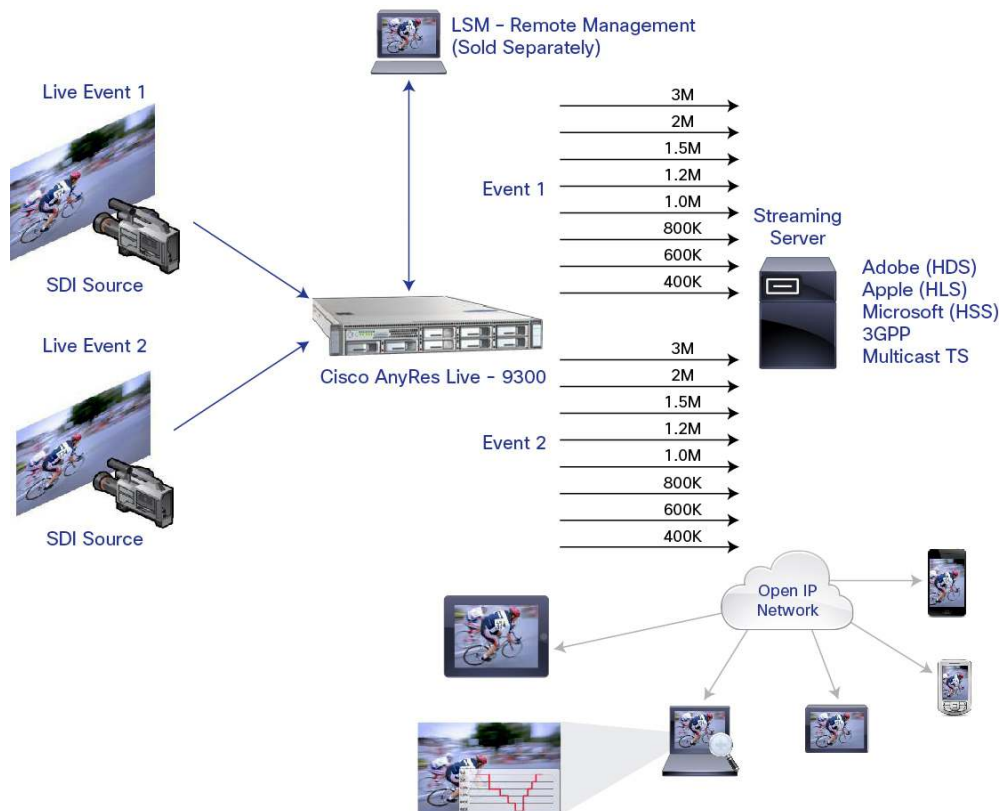


Cisco AnyRes Live - 9300

Next-generation Cisco® AnyRes Live advanced, live standard-definition (SD) and high-definition (HD) encoding solutions are redefining the online video experience with best-in-class quality for live media delivery applications such as live sporting events and other web-streaming, broadband TV, IPTV, enterprise, education, or government video. The next-generation Cisco AnyRes Live - 9300 introduces multi-serial digital interface (SDI) input functionality for increased density.

The robust, reliable Cisco AnyRes Live platform can stream in multiple formats to any device, including iPhone, iPad, feature phones, and smartphones. Cisco was the first to offer full support for, and continues to lead the market in, adaptive bit rate (ABR) streaming, including Apple HTTP Live Streaming (HLS), Microsoft Internet Information Server (IIS) Smooth Streaming, and Adobe HTTP Dynamic Streaming. The Cisco AnyRes Live - 9300 can detect broadcast cue messages and translate critical ad metadata into ad markers appropriate for the Flash and Silverlight platforms as well as Apple iOS devices (Figure 1).

Figure 1. Cisco AnyRes Live - 9300 Workflow Example



Protect Your Infrastructure Investment

Cisco can help you protect your IP video infrastructure investment, even if you are streaming only a single channel in SD today. The Cisco AnyRes Live - 9300 provides the flexibility to support multi SD and HD channels from day one, with up to 12 discrete output resolutions and bit rates for HD, per channel, and up to 8 discrete output resolutions and bit rates for SD per channel. As your streaming requirements change, the Cisco AnyRes Live - 9300 is ready to deliver. Because it is multi-format from the start, you do not need to add appliances every time you add a format. The patent-pending Cisco AnyRes Live Core Software technology allows you to continue to upgrade your existing Cisco encoder with the latest and most innovative technologies.

Why Cisco AnyRes Live - 9300?

