

## Cisco Edge 340 Digital Media Player

### Hardware

- Q.** What is the Cisco® Edge 340 Digital Media Player (DMP)?
- A.** The Cisco Edge 340 DMP is a highly reliable IP-based hardware endpoint that provides a new digital media experience for signage and other rich media applications through playback of high-definition live and on-demand video, motion graphics, web, and dynamic content on digital displays. The DMP hardware options include support for up to full high-definition MPEG-2, H.264, VC-1, MPEG-4 Part 2 video, and Adobe Flash graphics and animations.
- Q.** What are the dimensions of the Cisco Edge 340 DMP?
- A.** The device is (height x width x depth) 9.6 x 7.3 x 1.4 in. (244 x 186 x 35 mm).
- Q.** How much does the Cisco Edge 340 DMP weigh?
- A.** The net weight of the device is 2.01lb (0.912kg), and the maximum shipping weight is 6.06lb (2.75kg) with mount, power adapter, power cable, remote, IR extender, Wi-Fi antenna.
- Q.** What input and output ports does the Cisco Edge 340 DMP have?
- A.** The device has:
- 1 Ethernet 10/100/1000-Gbps port
  - 1 HDMI 1.3a port
  - 1 VGA port
  - 1 audio-in and 1 audio-out port (3.5mm jack)
  - 4 USB ports
  - 1 RS-232 (DB-9) port
  - 1 infrared extender port
  - 1 Secure Digital (SD) slot
  - 1 console port
- Q.** What is the mean time between failures (MTBF) of the Cisco Edge 340 DMP?
- A.** The MBTF is 100,000 hours.
- Q.** What is the power consumption of the Cisco Edge 340 DMP?
- A.** The device typically consumes 11 watts (W) without any external USB device attached.
- Q.** What is the input voltage and current of the Cisco Edge 340 DMP?
- A.** The device uses input voltage of 12 volts (V) and input current of 3 amps (A) if an external power supply is used.

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- Q.** What main chipset, memory, and storage does the Cisco Edge 340 DMP use?
- A.** The device uses the Intel system-on-chip (SoC) chipset, a 1.6-GHz dual-core processor, and an integrated 400-MHz graphic processor for video decoding and graphic acceleration. It uses 2-GB DDR3 with a 800-MHz data transfer rate. The Cisco Edge 340 DMP uses a solid-state drive (SSD) with a capacity of 32 GB (sequential read rate of 70 MBps, and sequential write rate of 70 MBps).
- Q.** Does the Cisco Edge 340 DMP support Power over Ethernet (PoE)?
- A.** Yes. The device is compliant with IEEE 802.3af and 802.3at standards, also known as PoE and PoE+.
- Q.** What is the power draw of the Cisco Edge 340 DMP when using PoE?
- A.** The IEEE 802.3af standard mandates up to 15.4W (minimum 44V DC and 350 mA) to each device, and the IEEE 802.3at standard mandates up to 25.5W. The Cisco Edge 340 DMP uses 11W without any external USB devices attached.
- Q.** When PoE or PoE+ is used to power the Cisco Edge 340 DMP, are there any limitations?
- A.** When the power consumption of the device is more than what PoE can supply, the device will shut down automatically. When the Cisco Edge 340 DMP is powered by PoE or PoE+, the two USB ports on the back panel will be disabled, and the two USB ports on the front panel will provide 2.5W per port.
- Q.** Does the Cisco Edge 340 DMP support Wi-Fi?
- A.** Yes. The device is IEEE 802.11 a/b/g/n compliant, with dual-band support (2.4 and 5 GHz) and optional internal and external antennas.
- Q.** Does the Cisco Edge 340 DMP support enterprise-level Wi-Fi security?
- A.** Yes. The Cisco Edge 340 DMP supports WEP, WPA Personal and Enterprise, and WPA2 Personal and Enterprise. Users can configure authentication and encryption methods along with 802.1x radius server in Enterprise mode.
- Q.** Does the Cisco Edge 340 DMP support touch screens?
- A.** Yes. It can support single touch and multi-touch screens.
- Q.** Can all the USB ports support 5W power outputs?
- A.** No. When the Cisco Edge 340 DMP is powered by external power supply, only the USB port marked in red on the back panel can support 5W; the other USB ports support 2.5W per port. When the Cisco Edge 340 DMP is powered over Ethernet, the two USB ports on the back panel are disabled automatically.
- Q.** How can I extend my storage capacity?
- A.** There are two ways to extend the storage capacity: by using a USB flash-memory drive and by using an SD card (there is an SD slot on the front panel).
- Q.** Can VGA and HDMI output be used at the same time? If so, how is this setup configured?
- A.** Yes. The Cisco Edge 340 DMP partially supports dual-screen mode. You can configure a dual-screen setup in the web GUI, specifying which screen is primary and which is secondary, the screen resolution, whether to use landscape or portrait mode, etc.

