

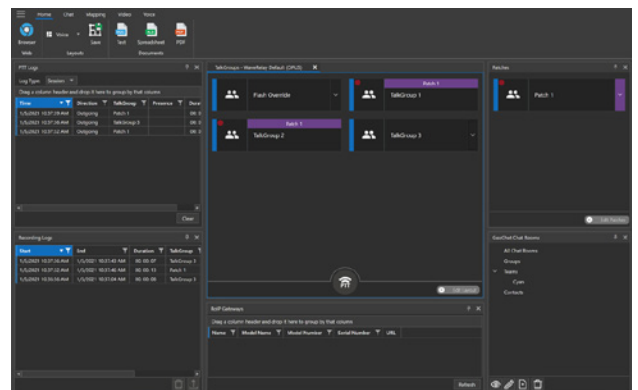
MACE

Mobile Ad-Hoc Communications Environment

MACE combines the key elements that you require to gain insight into all your operational elements, providing access to local and distributed networked elements. MACE provides voice, video, chat and situational awareness through a single pane of glass, simplifying command and control.

Using the one application, users have access to multiple voice profiles with 20 TalkGroups in each, TalkGroup patching, video recording and restreaming, TalkGroup instant replay and recording PTZ camera control and more.

MACE provides a flexible dynamic interface for the visualisation, configuration, and control of operational aspects of your MANET network, all from within a single interface. MACE provides for a flexible docking interface that allows the user to arrange their workspace in any manner that suits them.



MACE Voice Features

TalkGroups and Patching

Compatible with Multicast, Unicast and SIP protocols, the MACE TalkGroups empower users to listen to and participate in conversations throughout their network. Each TalkGroup can be independently enabled/disabled, muted, or volume level controlled to ensure that you have total control over your environment.

Patching allows for up to 8 TalkGroups to be mixed and streamed, irrespective of transmission method (Multicast or Unicast) or CODEC, enhancing interoperability with other organisations.

TalkGroup Profiles and Features

With a Recording Licence, users can record TalkGroups to their local device for later playback. Audio can be reviewed using the Instant Replay functionality, to ensure accurate and timely information is delivered throughout your network. Group Push-To-Talk allows multiple channels to be activated simultaneously, for time sensitive transmissions.

Technical operators no longer need to be sent forward to the edge, as TalkGroup Profiles can be created and disseminated over Chat allowing forward users without technical knowledge to change their deployment profile instantaneously without manual reconfiguration.



