

## **Sacramento County Office of Education Job Description**

### **Classification Title: Network Architect**

#### **DEFINITION**

Under general direction, performs a variety of specialized duties in the implementation and management of Sacramento County Office of Education (SCOE) Wide Area Network (WAN), Local Area Network (LAN), and data center connectivity; provides network user support and training; performs related duties as assigned.

#### **DIRECTLY RESPONSIBLE TO**

Appropriate Administrator

#### **SUPERVISION OVER**

Professional, technical, and clerical staff as assigned

#### **DUTIES AND RESPONSIBILITIES**

Any one position may not include all the listed duties, nor do all of the listed examples include all tasks which may be found in positions within this classification.

- Maintains and monitors all aspects of the SCOE WAN and LAN infrastructure, including design, implementation, management, troubleshooting, and documentation;
- Designs and prepares for network installations, upgrades, and emergencies;
- Manages Internet connectivity for SCOE sites, programs, and Local Education Agencies (LEAs) in the service area;
- Provides technical assistance to SCOE staff and programs related to network infrastructure;
- Responds to network outages and creates related reports;
- Provides network support to LEAs as needed;
- Designs, implements, and maintains various networking infrastructures including switches and routers, voice over IP (VoIP), wireless video surveillance, building automation, security applications, and intercom systems;
- Builds and configures Network Firewall, Content Filtering, and Domain Name Servers (DNS) infrastructures;
- Troubleshoots various aspects of SCOE's fiberoptic cables, which may include the use of an Optic Time Domain Reflectometer (OTDR) or other optical equipment;
- Maintains various datacenter infrastructures, including the Uninterruptible Power Supply (UPS), backup power generator, and computer room air conditioning;
- Manages hazardous materials (HazMat) documentation, reporting, and training associated with backup power generator; Coordinates with suppliers, vendors, and staff related to the installation and maintenance of networking infrastructure;
- Architects WAN and LAN designs;
- Evaluates, procures, and implements networking infrastructure hardware and software;
- Performs upgrades, regular maintenance, and security patches of network-related software and equipment to ensure continuous operations;
- Installs network equipment using various hand tools;
- Works with cybersecurity staff to research and resolve network-related vulnerabilities, and assists with the implementation and maintenance of security policies;
- Coordinates compliance and documentation, reviews bid responses, and evaluates vendor performance for the federal E-Rate program;
- Coordinates and facilitates county-wide networking meetings with LEA partners;
- Attends meetings, trainings, conferences, and user groups as necessary;

- Provides leadership, guidance, and training to technical staff in support of department needs;
- Selects, trains, supervises, and evaluates staff.

## **MINIMUM QUALIFICATIONS**

### **Education, Training, and Experience**

- Any combination of education, training, and experience equivalent to a bachelor's degree from a regionally accredited institution, which demonstrates the ability to perform the duties and responsibilities as described;
- Five years or more of experience performing networking-related duties;
- Advanced coursework in computer technology, network administration, or a similar field preferred;
- Experience with managing and working in a multi-site WAN/LAN environment;
- HPE/Aruba, Cisco, Juniper, Arista, Palo Alto Networks, Microsoft Network, or other network-related certifications preferred.

### **Knowledge of**

- Advanced switch and router configuration;
- WAN and LAN best practices, including installation, maintenance, and troubleshooting of network equipment and devices;
- Technical aspects of wireless networking and network security;
- E-Rate regulations;
- Wiring standards and related specifications and protocols, including the Building Industry Consulting Service International (BICSI) standard;
- Effective supervision techniques;
- Information technology project management techniques;
- Telecommunication and network terminology;
- Network monitoring software;
- Basic Unix/Linux and Windows operating systems and scripting;
- Standard software applications and peripheral equipment, including videoconferencing platforms;
- The Open System Interconnection (OSI) Model and advanced routing technologies, including Border Gateway (BGP) and Open Shortest Path First (OSPF) protocols;
- Current industry trends and best practices related to networking infrastructure.

### **Skill and Ability to**

- Communicate effectively both in oral and written form with individuals from diverse backgrounds;
- Explain technical concepts to non-technical customers and staff;
- Architect network infrastructure installations and changes;
- Design, research, and install network data circuits;
- Learn new hardware and software systems and adapt to changes in technology;
- Work independently with minimal direction;
- Analyze situations accurately and adopt an effective course of action;
- Prioritize, organize, and schedule work assignments and projects;
- Establish and maintain cooperative working relationships.

### **Other Characteristics**

Willingness to travel as needed to conduct work assignments and to drive or arrange for alternative transportation for such travel. Driving will require compliance with all legal requirements, including a driver's license and insurance as appropriate.

Revisions approved by Personnel Commission 6/10/25  
 Former Title: Coordinator, WAN/LAN  
 Revisions approved by Personnel Commission 4/10/18  
 Revisions approved by Personnel Commission 8/10/10  
 Former title: SCOE Wide Area Network Coordinator  
 Approved by Personnel Commission 2/18/98