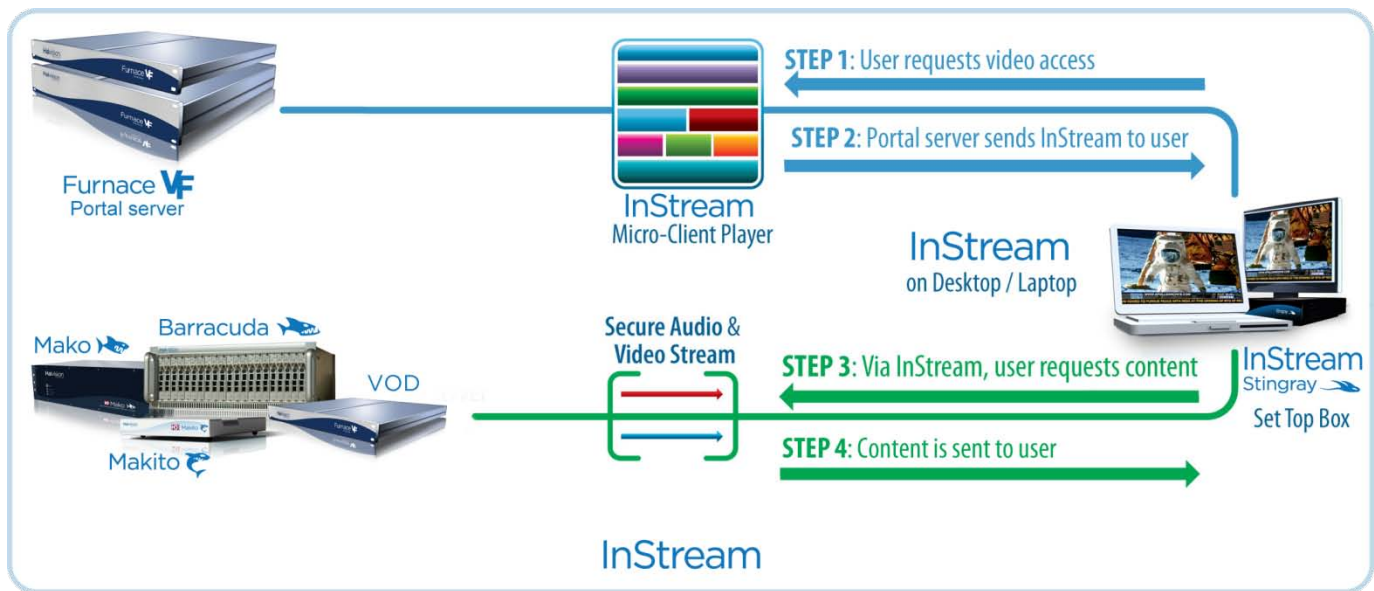
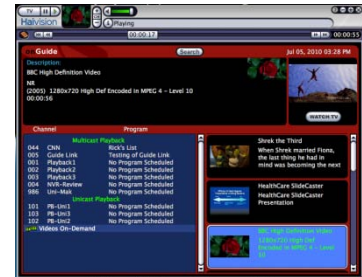


**InStream™: The Magic Micro-Client Player Technology**  
Zero-Install, Zero-Footprint, Platform Independent

InStream™ is the most advanced MPEG compliant viewer experience in the industry. It is the player technology of the Furnace system — HaiVision's end-to-end HD H.264 IP video solution. InStream™ is the easiest IP media player to deploy and manage as it requires no installation to the desktop and supports all modern operating systems and browsers. InStream™ is 100% secure supporting the Furnace end-to-end implementation of AES encryption. InStream™ supports live and on-demand MPEG 1/2/4, H.264 and High Definition. Within the enterprise, in the hospital, and across the educational campus, there is one common requirement of video-over-IP deployments: Users just want them to work. InStream™ just works!

**Light - Efficient – Easy.** InStream relies on a coupled client/server approach and runs solely in the computer's memory space. There is no software, plug-ins or ActiveX controls to install on viewing computers and it works on all the most common computing platforms, including Windows, Mac, Linux, and Sun Solaris. Regardless of the user's operating system, the interface is the same, offering a consistent viewing experience. When a user requests InStream through a simple Web link, instantaneous communication is triggered with the server, informing it of the platform the user has and, if conditional access is implemented, who the user is. The player is then sent to the user's computer and launched. It then provides straightforward access to live channels, playback channels originating from disk, and video on demand through an integrated electronic program guide.



