Furnace VF

IP Video System

Intelligent IP Video

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**End-to-End Solution for Video-over-IP Featuring the Remarkable
"Zero Footprint" InStream™ Player**

Haivision's Furnace™ provides a secure, easy to use, simple to deploy end-to-end system for encoding and distributing live video to computers and set top boxes, for creating scheduled playback channels for enterprise TV and signage, and for recording content with real-time metadata and delivering intelligent video on demand.

Video to everyone, everywhere!!

The Furnace provides a complete IP video solution. The viewing experience to access live and recorded channels as well as on demand content is provided for the desktop through the "zero footprint" InStream player and to fixed monitors and displays through the Stingray™ set top box. With fine grain control of all viewers and displays, the Furnace is the ideal system for managing and distributing enterprise video securely, for establishing HD signage throughout a facility, for providing on-demand material, and for capturing, organizing, and reviewing events.

Zero Install InStream Player	**Instant-On Deployments**
Unique Client / Player System	**No Endpoint PC Maintenance**
End-to-End AES Encryption	**Full Player/STB Awareness & Control**
Authentication / Conditional Access	**100% Secure Video**
Recording with HotMarks™ Metadata	**User Tasks, Roles, and Rights**
Synchronized Media Delivery	**Intelligent Video**
Set Top Boxes and Desktop Players	**Performance Deployments**
HiLo-Streaming	**IP Video Anywhere**

End-to-End Security & Accountability

From the Makito, Mako, or Barracuda encoders through to every viewer, either via multicast or unicast, the Furnace system provides 100% secure AES encrypted video. This combined with InStream's unique client/server approach (the Furnace knows what every viewer is doing) and the Furnace's Conditional Access user authentication module yields an IP video system that can control and report on any video activity. This strong focus on the principles of secure video transmission enables our clients to adhere to the most stringent data and system security requirements, such as HIPAA, the legal requirement in the US for the protection of personal health information.

Mako
Makito
Barracuda
Contribute   >>

Furnace Portal Server
Furnace Media Server
Furnace Network Video Recorder
Manage   >>

InStream™ Player
Stingray Set-Top-Box
Makito Decoder
Distribute

PLAYER / STB SYNCHRONIZATION

Having 100% control of the InStream™ player and the Stingray STB's enables a unique benefit - the ability to synchronize the desktop players with the set top boxes. One application example is delivering video to a financial trading floor. While listening to private audio of their favorite broadcast using InStream™ on their desktop, traders can look up and view the associated video on centrally located flat panels - the audio in sync with the video.

HILO-STREAMING™

Haivision encoders (such as the Mako, Makito and Barracuda) are tightly integrated with the Furnace IP video distribution system. Supporting HiLo-Streaming, Haivision encoders can simultaneously emit full bandwidth high-resolution streams and low bandwidth "reduced resolution" streams. This allows the Furnace to provide users with a choice of streams best suited to their network or system capabilities without any transcoding delays.

The "Zero Footprint" InStream™ Player. Unique to the Furnace is the InStream player technology. InStream is the industry's only client/server based MPEG compliant PC and set top box viewing technology. InStream is not browser based, but can be accessed through any browser. InStream is platform independent allowing it to run on Windows, Mac, Linux, or Sun Solaris 10 systems. When a user requests to view video, the Furnace Portal Manager sends the compact, highly optimized InStream player to the user's computer providing a feature rich video-viewing environment. When the user closes InStream, it is removed from the client computer without a trace. With InStream, there is never anything to install or maintain on the client computers at all - no plug-ins or ActiveX controls are required. This eliminates need for the IT group to harmonize user computers in any way – nothing to install and nothing to maintain. Because InStream is incredibly easy to use, does not require installation, works on any platform, and has unlimited and controlled player distribution, managers can be assured that they will have extensive user adoption of all their media efforts.

