

# LiveFeed Portal

## Channel Manager and Network Management Application



### > Applications

- Create, store, view, stream and share HD and SD video from any source, anytime, anywhere.
- Compatible with civilian and federal secure environments, LiveFeed Channel Manager has been designed to conform to the most stringent network and information assurance security standards.

### > Features

- IT-Centric Architecture for rapid deployment of IPTV Services – the LiveFeed Channel Manager IPTV System empowers Corporations, Government Agencies, Military Units, Broadcasters and Educational Institutions to rapidly deploy an advanced IP video delivery service:
- Network Deployment: LiveFeed Channel Manager IPTV Portal software is deployed as a Web Server on the network as a Virtual Machine or Physical Server instance.
- Select Content: Administrators map all digital videostreams and files to a simple channel lineup with user-friendly channel names, numbers and optional metadata description.
- Organize and Classify and Manage content by type / origin / genre / classification / security level - different groups have their own access rights.
- Define Access Rights and Control Features via integration with Microsoft Active Directory. LiveFeed Channel Manager allows administrators to selectively turn on/off playback and recording features for specific users/groups

### > Overview

The BMS LiveFeed IPTV System is a comprehensive solution for high quality delivery, recording and management of live and on-demand video over IP networks. Designed to seamlessly integrate with any IT environment and deploy on all types of networks; LAN, WAN and Wireless, LiveFeed Channel Manager provides a secure and cost-effective solution for delivering critical video sources to thousands of trusted users.

LiveFeed Channel Manager offers advanced viewing options, collaboration and distribution tools - all packed in an easy-to-use Web Browser interface. With LiveFeed Channel Manager, local and remote users can watch mission critical content anytime, anywhere and on any device; TV's, Computers, and Mobile Devices.

LiveFeed Channel Manager is the IPTV system of choice for any organization size and any number of users. With LiveFeed Channel Manager's modular architecture, the system is easy to deploy and maintain as an advanced, scalable IPTV solution with the capacity to expand the system without interruption to service.



## Technical Specifications

### LiveFeed Channel Manager Portal Server

#### General

- Options up to 5,000 concurrent viewers; Desktops, Laptops, Mobile Devices and TV (IP Set-Top-Box)
- HTTP management interface monitors and controls all IPTV services
- Centralized remote control interface for managing and assigning content to public area TV screens and monitor walls, activating emergency channels, regulating access to advanced features such as recording, push notifications, on-demand viewing and mosaic player grids
- Automatic discovery of available IPTV streams on the network using Session Announcement Protocol (SAP)

#### Footprint

- The LiveFeed Channel Manager IPTV system is a server application offered either on a rack-mountable physical server or as a software package that can be installed on a third-party machine and as a Virtual Machine.

#### Physical server specifications:

- Windows 2012 R2 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 110/230 V (50/60 Hz), 350 W
- 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 2.4Ghz CPU
- 8GB RAM
- 1 x 1Gbps network interface
- 100GB disk space (local or network or network installation)

### Advanced Capabilities

- Automatic data replication between LiveFeed Servers - High Availability redundant configuration
- Management of AES-256 /128-bit keys based on user access rules
- Clustering capability to support HQ server with multiple edge servers serving remote users
- Integration with 2003/2008/2012 Microsoft Domain Controllers for users and content access management
- Designed to operate on Windows servers patched for security in accordance with DISA's guidelines
- Certificates of Net Worthiness, documentation for use on classified networks provided upon request

### LiveFeed VOD/NDVR Server (option)

#### General

- Seamless integration with LiveFeed Portal – content, permissions and recording services managed via LiveFeed Portal Administration interface
- Serves as central point for network recordings and on-demand requests of recorded video assets
- Supports streaming to desktops, laptops, TV's and mobile devices
- Network protocols: UDP, RTP/RTSP, HTTP Progressive Download, Multicast and Unicast
- Support recording and streaming of AES-256/128-bit encrypted streams
- Streaming capacity – up to 600Mbps
- Recording Capacity – up to 40x 1080p60 Full HD streams from a single server
- Built-in storage 2TB (Raid-5) + support for network attached storage (NAS)

#### Footprint

- LiveFeed VOD Server is offered in a rack-mountable physical server or a Virtual Machine.
  - Physical server specifications:
    - Linux RED Hat 6.2
    - 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 110/230 V (50/60 Hz), 350 W
    - 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 Dual Core CPU 2.4Ghz CPU
- 8GB RAM
- 1 x 1Gbps network interface
- 100GB Disk Space for operating System, Video assets disk space – user defined (CIFS/NFS)

### Video / Audio Formats

#### Video:

- MPEG-1
- MPEG-2 (ISO/IEC 13818-2)
- MPEG-4 part 2 (ISO/IEC 14496-2)
- MPEG-4 part 10 H.264 (ISO/IEC 14496-10)
- HEVC (High Efficiency Video Coding) H.265 - ITUT H.265 / ISO IEC 23008-2

