Position:	Network Systems Analyst Senior	**FLSA:**	Exempt
Department/Site:	Information Technology Services	**Salary Grade:**	43
Reports to/Evaluated by:	Manager, Network Services	**Salary Schedule:**	Classified Management

SUMMARY

Designs and coordinates installation, configuration, and administration of the full range of district servers and networks enabling network services and functions governing data communications and formulation among personal computers. Connects multiple systems involving a wide geographic area. Will oversee and troubleshoot server performance, backup schedules and hardware and software compatibility issues. Participates in advanced technical support and troubleshooting including network architecture and design and provides lead technical support to other technology staff.

DISTINGUISHING CAREER FEATURES

The Network Analyst, Senior is the fourth, and senior level in a broad-based career ladder governing network administration and data communications. Advancement along this ladder can occur through mastery with server and network administration. At Level I, the position is capable of basic network operations, account setup and permissions, physical equipment installation, conducting training in specialized software, and providing setup, connection, maintenance of existing servers and basic understanding of the 7-layer OSI model. At Level II, the job would require the ability to independently maintain servers and to know routing and switching. This includes the ability to install servers and basic diagnostics. At Level III, the job requires the ability to design independent systems, automate processes and diagnose systems, and equivalent knowledge to CCNA or MCSA certification. At level IV, the job requires the ability to assist and support the entire district network, which includes LANs and WAN across the Cities of Fresno and Clovis, and support the Network Manager in maintaining servers, systems, and services, including, but not limited to, Microsoft technologies, Linux systems, storage, cloud systems, and virtual environments, and the equivalent knowledge to CCNP or MCSE certification.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Designs and plans network systems and architecture. Integrates the capability of multiple dissimilar servers at various locations to communicate as a common system on the network.

- Assists and supports the Network Manager on the design, development, testing, and modification of the overall district network architecture, systems, and services. This includes planning and design of networks and services for any new school, office, classroom, or site remodeling.

- Develops, implements, and enforces network naming and addressing standards among all networks including those on different formats.

- As part of the Network Team, monitor systems and services for maximum performance, uptime, proactive alerting, and event logging. Assists in the troubleshooting to resolve network, server, or service issues, including, but not limited to, internet access, LAN/WAN connectivity, email, DNS,

DHCP, and operating system issues. Researches, determines, defines, and recommends network changes to the Network Manager.

- At the direction of the Network Manager, installs, configures, tests, and implements systems, services, and networks to support district network functions. Examples include, but are not limited to, Microsoft server software, Microsoft products (Exchange, SharePoint, File, Print, etc.), Microsoft System Center, Group Policies, security cameras, video streaming, Linux systems, Voice over IP, wireless technologies, and backup, replication, and disaster recovery plans.

- Reviews and updates existing network documentation and creates new documentation as needed.

- At the direction of the Network Manager, assists in the analyzing and testing of databases systems, programs, and applications as required.

- Installs and configures servers to communicate on the district network, using various server platforms, such as Microsoft Windows and various Linux distributions.

- Assists the Network Manager with the overall security of the district, including internet, network, and application security.

- Coordinates and schedules downtime with district staff for updates and/or upgrades of services and systems.

- Plans and designs networks for new offices and classrooms, remodels, and library or laboratory centers. Monitor new network installations.

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- Installs, configures, tests, and implements servers and networks supporting multiple district network functions. Monitors systems performance, analyzing performance statistics, and modifying systems and/or database operating parameters.

- Formulates and implements systems (including database) tuning strategies. Monitors disk space availability. Examines files on disks having insufficient space. Removes obsolete or other nonessential files, as necessary.

- Collects systems workload and/or disk utilization statistics and projects future systems usage. Recommends systems hardware and software purchases to meet growth, security, and customer needs.

- Sets up multiple servers to communicate on assigned networks. Works on full range of district server platforms such as Windows and Linux.

- Configures, installs, and maintains directory structures, security, and applications software. May survey users to determine the common applications and variety of software as well as software needs.

- Develops and maintains up-to-date documentation for network infrastructures, servers, and procedures. Conveys information to co-workers as appropriate regarding network and server interface protocols.

- Develops strategies for network server data backup, including replication, recovery, and disaster recovery plans.

