

RADIO SYSTEMS MANAGER

FUNCTION OF THE JOB

Under direction, to plan, manage, direct, and administer the County's central radio operations; to supervise the radio services section of the Department of Emergency Preparedness; and to perform other duties as required.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES

1. Directs and administers the trunked radio and microwave communications systems and the services provided to County and other municipal agencies, including system design, operation, maintenance, and upgrades.
2. Serves as system administrator for the trunked radio networks; performs system configuration and diagnostics; develops and maintains network security; monitors operation of the systems; and ensures optimum performance and reliability.
3. Plans and coordinates the programming of trunked system components into a wide variety of complex configurations and priority levels.
4. Directs and administers the installation, repair, and maintenance of communications equipment including radio dispatch consoles, network data transport, and weather satellite, dispatch center time base, and other equipment associated with the County's central 9-1-1 dispatch center and other public safety dispatch centers in the County.
5. Directs and administers the installation, repair, and maintenance of data transport/data network equipment, and media including wireless, fiber, Ethernet, DS1/T1, channel banks, multiplexers, routers, automatic protection switches, and performs network service and dynamic data impairment analysis.
6. Directs and administers the installation, repair, and maintenance of trunked radio, FM land mobile, microwave, and base transmitter communications systems and electronic equipment; ensures quality of service provided; and ensures 24x7x365 on-call emergency response coverage.
7. Selects, assigns, evaluates, supervises, trains, and handles personnel issues of the staff; and oversees scheduling of all activities.
8. Represents the County with contracted agencies; provides technical assistance regarding communications systems and equipment; addresses special requests or complaints; and serves as a liaison between subscribers and State and Federal agencies.
9. Provides communications consulting services; analyzes communications needs; and recommends, designs and implements comprehensive communications systems and system upgrades.
10. Designs in-building bidirectional radio frequency (RF) amplification systems to provide reliable public safety trunked radio communications in dense mission-critical buildings.
11. Researches and evaluates new technology, equipment, and changing state and federal communications regulations and requirements; determines their applicability to and impact on County communications; and recommends and implements policies, procedures, programs, or technologies as needed.
12. Participates in the development and management of the annual budget and the trunked radio replacement program; researches and analyzes revenues and expenditures; recommends appropriate rates for radio services; and oversees radio services billing activities.
13. Leads and/or participates in Countywide steering committees and advisory committees regarding radio communications systems, the regional public safety interoperability work group, the County 9-1-1 dispatch center and radio services.
14. Presents information regarding radio communications services to other municipalities and organizations.
15. Coordinates the siting of wireless antenna systems on County-owned towers and sites; participates in the lease terms of negotiation; and monitors lessee installations for lease compliance on an ongoing basis.
16. Manages the County owned structural infrastructure related to radio communication including towers and buildings, including utility and standby power systems, fire and intrusion alarms, HVAC, lighting, fencing, aircraft warning lighting, structural issues and code/regulatory compliance.
17. Prepares and presents detailed written and oral recommendations and reports; prepares requests for proposals; participates in the evaluation and selection of vendors, assists in contract negotiations, and ensures contract compliance by vendors.
18. Develops trunked system user activity reports and ensures trunked system user contract compliance.
19. Administers and maintains automated computer database for radio services information system.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES (continued)

20. Establishes and maintains effective working and public relationships with staff, subscribers, County departments, contracted agencies, vendors, and outside organizations.
21. Performs other duties as required.

QUALIFICATIONS

Essential Knowledge and Abilities

1. Thorough knowledge of the methods, procedures, specifications, and equipment used in the design and operation of trunked radio, land mobile, and microwave communications systems.
2. Thorough knowledge of the techniques, methods, procedures, and tools used in the installation, repair, and maintenance of trunked radio, land mobile, and microwave communications systems and electronic equipment.
3. Thorough knowledge of the operational theory, parameters, and applications of radio frequency (RF) technologies, including digital, microprocessor, microwave, and trunked radio, and of RF-related mathematics, circuit design, and electronics.
4. Thorough knowledge of computer-based network systems and equipment such as 800 MHZ trunked radio simulcast system, including computerized diagnostics and operational controls.
5. Thorough knowledge of IP networking, servers, routers, switches, P25 trunking, including Ethernet, T1/DS1 lines and fiber, fiber multiplexers, routers, and automatic protection switches.
6. Thorough knowledge of wireless communication technology including tower design, loading capacity, and siting requirements.
7. Thorough knowledge of state, federal, and local rules, regulations, codes, and standards governing radio communications operations and licensing of radio systems and towers.
8. Thorough knowledge of state-of-the-art voice and data communications circuits.
9. Considerable knowledge of business management practices and procedures including budgeting, record keeping, marketing of services, scheduling, inventory, negotiation, and customer service.
10. Ability to plan, organize, supervise, and evaluate the work of others.
11. Ability to analyze information; evaluate alternatives; and make appropriate recommendations.
12. Ability to investigate, identify, and resolve problems.
13. Ability to maintain and prepare accurate and detailed records and reports and present comprehensive concepts, ideas, reports, and recommendations.
14. Ability to analyze the communications needs of clients and to design and implement appropriate communications systems using CAD technology.
15. Ability to effectively interact with sensitivity with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional background, and persons of all ages and lifestyles.
16. Ability to communicate effectively, both verbally and in writing.
17. Ability to establish and maintain effective working and public relationships with staff, subscribers, County departments, contracted agencies, vendors, and outside organizations.

Training and Experience

1. High School Diploma or GED.
2. Five (5) years of work experience in the administration, installation, repair, or maintenance of land mobile, data network, or microwave communications equipment; two (2) years of which must include duties in the design, implementation, operation, or administration of such systems.
3. Post high school education at a technical school, college, or university in two-way radio communications design or servicing, or in electronics or a closely related field with course work in two-way radio communications may be substituted for one (1) year of the general work experience requirement.
4. Valid driver's license.