



DATE	January 2020
JOB CODE	
FLSA	NON-EXEMPT
EEO	

JOB TITLE: Communications Technician
 DEPARTMENT/DIVISION: Information Systems
 REPORTS TO: Communication Systems Manager

SUMMARY: Installs and repairs equipment. Maintains, configures, installs, and monitors radio, audio/visual, broadcast, and microwave systems. Must be able to program, install, maintain, troubleshoot and repair two-way radio and associated communications equipment & systems including PTP and P25 microwave communication equipment. Other duties may include signal routing/patching, making recommendations for equipment purchase and replacement, and provide A/V support for meetings. This position may provide direction to third party vendors and temporary staff. Conducts, and monitors installation, repair and programming of subscriber units and other technology in fleet vehicles. Conducts, and monitors installations of other technology, including audio/visual equipment, wiring, security equipment, access control equipment, and other items as necessary.

ESSENTIAL JOB FUNCTIONS:

- Ensures equipment is maintained by testing equipment, performing diagnostics on components, and designing and implementing procedures to reduce equipment wear and tear.
- Maintains equipment and supplies inventory levels.
- Researches and recommends new and replacement equipment and/or communication and A/V services purchases.
- Coordinates with various City departments for communication and A/V related needs.
- Coordinates communication and A/V needs with City staff by participating in building walk throughs.
- Monitors and maintains the integrity of replay room systems during broadcasts of events.
- Coordinates activities by scheduling, reviewing, and providing feedback for third party vendors and training staff on proper equipment usage.
- Provides various forms of administrative service by creating and maintaining documents and records, drafting checklists, reviewing thirds party invoices, and providing other general services as required.
- Oversees work of contractors during the installation of new or upgraded equipment or software.
- Maintains and repairs digital radio network.
- Installs, programs, monitors, maintains, upgrades, aligns, and troubleshoots handheld and mobile radios and accessories. Works with vendors and contractors on maintenance and repair of equipment due to warranty and maintenance agreements.
- Assists internal and external subscribers with service needs.
- Verifies and documents voice radio and microwave systems operation and outages.
- Maintains active radio database.

- Performs system usage data input.
- Adds, deletes, and modifies subscribers. Sets up talk groups and runs reports.
- Interfaces with external agencies supplying user configuration, ID numbers, talk groups and network access.
- Provides engineering support on all radio system upgrades and changes.
- Ensures technical decisions comply with Federal regulations, State and local ordinances, and City administrative policies.
- Installs and configures technological equipment, including wiring, harnesses, computers, GPS units, docking stations, lighting, terminals, networking items, and radios in fleet units.
- Conducts, and monitors installations of other technology, including audio/visual equipment, wiring, security equipment, access control equipment, and other items as necessary.
- Attends various project, department, and City meetings as required.
- Maintain compliance with external regulatory controls, such as the Texas Department of Information Resources.
- Participates in a variety of special projects in support of departmental operations, which may include: analyzing vendor contracts; performing special studies; providing guidance and recommendations to departments to ensure organizational sustainability and maximize organizational efficiency, effectiveness, and performance; recommending cost-conscious decisions and actions; and/or, performing other related activities.
- Performs other duties as assigned, which may involve irregular work hours, including evenings and weekends.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of Public Safety Communications radio operations and engineering management
- Knowledge of FCC and FAA regulations
- Knowledge of data processing and telecommunications principles, equipment, procedures, terminology, standards, and wiring technologies of network operating systems
- Knowledge of operational characteristics, services, and activities of a radio system program; microwave networks and RF propagation
- Knowledge and hands on experience with trunked systems, system design and hardware and software (Motorola and L3Harris) configuration support
- Knowledge of RF test equipment such as transmission impairment test sets, signal generators, RF service monitors, spectrum analyzers, and master site configurations
- Knowledge of frequency utilization, battery backup systems, base stations, repeaters, radio templates development, flash upgrading, and radio programming
- Knowledge of Public Safety communications requirements such as subscriber radios, needs and desires
- Knowledge of disaster and business recovery practices
- Knowledge of government operations and processes
- Skilled in tracking service call and installations
- Skilled in identifying and solving problems

- Skilled in documenting service outages and resolutions
- Skilled in working independently or part of a team in delivering excellent customer service
- Skilled in reading and interpreting technical documents
- Skilled in applying independent judgment, personal discretion, and resourcefulness in interpreting and applying guidelines
- Skilled in reading, interpreting, applying, authoring and explaining rules, regulations, policies, and procedures
- Skilled in preparing clear and concise reports
- Skilled in gathering and analyzing information and making recommendations based on findings and in support of organizational goals
- Skilled in operating a computer and related software applications
- Skilled in communicating effectively with a variety of individuals
- Ability to communicate with users to define system requirements and resolve problems
- Ability to analyze technical problems and develop workable solutions

MINIMUM QUALIFICATIONS:

- 2 years of college credit or vocational school in a related field
- 1 year of experience in the field of microwave radio communications with extensive knowledge and hands on experience with trunked systems
- 1 year of experience with digital, P25 microwave radio voice and data services, system design and hardware and software configuration support
- Must qualify for and maintain compliance with Criminal Justice Information Systems access requirements
- Must possess or be able to obtain and maintain a valid Texas driver's license

PREFERENCES:

- Bachelor's degree in Electrical Engineering, Information Systems or related area of study
- 1-3 years' experience in the field of microwave radio communications with extensive knowledge and hands on experience with trunked systems
- 1-3 years' experience with digital, P25 microwave radio voice and data services, system design and hardware and software configuration support
- 1 year of experience in L3Harris and Motorola Public Safety radio system services

WORKING CONDITIONS:

- Frequent reaching, sitting, talking, seeing, hearing, and manual dexterity
- Occasional climbing, balancing, stooping, kneeling, and crouching
- Sedentary office and outdoors work environments
- Occasional lifting and carrying up to 50 pounds
- Work may be performed in a data-center environment, involving loud noise and temperature irregularity
- Work both indoors and outdoors and are exposed to cold and hot temperatures, constant noise, fume/odor hazards, road hazards, heights, and mechanical and electrical hazards.

CONDITIONS OF EMPLOYMENT:

- Must pass pre-employment drug test.
- Must pass criminal history check.
- Must pass motor vehicle records check.