CLASS TITLE: NETWORK ADMINISTRATOR

CHARACTERISTICS OF THE CLASS

Under supervision, the class maintains, monitors, and supports the infrastructure environment including: the local-area networks (LANs), wide-area networks (WANs), network segments, intranets, telecommunications and other voice, video, and data communication systems, and performs related duties as required.

This class is assigned to the Technical Administration Information Technology Job Family which consists of positions that design, build, configure, test, deploy, upgrade, maintain and improve technology products, platforms, and solutions.

ESSENTIAL DUTIES

- Installs, configures, maintains, deploys networks/telecom and related utilities and hardware and releasing new technologies
- Develops enhanced production monitoring and additional capability
- Defines improvements for increased system reliability and performance
- Gathers data pertaining to customer needs, and uses the information to identify, predict, interpret, and evaluate network requirements
- Works with IT Engineers to understand technical requirements
- Provides feedback and recommendations on requirements based on health check results
- Develops new alerts and monitoring techniques
- Assists in managing technical changes, verifying testing results, and monitoring technical standards compliance and deployment
- Establishes WAN, LAN, and WLAN device profiles, device environments, directories, and security for networks being installed
- Sets up and configures the network by installing the hardware and configuring the files or databases, hosts, routers, and network configuration servers
- Reviews facilities bandwidth requirements and system interdependencies
- Adjusts bandwidth on routine basis and provides input to capacity planning activities
- Expands networks, as needed, by setting up a new network and connecting it to the existing network
- Monitors and tunes server operating systems to achieve optimum performance levels
- Recommends performance metrics
- Identifies ways tasks can be automated
- Analyzes data from monitoring activities and assists in defining comprehensive, system wide improvements
- May plan and schedule installations and upgrades

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Associate's degree in Computer or Information Science, Computer Engineering, Electrical Engineering, Database Administration or a directly related field **OR** two (2) years of work experience in the design, installation, maintenance, and engineering support of LAN/WAN/WLAN network systems

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., phone, printer, copier, computers, mobile devices)
- Standard productivity suites (e.g., Microsoft Office Suite, OpenOffice, Google Workspace)

PHYSICAL REQUIREMENTS

- No specific requirements

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *industry-leading practices in technical administration of on-premises/virtualization and cloud solutions.
- *computer network infrastructure
- *application transport and network infrastructure protocols
- *network diagrams and documentation for design
- *network communication systems

Knowledge of applicable City and department policies, procedures, rules, and regulations

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- TIME MANAGEMENT - Manage one's own time or the time of others
- COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- JUDGEMENT AND DECISION MAKING - Consider the relative costs and benefits of potential actions to choose the most appropriate one

- SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences

- SPEAK - Communicate information and ideas in speaking so others will understand

- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing

- WRITE - Communicate information and ideas in writing so others will understand

- CONCENTRATE - Concentrate on a task over a period of time without being distracted

- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong

- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense

- COME UP WITH IDEAS - Come up with a number of ideas about a topic

- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns

- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

Additional Competency Requirements

- COMMUNICATION FOR RESULTS – Writes, speaks and presents effectively. Explains the immediate context of the situation, asks questions with follow-ups and solicits advice prior to taking action. Develops presentations to influence others by using graphics, visuals or slides that display information clearly. Listens and asks questions to understand other people's viewpoints.

- GROWTH MINDSET – Takes ownership of personal growth. Identifies knowledge gaps. Asks questions of subject matter experts and seeks help when needed. Keeps abreast of information, developments and best practices within a field of expertise (e.g., by reading, interacting with others or attending learning events).

- INITIATIVE – Volunteers to undertake tasks that stretch his or her capability. Identifies who can provide support and procures their input. Identifies problems and acts to prevent and solve them.

- OWNERSHIP AND COMMITMENT – Volunteers to undertake tasks that stretch his or her capability. Checks the scope of responsibilities of self and others. Monitors day-to-day performance and takes corrective action when needed to ensure desired performance is achieved. Identifies problems and acts to prevent and solve them. Identifies who can provide support and procures their input.

- CUSTOMER SERVICE – Assumes responsibility for meeting customers' needs and holds self accountable for follow-up. Provides courteous, timely and professional service even in difficult situations. Instructs customers on products and services and how to apply them to their business processes. Escalates to appropriate parties as needed. Makes customers and their needs a primary focus of one's actions. Performs tasks according to quality and output standards. Takes initiative to ensure that outcomes meet internal and external customer requirements.

- INFORMATION SEEKING – Asks questions and solicits procedural information that explains how day-to-day tasks are conducted. Collates facts and data. Checks and monitors progress of activities in area of responsibility. Seeks out the appropriate people for guidance when needed to get things done.

- NETWORK TECHNOLOGY KNOWLEDGE – Utilizes a range of tools and techniques for setting up and reconfiguring data and voice communications networks to meet changing business needs. Draws and presents detailed diagrams to explain the needs of the organization and implementation plans to peers, vendors and contractors. Offers advice and assistance on local problems escalated to second tier.

- PROBLEM SOLVING – Issues may not have clearly prescribed solutions and require interpretation of policies or analysis to resolve. Solicits input in gathering data that help identify and differentiate the symptoms and root causes of defined problems. Suggests alternative approaches that meet the needs of the organization, the situation and those involved. Escalates issues with suggestions for further investigation and options for consideration.

- SYSTEMS THINKING – Resolves routine issues related to strategy implementation. Escalates issues identified as impacting the customer or strategic initiatives.

- THOROUGHNESS – Applies attention to detail to routine tasks defined in formal, written procedures and oral instructions. Seeks guidance on the quality and the degree of completion required to complete new tasks. Reprioritizes, as new deadlines are set. Responds constructively to customer feedback on task output.

Other competencies as required for successful performance in the lower-level series.

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
March 2023