

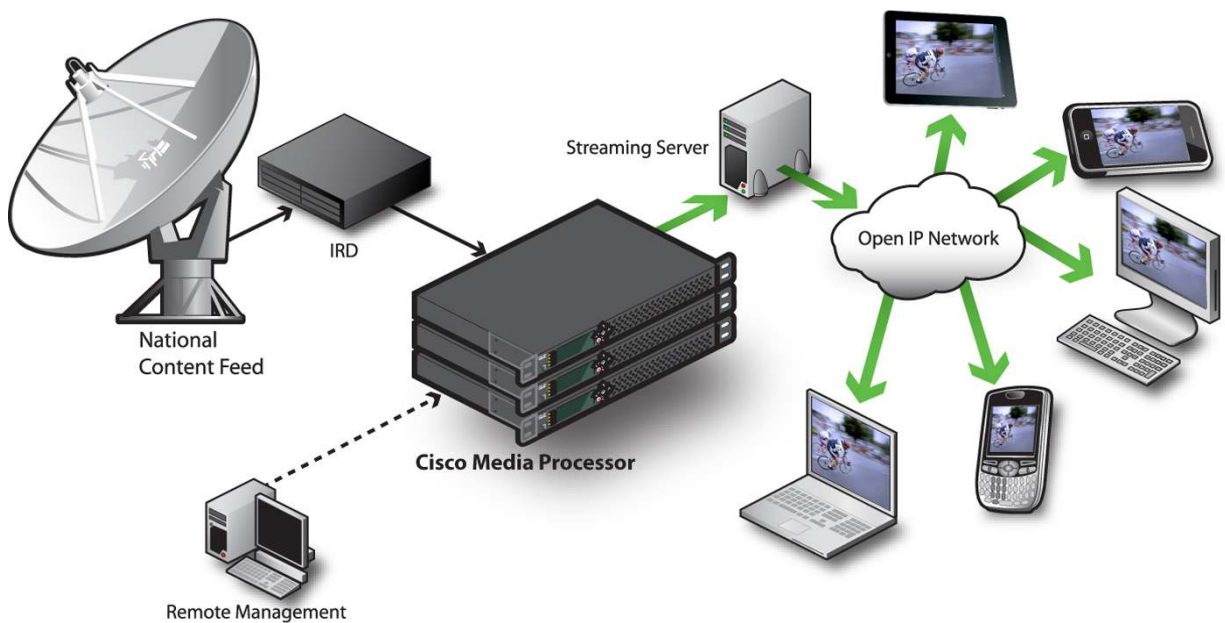
Cisco AS6000 Series Media Processor

The Cisco® Media Processor Family of advanced, live standard- and high-definition (SD and HD, respectively) encoding solutions is redefining the online video experience with best-in-class quality for real-time media delivery applications such as live sports, 24x7 programming, IPTV, enterprise, education, or government video.

The Cisco AS6000 Series Media Processor (Cisco AS6000) adds full IP in-and-out capability, and supports two SD or HD input channels in a single one-rack-unit (1RU) form factor. With the Cisco AS6000 and its easy-to-use interface, turning that IP video source into multiple Internet-ready streams—with the amazing levels of quality you have come to expect from Cisco—is only a few clicks away.

The robust, reliable platform of the Cisco AS6000 can stream multiple formats to any device, including iPhone®, iPad®, feature phones, and smartphones. Cisco Media Processor was the first to offer full support for and continues to lead the market in adaptive bitrate (ABR) streaming, including Apple® HTTP Live Streaming (HLS), Microsoft Internet Information Server (IIS) Smooth Streaming, and Adobe HTTP Dynamic Streaming. The Cisco AS6000 can also 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. Cisco AS6000 Series Media Processor workflow example.



Protect Your Infrastructure

Built for IP networks, the Cisco AS6000 allows for simplified integration into even the most complex environments. An all-digital IP signal flow dramatically reduces data center costs, negating the need for expensive headend technology and specialist infrastructure. It also provides an unprecedented level of flexibility and failover.

Why Cisco AS6000?

- Cisco AS6000 offers full support for adaptive streaming, including Apple® HLS iPhone® and iPad® streaming, Microsoft Smooth Streaming and Adobe Dynamic Flash Streaming.
- The powerful and flexible core software platform of the Cisco AS6000 can output multiple formats from one appliance while offering a range of resolutions, from feature phones to smartphones to SD to HD.
- Designed to be easy to set up and manage, the web-based interface of the Cisco AS6000 gives you the flexibility of controlling the encoder from any networked computer. Its scheduling capabilities allow you to set up future one-time or recurring events, and its XML application programming interface (API) allows you or third-party applications to control the encoder with automated commands.
- In order to provide the highest-quality video, Cisco starts with multiple preprocessing options, adds powerful Intel Six Core processors, uses patent-pending Cisco 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 the Cisco Media Processors.
- Cisco supports multiple captioning options, including open captions, closed captions, Synchronized Accessible Media Interchange (SAMI) captions, script streams, and cue points. This flexibility gives you multiple ways to reach a broader base of users and meet government or corporate requirements.
- The Cisco AS6000 also supports the insertion of metadata into a Windows Media or Flash stream. This metadata can be statistics, URLs for advertisements, or other information.

