

## Cisco Digital Media System: Cisco Digital Media Encoder 1000

The Cisco® Digital Media System (DMS) enables organizations to create, manage, and access compelling digital media to easily connect customers, employees, partners, or students—anywhere, anytime. The Cisco Digital Media System is a flexible and comprehensive solution for publishing dynamic content to both on-premise digital signage displays and the desktop.

The Cisco Digital Media Encoder (DME) 1000 is an integrated component of the Cisco Digital Media System for Cisco Desktop Video.

### Cisco Digital Media Encoder 1000

The Cisco Digital Media Encoder 1000 (Figure 1) is a portable encoder that provides live and on-demand streaming digital media, including video and audio, across an IP network—anywhere an event or meeting can occur.

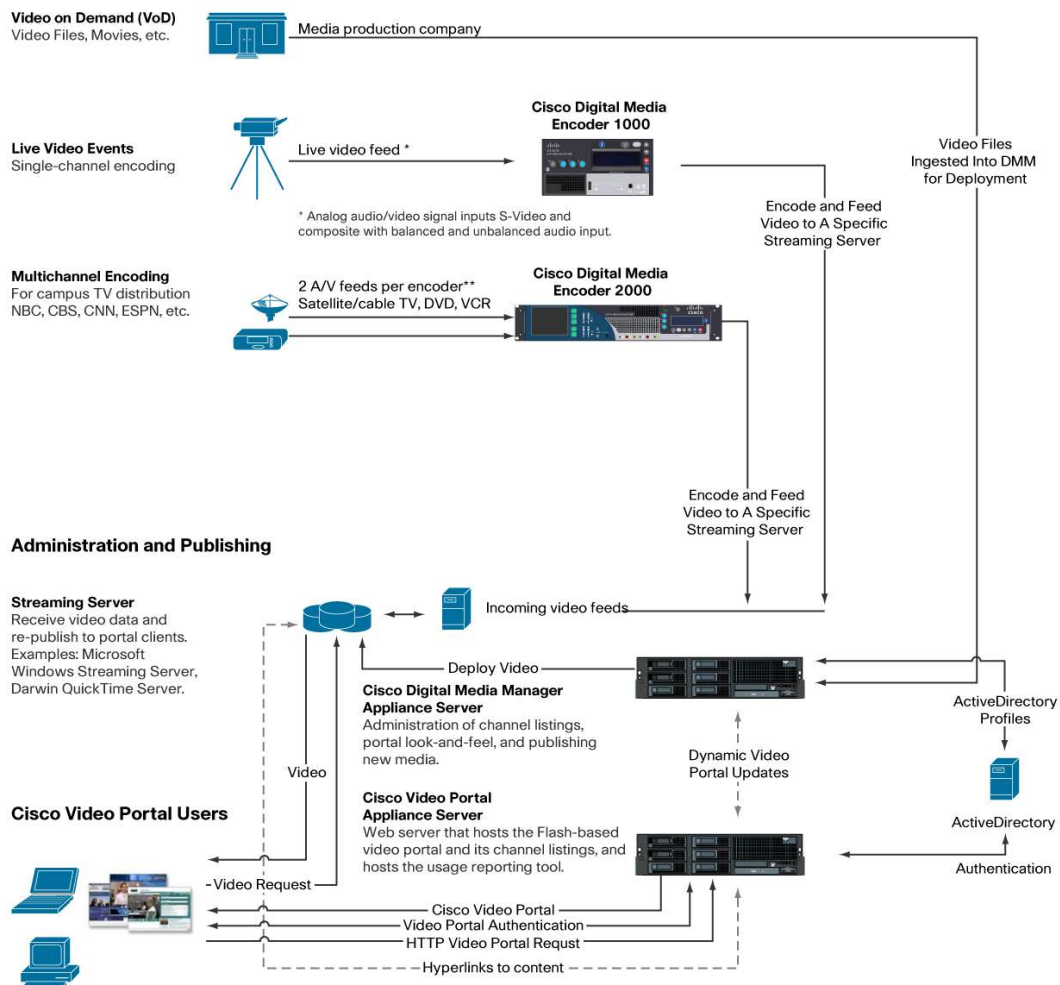
Designed for both professionals and novices, the Cisco Digital Media Encoder 1000 features push-button control access to predefined Windows Media and MPEG-4/H.264 encoder profiles. An LCD display is also mounted on the front panel for access to configuration and operation information. With its rugged design and minimal weight, the Cisco Digital Media Encoder 1000 can take video production out of the studio.

