

MAJOR FUNCTION

This is skilled work in the installation optimization, maintenance, testing and repair of voice data radio and other communications systems, and the physical interfaces to local and wide area networks (LAN/WAN) used in the City & County's communications network for voice/data and video communications. Specific knowledge of and an ability to work with related technologies and understand these specific sciences are critical to successful job performance. Work is performed in accordance with standard trade practices. An employee in this class is expected to exercise technical independence in determining work methods and procedures. Work is performed under the general direction of higher-level supervisory staff that reviews the work through observation, conferences, reports, inspection of activities and by evaluation of results obtained.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES**Essential Duties**

Performs comprehensive system testing and analysis to ensure non-degradation and optimum technical performance and operation of related components of the City & County 800 MHz P25 digital trunked simulcast voice and data radio communications system infrastructure and subscriber equipment. Provides support activities for all structures, environmental systems, electric service, lighting, security devices and reporting mediums. Repairs and services portable and mobile radios for all system users. Maintains inventory and assignment of system device ID's (user turn on/off, etc.) and alias data base management operations. Reviews system use. Prepares activity reports and airtime summaries. Drafts and submits necessary reports to supervisor for planning of efficient system use. Visits sites, inspects, analyzes and reviews equipment performance. Documents significant incidents for vendor activities. Maintains infrastructure databases, servers, backup software and applications. Keeps records, inventories, and reports of system infrastructure and subscriber operation and use. Keeps statistics of system operation and component failures. Assists supervisor in preparing and administering the unit's budget and with contracts. Participates in system/sub-system administrative reviews. Provides input, documentation and reports for strategic planning. Schedules, performs and oversees preventative maintenance activities directly or through the administration of maintenance contracts and service agreements. Conducts detailed independent research of emerging technologies as they apply to voice and data communications. Performs related work as required.

Other Important Duties

Cross-trains with other unit employees in 800 MHz operations, as is necessary to operate and maintain system in the employee's absence. Receives training and attends service schools to serve as backup and augment support and maintenance for the 800 MHz communications system. Maintains currency in related technology such as microwave, satellite, telephony, fiber optics, computer, applications and software as it relates to radio (voice & data) communications. May represent City in absence of supervisor in meetings and discussions of the radio communications system. Repairs or arranges repair of non-contracted system faults. Performs related work as required.

DESIRABLE QUALIFICATIONS**Knowledge, Abilities and Skills**

Thorough knowledge of the general characteristics of APCO P25 digital trunked simulcast radio communication systems. Considerable knowledge of fiber optics, computers, digital communications processors, intelligent wiring terminals, hubs, servers, programming, applications, software, middleware and hardware related to radio communications and networking. Considerable knowledge of the rules and regulations from the FCC and FAA as they affect the operation of licensed radio

systems with registered tower transmission locations and facilities. Thorough knowledge of the infrastructure requirements of the City & County's P25 800 MHz voice and data radio communications system. Thorough knowledge and abilities to troubleshoot and repair Motorola 800 MHz portable and mobile radios. Ability to analyze and diagnose system malfunctions. Ability to recognize and accurately document significant incidents. Ability to plan for long-term remedial/corrective system activities. Ability to work from schematic drawings, blueprints, and service manuals. Ability to express oneself effectively, orally and in writing. Ability to develop working relationships essential to successful job performance, project completion, sharing of information, and cross-training. Ability to keep informed of the latest advances in voice and data technology that may impact or benefit the City & County's communications system. Skill in the use of diagnostic tools. Skill in the use of computers and associated programs and applications necessary for successful job performance.

Minimum Training and Experience

Possession of an associate's degree in electronics, electrical engineering technology, computer technology, or a related field and five years of technical experience that includes operating and maintaining a trunked simulcast 800 MHz radio system, repair and servicing of 800MHz Motorola portable and mobile radios, and installation of mobile radios in various vehicular platforms; or an equivalent combination of training and experience. Military technical school training in communications or telecommunications, or training received in equipment vendor service schools may substitute for the required education on a year-for-year basis.

Necessary Special Requirements

Must successfully complete a security and personnel background check prior to employment.

Must possess the appropriate State Commercial Driver License (CDL) and endorsement(s) at the time of appointment, or must possess a CDL permit at the time of appointment and obtain the appropriate CDL licensure within 90 calendar days from date of employment as a condition for continued employment.

Established: 03-04-92
Revised: 05-28-92
07-29-92
10-13-94
05-30-00
03-26-03
10-08-03*
07-13-09*
10-30-09