

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

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Standard Title	Statewide Wide Area Talkgroup Access and Management	
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1. Purpose or Objective

The purpose of this standard is to establish a policy that provides radio connectivity throughout the ARMER system while minimizing roaming and excess system loading.

2. Technical Background

▪ Capabilities

On the ARMER system, it is possible to allow all radios and talkgroups to operate and “roam” throughout the system. It is also possible to restrict radios and/or talkgroups from operating on particular sites and sub-systems. It is also possible for users to leave one or more radios selected to an interoperability talkgroup on a long-term basis solely for the purpose of monitoring. This is commonly referred to as “parking on the talkgroup” and will unnecessarily consume system capacity.

For a radio to access a radio frequency (RF) site, it is an “AND” relationship between the Radio User Site Access Profile and the Talkgroup Site Access Profile. Typically, agencies set their radio access to all sites and manage the access through the Talkgroup Access Profiles.

▪ Constraints

Sites and subsystems can only support a specific number of concurrent, active talkgroups. It is possible that a large number of “roaming” or other talkgroups with busy traffic could overload a site or sub-system. Similarly, users switching to an interoperability talkgroup during an emergency incident they are not assigned solely to monitor the incident will also unnecessarily consume system capacity.

Talkgroups across regions/zones use “backbone infrastructure” capacity (microwave or similar). These resources are finite and must be carefully allocated.

The site access rules are implemented from the Zone Controller. If the site loses

connectivity with the Zone Controller, the rules are suspended until connectivity is restored.

The system has a limit of 500 Talkgroup Site Access Profiles. With the number of agencies using the system, profile quantities should be minimal but still meet the need.

The system is capable of “Requested Site”, where a talkgroup’s traffic is pushed to a site regardless of the radio affiliations at the site. This consumes channel capability and should be minimally used.

3. Operational Context

System functionality must be maintained by ensuring that only talkgroups and users with a legitimate business need on a site or subsystem are allowed access.

4. Recommended Protocol/Standard

Approved statewide talkgroups would be allowed access to all sites and subsystems.

If an agency has a tactical or a main that does not require statewide access, it shall be limited by the area needed for that talkgroup.

Regional talkgroups will be allowed on all sites and subsystems within the region, as well as sites and subsystems directly adjacent to the region.

If required by your Regional Radio Board (RRB), or its equivalent, agencies seeking statewide access-level talkgroup must have approval from the originating RRB, or its equivalent, prior to seeking approval from the Operations and Technical Committee (OTC).

Statewide Roaming-Only Talkgroups

Special roaming-only talkgroups could be used statewide by agencies leaving their primary response/service area. These talkgroups would be used only for communicating while roaming outside their standard coverage footprint.

Other than for special circumstances, standard operational and tactical radio traffic would not be allowed on these talkgroups. These talkgroups would not be permitted to be patched. Special roaming-only talkgroups shall be assigned priority level 7. (Examples would be EMS or jail roam talkgroups.)

Statewide Tactical Talkgroups

Special tactical talkgroups could be used statewide by agencies that require operations outside their home area. Other than for special circumstances, these talkgroups shall not be patched. (Examples would be regional drug task force or statewide SWAT team talkgroups.)

To prevent overloading of sites and subsystems from distant, unrelated incidents, it is recommended that users not channel-select region wide and statewide interoperability talkgroups to monitor activities they are not assigned to. This recommendation does not restrict the scanning of regional and statewide talkgroups while radios are channel-selected on their local talkgroups.

5. Recommended Procedure

Statewide Access

Statewide talkgroups shall be approved by the Statewide Emergency Communications Board (SECB) Operations and Technical Committee and be allowed on all ARMER sites and systems.

In an emergency, a system administrator, Communications Unit Leader (COML) or Communications Unit Technician (COMT) may request the Statewide System Administrator to temporarily allow a talkgroup statewide access. The Statewide System Administrator or designee will notify and obtain concurrence from one of the following individuals, in the order indicated, prior to implementing the emergency access: Chair of the OTC, Vice Chair of the OTC, Chair of the SECB, Vice Chair of the SECB, Secretary of the SECB. If none of the above can be contacted, the Statewide System Administrator may honor the request and notify one of the individuals listed above as soon as possible. The temporary access may be granted for up to 60 days. If the approval is for more than 60 days, the Chair of the OTC shall send the request to the OTC for the next available meeting.

Regional Access

Regional talkgroups shall be approved by each region's radio board and be allowed on all ARMER sites and systems within that region. Coordination with adjacent regions shall be between RRBs, or their equivalent, with approval by the OTC.

Adjacent Site Access

Talkgroups would be allowed on sites and subsystems that are within and directly adjacent to the talkgroup owner's agency response/service area.

The agency responsible for these talkgroups shall ensure that all radios programmed with the talkgroup have site preferences programmed to minimize traffic on the adjacent sites with talkgroup access. The agency responsible for these talkgroups will notify the appropriate, adjacent site's system owner before adding the talkgroup to the adjacent site.

The agency responsible for the talkgroups will work with the appropriate, adjacent site's system owner to correct issues with excessive traffic to the adjacent site. If the adjacent site's system owner has issues that are not resolved, they should notify the RRB or the Chair of the OTC.

Requested Site Access

This capability of the system should be used as minimally as possible, with the minimum number of talkgroups and the minimum number of sites.

Agencies may use the Requested Site function on sites with permission from local owners, the RRB or equivalent, and if site ownership includes MNDOT, then from the OTC. Permissions will be granted in this order.

If site loading becomes an issue, any requested traffic at the site will have to be reviewed and possibly removed, or additional channel capacity can be added to the site. For the purpose of channel loading discussions, ownership is recognized by the agencies that have provided the channel capacity.

Radio User Initiated System Loading

In the event that radio system user(s) "parking on a talkgroup" or switching to an interoperability talkgroup during an incident they are not assigned to is causing unnecessary or excessive loading conditions on a site or subsystem, an administrator may immediately choose to shed load by contacting the radio user(s) violating this practice and request them to move off of the selected talkgroup.

If the user causing unnecessary or excessive loading cannot be reached by telephone or by calling them on the selected talkgroup, or if they are unwilling to move from the talkgroup, the Subsystem Administrator may contact the local system Administrator having security rights for the radio causing the issue and may request the radio be Dynamically Regrouped or Selectively Inhibited to remove the traffic load from the subsystem. A radio that is Dynamically Regrouped shall only be regrouped to the user's main dispatch talkgroup or other primary talkgroup. Dynamic Regrouping and Selectively Inhibiting a radio without the user's consent due to a violation of this standard should only be done as a last resort.

6. Management

If system loading becomes an issue at any site, it shall be dealt with at the local level. If the issue cannot be resolved at the local level, it will be brought forth to the regional level. If the issue involves more than one region, those regions shall attempt to resolve the situation; if necessary, they may ask the Regional Interoperability Coordinators RIC(s) to help mediate the issue. If the situation still remains unresolved after these steps, it shall then be brought to the OTC.

The Statewide System Administrator will provide periodic system usage and loading reports to the local site System Administrators so system traffic patterns can be reviewed and corrections made, if required.