Cisco Digital Signage: Cisco Digital Media Player 4400

The Power of Engagement: Cisco Digital Signage is a complete, platform for interactive media experiences. Now you can easily deliver and manage applications to communicate, connect, and engage. Imagine delivering compelling and interactive media to any store, bank, manufacturing floor, or hospital, to engage customers and employees in a whole new way.

The scalable, network-based Cisco Digital Signage platform includes endpoints, management, and services. On top of this, Cisco's diverse partner ecosystem tailors your deployment to your needs. This gives you new opportunities to create a consistent user experience across multiple channels, increase revenue and maximize operational efficiency.

Cisco Digital Media Player

The Cisco Digital Media Player 4400 (Figure 1) is a highly reliable, IP-based digital media player that handles display and playback of compelling, rich digital media—including high-definition live broadcasts or on-demand video, Flash animations, graphics, text tickers, and other web content—across a network of digital signs.

The Cisco Digital Media Player 4400 is fully manageable as a standalone device; however, as part of the integrated Cisco Digital Signs and Cisco Cast systems, it is a powerful, customizable digital media publishing endpoint. Using the Cisco Digital Media Manager (DMM), the centralized management system component of Cisco Digital Signage, you can easily, flexibly, and remotely publish centralized content to networked digital displays. You can attach the Cisco DMP 4400 to virtually any on-premises digital display at any location—for example, in a branch-office bank, retail store, or a break room or lobby—across any geography.

Figure 1. Cisco Digital Media Player 4400

The Cisco Digital Media Player 4400 supports single touch interactivity by interfacing with popular touch screens. It supports 802.11 b/g wireless network connectivity. In addition, the output to displays is fully customizable and can include dynamic playlists; the Cisco Cast program guide; division of screen real estate into multiple addressable regions; high-definition (HD) media playback; and remote management of digital displays - on/off, volume, contrast, and brightness. The Cisco DMP 4400 has a small form factor, weighing less than 4.5 pounds (2 kg) and measuring 10 x 8 x 2 inches (254 x 203 x 51 mm).

Key Features and Benefits

The Cisco Digital Media Player 4400 integrates with the Cisco Digital Media Manager to deliver:

- Standards-based video codec support with MPEG1, MPEG2, and MPEG-4 Part 10, and MP3 audio, all delivered within MPEG-2 TS over User Datagram Protocol (UDP) or RTP over RTSP (RTP over TCP) in both standard- and high-definition (SD and HD, respectively) formats
- Windows Media 9 and VC-1 Audio and Video codec support for on-demand content delivered over HTTP
- Touchscreen support
- Wireless network connectivity over the 802.11 b/g network standard with the following wireless security protocols:
  - Wi-Fi Protected Access (WPA)
  - WPA2
  - Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST)
  - Wired Equivalent Privacy (WEP)
- **Flexible, real-time publishing:** You can instantly publish and update content across individual or groups of digital displays, and control and schedule the frequency and duration of content playback (day-parting).
- **Broadcast Cisco Cast:** You can control IP-based broadcast television through the Cisco Digital Media Player Remote Control and on-screen program guide.
- **Low ongoing operational costs and ease of use:** The management interface was designed with the nontechnical user in mind to keep the required level of training low.
- **Speed of deployment:** Simplified IT installations that require little additional network expense reduce the burdens of deployment and maintenance commonly placed on IT.
- **Reliability and power of the network:** Tightly integrated with the network, the Cisco Digital Media Player uses the reliability and security of the underlying network as a platform; this appliance-based solution has no moving parts, avoiding security and maintenance concerns associated with PCs.

Cisco Digital Media Player Remote Control

The Cisco Digital Media Player Remote Control (Figure 2) is a small-form-factor, highly functional device optimized to support interactivity with the Cisco DMP 4310 and DMP 4400 systems. This remote allows you to navigate and select the channels and on-demand videos through the Cisco Cast on-screen program guide.

Figure 2. Cisco Digital Media Player Remote Control

Table 1 lists the innovative features and benefits the Cisco Digital Media Player 4400 offers.

Table 1. Features and Benefits of Cisco Digital Media Player 4400

Feature	Benefit
MPEG 1, 2, and 4 Part 10 in SD and HD, graphics, web content, Adobe Flash 9 or 10 animation, Windows Media 9 and VC-1, MP3 Audio, and tickers	• Support for industry-standard MPEG video formats and web content for a compelling digital media experience • Windows Media 9 and VC-1 support for expanded video-on-demand (VoD) support • Audio-only options with support for MP3 audio format
Local storage of 4-GB capacity	• Storage of OS images and content for local playback or failover for greater reliability and robust operation
Touchscreen technology support	• Capabilities to support the connecting of touchscreen-enabled displays to your Cisco DMP 4400 to expand your interactive functions
802.11 B/G wireless network support	• Flexible Cisco Digital Signs deployments through support for wireless network connectivity; new floor plans and relocation of signs can now be simplified with wireless connectivity
IP-enabled delivery of live broadcasting and on-demand video content	• Quick and immediate content changes to react to business needs; no drastic cutover required for organizations moving to a complete IP environment
Remote management of display (on/off, volume, contrast, and brightness)*	• Ability to control critical digital signage display functions remotely, reducing the need for local operations resources
Full-screen video or division of the screen*	• Capability to view video or graphics in full-screen mode • Capability to divide displays into separate regions for multiple content playback windows with text, tickers, graphics, and video
Customizable on-screen presentations	• Customized interface to reflect an organization's brand
Small form factor: 10 x 8 x 2 in. (254 x 203 x 51 mm); weighs 4.5 lb (2 kg)	• Easy to mount to digital displays
15W power consumption (average)	• Low power consumption for higher reliability and reduced capital expenditures (CapEx) and operating expenses (OpEx); environmentally friendly
Integration with Cisco Digital Media Suite, Cisco ECDS, Cisco Application and Content Networking System (ACNS), and Cisco Wide Area Application Services (WAAS) products	• Flexibility spanning the entire digital media value chain: easily layer on other video applications such as Cisco Show and Share (VoD and live webcasting to the desktop user)

* With the Cisco Digital Media Manager; dependent on chosen display technology

Product Specifications

Tables 2 and 3 give specifications and device manager client requirements, respectively, for the Cisco Digital Media Player 4400.

