

## **SANTA CLARA COUNTY OFFICE OF EDUCATION**

### **CLASS TITLE: ENTERPRISE NETWORK ENGINEER**

#### **BASIC FUNCTION:**

Under the direction of the Manager – Network and Technical Support Services, plan, design, configure, implement, evaluate, test, and debug Local Area Networks (LAN), Wide Area Networks (WAN), telecommunications, data communications and messaging systems, desktop computer, server and network operating systems, and IP telephone systems of considerable complexity and difficulty to meet the needs of the County Office of Education and school districts; provide network and administrative technical support for users; participate in project design and management, public relations, research, and problem-solving activities.

#### **REPRESENTATIVE DUTIES:**

##### **ESSENTIAL DUTIES:**

Plan, install, configure, and monitor network cabling and devices including switches, routers, firewalls, storage devices and storage area networks (SANs), network attached storage (NAS), desktop and laptop computers, servers, peripherals and associated software.

Plan, implement, and maintain complex systems for delivery of digital information; plan, implement and maintain technical support systems to meet the requirements of internal departments.

Develop network designs and manage specific network design projects to support current and future network and computing infrastructure needs.

Analyze and resolve problems between LAN/WAN, SAN, NAS, servers, desktop computers, and desktop applications.

Work with network equipment providers to ensure optimal efficiency in network operations; prepare cost analysis of proposed and existing network services; recommend contractual changes, service providers and cost control measures; participate in the development of feasibility studies and cost-effectiveness studies for new computer applications and operating systems.

Direct the work of or provide guidance to other technical support staff; oversee the work of outside contract workers on construction of network design projects.

Plan and oversee multiple network projects to completion; identify scope of work and objectives; facilitate the resolution of complex project problems by meeting with stakeholders, vendors and other technical staff to identify problems and potential solutions; assure projects are planned and delivered according to customer needs.

Provide technical support for network operations; perform diagnostic tests; compile, organize, and analyze data to troubleshoot network problems.

Coordinate service calls and schedule appointments between service providers and users experiencing problems and ensure satisfactory resolution.

Manage user passwords and profiles; conduct routine audits of security procedures.

Maintain and operate network and server monitoring and diagnostic software and equipment for capacity planning and preventative maintenance.

Receive and review equipment installation requests from users, ensure completeness, and contact users regarding discrepancies.

Explain operational and installation procedures to users and train users in the proper use and operation of LAN/WAN systems and related equipment; prepare and update operation documentation and guides.

Prepare documentation for the placement of equipment; maintain and monitor equipment inventory lists; maintain accurate records, logs, and files related to assigned LAN, WAN, and equipment inventory activities, servicing, operations, and functions; write articles, newsletters, and technical documentation; prepare network diagrams, flow charts, graphic presentations, and narrative reports to recommend improvements or resolve problems.

Repair computers, printers and other peripherals as needed.

Maintain current knowledge of emerging technologies and research in information technology; conduct research; assist with developing policies and strategic plans for the use and support of emerging technologies and assess the impact on current practices.

Drive a vehicle to various sites to conduct work.

**OTHER DUTIES:**

Perform related duties as assigned.

**KNOWLEDGE AND ABILITIES:**

**KNOWLEDGE OF:**

LAN/WAN technologies; including, TCP/IP, Quality of Service (QoS), wireless LANs, Cisco IOS, and Voice Over IP (VoIP) Network security principles including firewall placement and configuration and VPN implementation.

Desktop and server operating systems including Microsoft Windows and UNIX.

Messaging systems including Microsoft Exchange.

Analytical, research and problem solving skills; systems analysis and project management procedures and techniques.

Telecommunications network design.

Project management concepts, procedures, and tools, including Microsoft Project State and Federal laws and regulations relating to telecommunications, and networks.

Information system network terminology and telecommunications policies, procedures, and vendors.

Installation of data/voice communication networks, telephone systems, and related software and hardware.

Desktop computer hardware and software.

Current trends, techniques, and general principles in office technology.

Proper telephone etiquette and public relations skills.

Proper English usage, grammar, punctuation, and vocabulary.

**ABILITY TO:**

Apply specialized knowledge in LAN/WAN, telecommunications systems, data communications, servers, hardware and software systems.

Identify network related problems through the performance of diagnostics, and determine appropriate action for resolution.

Establish and maintain logs, records, lists, fact sheets, and files regarding specialized transactions, procedures, and policies.

Prepare user guides and a variety of statistical and narrative reports.

Work various shifts with minimal supervision to meet user needs.

Determine networking and telecommunications equipment, software programs, and materials to meet user requests.

Operate a variety of computer peripheral equipment including desktop and laptop computers as well as associated software.

Perform numerical calculations accurately.

Plan, organize, and prioritize assigned tasks and functions efficiently in stressful situations.

Coordinate and monitor telecommunications networking activities with outside service providers/agencies.

Train users in the proper use and application of network equipment, software, and systems applications.

Establish and maintain effective work relationships with those contacted in the performance of required duties.

Communicate effectively orally and in writing.

**EDUCATION AND EXPERIENCE:**

Any combination equivalent to: bachelor's degree in computer science, information systems or related field and five years of increasingly responsible experience in network analysis and administration including the design, implementation and maintenance of LAN/WAN servers and telecommunications system operations.

**LICENSES AND OTHER REQUIREMENTS:**

Demonstrate proficiency in the requirements for CISCO CCNP certification.

Valid California driver's license.

**WORKING CONDITIONS:**

**ENVIRONMENT:**

Indoor and occasional outdoor working environment.

Evening or variable hours.

Driving a vehicle to conduct work.

**PHYSICAL DEMANDS:**

Hearing and speaking to exchange information and make presentations.

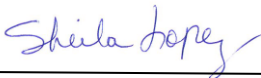
Dexterity of hands and fingers to operate computer keyboard.

Seeing to perform assigned activities.

Sitting for extended periods of time.

Bending at the waist, kneeling or crouching.

Personnel Commission Approval: January 8, 2014



---

Sheila Lopez  
Director-Classified Personnel Services

January 8, 2014

---

Date