Capture, Create, Schedule. The Furnace provides administrators with powerful tools for the recording and editing of content. To organize media assets, the Furnace includes powerful editing, bookmarking, and library metadata tools. The Furnace also includes advanced administrative tools for programming playback channels, either live broadcasts from portable encoders or playback of content from disk. With the Furnace's comprehensive interface, scheduling of content can be set up to 30 years in advance. For live television, up to two weeks of electronic programming data can be made available at all times.

Record with Real-Time Metadata. The Furnace Network Video Recorder (NVR) allows users to control recording to any number of "virtual recorders". The record, review, publish process can be controlled either via the Furnace's user interface or through a standards based application programming interface. Anytime during the recording process users can insert real-time metadata (HotMarks™) to tag events as they occur. Haivision is committed to empowering the media assets of an organization so that critical information and events can be retrieved and aggregated with ease.

Conditional Access. Many organizations employ various techniques for user access control. Some basic methods including web access page control and network based restrictions. The most secure access method, regardless of the authentication system in use, is to integrate the organization's authentication system with the Furnace Conditional Access connector. By combining conditional access with Furnace's powerful AES encryption, organizations can be confident that their private information remains secure and that any content arrangements for media distribution and copy protection are strictly adhered to.

Command & Control. Unique to the Furnace system is the Command & Control module giving administrators full control over all InStream desktop players and Stingray set top boxes. Administrators can adjust the operational characteristic of any player or STB on-line either on the fly, or on a scheduled basis. Administrators can also send messages to any individual, group, or even to the entire viewing audience. Command & Control is an extremely powerful tool that can be used for anything from simple signage scheduling to user base messaging or forced channel overrides.

Reporting Detailed. Reports of viewership are key to managing any IP video system. The combined power of Command & Control and Conditional Access allow administrators to determine the exact history of any viewer to an impressive level of detail. All actions of the InStream player or Stingray set top box can be reported on, and with Conditional Access, to a user level. Not only can administrators determine who viewed what (an essential element of HIPAA compliance in medical), but also information on player behavior during any viewing session. For example, administrators can establish if someone muted the audio or minimized the window during an important training session. This level of reporting detail provides administrators with an unparalleled window into how video is used inside their enterprise and can help them tailor their services to have a maximum impact.

Ordering information (please obtain complete system quotations from Haivision or an authorized Haivision integration partner)

Furnace Server System

S-VFBASE **Furnace Base Live System 20/0/0** – InStream Portal Server; 20 Live, 0 Playback, 0 Mbps VOD capacity. 1RU Server, 250 GB RAID.

S-VFB-CH **Furnace Base System with Playback 20/10/0 –** InStream Portal Server, Playback Manager. 20 Live, 10 Playback, 0 Mbps VOD capacity. 2RU Server, 5 TB RAID.

S-VFB-50 **Furnace Base System with Playback & VOD 20/10/50** – InStream Portal Server, Playback Manager, Media Server (50Mbps). 20 Live, 5 Playback, 50 Mbps VOD capacity. 2RU Server, 5 TB RAID.

S-VFB-100 **Furnace Base System with Playback & VOD 20/10/100** – InStream Portal Server, Playback Manager, Media Server (100Mbps). 20 Live, 1 Playback, 100 Mbps VOD capacity. 2RU Server, 5 TB RAID.

S-VFADV **Furnace Advanced Live System U/10/0** – InStream Portal Server. Unlimited Live, 0 Playback, 0 Mbps VOD capacity. Dual Server (1RU & 2RU), 250 GB RAID.

S-VFADV-CH **Furnace Advanced System with Playback U/10/0** – InStream Portal Server, Playback Manager. Unlimited Live, 10 Playback, 0 Mbps VOD capacity. Dual Server (1RU & 2RU), 5 TB RAID.

S-VFADV-50 **Furnace Advanced System with Playback & VOD U/10/50** – InStream Portal Server, Playback Manager, Media Server (50Mbps). Unlimited Live, 10 Playback, 50 Mbps VOD capacity. Dual Server (1RU & 2RU), 5 TB RAID.

