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## **NETWORK ADMINISTRATOR I/II**

### **DEFINITION**

Under general supervision, provides technical support and training related to the installation, configuration, troubleshooting, maintenance, and monitoring of the District's physical and virtual converged voice and data network, equipment, and systems; resolves systems problems and troubleshoots equipment malfunctions; maintains and troubleshoots systems; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from the Computer Network Supervisor. Exercises technical direction over lower-level staff.

### **CLASS CHARACTERISTICS**

Network Administrator I: This is the entry-level class in the series. This class performs the more routine tasks and duties assigned to positions within the series including setting up and configuring converged network infrastructure and performing routine maintenance of systems and equipment. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions allocated to the II level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Network Administrator II: This is the journey-level class in the series responsible for maintaining and troubleshooting various infrastructure, systems, and equipment. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. The work involves frequent contact with others and coordination of multiple concurrent activities. This classification is distinguished from the Network Administrator I by the complexity and size of the systems supported and the amount of discretion exercised over problems and resolutions, as well as the latter serves as a subject matter expert in specific area(s).

Positions at the II-level are normally filled by advancement from the I-level after two years; progression to the II-level is automatic unless there is documented non-satisfactory work performance. When filled from the outside, the employee is required to have at least three years of prior related experience that allows the employee to meet the qualification standards for the II-level.

### **EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)**

- Installs, configures, maintains, troubleshoots, and monitors physical and virtual data and voice/telephone network infrastructures including hardware, software, real-time monitoring tools, peripherals, and devices ensuring effective performance and proper integration of components and systems with existing architecture; assists in infrastructure changes and upgrades to limit interrupted services.

- Coordinates service requests for network, telephone/voice connections with staff and outside vendors; coordinates resources including available ports, Internet Protocol (IP) addresses; assists in the installation of systems such as telephones, fax machines, uninterruptible power supplies, system cards, and peripherals and voicemail boxes.
- Evaluates and effectively respond to requests for assistance from users experiencing problems with network and telephone/voice systems; diagnose and resolve system network, telecommunications, Wide Area Network, and Internet Service Provider problems; troubleshoot workstation connections or network and voice devices; isolate software from hardware problems; repair equipment or refer to appropriate technicians or outside agencies; coordinate vendor assistance.
- Implements, maintains, and enforces policies and procedures for network administration to assure the reliable and efficient operation of campus voice and data networks.
- Plans, consults, and coordinates projects with other departments, Network Administrators, vendors and outside contractors to accommodate district construction and renovation which requires addition or modification of communications equipment or cable.
- Works closely with vendors/contractors on design, installation, support, and troubleshooting of network, voice, and telephone systems; confer with vendor representatives to identify and correct causes of hardware and software malfunctions and to perform enhancements; holds vendors accountable for results and standards.
- Identifies resource needs and allocates resources appropriately.
- Inventories, installs, programs, tests, and repairs equipment hardware and systems associated with network and data security, including but not limited to firewalls, intrusion detection systems, and traffic analyzer.
- Stays abreast of new trends and innovations in technology related to network operations; researches, recommends, and evaluates vendor solutions and technologies; implements improvements; works with staff to maintain, revise, or improve operations and systems.
- Maintains network system documentation; prepares and maintains a variety of records and reports related to assigned activities.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

*Incumbents at the Network Administrator I level may exercise some of the knowledge and abilities listed below in a learning capacity.*

- Network and telecommunications principles, protocols, standards, features and related functions of multiple operating systems and devices.
- Principles, practices, methods and techniques of underlying physical layer technologies such as cable and wireless.
- Internet software and client/server protocols, TCP/IP protocol suite, and associated applications.
- Cisco IOS and Cisco management systems.
- Server and router security issues.
- Bridges and routers and familiarity with Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), and Interior Gateway Routing Protocol (IGRP).
- Principles and practices used in the operations, maintenance, repair, and administration of assigned systems and equipment.
- Techniques and methods of system implementation and monitoring.

- Basic principles and practices for identifying systems-related issues and actions needed to improve or correct performance.
- Techniques and methods of troubleshooting, configuration, and installation.
- The organization, operation, and functions of the department as necessary to assume assigned responsibilities and to determine appropriate point of escalation.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Principles and procedures of record keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Interpersonal skills using tact, patience, and courtesy.
- Techniques for providing a high level of customer service by effectively dealing with vendors and District staff.

**Ability to:**

- Demonstrate understanding of, sensitivity to, and respect for the diverse academic, socio-economic, ethnic, religious, and cultural backgrounds, disability, and sexual orientation of community college students, faculty and staff.
- Assure the reliable and efficient operation of voice and data networks on campus in support of administrative and instructional programs.
- Assist in the design of a network infrastructure to provide faculty, students, and administrators secure, high-speed access to information and instruction.
- Perform technical support functions for assigned systems; identify symptoms of system and network malfunction and isolate network and communications problems; troubleshoot and resolve system problems and perform repairs.
- Perform testing of installed cable plant with appropriate tools.
- Set up equipment and install and configure software.
- Deal tactfully with the staff in providing information, answering questions, and providing customer service.
- Read, interpret, and apply technical information from manuals, drawings, specifications, layouts, blueprints, and schematics.
- Organize, maintain, and update records systems.
- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, rules, and regulations.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Organize own work, set priorities, and escalate decisions when appropriate.
- Operate various tools related to network operations and troubleshooting, including but not limited to: network switches, routers, and testers.
- Operate various hand and power tools to work on communications hardware and cabling assembly.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Education and Experience:**

*Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

Network Administrator I and II: Equivalent to the completion of an associate degree supplemented by coursework and/or training in information systems, computer science, telecommunication systems, electronics, or related field.

Network Administrator I: One (1) year of providing technical support in the installation, maintenance, and repair of systems specific to network and/or voice communication.

Network Administrator II: Two (2) years of increasingly responsible experience, at a level equivalent to a Network Administrator I, in providing technical support in the installation, maintenance, and repair of systems specific to network and voice communication.

**Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and to visit various District sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator, to install and terminate network cables, jacks, and patch panels, and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform assigned duties, as well as pull network cables. Employees must possess the ability to occasionally lift, carry, push, and pull materials including network cables up to 50 pounds with the use of proper equipment. Must possess mobility to work in the field; strength, stamina, and mobility to climb and descend ladders and to operate various hand and power tools. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites.

**ENVIRONMENTAL ELEMENTS**

Employees primarily work in an office environment with moderate levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field and are occasionally exposed to loud noise levels, dust, cold and hot temperatures, inclement weather conditions and mechanical and/or electrical hazards.

**Salary Grade:** C1-61 (I); C1-65 (II)

**FLSA:** Non-Exempt

**EEO Code:** H-30

**Board Approved:** April 2021