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## Remote Control

- Q.** Does the Cisco Edge 340 DMP support remote control?
- A.** Yes. The Cisco Edge 340 DMP can use a remote control, which can be acquired from Cisco as an optional device. The same remote control used for the Cisco DMP 4310G or 4400G is compatible with the Cisco Edge340 DMP.
- Q.** Does the Cisco Edge 340 DMP come with a remote control?
- A.** No. You have to order the remote control separately (part number DMP-RM-K9=).
- Q.** Can I use my own remote control?
- A.** Not every universal control can be used, but some remote controls can learn codes if you use an original Cisco DMP remote control as the source.
- Q.** Can the remote-control buttons be remapped?
- A.** Yes. The buttons on the remote control can be remapped.

## Deployment

- Q.** How many mounting options does the Cisco Edge 340 DMP support?
- A.** The Cisco Edge 340 DMP supports desktop mounting, wall mounting, pole mounting, ceiling mount and VESA mounting.
- Q.** How is the Cisco Edge 340 DMP powered?
- A.** The Cisco Edge 340 DMP can be powered by external power supply or by PoE or PoE+. A power switch on the back panel lets you turn the external power supply on and off. When you boot the device for the first time, you need to press the power button on the front panel. If an unplanned power outage occurs, the device will automatically restart after power is restored.

## Software

- Q.** What OS does the Cisco Edge 340 DMP use?
- A.** The device uses the Fedora 16-based Linux OS with kernel version 3.1.
- Q.** Does the OS image differ between the Cisco Edge 340 DMP wireless and non-wireless models?
- A.** No. The OS file is the same for both models.
- Q.** Is the Cisco Edge340 DMP compatible with Cisco Digital Media Manager (DMM)?
- A.** No. The Cisco Edge 340 DMP is not compatible with the Cisco DMM.
- Q.** Does the Cisco Edge 340 DMP support the same APIs as the other DMPs?
- A.** No. It has its own set of APIs.
- Q.** Does the Cisco Edge 340 DMP support Cisco Discovery Protocol?
- A.** Yes. The Cisco Edge 340 DMP can be identified by switches and routers enabled with Cisco Discovery Protocol.
- Q.** Does the Cisco Edge 340 DMP have an integrated browser?
- A.** Yes. The Cisco Edge 340 DMP natively includes Chrome 26.0 and Firefox 18.0, which can support most web content, including video, audio, RSS feeds, text, rolling banners, Adobe Flash animations, and the HTML5 standard.

- Q.** Does the Cisco Edge 340 DMP support JavaScript?
- A.** Yes. The Cisco Edge 340 DMP supports JavaScript.
- Q.** What ports are open natively on the Cisco Edge 340 DMP?
- A.** By default, the Cisco Edge 340 DMP has ports 80, 111, and 443 open. Port 22 can be opened for Secure Shell (SSH) access in for troubleshooting.
- Q.** What kind of information can be monitored by syslog in the Cisco Edge 340 DMP?
- A.** Table 1 lists the information monitored by syslog.

