

TEHAMA COUNTY DEPARTMENT OF EDUCATION

NETWORK ENGINEER

DEFINITION:

Under the direction of the Executive Director, IT, the Network Engineer installs and configures network systems and servers. The Network Engineer also operates, monitors performance, and diagnoses problems in Wide Area Networks (WAN), Local Area Networks (LAN), servers and associated workstations. The Network Engineer monitors and manages network devices to ensure reliable, consistent and secure connectivity of the network infrastructure.

ESSENTIAL FUNCTIONS AND JOB DUTIES:

Any one position may not include all of the listed duties, nor do all of the listed examples include all tasks, which may be found in positions within this classification.

- Oversee and direct the installation, configuration, and maintenance of network equipment used to carry data, voice and video communications
- Monitor and report network and server performance and utilization
- Troubleshoot and resolve network problems to ensure access to Tehama County School networks and systems
- Administer an enterprise Wide Area Network using Cisco switches and routers, Windows servers, Linux/Unix systems, network performance tools and applications
- Support and troubleshoot telecommunications services including DS3, T1, ISDN, Managed Metro Ethernet, and Optical Fiber
- Prepare and present recommendations for network enhancements, optimizations, and/or modifications
- Evaluate new WAN network equipment or server applications and present recommendations for appropriate changes and enhancements
- Oversee and manage network security utilizing Firewalls, Intrusion Protection Systems (IPS), Virtual Private Networks (VPN), Web Filtering systems, and Spam Filters
- Create and maintain network and security configuration standards
- Design, implement, and manage WiFi networks
- Support LAN Systems Support Specialists
- Other related duties as assigned

QUALIFICATIONS AND REQUIREMENTS:

Any combination of experience and training that would likely provide the required knowledge and skill is qualifying. A typical way to obtain the required knowledge and skill would be:

- Bachelors Degree in Computer Science or Computer Information Systems preferred
- Cisco Certified Networking Associate (CCNA) preferred
- Significant training/experience in network and systems installation, operations and troubleshooting
- Three years directly related experience including: installing and supporting local and wide area networks and servers

KNOWLEDGE OF:

- Network management and monitoring tools including Netflow, Syslog, IPAM, Traffic Analyzers, and Protocol Analyzers
- Network protocols including TCP/IP, EIGRP, OSPF, SNMP, SMTP, NAT/PAT, STP, 802.1Q, 802.11a/b/g/n, IPSec and Netflow
- Cisco IOS and related features including VTP, STP, 802.11x, VLANs, Multi-Layer Switching

- Security services including TACACS, RADIUS, ACS, Cisco ASA's, IDS/IPS systems, and VPN
- Cisco switches including 3750, 3560, 3500, and 3850
- Cisco routers including 7200, 3600, 2800, 2600, and 1800 series
- Domain Name Service (DNS) record types, record conventions, and troubleshooting
- Email communication routing, troubleshooting, archiving, and filtering
- Web filter practices and technologies
- VMware Virtualization technologies
- MS SQL Server, TSQL, and Microsoft Data Transformation Services

ABILITY TO:

- Manage and oversee high level projects from beginning to end
- Evaluate, prepare, and present written analysis of WAN related technologies
- Manage and negotiate vendor hardware and software contracts
- Design and implement reliable networks using industry best practices
- Maintain good customers relationships
- Troubleshoot complex Layer 2 and Layer 3 connectivity issues
- Follow verbal or written plans and technical instructions with minimal supervision and guidance
- Prioritize projects and services to minimize user interruptions and downtime
- Design, quote, present and implement complex network and system upgrades
- Document configurations, procedures and settings
- Communicate effectively both written and verbally with customers, employees, and team members
- Establish and maintain network and server standards, policies, and procedures including disaster recovery, remote access, and appropriate security actions to ensure the safety and integrity of data, hardware and service delivery

PHYSICAL DEMANDS:

The physical requirements indicated below are examples of the physical aspects that this position classification must perform in carrying out essential job functions.

- Persons performing service in this position classification will exert 25 to 40 pounds of force frequently to lift, carry, push, pull, or otherwise move objects.
- This type of work involves sitting, but may involve walking or standing for extended periods.
- Perceiving the nature of sound, near and far vision, depth perception, providing oral information, the manual dexterity to operate business related equipment, and handle and work with various materials and objects are important aspects of this job.

Reasonable accommodation may be made to enable a person with a disability to perform the essential functions of the job.