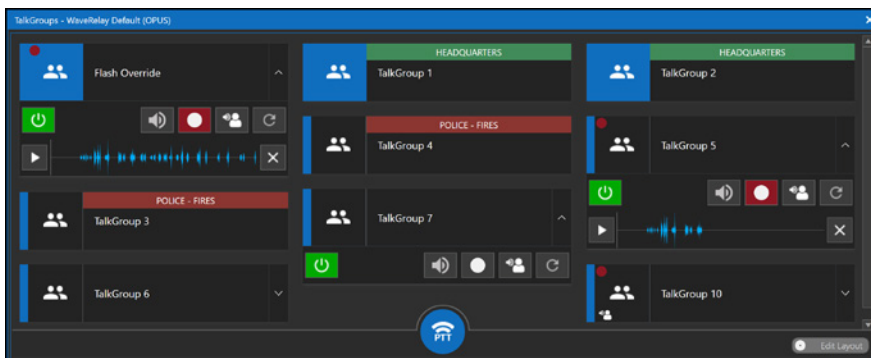
Name	Resource Type	Codec	Payload Size	Payload Type	Full Duplex	Multicast	Secure	IP Address	Port	Local Port	SIP User
Flash Override	RTSP	OPUS	20	Wave Relay				239.192.60.0	60000	0	
TalkGroup 1	RTSP	OPUS	20	Wave Relay				239.192.60.1	60001	0	
TalkGroup 2	RTSP	OPUS	20	Wave Relay				239.192.60.2	60002	0	
TalkGroup 3	RTSP	OPUS	20	Wave Relay				239.192.60.3	60003	0	
TalkGroup 4	RTSP	OPUS	20	Wave Relay				239.192.60.4	60004	0	
TalkGroup 5	RTSP	OPUS	20	Wave Relay				239.192.60.5	60005	0	
TalkGroup 6	RTSP	OPUS	20	Wave Relay				239.192.60.6	60006	0	
TalkGroup 7	RTSP	OPUS	20	Wave Relay				239.192.60.7	60007	0	
TalkGroup 8	RTSP	OPUS	20	Wave Relay				239.192.60.8	60008	0	
TalkGroup 9	RTSP	OPUS	20	Wave Relay				239.192.60.9	60009	0	
TalkGroup 10	RTSP	OPUS	20	Wave Relay				239.192.60.10	60010	0	
TalkGroup 11	RTSP	OPUS	20	Wave Relay				239.192.60.11	60011	0	
TalkGroup 12	RTSP	OPUS	20	Wave Relay				239.192.60.12	60012	0	
TalkGroup 13	RTSP	OPUS	20	Wave Relay				239.192.60.13	60013	0	
TalkGroup 14	RTSP	OPUS	20	Wave Relay				239.192.60.14	60014	0	
TalkGroup 15	RTSP	OPUS	20	Wave Relay				239.192.60.15	60015	0	
TalkGroup 16	RTSP	OPUS	20	Wave Relay				239.192.60.16	60016	0	

Encryption and Interoperability

MACE provides integration with more than 25 CODECs, including OPUS and AMR. Patching allows for up to 8 TalkGroups to be mixed and streamed, irrespective of transmission method (Multicast or Unicast) or CODEC.

Encryption can be enabled to allow secure communication between MACE instances of GV1 radio gateways.

- Unlimited TalkGroup Profiles
- TalkGroup Patching
- Payload Encryption
- PTT and Recording Logs
- RoIP Gateway Discovery
- Instant Replay Functionality
- Licence Dependant Voice Recording
- TalkGroup Hotkeys

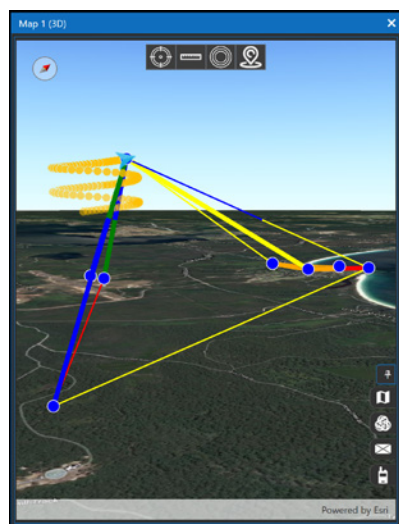
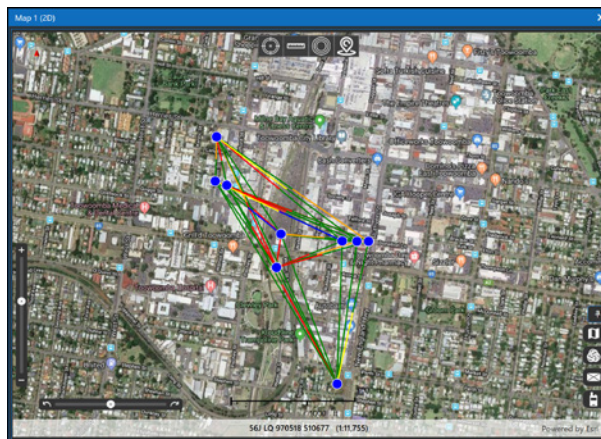


MACE Mapping Features

Network Visualisation

Bi-Directional reporting of link Signal to Noise ratios in the SA picture allows for increased insight into the performance and potential bottlenecks of your MANET solution.

