



County of Sonoma Administrative Policy Manual

Radio Communications Policy

Adoption Date:	
Adopted by:	
Revised Date:	
Revised by:	
Authority:	
Issuing Department:	Sheriff's Office – Telecommunications Bureau

Purpose

The Sheriff's Office is designated to manage the County's Radio Telecommunications Network that supports essential government service agencies. This responsibility is assigned to the Sheriff's Telecommunications Bureau ("the Bureau") within the Sheriff's Office organizational structure.

The primary purpose of this policy is to define roles, responsibilities, operating standards, and service expectations for the management and operation of the County's radio communications systems. The Bureau's mission is to deliver radio services that emphasize functionality, reliability, interoperability, and fiscal responsibility consistent with user needs.

Scope

This policy defines the Bureau's role and responsibilities in providing reliable radio communications in support of public safety and government operations across Sonoma County.

A description of this system is as follows: The Telecommunications Bureau, established in approximately 1987, initially provided analog voice communication services and has since evolved to deliver wireless voice and data services using digital technology. The Bureau supports public safety and local government radio communications throughout Sonoma

County by operating and supporting radio communications infrastructure at strategically located county communications sites.

The network serves more than 3,200 end users, primarily supporting County and non-County law enforcement, fire services, and emergency medical operations. The Bureau's technical staff ensures the reliability of the telecommunications systems by managing wireless radio systems, simulcast systems, associated servers, IP networks, and mobile devices.

Definitions

Telecommunications Bureau (Bureau): For the purposes of this policy, TComm refers to the Telecommunications Bureau within the organizational structure of the Sonoma County Sheriff's Office.

Radio Telecommunications Network: The collective system of equipment, infrastructure, and technology that supports portable and mobile radio communications in support of public safety and government operations throughout Sonoma County. The Radio Telecommunications Network includes all components necessary for reliable and interoperable public safety communications, including but not limited to:

- Portable radios and mobile (vehicle-mounted) radios
- Radio transmitters and receivers
- Fixed antennas located on communication towers and building structures
- Microwave antennas and associated microwave radio equipment
- Radio and electronic equipment power supplies
- Uninterruptible Power Supply (UPS) and battery backup systems
- County-managed servers, network switches, and routers
- Network Monitoring Systems (NMS)
- Licensed Very High Frequency (VHF low and high band), Ultra High Frequency (UHF), and microwave radio frequencies
- Fire detection and surveillance cameras mounted on towers
- Interior and exterior security and operational cameras installed at communications facilities

Together, these components form the County's integrated communications infrastructure that enables secure, reliable, and interoperable radio communications for public safety and government operations.

Radio Telecommunications – refers to communication provided by the Radio Telecommunications Network

Users - Authorized personnel from participating public safety and governmental agencies who are granted access to the County's radio network for the purpose of conducting official operational, administrative, or emergency communications.

Public Service Agencies (PSA) – Government agencies and public-serving organizations that provide essential services to the community and are authorized to participate in the County's radio telecommunications network. PSAs include, but are not limited to, departments under the County of Sonoma, agencies of adjacent counties, State and Federal government entities, joint powers authorities such as REDCOM, and other nonprofit or quasi-governmental organizations that perform public service or emergency response functions.

Service Agreements A written contract between the Sheriff's T-Comm Bureau and a participating agency that outlines the terms, conditions, costs, and responsibilities for access to and use of the County's public safety radio network. Agency specific projects are also completed upon execution of a Service Agreement.

Radio Telecommunications Sites - The towers, real estate (owned or leased), buildings or communications vaults, utilities, and associated infrastructure that provide the facilities necessary to operate and support the County's radio telecommunications systems.

License Radio Spectrum Frequencies- are specific ranges of the radio frequency spectrum authorized by the Federal Communications Commission (FCC) for transmitting and receiving voice and data communications. These frequencies are assigned for designated purposes such as public safety, emergency response, and other critical operations to ensure lawful, reliable, and interference-free communication among participating agencies.

