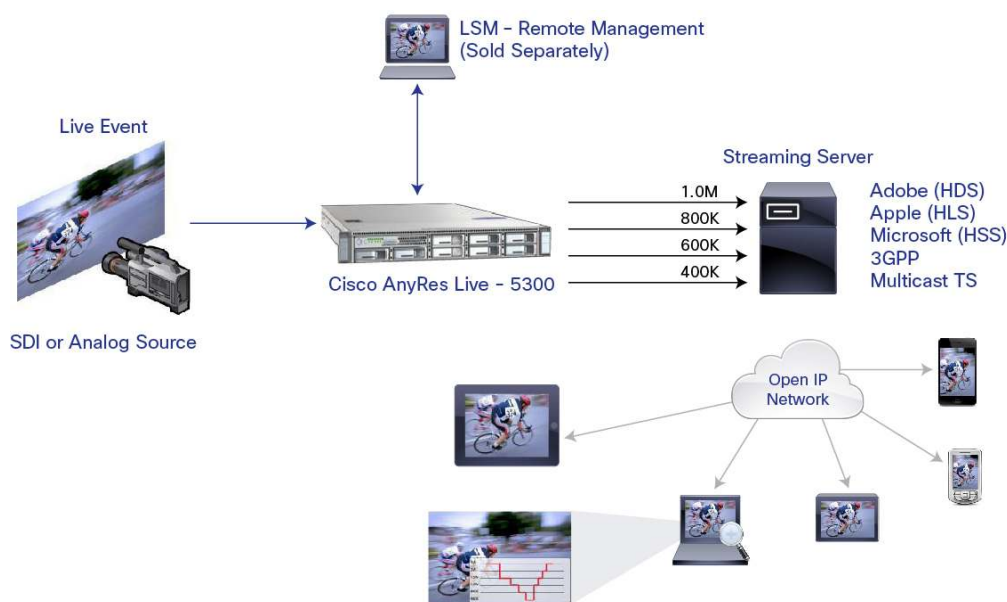# Cisco AnyRes Live - 5300

Next-generation Cisco® AnyRes Live advanced, live standard-definition (SD) and high- definition (HD) encoding solutions are redefining the online video experience. They offer 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 Cisco AnyRes Live - 5300 is the next generation of Cisco AnyRes Live encoders focused on supporting the SD market. This Cisco encoder will support multiple adaptive bit rate (ABR) formats, delivering an exceptional live streaming experience on the latest end user devices, including set-top boxes, smart TVs, gaming consoles, PCs, tablets, and mobile phones.

The robust, reliable Cisco AnyRes 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 - ABR streaming, including Apple HTTP Live Streaming (HLS), Microsoft Internet Information Server (IIS) Smooth Streaming, and Adobe HTTP Dynamic Streaming (HDS). The Cisco AnyRes Live encoder 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 - 5300 Workflow Example

Protect Your Infrastructure Investment

Cisco can help you protect your IP video infrastructure investment, even if you are streaming only in SD today. When you are ready to add HD resolutions such as 720p or 1080p, the Cisco AnyRes Live - 5300 is ready to deliver by offering an HD upgrade option. This encoder is multiformat from the start, so you do not need to add appliances or licenses every time you add a format, and the Cisco AnyRes Live Core Software technology allows you to continue upgrading your existing Cisco encoder with the latest and most innovative technologies.

Why Cisco AnyRes Live - 5300?

- Cisco AnyRes Live 5300 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 support a single SD serial digital interface (SDI) source and output multiple formats from one appliance, while offering a range of SD resolutions targeted at set-top boxes, smart TVs, gaming consoles, PCs, tablets, and mobile phones. The flexibility to add an HD option also protects your investment.

- Designed for easy setup and management, the web-based interface of the Cisco AnyRes Live - 5300 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 exceptionally high-quality video, Cisco starts with a high-end video capture card, adds multiple preprocessing options and powerful Intel® Sandy Bridge quad 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 - 5300 supports multiple captioning and subtitling options, including open captions, closed captions, Synchronized Accessible Media Interchange (SAMI) captions, script streams, cue points, and Teletext. This flexibility gives you multiple ways to reach a broader base of users and meet government or corporate requirements.

