

IPTV MGW Blade Systems

Encoding and Streaming Chassis MGW 5100/MGW 1100/MGW 1000



VITEC Modular IPTV Blade Systems are professional carrier-grade platforms that compress and stream video at broadcast quality in a wide variety of bit rates, and house VITEC's H.264 HD/SD and HEVC 4K/HD/SD encoding blades.

VITEC's award-winning MGW compression and streaming platforms deliver unprecedented video processing efficiency and exceptional video quality at a wide range of bit-rates. Designed for mission critical applications, the dense hardware architecture offers extensive modularity and redundancy options.

MGW platforms encode uncompressed 4K, HD and SD sources to bandwidth-efficient MPEG IP streams optimised for IPTV and Full Motion Video (FMV) services.

Advanced capabilities include encoding of a secondary stream (up to 1080p HD) for remote users or picture-in-picture (PiP) applications, ancillary data support, ROI region, HDR passthrough, 128/256-bit AES Encryption and time-code insertion.

HTTPS secure management suite is optimised for secure Department of Defence IT environments up to Top Secret (TS) classification, making the carrier-grade blade-based platforms ideal video streaming solutions for federal and state government agencies, news and media organisations and enterprises.

VITEC's 7th generation H.264 and HEVC compression codec delivers superb video quality at any bit rate for applications ranging from situational awareness or HD-quality streaming for enterprise and ISR to 4K real-time contribution.

The MGW platform uses a highly efficient integrated controller blade that serves as the single point of interaction with the network, manages all hardware modules in the system and has automatic triggers for redundancy and failover.

The controller aggregates all streams produced by the compression blades into a single network interface with the LAN, reducing OPEX and CAPEX costs by eliminating the need to allocate multiple ports on the network switch and individually manage encoder modules.

Features & Benefits

- Controller blade consolidates all streaming and management traffic to a single network interface
- Hot-swappable components with built-in automatic failover for all critical components
- Mix-and-match inputs and outputs offers service diversity within each platform
- Designed with highest level of availability for mission critical applications
- Network interface redundancy and diversity modes
- Wide range of bit rate support per video port: 150Kbps-30Mbps
- Streams each video feed to as many as 7 targets (multicast and unicast) (move up)
- Networkworthiness certification by US NETCOM
- 7th generation codec offers best-in-class 4K, HD & SD video quality with support for HEVC (H.265), H.264 (MPEG-4 AVC), 4K, HD and SD
- Scenario-specific form factors and density: 1RU/4RU/10RU
- Encodes up to 96 video sources per platform to more than 192 + stream
- Encodes each source to two quality levels (secondary stream up to 1080p)
- Built-in AES-256/128-bit encryption for video, audio and metadata
- Streams video to mobile devices over 3G/4G LTE/WiFi networks or open Internet

