Cisco Digital Media Suite:
Cisco Digital Media Encoder 2200

The Cisco® Digital Media Suite (DMS) is a comprehensive offering of webcasting and video sharing, digital signage and business IPTV applications that can help transform how organizations learn, grow, communiate, and collaborate. Support from the broad Cisco partner ecosystem of deployment, solution-development, and content-creation partners help ensure a successful digital media implementation.

The Cisco Digital Media Encoder (DME) 2200 is an integrated component of Cisco DMS for the Cisco Show and Share Application.

Cisco Digital Media Encoder 2200

The Cisco DME 2200 (Figure 1) is a multiprocessor, studio-quality audio and video encoding appliance that provides live and on-demand streaming digital media across an IP network.

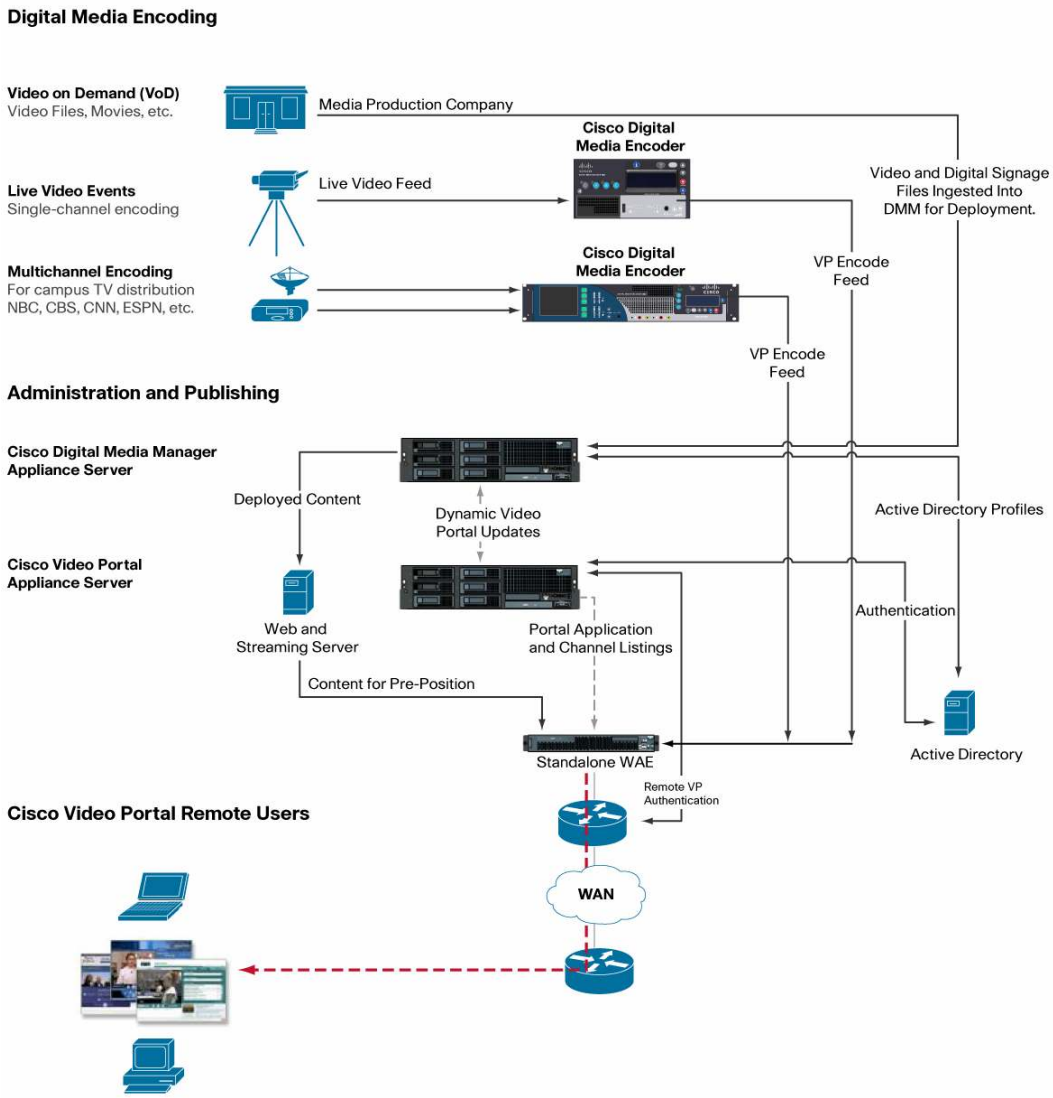
The Cisco DME 2200 is designed for sophisticated users who require multiple audio and video input options, a variety of encoding formats and functions, and high-bandwidth encoding. A color display and audio output monitors mounted on the front panel provide visual video and audio encoding monitoring. You can manage the encoder locally through the embedded LCD or remotely through the Cisco Digital Media Manager (DMM), another component of Cisco DMS. Its multiprocessor power and variety of input options make this encoder the choice for users, including corporate offices and data centers that need sophisticated creation of compelling digital media content.