## Technical Specifications

### LiveFeed VOD/NDVR Server (CONT'D)

#### Audio:

- MPEG 2 AAC-LC
- MPEG 2 AAC-HE
- MPEG 4 AAC-LC
- MPEG 4 AAC-HE
- Dolby AC-3
- MPEG-1 Layer 2 (ISO/IEC 11172-3)

#### Network:

- IPv4, IPv6

### LiveFeed Desktop Player

#### Operating systems:

- Microsoft Windows XP / 2008 / 2012 / Windows 7 / Windows 8.0/8.1 (32-bit and 64-bit)
- Mac OS X 10.7 or higher (32-bit and 64-bit)
- Internet browsers:
  - Windows Internet Explorer 8, 9, 10 and 11
  - Mac Safari 6.x

#### Performance:

- Up to 25x SD/HD channels on single screen

### Supported Streaming Protocols:

- UDP
- RTP/RTSP
- MPEG-2 Transport Stream
- HTTP progressive download
- HLS
- Multicast / Unicast
- AES-128/256 Decryption

### Supported Video Formats:

- MPEG-1
- MPEG-2 (ISO/IEC 13818-2)
- MPEG-4 part 2 (ISO/IEC 14496-2)
- MPEG-4 part 10 H.264 (ISO/IEC 14496-10)
- Adobe Flash VP-6
- WMV
- Quick Time
- HTTP live streaming HLS
- VITEC TurboVideo™ and TurboVideo2™
- All resolutions from QCIF up to 1080p

### Supported Audio Formats:

- MPEG 2 AAC-LC / MPEG 2 AAC-HE
- MPEG 4 AAC-LC / MPEG 4 AAC-HE
- Dolby AC-3
- MPEG-1 Layer 2 (ISO/IEC 11172-3)

### Metadata:

- Teletext, Teletext subtitling
- Line 21: SCTE-20/21 Closed captioning, CEA-608/708 (user configurable enable/disable + captions position)
- DVB subtitles (ESTI EN 300 743)
- MISB KLV/STANAG input over UDP
- NGA Motion Imagery Standard Profile (MISP) Compliant; EG 0104.5, EG 0601.6, MISB STD 0604.2, MISB EG 0904, MISB STD 0601.6, STANAG 4609 (Edition 3), SMPTE 336M/335M

### Network:

- IPv4, IPv6

### Advanced Capabilities

- Auto detection and enumeration of multiple audio tracks
- On screen text overlay
- Carousel player setting – automatic channel rotation based on user-defined channel lists
- DoD security classification tagging – real-time color coding of displayed video based on classification
- HEVC / H.265 decoding engine for HD and SD content
- Backup channel automatically directs player to alternate IP stream when primary stream fails



## Key Features

### Central Management & Monitoring for IPTV Services

- The LiveFeed IPTV Systems offers powerful centralized management options, monitoring tools and analytics to help you maintain the system, ensure 100% up time for critical IPTV services, and maximize user experience.
- The centralized LiveFeed Administration Portal web-interface, is accessible from anywhere on the network and provides the ability to create content listings manually or configure the server to automatically look for IPTV content on the network using Session Announcement Protocol (SAP) discovery feature.
- The powerful User Management engine provides a visual topology view of all local Domains, Trusted Domains, Organizational Units (OU's), Groups and Users that exist on the network. A unique drag-and-drop interface is used to assign live video, recorded content and application features to groups or individual users – eliminating the need to use complex routing filters, networks access lists and firewall rules to regulate access to IPTV and FMV content.
- Redundancy, Clustering, Multi-site synchronization and Backup features are also available through the LiveFeed Administration Portal – advanced capabilities designed to help organizations and IT teams to achieve 99.999% availability of critical video services 24x7x365.
- LiveFeed System monitors the usage of the system and offers Administrators valuable data about content consumption, user trends, network bandwidth utilization statistics and event logging for operator's and/or users actions for traceability, billing or other needs.

### Service Provider Experience on Your Network

- LiveFeed packs the best user experience in an enterprise-grade professional IPTV System. The powerful browser-based LiveFeed Player includes advanced Digital TV capabilities:
- Personal Video Recorder (PVR) that allows users to record, manage and playback content on their local computers.
- Network Digital Video Recording (NDVR) that can be used by administrators or users to record content on a centralized server with network storage (eliminating the storage and security challenges of local recording).
- Video On Demand (VOD) – enables local and remote users instant access to recorded content. Users enjoy "Trick-Play" features such as Fast Forward, Rewind, Play/Pause/Resume.
- Client Mosaic Playback – each user can select his own mosaic layouts for watching up to 25 videos simultaneously on the screen. This feature utilizes the existing streams on the network and generates the resized mosaic videos for each user on-the-fly, without using additional bandwidth on the network.
- Video Confidence Mode – LiveFeed Player is often used as an advanced cost-effective tool for monitoring videos; Using real-time text overlay, security clearance tagging, advanced metadata search options and visual Audio Meters - LiveFeed Player is the ideal IPTV Monitoring Tool.
- Analytics and Reports – View real-time dashboards measuring content consumption, user activity, network bandwidth utilization and other insights. Generate reports with graphs that can be used to optimize user's experience or to bill individuals or groups for usage