**Figure 1.** Cisco Digital Media Encoder 1000



The Cisco Digital Media Encoder 1000 provides several different audio and digital media connections as well as both 1-GB and 10-/100-Mb Ethernet connections. In addition, a front-panel dock is available to connect and download directly to an Apple iPod.

You can use the Cisco Digital Media Encoder 1000 as a standalone encoder or as an integrated component of the overall Cisco Digital Media System (Figure 2). The Cisco Digital Media Manager (DMM) includes functions to set up and control multiple encoders, including the Cisco Digital Media Encoder 1000; schedule live streaming events; and publish both on-demand and live streaming content to viewers anywhere on your IP network.

**Figure 2.** Cisco Digital Media System**Digital Media Encoding**

For optimal network performance and end-user delivery of digital media, the Cisco Digital Media Encoder 1000 integrates with a variety of streaming systems, including the Cisco Application and Content Networking System (ACNS). Cisco ACNS provides both live unicast and multicast streaming services and on-demand access in which video and audio files are cached locally for retrieval and viewed over the WAN at LAN speeds (Figure 3).

**Figure 3.** Cisco Digital Media Encoder 1000 and Cisco ACNS**Digital Media Encoding**

**Video on Demand (VoD)**  
Video Files, Movies, etc.



Media production company

**Live Video Events**  
Single-channel encoding



Live video feed

**Multichannel Encoding**  
For campus TV distribution  
NBC, CBS, CNN, ESPN, etc.



**Cisco Digital Media Encoder 1000**



**Cisco Digital Media Encoder 2000**



Video and Digital Signage  
Files Ingested Into  
DMM for Deployment.

VP Encode Feed

VP Encode Feed

**Administration and Publishing**

**Cisco Digital Media Manager  
Appliance Server**



Deployed Content

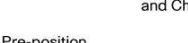


**Cisco Video Portal  
Appliance Server**



Web and  
Streaming Server

Content for Pre-position



ACNS  
Administration

CDM

**Root Cisco WAE**  
Receive video data and distribute to various  
edge WAE servers that serve data to users.

Root WAE

Remote VP  
Authentication

Authentication

ActiveDirectory

ActiveDirectory Profiles

Dynamic Video  
Portal Updates

Portal application  
and Channel Listings

**Content Distribution Manager**  
ACNS central management tool

**Cisco Video Portal Users**

**Edge Cisco WAE**  
Receive video and re-publish data  
to nearby portal clients.

Edge WAE

WAN

WCCP/HTTP  
Redirection

Redirected-VP Authentication

HTTP Video Portal Request

Video Portal Authentication

Cisco Video Portal

Video Request

Video

More information about Cisco ACNS and Cisco Wide Area Application Engines (WAEs) is available at: <http://www.cisco.com/go/acns>.

## Key Features and Benefits

Table 1 lists features and benefits of the Cisco Digital Media Encoder 1000.

**Table 1.** Features and Benefits of Cisco Digital Media Encoder 1000

Feature	Benefit
Lightweight and portable	Live events can be streamed and recorded at any location that has an IP network connection.
Support for a variety of encoding formats	Flexible streaming formats ensure that viewers are not limited.
Operational controls on front panel	No keyboard, mouse, or monitor is required to operate the encoder.
Integration with the Cisco Digital Media System	Live events from multiple encoders can be easily scheduled and managed from the web-based Cisco Digital Media Manager.

## Product Specifications

Table 2 gives specifications of the Cisco Digital Media Encoder 1000.

