



ISR Video Mission Commander



Highly Interoperable Encrypted Video Streaming

Combat operations conducted within densely populated or constructed environments such as cities, industrial zones, or urban districts - where line-of-sight (LOS), maneuverability, and collateral-damage control are complex, dismounted forces face challenges in getting full situational awareness without the reliance on other intelligence resources whether humane or other technologies.

The challenge



"In today's complex operational environments, the challenge is no longer access to data—it is the ability to transform multiple sensor feeds into clear, real-time situational awareness. By enabling secure, ultra-low-latency video distribution across the entire mission chain, VITEC empowers commanders to make faster, more informed decisions when it matters most."

Ghassan Dadokh,
Regional Head of Defense & Security Senior Business
Development Manager, VITEC

With the recent developments in supportive technologies in modern warfare, tactical teams became somehow overloaded with the increasing data volumes and sensor sources that at some stage it started to become a source of distraction and a liability as per some end users' feedback. While numerous ISR technologies are deployed, many become operational burdens due to siloed workflows, high latency video, or limited interoperability. By integrating VITEC's ultra-low-latency video encoding technology (designed for streaming ISR feeds over highly constrained networks) with forward field platforms, we deliver a unified situational-awareness and video distribution capability.

This integration allows mission commanders and field-level operators to aggregate drone, UGV and different surveillance video streams in real time, disseminate them across team nodes using VITEC EZTV solution, and make faster, more confident decisions — turning video overload into operational advantage.

In such challenging scenarios, soldiers juggle multiple sensors (drones, ground robots, fixed cameras), command-center links, and time-critical decision loops. Existing ISR video systems often suffer from:

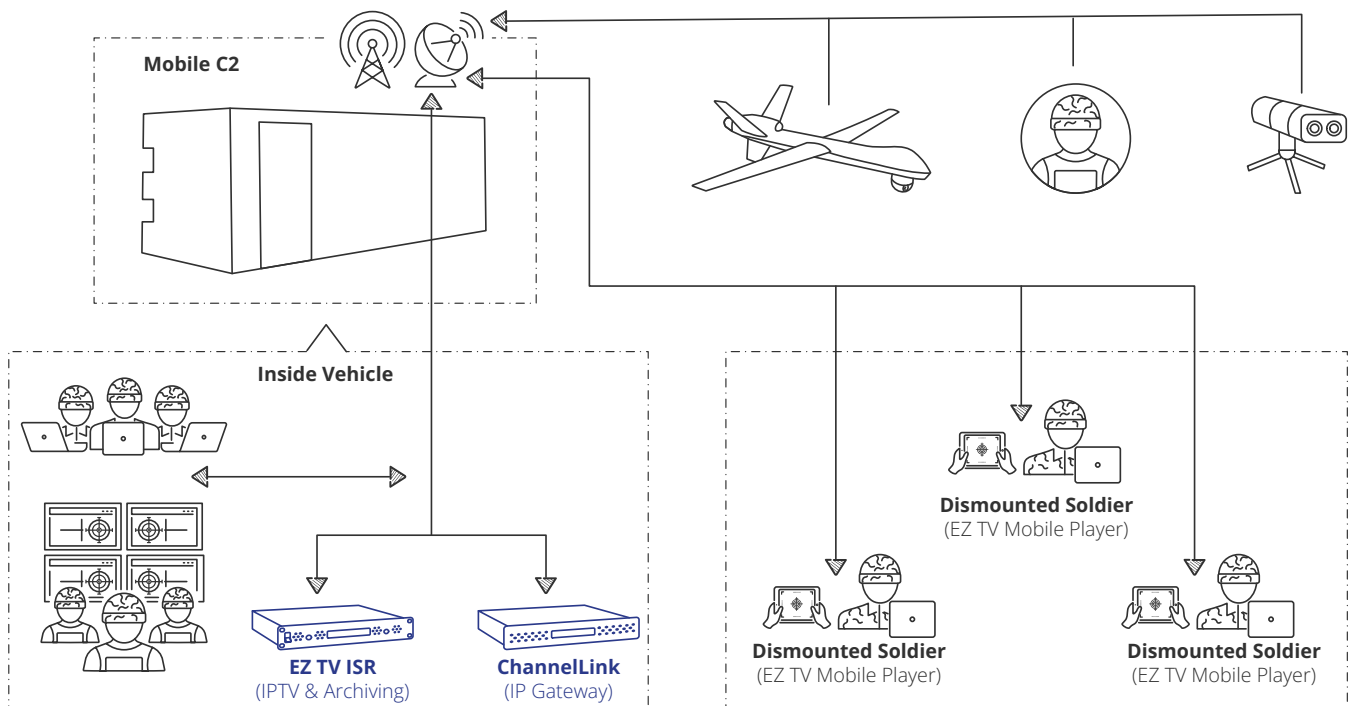
- High glass-to-glass latency (delaying response).
- Bandwidth constraints when streaming multiple feeds in challenging environments for RF Links.
- Fragmentation of video feeds across different proprietary systems.
- Difficulty in managing and distributing video to team members on handheld or vehicular devices.
- Such limitations create cognitive overload and slow the observe-orient-decide-act (OODA) loop - leaving troops exposed.

