

Managed MPEG4 video for the enterprise

Leveraging the inherent multicast capability of satellite broadband, Hughes provides an integrated, end-to-end IPTV solution that allows operators to deploy managed high-quality MPEG-4 video to remote locations.

The IPTV solution provided by Hughes consists of three components:

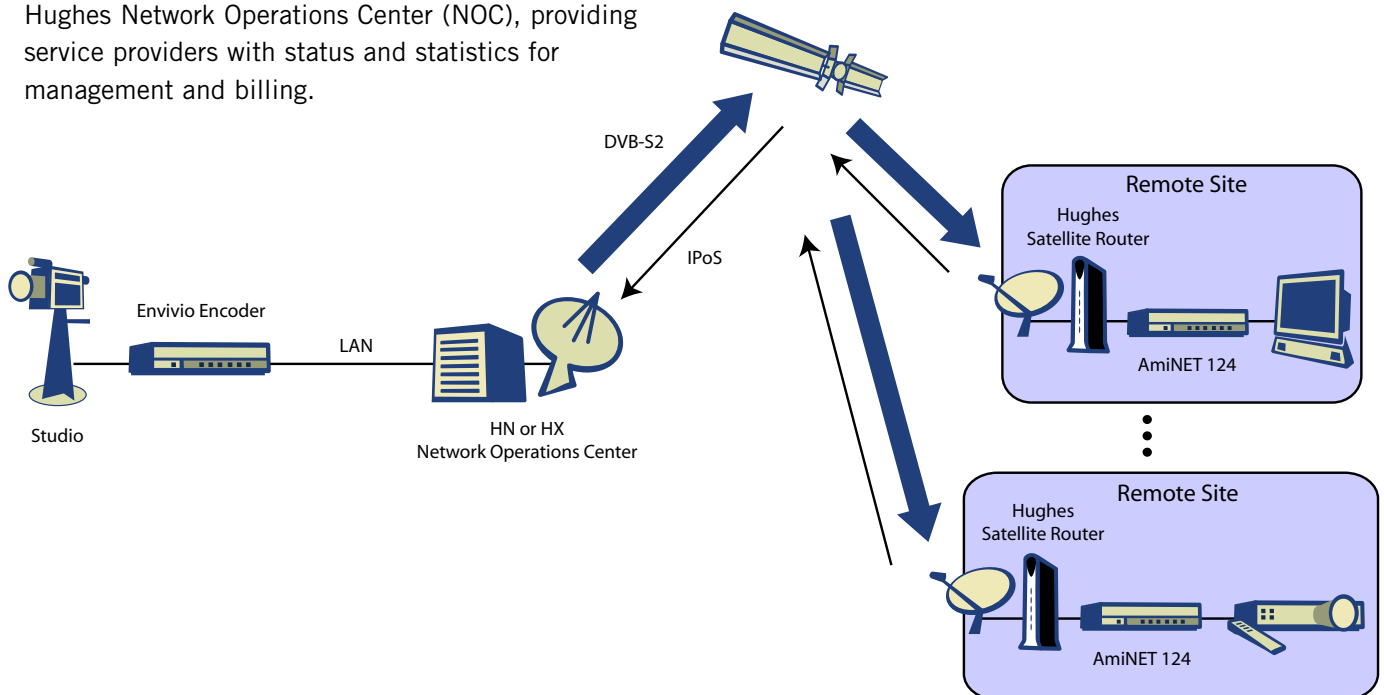
- Amino Communications' AmiNET™ 124 set-top box
- Envivio Inc.'s Broadcast Encoder
- Hughes HN or HX broadband satellite system

The streaming video content from a live studio or a prerecorded source is converted to IP by Envivio's Broadcast MPEG-4/2 streaming solution. The content is distributed as live multicast traffic to the AmiNET 124 via the Hughes broadband satellite system. The remote set-top boxes are fully controlled from the Hughes Network Operations Center (NOC), providing service providers with status and statistics for management and billing.

Centrally Managed Network Solution

To provide an IPTV solution which can be effectively managed at a central location, Hughes has developed and implemented software into the set-top box, which allows an operator to monitor and control the remote devices. Management functionality includes:

- Operational status
- Video encoding speed
- Transmission errors
- Administrative status
- Device uptime



Key Features

- Integrated with HN and HX systems and runs over all HN and HX remote terminals including HX50, HX100, HX150, HN7000S, HN7700S, HN7740S
- Market-leading MPEG-4 video quality
- Robust IP transport with synchronized audio
- Network managed remote set-top devices

Envivio 4Caster™ B3 Technical Specification (Real Time MPEG-4 AVC/H.264 Broadcast and IPTV Encoder)

Video Input	SDI – serial digital interface (625/525), Component, S-video, Analog composite (PAL/NTSC)
Audio Input	Up to 4 stereo channels, 2 analog unbalanced (RCA), 2 analog balanced (XLR), 2 stereo digital AES/EBU (XLR), 1 stereo SDI embedded
Output Interface	2 x Ethernet (10/100/1000Base T)
Video Output	CIF to CCIR-601 input, H.264 main levels 2-3, H.264 baseline levels 2-3, MPEG-4 ASP levels 2-5, MPEG-4 SP level 3, Data rate:128 kbps to 6 Mbps
Audio Output	MPEG-4 Advanced Audio Coding (AAC-LC), MPEG-4 HE-AAC (with Parametric Stereo), MPEG-2 AAC, MPEG-2 HE-AAC, MPEG-1 Layer 2, SDI pair selection within embedded SDI, Sampling rate: 8 to 48 kHz, Data rate: 32 to 384 kbps per channel
Control Local	Front-panel LCD control, pre-programmable setups
Control Remote	SNMP for monitoring and control, Web-based monitor and control, available API for remote control
Dimensions	1RU 431 mm (W) x 504 mm (D) x 44 mm (H) 17 in (W) x 19.8 in (D) x 1.73 in (H)
Power Supply	100-240 VAC auto-ranging, 150 W maximum
Ambient Temperature	Operating temperature: 0 to 50° C (32 to 122° F) Non-operating/storage: -40 to 70° C (-40 to 158° F)
Relative Humidity	Non-operating: 95% at 30° C (86° F) no-condensing

AmiNet 124 Technical Specification (Advanced Codec IP Set-top Box)

Outputs	Composite, Component, RGB, S-Video. RF Modulator with loop-through. Stereo & digital audio S/P-DIF (Electrical). Standard definition PAL or NTSC. USB 2.0 Master
Graphics Resolution	640 x 480 (525-line) or 640 x 576 (625-line), 15 bit RGB color, Alpha blending
Codecs	H.262 MP@L3 D1 resolution up to 2 Mbps MPEG-2 MP@L3 D1 resolution up to 10 Mbps
Size	114 x 100 x 35 mm
Construction	One-piece aluminum extrusion
Power	5V, 700mA
Operating Environment	ETS 300-019-1-3 Class 3.1
EMC Conformance	EN55022, FCC Part 15
Safety Approvals	Safety certification EN60950 and ELSVD CE, CB and CSA safety approval

For additional information, please contact us at globalsales@hns.com.

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