**Table 2.** Product Specifications

Product Parameter	Specification
Supported live streaming formats	<ul style="list-style-type: none"> <li>Windows Media</li> <li>MPEG-4/H.264</li> </ul>
Supported on-demand formats	<ul style="list-style-type: none"> <li>Flash (flv)</li> <li>Windows Media</li> <li>MPEG-4/H.264</li> </ul>
Video inputs	<ul style="list-style-type: none"> <li>Composite</li> <li>S-Video</li> </ul>
Video formats	<ul style="list-style-type: none"> <li>National Television System Committee (NTSC): M, M-J</li> <li>Phase Alternation Line (PAL): B, D, H, I</li> </ul>
Audio inputs	<ul style="list-style-type: none"> <li>Unbalanced stereo (RCA)</li> <li>Balanced stereo (XLR3)</li> </ul>
Ethernet ports	<ul style="list-style-type: none"> <li>1 GB</li> <li>10/100 Mb</li> </ul>
Available hard disk space	40 GB
RAM	512 Mb
Processor	Single 1-GHz Intel Celeron
Additional ports	Two USB 2.0, keyboard, mouse, and VGA monitor
Operating system	Microsoft XP embedded
Physical dimensions	Size (H x W x D): 4 x 7.75 x 15.5 in. (10.16 x 19.67 x 39.37 cm) Weight: 12 lb (5.44 kg)
Standard form factor	Custom and portable
Operating temperature range	0 to 40°C (32 to 104°F)
Operating humidity range	Between 5 and 85% (noncondensing) at 40°C
Operating altitude range	0 to 10,000 ft (0 to 3,084m)
Power	<ul style="list-style-type: none"> <li>110 to 220 VAC</li> <li>50 to 60 Hz</li> <li>0.5 to 1A, load and input voltage dependent</li> <li>60W power supply</li> <li>204 BTU/Hr</li> </ul>
Mean time between failure (MTBF; estimated)	>140,000 hr

## Usage Recommendations

The Cisco Digital Media Encoder 1000 is intended for use in encoding typical standard-definition (SD) Webcast quality live and on-demand streams. Table 3 lists several recommended upper limits regarding encoder format settings and intended use for the Cisco Digital Media Encoder 1000. The recommended upper limits for window size and bit rate are based on a maximum of 60-percent CPU usage on the Cisco Digital Media Encoder 1000. The Cisco Digital Media Encoder 1000 is also compatible with the slide synchronization function of the Cisco Digital Media Manager Live Event Module.

**Table 3.** Usage Recommendations

Application	Encoder Type	Maximum Window Size	Maximum Bit Rate	Number of Simultaneous Output Streams
General Webcasting for live and on-demand content	Windows Media	320 x 240	350 kbps	1
General Webcasting for live and on-demand content	MPEG-4/H.264	320 x 240	350 kbps	1
Cisco Digital Media Manager Live Event Module (for use with slide synchronization for live events)	Windows Media	320 x 240	350 kbps	1

## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Table 4.

**Table 4.** Ordering Information

Product Name	Part Number
Cisco Digital Media Encoder 1000	DMS-DME-1000

## Service and Support

Cisco and its partners provide a broad portfolio of end-to-end services and support that can help you improve network total cost of ownership, business agility, and network availability to increase the business value of your network and your return on investment. This portfolio is based on the Cisco Lifecycle Services approach, which defines activities needed, by technology and by network complexity, throughout the six phases of the network lifecycle: prepare, plan, design, implement, operate, and optimize.

Cisco Services for the Cisco Digital Media System in the prepare, plan, design, and implement phases of the network lifecycle help you successfully deploy a reliable, high-performance Cisco Digital Media System. Specific activities include:

- User feature and functionality requirements validation
- Architecture validation
- Network and operations readiness assessment
- Detailed design and implementation schedule development
- System acceptance test plan development
- Staffing plan development
- Installation, configuration, and integration support

Cisco Services in the operate phase help ensure that Cisco products operate efficiently and benefit from the most up-to-date system software. Cisco SMARTnet<sup>®</sup> and SMARTnet Onsite support provide registered access to Cisco.com for online technical assistance, access to the Cisco Technical Assistance Center (TAC), Cisco IOS<sup>®</sup> Software updates and upgrades, and Advance Replacement of failed hardware.

To learn more about Cisco Services for the Cisco Digital Media System, please contact your local Cisco account representative. For specific information about Cisco SMARTnet and SMARTnet Onsite support, visit:

[http://www.cisco.com/en/US/products/svcs/ps3034/ps2827/ps2978/serv\\_group\\_home.html](http://www.cisco.com/en/US/products/svcs/ps3034/ps2827/ps2978/serv_group_home.html).

### For More Information

For more information about the Cisco Digital Media Encoder 1000, visit:

<http://www.cisco.com/go/dms> or contact your local Cisco account representative.



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