- Cisco AnyRes Live - 9300 offers full support for adaptive streaming, including Apple iPhone and iPad streaming (HLS), Microsoft Smooth Streaming (HSS), and Adobe Dynamic Flash Streaming (HDS).
- This powerful and flexible platform can input multiple serial digital interface (SDI) sources and output multiple formats from one appliance, while offering a range of SD and HD resolutions targeted at set-top boxes, smart TVs, gaming consoles, PCs, tablets, and mobile phones.
- Designed for easy setup and management, the web-based interface of the Cisco AnyRes Live - 9300 lets you control the encoder from any networked computer. Scheduling capabilities allow you to set up future one-time or recurring events, and an XML application programming interface (API) allows you, or third-party applications, to control the encoder with automated commands.
- To provide exceptional high-quality video, Cisco starts with a high-end video capture card, adds multiple preprocessing options and powerful Intel® Sandy Bridge eight-core processors, uses patent-pending dynamic complexity balancing, and exposes one of the most comprehensive lists of advanced compression settings. No other encoder allows you to customize your settings like this one.
- The Cisco AnyRes Live - 9300 supports multiple captioning and subtitling options, including open captions, closed captions, Synchronized Accessible Media Interchange (SAMI) captions, script streams, and cue points, and Teletext. This flexibility gives you multiple ways to reach a broader base of users and meet government or corporate requirements.
- The Cisco AnyRes Live - 9300 also supports the insertion of metadata into Windows Media, Adobe flash, and Apple streams. This metadata can be statistics, URLs for advertisements, or other information.

Features of the Cisco AnyRes Live - 9300

Table 1 lists the features and benefits of the Cisco AnyRes Live - 9300.

Table 1. Features and Benefits of the Cisco AnyRes Live - 9300

Feature	Benefit
Latest Features	<ul style="list-style-type: none">• Updated H.264 codec for market-leading video quality• Adobe HDS, including Primetime Origin server• Nielsen ID3 support
Ultra-High Density	<ul style="list-style-type: none">• Multi-SDI SD and HD input support• Twelve streams output per input channel (HD) and 8 streams output per input channel (SD)• Integrated linear time code (LTC) reader
Advertising and Monetization	<ul style="list-style-type: none">• Automated ad insertion with play lists generated by playout servers• Support for slate insertion to remove broadcast ads• Capability to remonetize video with Internet ads for browser, mobile, and set-top box• SCTE-104 support

Feature	Benefit
Adaptive Bit Rate (ABR)	<ul style="list-style-type: none"> Full support for ABR streaming: <ul style="list-style-type: none"> HTTP Live Streaming to iPhone and iPad Microsoft Smooth Streaming, including support for H.264 PlayReady digital rights management (DRM), supporting highly secure live publishing solutions Support for low-latency live Smooth Streaming and multilanguage Smooth Streaming Adobe HTTP Dynamic Streaming, including Closed Captioning, ad insertion and support for Primetime Origin server Added support for distribution format exchange profile (DFXP), providing industry- standard solutions for subtitling Smooth and Flash streams
Backup and Recovery	<ul style="list-style-type: none"> Failover and redundancy options when paired with Linear Stream Manager (sold separately) Dual power supplies Automatic stream recovery following power loss

Specifications of the Cisco AnyRes Live - 9300

Table 2 provides specifications of the Cisco AnyRes Live - 9300.

Table 2. Specifications of Cisco 9300

Inputs	
Video	<ul style="list-style-type: none"> NTSC and PAL
High-Definition	<ul style="list-style-type: none"> Two HD-SDI SMPTE 292/296 (mini BNC connectors)
Standard-Definition	<ul style="list-style-type: none"> Four SD-SDI SMPTE 259 (mini BNC connectors)
Audio	<ul style="list-style-type: none"> Four stereo pairs over SDI embedded (mini BNC) per channel
Codecs	
Windows Media	<ul style="list-style-type: none"> Smooth Streaming to IIS server (H.264 and VC-1) H.264 PlayReady DRM including: BuyDRM, Vualto and Irdeto Windows Media 9 (WMV3) simple and main profiles VC-1 (WVC1): Simple, main, and advanced profiles Windows Media Audio and Audio Professional VC-1 and Windows Media ASF file (WMV) VC-1 push or pull mode from encoder
H.264 Flash (Real Time Messaging Protocol [RTMP] and HDS)	<ul style="list-style-type: none"> Dynamic Flash Streaming to Flash Media Server or Primetime Origin server RTMP stream over TCP to Flash Media server HTTP Dynamic Streaming to Primetime Origin server H.264/AVC: Baseline, main, and high profiles AAC audio (low complexity, HE-AAC v1, and HE-AAC v2)
H.264 Multicast MPEG-2 transport stream	<ul style="list-style-type: none"> Standard or adaptive transport stream Capability to start and stop archive while encoder is live streaming SCTE-104 to SCTE-35 pass-through AC-3 pass-through
H.264 iPhone and iPad	<ul style="list-style-type: none"> H.264/AVC: Baseline, main, and high profiles AAC audio (low complexity, HE-AAC v1, and HE-AAC v2) Integrated iPhone segmenter: Streams transport stream segments directly to Web server Stream with FTP, HTTP, File, and Webdav ID3 timed metadata and timed metadata time code AES encryption, Verimatrix(VCAS) and DRM: PLayerReady and Irdeto

