



**Orange County Department of Education  
Human Resources Department  
Classified Class Specification**

**Class Code: 3085  
Date Adopted: July 1, 2008**

**FLSA Status: Nonexempt  
Union Representation: Represented**

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## **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 cable 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**

*The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.*

1. Participates in the development, administration, maintenance, repair and support of voice and data communication systems, facilities and equipment; maintains, programs and synchronizes telephone systems installed in multiple OCDE locations; performs database entry to install, remove or change services, configurations and voicemail system hardware and software; makes recommendations on improvements in configurations to achieve optimal utilization of voice communication hardware and software; installs and maintains network equipment for VoIP systems.
2. Monitors telecommunications systems for normal operations; monitors and maintains environmental and safety systems for equipment rooms; reviews and analyzes system and user-generated trouble reports, error messages and alarms; prioritizes, schedules and performs or assigns repairs.
3. Works with users and clarifies requests and needs for telephone and voicemail services; installs, moves, replaces and repairs telephone and other voice communication equipment; ensures installed services meet user needs and requirements; develops structured work plans and serves as internal project manager for telecommunications development and implementation projects.

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## **ESSENTIAL DUTIES AND RESPONSIBILITIES (cont.)**

4. Installs, tests, maintains, repairs and administers voice and data communications cabling infrastructures; conducts site surveys and needs analyses; using appropriate industry standards, plans, designs, constructs and installs cable plant facilities, riser and horizontal wiring and cable, patch panels, jacks and other facilities; determines materials, supplies and time estimates for wiring and cabling installation projects; conducts testing of installed and terminated wire to ensure proper connectivity and transmission in accordance with applicable standards; ensures all required labeling and documentation is complete and accurate; coordinates and monitors the work of vendors and contractors to ensure installed telecommunications facilities conform to OCDE and industry standards and building plans and specifications.
5. Using advanced diagnostic tools, performs fault location diagnoses to isolate problems and malfunctions; performs periodic inspection of cable, wiring and other telecommunications facilities in tunnels, vaults, and other locations.
6. Maintains contacts with OCDE's telephone equipment providers to ensure telecommunications requirements and reliability standards are met; coordinates the resolution of problems, interruptions and outages; monitors and oversees work performed by contractors to ensure OCDE specifications and standards are met.
7. Provides lead work direction and guidance to other telecommunications staff; assigns work orders and reviews the quality of work results.

## **QUALIFICATIONS**

### **Knowledge of:**

1. Principles and theories of electricity, electronics and computer hardware/software design as they relate to 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 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 in and methods of service and repair of all types of telecommunications systems, facilities, and equipment.
6. Industry standards applicable to the work.
7. 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 to:**

1. Analyze complex 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.

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**Ability to: (cont.)**

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 plant and equipment.
5. Locate and trace trouble in all types of telecommunications systems and equipment.
6. Develop plans and work effectively from blueprints, schematic diagrams, sketches, drawings and instructions.
7. Communicate clearly and effectively, both orally and in writing.
8. Prepare clear, concise and accurate records and reports.
9. Exercise sound independent judgment within policy and guidelines.
10. Establish and maintain effective working relationships with OCDE managers, site administrators, staff, contractors, vendors and others encountered in the course of work.
11. 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 years of progressively responsible 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. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Physical Demands**

While performing the duties of this job, the employee is regularly required to sit; talk or hear, both in person and by telephone; hear to distinguish equipment operating sounds and signal warnings; use hands to finger, handle and feel objects or controls; and reach with hands and arms to at or above shoulder level; bend, stoop, push, pull, grasp, squat, kneel, twist, crawl, climb and balance to access materials or equipment, and lift and or move up to 50 pounds and lift up to 100 pounds with assistance from ground, waist and chest level. Travel over uneven terrain that may include gravel or dirt, carry materials on stairs; some locations may have stairs and will not have elevators.

Specific vision abilities required by this job include close vision, use of both eyes, peripheral vision, depth perception, ability to distinguish basic colors and shades and the ability to adjust focus.

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

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### **Mental Demands**

While performing the duties of this class, an employee is regularly required to use written and oral communication skills; read and interpret complex documents and information; analyze and solve complex problems; observe and interpret people and situations; use math and mathematical reasoning; learn and apply new information or skills; perform highly detailed work under changing, intensive deadlines on multiple, concurrent tasks; work with constant interruptions; and interact with site administrators, managers, staff, contractors, vendors and others 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 the 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 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 24-hour emergency call out in the event of major telecommunications problems and outages.