



LEONARDO CYBER & SECURITY SOLUTIONS

ECOS E-WATCH SERVICE MONITORING

DMR networks play an important role in mission critical and business critical sectors. Understanding the status of communication services is a key factor in keeping the network under control and providing effective support to operational activities.

E-WATCH, a component of ECOS E-Connect management suite, is an investigation and report app that allows subscribers to deeply understand how the service is provided

E-WATCH ECOS SERVICE MONITORING

DEEPLY CONNECTED TO THE NETWORK

E-Watch collects data taking advantage of AISIP (Air Interface SIP) working on ECOS networks. It connects to the Leonardo DMR core network (EPS) to receive all available SIP information and data from any Tier III trunking controller. Received information is processed and stored for reporting and analysis purposes or directly routed to web pages for representation. Very limited configuration operation is required for E-Watch operations and housekeeping.



AISIP and EPS

Leonardo ECOS solution is a fully distributed Tier II and Tier III network that can interoperate with external entities such as analog, P25, IP and PSTN. Clever software protocols and a reliable architecture are the pillars ECOS networks are built upon. AISIP is Leonardo proprietary SIP based protocol managing complex multi system interactions and external systems interoperability providing interface for voice calls, data calls and signaling services. The EPS (Embedded Proxy-Server) is a SW entity running on the ECOS platform that implements a distributed and embedded AISIP server functionality taking care of main Core Network functionalities including registration, mobility management, call and messaging routing, interconnection with external entities.

AT-A-GLANCE SERVICE OVERVIEW

E-Watch dashboards provide immediate information about the status of services. Number of subscribers belonging to the system, online (registered) subscribers, subscribers with recent location (less than 60 minutes), subscribers not able to register to the network (bad Id or authentication failed), number of active calls and number of allocated payload channels are shown in a concise way to provide an overall view of how communication service is working.



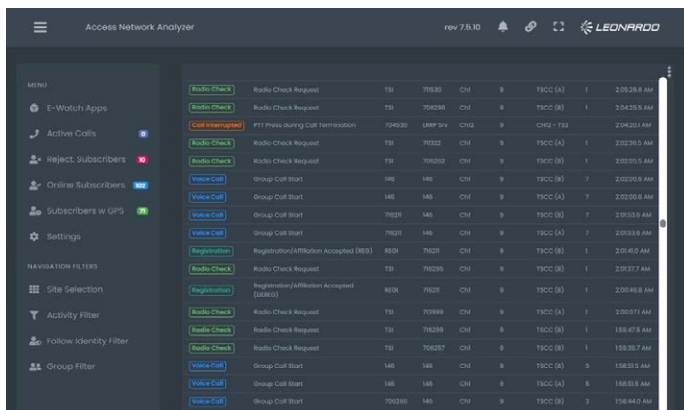
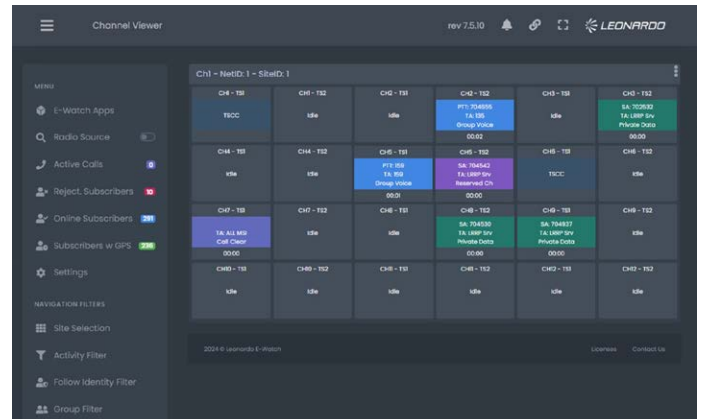
Configurable graphic views allow to focus attention on relevant parameters such as: affiliations, voice calls, voice group calls, voice private calls, number of PTTs, blocked calls, queued calls in order have a better understanding of network and service behavior.

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IN DEPTH LIVE MONITORING

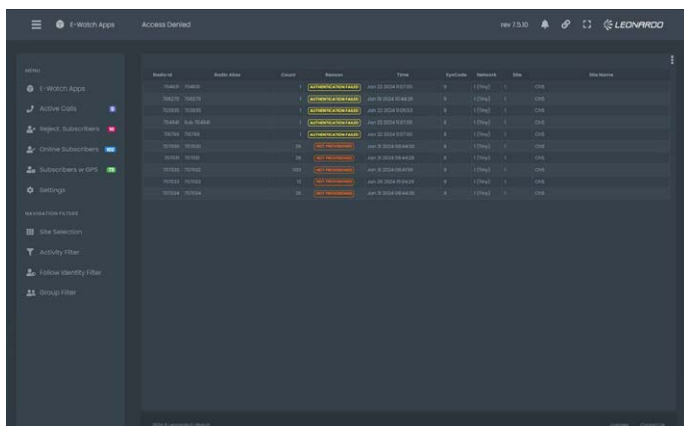
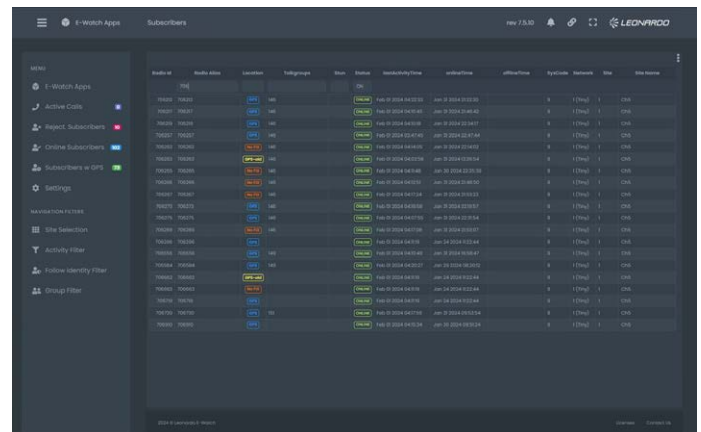
E-Watch allow to show the real time status main relevant parameters about network channel and subscribers in order to perform analysis and investigation on interesting situations. For deep investigation it is possible to temporary pause and resume the data collection.

CHANNEL VIEWER E-Watch can show the real-time status of each logical channel (timeslot) of each carrier of each Trunked Site together with relevant information such as call duration, source and destination.



ACCESS NETWORK ANALYZER Access Network Analyzer shows in real-time all the DMR layer 3 events that occurs on any trunked site either on the control channel or on payload channel such as PTT and squelch.

SUBSCRIBERS Showing the status of all subscribers with timing information and the possibility to filter data represented



ACCESS DENIED showing the list of Radio Ids which access to the network has been denied together with timing information, reason of access denial and access attempts.

