

**SANTA CRUZ COUNTY OFFICE OF EDUCATION**  
**TECHNOLOGY INFRASTRUCTURE ANALYST**

**DEFINITION**

Under direction of the assigned administrator, independently provide high-level support to the Santa Cruz County Office of Education (SCCOE) and secondarily the local school districts with network and technological support, including network security, network and server administration, project planning; installation, diagnosis, maintenance support and training. Lead, support, coordinate and train other Technology Department team members.

**SUPERVISION EXERCISED**

Exercise technical and functional oversight over lower-level Technology Department staff.

**EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES**

Perform complex system installation, configuration and administration of multiple computing and communications systems. Provide ongoing systems administration and maintenance of core services such as email, databases, file servers and telecommunications, web filters and firewalls.

Provide assistance to the assigned administrator in network configuration and expansion. Perform installation, configuration, monitoring, administration and ongoing maintenance of network equipment including circuits, routers, switches and wireless equipment as directed.

Provide support to assigned administrator on projects. Perform project management and oversight, job and equipment specification, documentation, verification, testing and end user interaction with guidance of and reporting to the assigned administrator. Work independently to bring projects to successful completion in a timely and efficient manner.

Prepare project proposals for the assigned administrator's review and approval based upon specifications from end users and departmental needs and managerial guidance. Proposals may include system requirements, definitions, statements of issue, problems and proposed solutions, timelines, pricing, implementation plans and scope.

Explore and make recommendations to the assigned administrator regarding equipment, systems and site specifications, configurations and standards. Ensure each implementation's compatibility and compliance with projects, site and equipment standards. Document SCCOE IT standards and best practices.

Work to implement and realize the vision and goals of SCCOE information technology infrastructure and the network services group organization as directed and envisioned by the assigned administrator.

Troubleshoot hardware, software, and network connectivity problems in a multi-platform, multi-protocol environment. Monitor the status of the network and respond to problems as required.

**EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES (CONTINUED)**

Provide leadership, plan, and organize the work of other support technicians and network specialists. Guide the day-to-day activities of the other team members and provide input to the assigned administrator on opportunities for improvement.

Act as lead technical resource for Network Support Specialists and Technology Support Technicians in all areas of software, hardware, network and systems support, troubleshooting and configuration.

Serve as an organizational and technical resource to the Network Support Specialists and Technology Support Technicians for the purpose of guiding and enhancing their professional skills and team cross-functioning.

Provide technical assistance to administrative and instructional users with computer hardware, software, security and network specifications and planning.

Identify and coordinate with vendors for the pricing and purchasing of equipment and maintenance contracts. Maintain and renew vendor maintenance and support contracts. Assist in the identification and acquisition of networking, data center and server equipment.

Act as an information source for security issues, emerging technologies and equipment procurement.

Provide assistance and training to users on the use of SCCOE's networked computing environment.

Document procedures, standards and technical information for the operation, configuration and maintenance of the local area network and connected off-site locations. Train, monitor and guide other technicians in the proper and effective use of these procedures, practices and standards.

Maintain confidentiality of data information.

Perform related duties and responsibilities as assigned.

## **JOB RELATED AND ESSENTIAL QUALIFICATIONS**

### **Knowledge of:**

Principles of computer system design and upgrade, diagnosis and repair practices.

Principles, concepts and practices of network design, construction, configuration, troubleshooting, installation, security, etc., including twisted pair and fiber optic cable

specification and installation, carrier circuits, Ethernet local area networks, Metro-Ethernet, VLANs, NAT, ACLs, VPNs, firewalls, switching and routing.

### **Knowledge of (continued):**

Network standards and communication protocols including TCP/IP, DHCP, OSPF, SMB, CIFS, NetBIOS, AppleTalk, and Fiber Channel.

Various computer and network operating systems including Windows 7, Windows 10, Windows Server 2003, Windows Server 2008 and 2012, Apple iOS, Cisco IOS and Mac OSX.

Microsoft Windows Networking, including complex Active Directory and domain configuration.

Installation of computer peripherals and technology upgrade processes.

Standard diagnostic and troubleshooting techniques and utilities.

Effective customer service techniques.

Emerging technologies and trends, including smartphones and tablet computers.

Knowledge of virtualized computing technologies is highly desirable.

Knowledge of Storage Area Network technologies is highly desirable.

Knowledge of FreeBSD Unix and Linux operating systems is highly desirable.

Knowledge of Cisco VoIP systems is highly desirable.

Knowledge of multimedia systems including videoconferencing, public address, interactive presentation systems and projection systems is desirable.

Knowledge of database maintenance is desirable.

**Skill and Ability to:**

Install, configure and maintain workstation and server systems including stand-alone and those integrated into local and wide area networks.

Perform planning and project management of complex systems development and installations, including oversight of participating team members and coordination with external stake-holders.

Organize and lead the work of other team members in an effective manner, promoting a high functioning, open, positive and motivated working environment.

Train COE and district personnel in the principles and techniques of technology usage in a networked environment, including the development of training and instructional materials.

**Skill and Ability to (continued):**

Analyze and evaluate technological problems including workstation, server and network related problems, then seek advice, propose and effectively implement solutions to those problems.

Operate diagnostic equipment and software, such as sniffers, continuity testers, port scanners, and loopback devices.

Prepare, install and test various types of cabling and computing related connections.

Investigate and learn new and emerging computing, communications and network related technologies.

Communicate and work effectively with all levels of internal and external clients, including districts and community contacts.

Communicate clearly and concisely, both orally and in writing.

Operate a motor vehicle safely.

Plan and organize work to meet schedules and timelines.

Work under limited supervision within a broad framework of standard policies and procedures.

Exercise good judgment, flexibility, creativity, and sensitivity in response to changing situations and needs.

Establish, maintain and foster positive and harmonious working relationships with those contacted in the course of work.

**EDUCATION AND EXPERIENCE**

*Any combination equivalent to experience and training that would provide the required knowledge, skills, and abilities would be qualifying. A typical way to obtain the knowledge, skills, and abilities would be:*

**Education:**

Training equivalent to a Bachelor's Degree with concentration in the study of information systems technology, or a closely related field.

**Experience:**

Four to five years of experience in information technology, working knowledge of networks and server computer hardware, and related applications.

**License or Certificate:**

Possess specialized training and certification in information systems technology: specific certifications desired include Microsoft Certified Systems Engineer, Cisco Certified Network Associate, and Cisco Certified Network Professional.

Possession of, or ability to obtain, a valid California driver's license and proof of appropriate vehicle operation insurance.

**SPECIAL REQUIREMENTS**

*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. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. Essential duties require the following physical skills and work environment:*

Ability to travel to different sites and locations.

While performing the duties of this job, the employee is regularly required to stand and to sit, use hands to finger, handle or feel; reach with hands and arms; stoop, kneel or crouch; talk and hear. Frequently required to walk; occasionally required to move, carry, lift, up to 50 pounds, and occasionally may be required to move, carry or lift up to 70 pounds with assistance. Occasionally may work in confined spaces and be exposed to dust. Specific vision abilities required by this job include close vision and distance vision.

**Approval Date:** June, 2012

**Revised:** June, 2018