Figure 1. Cisco Digital Media Encoder 2200

The Cisco DME 2200 provides a variety of composite and digital audio and video connections as well as two 10/100/1000-Mbps Ethernet connections. The power of the multiple processors and the variety of video and audio inputs make this encoder the choice for creating both live and on-demand streaming content as well as a platform for content conversion and transcoding.

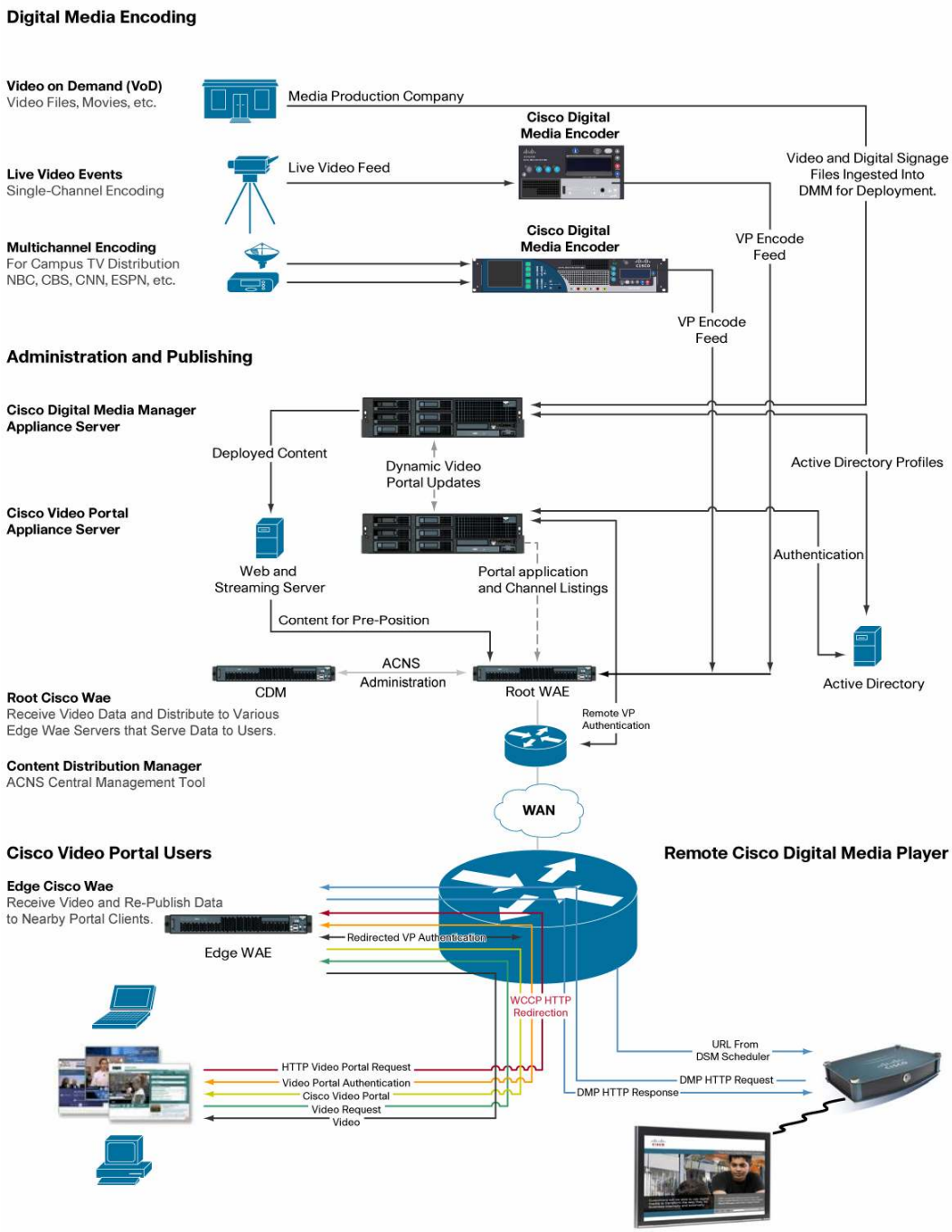
You can use the Cisco DME 2200 as a standalone encoder or integrate it with the overall Cisco DMS (Figure 2). The Cisco DMM includes functions to set up and control Cisco DMEs, schedule live streaming events, and publish both on-demand and live streaming content to viewers anywhere on your IP network.

