WAN SPECIALIST I

DEFINITION

Installs, programs, configures, analyzes, services and repairs enterprise routers, firewalls, cache engines, and core switches. Supports the wide area network by maintaining telecommunications equipment composed of high-speed digital lines with inter-connected remote node sites.

TYPICAL DUTIES

Troubleshoots and corrects inter-and intranet connectivity issues from remote sites utilizing network management systems.

Troubleshoots technical problems involving voice, video, and data integration on wired or wireless network.

Installs, configures, upgrades, and tests wide area network equipment including but not limited to routers, switches, firewalls, VPN *Appliances*, cache engines, video gatekeepers, call managers, CSU/DSUs, NAT appliances, hardware-based SSL engines, IP load balances, and syslog devices.

Installs, configures, and maintains VoIP systems including call processors, VoIP Gateways, voicemail, and IP phones.

Analyzes, designs, implements, and supports Cisco or other Voice over IP system solutions including multiservice infrastructure, Cisco Call Manager and call center, Call Manager clusters.

Unity Unified Messaging, IP gateways, legacy integration with traditional PBX systems and other voice components.

Configures and maintains QoS, Voice and Video Routing Protocols, and Voice and Video Gateways.

Monitors WAN performance to ensure effective and reliable performance.

Provides assistance to District locations over the phone regarding connectivity issues.

Uses appropriate test equipment to determine and resolve connectivity issues.

Acts as a liaison with telecomm company or other service providers in order to resolve problems and resume digital service.

Provides assistance and/or acts as a mentor to lower level information technology staff and new employees.

May install, configure, and test network hardware and equipment to provide connectivity within the enterprise.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

A WAN Specialist I maintains, services, repairs, configures, and monitors wide area network equipment from remote sites and diagnoses and repairs local area network hardware/software problems that affect connectivity to the wide area network.

A WAN Specialist II programs, configures, analyzes, and monitors advanced auxiliary WAN support equipment, and/or maintains security infrastructure and provides specialized voice, video, and security expertise to ensure reliability of the District's enterprise network.

A Senior IT Support Technician installs, configures, analyzes, services and repairs servers, desktop, laptop computers, and other mobile computing devices, peripheral devices, and software. A Senior IT Support Technician may also act as a team lead in handling server and operating system related issues for a geographic region and by resolving more complex client issues related to servers, desktop and laptop computers, operating systems, and related software and applications.

An IT LAN Technician installs, replaces, configures, analyzes, and repairs wired and wireless local area network equipment and software.

SUPERVISION

General Supervision is received from an information technology director, manager, or supervisor designated by the information technology director managing the position. Work direction may be exercised over lower-level technical personnel.

CLASS QUALIFICATIONS

Knowledge of:

Enterprise routing and switching
Digital phone lines, including ISDN, T1, PRI, DS3, OC3/OC12, and gigabit Ethernet
Voice over IP protocols and routing, H.323, H.235, and SIP
WAN protocols including ATM, Broadband Access, PPP, and MAN protocols
Routing and switching protocols including IP, OSPF, BGP, ICMP, RIP, and MPLS
Multicasting protocols including BGMP, IGMP, and MBGP
Gateway protocols including MGCP, SIP Trunks, H.261/H.263/H.264
Virtual local area network (VLAN) technology Trunking Protocols, IEEE 802, 1P
IPCC (Internet Protocol Contact Center)
Cisco AVVID (Architecture for Voice, Video and Integrated Data) solutions
IEEE 802.11, Satelite, and LTE Wireless protocols
Unity and Unified Messaging
Basic concepts in data security over TCP/IP networks, including but not limited to DDOS
    mitigation and virus control
Basic concepts of digital electronics
Basic IP addressing and subnet schemes
Addressing, flow control, error handling, encapsulation, protocols, and SNA
Analog and digital telecommunications solutions
HP OpenView, Stablenet InfoSim, Netscout TruView, BMC BNA, or equivalent WAN
    management software
Use of common desktop computer software packages including but not limited to Microsoft
    Office and Visio
Safety regulations and practices applicable to electrical and electronic repairs
Telecommunications terminology

Ability to:

Install, configure, maintain, and troubleshoot complex data, voice and video network equipment
Analyze and diagnose malfunctions and perform required repairs
Configure and repair analog and/or telecommunications equipment
Use tools and test equipment of the trade with speed and competence
Utilize a protocol analyzer, LAN analyzer, OptiView network infrastructure analyzer, and test fiber
    cable continuity
Utilize VoIP, T1, PRI, and fiber testing equipment
Design and implement technical modifications

      Work effectively without supervision
      Maintain effective working relationships with District personnel

ENTRANCE QUALIFICATIONS

    <u>Education:</u>

    Graduation from high school or evidence of equivalent educational proficiency. Completion of 15 semester units, or equivalent quarter units in math, computer science, information systems, electrical engineering, telecommunications management, network engineering, data communications, or a related field. Six months qualifying experience in addition to that listed below may be substituted for the required education.

    <u>Experience</u>:

    Three years of experience in the installation, maintenance, repair, and support of wide area networks and related equipment.

<p align="center">Or</p>

    Three years of experience as an Senior IT Support Technician or IT LAN Technician working for LAUSD.

    Successful completion of courses in support of wide area networks, security, and digital electronics in the armed forces or equipment manufacturer's training program or recognized trade school or college may be substituted on an equal-time basis for up to one year of any of the required experience.

    <u>Special</u>:

    A valid California Driver License.
    Use of an automobile.
    Cisco Certified Network Associate (CCNA) or equivalent certification is required and must be kept valid during the term of employment.
    Cisco Certified Network Professional (CCNP) or equivalent certification is highly preferable.

SPECIAL NOTE

    Employees in the class are subject to call at any hour.

This class description is not a complete statement of essential functions, responsibilities, or requirements. Entrance requirements are representative of the minimum level of knowledge, skill, and/or abilities. To the extent permitted by law, management retains the discretion to add or change typical duties of a position at any time, as long as such addition or change is reasonably related to existing duties.

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JAP