



VITEC IPTV and Broadcast Monitoring Solution



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Monitor, Log and Analyze IPTV Streams for Quality and Compliance

IPTV has become a broadcasting distribution method of choice over local and wide area networks. As organizations transition to IP content delivery, these services need to be monitored constantly for quality and integrity to guarantee the best viewing experience. Traditional video monitoring solutions are costly and hard to scale at the rate IPTV systems grow. They are typically limited to accessing the real-time statistics and quality information from physical workstations at the head-end.

VITEC's IPTV and Broadcast Monitoring Solution enables enterprise IT and broadcast professionals to seamlessly deploy a reliable, cost-effective system for detecting audio and video errors that impact local and remote users. Visual alerts, detailed reports and statistics provided by VITEC's system ensures quick detection of IPTV service interruption and quality issues while improving the user's experience and increasing usability and viewer satisfaction.

Flexible Stream-Monitoring Analysis and QA

VITEC's IPTV and Broadcast Monitoring System delivers real-time audio and video monitoring, logging and QA capabilities. With a powerful multi-window mosaic viewer, large numbers of audio and video feeds can be continuously monitored for errors, failures and interruptions. Visual graphs on an intuitive dashboard display the current and past 24 hour statistics instantly.

The system's mosaic viewer enables simultaneous display of up to 25 live HD/SD streams of video content, with visual audio meters, on-screen text alerts and a master alarm indicator. Sophisticated recording, storage and a content search engine enables a quick review of past failures. When used in combination with VITEC's MGW Blade Systems for encoding and streaming platforms, the monitoring system offers a professional way to monitor and analyze compressed and uncompressed video and audio sources.



VITEC's dedicated IP monitoring server (IPM) can monitor up to 50 HD/SD streams for video and audio errors and interruptions. Multiple IPM servers can be configured throughout the network ensuring all streams are monitored and reported to the central monitoring system.

Based on VITEC's powerful EZ TV technology, the system delivers hundreds of channels from multiple sources to any user-defined display monitor and provides the tools and capabilities users need to monitor, log, index and analyze audio and video content.

Customizable Multi-View Display Anytime, Anywhere

VITEC's IPTV and Broadcast Monitoring System consists of a variety of advanced modules that allow enterprise and IPTV broadcasters to tailor the system to their needs, from sports arenas and military command centers to the broadcasting Master Control Room (MCR). The feature-rich multi-channel monitoring display can be invoked from any laptop or desktop on the LAN or projected on a big screen at the NOC. Users can change mosaic views so that each user gets a personalized layout.

Actionable Analytics, Logs and Reports

An automatically updating dashboard provides powerful insights with visual alerts and statistics that give the operator real time information about service errors, and video or audio quality interruptions. A customizable reporting engine enables a wizard to create fixed or user-defined reports and graphs, generating actionable information and insights that can be used to improve the overall condition of the IPTV service.

IPTV Streams and Baseband Video Sources Support

The Broadcast Monitoring system analyses any video stream in the IP network. The system also offers expansion to the baseband domain ingesting HD/SD-SDI, HDMI or Analog.



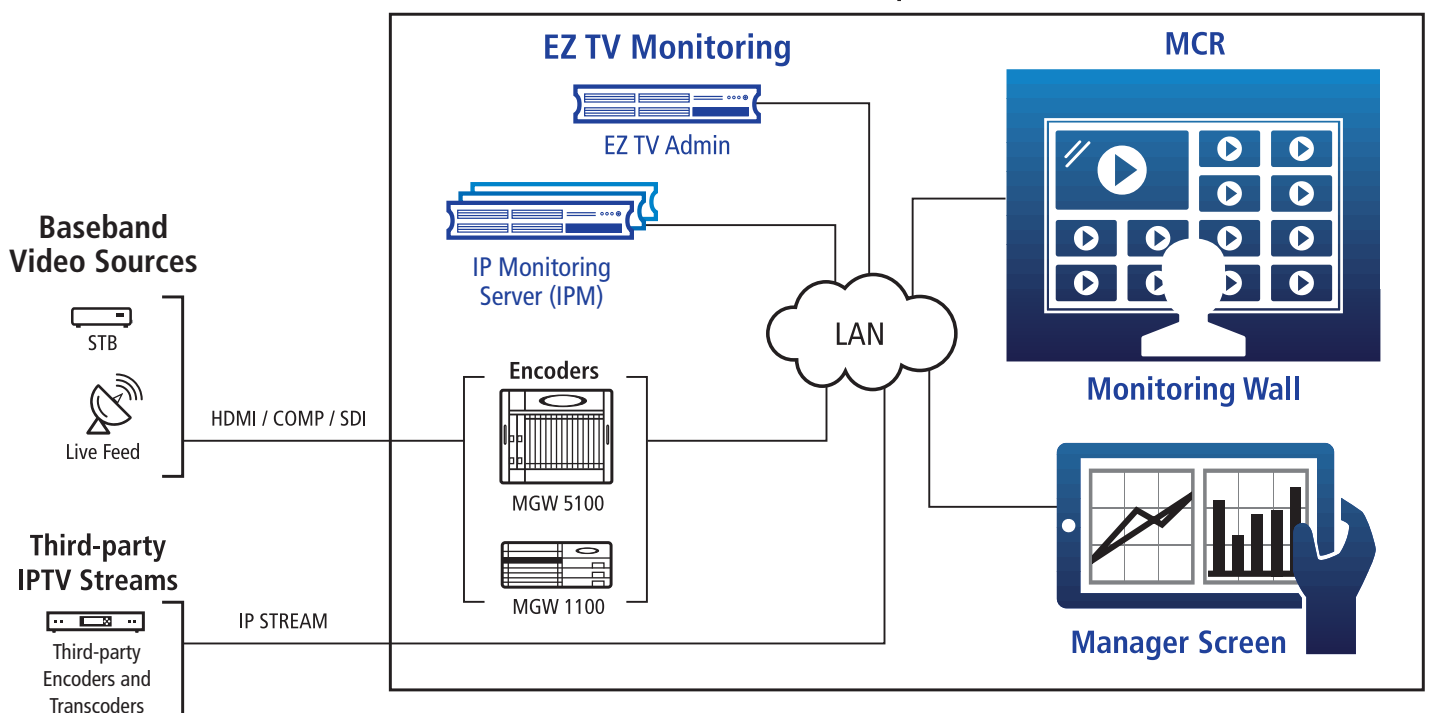
IPTV and Broadcast Monitoring System Components

