



UTILIZING ISSI TO CONNECT RADIO USERS ACROSS MULTIPLE P25 NETWORKS

PROJECT 25 NETWORK INTEROPERABILITY

Both planned events and sudden emergencies may require close cooperation among public safety entities to protect lives and property. First responders must be ready to deploy swiftly and effectively away from home base. Are your communication networks ready to do the same?

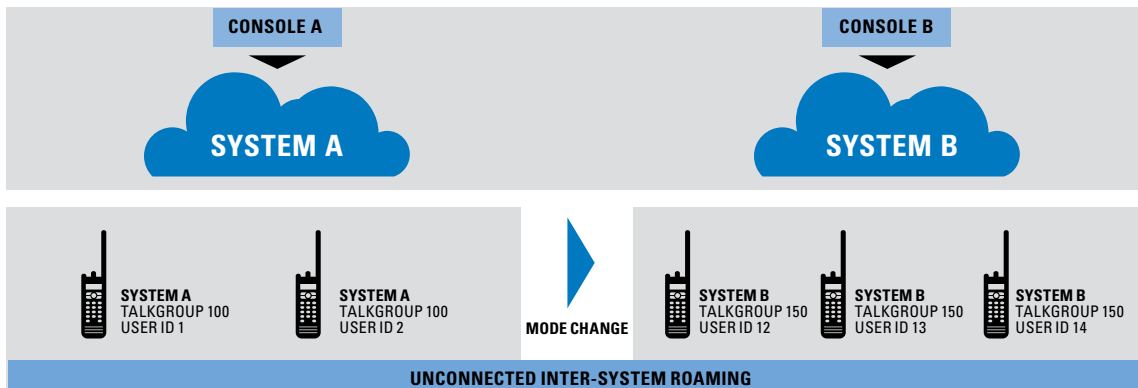
With emerging ISSI technology, your Project 25 (P25) system can provide enhanced support for radio users who roam beyond their home networks, whether you are sending help to other jurisdictions or welcoming personnel from other agencies to your community. ISSI can interconnect P25 trunked systems over a large geographic area, allowing dispatchers, commanders, and responders to talk on the same interoperability talkgroups even if they are working hundreds of miles apart.

INTEROPERABILITY DURING THE INCIDENT SCENE...STAY CONNECTED BACK TO HOME NETWORK

When the big storm hits...when another department needs backup...when the task force springs into action...interoperability truly becomes a matter of life and death. First responders must be able to communicate across multiple agencies and jurisdictions to effectively coordinate a joint response. This is why public safety agencies are investing in P25 standards compliant networks. One of the well-known advantages of P25 is that users with P25 radios can roam onto other P25 networks. This is invaluable when first responders assist another jurisdiction. Personnel from multiple networks who are working at the scene of an incident can talk to each other and communicate with the dispatchers and commanders on the local network.

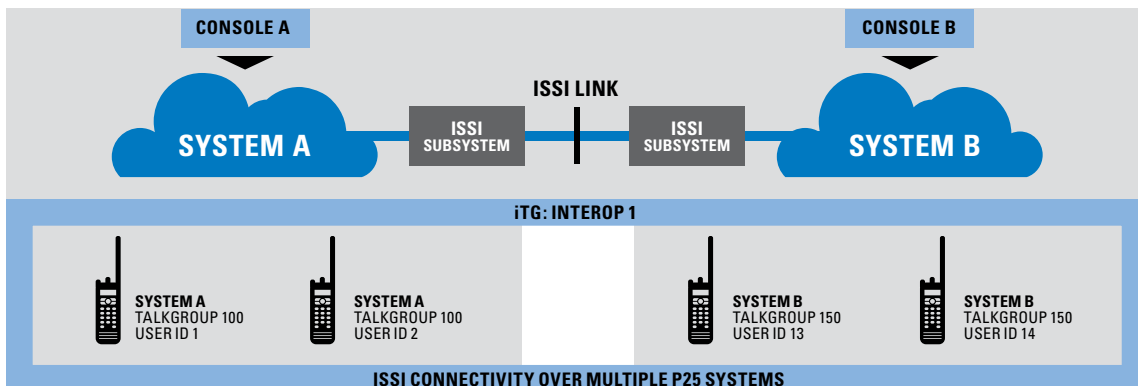
UNCONNECTED SYSTEMS

Users who roam outside the coverage area of their home networks lose contact with commanders, dispatchers, and coworkers back at home base. This is a worrisome situation for commanders who would prefer to stay in touch with personnel no matter where they've been assigned. While working on another agency's network, they'll be out of touch with the home network.



