Current operative procedures, field proven through years of operational experience, leverage on voice service availability in every circumstances but use of broadband data is emerging as operational need for increased «situation awareness» both in the field and in Control Room for a more effective and efficient Public Safety management.

Leonardo MCX (Mission Critical Services), part of Leonardo CSP (Communications Service Platform) product family, extends the wide portfolio of standard solutions for PPDR communications ranging from DMR to TETRA with next generation Broadband capabilities: MC PTT, MC Data and MC Video.

Our standard-based Broad Band PTT solution CSP-MCX is compliant with the 3GPP MCX reference architecture and information flows (Rel. 14). Participation to MCX ETSI Plug tests is proof of quality for Leonardo implementation.

The Leonardo CSP-MCX solution can be deployed over both commercial and private LTE networks to provide users with advanced functionalities and LMR standard interaction (via IWF) for augmentation of traditional LMR systems.

CSP-MCX client features a fully customizable HMI for differentiated User Experience (UX) ranging from a traditional simplified two-way radio to full standard client functionality.

THE PLATFORM
Leonardo CSP-MCX is a complete Mission Critical solution compliant with 3GPP Standard MCX. Includes features from MC PTT, MC Video and MC Data providing PPDR users with the next generation platform for Critical communications over 4G/5G networks.

› Android Client designed for on field operations
  – A complete set of functionality easy to use for a great user experience.
› A Web based powerful dispatcher
  – Control, monitoring and management of the operations of the teams.
› A Management interface
  – A complete tool for management and monitoring the platform KPIs.
› Sip Core
  – The platform has an embedded sip core for IMS-less scenarios and can interoperate with external IMS.

FEATURES
Leonardo CSP-MCX solution delivers an enhanced user experience with superior performance and advanced features.

› Instant voice communication, group or private, pressing a button
› High voice quality – Use of wideband AMR codec (and ACELP as an option)
› Multimedia messaging with text, picture, video, file, recorded voice, and location.
› Location-based services on device to track team members’ location and share location
› Alerts – Quick alert to request support in case of emergency, imminent peril or alert
› Floor Control priority feature – Allows a designated user to take over the PTT floor at any time, even when somebody else is talking
› Emergency call
› Real-time users’ presence (Available, Off-line)
› LMR interoperability via IWF for seamless communication with LMR users
› Man down (configurable automatic alert in case the user falls or is inactive).

ACCESSORIES
Leonardo CSP-MCX client is tested and certified on a number of third party devices ensuring compatibility and optimized performance, and letting our customers to choose devices and accessories that make the most sense for their specific needs.

HIGHLIGHTS
› MCX 3GPP Standard
› Android Client optimized for on field operations
› Web based Dispatcher console
› Management and monitoring tool for configurations and KPIs
› CMS, GMS, IDMS included
› Embedded SIP core for IMS-less scenarios
› Interworking with Land Mobile Radio Systems.

FEATURES SET

| 3GPP reference spec. | › Rel. 14
› Rel. 15 Q1-2020 |
|---------------------|-------------------|
| MCPTT supported calls | › Chat call with Floor Control
› Prearranged Call
› Manual and auto commencement mode
› Private call
› Ambient Listening
› First to answer
› Private call call-back
› Pre-established call
› Broadcast call
› Emergency mode |
| MCPTT exposed interfaces | › MCPTT-1 / MCPTT-4 / MCPTT-7
› MCPTT-8 / MCPTT-9 |
| MCVIDEO supported calls | › Chat call with floor control
› Prearranged call
› Private call
› Pre-established call
› Manual and auto commencement mode |
| MCVIDEO exposed interfaces | › MCVIDEO-1 / MCVIDEO-4 / MCVIDEO-7 / MCVIDEO-8 / MCVIDEO-9 |
| MCDATA supported features | › SDS |
| MCDATA exposed interfaces | › MCDATA-SDS-1 / MCDATA-SDS-2 / MCDATA-SDS-3 |
| Additional features | › MCPTT QCI
› RX interface (MCPTT/ MCVIDEO-5)
› Embedded SIP Core
› Call and data recording
› APIs for user provisioning
› MB2 interface for multicast (MCPTT/MCVIDEO-6) |
| Management Server | › IDMS / CMS / GMS |
| Management Interfaces | › CSC-1 / CSC-2 / CSC-4 |
| Available codecs | › AMR-WB / H264 |
| Dispatcher | › Web based dispatcher
› WebRTC audio
› WebRTC video
› Support for custom maps
› Message platform
› Call management |
| Supported OS and requirements | › Client: Android 5.0 or above
› Server: Linux Centos/ RedHat 7.0
› Dispatcher/web monitoring: Chrome browser |
| Supported Hypervisor | › VMWar 5.5 or above / Hyper-V / KVM |

For more information please email: securityandinformation@leonardocompany.com
Leonardo S.p.a.
Via delle Officine Galileo, 1 - 50013 Campi Bisenzio (FI) - Italy
Tel. +39 055 89501
Fax +39 055 8950600
leonardocompany.com

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3GPP logo is property of ETSI. Leonardo CSP-MCX is compliant with 3GPP 5G specifications