MAJOR FUNCTION

This is professional and technical work installing, supporting, maintaining and safeguarding all components of the City's networks. The incumbent is also responsible for recommending and implementing local area network (LAN), wide area network (WAN) 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 Technology Infrastructure Administrator and is reviewed through consultations and written reports for achievement of desired objectives.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES

Essential Duties

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.

Analyzes future needs for acquisition. Establishes and maintains up to date documentation and network diagrams. Audits systems and networking equipment and makes recommendations to management concerning their acquisition and implementation or modification. Assist in the establishment and implementation of LAN/WAN and security policies, procedures and standards ensuring compliance with City policies and best practices. Develops and writes procedures for installation, use and troubleshooting of network hardware and software. Understands network operations security and procedures. Performs daily preventive maintenance and system diagnostics to prevent malfunctions and failures.

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 IT staff regarding primary areas of responsibility. Performs related work as required, including on-call or after-hours rotation.

DESIRABLE QUALIFICATIONS

Knowledge, Abilities and Skills

Knowledge of network systems analysis, multi-vendor firewalls hardware, routing and fiber optics, data communications techniques, telephony infrastructure, and IT management principles. Thorough knowledge of diagram creation and modification, preferably Microsoft Visio. 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. Ability to communicate effectively, clearly, and concisely. Considerable knowledge of network routing and switching; 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. Familiarity in troubleshooting the Linux environment.

NETWORK INFRASTRUCTURE ENGINEER

Minimum Training and Experience

Possession of a bachelor's degree in, information systems, computer science or a related field and three years of professional and technical experience that includes installation and maintenance of network systems firewalls, network design, Internet and Intranet and wireless support, 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.

Technology & Innovation: Applicant must successfully complete a fingerprint-based criminal background screening and obtain Criminal Justice Information Systems (CJIS) within 30 days of employment.

Established: 12-05-16 Revised: 02-06-19 04-03-25