SAN MATEO COUNTY OFFICE OF EDUCATION

FLSA: Non-Exempt

NETWORK SYSTEMS ADMINISTRATOR

DEFINITION

Under direction, performs a variety of specialized activities in the planning, installation, configuration, administration, operation, maintenance and repair of server hardware and software; maintains virtualized server infrastructure; administers, evaluates, modifies, and ensures proper security and operation of network server systems; administers backup and restore solutions; documents procedures and serves as a technical advisor to staff; and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory or management personnel. Exercises no direct supervision over staff.

CLASS CHARACTERISTICS

This journey-level professional classification is responsible for independently performing technical duties in support of the Office's network systems, servers, and related equipment and software. Positions at this level exercise judgment and initiative in their assigned tasks, receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Performs a variety of specialized activities involved in the installation, configuration, operation, maintenance and repair of physical and virtual servers, infrastructure, and related equipment, hardware, software and applications; administers servers backup solutions, facilitates access to system resources.
- Inspects, troubleshoots, and diagnoses servers, hardware and application malfunctions to assure smooth running of network systems such as LAN/WAN and WiFi; resolves connectivity and other network problems and malfunctions; administers, configures, monitors and maintains server environment system and security; updates servers with security patches and anti-virus software as needed.
- Monitors and analyzes network and server performance to ensure smooth and efficient operation and identify problems, concerns and security issues; ensures proper network usage, operations, resources allocation, bandwidth and connectivity; monitors, analyzes and modifies systems to meet office and remote user needs.
- Administers virtual server infrastructure (e.g. hosts, storage, and network configuration) to ensure highly available systems.
- Administers on-premise and cloud-based endpoint management solutions, device management, and

cloud computing service management platforms
- Performs a variety of network and systems administration activities including establishing and maintaining Active Directory user accounts, passwords, internet connectivity, firewalls and designated programs and systems.
- Administers storage area network or cloud-based storage to meet storage needs for systems that support SMCOE business functions.
- Collaborates with Office personnel, County school districts, and vendors to determine computing, storage, and network requirements and exchange information to support backup retention and life-cycle management.
- Provides technical assistance and user support to Office personnel, County school districts, outside agencies, and others concerning network virtual servers; responds to inquiries and provides detailed and technical information concerning network design, equipment, hardware, software, security, connectivity, configuration, malfunctions, applications, practices, techniques and procedures.
- Assists in the planning, design, set-up, development and modification of virtual infrastructure and backup systems; development and implementation of related projects; and preparation and development of network plans including diagrams, drawings, spreadsheets, and other documents.
- Maintains various records related to network documentation, routers, switches, firewall configurations, IP's and assigned activities; documents service tickets in a timely manner to ensure sufficient information to communicate the problem, how it was remediated, and suggested actions to prevent recurrence as appropriate.
- Stays abreast of current trends and developments in network, storage, virtualization and cloud computing; evaluates and recommends new data center technologies; contact vendors to request pricing information for hardware and software as directed.
- Observes and complies with all Office and mandated safety rules, regulations, and protocols.
- Performs related duties as required.

QUALIFICATIONS

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 a bachelor's degree from an accredited college or university with major coursework in computer science or related field; and

- Four (4) years of experience performing network systems and server support duties, including working with server configuration, setup, account provisioning, Active Directory maintenance, server maintenance, equipment, hardware and software.

Licenses and Certifications:
This position may require employees to travel locally, and specifically, employees must be able get themselves to different locations during their workday. Employees will be responsible for ensuring that they can timely move between locations during their workday either via driving themselves with a valid driver's license or using other modes of transportation, including a ride hailing service, taking a taxi, carpooling, bicycling, etc.

Knowledge of:

- Practices, procedures and techniques involved in the design, installation, configuration, operation,

maintenance and repair of virtual infrastructure systems, backup storage solutions, cloud storage, servers and related equipment, network hardware, internet connectivity, software and applications.
- Principles, methods and procedures of operating servers, VPNs, networks and peripheral equipment.
- Principles and techniques of systems and network analysis and system utilities, design, and program applications.
- Materials, methods and tools used in the operation, installation and repair of servers and network systems.
- Complex technical environments including network, infrastructure, data center, and desktop support.
- Applicable types of host systems, servers, routers, switches and other related equipment.
- Installation, monitoring, maintenance and repair of network infrastructure, cloud storage, servers, and internet connectivity.

- Principles and practices of email and Active Directory administration.
- Principles and practices of developing and maintaining technical documentation, files, and records.
- Network security principles, including encryption, multi-factor authentication, access controls, and security protocols.
- Cyber security, disaster recovery, and business continuity best practices.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and Office staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Administer, evaluate and modify server systems, backup solutions to assure proper security and operation.
- Monitor, analyze and modify systems to meet office and remote user needs.
- Troubleshoot, diagnose and resolve problems with network servers, hardware and software.
- Identify and analyze potential security breaches and issues and identify mitigation solutions.
- Perform a variety of network administration activities including establishing and maintaining user accounts, passwords, server and system back-ups, email accounts and internet connectivity.
- Repair and replace hardware as needed.
- Administer, monitor and maintain network system security, servers and databases.
- Provide for effective and efficient storage, retrieval, customization, and archiving of data.
- Configure network and user station settings to ensure optimal utilization of system resources.
- Install and configure network hardware and related equipment.
- Respond to and effectively prioritize a high volume of phone calls and other requests for service.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.

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 visit various Office 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 in work areas and walking between work areas may be 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 occasionally 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 up to 50 pounds.

ENVIRONMENTAL CONDITIONS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing divisional policies and procedures.