

NETWORK SYSTEMS SPECIALIST

DEFINITION

The Network Systems Specialist is a classification assigned to the Infrastructure Division of the Technology Services Department. Incumbents in this classification perform and direct the analysis, design, monitoring, administration, troubleshooting and enhancement of the City's Local and Wide Area networks, SAN, virtual server infrastructure and other network-related hardware and software products.

DISTINGUISHING CHARACTERISTICS

This is an advanced journey professional level classification. Incumbents are capable of performing the more complex networking and client-server applications systems analysis, configuration and troubleshooting tasks. Work assignments are performed with considerable latitude for independent judgment and initiative. The Network Systems Specialist possesses a working knowledge of IP switching and routing, Network Operating Systems, TCP/IP, CISCO routers, switches, firewalls, OSPF, BGP, VoIP, SAN and virtual server infrastructure.

SUPERVISION RECEIVED

General direction is received from the Information Systems Manager.

SUPERVISION EXERCISED

Depending on projects and assignments, responsibilities may include exercising technical supervision over consultants.

ESSENTIAL DUTIES

Duties may include but are not limited to the following:

Administers the development, maintenance and operation of the City's Local and Wide Area networks including network connectivity to all City Departments and the Internet.

Designs, installs, configures and maintains the City's network facilities consisting of switches, wireless bridges, routers, firewalls, and various cabling schemes for a secure, efficient and cost-effective communications between computer devices in local and remote locations.

Installs and maintains effective network database and hardware system backup and recovery procedures.

ESSENTIAL DUTIES (continued):

Configures and operates network management hardware and software systems, establishing and maintaining all network hardware and network operating systems inventory, and such other information as equipment addresses and routing schemes, access rights, directory structures and security attributes.

Analyzes network activity and performs traffic studies using network management software and protocol analyzer, tuning hardware and software systems or re-routing communications to improve performance.

Confers with departments to determine microcomputer, networking and connectivity requirements; conducts feasibility studies and prepares report of time estimates, personnel requirements and progress reports on assigned projects.

Administers security for remote and web access to City's network and computer resources.

Administers automated deployment of software and updates over the network.

Configures and maintains anti-virus software on network servers and desktop workstations.

Prepares and completes systems documentation prior to releasing for operation.

Performs other related duties as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Installation, maintenance and operations of local and wide area network hardware and software systems applied to server and microcomputer environments using a 10gig Base topology running in a multi-protocol environment using TCP/IP, on fiber and Ethernet backbones.

Office Automation Software, i.e. Microsoft Office Suite of Products, including Adobe, Visio, Project.

Installation, maintenance and repair of server and microcomputer hardware, software and peripheral devices.

Network services including DNS, VPN's, DHCP, and WWW.

Major desktop and networking technology hardware and software advancements and its capabilities.

JOB RELATED AND ESSENTIAL QUALIFICATIONS (continued):

Knowledge of (continued):

Data communications, microcomputer, database, networking, and client/server development, implementation and support concepts.

Presentation methods suitable for comprehensive reports and recommendations.

Commonly used network and desktop software tools and utilities.

Ability to:

Administer a geographically dispersed local and wide area networks of servers, workstations and various microcomputers.

Install, diagnose and repair network hardware, software and peripheral equipment.

Work independently.

Meet established deadlines.

Work as a member of a group or, where appropriate, lead a team on projects.

Set priorities and organize work.

Provide excellent customer service.

Communicate effectively orally and in writing in dealing with users and managers.

Establish and maintain effective working relations with others.

Adapt, learn, update, and apply new networking and computer hardware and software systems skills needed in a continuously changing technical working environment.

EXPERIENCE AND EDUCATION

Any combination equivalent to experience and training that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

EXPERIENCE AND EDUCATION (continued):

Experience: Four (4) years of experience in network systems with two (2) years of recent experience in the management, administration, analysis and support of Local and Wide Area networks, microcomputer hardware and software and office automation software. NOC experience desirable.

Education: Equivalent to a Bachelor's degree from an accredited college or university with major course work in a discipline related to computer science, computer information systems, quantitative analysis or systems analysis. Experience in other technology processing related fields may be substituted for the required education on a year for year basis.

Licenses and Certificates: Possess a Cisco Certified Network Professional (CCNP) or Cisco Certified Network Associate (CCNA). MCSE or MCSA highly desirable. Possess and maintain a valid California Class C Driver's License.

SPECIAL REQUIREMENTS

Essential duties require the mental and/or physical ability to: work in a standard office environment and use standard office equipment and current software; grasp and perform repetitive hand movements and fine coordination to prepare documents and data using a computer keyboard and mouse/trackball; sit for prolonged periods of time; walk, stand, crouch, reach, twist, turn, kneel, bend, squat, stoop and safely lift and move equipment and materials weighing up to 35 pounds; converse by telephone, by email, in person, and before small and large groups, and be clearly understood; read and comprehend legal, technical and complex documents; interact with the public and all different levels of City staff in an effective and professional manner. Essential functions must be performed with or without reasonable accommodation.

PROBATIONARY PERIOD: One (1) Year

H555

August 2001

Revised: September 2018

AAP GROUP: 4

FPPC STATUS: Designated

FLSA STATUS: Exempt