- Schedules system downtime with end users and technical staff members to facilitate hardware and software upgrades, changeovers, and backups.

- Coordinates with other networking staff regarding installation of computers, printers, modems, cabling, peripheral communications equipment, servers, routers, and switches.

- Converts applications and data from one platform to another.   Installs, integrate and tune software systems and databases.   Implements data conversions and transitions from old to new systems. Maintains application software.

- Develops and maintain network interface of host computers (servers) with LAN/WAN.

- For assigned servers, such as email, web and library resources, implements protocols for systems and accounts if applicable. Installs software and configures systems to support services. Troubleshoots user access problems. Analyzes user needs for future software purchase or upgrades.

- Monitors memory usage of networks, network printing, and network technical resources. Maximizes performance and recommends upgrades as appropriate.

- Researches, determines, defines, and recommends network changes to ensure continuous operations, desired performance and service.

- Participates in troubleshooting to resolve network hardware and operations problems, including but not limited to connectivity, internet access, electronic mail and file servers. Works with fellow staff, equipment users, vendors, and independent contractors to identify and resolve problems.

- Ensures proper installation and configures the full range of network, telephony, and midrange devices.

- Develops and maintains up-to-date documentation supporting assigned and related areas of responsibility.

- Performs other duties as assigned that support the overall objective of the district.

QUALIFICATIONS

Knowledge and Skills: Requires specialized professional knowledge of personal computer based local area networks; network operations over multiple servers and platforms; integration of data and telecommunications; principles and practices of data processing and systems administration, including connectivity between network servers; and database structures and design. Must have in-depth knowledge of Microsoft and Linux operating systems. Must know the physical elements of the network including: fiber optic, and twisted pair Ethernet cabling and connections; and routing, switching, and wireless equipment. Requires a thorough understanding of the topologies. Requires a thorough understanding of district protocols. Requires well-developed communication skills to convey highly technical concepts with a wide range of internal contacts and deal effectively with external contractors. Requires skill at conducting training and facilitating small group processes. Requires sufficient math skills to set up numeric sequences. Requires sufficient writing skills to document user transactions and to outline steps for solving problems.

Abilities: Requires the ability to perform all of the relevant duties of the position with only general supervision. Can work effectively in a team environment. Must be able to plan, organize, and implement

multiple networks and perform the full range of complex and technical duties described above including server administration. Requires the ability to install networks including but not limited to workstation-to-server and server-to-network communications using multiple platforms. Requires the ability to install, configure, and troubleshoot networked computer workstations, systems, and programs used by the District in both instruction and administrative areas. Must be able to install and configure microcomputer components such as, but not limited to, cards and drivers. Must be able to fabricate and connect interface cables and connections between computers. Must be able to analyze and evaluate the needs of users and develop the most effective program or solution to meet those needs. Must know how to install, configure, integrate, maintain and troubleshoot equipment, systems and programs used by the district. Must be able to prioritize and delegate work. Must be able to read, interpret and apply complex technical information. Must be able to provide service during non-normal work hours.

Physical Abilities: Requires ambulatory ability to move to various office and classroom-type locations and to bend, stoop, crawl and reach to install cables and equipment. Requires sufficient hand eye coordination and dexterity to make small component connections. Requires sufficient visual acuity to read technical documents and instructions and align small components. Requires sufficient auditory ability to carry on routine conversations. Requires the ability to lift, push, and pull objects of heavy weight (less than 75 lbs.) on an occasional basis. Requires the ability to work in confined areas with noise variations, dust, and limited ventilation.

Education and Experience: Requires an Associate's degree in computer science or related technical field and 5 years of experience in network operations, network administration, data base design and administration, and personal computer support. Cisco CCNP and/or Microsoft MCSE certification required. Requires specific experience in the design, implementation, and on-going support of integrated local area networks, and user training in network and commonly used business applications.

Licenses and Certificates: Requires a valid driver's license. MCSE, or CCNP preferred.

Working Conditions: Work is performed indoors where some safety considerations exist from physical labor, positioning in cramped areas, and handling of medium weight, yet, awkward materials. Travel to and from sites may be frequently required. Must have own transportation.