CLASS TITLE: SENIOR INFRASTRUCTURE ADMINISTRATOR

CHARACTERISTICS OF THE CLASS

Under direction, the class title is the technical specialist classification responsible for ensuring that the performance and availability of the server infrastructure, network & telecom infrastructure, and end user computing environment is maintained to the highest standard with maximum levels of productivity and efficiency, 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

This class is distinguished from the entry-level by the amount of discretion exercised over technical issues, problems, and resolutions; positions must possess a significant level of specialized technical and functional expertise beyond that expected at the entry level; require highly specialized knowledge, abilities and skills and experience and often exercise independent judgement in the performance of their duties. The senior level also has greater latitude in determining work methods and assignments; greater authority over assignments and decisions required to complete the work than the lower-level classification; and works on complex server, network, and telecom infrastructure projects.

- Manages the set up and configuration of network/DC by ensuring completion of installation of hardware and configuration of the files or databases, hosts, routers, and network configuration servers working with third parties as required

- Adds new host machines to the network/DC and administers network/DC security

- Responsible for the establishment of WAN, LAN, WLAN device profiles, device environments, directories, and security for networks being installed

- Performs network/DC startup and shutdown procedures and is responsible for ensuring control records are maintained

- Maintains the physical networks, servers, operating systems, firewalls, internet connectivity, virtualization, business applications, enterprise voice services solutions, end user computing devices, and both information and data security

- Identifies performance problems and malfunctions, addresses system and equipment problems, performs hardware checks using appropriate testing tools and maintains hardware

- Expands networks/DC, as needed, by setting up new hardware & software and connecting it to the existing assets

- Programs, installs, troubleshoots, repairs, and is responsible for ensuring all aspects of the telecommunications equipment; includes responsibility for the security and server updates or patches

- Ensures support and guidance is provided to all mobility initiatives and platforms

- Manages current storage environment by ensuring that any storage shortages are resolved, performance issues are resolved or alerted, and that data is available to all applications

- Evaluates, develops, and implements enhancements to improve reliability, scalability, sustainability, and availability

- Plans and schedules installations and upgrades

- Performs installations and upgrades; applies updates, patches, and configuration changes
- Ensures system recoverability by implementing and monitoring a schedule of system backups and disaster recovery

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 with an Associate's degree in Computer or Information Science, Computer Engineering, Electrical Engineering, Database Administration, or a related field required plus at least three (3) years of technical administration, cloud solutions or related work experience, or an equivalent combination of education, training, and experience

Licensure, Certification, or Other Qualifications

- Relevant certification is strongly preferred

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

Considerable knowledge of:

- *industry-leading practices in technical administration of on-premise/virtualization and cloud solutions
- *automating tasks using scripting and writing basic computer programs to address more complex systems software configuration and enhancement
- *computer network infrastructure

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

Other knowledge as required for successful performance in the Infrastructure Administrator class

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.

- ADAPTABILITY – Handles multiple projects and duties simultaneously, prioritizing as needed. Quickly resolves new challenges in a changing environment. Devises flexible approaches that are easily adopted. Listens to others' opinions and acknowledges the value of difference.

- ANALYTICAL THINKING – Collects all the relevant information and data needed to address the problem. Organizes, classifies and synthesizes the data into fundamental issues. Breaks the information into manageable components. Identifies the logical outcomes from the analyses of the data collected and identifies the options and solutions for addressing the problems analyzed.

- INFORMATION SEEKING – Gathers and analyzes information or data on current and future trends of best practice. Uses appropriate tools, techniques and sources to gather, update and monitor information. Checks for accuracy of interpretation. Seeks out the appropriate people for guidance when needed, depending on the type of issue

- PROBLEM SOLVING – Issues are often challenging and require analysis to understand and resolve. Applies problem-solving methodologies to diagnose and solve operational and interpersonal problems. Determines the potential causes of the problem and devises testing methodologies for validation. Shows empathy and objectivity toward individuals involved in the issue. Analyzes multiple alternatives, risks and benefits for a range of potential solutions. Recommends resource requirements and collaborates with impacted stakeholders.

- 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.

- THOROUGHNESS – Performs tasks according to quality and output standards. Takes initiative to ensure that outcomes meet internal and external customer requirements. Solicits feedback on performance of new tasks. Measures accuracy using performance metrics. Sets improvement standards to reduce errors, omissions and oversights

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