

# Cisco AS Series Media Processor Software

## Product Overview

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

Cisco AS Series Media Processor Software is fully optimized for operation on the Cisco Unified Computing System™ (UCS™) blade server platform. This solution combines the market-leading adaptive bitrate (ABR) capabilities of Cisco Media Processor with the scalable UCS blade server platform. With its easy-to-use interface, Cisco Media Processor lets you turn an IP video source into multiple Internet-ready streams, with the outstanding levels of quality you have come to expect from Cisco.

This comprehensive, reliable platform 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 ABR streaming and continues to lead that market, including Apple HTTP Live Streaming (HLS), Microsoft Internet Information Server (IIS) Smooth Streaming, and Adobe® HTTP Dynamic Streaming. Cisco Media Processor can also detect broadcast cue messages and translate critical advertising metadata into ad markers appropriate for the Adobe Flash® and Microsoft Silverlight platforms as well as Apple iOS devices.

## Features and Benefits

Table 1 summarizes the Cisco Media Processor features and benefits.

**Table 1.** Cisco AS Series Media Processor Software Features and Benefits

Feature	Benefits
<b>Optimized for Cisco UCS</b>	<ul style="list-style-type: none"> <li>• Network: unified fabric</li> <li>• Compute: industry-standard x86</li> <li>• Storage: access options</li> <li>• Virtualization optimized</li> <li>• Unified management model</li> <li>• Dynamic resource provisioning</li> <li>• Efficient scale</li> <li>• Lower cost with fewer servers, switches, adapters, and cables</li> <li>• Lower power consumption</li> <li>• Fewer points of management</li> </ul>
<b>Advertising and Monetization</b>	<ul style="list-style-type: none"> <li>• Automates Internet ad insertion using SCTE 35 cue messages or with playlists generated by playout servers</li> <li>• Supports slate insertion to remove broadcast advertisements</li> <li>• Remonetizes video with Internet ads for browsers, mobile devices, and set-top boxes</li> <li>• Provides SCTE 35 pass-through, making automated ad insertion even easier</li> </ul>

Feature	Benefits
<b>Full Support for ABR Streaming</b>	<ul style="list-style-type: none"> <li>• HTTP Live Streaming to iPhone and iPad</li> <li>• Microsoft Smooth Streaming, including support for PlayReady digital rights management (DRM)</li> <li>• Adobe HTTP Dynamic Streaming, with built-in content delivery network (CDN) authentication</li> <li>• Support for Low-Latency Live Smooth Streaming and Multilanguage Smooth Streaming</li> <li>• Support for Distribution Format Exchange Profile (DFXP), providing industry-standard solutions for subtitling on and Smooth and Flash streams</li> <li>• Integration of Verimatrix content protection</li> <li>• Support for closed captioning in Smooth Low Latency mode</li> </ul>

## Platform Support and Compatibility

Cisco AS Series Media Processor Software is currently optimized for use on Cisco's UCS B200 M2 blade server. The software will be optimized for other UCS configurations in the future.

### Cisco UCS B200 M2 Blade Requirements

The specifications shown in Table 2 are for bare metal installations (hosted on Windows Server 2008 Enterprise 32-bit). These specifications are not for use in VMWare or virtualized environments. The specifications shown below include the part numbers required to procure and build a Cisco Media Processor Software solution within a Cisco UCS environment.

**Table 2.** Parts Required for Installation on Cisco UCS B200 M2 Blade Server

Product Part Number	Description	Recommended Quantity
<b>N20-B6625-1-UPG</b>	UCS B200 M2 Blade Server without CPU, memory, HDD, mezzanine	1
<b>A01-X0100</b>	3.33GHz Xeon X5680 130W CPU/12MB cache/DDR3 1333 MHz	2
<b>N01-M304GB1</b>	4GB DDR3-1333MHz RDIMM/PC3-10600/dual rank	12
<b>A03-D146GA2</b>	146GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	2
<b>N20-AC0002</b>	UCS M81KR Virtual Interface Card/PCIe/2-port 10Gb	1

### Additional Accessories: Cisco UCS Switch Fabric Chassis Requirements

Table 3 lists requirements for installations that include Cisco UCS Switch Fabric.

**Table 3.** Parts Required for Installation with Cisco UCS Switch Fabric

Product Part Number	Description
<b>N10-S6100-UPG</b>	6120XP 20-port Fabric Interconnect/0 PSU/2 fans/no SFP+
<b>N10-MGT006</b>	UCS Manager v1.4
<b>SFP-GE-T</b>	1000BASE-T SFP (NEBS 3 ESD)
<b>N10-PAC1-550W</b>	550W power supply unit for UCS 6120XP/100-240VAC2
<b>CAB-9K12A-NA</b>	Power cord, 125VAC 13A NEMA 5-15 Plug, North America
<b>N10-SACCA</b>	Accessory kit for UCS 6120XP Fabric Interconnect

## Product Specifications

Table 4 lists specifications for Cisco AS Series Media Processor Software.