- Admin Server: Centralized monitoring and reporting system
- Monitoring Player: Browser-based for viewing SD/HD video streams with multi-window mosaic view and on-screen alerts
- IP Monitoring Server (IPM): hardware-based stream analyzer, monitor video and audio quality, up to 50 simultaneous streams
- MGW Blade Platforms (Optional): hardware-based, carrier-grade platforms designed for ingest and streaming of any number of baseband video sources

Benefits

- Flexible architecture: Monitors a combination of on-air MPEG compressed as well as baseband uncompressed feeds
- All-in-one monitoring solution: Single system for all monitoring needs
- Manageability: Easy to deploy IP based solution, with client-server architecture
- Powerful analytics: Real-time dashboard and reports for quality and service problems
- Multi format playout and display: Supports a variety of audio and video formats
- Scalable adaptability: Modular design enables unlimited monitoring capacity
- Recording and playback capabilities: Stored video streams are always available for future reference and comparison
- Versatility: Deploy on dedicated hardware servers or as Virtual Machines anywhere on the network

Headquarters



Technical Specifications

Audio/Video Alarm Analytics

- Video: black or frozen screen
- Audio: volume (peak or low) according to EBU R128
- Loss of video service
- Loss of audio service
- Loss of transport stream
- Detection of Dolby audio channel
- Detection of metadata presence
- Streaming information detection:
- Total bit rate
- Video bit rate, codec, resolution, frame rate
- Audio bit rate, codec
- Number of audio services

Monitoring Admin Server

General

- HTTP management interface monitors and controls all IPTV services
- Centralized remote control interface for managing and assigning content and provisioning of IPM servers
- Log screens and reports
- Real time analysis manager screen
- Periodic summary reports
- Configurable graphs and exportable statistics
- Email alerts

Physical server specifications:

- Windows 2012 Server 64-bit operating system
- 1-RU IBM x3250 M5 Professional Server
- 1 x Intel XEON Quad-Core 3.1GHz 8MB cache processor
- 8GB RAM
- 2 x 1000/100 Mbps network interface
- 2 x Power supply AC 110/230V (50/60 Hz), 350W
- Dimensions: 17" W x 22" D x 1.7" H
- Weight: 10.5Kg / 23.15 lbs.
- 19" racking rails kit included with server
- Minimum Requirements for installation on third-party servers or as a Virtual Machine:
 - Windows Server 2008 R2 or 2012 Server operating system
 - 1 x Intel Dual Core CPU 2.4 GHz CPU
 - 8GB RAM
 - 1 x 1000/100 Mbps network interface
 - 100GB disk space (local or network)

IP Monitoring (IPM) Server

General

- Hardware based stream analyzer
- Up to 50 HD/SD streams per server
- Multiple server options are available according to the scale of service

Physical server specifications:

- Linux RED Hat 6.6
- 1-RU IBM x3250 M5 Professional Server
- 1 x Intel XEON Quad-Core 3.1GHz 8MB cache processor
- 8GB RAM
- 2 x 1000/100 Mbps network interface
- 2 x Power supply AC 110/230V (50/60 Hz), 350W
- Dimensions: 17" W x 22" D x 1.7" H
- Weight: 14.8Kg / 32.6 lbs.
- 19" Racking rails kit included with server
- Minimum Requirements for installation on third-party servers or as a Virtual Machine:
 - 1 x Intel Quad-Core CPU 2.4 Ghz CPU
 - 12GB RAM
 - 1 x 1Gbps network interface

Multi-View Monitoring Display

- Video Codec: MPEG-2/4/H.264/HEVC
- Video Formats: HD/SD resolutions
- Protocols: UDP, Multicast and Unicast
- Streaming screen monitoring:
 - On screen error alert
 - On screen audio meter
 - On screen display of channel information

MGW Blade Platforms

- Encodes multiple HD/SD streams
- Secondary stream encoding (up to 1080p HD)
- Hot-swappable components with automatic failover

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