO:</b>	Assigned Supervisor
<b>DEPARTMENT:</b>	Information Technology	<b>CLASSIFICATION:</b>	Classified
<b>FLSA:</b>	Non-exempt	<b>WORK YEAR:</b>	Varies
<b>BOARD APPROVAL:</b>	March 24, 2010	<b>SALARY:</b>	G-60/CSEA 125 Salary Schedule

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**BASIC FUNCTION:**

Under general direction of an assigned supervisor, apply recognized engineering standards to systems; designs, models, recommends, evaluates, supports and deploy server-based hardware and software, affecting large, networked, enterprise systems and applications to provide reasonable, timely delivery of professional services to the District in support of student learning at a high level; plan for capacity, reliability, resilience and availability of systems.

**REPRESENTATIVE DUTIES: (Incumbents may perform any combination of the essential functions shown below. This position description is not intended to be an exhaustive list of all duties, knowledge, or abilities associated with this classification, but is intended to accurately reflect the principal job elements.)**

Design, model, recommend, evaluate, and deploy server hardware and software including operating systems, applications, and patches in a reasonable, timely manner to support the efficient and effective operation of the department. **E**

Lead and coordinate the efforts of other systems technicians in assigned projects to ensure completion of assignments; assign tasks and provide clear instructions to other staff as needed; serve as the project leader for major complex projects. **E**

Responsible for support, troubleshooting, and security up to and including enterprise applications, including security on user directory structures, set up and maintenance of protection structures on servers to prevent unauthorized release of information; maximize system availability following quality system operational practices. **E**

Manage, deploy, configure and maintain servers in a virtualized environment; responsible for key applications and multiple servers, including server “farms”; ensure proper operations of applications and servers. **E**

Create complex scripts for the purpose of monitoring systems, diagnostics, problem correction, and automating routine tasks; configure systems for high availability, including technologies like failover clustering, hardware redundancy and load balancing. **E**

Install server hardware and components such as disks, memory and other components; model and test changes to production systems. **E**

Configure and manage servers for web and network applications, including FTP, SMTP, IIS, SSL with designated security; troubleshoot enterprise and large-scale systems, software, server and networking issues including firewall, equipment functions, internet/intranet, DNS, DHCP, Host Names, File and Print Services. **E**

Work with District vendors to evaluate solutions to District needs. **E**

Establish environmental criteria for server areas; monitoring and notify the appropriate personnel of in a reasonable, timely manner regarding out of tolerance conditions. **E**

Perform disaster recovery planning, including designing, architecting and monitoring backup and recovery processes. **E**

Create, follow and maintain written and verbal procedures; prepare written technical documentation, training material, standards, reports, and other documents as assigned; prepare and review reports for accuracy. **E**

Analyze needs design, configuration settings, and data flows within areas of responsibility; evaluate and recommend changes to enhance platform reliability such as monitoring, tools, process and code changes. **E**

Coordinate and lead work on systems within area of responsibility. **E**

Provide training and guidance to staff and users; prepare and instruct in-service sessions regarding use of computer hardware and software programs. **E**

Practice the principles of system engineering, including system life cycle, problem definition, system modeling, functional decomposition, system integration, system launch and performance assessment. **E**

Perform related duties as assigned

#### **EDUCATION AND EXPERIENCE:**

Any combination equivalent to: bachelor's degree in information systems, computer science, or related field, supplemented with course work or experience in the training, programming, use, and installation of server hardware and software; and seven years of professional experience in position related to job duties.

#### **LICENSES AND OTHER REQUIREMENTS:**

Valid California driver's license; Microsoft Certified Systems Engineer (MCSE) or Microsoft Certified IT Professional (MCITP) or equivalent or ability to obtain within one year and pass test in Server Technology.

Special Requirement:

This position may work additional assignments including evenings and weekends to accommodate testing, support, maintenance and potential call back duty responsibilities.

#### **KNOWLEDGE AND ABILITIES:**

##### **KNOWLEDGE OF:**

Server hardware, operating systems and software.

Scripting Languages and SQL server databases.

Networking design, concepts, practices and troubleshooting including n-tiered systems, database networking requirements, firewall, internet/intranet, DNS, DHCP, Host Names, File and Print Services.

Server security, including user directory structures, in relationship to servers and it's applications to prevent unauthorized release of information and maximize system availability.

Disaster recovery planning, including designing, architecting and monitoring backup and recovery processes.

Configuration, management and maintenance of servers for terminal services.

Support and troubleshooting techniques applicable for enterprise and large scale applications, complex Windows and server problems.

Principles of system engineering, including system life cycle, problem definition, system modeling, functional decomposition, system integration, system launch and performance assessment.

Systems and procedure analysis and development.

Principles and practices of training and providing work direction.

Server environmental requirements.

Written and verbal procedures

Interpersonal skills using tact, patience and courtesy.

Correct English usage, grammar, spelling, punctuation and vocabulary

Technical aspects of field of specialty.

##### **ABILITY TO:**

Use operating systems, spreadsheet and word processing to prepare reports, training materials and other documents related to assigned duties.

Design, model, recommend, evaluate, and deploy hardware and server software, and other computers, including operating systems, applications, patches and security.

Install server hardware and components such as disks, memory and other components.  
Troubleshoot and resolve complex server problems, network issues and other related concerns quickly and accurately.  
Establish and maintain cooperative and effective working relationships with a diverse range of people.  
Troubleshoot enterprise and large-scale systems, complex Windows and server problems.  
Use SQL server databases.  
Configure, manage and maintain servers for terminal services.  
Work with other staff members.  
Create complex scripts.  
Work in a virtualized environment and manage computers remotely.  
Design relationships between user directories with enterprise applications.  
Plan for disaster recovery, including designing, architecting and monitoring backup and recovery processes.  
Run and schedule application tasks.  
Create, follow and maintain written and verbal procedures.  
Configure for high availability, including technologies like failover clustering, hardware redundancy and load balancing.  
Configure and manage servers for web and network applications, including FTP, SMTP, IIS, SSL with designated security.  
Respond to support requests and needs after hours and on weekends.  
Lead and provide training and clear directions to staff and users.  
Communicate, understand and follow both oral and written directions effectively.  
Plan, prioritize and schedule work to meet schedules and timelines.  
Work independently with little direction.  
Learn new or updated computer systems/software programs and technologies to apply to current work.  
Communicate using patience and courtesy in a manner that reflects positively on the organization.  
Actively participate in meeting District goals and outcomes.  
Apply integrity and trust in all situations.  
Learn District organization, operations, policies, objectives and goal.

**WORKING CONDITIONS:****ENVIRONMENT:**

Technical environment; occasionally subject to noise from office and computer operations; extended viewing of computer monitor.

**PHYSICAL ABILITIES:**

With reasonable accommodations, if necessary, sitting and standing for extended periods of time; seeing to observe monitor and to respond to computer malfunctions; hearing and speaking to communicate with users and co-workers; dexterity to operate computer and other office equipment; lifting to move computer equipment; reaching overhead, above the shoulders and horizontally, kneeling, crouching or bending at the waist to retrieve or store files and equipment.

Fresno Unified School District is an Equal Opportunity Employer and reasonable accommodations are made under the American with Disabilities Act as required by law.

**E= Essential Functions**

SystemsAdmin.MY