Barstow Community College	Position Description
Position: Network Administrator	Salary Grade: 25
Department: IT	FLSA: Non-Exempt

Summary

Plans, administers, and maintains all components of the local area and wide area networks governing the data communications among personal computers. This includes computer networks, mail and note systems, and telecommunications for microcomputers and servers. 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.

Essential Duties and Responsibilities

- Designs computer networks that integrate data communications to, from, and within the College. Develops specifications and functional requirements for small networks including those for administrative and institutional use.

- 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.

- Directs and configures, installs, and maintains directory structures, security, and applications software. May survey users to determine the common applications and variety of software.

- Perform a variety of functions related to the development, implementation and maintenance of district non- instructional web sites.

- Coordinates and installs and configures all network users, e.g., computers, printers, modems, cabling, peripheral communications equipment, servers, routers, and hubs.

- Coordinates, allocates, and monitors memory usage of the network, network printing, and network technical resources.

- Researches, determines, defines, and proposes changes and upgrades to network infrastructure, operating systems, and applications to ensure continuous operations, desired performance, and service.

- Manages and participates to troubleshoot and resolve 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.

- Ensures proper installation and configures the full range of network, Ethernet, Fiber-optic and mainframe devices. Installs and configures Macintosh and MS/DOS

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computers.

- Oversees the planning and design of networks for new schools, remodels, and library media centers. Monitor new network installations.

- Facilitates processes that lead to recommendations on hardware and software products to be used on networked servers.

- Establishes protocols and procedural controls for operation of the network systems.

- Performs daily backup to the District's servers.

- May participate with applications developers and programmers to design custom programs and access.

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

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 and main frame computers. Must know the physical elements of the network including: Phonenet, AUI Ethernet, 10baseT Ethernet, Fiber Optic and 10base2 connections. Requires a thorough understanding of the topologies of Ethernet, Appletalk and Novell. Requires a through understanding of District protocols including Localtalk, DEC Pathworks, Ether talk, TCP/IP, LAT and Xyplex protocols. Requires a working knowledge and related skill of programming in C, query, and visual basic languages. 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.

- **Abilities**

Must be able to plan, design, organize, and implement a network with multiple servers and perform the full range of complex and technical duties described above. 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, maintain and troubleshoot equipment, systems and programs used by District offices and sites. Create various data types for use in web pages using editors, image manipulation software, and digitizing hardware. Support and maintain the district web sites for non-instructional projects. Configure, maintain, and troubleshoot a variety of web server systems. Maintain web security. Conduct routine web site audits to maintain consistency of presentation, optimal functionality and proper operation of interactive components and features. Must be able to develop programs and systems. Must be able to prioritize and delegate work. Must be able to read, interpret and apply complex technical information. May require the ability to perform work assignments at all College locations.

- **Physical Abilities**

Ability to perform all aspects of the job. Sufficient hand eye coordination to make small component connections; visual acuity to read technical documents and instructions and align small components.   Ability to lift objects of light to medium weight (less than 25 lbs.), to bend or stoop into small areas.

- **Education and Experience**

Requires a bachelor's degree in computer science or related technical field and 3-5 years experience in network operations, network administration, and personal computer support. Certification as a network engineer is required. Additional experience may substitute for some higher education. Requires 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.

- **Licenses and Certificates**

Requires a valid driver's license.

- **Working Conditions**

Work is performed indoors where minimal safety considerations exist.

This job/class description, describes the general nature of the work performed, representative duties as well as the typical qualifications needed for acceptable performance. It is not intended to be a complete list of all responsibilities, duties, work steps, and skills required of the job.

Board approved: 06/16/2010