



Cañada College ♦ College of San Mateo ♦ Skyline College

GENERIC POSITION DESCRIPTION

NETWORK ENGINEER

A Classified Professional Position
Grade 220S – Salary Schedule 40

A. General Statement

Reporting to the Director of Technical Support Services, the Network Engineer is responsible for the day-to-day support and maintenance of the District's network infrastructure. The Network Engineer is the District's network technical expert and is the District's resource for information, consultation and recommendations for network design, security, performance, operation and maintenance. The Network Engineer works closely with other technical staff to effectively achieve the goals of the Information Technology Services department and the District.

B. Duties & Responsibilities

The duties below are representative of the duties of the classification and are not intended to cover all of the duties performed by the incumbent(s) of any particular position. The omission of specific statements of duties does not exclude them from the position if the scope of work is similar, related, or a logical assignment to this classification.

1. Completes activities that ensure the reliability, availability, security, manageability, scalability, and performance of the District's data communications infrastructure including network services, telephone services, and related management information systems.
2. Functions as the District's technical expert with respect to LANs, WANs, VLANs, VPNs, internet access, remote access services, wireless connectivity, directory services, network security, cabling/wiring infrastructure and related technologies.
3. Functions as a technical resource with respect to voice mail, VoIP telephone services, email, web systems, print services, file services, access control, video surveillance, digital signage, and related technologies.
4. Ensures that the District's network infrastructure is optimally architected, designed, configured, installed, monitored, and supported.
5. Develops the District's infrastructure so that it enables effective interoperability among various enterprise systems and other resources.
6. Implements and manages high-availability solutions for the District's information technology infrastructure.
7. Develops and tests disaster-recovery scenarios for network failover.

8. Assesses the scope, requirements, needs, functionality, and timelines associated with complex information technology projects.
9. Performs proactive analyses of network performance and recommends appropriate enhancements; develops short-term and long-term plans for network growth and capacity, including specifications for new designs, software, hardware, and services.
10. Prepares, implements, and monitors information technology standards.
11. Assists technical support staff with troubleshooting problems and complex installations.
12. Monitors projects on a continuous basis; resolves issues, takes corrective action when necessary, and ensures timely completion of tasks within budget.
13. Installs/de-installs, configures hardware, software, cabling/wiring, distribution frames, network connections, and other infrastructure components; performs upgrades as necessary.
14. Maintains technical currency for knowledge of information technology systems, hardware, software, industry developments, services, best practices, and vendors' offerings.
15. Manages technology vendor relationships as required.

C. Requirements

Increasingly responsible experience in the areas of network management, systems administration and systems analysis that has included the following:

1. Proven analytical and problem solving skills.
2. Ability to effectively multi-task and complete assignments in a timely manner.
3. Extensive experience in supporting Active Directory, DNS, DHCP, TCP/IP, SMTP and SSL.
4. Strong technical knowledge of current network systems software, protocols, and standards, including firewalls, routers, switches IDS, DDoS, NAC and HIDS.
5. Strong knowledge of local and wide area network administration including VLAN's and VPN connectivity.
6. Experience working with a variety of network and routing protocols.
7. Knowledge of scripting skills with a focus on automating manual processes.
8. Experience with configuring and maintaining a variety of network devices.
9. Requires excellent writing skills to document project plans, procedures, policies, and to communicate with the staff, management and faculty.
10. Ability to discuss technical issues to non-technical staff in a manner that is clearly understood.
11. Demonstrated skill in establishing and maintaining effective working relationships, and communicate respectfully and professionally with people at all levels in the organization who are diverse in their cultures, language groups and abilities.
12. Previous experience directing the work of others.
13. Must possess a valid California Drivers' License and have the ability to drive a motor vehicle.

Preferred

1. Bachelor's degree in Information Technology or equivalent combination of education and minimum five years' experience supporting and maintaining complex networks, servers, desktops, network services, storage, virtualization, security and VoIP telephone systems.
2. Cisco CCNP certification or other certification related to the duties and responsibilities of the Network Engineer position.
3. Extensive knowledge of Cisco operating systems and hardware.
4. Previous experience maintaining and troubleshooting a variety of servers, including: Windows, Unix/Linux and SQL server.
5. Previous experience working in a higher education environment.

D. Physical/Other Requirements

This classification requires Sitting or standing for prolonged periods of time, dexterity of hands and fingers to operate a computer keyboard, touch screen and mouse, use of hand tools such as screw drivers, pliers, etc., the ability to lift equipment up to 40 pounds, crawl on the floor, work under desks and in tight places, and work on ladders.

E. Knowledge, Skills & Abilities

1. Knowledge of at least one network operating system, multiple computer operating systems, and multiple software applications
2. Knowledge of basic theory and practices
3. Knowledge of telephone switch management
4. Knowledge of management of e-mail, web, network monitoring, disaster recovery, file print, and database servers
5. Ability to read technical drawings/schematics and to follow written and verbal directions.
6. Skill in respectful, tactful and sensitive interaction with people who are diverse in their cultures, language groups and abilities
7. Skill in oral communication, including public speaking and giving clear and concise instruction.
8. Skill in written communication
9. Skill in training and leading the work of others
10. Ability to coordinate, anticipate, and resolve workload issues and problems
11. Ability to work effectively as part of a customer service team

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