The solution

VITEC's encoder/decoder product solution supports missioncritical video streaming from ground and airborne assets over RF Links and Satcom, with full support for KLV/MISB metadata and encryption (AES-256). By embedding VITEC encoders into a mobile platform (e.g., vehicle, UGV or portable ground station), the system captures live sensor feeds (HD/4K) and streams them via RF, LTE or Satcom into the C2 network. At the same time, mobile C2 end-points (rugged tablets, mission stations, and other Handheld devices) access those feeds via the VITEC EZ TV platform - a unified video distribution infrastructure supporting live, on-demand, and archive workflows.

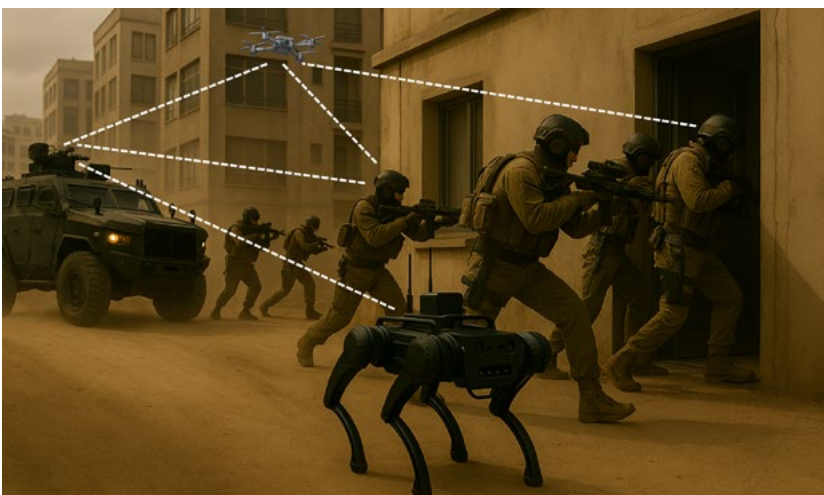


C2 & Dismounted Soldiers



The result

- **Ultra-low latency video delivery:** thanks to VITEC's hardware processing, video streams from mobile platforms arrive at decision-nodes with minimal delay, enabling realtime action rather than delayed response.
- **Bandwidth efficient streaming:** HEVC and optimized codecs allow high-quality video at low bitrates — critical for mobile and RF-constrained links in urban operations.
- **Unified situational picture:** All video sources (UGVs, drones, fixed cameras) can be streamed, managed and shared via a single platform (EZ TV).
- **Scalable and secure distribution:** The system supports multi-site deployment, mobile devices, tablets and rugged nodes; centralized management ensures secure access, compliance and control.
- **Interoperable architecture:** Standard streaming protocols and open API end-points ensure the solution can integrate with existing C2/ISR architectures and allied systems, extending longevity and return-on-investment.
- **Reduce operator overload:** Only deliver the useful video streams for an optimized situational awareness understanding.



Industry Leading Video Innovation

VITEC is a market-leading provider of IPTV, Video Streaming and Digital Signage Solutions that help organisations harness the power of video to engage, empower and evolve. VITEC is a pioneer in the design and manufacture of hardware and software for video encoding, decoding, transcoding, archiving and streaming over IP. Our end-to-end video streaming solutions enable customers to capture TV and video content directly from any source and manage its delivery, as channels or within digital signage screens, to any connected device via an existing network.

From corporate, broadcast and venues, to accommodation, government and military, VITEC has global expertise in delivering complex, proAV solutions.

VITEC's award-winning IPTV platform is a powerful suite of services for content management, digital signage, video archiving, and video wall processing. Our encode/decode solutions are 100% hardware based, including PCIe cards with SDK for custom design or OEM for high-performance video systems.

Headquartered in Paris, France, we have a global reach through our offices across the Americas, Europe, Middle East, Africa and Asia Pacific.

Making a difference with green initiatives, VITEC is the first Zero Carbon MPEG company and encourages customers to 'buy GreenPEG' for continued environmental efforts to reduce greenhouse gases.