KERN COUNTY SUPERINTENDENT OF SCHOOLS
APPROVAL APRIL 2024
RANGE: 58.5
CLASSIFIED
CODE: 3, 7

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EDUCATIONAL NETWORK SPECIALIST

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DEFINITION
Under general direction, the Educational Network Specialist is responsible for undertaking broad and complex assignments in support of highly sophisticated, multi-platform network systems. The Educational Network Specialist will provide support to school districts that the Kern County Superintendent of Schools serves with the installation and administration of WAN and LAN infrastructure for school districts.

EXAMPLES OF DUTIES
Provide planning, solutions, implementation, documentation and support of technologies that support district initiatives and students;

maintain and expand the Internet Services Platform that provides internet services to most of the districts in Kern County and has redundant connections in excess of 1000 megabits per second and supporting the full range of internet services;

design and implement network architectures tailored to the specific requirements of educational institutions, including wired and wireless networks;

assist with management and administer servers supporting education systems, ensuring optimal performance, security, and reliability;

assist with implementation and maintenance of automated data processes for seamless integration of various education systems;

configure routers, switches, access points, and other networking devices to ensure optimal performance and scalability;

deploy network segmentation and VLANs to enhance security and manage network traffic efficiently;

proactively monitor network health performance by addressing any issues including latency, packet loss, throughput, or bottlenecks to minimize downtime and disruptions using specialized tools and diagnostic utilities;

conduct regular maintenance tasks such as firmware updates, patch management, and system backups to uphold network reliability and integrity;

diagnose and troubleshoot network-related problems, and coordinate with relevant stakeholders to implement effective solutions promptly;

Implement robust security measures to safeguard network infrastructure against cyber threats, including intrusion detection/prevention systems, firewalls, and encryption protocols;

enforce compliance with industry standards (e.g., GDPR, HIPAA) and educational regulations (e.g., FERPA) regarding data privacy and security;

implement redundancy and failover mechanisms, such as redundant internet links and load balancing, to minimize service disruptions and ensure continuous connectivity;

respond promptly to network incidents and outages, coordinating with ISP support teams to troubleshoot issues and restore service as quickly as possible;

document network configurations, maintenance procedures, and incident response protocols to facilitate knowledge sharing and ensure continuity of operations;

collaborate with IT teams, educators, and administrators to understand their networking needs and aligning network solutions with educational goals and priorities;

participate in cross-functional projects and committees to contribute expertise on network-related matters and support strategic initiatives;

apply a comprehensive understanding of the NIST Framework and CIS controls to enhance the security posture of education networks;

conduct regular security assessments, audits, and vulnerability scans to identify and address potential risks;

develop and enforce security policies, ensuring compliance with industry standards.

QUALIFICATIONS
Knowledge of:
Networking protocols, technologies, and standards (e.g., TCP/IP, DNS, DHCP, VLANs, WLAN);

network security principles and practices, including firewall configuration, VPNs, and access control;

network monitoring and management tools;

enterprise network functionality and fundamentals;

systems administration, including the supporting of Google, Active Directory and/or Open Source Directory Services on premises and/or in a cloud environment;

NIST framework and CIS controls as they relate to educational systems;

MTSS, PBIS, and UDL concepts.

Ability to:
Multi-task in a busy environment;

display analytical and problem-solving skills;

support, configure and optimize networks for district staff;

design, implement, and maintain network infrastructure;

troubleshoot complex network issues efficiently;

maintain a high level of ethical behavior and confidentiality of information;

display superior communication and interpersonal skills;

collaborate effectively with diverse stakeholders;

effectively communicate with all levels of personnel and coordinate and facilitate group activities;

plan, organize and interpret complex policies and procedures;

bend, stoop, crawl, reach and work overhead, lift 50 pounds;

exhibit strong interpersonal and leadership skills;

utilize critical thinking skills to perform tasks with efficiency, accuracy and attention to detail;

keep abreast of new technologies and share knowledge with colleagues and end-users;

utilize strong analytical and organizational skills.

Experience:
Must have four (4) years combined experience in the designing and deployment of network infrastructure equipment and software, including two (2) years of experience supporting network infrastructure, design, and operation of wireless systems; managing internet backbone infrastructure, configuring routers and switches, and troubleshooting connectivity issues.

Prior experience directly supporting technology in a school district or classroom preferred.

Previous experience as direct end user support or help desk preferred.

Experience in project management desired.

Education:
A bachelor's degree from an accredited institution with major coursework in Computer Information Systems, Information Networking, Telecommunications, Computer Science or a related field required.

Four (4) years of experience over and above the minimum requirements can be substituted for the bachelor's 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.

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