

MAJOR FUNCTION

This is professional and technical work installing, supporting, maintaining and safeguarding all components of the City's networks and telecommunications systems. The incumbent is also responsible for recommending and implementing local area network (LAN) and network security policies and standards; evaluating vendor products in hardware; software; and telecommunications equipment and recommending purchases consistent with the organization's objectives. An employee in this class exercises considerable independence in determining work methods and procedures. Work is performed under the general direction of the Enterprise Architecture Manager and is reviewed through consultations and written reports for achievement of desired objectives.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES**Essential Duties**

Network: Designs, installs, configures, monitors, troubleshoots and manages a diverse base of installed networking equipment, firewalls and/or network security applications, which includes wired and wireless data networks servicing data, voice, and video application throughout the City's network infrastructure. Collects and monitors data for system usage, performance and vulnerabilities. Analyzes network for security vulnerabilities and breaches. Provides technical advice and consultation to the City's technical staff as well as end-users related to network related issues and applications traversing the City's network. May function as project leader responsible for a coordinated effort in managing of project, communicating and troubleshooting, as well as design of solutions relevant to a project. This includes distributing the workload, providing advice and consultation, and coordination of vendors and staff. Modifies or creates network diagrams. Troubleshoots and configures DHCP and DNS. Conducts reviews of systems in the technical support area and makes recommendations to management concerning the acquisition and implementation of such systems. Assist in the establishment and implementation of LAN and security policies, procedures and standards, ensuring conformance with information systems and objectives.

Telecommunications: Organizes technical tasks utilized in City-wide network and telecommunications maintenance of the City's network support infrastructure. Installs, configures and maintains the organization's local area network and wide area networked systems and assist in the administration of the networks and telecommunications equipment. Designs and supports networks, telecommunications systems and software. Analyzes future needs for acquisition. Establishes and maintains documentation and technical information library. Coordinates the analysis and review of network hardware and telecommunications systems. Coordinates data communications and microcomputer network design and maintenance. Monitors network and telephony systems performance and makes recommendations to improve efficiency. Develops and writes procedures for installation, use and solving problems of telecommunications hardware and software. Understands LAN and telecommunications operations and procedures. Performs daily preventive maintenance routine and system diagnostics to prevent likelihood of system malfunctions and failures. Evaluates requests, designs, and implements telecommunication systems software network applications as required by departments. Performs installations of all types of computerized PBX, CBX, Voice over IP and hybrid key systems. Performs installations of phones, FAX, TDDs. Performs moves and changes to various types of communications equipment. Performs related work as required.

Other Important Duties

Conducts research on network products, services, protocols, and standards to remain abreast of developments in the networking industry. Evaluates and recommends new technology as the need arises. Serves as a resource to other ISS staff regarding primary areas of responsibility. Performs related work as required.

DESIRABLE QUALIFICATIONS**Knowledge, Abilities and Skills**

Network: Knowledge of network systems analysis, multi-vendor firewalls, routing and fiber optics, VPN technologies, data communications techniques, telephony infrastructure, and IT management principles. Thorough knowledge of modern data processing applications, equipment, and the functions of multi-processing computer operations. Thorough knowledge of Microsoft Visio diagram creation and modification. Ability to analyze a wide variety of highly technical materials and to develop appropriate recommendations. Ability to consult and train other employees in the use of technical software. Ability to establish and maintain effective working relationships as necessitated by the work. Ability to communicate effectively, clearly, and concisely, orally and in writing. Considerable knowledge of network routing and switching design and concepts; network hardware and firewall installation and configuration, network wiring, and outside plant cabling and system terminology. Ability to isolate, define and resolve failed equipment in the network. Ability to interpret and run data captures and diagnose issues using said captures.

Telecommunications: Knowledge of network systems analysis, routing and fiber optics, data communications techniques, telephony infrastructure, and IT management principles. Thorough knowledge of modern data processing applications, equipment, and the functions of multi-processing computer operations. Ability to analyze a wide variety of highly technical materials and to develop appropriate recommendations. Ability to consult and train other employees in the use of technical software. Ability to establish and maintain effective working relationships as necessitated by the work. Ability to communicate effectively, clearly, and concisely, orally and in writing. Considerable knowledge of communication system installation, network wiring, and outside plant cabling and system terminology. Ability to isolate, define and resolve failed equipment in the communications systems network. Considerable knowledge of central office operations, central office programming system, phone mail, cost accounting system, and battery AC/DC backup systems. Considerable knowledge of installation and wiring of outside plant cabling and Siemens/ROLM system terminology, as well as, Voice over IP technology, Internet and Intranet, or supporting wireless connectivity for users for multiple sources systems.

Minimum Training and Experience

Network: Possession of a bachelor's degree in data processing, information systems, computer science or a related field and three years of professional and technical experience that includes installation and maintenance of network communications systems and firewalls, wireless networks, network design, Internet/Intranet support, VPN design and support; or an equivalent combination of training and experience.

Telecommunications: Possession of a bachelor's degree in data processing, information systems, computer science or a related field and three years of professional and technical experience that includes installation and maintenance of data and voice communications systems and end user devices such as telephone, fax, TDD, and Voice over IP device; or design and installation of network and telecommunications infrastructure to support applications and user environments such as E-Mail, Internet and Intranet, or supporting wireless connectivity for users for multiple sources systems; or an equivalent combination of training and experience.

Necessary Special Requirement

Must possess a valid Class E State driver's license at the time of appointment.

Established: 12-05-16

Revised: 02-06-19