Once the requested player is sent by the server to the client, which occurs instantaneously, the user can select what content to view. The content is immediately delivered to the player (with forward error correction and security as an option) for the user to view. Delivery of content is fast, secure, reliable, consistent, and controlled. The user does not need to install any software, which means that administrators will never need to go to each machine and update a player, install a new one or maintain it in any way. It also means that users always get the latest version of the player every time it is launched. Finally, once the viewing session is closed, the player is completely removed from the end user's machine. This means no configuration or user files are created and no media is cached. Once the player is removed from the computer, there is no trace of it left.



**InStream Features**

- Runs solely in the computer's memory space, never installed.
- Runs on Windows, MAC OS, Linux, Sun Solaris Operating Systems
- A high-performance video decoder for industry-standard MPEG-1, MPEG-2, MPEG-4, and H.264 for multiple resolutions from CIF (approximately one-quarter SD) all the way up to 1080p HD, and even computer resolutions
- An advanced de-interlacing suite to smooth fast action rendering.
- A synchronous audio decoder supporting industry-standard MP2, MP3, and AAC audio
- Performance implementations of AES security
- Forward Error Correction (FEC)
- Access to user-associated channel lineups and video on demand with powerful playback controls
- An extensive electronic programming guide (EPG)
- A full-featured interface with complete audio, video, and window controls
- A bi-directional communications link with the server that allows the server to manage and track the player.

**Absolute Security** InStream supports full 256-bit AES encryption and is FIPS 197 and FIPS 140-2 compliant. The InStream player never caches any data, thus removing the need to attempt to protect content with complicated digital rights management. A textual digital watermark can be inserted as a video overlay to help thwart unauthorized analog attempts to steal content or to identify streams. When integrated with a customer's conditional access solution, the InStream player can be locked down to provide users with only the content they are authorized to view. With these security measures in place, the InStream viewing environment is completely secure making it impossible to steal any content.

**Coordinated Media Delivery.** Users can have access not only on their computers, but also on fixed endpoints such as displays driven by set-top boxes. Haivision offers a low-cost set-top box, the Stingray that exactly mimics the desktop user experience. The Stingray supports all of the core features of InStream and presents the same user interface, operated with a remote control instead of the computer keyboard/mouse, providing the unique benefit of player/STB synchronization.

**Command and Control.** Administrators can quickly and easily control anything that a user can do with either a Stingray set-top box or with the InStream player. They can control what users view and how they view it. Administrators can send out emergency alerts, remotely change channels, power up/down Stingray set top boxes, and much more. With Command and Control, administrators have a tool that gives them complete control over their IP video distribution system.

**Specifications**

**FEATURES**

- Nothing to Install or Update on Desktops
- Lightweight, Highly Optimized for Efficiency
- Full Television-like Experience
- Launch in User or Administrator Defined Configurations
- Supports Live, Playback, or VoD Streams
- Built-in Deinterlacing
- Up to 256 bit AES Decryption
- Forward Error Correction
- SAP (Secondary Audio Program)
- User Authentication through VF Conditional Access
- Can be Launched from Any Web Page
- Configurable Decoding Latency
- "Always on Top" and Frameless Modes
- Supports one or all Spaces
- VoD with full "Trick-Mode" (play, pause, ff, rew, and full frame accurate forward/backward slow motion)
- HotMarks™ Metadata within VoD
- Time and Frame Count for VoD Playback
- Saves User Preferences

**MINIMUM SYSTEM REQUIREMENTS**

- SD MPEG-2 Intel Pentium III 500 MHz or PowerPC G3 700 MHz
- SD H.264 Pentium D 2.8 GHz
- HD H.264 Intel Core 2 Quad 2.66 GHz

**SUPPORTED PLATFORMS**

- Windows XP, Vista, 7
- Mac OS/X
- Linux
- Sun Solaris 10
- Stingray Set Top Box

**VIDEO COMPRESSION**

- MPEG-1 ISO/IEC 11172
- MPEG-2 ISO/IEC 13818-2
  - Main Profile @ Main Level
  - I, P, B Frame Support
- MPEG-4 Part 2 ISO/IEC 14496-2
  - Simple Profile
- MPEG-4 Part 10 AVC / H.264 ISO/IEC 14496-10
  - Main Profile @ Level 4.2
  - I, P, B Frame Support
  - Frame and Field Mode Support

**VIDEO RESOLUTION**

- Video Resolutions: CIF to 1080p60 (1920x1080)
- Computer Resolutions: 640x480 to 1280x1024

**AUDIO COMPRESSION**

- MPEG-1 Part 3 Layer II ISO/IEC 11172-3
- MPEG-2 Part 7 AAC-LC ISO/IEC 13818-7
- MPEG-4 Part 3 AAC-LC ISO/IEC 14496-3

**NETWORKING**

- MPEG Transport Stream over UDP
- Unicast and Multicast Support