FULL MOTION VIDEO SOLUTIONS FOR MILITARY FORCES

IP Unicast or Multicast Video with KLV Metadata

FORWARD BASE

HEADQUARTERS

SATELLITE

AIRBORNE ISR ENCODERS

SITUATIONAL AWARENESS ENCODER

CREDIT CARD SIZE RUGGED ENCODER

GROUND STATION

FMV VIEWERS

REAL-TIME FMV PLAYER FOR DESKTOP

ISR MOBILE PLAYER

VITEC

FOR DESKTOP

IP Unicast or Multicast Video with KLV Metadata
VITEC’s cutting-edge, Full Motion Video (FMV) solutions deliver real-time and on-demand video to PCs, TVs and Mobile Device screens - anytime, anywhere and on any network. Designed for mission critical applications, VITEC’s FMV solutions facilitate informed decision-making and faster response to operational challenges.

VITEC, a leading provider of military FMV solutions, offers a complete line of products designed to enhance military workflows by digitizing, distributing and viewing high quality video and critical MIB / STANAG compliant metadata across the network. VITEC’s products support the most advanced video formats including H.264, HEVC with Adaptive Bit-rate, up to 4K resolution while ensuring low latency dissemination.

IPTV Systems and Support

VITEC’s battle-proven FMV solutions allow military personnel to easily disseminate live feeds and recorded video assets in various bit-rates optimized for the specific network link available. Organizations can leverage existing IP network infra-structure to distribute video to local, remote and in-theatre users. Smart integration with IT security systems and existing domain policies enable system admins to regulate access to video content dynamically eliminating the need to use complex firewall and network routing settings. Conformance with JITC guidelines allow for rapid integration and into network architecture.

Live, accurate video of the tactical arena shared by all levels of the command structure at the same time

Delivering live, real-time, video in the tactical arena has always been a challenge. Distributing video information in the past required a specialized cable network and dedicated equipment making it costly and cumbersome to deploy. Include the many different types of cameras, downlink stations, sensors and display devices and the management costs in time and personnel can quickly escalate. VITEC’s FMV Solutions help manage the influx of video devices and formats, extending the reach of video to the edge and enhance situational awareness and decision making processes at all levels. VITEC’s line of video codecs and situational awareness viewer applications are deployed and in use by military units and government agencies worldwide. Military forces in theater benefit from the flexibility of the VITEC FITIS Player to adapt to changing needs and deliver critical video to the warfighter. Tactical units are using the browser-based FITIS management interface and FMV player to view critical video information from any computer without cumbersome software installation. Secure AES 128/256 bit encryption can ensure video information is seen only by authorized users. On-the-fly channel guide updates make it easy to access feeds as they come on line, with no interruptions to service, while on screen audio monitoring, video carousel and security clearance labeling are available to help manage the displayed video.

Encoders (Modular Encoding Systems and Streaming Appliances)

VITEC encoders are deployed worldwide to ingest UAV and Satellite down-link video feeds eliminating costly coax and RF video distribution networks. Decision makers can now receive tactical video from any source and deliver it across the LAN/WAN with ease. VITEC’s vast experience and innovations in real-time streaming and high efficiency full motion codecs ensures the reliability and performance required for mission critical video applications.

VITEC’s carrier-grade MGW encoding and streaming platforms are used in command posts to stream video downrange to forward units and Field Commanders giving them valuable, real-time access to essential intelligence. Military Units have come to rely on VITEC’s built-in redundancy and automatic failover capabilities for dependable performance even in the harshest of conditions.

VITEC’s MGW portable encoders are the perfect solution for mobile assets, foot soldiers and temporary base camps. These encoding appliances deliver high reliability in a rugged, MIL STD certified, fan-less enclosure with no moving parts, ready to take-on the most extreme environments. VITEC’s portable encoders are installed in mobile platforms from UAVs to forward reconnaissance vehicles and tactical units to quickly capture video data and deliver it seamlessly over wireless, IP radio and even satellite and cellular phone connections.
From a pocket-sized encoder that can be powered by a battery pack to a high efficiency multi-channel HEVC encoder, VITEC’s military-grade streaming appliances have been deployed and used by military units and on unnamed assets all over the world. Forward observers can now quickly stream live, encrypted video to the Command or Headquarters giving them both valuable and timely information. Warfighters can view this video allowing them to survey enemy locations, assets and tactical entry points without direct exposure. All of VITEC’s MGW Portable encoders support KLV MISB 0601 and 0902 as well as KLV / STANAG 4609 metadata injection over serial, SDI or IP connections. This is ideal for pairing of tactical data with associated video, increasing the information available to the warfighter.

