Cerritos College	Position Description
Position: Senior Network Administrator	Position Number: 55
	BD: 07/18/12; Revised 7/1/18

Summary

Develops network system architecture. Designs and coordinates installation, configuration and administration of the full range of servers and networks enabling networked services and functions governing data communications among personal computers. Plans, administers, and maintains all components of the local area and wide area networks governing the data communications among personal computers. Provides professional leadership for integrating multiple local wide area networks that operate on different platforms. Plans and designs the implementation of the network infrastructure including hardware/software recommendations. Oversees technical support and help functions that relate to networks, security, redundancy, and connectivity.

Distinguishing Career Features

The Senior Network Administrator requires the ability to develop network architecture, connect multiple systems and platforms involving a wide area, and develop redundancy, replication, and recovery plans.

Essential Duties and Responsibilities

Network Support

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

- Oversees and maintains the networks including operations planning and design, upgrades, and redundancy planning.

- Administers, implements, and maintains the network including operations planning and design, work order generation, moves, adds, changes, fault prediction, trouble detection/correction, traffic measurement, circuit analysis, path testing, and general maintenance.

- Configures, installs, and maintains system parameters, network addresses, directory structures, security, and network server software. Ensures continuous operations and security, responding to incidents as they occur.

- Builds and maintains proxy servers, naming services servers, and domain name servers including start-of-authority, name-to-address mappings of primary and secondary servers, and pointer records.

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

- Manages and monitors memory usage of the network, network printing, and server technical resources. Performs periodic performance tuning on equipment to eliminate bottlenecks.

- Continually analyzes network traffic and establishes approaches that optimize operation of the network and servers. Coordinates, allocates, and monitors memory usage of the network, network printing, and network technical resources. Monitors user access through the network including user assignments on virtual networks.

- Researches, determines, defines, and proposes changes and upgrades to network infrastructure, operating systems, and applications to ensure continuous operations, desired performance, and service. Determines specifications, installation procedures, and administration and maintenance requirements of hardware platforms and operating systems.

- Establishes and enforces system standards, protocols and procedural controls for operation of the network systems including remote access servers.

- Formulates and implements systems (including database) tuning strategies. Monitors disk space availability. Examines files on disks having insufficient space.

Server Administration
- Maintains up-to-date knowledge of developments in network and server technology, trends, and issues. Researches and recommends enhancements to server systems, and assists in evaluation/selection of network and/or server equipment and/or software.

- Participates in troubleshooting and resolves complex 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.

- Participates in development of policies. Creates and maintains standard operating procedures. Maintains system log files and audit files. Creates and maintains complete network documentation including schematics, user accounts, configuration files and reports.

- Participates with, and may lead applications developers and programmers to design custom programs and access.

Web-based Applications
- Consults with and gathers requirements from users. Conducts analysis and designs web-based forms using graphic interface to produce html code in a variety of languages across multiple server platforms. Tests, troubleshoots, and prepares documentation.

- Works with outside applications vendors to implement designs and develop hardware and software solutions to meet the needs of the College.

- Maintains currency of knowledge and skills related to the duties and responsibilities.

- Performs other related duties as assigned.

Qualifications

- **Knowledge and Skills**

  Requires specialized professional knowledge of personal computer based local and wide area networks; network operations through multiple servers; integration of data and tele-communications; principles and practices of data processing and systems administration,

including connectivity between network servers. Requires in-depth understanding of line commands for managing and manipulating routers, switches, and firewalls. Must know the physical elements of the network. Requires in-depth knowledge of network topologies. Requires a through understanding of District protocols. Requires in-depth knowledge of network operating systems. Requires a working knowledge of server installation and setup procedures. Requires a working knowledge and related skills of programming. Requires well-developed communication skills to convey highly technical concepts with a wide range of internal contacts and deal effectively with external contractors.

- **Abilities**

Requires the ability to plan, design, organize, and implement a network with multiple servers and perform the full range of complex and technical duties described above. Requires the ability to analyze and evaluate the needs of users and develop the most effective program or solution to meet those needs. Requires the ability to install, configure, maintain and troubleshoot equipment, systems and programs used by the College. Requires the ability to develop and test programs and systems. Requires the ability to respond rapidly to operating and security problems. Requires the ability to prioritize activities and delegate tasks. Requires the ability to read, interpret and apply complex technical information. Requires the ability to work cooperatively and productively with others.

- **Physical Abilities**

Requires the ability to function indoors in an office environment engaged in work of primarily a sedentary nature, yet involving intermittent walking and standing. Requires the ability to occasionally push, pull or lift a maximum of 50 lbs. from overhead, waist and floor levels with assistance from co-workers as necessary. Requires the near visual acuity to write and to read written materials and computer screens. Requires arm-hand-finger dexterity to use a keyboard and pointing device for operating a microcomputer. Requires the ability to use hearing and speech for personal and telephone conversations, hear sound prompts from equipment, and to facilitate discussions with small groups.

- **Education and Experience**

The position requires a Bachelors Degree in computer science or related technical field and 6 years experience in network operations, network administration, and personal computer support. Certification as a network professional, and additional specific experience in the design, implementation, and on-going support of a local and wide-area network; user training in network, business, and academic applications may substitute for some higher education.

- **Licenses and Certificates**

May require a valid driver's license.

Working Conditions

Work is performed indoors where minimal safety considerations exist.