Table 2. Cisco Digital Media Player 4400 Product Specifications

Product Parameter	Specification	
Supported protocols	• Syslog • FTP and Secure FTP (SFTP) • HTTP and HTTPS • Network Time Protocol (NTP) • Real-Time Transport Protocol (RTP) over Real Time Streaming Protocol (RTSP)	
Video containers	• MPEG Transport Stream (TS, TP, TRP, M2T, M2TS, and MTS) • ASF • WMV	
Video codecs	• Video MPEG1 • Video MPEG2: Main Profile at High Level • Video MPEG4 Part 2 • Video MPEG4 Part 10 Baseline and Main profiles • Video Windows Media 9 and VC-1–VoD only • Aspect ratio: 4:3 and 16:9 • HD (up to 1080p at 16:9) progressive and interlace video resolution • Video data rate up to 28 Mbps • Video frames per second rate up to 29.9fps for MPEG-1, 2, 4 and 23.9fps for WMV • Internal Hardware Decoder delay configurable to < 1 sec	
Audio codecs	• Audio MPEG1 Layers 1 and 2 • MP3 • HE-AAC v1 • MPEG4 AAC Low Complexity • AC-3 • Audio data rate: 64–320 kbps	
Physical connectors	Ethernet copper 10/100/1000BASE-T, RCA Video, S-Video, Mini 3.5-mm Stereo Audio Jack, SPDIF, HDMI, and RS-232 and USB	
	Cable Type*	**Maximum Supported Cable Length**
	Composite or RCA cable	10 ft (2m)
	HDMI 1.1**	16 ft (5m)
	S-Video	10 ft (2m)
	USB 2.0 (2)	15 ft (5m)
	SPDIF	10 ft (2m)
Wireless connectivity	**Wireless Radio**	**Security Protocols**
	802.11 B/G support	WPA, WPA2, EAP-FAST, and WEP
Remote control	**Transmitter Type**	**Maximum Supported Distance**
	Infrared (IR)	15 ft (4.57m)
Touchscreen support	**Yes**	Refer to the Compatibility Guide for a detailed list of supported vendors and models http://www.cisco.com/go/dms/compatibility

Product Parameter	Specification
Functional	Video in: • MPEG1, MPEG2, MPEG4 Part 10, Windows Media 9, and VC-1 Audio in: • Transport stream: Up to 6 audio packet IDs (part numbers) in transport stream • MP3 Video out: • Analog video (composite and S-Video) • Digital video (HDMI 1.1) Audio out: • Analog unbalanced audio (mono and stereo) • MPEG1 Layer 2: Selected; packet IDs in transport stream (1 of 6) MPEG4 AAC and AC-3 • Selected elementary audio (1 of 6)
Power	Input voltage: • 12V Input current: • 3 ADC Power consumption: • Peak: 30W; average: 15W
Flash memory	• 4-GB CF-card with endurance of 1,000,000 write/erase cycles for OS images and application storage
Environmental	Operating temperature: • 41 to 104℉ (5 to 40℃) • Passed 500-hour test of the uninterrupted video playback in 125.6℉ (52℃) dry-heat environment Humidity: • 20 to 80% noncondensing

* Cable quality can be a factor.
** An HDMI extender product can be used to extend the cable to 150 ft.

Ordering Information

Table 3 provides ordering information for the Cisco Digital Media Player 4400.

Table 3. Cisco Digital Media Player 4400 Ordering Information

Product Name	Part Number
Cisco Digital Media Player 4400G **Note:** Includes Cables Accessory Kit	DMP-4400G-54-K9
DMP 4400 Firmware Version 5.4	DMP-4400G-SW54-K9
Cisco Digital Media Player Remote Spare	DMP-RM-K9=
Digital Media Player 4400 SW Upgrade	R-DMP-4400-54-U-K9
Note: A different part number applies when using the PUT tool under a maintenance contract	DMP-4400-54-U-K9
Spares	
Cisco Digital Media Player 4400G, Cables Accessory Kit, Spare **Note:** A Cables Accessory Kit is already included with the Cisco Digital Media Player 4400G. This Spare Kit is an additional cost.	DMP4400-ACC-KIT
Cisco Digital Media Player Remote Spare	DMP-RM-K9=

Cisco Services

Cisco and our partners provide a broad portfolio of intelligent, personalized services and support that can help you realize the full value of your video investment, increase business agility and network availability. This portfolio of

services drives business transformation through a network-based collaboration platform that enables business to collaborate anywhere, anytime. For more information about these services, visit: http://www.cisco.com/go/services/digitalmedia.

For More Information

For more information about the Cisco Digital Signage, visit http://www.cisco.com/go/dms or contact your local Cisco account representative.

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