MCx_BOX PMR

Next-generation Gateway Radio Over IP

Gateway PMR / MCx 3GPP ready & SIP/AIS/RTP/ED137b

Caracteristics

The **MCx_Box** is a universal RoIP interoperability gateway enabling the convergence of critical communications networks DMR / TETRA / P25 / 4Wire / Analog, with modern IP networks, SIP, and Push-to-Talk over Cellular applications. Designed for industrial, transport, public safety, construction works, or energy environments, it combines hardware robustness and software openness.

Key features

- ☑ **Group calls and direct calls between radios and MCx 3GPP application (hard/soft)**
- ☑ **SIP / AIS / ED-137b / RTP supported protocols**
- ☑ **Audio interconnect: PA, PA, industrial intercom**
- ☑ **Exchange of text messages and images between systems**
- ☑ **Transcription Voice > Text, automatic translation (optional)**
- ☑ **Multi-tenant interconnect (optional)**
- ☑ **Compatible Channel API, Smart PTT API, SIP standard**

SEE CRITICAL COMMS ©Copyright 2019-2025

Specifications

Technical architecture	
Version	Hardware (rack or rugged enclosure) or software (Linux VM).
Incoming/outgoing connections are used to connect	Donor radios DMR / TETRA / P25 / Analog AIS / SIP / RTP / ED-137b Protocols Applications (Channel API) 4-wire audio interfaces E&M, PEI, GPIO ports

Compatibilities and interfaces	
Network Side	SIP, RTP, SDP, RTCP, SIP-AIS, SIP-ED137, API, SmartPTT API
Supported Codecs	G.711, G.722, G.726, Speex, Opus, Codec2, AMR-WB (à venir)
On the radio side	Radio side: DMR, TETRA, P25, analog, 4WE&M, PEI

Concrete use cases	
Command Post	⇄ DMR/TETRA group call
Supervision Center	⇄ MCX to PA or industrial intercom
Field staff	⇄ voicemail transcribed for archiving/alerting
Rescue centre	⇄ P25 radios via secure SIP network

Added value and differentiators:	
Native integration	Simple, fast, maintainable
Support multicanal	Voice / Data / Image
High interoperability	with legacy and IP radios
Manufacture	French European version possible (if hard version)

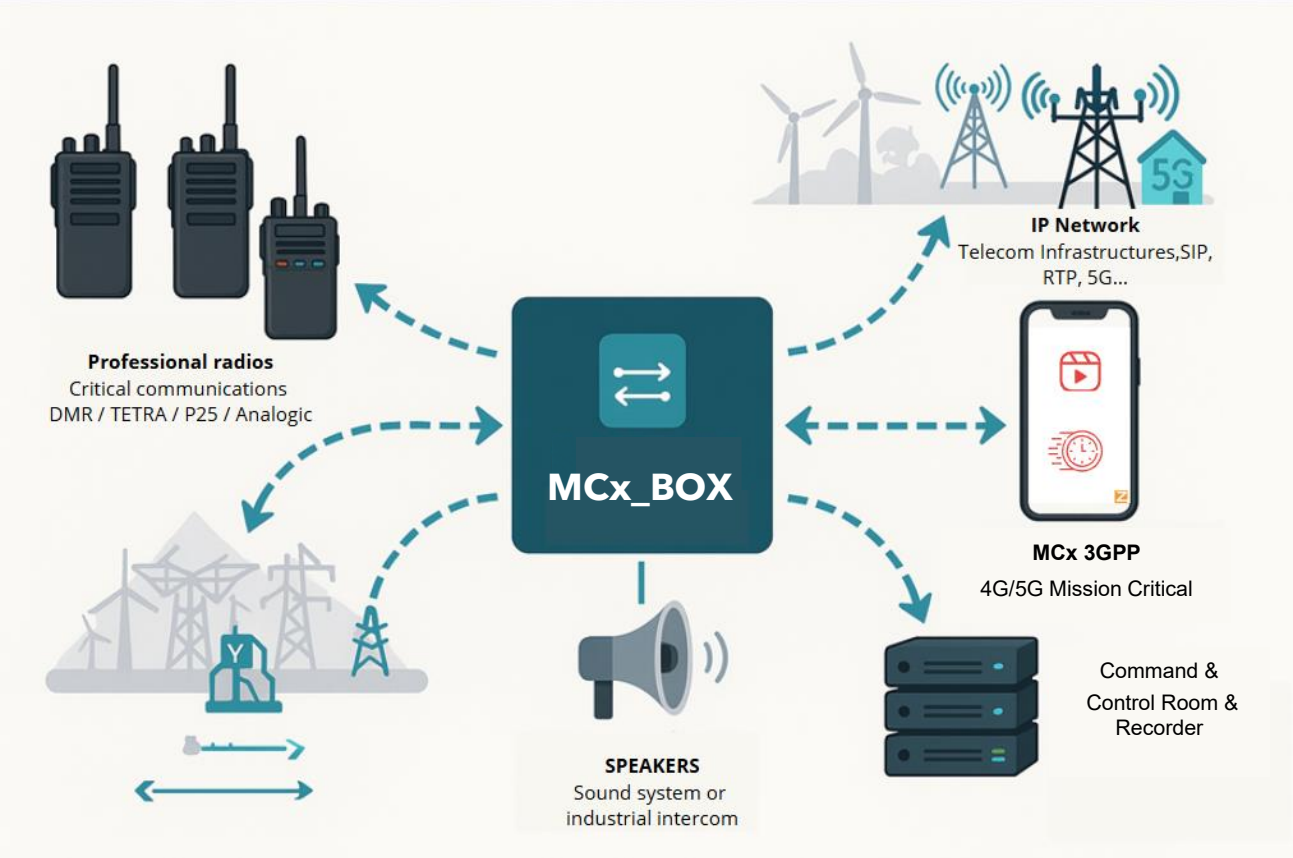
SEE CRITICAL COMMS ©Copyright 2019-2025

Technical characteristics

Modes	Hardware or software CMx_Box (x86/Linux)
Interfaces	SIP, RTP, GPIO, PEI, USB audio, E&M, API
Formats audio	SIP-AIS, SIP-ED137, Channel API
Supported protocols	SIP-AIS, SIP-ED137, Channel API
Options	IA vocale, stockage S3, REST API

Technical mechanical

Dimensions	48 cm x 4.45 cm x 22.5 cm (1U)
Weight	1.700 KG



SEE CRITICAL COMMS | Version: V1911003EN | www.see-critical.com | Ref: 010228C| DAT_MCx_Box_GB
Writing: V.RAOUL| Design: V.RAOUL | Verification: J.COMBALOT | Approval: F.PARRIER
©Copyright 2019-2025 | All rights reserved. All data and information mentioned are non-contractual and subject to change anytime without any notice.
SEE GROUP: SEE CRITICAL COMMS : 90 impasse des Chênes , 26210 LENS LESTANG, FRANCE | m: +33 4 75 31 68 00 | e: serviceclient@see.fr
SELECOM CRITICAL COMMS ZA Alfred Sauvy F66500 PRADES, FRANCE | f: +33 4 68 97 79 50 | e: commercial@selecom.fr