Policy Statement

The primary purpose of the Bureau is to establish consistent and reliable radio systems for PSAs in Sonoma County.

Maintenance services and projects are prioritized based on the level of risk to the community. Priority of services are given to first responders, such as law enforcement, fire, emergency medical services, and emergency dispatch centers to ensure support for 9-1-1. The Bureau's maintenance and project priorities are focused on Sonoma County's licensed radio channels to ensure emergency preparedness. If first responder communication priorities exceed the Bureau's capacity and prevent timely attention to other critical systems, the Bureau shall immediately notify the affected PSA and users and work with the PSA to address the needs through external resources.

1. Priority of Service – The Bureau’s priority of services is defined as follows:

1.1 Priority One

- Primary channels for law enforcement and Sheriff’s Dispatch
- Primary channels for REDCOM fire and emergency medical services (EMS) dispatch centers

1.2 Priority Two

- Secondary channels for law enforcement and Sheriff dispatch centers
- Secondary channels for REDCOM fire and emergency medical services (EMS) dispatch centers

1.3 Priority Three

- All other radio communication services provided for users covered under the respective Services Agreement with the Bureau.

2. Safeguard Frequency Integrity

The Bureau follows FCC regulations CFR47 Part 90. The Bureau monitors users channels at County-owned sites to ensure license and equipment comply per the guidelines given through the FCC regulations. If parameters exceed this FCC governance, the Bureau notifies users, informing them of the corrections needed to remedy. If corrections are not remedied, the Bureau will notify the FCC of violations and utilize the FCC's authority to implement corrective action.

3. Telecommunications Bureau FCC Licensing Roles and Responsibilities

The Telecommunications Bureau is responsible for managing and overseeing the licensing of radio telecommunications services for the County of Sonoma, to meet the requirements of the Federal Communications Commission (FCC). PSAs needing licensing shall coordinate their requests through the Bureau.

3.1 Key Roles and Responsibilities

3.1.1 Licensing Management

3.1.1.1 Licensing Acquisition: Obtain and maintain necessary FCC licenses for various communications services, including radio frequency allocations and communications facilities essential for county operations.

3.1.2 Application Process

3.1.2.1 Preparation: Gather all necessary information and documentation required for the FCC license application.

3.1.2.2 Submission: Submit FCC license applications through the FCC's Universal Licensing System (ULS) or other specified resource.

3.1.2.3 Cost: The agency or department will pay for any fees required for the FCC licensing process. County agencies will be billed through T-Comm.

3.1.3 Regulatory Compliance

3.1.3.1 Compliance Monitoring: Ensure all telecommunications activities comply with FCC regulations and guidelines, including monitoring changes in legislation.

3.1.3.2 Recordkeeping: Maintain detailed records of all licenses, including expiration dates, modifications, and renewals.

3.1.3.3 Inspections: Prepare for FCC and coordinate inspections, audits, and corrective action, if needed.

3.1.4 FCC License Renewals and Modifications

3.1.4.1 Timely Renewal: Apply for FCC license renewals prior to expiration dates to avoid lapses in licensing.

3.1.4.2 Modifications: Apply for FCC license modifications due to changes in operations, such as equipment, location, or ownership.

3.1.4.3 Notifications: Notify the FCC of any significant changes in contact information or operational status.

3.1.5 FCC Violation Prevention and Enforcement

3.1.5.1 Monitoring Operations: Regularly monitor telecommunications operations to ensure compliance with licensing conditions.

3.1.5.2 Reporting Violations: Immediately report any violations to the FCC and take corrective actions.

3.1.5.3 Cooperation: Cooperate with FCC investigations and respond promptly to any findings, enforcement actions, or fines.

3.1.6 Coordination with Stakeholders

3.1.6.1 Liaison Role: Act as a liaison between the County of Sonoma and the FCC in support of public safety and government operations throughout Sonoma County.