Decision Support System for wartime missions or training environments

The ability to adapt quickly to dynamic environments and rapidly apply lessons learned in the field is essential to military tactical planning and strategy. VITEC’s Fully Integrated FMV System or FITIS has been specially designed as a combat multiplier for the ISR community. With fully integrated recording of real-time streams and simultaneous, on-demand access to stored content, the FITIS system enables military personnel to record, save and replay footage with any associated KLV or CoT metadata for instant tactical purposes as well as After Action Reviews. FITIS easily integrates with high capacity redundant storage and provides powerful asset management that makes storing, finding and selecting content simple. FITIS can record video data 24/7 and will index associated KLV metadata allowing for easy recall of video by keyword, mission name, MISB / STANAG datasets and more. Multiple on-demand streams can be played alongside live feeds in a mosaic view for increased efficiency without the need to install multiple monitors or utilize expensive VDU’s (Video Display Units).

By making tactical data available on-demand from anywhere, VITEC’s FITIS solution provides the essential intelligence tools required for planning campaigns and training troops.

Simple, Flexible and cost effective video distribution

VITEC’s FMV and IPTV Platforms are a cost effective replacement for aging Coax video distribution systems as well as an easy way to add IPTV services to new construction projects without the additional complexity of a dedicated RF video network. With no per-user client licensing fee, VITEC’s EZ TV and FITIS Platforms can easily scale and disseminate video to any unit size with local and remote users. VITEC’s IPTV systems can be used to convert VTC sessions real-time multicast video channels which an be easily and cost-effectively broadcasted to large dispersed audiences without the additional cost and hassle of adding VTC clients. Stored video can be accessed at anytime making VITEC’s FMV solutions perfect for delivering tactical information and Entertainment TV. VITEC’s Video on Demand capabilities allow for storage and dissemination of movies, news, sporting events etc…

Network Management made easy

VITEC’s Set top Box (STB) Remote Control is a software based, central remote control tool that enables displays and large video walls at one or more bases or command centers to be centrally controlled and tuned to any channel.

The intuitive TV Middleware graphical interface for TVs offers users a simple way to interact with their TVs and access content using a real-time updating channel guide based on user access rights and security clearance rules easily managed by the System Admins, making the platform ideal for command centers, offices and public areas.

Data Separation and Security

FITIS and EZ TV Platforms fully integrated with Microsoft® Active Directory and support Single-Sign-On (SSO) capability, to provide full control of user access permissions for channels or channel groups and VITEC’s encoders can be configured to encrypt the video data ensuring classified information always remains protected.

Whether monitoring the field to track troop movements, accessing tactical videos on demand for training and debriefing or leveraging the collaborative power of video for military tactical planning, VITEC’s solutions are the ideal choice for advanced FMV capabilities.

VITEC’s FMV solutions are currently deployed by security forces and governments worldwide, including the US Army, US Air Force, Joint Task Forces, MDA, SOCOM, USNG, NASA, the UK MOD, the Canadian DND and other global defense forces.
Benefits
- KLV and CoT support with real-time display for increased situational awareness (ISR)
- Monitoring action directly from the battlefield
- Facilitate communication among commanders and troops enhancing real-time operational decision support
- Recording and archiving tactical footage for training and debriefing
- JITC-certified, DO-160 compliant encoders
- Software Platforms meeting the highest cyber-security standards, deployable as physical or virtual servers
- Multi-format support: MPEG-2/4, H.264, HEVC (SD up to 4K)
- Fast, seamless deployment on existing IP / SATCOM / Radio networks
- Centralized management and analytics of users, access rights, content and video distribution workflows
- Easy definition of access privileges based on existing Microsoft Active Directory

Real-time & on-demand tactical footage from the field to headquarters & remote locations

**ISR Sources**
- MGW Diamond / Pico TOUGH
- SAT/IP
- Manned / Unmanned Platforms
- Cameras
- MGW Prism ISR Transcoder
- MGW 1100
- MGW 5100
- MGW Ace

**Digital Ingest & Processing**
- IP
- MGW Prism ISR Transcoder
- High-Res
- Low-Res
- SAT/IP
- IP Stream
- WAN

**Video Archiving & Metadata Indexing**
- Storage
- High-Res
- Low-Res
- FITIS / EZ TV
- SAT

**Actionable ISR Video Dissemination**
- Desktop
- Laptop
- Tablet & Phone
- STB TV
- Remote Sites

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