NETWORK ADMINISTRATOR

Definition:
Under limited direction implements and manages the operation of the agency's local and area-wide network(s), as well as a variety of computer hardware and software applications. Provides management-level and end-user-level support and training in operations related to networking and electronic communications, and serves as a principle contact with respect to the agency's relationship with networking and telecommunications providers, as well as customers who rely on SCOE for telecommunications and networking services. Designs, configures, supports, maintains, and evaluates computer networking systems including the Internet; and performs other related duties as required.

Distinguishing Characteristics:
This job class exercises responsibility for the successful supervision of the Local and Wide Area Networks (LAN and WAN) for the County Office of Education. This job class requires specialized knowledge in the areas of telecommunications, server hardware and software as well as voice, video, and data networks. The Network Administrator is distinguished from non-supervisor positions such as Technical Support, Computer Operator/Technical Support in that this position is responsible for more complex systems; deals with highly technical issues, requiring more knowledge and independent judgment than lower level positions; and is a management level position with supervisory responsibilities.

Supervision Exercised and Received:
Employees in this class receive minimal supervision within a broad framework of policies and procedures, Employees in this class may direct, supervise and formally evaluate the work of others. The incumbent receives direction and training from the Director, Information Technology.

Example of Duties and Responsibilities:
Duties and responsibilities may include, but are not limited to the following:

- Plans, recommends, and assists in the design of local or remote computer systems, oversees the day-to-day operation of the computer networks including LAN-to-LAN/WAN systems; evaluates systems performance and recommends solutions;
- Provides technical assistance and support to users of the Local Area Network, Wide Area Network and the Intranet / Internet;
- Manages agency's physical and virtual servers in a Windows and Linux environment, ensuring that each server has as close to 100% uptime as is practicable;
- Assists in maintaining security of Consortium's routers and servers from unauthorized intrusion by either physical or by remote electronic means;
- Researches and recommends network hardware and software including telecommunications methods and protocols;
- Selects and installs bridges, routers, switches, hubs and related equipment that support various networking protocols, and assists in installing, designing, configuring, and maintaining system software;
- Analyzes and troubleshoots the network logs and tracks the nature and resolution of problems; monitors usage to ensure security of data and access privileges; monitors data to optimize network performance; and resolves critical network failures
- Develops and implements network support and operational procedures; maintains existing LAN, internet, DNS, database and electronic mail servers;
- Develops and maintains archiving procedures: researches and evaluates new technologies related to computer networking;
- Monitors the billing for network-related services provided to district customers;
- Participates in community and statewide work groups relevant to his/her areas of expertise; conducts local and regional technical workshops as directed;
- Serves as a primary contact with networking service providers and customers, and plays a key role in negotiating and developing plans for future services; keeps abreast of new hardware or software products for system enhancements;
- Consults with technology task force and contributes in the planning of countywide infrastructure for voice, video and data networks; recommends and specifies the purchase of related products and services;

- Manages the video conferencing equipment, and may train SCOE and district staff on the use of the network, conferencing, and security systems;
- Performs other related duties.

Employment Standards:
Knowledge of:

- Local (LAN) and Wide Area Network (WAN) Technology, including WAN and inter-relation to LAN, modern internet protocols, and a thorough knowledge of related routing and security;
- LAN elements including servers, clients, protocols, and drivers; LAN functions including file services, security management, printer services, and e-mail services;
- Practices and methods of systems administration and maintenance;
- Technical aspects of system design including data transmission protocols and methods of network connectivity;
- Multiple desktop and network operating systems, TCP/IP networking, client-server applications, system security, including in depth knowledge of Macintosh and Windows platforms and related hardware and software and E-mail systems;
- Internet connectivity and access procedures;
- Principles and practices of management and supervision, including employee selection, evaluation, training and development;
- Technical problem solving techniques;
- Wiring specifications and capabilities;
- Modern office practices, procedures, and equipment;
- Recordkeeping procedures.

Ability to:

- Respond promptly to requests of internal and external clients; provide needed information, assistance, and training resources;
- Diagnose severity of WAN/LAN problems and make repairs with little or no assistance;
- Quickly identify systems problems, evaluate and isolate problem causes and take appropriate action;
- Work independently and demonstrate initiative;
- Be flexible, use ingenuity and imagination to solve complex programming problems, and receptive to change;
- Understand, follow and apply documentation standards and requirements;
- Work under pressure and meet tight deadlines;
- Communicate effectively in oral and written forms in technical and non-technical terms to clients and staff;
- Develop network performance and security reports to include compilation, analysis and interpretation of results;
- Maintain confidential and sensitive information;
- Work effectively as part of a team devoted to customer service;
- Respond promptly to requests of clients, both inside and outside the County Office and provide needed assistance and support to clients;
- Think logically and pay close attention to detail;
- Plan, design, and maintain networks;
- Provide technical support to users;
- Administer day-to-day operation of networks;
- Install, repair, and upgrade computer software and hardware;
- Work with numerous interruptions;
- Maintain accurate records and files;
- Plan and organize work to meet priorities and time lines;
- Adapt to, and a willingness to learn, the operation and procedures of new computer systems;
- Attend seminar workshops - Specific to knowledge and expertise to keep skills and knowledge current with industry trends;
- Work additional hours during the week and/or weekend infrequently.

Education and Experience:
Any combination of education and experience that would likely provide the required knowledge and abilities would be qualifying.

Education:

- Associate in Arts degree with emphasis in technology and advanced coursework or training in computer networks or Bachelor of Arts or Sciences in Computer Information Systems; or
- Five (5) years of progressively responsible computer operations experience with advanced coursework in personal computer and network systems.

Experience:

- Three years of progressively responsible experience designing and managing Ethernet-based networks.
- Prior networking experience in a schools setting is highly desirable.
- Prior experience maintaining a WAN is highly desirable.
- Prior experience with server virtualization is highly desirable.

Licenses or Certificates:

Any of the following certifications are desirable:

- Those certifications obtained through the Microsoft Certified Professional Program, Cisco Network certification, or any other approved information technology certification.

Physical Demands:
The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

- Must have normal vision, corrected or uncorrected;
- Visual acuity sufficient to work at a computer screen frequently and throughout the day, near and far visual acuity, depth perception, color vision sufficient to recognize people, words, and numbers;
- Frequent standing and walking, and occasional bending, stooping, kneeling;
- Occasional crawling in confined spaces in buildings;
- Lifting up to twenty-five (25) pounds frequently, fifty (50) pounds on an occasional basis, and in excess of fifty (50) pounds with assistance. The heavy objects to be lifted include personal computers, printers, and related equipment;
- Speaking and hearing ability sufficient to hear over phone and carry on routine conversations
- See to read manuals, video display screens, and other related material;
- Drive an automobile and transport equipment and documents;
- Sit for extended periods in a typing position;
- Hand-eye-arm and finger dexterity to use a personal computer keyboard, ten-key, and other common office equipment for long periods of time.

Work Environment:
The following conditions may be present:

- Work is performed in an office and classroom environment with minimal exposure to health and safety considerations.

Other Requirements:
- Must be fingerprinted and a satisfactory Department of Justice records check must be received by SCOE, prior to employment.
- TB testing will be required upon employment.
- Must pass a pre-employment physical (if applicable).
- May be required to obtain first aid and CPR certificates within the first 6-12 months of employment.
- May be required to drive with or without students; some positions may require a current California drivers license, proof of insurance, and possible participation in the DMV Pull Notice Program once employed.