

JOB TITLE: Unified Communications Systems Specialist
PAY GRADE: CL 26
LAST REVISED: July 2025

*Job Descriptions/Class Specifications are intended to present a descriptive list of the range of duties performed by employees in the job and are **not** intended to reflect all duties performed within the job.*

Sierra College has a strong commitment to the achievement of equity and inclusion among its faculty, staff, and students and values the rich, diverse backgrounds that make up the campus community. A strong candidate for this position must have the understanding and ability to successfully support individuals with varying backgrounds. This includes persons with disabilities, various gender identities and sexual orientations, as well as individuals from historically underrepresented communities and other groups. Our District is committed to providing strategies for success and proactive student-centered practices and policies focused on eliminating equity gaps to ensure the District provides an inclusive educational and employment environment focused on strategies for success and equitable outcomes for all.

SUMMARY DESCRIPTION

Under general supervision from assigned manager, responsible for administration and support to ensure continuous voice, video, data communication systems and services, including telephone system, collaboration systems, video conferencing, desktop softphones, and voicemail systems; installs, maintains, and provides technical and service support to District voice and data telecommunications systems, including cabling and fiber optic networks; coordinates, prioritizes, and performs telephone system and equipment repair; works with Information Technology Services (ITS) staff and other District staff to identify unified communication infrastructure system needs; and oversees the installation and integration of existing and new communications hardware and software.

REPRESENTATIVE DUTIES

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

1. Designs, administers, and supports voice and data network infrastructure systems and related applications, including, but not limited to, media gateways, Session Border Controllers (SBC), Analog Telephone Adaptors (ATA) and network firewalls, routers, and switches.
2. Enhances Voice Application Servers, SBC, ATA, and media gateways; creates, modifies, relocates, and deletes VoIP, digital and analog port extensions for phones, fax machines, fire alarm auto dialer and modems, modifies and enhances class of service assignments, least cost routing tables, automatic call distribution groups, and system features such as Automated Attendant, call delegation pickup groups, forwarding destinations, and call queue and speed dial groups.
3. Monitors system performance of SBC, ATA, media gateway, and network switches; researches, plans, tests, and installs firmware upgrades and releases to increase productivity, compatibility, and efficiency for District telecommunications related equipment and devices.
4. Manages, configures, troubleshoots, and ensures service of a voice and data network so that it meets speed, capacity, and configuration specifications; manages layer 2 and layer 3 network switch Virtual Local Area Networks (VLAN), Power over Ethernet (PoE), and Class of Service (COS) configuration to ensure VoIP transmission maintains assigned priority settings.
5. Evaluates, designs, and maintains existing or proposed telephony systems, applications, and services; troubleshoots telecommunications service and equipment problems; analyzes equipment problems using diagnostic tools and test devices; maintains, updates, and repairs telephone registration system trunks and lines; installs, maintains, and repairs the Proctor E911 system, including the Automatic Number Identification (ANI) and Centralized Automatic Message Accounting (CAMA) trunks; downloads and receives event logs, system configurations, status, and alarms; works with local service providers to troubleshoot and repair CAMA trunks for the Proctor E911

- system; checks daily activity and message printouts and reports to verify proper operations; maintains reporting system to provide information on AMCs for the Proctor E911 database.
6. Maintains, troubleshoots, and repairs voice mail system; maintains Private Branch Exchange (PBX) interface trunks and channels; administers mailboxes and call processing trees.
 7. Provides trending and capacity planning services to analyze and design layout of telecommunications facilities and equipment; plans projects with end users and outside service providers; researches new methods of unified communication system, Call Center application, and telephony projects; makes recommendations on available options; participates with District department managers to estimate telephone system costs, timelines, alternatives, and special needs; determines locations for terminal closets, cable, conduit routing, telephone sets, and related equipment.
 8. Installs, sets up, maintains, and troubleshoots cables, including telephone lines, CAT5e/6, fiber optics, conduits, wire molds, cable racks, and trays to meet industry standards; makes cable connections on 66/110 punch down blocks, jacks, and terminals; makes cross connections, tags, or marks cable designation strips, blocks, and jacks; sets up, installs, and programs devices and equipment, including digital, analog, and emergency telephone sets, modems, cell phones, and non-system devices; performs fiber optic engineering tasks, including termination, splicing, and testing.
 9. Schedules and prioritizes work orders and service tickets and allocates to technicians; reviews work order and service ticket resolutions for completeness and accuracy; participates in coordinating project tasks and work sequences; monitors and prepares reports of project status; prioritizes, facilitates, and performs installation and repair service orders, including those for adds, moves, and changes; replaces or repairs faulty equipment, including telephones, cabling, cards, protectors, or makes changes to systems database to correct problems; tests equipment for proper operation and features; coordinates with telecommunications providers for maintenance and repair of equipment and peripheral circuits, as needed.
 10. Installs and replaces Uninterruptible Power Sources (UPS) for data network closet; maintains preventative maintenance schedule, including monitoring or testing UPS battery end of life, inbound and outbound trunks, and circuits for noise and frequency loss; tests District T-1 circuits.
 11. Maintains and updates records for the District's telephone systems, including extension numbers, usernames, location, PBX ports, call pick-up groups, Automatic Call Distribution (ACD) groups, system speed dial and hunt groups, and architectural designs and drawings; maintains records of telephone company trunks and circuits used and accessed by the District, including data and other specialized digital and analog circuits.
 12. Responds to telephone system emergency situations, including service interruptions, PBX system failures, power outages, and damaged cables.
 13. Serves as a liaison between contractors and service providers involved with telecommunications projects; reviews blueprints and schematics and evaluates adequacy of specified material and supplies; ensures compliance with District requirements and coordinates work and service interruptions with District staff; prepares technical specifications for requests for proposals; participates in determining technical aspects of projects, including resources and time frames.
 14. Assists in developing the department budget by reviewing past expenditures, projecting, and evaluating upcoming projects and equipment purchases, repairs, and labor needs; maintains inventory of materials and supplies, including telephones, cords, faceplates, and repair parts.
 15. Prepares, loads, and transports materials, equipment, and tools between campuses; may be required to operate District vehicle for transport.
 16. May provide onboarding support, general work training, guidance, supervision assistance, and directs activities of students or temporary employees.
 17. Performs related duties that support the overall objective of the position.

QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

- Principles, theories, methods, protocols, standards, and techniques associated with the design, installation, repair, and maintenance of telecommunication equipment and systems, including, but not limited to, electricity and electronics; computers, productivity software, and custom applications for telephone operations; and hosted and cloud-based voice applications and services.
- Industry standards and practices for telephone and data wiring, including current cabling standards (IE, fiber optic, CAT 5, 5e, 6 ANSI/EIA/TIA), termination, splicing, preparation, and testing specifications.
- Enterprise environment data network topologies including, but not limited to, data center infrastructure devices, aggregation switches, and distribution switches.
- Call Center system setup administration, including voice mail systems, auto attendant, automatic call distribution, wallboard, and reporting tools.
- Unified Communications (UC) products, including equipment, software, and services.
- VoIP protocols, SIP signaling with emphasis on Real-Time Transport Protocol (RTP) and Session Description Protocol (SDP), Network Quality of Service (QOS), Internet Protocol (IP) routing, Ethernet switching (including 802.11q, 802.11p, 802.3af), and packet tagging mechanisms.
- Federal, state, and local building/construction codes and standards regarding wiring and electrical systems.
- Math skills to analyze circuitry, understand and document numeric sequences, perform standard math computations, and record distances.

Ability to:

- Design, install, maintain, and repair District telecommunications systems and equipment, including telephones, cables and cable systems, and voicemail systems.
- Design, install, maintain, and repair District data network infrastructure systems and equipment, including firewalls, VPNs, routers, and switches.
- Provide and combine multiple enterprise communications channels, including voice, video, personal and team messaging, voicemail, and content sharing.
- Provide workmanship that meets established quality requirements.
- Work in a construction environment and practice safety precautions, techniques, and procedures, including safe lifting techniques and "lock-out/tag-out" procedures.
- Read and interpret electrical and electronic prints, drawings, sketches, blueprints, and schematics.
- Perform mathematical calculations such as frequency counts, trends, and electrical readings.
- Adapt to changing technologies and learn functionality of new equipment and systems.
- Plan and organize work to meet schedules and changing deadlines.
- Perform basic record keeping functions.
- Use computers and related technology sufficiently to perform the duties of the classification, including software or web-based work order system, to receive and report work needed and work completed.
- Maintain confidentiality of information.
- Follow oral and written directions.
- Communicate clearly and concisely, both orally and in writing.
- Provide onboarding support, general work training, guidance, supervision assistance, and direct activities of students or temporary employees.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Coordinate with staff and others to minimize delays or interruptions to District activities.
- Respond to emergencies.
- Work independently and collaboratively.
- Apply District policies and procedures.

EDUCATION AND EXPERIENCE GUIDELINES

Any combination of education and experience that demonstrates the required above knowledge and abilities is qualifying. Examples of ways to obtain the above knowledge and abilities could include, but are not limited to, the following:

Education/Training

- Two years of college with major course work in electronics, telecommunications, or a related technical field.
- Industry certifications may substitute for some education.

Experience

- Four years of progressive experience in an enterprise voice and data networks environment, telephone systems design, installation, service, repair, and project implementation and management.

License/Certificate - Possession of, or ability to obtain within a reasonable timeframe, each of the following:

- Valid California Driver's License.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein 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 job functions.

Environment: Work is performed in both indoor and outdoor environments; travel from site to site; exposure to noise, dust, fumes, noxious odors, and all types of weather and temperature conditions; exposure to electrical energy. Position may be required to work evenings, nights, and weekends.

Physical: Primary functions require sufficient physical ability and mobility to work in an indoor and outdoor environment; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, climb, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; dexterity of hands and fingers to operate specialized hand and power tools and equipment; operate assigned equipment; to stand and walk for extended periods of time; to operate office equipment requiring repetitive hand movement and fine coordination, including use of a computer keyboard; and to verbally communicate to exchange information.

Vision: See in the normal visual range with or without correction.

Hearing: Hear in the normal audio range with or without correction.

Board Approved: July 15, 2025