SYSTEMS ADMINISTRATOR/TECHNICAL SUPPORT

Definition:
Under limited supervision, administers all aspects of the agency's web server and application servers. This includes implementation, configuration, coordination, control, maintenance, troubleshooting, security, usage monitoring and the development of specialized system procedures. Troubleshoots Local Area Network (LAN) difficulties by use of management software and resolves difficulties with routers, telephone lines and associated equipment. Assists with management, operation and troubleshooting of the Wide Area Network (WAN). Provides hardware and software support to a variety of SCOE personnel located on and off site; performs difficult, high-profile technical projects under tight time constraints.

Distinguishing Characteristics:
This is a journey level technical support position in the Information Technology job series. The position is responsible for quick accurate decision making while troubleshooting servers, computers, and networking issues. This position is distinguished from higher level positions of Network Administrator, Business Systems Support Analyst and the Analyst Lead Programmer in that it requires a less broad knowledge of computer systems and programming. The Systems Administrator/Technical Support is distinguished from the Technical Support and Computer Operator positions in that this position performs the more complex installations and deals with highly technical issues, requiring more independent judgment than lower level positions.

Supervision Exercised and Received:
General direction and limited supervision is provided by the Director, Information Technology.

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

- Manages agency's servers in a Windows and Linux environment, ensuring that each server has as close to 100% uptime as is practicable;
- Performs basic systems security administration functions, including creating customer profiles and accounts;
- Monitors and manages system resources, including CPU usage, disk usage, tape backup systems, and response times to maintain operating efficiency; maintains systems documentation and logs;
- Performs systems backups and recovery procedures;
- Writes or modifies basic scripts to resolve performance problems and automate systems administration tasks;
- Troubleshoots problems with networks, web services, mail services and overall aspects of the LAN/WAN;
- Assists in the correction of system failures, operations, and software problems to determine causes and repairs;
- Assists in maintaining security of Consortium's routers and servers from unauthorized intrusion by either physical or by remote electronic means;
- Manage and support secure Virtual Private Networks (VPNs);
- Keeps current with new security and network monitoring technologies, applicable laws and regulations, including encryption of sensitive information to meet security protocols and legal requirements;
- Helps evaluate hardware and software for SCOE users to ensure suitability, compatibility and economy prior to purchase;
- Helps maintain software licenses and supervise compliance with various licensing and copyright requirements;
- Provides teleconference and Web conference set up, including set up of necessary devices for each event, establishing remote connections on video conference unit and maintain network configuration to support conferencing;
- Maintains a broad knowledge of operating systems, programming languages and hardware; continuously upgrades knowledge of technology for areas of assigned responsibility;
- Researches, prepares, and presents oral and written reports as necessary; maintain necessary records;
- Performs additional related duties and responsibilities as assigned by supervisor/manager.

Employment Standards:
Knowledge of:

- Concepts and administration of computer and network operating systems and applications;
- Practices and methods of systems administration and maintenance;
- Network architecture, design, integration and protocols including TCP/IP and bridging; In depth Local Area Network (LAN) design and Wide Area Network (WAN) design, including hubs, routers, network wiring and other network devices;
- Principles, practices, and techniques in the installation, maintenance and troubleshooting of network hardware and software;
- Network performance and monitoring tools; Intrusion Detection tools;
- 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;
- Technical problem solving techniques;
- Modern office practices, procedures, and equipment;
- Record keeping procedures.

Ability to:

- Develop network performance and security reports to include compilation, analysis and interpretation of results;
- Troubleshoot and diagnose severity of WAN problems and make repairs with little or no assistance;
- Think critically – Use logic and analysis to identify the potential enhancements and flaws in security measures;
- Make decisions and resolve problems – Seek out information and data to evaluate, prioritize and formulate best solution or practice;
- Analyze, interpret and present research findings into clear, concise reports;
- Communicate clearly and concisely, both orally and in writing;
- Establish and maintain effective working relationships, and work as a part of a team to deliver high quality services;
- Work independently and demonstrate initiative;
- Continuously upgrade knowledge and skills;
- Respond promptly to requests of clients, both inside and outside the County Office and provide needed assistance and support to clients;
- Work with numerous interruptions;
- Maintain accurate records and files;
- Plan and organize work to meet priorities and time lines;
- Understand and carry out oral and written instructions;
- Adapt to, and a willingness to learn, the operation and procedures of new computer systems.

Education and Experience:
Any combination of education and experience that would likely provide the knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education:

- Associate in Arts degree with emphasis in technology or Bachelor of Arts or Sciences in Computer Information Systems or equivalent experience; or
- Three (3) years of progressively responsible experience in systems administration, network management, Information Technology security or applications programming.

Experience:

- Experience in using Macintosh and PC computers with a variety of standard software such as word processing, database, spreadsheet, graphics, and presentation software as well as maintaining these computers in a Local Area Network structure.
- Prior experience maintaining a WAN is highly desirable.

Licenses or Certificates:

Any of the following certifications are desirable:

- Those certifications obtained through the Microsoft Certified Professional Program, Novell Professional certification 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.

- 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;
- Sufficient mobility to move about, including standing, bending, stooping, kneeling, reaching, pushing/pulling;
- 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 environments.

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).
- Must have normal vision, corrected or uncorrected.
- 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 driver license, proof of insurance, and possible participation in the DMV Pull Notice Program once employed.
- Possess reliable transportation.
- Possess laptop computer capable of Ethernet connections to LANs/WANs and routers.