

ENTERPRISE NETWORK SECURITY ANALYST

DEFINITION

Under general direction, conceptualizes, plans, designs and implements complete and integrated information technology solutions in support of the District's enterprise-wide information technology network; administers the wide area network for the District, which involves the creation and maintenance of the system environments; researches, designs, configures, and maintains physical and the virtual network infrastructure; implements upgrades for mission critical systems and programs; coordinates assigned activities with other departments and outside agencies; provides highly technical and complex staff assistance to the Manager, Network Data and Security, as well as, to the department.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Assistant Director, Network Data and Security. Exercises no direct supervision of staff.

CLASS CHARACTERISTICS

This classification is responsible for designing, implementing, and maintaining the District's enterprise network infrastructure, including hardware, operating systems, and desktop/network applications. Responsibilities include providing subject matter expertise on network administration to District staff, as well as, administering enterprise computer application systems. Successful performance of the work requires extensive knowledge of information technology infrastructure, systems, and operations. This class is distinguished from the Enterprise Network Administrator in that it provides a subject matter expert level of support and is responsible for system design of centralized desktop and server management initiatives within the enterprise-wide network architecture. This class is further distinguished from the Assistant Director, Network Data and Security in that the latter has full management and supervisory responsibility for planning, organizing, and managing both the information technology network and security operations for the District.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

- Plans, tests, configures, and deploys desktop application distribution solutions for remote distribution and management.
- Builds, manages, and maintains multiple physical and virtual server infrastructures, ensuring proper integration of these components with existing system architecture.
- Stays abreast of new trends and innovations in technology related to District information technology operations; researches, recommends, implements, and evaluates systems, such as Virtual Desktop Infrastructure systems, and methods of delivery; works with staff to maintain, revise, or improve the information technology operations.
- Designs, implements, and upgrades network architecture to accommodate District operational needs.
- Ensures the functionality and stability of production clustered systems; monitors the performance of the systems; optimizes & tunes operating systems to resolve performance issues, troubleshoots network connectivity problems; tracks possible problem areas affecting response time and prepares recommendations for correction of problems and improvement in performance.
- Manages and leads team projects and centralized desktop and server management initiatives.
- Confers with information security technical staff to maintain desktop and server operating system security; utilizes systems management software and computer programs to patch, update, and monitor desktop and server systems security and adjusts system configurations as required.

- Configures and maintains enterprise computer applications on various servers such as Active Directory, Lightweight Directory Access Protocol (LDAP) deployment, including creating and managing organizational units, user accounts and groups, and computer groups.
- Provides guidance, assistance, and training to end users in the proper use of various integrated enterprise computer applications and systems.
- Advises, educates, supports, and trains information technology staff on enterprise systems and projects, as well as, the use and deployment of systems, including Active Directory, desktop environment management, print servers, Microsoft System Center products, antivirus solutions, and other integrated IT services.
- Develops, implements, maintains, and enforces policies and procedures for network administration.
- Configures and monitors enterprise disk storage space for use with physical and virtualized servers.
- Implements new systems, programs, and hardware and software upgrades; supports technical requirements of software for users; identifies, analyzes, and resolves software and network problems.
- Installs and maintains distributed computer cloning systems standards.
- Confers with vendor representatives to perform system enhancements, as well as, identify and correct causes of hardware and software malfunctions.
- Monitors and modifies desktop power management schedules for staff and lab systems.
- Defines and implements network disaster recovery; ensures hardware, software, and information protection and file integrity; oversees backup procedures.
- Learns and applies emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of heterogeneous network administration, network security policies and procedures, backup procedures, and information systems pertaining to assigned District division or department.
- Unix administration, web technologies, Microsoft technologies, automation/scripting, and enterprise server and storage administration.
- 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.
- Procedures for planning, implementing, and maintaining assigned projects.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned functions and responsibilities.
- Research techniques, methods, and procedures.
- Technical report writing practices and procedures.
- Principles and procedures of record-keeping and reporting.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, students, and District staff, including individuals of various ages, disabilities, socio-economic and ethnic groups.

Skills & Abilities 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.
- Oversee and coordinate assigned project operations, services, and activities.
- Participate in the development of goals, objectives, policies, procedures, and work standards for assigned projects.
- Operate, install, maintain, configure, and troubleshoot a variety of highly technical computer equipment and peripherals.
- Use network operating systems such as Windows, Linux, and Apple OSX in multi-tiered network environments.
- 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, explain, and ensure compliance with applicable 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.
- Understand scope of authority in making independent decisions.
- Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
- 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 a regionally accredited four-year college or university with major coursework in computer science, information technology, or a related field and five (5) years of responsible network management, computer systems, systems analysis, or related experience.

Licenses and Certifications:

- The incumbent may periodically be required to travel to a variety of locations. If operating a vehicle, employees must have the ability to secure and maintain a valid California driver's license.
- Certified Information Systems Security Professional (CISSP), Security+, Certified Ethical Hacker (CEH), and/or Global Information Assurance Certification (GIAC) Security Essentials Certification (GSEC) preferred.

PHYSICAL DEMANDS

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 District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas is 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 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 50 pounds, and occasionally heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and exposure to dust, fumes and allergens. Employees may interact with staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.