3.1.7 Public Safety and Emergency Communications

3.1.7.1 Support Public Safety: Ensure radio communications systems support public safety initiatives by maintaining reliable communication networks for emergency services during disasters and critical incidents.

3.1.8 Spectrum Management

3.1.8.1 Spectrum Use: Manage the radio frequency spectrum utilized by the County of Sonoma, ensuring efficient allocation, usage, and operation of the spectrum to minimize interference and maximize service quality.

3.1.9 Policy Development and Implementation

3.1.9.1 Policy Development: Participate in developing and implementing communications policies that promote fair access and innovation for all County of Sonoma agencies.

3.1.10 Monitoring and Reporting

3.1.10.1 Performance Assessment: Regularly monitor radio communications services and prepare reports to assess performance, identify areas for improvement, and inform stakeholders of developments in telecommunications.

3.1.11 Updates and Training

3.1.11.1 Updates and Training: Stay informed about changes in FCC regulations and policies, and ensure Bureau staff are trained in FCC requirements and best practices.

4. Communications Equipment and Frequency Usage

This section outlines the guidelines and regulations that govern the selection and operation of communication devices and the allocation of radio frequencies operated by the County of Sonoma. It establishes standards in choosing and maintaining telecommunications equipment, ensuring compliance with technical specifications and operational requirements set by the FCC.

The policy implements responsible use of assigned frequencies to minimize interference and enhance service quality through effective management of communication equipment and frequency usage. Additionally, it provides efficient spectrum management to address the diverse communication needs of the County's radio telecommunications network.

4.1 Equipment Use: Licensed Radio Spectrum

Licensed radio spectrum frequency refers to the radio frequency bands allocated and licensed by the Federal Communications Commission (FCC) for specific purposes such as public safety communications. Equipment that utilizes this specific licensed spectrum or has the potential to interfere with critical services on the licensed spectrum must be equipment provided, approved, or serviced by the Bureau exclusively for official purposes. Unauthorized modification, tampering, installation, alteration, or unauthorized use of adjacent frequencies that causes interference to the licensed spectrum, as well as misuse of radio communications equipment, is strictly prohibited.

4.2 FCC Compliance

All communication equipment and frequencies or channels must be used in compliance with FCC regulations *CFR Title 47, Chapter 1, Subchapter D, Part 90 & 101*.

4.3 Prohibited Use of Interfering Frequencies

Users and Public Safety Agencies (PSAs) may utilize radio systems operating on public communication frequencies, such as FRS, GMRS, CB, or Amateur (HAM) radio, provided such use does not interfere with the County's existing radio telecommunications network and have been approved by T-Comm as described in this policy.

Any proposed installations, plans, or designs involving the use of public communication radio systems at or near County telecommunications sites must be coordinated with the Bureau to ensure compatibility, proper integration, and

compliance with County standards, and to prevent interference with the County's radio telecommunications network.

Unlicensed radio spectrum, such as WiFi, used by the County Information Systems Department are exempt from this provision.

5. Frequency Spectrum Management

The Bureau is responsible for systematic regulation and allocation of the County FCC licensed radio frequency spectrum. This process is vital for preventing interference between different communication services, optimizing bandwidth utilization, and facilitating the growth of new technologies. The Bureau is responsible for the County's spectrum management.

5.1 Oversight

5.1.1 Frequency Spectrum - The Bureau shall oversee the allocation and management of frequency spectrum resources for the County of Sonoma. As the authorized provider of services for all aspects of Federal Communications Commission (FCC) licensing in the County, the Bureau shall ensure compliance and effective use of these resources.

5.1.2 Land Mobile Radio (LMR) and Microwave Radio - Land Mobile Radio (LMR) and Microwave Radio systems operated by the County of Sonoma require an FCC license to transmit on radio frequencies. The Bureau will acquire FCC licensing and manage all transactions associated with the ongoing management of these licenses. All licenses and transaction records will be maintained at the Bureau's Central Office, with a copy of the current FCC licenses securely stored at each radio communications site.

