

**KERN COUNTY SUPERINTENDENT OF SCHOOLS  
REVISED/APPROVED MARCH 2007  
TECHNICAL/SPECIALIST SERVICES SERIES  
RANGE: 59.5  
CLASSIFIED – OVERTIME EXEMPT  
CODE: 2,6,8**

**CSIS NETWORK SYSTEMS ENGINEER  
(California School Information Services)**

**DEFINITION**

Under general supervision, plan and execute tasks supporting the operation of a wide area network supporting program needs of both internal staff and external clients, and a local area network supporting internal staff.

As a senior technical staff member, the Network Systems Engineer – CSIS Program may lead technical and procedural efforts that establish, document and carry out detailed services to critical KCSOS program participants.

Usual duties of the Network Systems Engineer – CSIS Program include the design and coordination of network and telecommunications infrastructure, hardware and software tools for the collection and transfer of secure data packets;

the architecture and building of a local area network for data, file and peripheral sharing;

implementing operational diagnostics, monitoring system efficiency and ensuring the integrity of the program network;

plus providing training and technical support to other internal staff members.

The Network Systems Engineer – CSIS Program is expected to assist program managers in strategic planning and operational strategies based on appraisals of network effectiveness as well as available and emerging technologies.

**EXAMPLES OF DUTIES**

Systems analysis for secure networking needs, and engineering of both wide and local networks supporting program needs;

plan and provide solutions for services based upon Internet protocols;

implement and maintain host services such as domain name servers, e-mail servers, secure HTTP servers, newsgroup and list serves, and other forms of data communications;

establish standards for, implement and monitor measures of operational efficiency effectiveness of network and telecommunications services;

plan for, recommend and implement hardware including computer platforms for services, routers, hubs, switches;

plan for, recommend and implement software and hardware solutions for firewalls and advanced security measures;

provide and perform necessary systems management functions including adding and deleting accounts for users, groups access to the network;

enact security measures guarding against accidental or intentional misuse of network and services, monitor for and provide preemptive measures against unauthorized use;

coordinate and participate in training of internal program staff and staffs of other agencies as directed;

provide timely and accurate reporting of network issues to internal management, and as directed to key stakeholders and other entities;

reports to include observations of operational effectiveness and any needs for change or general system improvement;

establish and maintain effective relationships with providers of networking devices, products and tool sets, and with the technical representatives of key program stakeholders;

document, report and follow-up with software and hardware vendors regarding problems with and enhancements of or modification to their products;

serve as a cooperative and contributing member of the program team;

complete other duties as assigned.

## **QUALIFICATIONS**

### Knowledge of:

Thorough knowledge of network topologies and technologies typically employed in local and wide area networks;

capabilities, capacities and limitations of computer hardware and communications devices including routers, switches, concentrators, and wiring;

advanced principles, practices and trends in networking technology, and of Internet based systems issues and concepts;

both analog and digital data communications in microframe and in either mini or mainframe environments is mandatory;

telephony is highly desirable.

### Ability to:

Proven ability to effectively work on concurrent tasks and with multiple entities;

work formal organizational structures as well as with flexible teams;

build and manage constructive inter-personal relationships;

excellent written and verbal communications skills.

### Experience:

A minimum of five years combined experience in designing for, development of, implementing, managing and securing local and wide area networks, telecommunications, and enterprise class servers is necessary.

A minimum of two years of hands-on experience with the configuration and maintenance of routers is necessary.

A minimum of two years experience in SNMP management, using and maintaining Internet Protocol (IP) addressing and subnet masking is necessary.

Demonstrable progress in job assignments is expected.

Desirable experience includes:

Experience in the configuration and management of host services including HTTP, SMTP is highly desirable.

Three or more years of communications technology assignments in IP environment are highly desirable.

Microsoft MCSE Certification or three or more years of communications technology assignments in a Windows environment are highly desirable.

Experience in telephony is desirable.

Project management experience is desirable.

Experience in a service-oriented, Management Information Systems (MIS) or Information Technologies (IT) environment is desirable.

Education:

Requires graduation from an accredited four-year college or university with a major in computer science, information technologies, or a related field.

Work experience resulting in an equivalent knowledge base may be substituted for the major requirement.

Technical training and extensive work experience in the technologies previously indicated may be substituted for the degree requirement.

Some positions may require proof of privately owned automobile insurance and possess a valid California Motor Vehicle operator's license.

**Fingerprint clearance by both the Federal Bureau of Investigation and the California Department of Justice is a condition of appointment after all other required job conditions have been met.**

This position is overtime exempt and has a probationary period of one year.

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5/16/07

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Changes to content, and experience 2/20/07

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