



August 2013

NETWORK ADMINISTRATOR

DEFINITION

Under general direction, assists in the planning, coordination, and implementation of the activities, operations, and duties in support of the City's information technology network; researches, installs, configures, and maintains all components of the data network infrastructure; implements new systems, programs, and hardware and software upgrades; implements, monitors, and maintains network security; coordinates assigned activities with other departments and divisions, outside agencies, and the general public; provides highly technical and complex staff assistance to the Information Technology Manager; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Information Technology Manager. Exercises no direct supervision of staff.

CLASS CHARACTERISTICS

This is a single-position class responsible for designing, planning, implementing, and maintaining the City's computer network infrastructure, including hardware, operating systems, and desktop/network applications. Responsibilities include maintaining network firewalls, routers, and switches, administering the e-mail system, and providing technical support to City staff in all departments. This class is distinguished from the Geographic Information Systems Coordinator by a higher level of responsibilities and broader scope of required knowledge of all hardware and software utilized by the City. This class is further distinguished from Information Technology Manager by the latter's full management and supervisory responsibility in planning, organizing, and directing the full scope of operations within the division.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Researches, installs, configures, and maintains all network hardware and software, including switches, routers, and firewalls for network functionality and security for all City departments.
- Advises and consults with users to develop required application services and business processes; assists in planning, coordinating, and scheduling future needs keeping all parties informed of plans, progress, training requirements, and budgetary issues; develops and recommends application and resource priorities.
- Manages network architecture, including LAN and WAN technologies.
- Manages multiple servers, workstations, and terminals, ensuring proper integration of these components with existing system architecture.
- Implements new systems, programs, and hardware and software upgrades; supports technical requirements of software for users; identifies, analyzes, and resolves software and network problems.

- Conducts growth analysis and planning to prepare for and minimize costs of system expansion.
- Designs, implements, and upgrades network architecture to accommodate growing communication requirements.
- Maintains and troubleshoots networks, systems, and applications to identify and correct malfunctions and other operational problems.
- Troubleshoots network connectivity problems, including monitoring network and servers for problems; analyzes, diagnoses, and resolves problems.
- Works with vendor representatives to identify and correct causes of hardware and software malfunctions and to perform enhancements; coordinates the work of outside consultants.
- Implements, monitors, and maintains network security; ensures proper user accessibility; oversees security procedures.
- Defines and implements network disaster recovery; ensures hardware, software, and information protection and file integrity; oversees backup procedures.
- Monitors the performance of the network system; tracks possible problem areas affecting response time and prepares recommendations for correction of problems and improvement in performance.
- Develops and implements backup policies and procedures; performs system backups as needed for all City departments.
- Develops, implements, maintains, and enforces policies and procedures for network administration.
- Responds to inquiries from other computer support staff and from other departments.
- Identifies opportunities for improving service delivery methods and procedures; reviews with appropriate management staff and implements improvements; works with City staff to maintain, revise, or improve the overall information technology operation.
- Maintains and compiles an electronic documentation library of user procedures manuals, technical references, training manuals, handbooks and guides; maintains logs, charts, diagrams and testing data for City's data, voice and video network.
- Provides technical support and training to other IT-related staff. Assists, teaches, and trains other IT-related staff with policies, procedures, and best practices to provide needed services to City department.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of information technology network administration, network security policies and procedures, backup procedures and information systems pertaining to City departments.
- Network systems analysis and troubleshooting principles and procedures.
- Computer hardware and software applications, including network essentials, peripheral equipment and network security.
- Design, operations, properties, and capabilities of networks and network cabling.
- Operation and care of computer equipment.
- Operating characteristics, capabilities, and limitations of computer related peripheral equipment.
- Operating systems such as LAN/WAN operating systems and mini-computer applications.
- Applicable Federal, State and local laws, codes and regulations.
- Research techniques, methods, and procedures.
- Technical report writing practices and procedures.
- Principles and procedures of record keeping and reporting.
- Modern office practices, methods and computer equipment.
- Computer applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for dealing effectively with the public, vendors, contractors and City staff, in person and over the telephone.

- Techniques for providing a high level of customer service to public and City staff, in person and over the telephone.

Ability to:

- Analyze complex network practices and operations and develop solutions.
- Troubleshoot and diagnose specific problems with the network, computers and associated equipment.
- Provide recommendations on network, computer hardware and software systems and select appropriate equipment.
- Perform complex diagnostic and technical service.
- Perform difficult computer information system network installation, repair, and maintenance work.
- Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Interpret, apply, and explain Federal, State, and local laws, codes, regulations.
- Research, develop, and recommend cost-effective technical system improvements.
- Prepare and maintain accurate and complete records; clear and concise reports; and write technical documentation.
- Respond to requests and inquiries from end-users in City departments.
- Assist, teach, and/or train other IT Staff and the Police Technology Specialist to ensure the integrity of the City's network.
- Operate, install, maintain, configure, and troubleshoot a variety of highly technical computer equipment and peripherals.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities and meet critical time deadlines.
- Clearly communicate with all levels of technical users.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Comprehend and use English effectively including producing all forms of communication in a clear, concise, and understandable manner to intended audiences.
- Use tact, initiative, prudence and independent judgment within general policy, procedural and legal guidelines.
- Establish, maintain, and foster positive and harmonious 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:

Equivalent to graduation from an accredited four-year college or university with major coursework in computer science, information technology, or a related field, and five (5) years of responsible network management, computer systems, systems analysis, or related experience.

Licenses and Certifications:

- Possession of a valid driver's license with satisfactory driving record.

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 city and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups and over the telephone. This is primarily a sedentary office classification although standing in work areas and

walking between work areas may be required. Finger dexterity is needed to access, enter and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 40 pounds.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.