Features of Cisco AS6000

Table 1 lists the features and benefits of the Cisco AS6000.

Table 1. Features and Benefits of Cisco AS6000

Feature	Benefit
New in Cisco Media Processor Core Software Version 5.5	<ul style="list-style-type: none"> • SCTE 35 pass-through, making automated ad insertion even easier • Integration of Verimatrix content protection • Support for closed captioning in Smooth Low Latency mode • Simple Network Management Protocol Version 2 (SNMPv2), with support for all channels and improved alarms and reporting
Input density and flexibility	<ul style="list-style-type: none"> • Up to two HD or SD inputs per 1RU system • Ingest H.264 or MPEG-2 in a MPEG-2 transport stream over IP • Multi Program Transport Stream (MPTS) or Single Program Transport Streams (SPTS)
Multiple levels of redundancy	<ul style="list-style-type: none"> • Six Ethernet ports for redundant input, output, and management interfaces • Output to two separate media servers simultaneously • Ability for any Cisco encoder on the network to act as a backup for any other Cisco encoder, taking advantage of the IP routed video • Slate insertion on video loss
The latest Intel Six Core i7 processor	<ul style="list-style-type: none"> • Ideal for more complex encoding projects
Advertising and monetization	<ul style="list-style-type: none"> • Automate Internet ad insertion using SCTE 35 cue messages or with playlists generated by playout servers • The Cisco AS6000 supports slate insertion to remove broadcast ads • Remonetize video with Internet ads for browser, mobile, and set-top box

Feature	Benefit
Full support for ABR streaming	<ul style="list-style-type: none"> • HTTP Live Streaming to iPhone® and iPad® • Microsoft Smooth Streaming, including support for PlayReady DRM • Adobe HTTP Dynamic Streaming, with built-in content delivery network (CDN) authentication • Support for Low-Latency Live Smooth Streaming and Multilanguage Smooth Streaming • Support for Distribution Format Exchange Profile (DFXP), providing industry-standard solutions for subtitling on and Smooth and Flash streams

Specifications of Cisco AS6000

Table 2 lists the specifications of the Cisco AS6000.

Table 2. Specifications of Cisco AS6000

Inputs	
Video	<ul style="list-style-type: none"> • Two Ethernet (10/100/1000BASE-T) • SD and HD • H.264 over MPEG-2 TS • MPEG-2 over MPEG-2 TS • Audio • Mono audio input support • HE-AAC (v1 and v2) audio input support • AC-3 Audio Passthrough • MPEG-1 Layer II • MPEG-2/4 AAC
Output Formats and Codecs	
Windows Media	<ul style="list-style-type: none"> • Smooth streaming to IIS server (H.264 and VC-1) • H.264 PlayReady DRM support • 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	<ul style="list-style-type: none"> • Dynamic Flash streaming to Flash Media Server • Routing Table Maintenance Protocol (RTMP) stream over TCP to Flash Media 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 • Ability to start or stop archive while encoder is running • SCTE 35 pass-through
H.264 iPhone® and iPad®	<ul style="list-style-type: none"> • H.264/AVC: Baseline • AAC audio (low complexity, HE-AAC v1, and HE-AAC v2) • Integrated iPhone® segmenter: Streams transport stream segments directly to web server
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	<ul style="list-style-type: none"> • Remote web-based GUI • LCD front panel • Customizable encoding templates • Local user interface • SNMPv2 • XML Simple Object Access Protocol (SOAP) messaging service
Processing	
Preprocessing	<ul style="list-style-type: none"> • Scaling • Cropping • De-interlacing • Inverse telecine • Adaptive image filtering
Certifications	
Safety	<ul style="list-style-type: none"> • UL 60950-1:2003 • CAN/CSA—C22.2 no. 60950-1-03
EMC	<ul style="list-style-type: none"> • FCC (CFR 47, Part 15) Class A • CE marking • C-Tick: According to AS/NZS CISPR 22:2009
Physical and Power	Dimensions (H x W x D): 1.72 x 17.0 x 18.21 in. (4.37 x 43.18 x 46.25 cm) (1 rack unit [1RU]) Power: 100-240 VAC full range, 290W Connectivity: Six 10/100/1000BASE-T Ethernet
Ambient temperature	<ul style="list-style-type: none"> • Operating temperature: 32 to 113°F (0 to 45°C) • Nonoperating (storage): 14 to 140°F (-10 to 60°C)
Relative humidity	<ul style="list-style-type: none"> • Nonoperating: <95% noncondensing



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