SOFTIL
INNOVATIVE COMMUNICATIONS

TAK/MCX Integrated Solution



A transition of public safety communications from LMR to broadband enables a new realm of situation and location-based communications.

Team Awareness Kit (TAK) is the leading situational awareness platform used by hundreds of thousands of users across defense and public safety organizations worldwide. It delivers a real-time operational picture, enabling users to visualize personnel, assets, and mission data on a shared geospatial interface.

TAK provides a common, interoperable environment across agencies and systems, supporting mission planning, coordination, and execution in time-critical scenarios.

Mission Critical Services (MCX), defined by 3GPP standards, extend mobile broadband networks with carrier-grade voice, video, and data group communications designed for the needs of public safety and first responders. MCX includes MCPTT (mission critical push to talk voice), MCVideo (mission critical video), and MCData (mission critical data, including messaging and file exchange), enabling secure, prioritized, and fully interoperable communications over LTE and 5G.

MCX is designed to replace legacy narrowband systems by delivering scalable group communications, multimedia services, and network-based reliability across devices, applications, and infrastructure.

Power of MCX + TAK

Softil enables the convergence of TAK situational awareness tools with standards-based MCX communications into a unified operational solution.

The integration of TAK and MCX transforms how teams communicate and coordinate:

- Map-driven communications: Users initiate MCPTT and MCVideo sessions directly from the TAK interface
- Dynamic operational grouping: Ad-hoc groups are created in real time using geospatial selection and mission context
- CoT over MCData: Mission-critical data is delivered over MCX networks with prioritization and reliability
- Cross-domain participation: MCX users are integrated into TAK operations, extending collaboration beyond TAK-native environments
- Network-scale situational awareness: TAK data is no longer limited to local systems and can be extended across service provider MCX deployments

Softil's approach preserves the strengths of both ecosystems while enabling seamless interoperability between them.

Who Benefits from TAK + MCX Solution

The Softil TAK/MCX solution is designed for organizations that require both operational awareness and mission-critical communications:

- Public Safety: Coordinated response across police, fire, and EMS with real-time visibility and communication
- Defense and Tactical Operations: Integrated situational awareness and communications for mission execution
- Emergency Response and Disaster Recovery: Multi-agency coordination in rapidly evolving environments
- Critical Infrastructure and Utilities: Field workforce coordination with reliable communication and asset tracking
- Transportation and Smart Cities: Operational control across distributed assets and mobile teams

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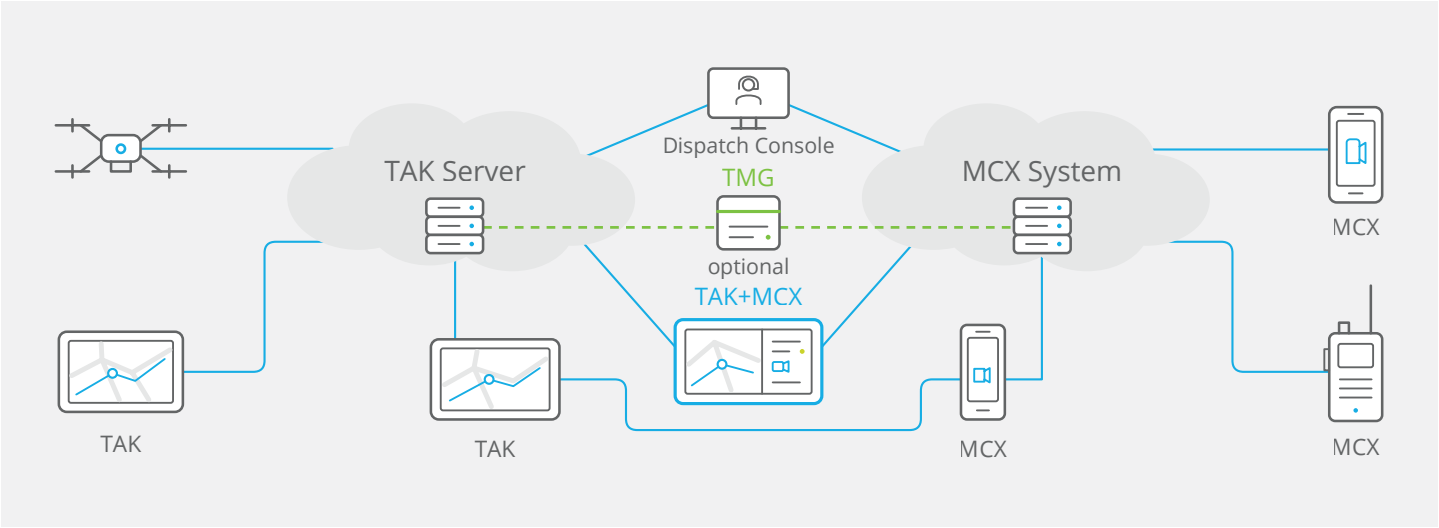
Solution Highlights

- Seamless TAK and MCX Integration: Unified environment combining situational awareness and mission-critical communications
- Full MCX Service Enablement: Native support for MCPTT, MCVideo, and MCData within TAK workflows
- Geospatially Driven Communication: Call control and group management initiated directly from the map
- Real-Time Dynamic Grouping: Creation and management of mission-driven groups based on location and context
- Reliable Mission Data Transport: CoT delivered over MCData with network-level prioritization
- Interoperability Across Domains: Integration between TAK ecosystem, MCX networks, and other data-driven networks such as IoT and sensors
- Unified Location Awareness: Shared visibility of TAK and MCX users in a single operational view
- Flexible Deployment Architecture: Supports integrated clients or gateway-based deployments with TAK MCX Gateway (TMG)
- Powered by Award-winning Softil BEEHD MCX SDK: Full interoperability with all MCX servers on the market worldwide. Trusted, tested, and in MCX deployment since 2018



Product Specifications			
Mission Critical	■ MCPTT ■ MCVideo	■ MCData ■ CSC-1, 2, 4, 8	
Signaling Protocols	■ SIP (RFC 3261) ■ IMS/VoLTE/ViLTE SIP	■ HTTP/HTTPS ■ Presence and IM: SIMPLE	■ FW/NAT Traversal: ICE, STUN TURN ■ CoT Cursor on Target
Operating Systems	■ Android (software codecs) ■ iOS (software codecs)	■ Windows	■ Linux
Management	■ Configuration and provisioning logger	■ RESTful Open APIs	■ Situational history
Security	■ AES-128 and AES-256 ■ TLS	■ IPsec ■ SRTP	■ Mikey-Sakke ■ IKE
Voice, Video, and Chat calls	■ Map-based group calls ■ Map-based private calls	■ Map-based ad-hoc group calls (lasso) ■ Map-based ad-hoc group calls (geofence)	■ Emergency and Immediate Peril Calls
Audio	■ AMR WB, AMR NB, EVS	■ Audio Recording	
Video	■ H..264	■ H..265	■ Video recording
Interoperability	■ Interoperable with all major MCX server vendors and MC systems and services		

For more information, contact Softil at info@softil.com

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