

MGW 1000

IPTV Encoding and Streaming Platform



Optibase Media Gateway (MGW) 1000 carrier-grade platform is a professional MPEG-4 AVC (H.264) and MPEG-1/2 standard definition encoder. MGW 1000 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 1000 streaming platform encodes, transcodes and transmits single or dual real-time uncompressed and compressed SD channels to bandwidth-efficient MPEG-4 AVC (H.264) or MPEG-1/2 SD formats, providing mission-critical solution for federal and state government agencies, Telco operators and enterprise organizations.

MGW 1000 is a hardware-based encoder that provides sufficient and reliable processing power required for 24/7 applications. Its rich set of features and management capabilities are combined with advanced compression tools to offer a top-of-the-line platform, optimized for streaming over both wide-bandwidth and limited-bandwidth networks.

MGW 1000 platform is 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 platform for video encoding, transcoding and transrating
- 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
- Information sharing and collaboration
- Video surveillance and military applications
- Telco IPTV
- TV broadcast over IP networks
- Training and distance-learning applications
- Video contribution

Key Features

- Single or dual channel encoder
- Formats: MPEG-4 AVC (H.264) and MPEG-1/2
- Converts DVB-ASI to all formats over IP
- Supports unicast, multicast and multi-unicast
- 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

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 - 10Mbps

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

- Width: 19" / 48cm
- Height: 1RU
- Depth: 12" / 30cm
- Input Voltage Range: 100 - 240 VAC
- Consumption: 200W

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