Third-Generation Partnership Project (3GPP)	<ul style="list-style-type: none"> • H.264/AVC: Baseline • AAC audio (low complexity, HE-AAC v1, and HE-AAC v2) • H.263 profile 0.3: Levels 10, 20, 30, and 45 • AMR-NB audio • Real Time Streaming Protocol (RTSP), Real-Time Transport Protocol (RTP), and Session Description Protocol (SDP) output • Raw RTP output
Control Processing	<ul style="list-style-type: none"> • Remote web-based GUI • Customizable encoding templates • SNMPv1 and SNMPv2 • XML, Simple Object Access Protocol (SOAP) messaging service • Cisco Integrated Management Controller (CIMC) - Configuration and Management
Preprocessing	
	<ul style="list-style-type: none"> • Cropping • De-interlacing • Inverse telecine • Adaptive image filtering
Certifications	
Safety	<ul style="list-style-type: none"> • UL 60950-1:No. 21CFR1040 Second Edition • CAN/CSA - C22.2 no. 60950-1 Second Edition • IEC 60950-1 Second Edition • EN 60950-1 Second Edition • AS/NZS 60950-1 • GB4943 2001
EMC: Emissions	<ul style="list-style-type: none"> • FCC (CFR 47, Part 15) Class A • AS/NZS CISPR22 Class A • CISPR22 Class A • EN55022 Class A • ICES003 Class A • VCCI Class A • EN61000-3-2 • EN61000-3-3 • KN22 Class A • CNS 13438 Class A
Physical and Power	<ul style="list-style-type: none"> • Dimensions (H x W x D) 1.7 x 16.9 x 28.5 in. (4.32 x 43 x 72.4 cm) 1 rack unit (1RU) • 650W power supply (optional redundant power supply available) • AC input voltage range 90 to 264 VAC (self-ranging, 180 to 264 VAC nominal) • AC input frequency range: 47 to 63 Hz (single phase, 50 to 60 Hz nominal) • AC line input current (typical) 3.5A at 100 VAC and 1.68A at 208 VAC • AC line input Current(Maximum) 4.98 at 100 VAC/2.39 A at 208 VAC • AC line input current (Max 100% CPU load) 6.45 A at 100 VAC/3.1 A at 208 VAC • Connectivity: One 10/100/1000BASE-T Ethernet/Dual 1-Gb Ethernet ports
Temperature	<ul style="list-style-type: none"> • Operating temperature: 32 to 104°F (0 to 40°C) • Non-operating (storage): -40 to 158°F (-40 to 70°C)
Humidity	<ul style="list-style-type: none"> • Non-operating: 5 to 93% noncondensing • Operating: 10 to 93% noncondensing
Hard Drives	<ul style="list-style-type: none"> • Two 300-GB front-accessible, hot-swappable, 2.5-inch SAS/IEC 60950-1 Second Edition
Front Panel Connector	<ul style="list-style-type: none"> • One KVM console connector (supplies 2 USB, 1 Video Graphics Array (VGA), and 1 serial connector)

Warranty Information

Warranty information is available on Cisco.com on the [Product Warranties](#) page.

Ordering Information

To place an order, visit the [Cisco Ordering Homepage](#) or contact your Cisco representative. To download software, visit the [Cisco Software Center](#). For product numbers, refer to Table 3.

Table 3. Ordering Information

Product Description	Product Number
Cisco AnyRes Live - 9300 Multi-SD/HD SDI input encoder	SPN-9300-K9

Cisco Services

Cisco Services brings together people, processes, tools, and partners that can help accelerate service providers' success using their IP Next-Generation Network (IP NGN) architectural platforms. Cisco Services focuses on enhancing business outcomes through network, services, and operational transformation. Through a collaborative approach and tailored engagements, Cisco services can help accelerate time to market, mitigate risk, reduce cost through improving operational efficiencies, and help maintain the user experience.

Cisco Services' approach and differentiation in services is based on broad network capabilities and a wealth of experience in providing solutions to service providers in all sectors around the world. That includes over 20 year of involvement in the market with services and solutions that are strategically aligned with service provider needs. Cisco Services has also made a significant commitment to research and development, developing innovative roadmaps and solutions to help keep service providers ahead of the competition.

Additional Information

For more information about the AnyRes Live family of products, please contact your Cisco account representative. <http://www.cisco.com/en/US/products/ps13270/index.html>.



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