

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

Document Section 2	Configuration and Allocation	Status: Complete
State Standard Number	2.12.0	
Standard Title	Scanning	
Date Established	01/19/2001	SECB Approval: 02/25/2016
Replaces Document Dated	04/12/2005	
Date Revised	01/11/2016	

1. Purpose or Objective

The purpose of this standard is to identify operational procedures and responsible authorities governing scanning activities.

2. Technical Background

▪ Capabilities

The network infrastructure and subscriber units need to be configured to permit managed user scanning of talkgroups. Scanning is a user option, and users need to be trained that including a talkgroup in a non-priority scan list will not necessarily result in them hearing traffic on that talkgroup. The talkgroup must also be “active” at the site where the user is affiliated. Talkgroups are activated if there is at least one user affiliated at the site that has the talkgroup of interest as their selected channel.

▪ Constraints

Certain radio models are not capable of setting individual talkgroups set for receive-only and must have the entire radio set for *either* receive-only on all talkgroups, *or* transmit and receive on all talkgroups. Any talkgroup programmed into a normal user radio is technically capable of both transmit and receive operation and any transmission can be displayed on a dispatch screen.

3. Operational Context

A talkgroup owner may pre-approve monitoring privileges. Any unauthorized transmission on non-owned talkgroups in violation of this policy may result in immediate subscriber unit de-authorization and removal of the talkgroup from the radio prior to reauthorization on the network.

The network infrastructure and subscriber units will need to be configured so users can have wide area coverage and still maintain an acceptable level of service for all users. The use of “Critical User” and “Critical Site” in the system for the purpose of non-priority scanning is not permitted, and scanning between different sites will be accomplished by the use of “requested sites.”

4. Recommended Protocol/ Standard

Talkgroup owners and System Administrators may approve limited scanning/monitoring privileges. Before scanning/monitoring of owned talkgroups, permission must be granted.

As cited in State Standard 2.7.0, Use of Shared Talkgroups, permission must come from:

- the System Administrators of the sites that are being requested for the talkgroup
- the jurisdiction/agency who is the “owner” of the requested talkgroup

Mutual aid, special roaming, and other shared talkgroups may be scanned at any time; however, “requested site” determinations will be made by the System Administrators of the affected sites.

5. Recommended Procedure

Scanning Configuration

If trunked scanning is desired, it is recommended that the local System Administrator set the radio site preferences to facilitate the scanning needs of the user, as well as coordinate with other System Administrators that may be impacted by changes in site talkgroup load.

It is further recommended that scanning be disabled when the user switches their radio to a conventional (non-trunked) channel, such as a Scene of Action (SOA) channel. However, if mixed-mode scanning (both trunked talkgroups and conventional channel members) is required by some users, it is also recommended that this scan type only be available when the radio is selected to a conventional channel. Mixed-mode scan may not provide priority revert depending on radio model, and the user may miss necessary traffic on the selected channel.

Scanning of Non-Home Site Talkgroups

It is possible to monitor a non-home talkgroup by configuring the system to request the non-home talkgroup appear on your primary/ home system or “always preferred site(s).” However, doing so will consume a repeater channel on your primary/ home system or “always preferred site(s)” and will carry the requested non-home talkgroup priority setting with it. Also, a call on the requested non-home talkgroup will not be delayed (busy queued) if the home system or “always preferred site(s)” does not have a channel available. While this “requested site” is the recommended approach, it must be carefully controlled, monitored, and evaluated, as it could exhaust system resources. It must be approved by the affected administering agency.

Talkgroup permission forms can be found on the Emergency Communication Networks’ (ECN) website.

6. Management

The site owner and Local System Administrator will be the responsible authority for scanning issues. If an issue is unable to be resolved at the local level, it can be brought to the Statewide System Administrator.