**Table 1.** Syslog Information

Log	Information Collected
<b>System log</b>	Information and error records for the kernel, system services, and applications
<b>Security log</b>	Records of user and group account changes, user login and logout records, and authentication records
<b>Cron log</b>	Records of scheduled services and tasks managed by cron
<b>HTTP server log</b>	Information and error records for the HTTP server
<b>X11 graphic log</b>	Records of the X11 boot process, module loading, and services information
<b>Login manager log</b>	Records of the login manager and session information

- Q.** Does the Cisco Edge 340 DMP support Cisco Medianet feature?
- A.** Currently, the Cisco Edge 340 DMP does not support Cisco Medianet, but support is being planned.

## Networking

- Q.** Can the Cisco Edge 340 DMP support the routing function?
- A.** No.
- Q.** How many modes does Cisco Edge 340 DMP support for Wi-Fi connection?
- A.** The device supports two modes: access-point mode, in which the device works as an autonomous access point; and station mode, in which the device works as a Wi-Fi client.
- Q.** In station mode, can the wireless and wired interfaces be enabled at the same time?
- A.** Yes.
- Q.** In access-point mode, can traffic be exchanged between the wired and wireless interfaces?
- A.** Yes. The traffic is bridged.
- Q.** How is the network configuration managed?
- A.** The network can be configured from the desktop GUI, web GUI, command-line interface (CLI), or APIs provided by Cisco.

## Adobe Flash Support

- Q.** What version of Adobe Flash does the Cisco Edge 340 DMP support?
- A.** The device supports Adobe Flash Release 11.1.
- Q.** What version of Adobe ActionScript does the Cisco Edge 340 DMP support?
- A.** The Cisco Edge 340 DMP Adobe Flash Player supports Adobe ActionScript Releases 2.0 and 3.0.
- Q.** Does the Adobe Flash plug-in have audio support?
- A.** Yes.

- Q.** Does the Cisco Edge 340 DMP support MPEG-4 or any other video format in Adobe Flash plug-ins?
- A.** Yes. The Cisco Edge 340 DMP supports the use of the Adobe Flash plug-ins for .mp4 and .flv playback.
- Q.** What kind of text support does the Cisco Edge 340 DMP offer for the Adobe Flash plug-in?
- A.** Table 2 summarizes the text features supported by the Cisco Edge 340 DMP.

**Table 2.** Text Support for Adobe Flash Plug-in

Feature	Support
<b>Character set</b>	Refer to <a href="http://help.adobe.com/en_US/FlashPlatform/reference/actionscript/3/charset-codes.html">http://help.adobe.com/en_US/FlashPlatform/reference/actionscript/3/charset-codes.html</a> .
<b>Multiple languages</b>	Adobe Flash Player 11 is available in Brazilian Portuguese, Chinese Simplified, Chinese Traditional, Czech, Dutch, English, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish, Swedish, and Turkish on most major browser platforms
<b>Dynamic text</b>	Yes
<b>Device-specific vector fonts</b>	Yes; Adobe Flash Player supports both embedded fonts included in a .swf file and device fonts installed on the device
<b>Improved small-text readability</b>	Yes
<b>Text measurement</b>	Yes
<b>Text wrap</b>	Yes
<b>Inline text input</b>	Yes
<b>Predictive text support</b>	No
<b>Rich text styles</b>	Yes (alignment, boldface, italics, underlining, color, etc.)
<b>Advanced text rendering</b>	Yes
<b>Improved text layout</b>	Yes (using Adobe Flash Text Engine)
<b>Emoticons</b>	Not supported directly
<b>Emoticons in predefined color</b>	Not supported directly

- Q.** Can customized fonts be added to the Cisco Edge 340 DMP?
- A.** Yes.
- Q.** What Adobe Flash features are supported?
- A.** Table 3 lists the supported features.