Features of Cisco AnyRes Live - 5300

Table 1 provides the features and benefits of Cisco AnyRes Live - 5300.

Table 1.   Features and Benefits of Cisco AnyRes Live - 5300

Feature	Benefit
Latest Features	• Updated H.264 codec for market-leading video quality • Adobe HDS, including Primetime server support • Nielsen ID3 support
Supported Density	• Single SD SDI input (SDI HD optional) • Up to four streams out • Integrated linear time code reader (LTC)
Advertising and Monetization	• 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 device, and set-top box • SCTE-104 support

Feature	Benefit
Adaptive Bit Rate (ABR)	• Full support for ABR streaming: ◦ HTTP live streaming to iPhone and iPad ◦ Microsoft Smooth Streaming, including support for H264 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
Backup and Recovery	• 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 - 5300

Table 2 provides specifications of the Cisco AnyRes Live - 5300.

Table 2.   Specifications of the Cisco AnyRes Live - 5300

Inputs	
Video	• NTSC and PAL
Standard Definition	• SD-SDI: SMPTE 259 (BNC connector) • Composite (through one locking BNC connector) • Component (through three locking BNC connectors) • S-Video (through two locking BNC connectors)
High-Definition (Optional Upgrade)	• HD-SDI: SMPTE 292/296 (BNC connector)
Audio	• Four stereo pairs over SDI embedded (BNC) • Stereo balanced audio (through two locking XLR connectors) • Audio Engineering Society and stereo through locking XLR connector
Codecs	
Windows Media	• 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 from the encoder
H.264 Flash(Real-Time Messaging Protocol [RTMP] and HDS)	• 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	• Standard or adaptive transport stream • Capability to start or stop archive while encoder is running • SCTE-104 to SCTE-35 pass-through
H.264 iPhone and iPad	• H.264/AVC: Baseline, main, and high profiles • Advanced Audio Coding (AAC) audio (low complexity, HE-AAC v1, and HE-AAC v2) • Integrated iPhone segmenter: Streams transport stream segments directly to web server • Stream using FTP, HTTP, File, or Webdav • ID3 timed metadata and timed metadata time code • AES encryption, Verimatrix(VCAS) and DRM: PlayReady and Irdeto

Third-Generation Partnership Project (3GPP)	• H264 and 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	• Remote web-based GUI • Customizable encoding templates • Local user interface • SNMPv1 and SNMPv2 • XML Simple Object Access Protocol (SOAP) messaging service
Preprocessing	
	• Scaling • Cropping • De-interlacing • Inverse telecine • Adaptive image filtering
Certifications	
Safety	• 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 • ASINZS 60950-1 • GB4943 2001
EMC: Emission	• FCC (CFR 47, Part 15) Class A • AS/NZS CISPR22 Class A • CISPR2 2 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	• 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) 1.32A at 100 VAC/.64A at 208 VAC • AC line input current (maximum 100% CPU load) 2.04A at 100 VAC/.98A at 208 VAC • Connectivity: One 10BASE-T, 100BASE-T, and 1000BASE-T Ethernet Two dual 1-Gbps Ethernet ports
Temperature	• Operating temperature: 32 to 104℉ (0 to 40℃) • Nonoperating (storage): -40 to 158℉ (-40 to 70℃)
Humidity	• Noncondensing operating: 5 to 93% • Operating: 10 to 93% noncondensing
Hard Drives	• Two 300-GB front-accessible, hot-swappable, 2.5-inch SASIEC 60950-1 Second Edition
Front Panel Connector	• 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 part numbers, refer to Table 3.

Table 3.   Ordering Information

Product Description	Part Number
Cisco AnyRes Live - 5300 SD SDI only	SPN-5300-K9
HD aftermarket upgrade option for 5300	L-SPN-HDLOW-SDI-U

Cisco Services

Cisco Services brings together the 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 years 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 Cisco AnyRes Live products, please contact your Cisco account representative. http://www.cisco.com/en/US/products/ps13270/index.html.

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