

Allied Radio Matrix for Emergency Response System (ARMER) Standards, Protocols, Procedures

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Procedure Title:	System Maintenance: Programming & Qualification	
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1. Purpose or Objective:

To establish the minimum qualification standards for system technical staff, both in-house and contracted. To ensure system functionality and integrity is maintained by requiring system configuration, maintenance and repair functions to be performed by qualified personnel.

2. Technical Background

- **Capabilities**

This standard is to protect the integrity of the system by ensuring training and background requirements of all personnel working on the system and by delineating the authorized activities of a contract service provider who is to provide maintenance and programming services.

- **Constraints**

Some sensitive and non-public system security information will be available to businesses and people operating outside of the ARMER System. It is possible that the integrity of the system may be jeopardized if no standard or agreement is in place to assure the appropriateness of the businesses' activities.

3. Operational Context:

System functionality and integrity must be maintained by ensuring that only qualified personnel perform system configuration, maintenance and repair functions. Not all user agencies participating in the region wide system have technicians on staff to program and perform configuration, maintenance and repair on radios and other electronic infrastructure. This presents the need for agencies to contract with contract service provider(s) to perform such service(s). The choice of service provider is at the discretion of the user agency, but the contract service provider must enter into an agreement with the user agency requiring services and the user agency must insure that the requirements of this standard are met prior to the execution of the service.

4. Recommended Protocol/ Standard:

System Owners' Internal Technical Staff

- Employed technical staff of owning agencies will follow the same or an equivalent internal process of assuring absence of criminal history as outlined below in the section: *Contract Service Providers*. The minimum standard for criminal history checks will be the Interstate Identification Index.
- Employed technical staff of owning agencies will follow the same process of assuring technical competency as outline below in the section *Technical Staff Requirements (Internal and External)*.
- System managers shall maintain a list of technical training completed by internal technical staff.

Contract Service Providers

User agencies may contract radio programming and system infrastructure work to contract service providers provided the following requirements are met:

- A service shop must prove it is a qualified service center eligible to conduct business in the State of Minnesota.
- A service shop must prove it has specified insurance coverage and may, prior to commencement of work be asked to purchase a security bond at the discretion of the user agency that is hiring the service shop.
- When a user agency contracts with a contract service provider for the purpose of providing maintenance, repair, programming and related service on electronic infrastructure including dispatch consoles and/or radio subscriber equipment, said contract service provider must obtain and pay for all permits, licenses and approvals necessary for programming and maintenance and to fulfill the provisions the user agency.
- Due to the sensitive and non-public nature of the programming information, the contract service provider must provide written assurance that it is authorized and has all necessary permits and licenses to conduct business in the state of Minnesota. Unless specifically authorized by the System Administrator and user in writing on an individual radio by radio basis, the contract service provider may not directly or indirectly, or permit any third person to: view, read, print, extract, copy, transmit, archive, edit, create, clone, transfer, release, tamper with, reverse engineer or otherwise compromise the security of any radio code plug programming file, system key file, encryption key file, or any infrastructure configuration database file for any radio, console or other infrastructure element on the System.

- Further, the contract services shop must provide references and enter into a provider agreement with the requesting agency. The System Administrator and/or the user agency have the right to view the resume of any staff member of the contract service provider or to conduct background checks.
- The contracted technician must submit to a background check. The contracting agency is responsible to ensure that the background check has occurred.
- Contracting agencies shall use contract service provider's technical staff in their certified areas of competency.
- The contract service provider shall maintain all training certifications for its personnel and provide copies of these certifications to system administrators when requested.
- Contracting agencies may contract for services only for equipment they have jurisdiction over.
- Contracting agencies shall notify the appropriate systems administrator of any contract for services. The appropriate system administrator is the administrator of the system or subsystem the agency has contracted with to be operating on. Ex. Subscribers only agencies contracted with Hennepin County must notify the Hennepin County system administrator, regional subscriber only user contracted with a regional board or Mn/DOT must notify the Statewide System Administrator.

Technical Staff Requirements (Internal or External)

- The technical staff that is assigned to work on system and/or subsystem equipment shall successfully complete appropriate training on all equipment they are assigned to work on. This training will be completed prior to working on the equipment.
- The technician must have/possess satisfactory knowledge and experience in either the equipment being maintained or radio programming.
- Personnel that are not trained shall not perform configuration, maintenance or repair work unless this work is performed under the direct supervision of trained and approved personnel.
- The technicians must attend a common practices class and any informational meetings as specified by the System Administrator before they may work on the system or program radios for use on the system.
- Technicians shall only work in the areas which they have completed the common practice classes or informational meetings.

- Technicians must be familiar with and abide by ARMER standards established by the Statewide Radio Board, including, but not limited to the standards contained in Section Four that pertain to maintenance and any pertinent regional standards.
- System and subsystem technical staff shall be familiar with the site access procedures, equipment outage and maintenance notification requirements of this standards manual.
- System and subsystem technical staff shall have access to and use radios for required Sys-Tech announcements before performing any work the system.
- Technical staff connecting to the radio network shall have a clean computer and be familiar with and follow all standards regarding security. Before they connect to the network they shall work with the appropriate system administrator to insure they have the latest anti-virus protection on their computers.

5. Recommended Procedure:

This manual does not contain specific training procedures or training modules.

Agencies requiring contract services must enter into an agreement with the Contractor providing service. The agreement will specify enforcement provisions including consequences of misuse and the release of non-public system security information

The contract service provider's technical staff must attend the common practices/system overview class and any other training as determined by the System Administrator.

6. Management

The Statewide System Administrator, the appropriate System Managers and the contracting agencies are responsible for managing and maintaining the agreement process.

Statewide System Administrator will:

- Will facilitate the development and maintain the current version of the common practices for the different categories of work.
- Maintain a list of the overview/common practices trainers for the contract workers.

System Managers are responsible to ensure that:

- Minimum training requirements of in-house staff are met.
- Only qualified personnel perform system maintenance functions.
- System technicians are familiar with all applicable sections of the ARMER system standards.
- Lists of technical contractors in use are to be submitted to the Statewide System Administrator.

Contracting Agencies shall:

- Insure that these system standards are followed when using contract services.
- Insure that only qualified personnel perform system maintenance work.
- Notify the System Administrator when contracting for service.