5.1.3 Microwave Network Systems - The Bureau's staff will construct, program, and test radio and microwave network systems located at remote mountaintop radio communications sites, in accordance with compliance of FCC license specifications.

5.1.4 Devices - The Bureau will also program and test end-user device-specific radio frequency profiles for radios operating within the County of Sonoma's radio systems in support of public safety and government operations throughout Sonoma County.

5.2 FCC Licensing Requests

The Bureau will request FCC licenses on behalf of County agencies and departments. Any requests for new frequency assignments or changes to existing frequencies must be coordinated with the Bureau. Applications for fixed, mobile, or mobile-relay stations shall be submitted to the Bureau using the SC312 application form, along with required eligibility documents and written agreements detailing technical and operational standards. When a county agency requests new radio frequencies, the Bureau will review the request to ensure it meets technical requirements. If approved, the request will be sent to the relevant frequency coordinating organization, such as IMSA, for coordination and processing with the FCC. If requests cannot be approved, the Bureau shall work with the requestor to attempt to remedy the conflict.

5.3 Outside Agency Access to County Radio Frequencies

The County recognizes that there may be instances when other PSAs require assistance through County's radio systems. Access to this radio system shall be provided during emergency situations or through a preapproved Letter License. Agencies wishing to request frequency access should apply for a Letter License through the appointed County agency or department. The Bureau will review applications and maintain signed copies for reference pursuant to FCC 47 CFR Part 90.421.

5.4 Protocol Adherence

All PSAs that use the Radio Telecommunications Network are required to establish formal Service Agreements with the Bureau as described in Section 6.0 Services Agreements.

6. Service Agreements

All PSAs that use the Radio Telecommunications Network are required to establish formal Service Agreements with the Bureau. These agreements are created through a collaborative process between the Bureau and the requesting agency, and the needs, technology requirements, terms, conditions, costs, and responsibilities for access to and use of the County's public safety radio network. Any modifications to the Service Agreement must be documented and formally approved in writing by both parties.

Roles and Responsibilities

1. Qualified Personnel

Only qualified personnel are authorized to perform work described in this policy. The Bureau employs technical staff in the following job classes. Bureau employees meet or exceed the qualifications and training standards defined in these job classes:

- Communications Technician I/II - Responsible for installing, maintaining, and repairing telecommunications systems.
- Senior Communications Technician - Designs and oversees complex telecommunications projects and provides guidance to junior technicians.
- Network Analyst - Designs, implements, and manages network infrastructure to ensure reliable communications.

2. Access to Radio Telecommunication Sites

The Bureau shall assign authorized access based on Section 2.1, Restricted Access - Radio Telecommunications Sites shall have controlled entry points. Only authorized personnel shall be permitted entry. The Bureau will make all reasonable efforts to provide authorized access as essential needs permit; however, the Sheriff, in accordance with County Administrative Policy 9-2, shall have sole discretion in determining access permissions to facilities containing public safety equipment. Periodic security audits will be conducted by the Bureau to assess compliance with access protocols, identify out of date information, and any potential vulnerabilities.

2.1 Restricted Access

Access to communication vaults is strictly limited to authorized personnel (defined in section 11.2 Authorization). Unescorted private contractors, subcontractors or tenants are prohibited from entering these areas. Escorted access will be provided by the Bureau as needed, in accordance with County Administrative Policy 9-2. All authorized personnel are required to adhere to established access protocols when entering these restricted facilities.

