

**KERN COUNTY SUPERINTENDENT OF SCHOOLS**  
**MODIFIED APPROVED MAY 2014**  
**RANGE: 55.0**  
**CLASSIFIED**  
**CODE: NONE**

## **NETWORK SYSTEMS ENGINEER II**

### **DEFINITION**

Under the general direction of the Network Operations Coordinator, the Network Systems Engineer II is responsible for undertaking broad and complex assignments in support of highly sophisticated, multi-platform network systems.

The Kern County Superintendent of Schools consists of Windows, Linux, and Macintosh computers running on a primarily Cisco network.

The Network Systems Engineer II will provide engineering support toward the installation and administration of servers, Local Area Networking, and Wide Area Networking for school districts and partner agencies in the Kern County region;

will support planning and network design strategies, and will provide engineering for the installation of an Internet Services Platform and Administrative Networks in the Kern County Superintendent of Schools Office.

The Network Systems Engineer II will provide maintenance and solutions for providing technology services for K-12 information access to the Internet.

The Network Systems Engineer II and project team will maintain these systems.

Linux systems will include systems such as domain name servers, DNS, DHCP, Firewall, HTTP/HTTPS, SMTP, and other TCP/IP services; Network Monitors, MySQL Servers, and other systems.

The Network Systems Engineer II will also provide support to the KCSOS departments relative to their technology needs.

### **EXAMPLES OF DUTIES**

Implement and support Internetworking using Cisco routers and switches with network communications structured by copper, fiber optic cabling, and wireless systems;

responsible for Linux or Windows systems installations and operations under established guidelines;

responsible for Router installations and operations, including IP address and subnet masking programming of the router and other related routers on the network;

responsible for monitoring and diagnosing problems related to the local-area and wide-area network using network management tools such as tcpdump, iptraf, iftop, wireshark, and management tools such as Zenoss and Observium;

will support office and school district's utilization of electronic data communication hardware such as, routers, networks, and servers;

will support network operating systems such as, Novell, Windows Server, and Linux.

The Network Systems Engineer II will support Linux, Windows, and Macintosh system interconnectivity on the network.

The Network Systems Engineer II will assist in the support of networked devices such as printers and scanners.

The Network Systems Engineer II will support the maintenance and functionality of data communications equipment on the ethernet backbone.

The Network Systems Engineer II shall also provide strategies to support the technology planning and installation needs of K-12 school districts.

## **QUALIFICATIONS**

### Knowledge of:

Network technology in local-area and wide-area networks;

ethernet, (10/100/1000 mbps/10 gbps), fiber optic, and wireless LAN technologies;

routers, Ethernet switches, network cabling standards, fiber channel, fiber channel over Ethernet (FCOE), Cisco IOS desirable;

Novell and Windows Server highly desirable with knowledge of Windows and Macintosh connectivity;

traditional Ethernet technologies such as spanning tree, RIP, OSPF, EIGRP.

Newer networking concepts such as 10 gbps and Data Center Bridging (DCB) a plus.

Must possess knowledge of and willingness to stay abreast of trends, innovations and practices in both microcomputer and networking technology, including hardware and software.

### Ability to:

Communicate effectively in public, in conference, and in written materials;

must possess excellent writing and oral communications skills, and demonstrate experience in preparing and presenting network administration training sessions to lay and professional audiences.

Must be innovative in the networking and microcomputing field;

exhibit an energetic and vital personality;

must have excellent organizational skills and the ability to function in a highly complex environment;

lift 50 pounds, work with hands and arms overhead, climb ladders, bend, stoop and crawl, and hear and see sufficiently to perform the duties listed above.

### Experience:

Must have five (5) years of progressively responsible experience in a related area of microcomputer systems;

and have three (3) years of experience with local-area or wide-area network design, including experience with routers.

Must understand and have hands on experience with routers and switches; not theory only.

Must be well versed with IP addressing and subnet-masking procedures;

must be very skilled with Linux or Windows Server systems and have at least one year experience using

Linux or Windows Server.

Must have LAN/WAN experience;

a MIS background is also desirable.

Must have design experience with networks and Windows server, Network Operating System (NOS) certification desirable.

Experience with other networks such as LanManager, Appleshare, or Banyan, is also desirable.

Must have a systems management background;

SNMP management background/experience is acceptable, however, it is highly desirable to have a very intensive knowledge and experience with Spectrum.

Must have project management experience;

minimal supervisory experience of project personnel desirable.

Education:

The Network Systems Engineer II must be a graduate of a four year college or university, with a bachelor's degree in business administration or computer science highly desirable.

However, an equivalent experience in an applied setting regarding the above technology can be substituted for the college degree.

Conditions of employment:

Some positions may require proof of privately owned automobile insurance and possession of a valid California Motor Vehicle operator's license which must be maintained for the duration of the assignment.

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.

Must present verification of completion of Child Abuse Mandated Reporter training or obtain verification within six (6) weeks of hire and annually thereafter, as required by the California Child Abuse and Neglect Reporting Act.

This position has a probationary period of six months or 130 days, whichever is longer.

CP: gs

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