



Job Description

JOB TITLE: TELECOMMUNICATIONS SYSTEMS SPECIALIST

PAY GRADE: CL 26

LAST REVISED: 06/01/07

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job. Additional or different duties from the ones set forth below may be required to address changing business needs/practices.*

SUMMARY DESCRIPTION

Ensures continuous telephone system operations; 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 systems and equipment repair; and performs a variety of tasks relative to assigned area of responsibility.

REPRESENTATIVE DUTIES - *The following duties are typical for this job 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. Troubleshoots telecommunications service and equipment problems; analyzes equipment problems using a variety of diagnostic and test devices.
2. Creates, modifies, relocates, and deletes digital and analog ports and extensions for phones, fax machines, and modems, class of service assignments, least cost routing tables, automatic call distribution groups, digital ports, and system features such as pickup groups, forwarding destinations, hunt and speed dial groups.
3. Plans, analyzes, and designs layout of telecommunications facilities and equipment; plans projects with end users and outside service providers.
4. Determines speed, capacity, and configuration specifications and places all voice and data trunk orders with telecommunications service providers.
5. Schedules and prioritizes work orders and trouble tickets and allocates to technicians, assuring timely completion in accordance with customer needs; reviews work order and trouble ticket resolutions for completeness and accuracy.
6. Prioritizes, coordinates, and performs installation and repair service orders as well as those for adds, moves, and changes; replaces or repairs faulty equipment such as telephone set, cabling, cards, protectors, or makes changes to systems database to correct problems; tests equipment for proper operation and features; orders and transports equipment, materials, and tools to sites.
7. Installs, maintains, and troubleshoots fiber optic cabled systems; performs fiber optic engineering tasks including termination, splicing and testing, adhering to established standards and procedures; installs conduit, wire mold, cable racks, and trays to meet ANSI/EIA/TIA industry standards for cabling and cable terminations.
8. Develops and maintains a schedule of preventative maintenance to include testing battery backup system for the PBXs, inbound/outbound trunks, and circuits for noise and frequency loss; tests District T-1 circuits.
9. Makes cable connections on blocks, jacks, and terminals; makes cross connections, tags, or marks

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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; installs and sets up telephone lines for instructional or other activities; updates records.

10. Responds to telephone system emergency situations such as service interruption, PBX system failure, power outages, and damaged cable.
11. Coordinates with outside telecommunications providers for maintenance and repair of equipment and peripheral circuits as needed.
12. Maintains, updates, and repairs telephone registration system trunks and lines; installs, maintains, and repairs the Proctor E911 system including the ANI and CAMA trunks; downloads and receives event logs, system configurations, status, and alarms.
13. Maintains, troubleshoots, and repairs voice mail system; maintains PBX interface trunks and channels; administers mailboxes and call processing trees.
14. Works with local service providers to troubleshoot and repair centralized automatic message accounting trunks for 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.
15. Maintains an inventory of materials and supplies such as telephone sets, cords, faceplates, and repair parts.
16. Researches new methods of communication for voice, data, video transmissions, and telephone projects, making recommendations on available options; participates with District department managers to estimate telephone system costs, timelines, alternatives, and special needs.
17. Confers with contractors and outside service providers involved with telecommunications projects, reviews blueprints and schematics, and evaluates adequacy of specified material and supplies.
18. Determines locations for terminal closets, cable, conduit routing, telephone sets, and related equipment, working with contractors and outside service providers to ensure compliance with District requirements and coordinate with internal organizational units.
19. Prepares technical specifications for requests for proposals; participates in determining technical aspects of projects, including resources, and time frames.
20. Participates in coordinating project tasks and work sequences; monitors and prepares reports of project work-in-progress status.
21. Assists in developing the department budget by reviewing past expenditures, projecting upcoming equipment purchase, repair, and labor needs, understanding and evaluating proposed projects and upgrades.
22. Ensures that up-to-date records are maintained for the District's telephone systems including extension numbers, user names, location, PBX ports, call pick-up groups, ACD groups, system speed dial and hunt groups, architectural designs and drawings.
23. Maintains records of telephone company trunks and circuits used and accessed by the District, including data and other specialized digital and analog circuits.
24. Performs the duties of a Telephone Systems Technician and other duties as assigned to support the overall objective of the position.
25. May train and provide work direction to assigned student workers and temporary help as assigned.
26. Performs related duties as required.



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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, and techniques associated with the design, installation, repair and maintenance of complex telecommunication equipment.
Telecommunications protocols and standards.
Basic electricity and electronics used in telecommunications.
Telephone and data wiring to current cabling standards (IE, fiber optic, CAT 5, 5e, 6 ANSI/EIA/TIA), termination, and testing specifications, and other wiring to industry standards and practices.
Fiber splicing, fiber/connector preparation and testing.
Voice mail systems including auto attendant, automatic call distribution and system administration.
Microcomputers, common office productivity software, and custom applications for telephone operations.
Human relation skills to communicate technical concepts to others, to develop and sequence a line of inquiry that enables problem solving, and to give individual orientations and explanations.
Reading and writing skills to prepare schematics, descriptions, and reports.
Math skills to analyze circuitry, understand and document numeric sequences, perform standard math computations, and record distances.

Ability to:

Carry out the essential functions of the position with limited supervision.
Provide workmanship that meets established quality requirements.
Observe, demonstrate, and perform safe work practices and procedures.
Read electrical/electronic prints/schematics and blueprints.
Perform mathematical calculations such as frequency counts, trends, and electrical readings.
Give instructions to users.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

Education and Experience Guidelines: *Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Education/Training:

Two years of college with major course work in electronics, telecommunications, or a related technical field.

Experience:

Six years of progressive experience in telephone systems design, installation, service, and repair.

License or Certificate:

Possession of a 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.*



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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.

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, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; 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.

Johnson & Associates
Revised: June, 2007