Links are colour coded and represent the receive SNR from a remote peer, assisting in determination if there is an imbalance in link capability. This can then lead to direct actions being able to be taken by controlling assets to reduce network coverage holes.



3D Mapping

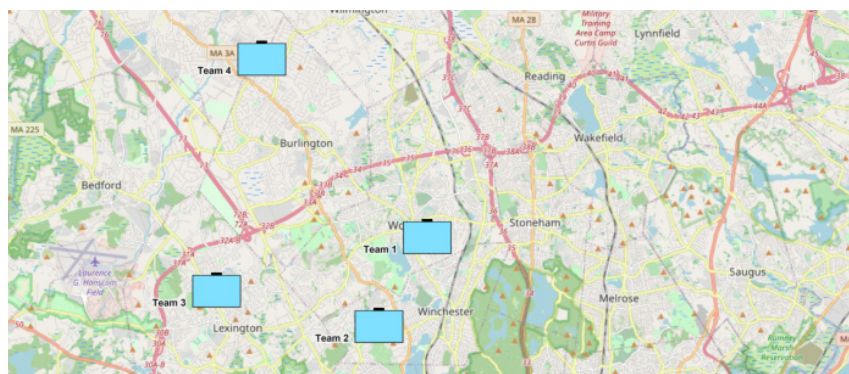
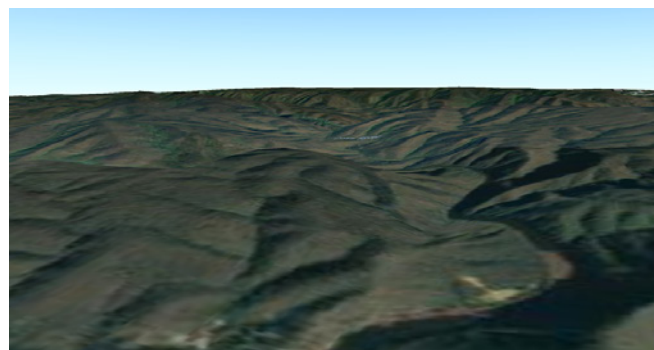
DTED Elevation Tools allow for visual elevation to be placed over a map source while using a 3D map. Track aerial vehicle flight paths, or parachute descent using the 3D mapping tool. Turn on breadcrumbs to view previous locations, and enable track icon to view current heading.

MACE supports multiple maps with different map overlays displayed, providing the ability to view areas of interest in both 2D and 3D simultaneously, with different satellite, street or topographical maps as required. Have more situational awareness of movement on the ground than ever before, visualising the network in a manner never before possible.

Offline Mapping and Overlay Data

Switch seamlessly between online and offline map data sources, for operational oversight in any environment.

Pre-load offline mapping for specific areas of operation prior to deployment. Completely visualise your network by loading elevation data, and enhance your situational awareness by integrating KML and WMS overlay data.



