



Telecommunications Specialist

GENERAL PURPOSE

Under direction, performs a variety of skilled duties in the development, maintenance, and administration of OCDE's telecommunications and cable plant infrastructures; serves as the point of contact with OCDE's telephone equipment providers and coordinates the resolution of service problems; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Telecommunications Specialist is responsible for on-going development, administration and maintenance of voice communication systems for OCDE's facilities and site locations, including programming, maintenance, and synchronization of telephone systems, including Voice over IP (VoIP), and coordination and resolution of service issues with telephone equipment providers. The incumbent is also responsible and trains other staff in installation, maintenance, upgrading, and repair of OCDE's network cabling infrastructure for voice and data communications. The incumbent works with vendors and contractors to ensure proper installation and integration of voice and data communications facilities to meet OCDE and industry standards.

ESSENTIAL DUTIES AND RESPONSIBILITIES

This position description is intended to describe the general nature and level of work being performed by an employee assigned to this position. This description is not an exhaustive list of all duties, responsibilities, knowledge, skills, abilities, and working conditions associated with this position. All requirements are subject to possible modification to reasonably accommodate individuals with a disability.

1. Participate in the development, administration, maintenance, repair, and support of voice and data communication systems, facilities, and equipment; maintain, program, and synchronize telephone systems installed in multiple OCDE locations; perform database entry to install, remove, or change services, configurations, and voicemail system hardware and software; recommend improvements in configurations to achieve optimal utilization of voice communication hardware and software; and install and maintain network equipment for VoIP systems.
2. Monitor telecommunications systems for normal operations; monitor and maintain environmental and safety systems for equipment rooms; review and analyze system and user-generated trouble reports, error messages, and alarms; prioritize, schedule, and perform or assign repairs.
3. Work with users and clarify requests and needs for telephone and voicemail services; install, move, replace, and repair telephone and other voice communication equipment; ensure installed services meet user needs and requirements; develop structured work plans; and serve as an internal project manager for telecommunications development and implementation projects.

4. Install, test, maintain, repair, and administer voice and data communications cabling infrastructures; conduct site surveys and needs analyses; using appropriate industry standards, plan, design, construct, and install cable plant facilities, riser and horizontal wiring and cable, patch panels, jacks and other facilities; determine materials, supplies and time estimates for wiring and cabling installation projects.
5. Conduct testing of installed and terminated wire to ensure proper connectivity and transmission in accordance with applicable standards; ensure all required labeling and documentation is complete and accurate; coordinate and monitor the work of vendors and contractors to ensure installed telecommunications facilities conform to OCDE and industry standards and building plans and specifications.
6. Using diagnostic tools, perform fault location diagnoses to isolate problems and malfunctions; perform periodic inspection of cable, wiring, and other telecommunications facilities in tunnels, vaults, and other locations.
7. Maintain contacts with OCDE's telephone equipment providers to ensure telecommunications requirements and reliability standards are met; coordinate the resolution of problems, interruptions, and outages; monitor and oversee work performed by contractors to ensure OCDE specifications and standards are met.

QUALIFICATIONS

Knowledge of:

1. Principles and theories of electricity, electronics, and computer hardware and software design as they relate to the installation and maintenance of telecommunications systems and equipment.
2. Test equipment, tools, and materials used in construction, installation, troubleshooting, maintenance, and repair of all types of telecommunications equipment and systems.
3. Principles, methods, and techniques for the installation, configuration, integration, and operation of VoIP network systems, components, equipment, devices, and software.
4. Cable plant media and wiring schemes.
5. Common sources of trouble and methods of service and repair of all types of telecommunications systems, facilities, and equipment.
6. Industry standards applicable to the work.
7. The National Electrical Code, safety and environmental regulations, laws, standards, and practices applicable to the work.
8. Current and emerging voice and data communications technologies.
9. Project management principles, practices, methods, and techniques.

Ability and Skill to:

1. Analyze telecommunications issues and problems, assess operational needs, and develop appropriate, cost-effective solutions.
2. Adapt established practices, procedures, and principles of electrical and electronic circuitry to the resolution of problems, conditions, and service needs.

3. Build scripts and databases applicable to programming and administering telecommunications system applications.
4. Use equipment, tools, media, and other materials in constructing, servicing, installing, and repairing telecommunications systems, facilities, cable plants, and equipment.
5. Locate and trace trouble in all types of telecommunications systems and equipment.
6. Develop plans and work effectively with blueprints, schematic diagrams, sketches, drawings, and instructions.
7. Communicate clearly and effectively, both orally and in writing; prepare clear, concise, and accurate records and reports.
8. Exercise sound independent judgment within policy and guidelines.
9. Establish and maintain effective working relationships with OCDE managers, site administrators, staff, contractors, vendors, and others encountered in the course of work.
10. Must demonstrate attendance sufficient to complete the duties of the position as required.

Education, Training, and Experience:

A typical way of obtaining the knowledge, skills, and abilities outlined above is graduation from a four-year college or university with a major in communications engineering, electrical engineering or a closely related field; and five (5) years of experience in developing and maintaining a large, multi-site telecommunications system with multiple end-user departments; or an equivalent combination of training and experience.

Licenses; Certificates; Special Requirements:

A valid California driver's license and the ability to maintain insurability under OCDE's vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class.

Physical Demands

Employees must be able to perform the essential functions of the position with or without accommodation. Employees in this classification often lift, carry, push, and pull heavy objects. They read written and electronic materials; communicate clearly with those contacted through the course of work (typically in person, on the phone, and via email); and access and operate all required equipment for job duties. This position may include the need to traverse uneven surfaces. May move items weighing up to 50 pounds and lift up to 100 pounds with assistance.

Must pass a pre-employment physical examination related to job duties or assignments and in accordance with relevant codes and regulations.

Mental Demands

While performing the duties of this class, the incumbent is regularly required to use written and oral communication skills; read and interpret information; analyze and solve problems; make observations

and interpret people and situations; use mathematical reasoning; learn and apply new information or skills; perform detailed work on multiple, concurrent tasks with frequent interruptions; work under intensive deadlines and meet productivity requirements; and interact successfully with various groups of people encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform essential functions.

Employees frequently work in outside weather conditions and on slippery and uneven surfaces. Employees are frequently exposed to wet or humid conditions, fumes or airborne particles, toxic or caustic chemicals, and the risk of electrical shock. Employees occasionally perform work in vaults and tunnels and are exposed to biological hazards. The noise level in the work environment is frequently loud.

Incumbents are subject to a 24-hour emergency callout in the event of major telecommunications problems and outages.