NETWORK ANALYST

DEFINITION

Under direction, performs moderately complex professional information technology duties related to network design, development, installation, analysis, testing, implementation, documentation and maintenance; participates in complex cross functional network-related projects; facilitates network interfaces with data communications and database systems; assists users with questions regarding network operations and procedures; and performs related work as assigned.

DISTINGUISHING CHARACTERISTICS

This is the full working, journey-level analyst class in the Network Systems Series within the Yosemite Community College District (YCCD). Incumbents in this class perform the full range of moderately complex professional analytical duties emphasizing network design, development, installation, analysis, testing, implementation, documentation and maintenance, as well as the network troubleshooting and administration. Incumbents utilize professional knowledge of network systems and technology to make decisions and complete assignments.

SUPERVISION RECEIVED AND EXERCISED

Incumbents in this class work under the direction of a manager or senior manager, receiving occasional supervision while working toward a definite objective that requires use of a wide range of procedures. Incumbents plan and/or determine specific procedures or equipment required to meet assigned objectives and solve non-routine problems, referring only unusual matters to a supervisor.

An incumbent in this class does not directly lead or supervise other full-time employees, but may assign, direct and/or monitor the work of subordinate full time, part time, and/or student employees on a project or assignment basis.

ESSENTIAL DUTIES

- Provides moderately complex professional support duties related to the design, implementation, maintenance and monitoring of the District's network infrastructure.
- Installs, configures and maintain network infrastructure devices that include, but are not limited to hardware firewalls, routers, switches, concentrators, and DNS/DHCP servers; installs and configures server and personal computer hardware, software, programs and applications as needed to support network activities.
- Implements approved security procedures.
- Analyzes network functions to identify reliability and efficiency issues; monitors servers and network equipment for response time, problem prevention, performance and resource utilization; implements actions to overcome result deviations.
- Assesses network security risks and implements proactive measures to maintain network integrity.

- Participates in complex network expansion and development projects and may serve as project coordinator on moderately complex projects; evaluates and recommends network software and hardware solutions; communicates with vendors and/or other agencies to gather information; researches options and analyzes costs/benefits issues; analyzes integration issues; determines requirements for new equipment installation; prepares reports and recommendations regarding the purchase of hardware, software and peripherals and coordinates purchasing activities as assigned.
- Assesses institutional needs and recommends new technologies to provide analysis and solutions needed for the District network; evaluates and recommends equipment, tools, and utilities to improve the quality of support for network services.
- Develops and prepares technical standards, operational procedures and system performance objectives.
- Participates in large-scale implementation of new processes, upgrades and equipment rollouts; helps plan and implement enterprise-wide network upgrade strategies and procedures.
- Performs technical administrative duties; attends meetings; serves on committees and task forces; independently responds to various inquiries and correspondence; prepares information and data requested for administrative review; maintains information system documentation; prepares reports, files, correspondence and other documents.
- Performs other related duties as assigned.

TYPICAL WORKING CONDITIONS

- Work is generally performed in an indoor office environment that includes frequent exposure to computer screens.

MINIMUM QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The knowledge and ability requirements are representative of essential duties.   Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions of the position.

Knowledge of:
- Network principles, protocols, concepts, practices and terminologies.
- Principles and practices pertaining to the following areas: TCP/IP, Gigabit/Fast Ethernet Switches, IOS, LAN, VLAN, WAN, HSRP, OSPF, H.323, SNMP, 802.1X and 802.11x, Wi-Fi, PIX Firewall, Cisco VPN, T1, DS3, FDDI, RADIUS, TACACS+, Network intrusion detection/prevention, Traffic Analysis, packet tracing, security implementation, network design, network performance analysis, troubleshooting and analyzing network packets using various networking tools.
- The use of various Cisco networking devices.
- Principles and methods of administering OS architectures such as Unix, Linux, Macintosh and Microsoft Server systems and their administrative requirements.
- Contemporary business software, including database and report writing software.
- Methods, techniques, and procedures of modern computer and computer programming design, development and implementation.

- Professional methods and techniques of network and information system troubleshooting, maintenance, development, enhancement, and testing.

Ability to:
- Participate in the design and implementation of complex network systems using provided documentation and on-the-job effort.
- Prepare flow charts and documentation pertaining to design steps and logic with speed and accuracy.
- Analyze network needs and problems, and develop clear and logical solutions.
- Participate in complex information technology projects, including vendor communications and equipment procurement.
- Prepare documentation and operating procedures in a clear and concise manner.
- Communicate effectively, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of the work.

Licenses and Certificates:
- Depending upon assignment, a valid license to drive in California may be required.
- Valid registration as a Cisco Certified Network Associate (CCNA) is desirable.

Physical and Mental Standards:
- **Mobility:** ability to sit for long periods, and move about an office; ability to occasionally stand, bend, crawl and work in tight spaces; ability to frequently reach above and below desk level.
- **Dexterity:** fine manipulation sufficient to operate a computer keyboard, make wiring connections, handle individual papers, write and take notes.
- **Lifting**: frequent lifting of papers, files, equipment and material weighing up to 25 pounds; occasional lifting of items up to 50 pounds.
- **Visual Requirements**: close vision sufficient to read files, documents, and computer screens and do close-up work; ability to adjust focus frequently.
- **Hearing/Talking**: ability to hear normal speech, speak and hear on the telephone, and speak in person.
- **Emotional/Psychological Factors**: ability to make decisions and concentrate; frequent contact with others including some public contact; frequent deadlines and time-limited assignments.

Education and Experience:
Any combination of education, experience and/or training that would likely provide the above-required knowledge, skills and abilities is qualifying. Typical background patterns that would provide the knowledge, skills and abilities are:

<u>Pattern I</u>

- <u>Experience:</u> One year equivalent to a Network Analyst at YCCD.

<u>OR Pattern II</u>

- <u>Education:</u> Possession of a bachelor's degree from an accredited college or university, with major course work in computer science or a closely related field.
- <u>Experience:</u> One year performing professional information technology duties that emphasized network design, development, installation, analysis, testing, implementation, documentation and maintenance.

Special Requirements:
- None

Class Adopted: 3/1/09
Class Amended: 07/01/23