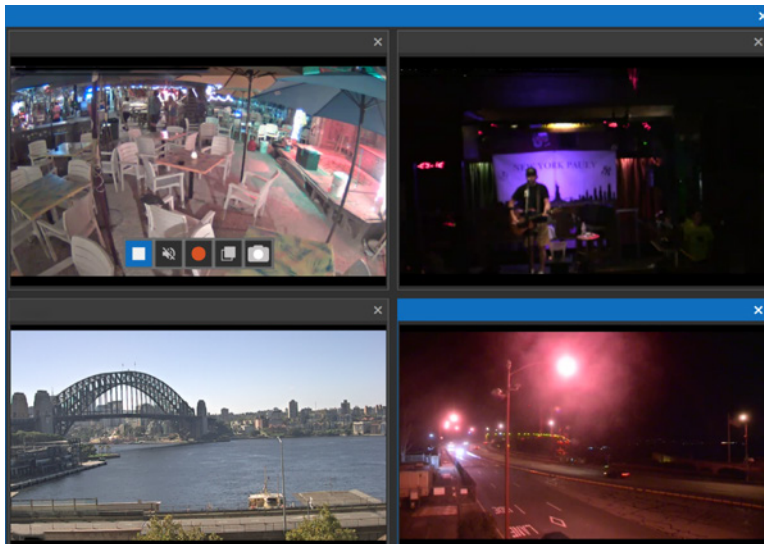
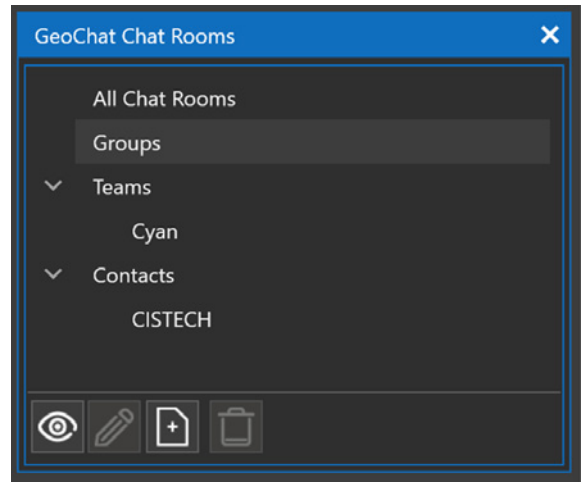
- Offline mapping
- Dynamic learning of network
- Integrated device control
- Bi-Directional SNR representation
- CoT marker integration
- Custom CoT markers
- DTED, KML and WMS overlays
- 2D and 3D mapping features

Other MACE Features

Multicast CoT Chat

Chat between MACE instances and other applications with Cursor on Target chat. Transfer files, including files, video lists and voice profiles between MACE instances. Customise up to 12 Chat Shortcuts to efficiently transmit common messages in any MACE chat.

Create groups, chat to your assigned team or chat to any individual online contact to maintain complete situational awareness, regardless of deployed user location.



Video Streaming and Restreaming

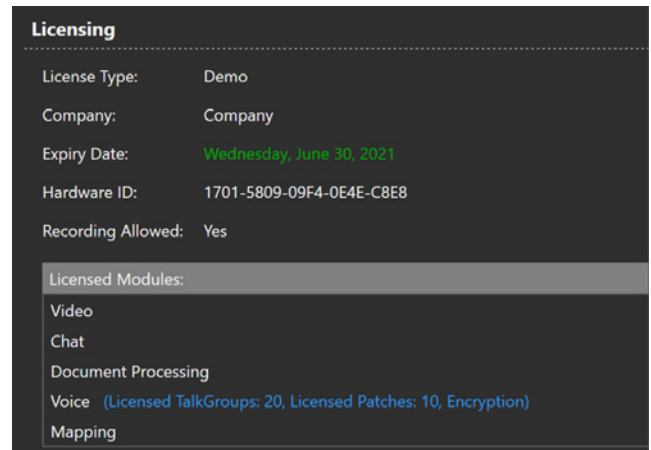
The embedded video player supports H.264, H.264+, H.265, H.265+ and MJPEG and can restream video streams between Multicast and Unicast, supporting all deployment environments.

The PTZ function supports ONVIF, Pelco D/PAVT Vision and FLIR cameras, providing video stream and camera control within the MACE application. With the recording licence, videos can be recorded and played back using the embedded CISTECH Video Player.

Custom Licensing

The base MACE licence comes with all standard features, including voice, video, chat, RoIP gateway discovery and PTZ camera control.

Dependant on your organisational needs, licencing can be customised based on voice and recording requirements. Along with all the base features installed with MACE, extra TalkGroups and Patches are available, along with voice payload encryption and optional or forced recording capabilities.



- Embedded web browser
- Embedded document editor
- Customisable saved layouts
- Intuitive touch screen interface
- Multicast chat functionality
- Video recording and restreaming
- PTZ camera control functions
- Custom licensing features
- Chat file transfer