S-VFADV-100 **Furnace Advanced System with Playback & VOD U/10/100** – InStream Portal Server, Playback Manager, Media Server (100Mbps). Unlimited Live, 10 Playback, 100 Mbps VOD capacity. Dual Server (1RU & 2RU), 5 TB RAID.

S-VFADV-200 **Furnace Advanced System with Playback & VOD U/10/200** – InStream Portal Server, Playback Manager, Media Server (200Mbps). Unlimited Live, 1 Playback, 200 Mbps VOD capacity. Dual Server (1RU & 2RU), 5 TB RAID.

S-VFADV-300 **Furnace Advanced System with Playback & VOD U/10/300 -** InStream Portal Server, Playback Manager, Media Server (300 Mbps). Unlimited Live, 1 Playback, 300 Mbps VOD capacity. Dual Server (1RU & 2RU), 5 TB RAID.

Furnace Modules, Appliances, Accessories

S-280E-SDI **Barracuda Encoder Appliance** - SD H.264 IP Video Encoder - SDI, Composite, S-Video, and Audio input; up to 480i; 64 kbps to 15 Mbps; 10/100/1000 Ethernet; 5VDC w/ 90-240 VAC External Power with Locking Connector.

S-290E-DVI **Makito Encoder Appliance** - HD/SD H.264 IP Video Encoder - HD-SDI, SDI, Composite, S-Video, and Audio input; up to 1080p60; 64 kbps to 15 Mbps; 10/100/1000 Ethernet; 5VDC w/ 90-240 VAC External Power with Locking Connector.

S-VF-STB **Furnace Stingray Set Top Box** - MPEG 1/2/4 & H.264 SD, HD, & WXGA. InStream Viewer and Program Guide Support. Composite, S-Video, and Component Outputs.

VF-STING **Furnace Stingray Set Top Box –** MPEG 1/2/4 & H.264 SD, HD, & WXGA. Dual Ethernet, InStream Viewer and Program Guide Support. Composite, S-Video, Component, and HDMI Outputs.

SWO-VF-CA **Furnace Conditional Access Module** - Support of User Authentication and Conditional Access through integration with LDAP, Active Directory, or RDBMS. For Advanced Systems Only.

S-VF-USS **Furnace Unicast Streaming Server System** - Convert live and scheduled content for unicast environments. Distribution capacity limited only by 1 Gbps NIC. 1RU Server.

SWO-VF-BRI-TR **Furnace Bridge Transmit Module** - Convert multicast to unicast for WAN traversal. Transmit software. Single channel. For Base and Advanced Systems.

S-VF-TMX **Furnace Encryption Server –** Encryption and Forward Error Correction Server necessary for external video streams (not Live Furnace streams). Each stream licensed with the "Expansion Stream" line item separately. Up to 20 Streams per System. 1RU Server.

SWO-VF-NVRS-B **Furnace Scheduled NVR Module for Base VF Systems** – NVRS – Support for scheduled recording directly to asset library. 1 channel of SD/HD. Software module for a Base Media Server or Playback Manager system.

SWO-VF-NVRS-ADV **Furnace Scheduled NVR Module for Advanced VF Systems** – NVRS - Support for scheduled recording directly to asset library, 3 channels of SD/HD. Software module for an Advanced Media Server or Playback Manager system.

S-VF-NVRC-HD **Furnace NVR HD Appliance** - NVRC - Crash Recorder NVR appliance for up to 6 HD streams. 2RU Server. Requires a Base or Advanced Media Server or Playback Manager system.

S-VF-NVRC-SD **Furnace NVR SD Appliance** - NVRC - Crash Recorder NVR appliance for up to 20 streams of SD. 2RU Server. Requires a Base or Advanced Media Server or Playback Manager system.