

MGW 5100 MGW 1100

IPTV Encoding and Streaming Platforms



Optibase Media Gateway (MGW) carrier-grade platforms are professional MPEG-4 AVC (H.264) and MPEG-1/2 standard definition encoders. The MGW product line pushes video encoding efficiency to new levels of excellence by delivering exceptional video quality in a wide range of bit-rates, supporting various broadcast applications over IP infrastructures.

MGW streaming platforms encode, transcode and transmit up to 26 real-time uncompressed and compressed SD channels to bandwidth-efficient MPEG-4 AVC (H.264) and MPEG-1/2 SD formats, providing mission-critical solution for federal and state government agencies, Telco operators and enterprise organizations.

MGW 5100 and MGW 1100 are hardware-based encoders that provide sufficient and reliable processing power required for 24/7 applications. Their rich set of features and management capabilities are combined with advanced compression tools to offer top-of-the-line platforms, optimized for streaming over both wide-bandwidth and limited-bandwidth networks.

MGW platforms are integrated with the Cluster Manager, Optibase's professional management suite for intuitive, simple management of multiple MGW platforms and hundreds of channels from one centralized application. The system offers full redundancy including N+K capability, thus eliminating single-point-of-failure scenarios.

Benefits

- Complete video streaming solution
- Exceptional SD video quality
- All-in-one dense platforms for video encoding, transcoding and transrating
- No single point of failure architecture
- Hot-swappable components
- Mix-and-match inputs and outputs
- Flexible and modular architecture enabling customization and upgradeability
- Secondary stream functionality allows streaming of a single video source at two different bandwidths

Applications

- Corporate video network
- Video surveillance and military applications
- Telco IPTV
- TV broadcast over IP networks
- Information sharing and collaboration
- Training and distance-learning applications
- Video contribution

Key Features

- Encode/transcode up to 26 channels
- Up to 100 transrated (rate shaping) channels
- Formats: MPEG-4 AVC (H.264) and MPEG-1/2
- Convert DVB-ASI to all formats over IP
- IP input interface
- Support unicast, multicast and multi-unicast
- N+K redundancy
- Closed-captions, DVB subtitles, teletext and audio pass-through
- A wide range of bit-rate support: 100Kbps - 15Mbps
- Built-in logo insertion
- IP v6 support
- Simultaneous delivery of low resolution channels for applications such as picture-in-picture (PiP) and limited-bandwidth streaming

Technical Specifications

Input

Video

- ASI / Analog / SDI / IP

Audio

- Balanced/unbalanced and AES3
- 2 encoded and up to 6 pass-through

Compression Standards

Video Formats

- MPEG-4 AVC (H.264) baseline and main profile up to L4
- MPEG-1/2 SP and MP
- Low resolution channels: MPEG-4 AVC Baseline profile level 1.3

Video Bit-Rates

- SD MPEG-4 AVC (H.264) 100Kbps - 2.5Mbps
- SD MPEG-1 180Kbps - 5Mbps
- SD MPEG-2 1.5Mbps - 15Mbps

Video Resolutions

- Horizontal: 720, 640, 544, 480, 352, 160
- Vertical:
 - NTSC 480, 280, 112
 - PAL 576, 288, 144
- Low resolution (secondary stream): 96x96, 192x192, 176x144, 128x96

Audio Formats

- MPEG-1 L2
- AAC-LC, HE

Supported AVC Tools

- Interlaced, Progressive and MBAFF modes
- CABAC/CAVLC entropy coding
- I, P, B and IDR frames with multiple references modes

Output

- MPEG-2 transport layer stream over UDP/IP
- Unicast, multicast and multi-unicast streaming
- 10/100/1000 BaseT Ethernet

Management

- SNMP with remote client
- Telnet, RS-232 and SNMP interfaces
- N+K supported by Cluster Manager

Physical

5100

- Width: 19" / 48cm
- Height: 10RU
- Depth: 12" / 30cm
- Input Voltage Range: 100 - 240 VAC
- Consumption: 700W (fully loaded)
- Hot swappable and redundant power supplies

1100

- Width: 19" / 48cm
- Height: 4RU
- Depth: 12" / 30cm
- Input Voltage Range: 100 - 240 VAC
- Consumption: 300W (fully loaded)
- Hot swappable and redundant power supplies

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