**Table 3.** Adobe Flash Features Supported

Feature	Support
<b>Adobe Flash version</b>	Adobe Flash 11 or earlier
<b>ActionScript<sup>®</sup> version</b>	Adobe ActionScript 2.0 and 3.0
<b>Dynamic loading of SWF data</b>	Yes
<b>XML parsing</b>	Yes
<b>Conversion of strings, array, and XML to native objects</b>	Yes
<b>Adobe ActionScript strict mode</b>	Yes
<b>Set and clear interval</b>	Yes
<b>Shape-drawing API</b>	Yes
<b>Capability to store data</b>	Yes
<b>Bitmap effects and filters</b>	Yes
<b>Bitmap caching</b>	Yes
<b>Bitmap data API</b>	Yes
<b>Blend modes</b>	Yes
<b>Nine-slice scaling</b>	Yes

Feature	Support
Stroke enhancements (end caps and joins)	Yes
Linear and radial gradient enhancements	Yes
External API for browser scripting	Yes
File upload and download	Yes
Input method editor (IME) API enhancements	Yes (only provides access to an IME on the Cisco Edge 340 DMP)

## Video and Audio Support

**Q.** Which video codecs are supported?

**A.** The Cisco Edge 340 DMP supports hardware acceleration of following video codecs up to full high definition:

- H.264
- MPEG-2: main profile at high level
- MPEG-4 Part 10: baseline and main profiles
- Windows Media Video 9 (VC-1)

**Q.** Which audio codecs are supported?

**A.** Table 4 lists the supported codecs.

**Table 4.** Supported Codecs

Codec	Support
MPEG Layers 1 and 2	Yes
MP3: MPEG Layer 3	Yes
AAC: MPEG-4 Part 3	Yes
Vorbis	Yes
AC3: A/52 (Dolby Digital)	Yes
E-AC-3 (Dolby Digital Plus)	Yes
MLP and TrueHD	Yes
DTS	Yes
WMA 1 and 2	Yes
WMA 3	Yes
FLAC	Yes
ALAC	Yes
Speex	No
Musepack or MPC	Yes
ATRAC 3	No
Wavpack	Yes
Mod (.s3m,.it, and.mod)	No
TrueAudio (TTA)	Yes
APE (Monkey Audio)	No
Real Audio	Yes
Alaw and µlaw	Yes
AMR (3GPP)	No
MIDI	No

Codec	Support
LPCM	No
ADPCM	No
QCELP	Yes
DV Audio	No
QDM2 (QuickTime)	Yes
QDMC (QuickTime)	No
MACE	Yes

**Q.** Does the Cisco Edge 340 DMP support 4:3 and 16:9 aspect ratios?

**A.** Yes. Both are supported.

**Q.** Is multicast supported by the Cisco Edge 340 DMP?

**A.** Yes. MPEG2-TS/UDP and MPEG2-TS/RTP/UDP are supported.

**Q.** Are Real-Time Streaming Protocol (RTSP) Fast Forward, Rewind, and Pause supported?

**A.** Yes.

**Q.** What bit-rate range is supported by the Cisco Edge 340 DMP?

**A.** The Cisco Edge 340 DMP supports up to 20 Mbps for a single stream of high-definition (HD) video.

## Manageability

**Q.** How can I manage the Cisco Edge 340 DMP?

**A.** The Cisco Edge 340 DMP has a web GUI that can be accessed through its IP address over HTTPS for configuration and monitoring of a single device. The Cisco Edge 340 DMP also provides an HTTP-based management API to enable third-party partners to integrate the management capability into their centralized management software.

**Q.** What can I manage on the Cisco Edge 340 DMP?

**A.** Using the web GUI or the device management HTTP API, you can:

- Monitor the status of the whole system, including the core components such as the CPU, memory, and disk use
- Configure the Network Time Protocol (NTP) server, wired and wireless settings, etc.
- Reboot the system, upgrade the image, etc.

For more information, please refer to the software configuration guide.

**Q.** What screen controls are available (can I turn the screen on and off, change the brightness, etc.)?

**A.** The screen control availability depends on the capabilities of the display. Some displays can be remotely controlled through the RS-232 port. The Cisco Edge 340 DMP has an RS-232 port that can support this feature.




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