WAN/WEB ADMINISTRATOR

DEFINITION

Under general direction of the Manager, Technology Services, performs wide area network (WAN) and inter/intranet systems design and modification, installations, implementation, programming, configuration, hardware and software selection and modification. These tasks will range from routine to complex in nature in support of College administrative and instructional functions for all college computing systems including, minicomputers, local area network and personal computer users; performs related work as required or assigned.

CLASS CHARACTERISTICS

This is a professional level class which performs varied local and wide area network (LAN/WAN) analysis, programming, installation, configuration, implementation and design work for the college's networks. Hardware platforms for clients and network servers will focus on microcomputers and include connectivity to the college administrative computing systems. Network operating systems will vary depending upon current needs and technologies; however, this position is characterized by the necessity of systems design, analysis, assessment, programming, user interface development and extensive documentation and training.

EXAMPLES OF DUTIES (Illustrative Only)

- Acts as the Web coordinator for the college
- Designs, implements and maintains Internet and E-mail services
- Participates in college firewall design and implementation
- Gathers and analyzes information regarding the college local/wide area network (LAN/WAN) and requirements and develops or modifies the system to support college wide area network needs
- Installs, configures, tests, implements, upgrades, repairs, troubleshoots and maintains networking equipment including servers, routers, bridges, MAUs, repeaters, hubs, switches, cabling, workstations and other associated equipment necessary for network operation
- Conducts feasibility studies
- Works closely with vendors to maintain currency of software and install necessary new versions or patches
- Works closely with Network Administrator, Network Operations and the UNIX system administrator
- Works closely with Teaching and Learning Center personnel in the development and support of Web Based instructional programs
- Develops system, hardware and cost requirements and proposed time frames
- Simulates hardware and software problems, tests and evaluates alternative solutions, and recommends and implements appropriate operating systems, software applications and hardware
EXAMPLES OF DUTIES

- Modifies commercial software to meet designated needs
- Designs network client interfaces
- Documents systems and performs regular backups
- Troubleshoots hardware and software problems as needed
- Writes user procedures and instructions and assists departments and staff in implementing new or modified programs and applications
- Conducts software training in an individual or organized classroom setting for College staff computer users to ensure effective use of hardware and software
- Tracks and evaluates adopted systems and programs
- Monitors network performance and recommends changes, confers with staff regarding department needs
- May direct the work of others on a project basis
- Maintains records; prepares and documents system configuration
- Maintains current knowledge of new technologies and new computer applications
- Maintains virus protections on a continuing basis, designs and implements network user accounts structure for staff
- Recommends hardware and software applications for assigned area of expertise
- Performs related duties, as required or assigned

QUALIFICATIONS

Knowledge of:

- Computer programming principles, techniques and procedures for both administrative, business and academic applications
- Internet/Web programming languages which may include HTML, CGI, PERL, ActiveX
- DNS Server implementation and maintenance, in both the UNIX and Windows NT environments
- DHCP implementation and maintenance
- Internet/E-mail implementation and maintenance
- Netscape Suite Spot servers and their implementation and maintenance
- A wide variety of Web tools including their strengths and weaknesses
- Operating principles and characteristics of local/wide area networks, client server environments and personal computer hardware utilized by the College
- Network operating systems, protocols, microcomputer operating systems and related applications and utilities
- Systems analysis and design procedures and
- Techniques for instructing others in hardware and software usage
- Job planning, prioritizing and scheduling techniques
- Software applications in common use at the college
Knowledge of: (cont'd.)

- Network monitoring software and procedures
- Network hardware and related equipment

Skill in and ability to:

- Analyze local/ wide area networking systems and problems and develop new or modified solutions to meet changing conditions
- Analyze local/ wide area network system requirements and select appropriate hardware and software solutions
- Develop and document logical procedures and develop tests to validate local/ wide area network configuration and efficiency
- Troubleshoot hardware and software problems and debug network systems as required
- Prepare clear and concise documentation, user procedures, reports of work performed, and other written materials
- Translate college and department needs into operational solutions
- Instruct staff in the operation of new or revised local/ wide area network configurations, including explaining complex concepts to non-technical users
- Exercise sound judgment and establish appropriate priorities within established guidelines
- Read, analyze and interpret technical manuals, procedures and instructions
- Define problem areas, collect and evaluate data, and make appropriate recommendations
- Make mathematical calculations accurately and rapidly
- Communicate effectively, both orally and in writing
- Attend to and analyze detailed information
- Exercise discretion and safeguard the confidentiality of information
- Understand and follow oral and written directions
- Establish and maintain effective working relationships with those contacted in the course of work
- Trace, identify, and resolve hardware and software malfunctions
- Perform complex analyses for local/ wide area networking systems
- Analyze system generated statistics and make recommendations for configuration and resource allocation
- Safely lift items weighing up to forty (40) pounds, such as computer and networking equipment
- Operate an automobile or comparable vehicle for transportation to work sites

Other requirements:

- Must possess a valid California driver's license and a safe driving record in order to drive a vehicle, including college carts
- Must be willing to work days, evenings, and weekends at on and off-campus locations
Education and experience:

A typical way of gaining the knowledge and skills outlined above is:

Equivalent to two years of college level course work with major course work in computer science, business procedures and accounting, mathematics, or a closely related field AND three years of increasingly responsible experience in local/ wide area network administration, design, implementation, configuration, monitoring, installation, troubleshooting and Web site design and management. Experience may be substituted for education on a year-for-year basis.