Document Section	3 - Configuration and Allocation	**Status**: SIEC Subcommittee Approval Date:
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Standard Title	**Scanning**	
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1. Purpose or Objective

The purpose of this standard is to define technical configurations, operational procedures and responsible authorities governing scanning activities.

2. Technical Background

▪ **Capabilities**

SIRN subscriber units and the infrastructure can be configured for users to scan (or monitor) multiple talkgroups or conventional channels to maintain situational awareness. Scanning can be achieved by adding one or more talkgroups into the device's "Scan List" and activating its scan functionality.

A talkgroup must be "active" at the site where the user is affiliated for it be scannable. 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**

Frequent and unauthorized use of scanning can affect the SIRN system capacity by unnecessarily tying up channel resources. Scanning a large number of talkgroups can also be distracting and lead the radio user to miss critical communications on his/her home or primary dispatch talkgroup. It is also important to note that system-side configurations could impact the user's ability to scan talkgroups. 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.

3. Operational Context

Scanning provides the ability to monitor multiple talkgroups simultaneously. Subscriber devices can, while affiliated to their selected primary dispatch/operating talkgroup, actively scan or monitor other tactical talkgroups within their agency or from other mutual aid agencies for situational awareness purposes.

To ensure efficient use of system resources and to limit communication lapses, proper system and device planning, coupled with end user training, is essential when using the system's scan capabilities. *In general, scanning should be used judiciously and be driven by specific business or situational awareness needs.*

Any unauthorized transmission on non-owned talkgroups in violation of this policy may result in immediate subscriber unit deauthorization and removal of the talkgroup from the radio prior to reauthorization on the network.

4. Recommended Protocol/ Standard

General Standard
Scanning must be limited to pre-approved talkgroups considered operationally essential for situational awareness. Users are generally permitted to scan any of their internal (agency-specific) talkgroups per their agency's internal policies. Scanning of shared or SIRN statewide and regional mutual aid talkgroups requires approval and must follow this Standard.

In particular, unauthorized scanning during large incidents which have high traffic loads on the SIRN is strictly prohibited.

Wide Area Scanning Limitations

A scanning user is considered a secondary user of the scanned talkgroup. A scanning (secondary) user will thus receive communications on a monitored (or scanned) talkgroup if and only if another primary user of the monitored talkgroup has the monitored talkgroup as the selected channel within the coverage footprint of the same site. That is, if the secondary user monitoring a talkgroup is "too far away" from all other primary users of that talkgroup, the scanning user will not receive their transmissions.

Therefore, scanning should typically be used to monitor talkgroups or other users that are within the general service area of the scanning user. Trunking systems are typically configured as such to manage or limit scanning of talkgroups from far flung jurisdictions.

It is logical that scanning be limited to the same general geographies. Typically agencies require scanning to monitor mutual aid partners that are working within the same general jurisdiction or incident, but due to their specialized functions require distinct communications paths (separate talkgroups). Scanning enables each agency to perform its internal agency functions while maintaining situational awareness of other agencies.

Examples include:
- A Highway Patrol officer patrolling a certain region of the State and scanning the local jurisdiction's Sheriff's talkgroups.

- A law enforcement and an EMS service personnel arriving at a scene with separate police and medical duties but an operational need for one to scan the other. (Note this situation may be a candidate for the use of joint mutual aid or interoperable talkgroups)

Exceptions

Requested Site: A small minority of users (or talkgroups) with situational awareness requirements over a wide area may be provisioned to bypass the limitation above. SIRN would be configured, in these rare cases, to provide the user the ability to scan a talkgroup across a vast area through the use of the Requested Site setting which broadcasts transmissions over a larger area or at "Requested Sites." Please see SIRN Standard 3.6.0 Talkgroup Site Access and Roaming Permissions for standards governing use of Requested Site.

System Configuration

Both network infrastructure and subscriber units must be configured to adhere to this Standard.

5. Recommended Procedure

Subscriber Radio Scan List Configuration

In general, scanning should be limited for scenarios that operationally justify its use. Agencies are encouraged to limit the number of talkgroups in their scan list to fewer than six (6) talkgroups and identify their home talkgroup or selected channel as the "priority" talkgroup to ensure they do not miss communications on their primary dispatch talkgroup.

Scanning Internal Talkgroups

A user may elect to scan any of its agency's internal talkgroups provided it adheres to this Standard.

Scanning Shared Talkgroups

Users must limit scanning of external agency or shared talkgroups (e.g., neighboring jurisdictions or other approving mutual aid partners) per this Standard. Individual agencies and talkgroup owners may approve limited scanning/monitoring privileges. The Shared Talkgroup *Letter of Authorization* must indicate specific permissions (including *scanning*) the "owner" of the shared talkgroup grants other users. Some talkgroups may be prohibited from scanning by sharing agencies or could be granted on a listen-only basis. See SIRN Standard 1.5.0 Use of Talkgroup Sharing for policies on sharing internal talkgroups across agencies.

Scanning Statewide and Regional Mutual Aid/Interoperability Talkgroups

There shall be no unauthorized monitoring of these talkgroups per the 1.4.0 SIRN Regional &

Statewide Interoperability Talkgroups.

- *No Unassigned Use Or Unauthorized Monitoring*: Users are strictly prohibited from selecting, using, monitoring, scanning, parking on or affiliating to a statewide or regional talkgroup without an assigned purpose. Interoperability talkgroups are intended to be used for specific duties and for designated purposes. Users must have a legitimate business need to use these talkgroups. Unauthorized monitoring is strictly prohibited. It adversely impacts system capacity and could also cause the user to miss important talkgroup transmissions pertaining to their daily duties.

Scanning of Statewide and Regional Mutual Aid/Interoperability Talkgroups will be determined on an incident basis and is only permitted by users providing direct or secondary support to the incident.

Multi-Technology Scanning

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) or simplex 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.

Priority Scanning

Priority Scanning shall be limited to an agency's primary dispatch talkgroups or to a maximum of four talkgroups.

Other Prohibited Actions – Parking

Selecting a talkgroup (by choosing it as the transmit channel on a radio) for which one has no reasonable need to monitor is known as "Parking on a Talkgroup" and is prohibited. This does not prohibit one from including a talkgroup in a scan list while the radio is legitimately affiliated to another talkgroup. However, users are not allowed to park on non-primary talkgroups while monitoring their primary designated talkgroup through the scanning feature.

End User Training

Agencies are required to provide adequate training on the use and risks of the scanning feature and the privileges and restrictions of this Standard.

Non-Compliance

Users that are found to be routinely non-compliant to this Scanning Standard or have through deviation from the Standard placed excessive loading on the system will be removed from the system (or temporarily inhibited) until the issue is addressed by the agency.

6. Management

The Agency Administrator or PSAP Manager 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 SIEC Subcommittee.