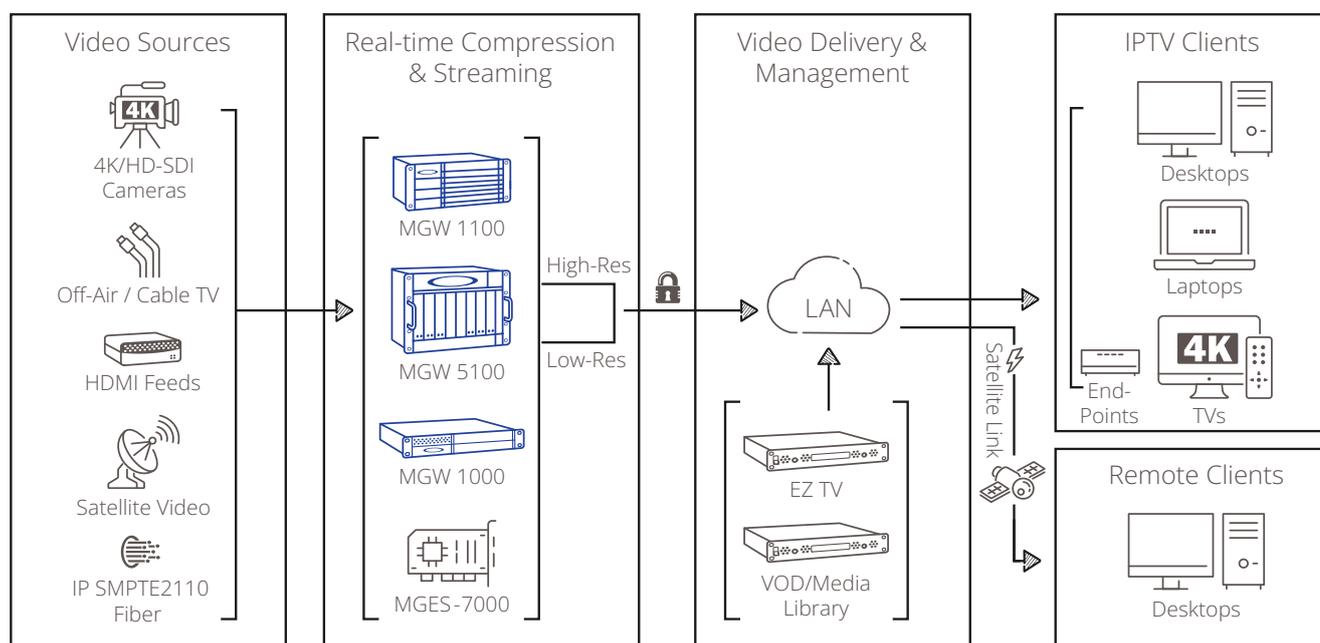
Applications

- Enterprise and Corporate IPTV
- FMV Dissemination for Situational Awareness and ISR Video
- Replacement of Legacy Cable TV Systems with efficient IPTV
- Video Monitoring and Video Confidence
- Telco IPTV
- Terrestrial and Mobile TV
- Training and Distance Learning

With up to 192 HD/SD H.264/HEVC encoders (96 primary and 96 secondary streams) integrated into a single platform, the high-density MGW product line offers best-in-class video processing power with a compact footprint and lowest cost per video encoding port.

The MGW system supports NMOS IS-04 by registering its capabilities with a localised Registration Server, and can be managed from a Device Connection Manager through a control interface supporting NMOS IS-05. MGW platform's built-in real-time encryption engine uses a 256/128-bit AES algorithm, allowing operators to securely deliver Full Motion Video and IPTV content over IP. The encrypted content and metadata is then deciphered by authorised VITEC EZ TV and FITIS video player users, eliminating the need to manually manage access rights to IPTV content.

MGW Platform streaming options include Multicast and Unicast UDP TS (Transport Stream) as well as protected SRT protocol supporting Caller, Listener and Rendezvous modes with buffer control optimising protection vs latency.



Technical Specification

Input - Video | Service Density

Blade Model	Service Type	Service Density	Supported Input Types			
			Analog	SDI	HDMI	Fiber 2110
MGES-7000	H.264 & HEVC 4K/HD/SD	8 x HD/SD		✓ ⁸	✓ ⁸	✓ ⁴
		4 x 4K		✓ ⁴	✓ ⁴	✓ ⁴
MGES-6000	H.264 HD/SD	4 x HD/SD	✓ ⁴	✓ ⁴	✓ ⁴	

(Number of interfaces shown in superscript)

Physical & Power

Platform	MGW-5100	MGW-1100	MGW-1000
Streaming Network Ports	2 x 1GbE	2 x 1GbE	2 x 1GbE
Management Network Ports	2 x 1GbE	1 x 1GbE	1 x 1GbE
Service Blade Slots	13	6	(2 Standalone)
Redundant Controller Slot	✓		
Width	19" / 48cm	19" / 48cm	19" / 48cm
Height	10RU	4RU	1RU
Depth	12" / 30cm	12" / 30cm	12" / 30cm
Input Voltage Range	100 - 240 VAC / DC 36-72 VDC	100 - 240 VAC	100 - 240 VAC
Power Consumption	1000W max	600W max	200W max
Hot Swappable components	Power Supplies, System Fans, Service Blades, Controller Blade Switch Blade	Power Supplies, System Fans, Service Blades	Service Blade
Dual Power Input	✓	✓	

Compliance

- HTTPS web management
- SSH

Management

- CE (LVD, EMC, RoHS)
- Safety: EN62368-1
- EMC: EN55032, EN55024, EN61000
- FCC Part 15, Subpart B, Class A