# NETWORK ADMINISTRATOR

Approved: October 2020
FLSA: Non-exempt
Unit: AFSCME



### Definition

Under general supervision, 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 outside agencies; 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 or assigned manager. Exercises direct supervision over technical staff and provides technical and functional direction to contractors and other temporary 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, voice and desktop/network applications. Responsibilities include maintaining network firewalls, routers, and switches, administering the e-mail system, and providing technical support to City staff. Successful performance of the work requires extensive knowledge of information technology infrastructure, systems, operations, maintenance, and repair. This class is distinguished from Information Technology Manager in that the latter has full management and supervisory authority in planning, organizing, and directing the full scope of information systems operations.

### Examples of typical 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 functionality and security.
- Manages network architecture, including local area network (LAN) and wide area network (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; researches and selects new software to improve internal information technology processes.
- 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; 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.
- Provides security authorization for application access and coordinates security maintenance on department computer systems with the Information Technology Manager and WAN administrators or technical support staff.
- Works with vendor representatives to identify and correct causes of hardware and software malfunctions and to perform enhancements; coordinates the work of outside consultants.
- Represents the department at conferences on specialized topics and at meetings with appropriate vendors.
- Implements, monitors, and maintains network security; ensures proper user accessibility, including remote access through the virtual private network; oversees security procedures; configures and implements security policies; monitors logs for intrusion attempts; secures systems from internal and external threats.
- Defines and implements network disaster recovery; ensures hardware, software, and information protection and file integrity; oversees backup procedures.
- Develops and implements backup policies and procedures; performs system backups.
- 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 of logs, charts, diagrams, and testing data for the City's data and voice network.
- Remotely monitor network devices and alerts
- 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.
- Operating characteristics, capabilities, and limitations of computers and related peripheral equipment.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to municipal operations.
- Research techniques, methods, and procedures.
- Principles and procedures of record-keeping and reporting.
- Modern office practices, methods, and computer equipment and applications related to the work.
- Techniques for providing a high level of customer service by effectively dealing with vendors, contractors, and City staff.

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 new or existing network and computer hardware and software systems.
- Perform complex diagnostic and technical service.
- Operate, install, maintain, configure, and troubleshoot a variety of highly technical computer equipment and peripherals.
- 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 ensure compliance with Federal, State, and local policies, procedures, laws, and regulations.
- Research, develop, and recommend cost-effective technical system improvements.
- Prepare and maintain accurate and complete records, clear and concise reports, and technical documentation.
- 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.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- 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:
- Equivalent to graduation from an accredited four-year college or university with major coursework in computer science, information technology, or a related field and three (3) years of experience at the journey-level or above, in a role responsible for network management, computer systems, systems analysis, or related experience.
- Possession of industry certification in the areas of networks, servers and/or project management are preferred.

## Licenses and certifications

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

| **Physical demands** |
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| 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 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. |
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