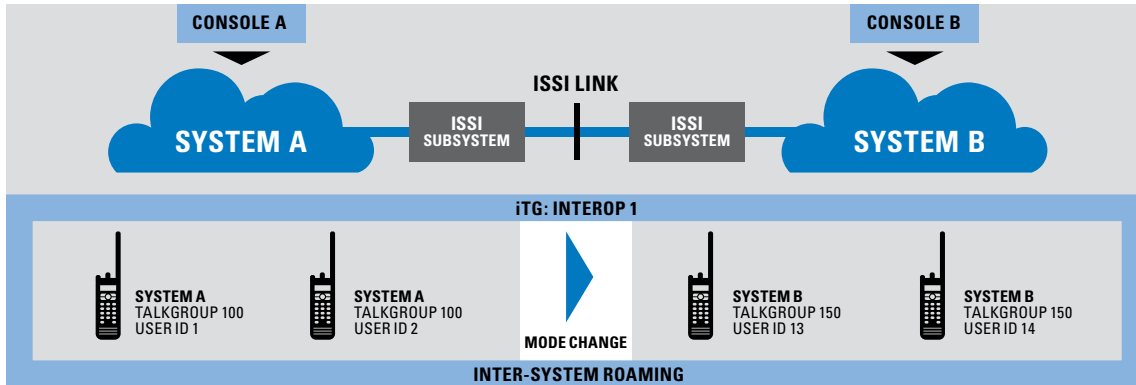
CONNECTED REMOTE SYSTEMS

New technology known as ISSI forms the connection between P25 trunked systems. Dispatchers stay in touch with personnel across any distance and agencies on separate networks can establish direct radio contact to better coordinate activities when every second counts.



CONNECTED OVERLAPPING COVERAGE SYSTEMS

ISSI allows two systems that share overlapping coverage to create a connection. This allows dispatchers from each system to have visibility to their home users and visiting users. When their home users go roam onto the other system the dispatcher continue to maintain visibility.



“ No man, woman, or child should ever lose his or her life because public safety responders could not communicate with each other.”
Safecomprogram.gov

ISSI AND INTEROPERABILITY TALKGROUPS

The P25 Inter RF-Subsystem Interface (ISSI) is a standards based wireline interface, which builds upon today’s P25 CAI (common air interface) standard. As a wireline interface, ISSI keeps all communications digitally vocoded and encrypted for high performance and security. ISSI gateways are being introduced by several vendors, including Motorola.

ISSI standard which allows P25 trunked systems to interconnect, enables agencies to:

- Connect P25 trunked systems together
- Different frequency bands
- Different geographic locations
- Different manufacturers’ P25 equipment (that supports ISSI)
- Different system IDs and user databases
- Maintain visibility across all connected networks, so personnel deployed to a distant location are still in contact with their home dispatchers and commanders.
- Maintain several call management features across systems, including group calls, emergency calls, and end-to-end encryption.
- Establish interoperability talkgroups (iTG) with users from any or all connected networks. Agencies can pre-configure iTG in accordance with emergency plans and activate them when needed.
- Dynamically configure iTG as necessary to support joint operations in fast-changing circumstances.

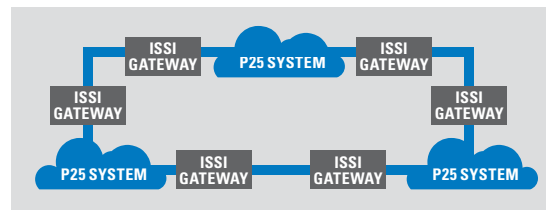
With ISSI, agencies can leverage the existing coverage areas of connected systems, which could span thousands of square miles. Meanwhile, agencies keep control over their own networks and internal communications. The ISSI link is always available and can be activated when interoperability is required.

CONNECTING SYSTEMS TOGETHER USING ISSI

For many agencies, the first step in ISSI networking will be to establish a connection with one other network. Each network owner invests in an ISSI gateway and the two entities agree to share the cost of the connecting link. This establishes interoperability for users on these two systems.



Agencies often need to connect to more than one agency for interoperability. The next step is to encourage other P25 systems to join the ISSI network. Adding a third network brings more agencies together – but it requires a total of six gateways and three connections.



SOLUTION BRIEF

PROJECT 25 NETWORK INTEROPERABILITY

MOTOROLA ISSI NETWORK GATEWAY OFFERS PROVEN INTEROPERABILITY

Motorola's ISSI gateway provides the hardware and software to establish an ISSI connection between one P25 network and any other ISSI-equipped P25 network.

Federal Funding can apply to both self managed ISSI gateways and managed ISSI gateways. Public safety can apply for funding under grants such as:

- Department of Homeland Security Grants
 - State Homeland Security Grant Program
 - Emergency Management Grant Program
 - Emergency Operations Center Grant Program
- Department of Justice Grants
 - Byrne JAG Grant Program
 - Byrne Discretionary Grant Program
 - COPS Technology Grant Program

TECHNOLOGY THAT'S SECOND NATURE™ FROM A VENDOR WHO UNDERSTANDS THE POTENTIAL OF ISSI FOR PUBLIC SAFETY

Taking full advantage of ISSI is easier with a vendor who has a track record with public safety. Motorola is a leader in implementing P25 systems, with over 200 ASTRO® 25 systems in operation worldwide and over 1.7 million subscribers. Motorola has provided managed service solutions for over 125 customers around the globe, including some engagements that have lasted as long as 25 years.

Only Motorola enables agencies to confidently take the next step in mission critical communications. Motorola helps agencies move beyond the basics to achieve the most reliable and innovative wireless solutions that help to save lives and protect communities. These technologies are delivered seamlessly into the hands of first responders: simply, reliably, and without distracting them from their work. This is technology that's second nature, and you can look to Motorola to make it happen for your organization.

For more information about Motorola ISSI Product Offerings, please visit motorola.com/Project25 or contact your Motorola representative.

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