2.2 Authorization

Authorization for access to communication vaults must be granted by both the Sheriff's Office and the Telecommunications Bureau, through the following process:

All requests for access must be sent via email to Sheriff-TComm@sonomacounty.gov and include the following: (1) the purpose of access, (2) a list of names of individuals needing access, (3) organizational information, and (4) contact information. Typically, access can be provided within five (5) business

days for nonemergency needs and within one (1) business day for critical, emergency needs. The Bureau shall make all reasonable efforts to ensure vault tenants are provided access to their equipment, in accordance with this policy. Should emergency access be needed by a tenant, the tenant shall communicate the need through the Bureau.

2.3 Maintenance of Equipment at Radio Telecommunication Sites

All maintenance, repairs, or inspections needed at radio telecommunication sites must be coordinated with and supervised by the Bureau. Before any maintenance work begins, a detailed plan outlining the scope of work, timeline, and potential service impacts must be submitted the Bureau for review. The Bureau or authorized SPI representative will oversee the execution of these activities to minimize disruption to communication services, adhere to any property lease agreements, and ensure best practices. Additionally, regular assessments will be conducted to evaluate the effectiveness of maintenance procedures and identify areas for improvement.

3. Maintenance of Radio Telecommunication Site Grounds, Facilities, and Towers

Unless documented in a separate Memorandum of Understanding, Sonoma Public Infrastructure (SPI) is responsible for Radio Telecommunications real estate transactions, tower infrastructure, including tower inspections, building, landscaping, and vegetation management, including fire prevention vegetation management. Bureau staff shall be available to provide access for any of these responsibilities.

3.1 Generator as at Radio Telecommunications Sites:

Due to the remote locations of radio telecommunication sites and personnel needed on site for access, refueling, and maintenance, it is more cost efficient for T-Comm to manage generator maintenance, refueling, and repairs. T-Comm shall monitor generator fuel levels, be responsible for proper re-fueling, coordinate and schedule regular preventative maintenance and necessary repairs and inspections. T-Comm will budget and pay for costs related to, monitoring, maintaining, and conducting annual generator inspections at all radio telecommunication sites. Replacement of aged and failing generators will be managed by SPI through the County's Capital Improvement Project Budget.

3.2 Inquiries

Questions or concerns regarding this policy should be directed to the Telecommunications Bureau at Sheriff-TComm@sonomacounty.gov. The Telecommunications Bureau shall make all reasonable efforts to address all inquiries promptly and transparently, fostering a clear understanding of the policy among all interested parties and collaborative relationship with system users.

Maintenance and Review

This policy will be reviewed annually by the Telecommunications Bureau to ensure its ongoing effectiveness and relevance. All proposed changes must be approved through the County's standard process for policy revision.

Legal Compliance

The Bureau is responsible for ensuring compliance with established telecommunications policies and regulations set forth by local, state, and federal authorities. This includes maintaining radio telecommunications equipment frequency spectrum allocations, frequency licenses, and access to radio communications sites as part of the County essential services network in alignment with serving all PSA needs.

Any requested modifications, alterations, installations, or adjustments to radio communications systems utilized by a PSA shall be reviewed and approved by the Bureau. If approval cannot be granted, the Bureau shall work collaboratively with the PSA to identify and remedy the conflict. If the conflict cannot be resolved between the Bureau and the PSA, the matter shall be elevated to the Deputy County Executive for review and, if necessary, further elevated to the County Executive Officer for resolution. For all approved requests, the Bureau shall coordinate implementation to ensure compliance, system integrity, and continued functionality.

Related Documents

1. SoCoEmergency.org, Auxiliary Communications Service, 2022. SoCoEmergency.
2. Federal Communications Commission (FCC) Regulations - Code of Federal Regulations (CFR) Title 47, Chapter 1, Subchapter D, Part 90 & 101.
3. Sonoma County Communications Site Vault and Tower Space Application Form (SC-312).
4. Sonoma County Sheriff's Office Policy 802 - Outside Agency Access to Sheriff's Radio Frequencies.
5. County of Sonoma Administrative Policy 9-2

Revision History

Version	Date	Summary of Changes
2.0		
3.0		
4.0		
Etc.		