**Table 4.** Product Specifications

Inputs	
<b>Video</b>	<ul style="list-style-type: none"> <li>• 6 virtual Network Interface Controllers (NICs): 2 input, 2 output, and 2 management<sup>†</sup></li> <li>• Standard-definition and high-definition</li> <li>• H.264 over MPEG-2 TS</li> <li>• MPEG-2 over MPEG-2 TS</li> <li>• Audio</li> <li>• Mono audio input support</li> <li>• HE-AAC (v1 and v2) audio input support</li> <li>• AC-3 Audio Passthrough</li> <li>• MPEG-1 Layer II</li> <li>• MPEG-2/4 AAC</li> </ul> <p><sup>†</sup>NIC configuration is based upon recommended bladed configuration that uses Cisco UCS M81KR Virtual Interface Card/PCIe/2-port 10Gb</p>
Output Formats and Codecs	
<b>Windows Media</b>	<ul style="list-style-type: none"> <li>• Smooth streaming to IIS server (H.264 and VC-1)</li> <li>• H.264 PlayReady DRM support</li> <li>• Windows Media 9 (WMV3): Simple and Main profiles</li> <li>• VC-1 (WVC1): Simple, Main, and Advanced profiles</li> <li>• Windows Media Audio and Audio Professional</li> <li>• VC-1 and Windows Media ASF file (.wmv)</li> <li>• VC-1: Push or Pull mode from encoder</li> </ul>
<b>H.264 Flash</b>	<ul style="list-style-type: none"> <li>• Dynamic Flash streaming to Flash Media Server</li> <li>• Routing Table Maintenance Protocol (RTMP) stream over TCP to Flash Media Server</li> <li>• H.264/AVC: Baseline, Main, and High profiles</li> <li>• AAC audio (low complexity, HE-AAC v1, and HE-AAC v2)</li> </ul>
<b>H.264 Multicast MPEG-2 Transport Stream</b>	<ul style="list-style-type: none"> <li>• Standard or adaptive transport stream</li> <li>• Ability to start or stop archive while encoder is running</li> <li>• SCTE 35 pass-through</li> </ul>
<b>H.264 iPhone and iPad</b>	<ul style="list-style-type: none"> <li>• H.264/AVC: Baseline</li> <li>• AAC audio (low complexity, HE-AAC v1, and HE-AAC v2)</li> <li>• Integrated iPhone segmenter: Streams transport stream segments directly to web server</li> </ul>
<b>Third-Generation Partnership Project (3GPP)</b>	<ul style="list-style-type: none"> <li>• H.264/AVC Baseline</li> <li>• AAC audio (low complexity, HE-AAC v1, and HE-AAC v2)</li> <li>• H.263 Profile 0,3; Levels 10, 20, 30, and 45</li> <li>• AMR-NB Audio</li> <li>• Real Time Streaming Protocol (RTSP), Real-Time Transport Protocol (RTP), and Session Description Protocol (SDP) output</li> <li>• Raw RTP output</li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>• Remote web-based GUI</li> <li>• LCD front panel</li> <li>• Customizable encoding templates</li> <li>• Local user interface</li> <li>• SNMPv2</li> <li>• XML Simple Object Access Protocol (SOAP) messaging service</li> </ul>

Processing	
Preprocessing	<ul style="list-style-type: none"> <li>• Scaling</li> <li>• Cropping</li> <li>• De-interlacing</li> <li>• Inverse telecine</li> <li>• Adaptive image filtering</li> </ul>

## Warranty Information

Find warranty information on Cisco.com at the [Product Warranties](#) page.

## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#). To download software, visit the [Cisco Software Center](#).

**Table 5.** Ordering Information

Product Name	Part Number
Cisco AS Series Media Processor Software	SPN-SWK-UCS-0600

## Cisco Services

Cisco Services brings together the people, processes, tools, and partners to accelerate service providers' success by 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 assure the user experience.

Cisco Services' approach and differentiation in services comes from a heritage of network capabilities and a wealth of experience in providing solutions to service providers in all sectors around the world. That is reflected in over 20 years' involvement in the market with services and solutions that are strategically aligned with those of service providers. Cisco Services has also made a massive research and development commitment to the service provider community, developing innovative roadmaps and solutions to keep the sector ahead of the competition.

## For More Information

For more information about Cisco AS Series Media Processor Software, visit <http://www.cisco.com/en/US/products/ps12141/index.html>, or contact your local account representative.



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