Statewide Interoperability Radio Network (SIRN)
Standards, Protocols, Procedures

Document Section	3 – Configuration and Allocation	**Status**: SIEC Sub Committee Approval Date: 5/24/2022
State Standard Number	**3.7.0**	
Standard Title	**Multi-groups and Multi-Select**	
Date Established	11/16/2020	**SIEC Approval**: 5/24/2022
Replaces Document Dated	N/A	
Date Revised/Reviewed	5/24/2022	

1. Purpose or Objective

The purpose of this procedure is to set forth guidelines on the creation and use of multi-groups via the multi-select feature.

2. Technical Background

Capabilities

SIRN has the capability to temporarily or permanently merge multiple individual talkgroups into a single multi-group to support interoperable communications or announcements among multi-jurisdictional or multi-disciplinary personnel.

There are two types of multi-groups:

- A **console-generated multi-group** contains individual talkgroups manually multi-selected by the dispatch console operator.

- A **pre-programmed multi-group** is a multi-group strapped to a set list of talkgroups at the SIRN core level and additionally programmed directly into the end user device.

A multi-group looks and behaves, for the most part, like a talkgroup. It can be programmed into console positions or subscriber radios and is activated the same as a talkgroup, by selecting a multi-group and transmitting.

~~mm.~~

The Emergency Call feature on the subscriber radio may be programmed to activate a multi-group (i.e., use of emergency button to alert multiple talkgroups.)

Constraints

Multi-group communications have a large impact on the talkgroups that are contained within the multi-group, especially if the affected talkgroups are shared among separate agencies.

There are multiple configurations that can be used to create a multi-group; each configuration has its own limitations.

NORTH DAKOTA
STATEWIDE
INTEROPERABLE
RADIO NETWORK

A talkgroup can only belong to one pre-programmed multi-group.

3. Operational Context

Multi-groups operate like radio patches or gateways by merging multiple talkgroups into a single communications path over SIRN. A radio patch is the preferred approach to created radio communications paths between SIRN and non-SIRN radio networks. Multi-groups are typically used to make announcements or to combine users from multiple disciplines or jurisdictions typically for short term and emergent interoperability needs.

User Agencies may create multi-groups consisting only of talkgroups internal to their agency, or multi-groups including other agency talkgroups.

4. Recommended Protocol/ Standard

Console Generated (Multi-Select)
- A dispatcher transmitting on multi-select or console-generated multi-group will transmit across all talkgroups included in the multi-select, and all subscriber radios will receive the transmission.
- However, if a field unit keys up on one of the talkgroups selected in that multi-group, the user's audio is only transmitted on the user's individual talkgroup (not to all talkgroups that make up the multi-group).

Pre-Programmed
- When a dispatcher selects a pre-programmed multi-group and makes an announcement, it will come across all talkgroups that have that multi-group associated with it.
- Pre-programmed multi-groups are strapped to a set list of talkgroups and therefore must be programmed identically between the system and the radio.

Multi-group Conflicts
- *Actively Busy Talkgroups*: Talkgroups within a multi-group may be engaged in an active call at the time a multi-group call is initiated. The multi-groups can be configured to handle this in different ways:
  - The active talkgroup calls can be interrupted, and then the multi-group call begins. This is called "Ruthless Preemption," and anyone whose "push-to-talk" (PTT) is still active for the talkgroup calls will be unaware their call has been interrupted.
  - The multi-group call can be set up to wait until all of the contained talkgroup calls are complete before the multi-group call is initiated; however, this may cause delays in initiating the multi-group call.

- *Already Merged Talkgroups*: A talkgroup can only belong to one pre-programmed multi-group. Therefore, a talkgroup in a console patch or associated to another multi-group will not receive the multi-group/announcement group call.

5. Recommended Procedure

Internal Talkgroups
- Agencies can create console-generated or pre-programmed talkgroups that consist of only the agency's talkgroups provided that the multi-group adheres to this Standard and the agency's internal operating procedures.

External Talkgroups
- Multi-group talkgroups can be developed by an incident commander, a dispatch manager/supervisor, or an alternative incident response leader and must be verified and coordinated with the local dispatch manager/supervisor.
- Agencies are encouraged to coordinate cross-jurisdictional multi-group information while fleetmaps are being planned and programmed into the system and subscriber radios. Agencies seeking to implement permanent or pre-programmed multi-groups consisting of talkgroups across jurisdictions must execute a Shared Use Agreement per SIRN Standard 1.5.0 Use of Shared Talkgroups.

SIRN Interoperable Talkgroups
- Per SIRN Standard 1.4.0 Regional and Statewide Interoperability Talkgroups, Regional and Statewide Interoperability Talkgroups shall not be part of any announcement or other pre-programmed multi-groups.
- A temporary console-generated multi-group consisting of a Regional and Statewide Interoperability Talkgroups may be created if expressly approved by another Standard or if use of the multi-group is defined in a communications plan (e.g., regional ICS 205) approved by the SIEC SIRN Working Group.
- Other examples of console-generated multi-groups consisting of Regional and Statewide Interoperability Talkgroups include temporary multi-groups created for interoperability purposes during high-speed pursuits or other out of jurisdiction travel.

6. Management

System Administrators (Statewide, PSAP and Agency) shall be responsible for managing their multi-groups.