Figure 2. Cisco Digital Media Suite



For optimal network performance and end-user delivery of digital media, you can connect the Cisco DME 2200 to 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 digital media files are cached locally for retrieval and viewed over the WAN at LAN speeds (Figure 3).

Figure 3. Cisco DME 2200 and Cisco ACNS



More information about Cisco ACNS is available at http://www.cisco.com/go/acns.

Main Features and Benefits

Table 1 lists the main features and benefits of the Cisco DME 2200.

Table 1. Features and Benefits of Cisco DME 2200

Feature	Benefit
Multiple processors	Provide highest-quality streaming from multiple inputs.
Multiple video and audio inputs	Accept video and audio input from a large variety of cameras and other sources.
Video and audio monitors on the front panel	Visually monitor encoding functions.
Integration with Cisco DMS	Easily schedule and manage live events from multiple encoders from the web-based Cisco DMM.

Product Specifications

Table 2 lists the specifications of the Cisco DME 2200.

Table 2. Product Specifications

Product Parameter	Specification
Supported live-streaming formats	• Microsoft Windows Media • MPEG-4/H.264 • Product Parameter: Supported live-streaming formats for the DMM Live Event Manager (PC Only) • Specification: Microsoft Windows Media
Supported on-demand formats	• Adobe Flash (.flv) • Microsoft Windows Media • MPEG-4/H.264
Video inputs	• Two composite • Two S-video • Two serial digital interface (SDI) (SMPTE 259M) video with embedded audio inputs (Audio Engineering Society and European Broadcasting Union [AES/EBU])
Video formats	• National Television System Committee (NTSC): M and M-J • Phase alternation line (PAL): B, D, H, and I
Audio inputs	• Two-pair unbalanced stereo (RCA) • Two-pair balanced stereo (XLR) • Two-pair digital audio (AES/EBU) inputs through SDI inputs
Ethernet ports	Two 10/100/1000 Mbps
Available hard disk space	100 GB
RAM	4 Gb
Processor	Dual AMD Opteron Quad Core, 2.2 GHz
Additional ports	Two USB 2.0 and VGA monitor
Physical dimensions	• Size (H x W x D): 3.5 x 19 x 23 in. (8.89 x 48.26 x 58.42 cm) • Weight: 48.62 lb (19.05 kg)
Standard form factor	2 rack units (RUs)
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 10,0000 ft (0 to 3084m)
Power	• 110 to 220 VAC • 50 to 60 Hz • 4 to 8A, load and input voltage dependent • 400W power supply • 1740 BTU/hr
Mean time between failure (MTBF; estimated)	More than 100,000 hr

Usage Recommendations

The Cisco DME 2200 is intended for webcast broadcasts such as executive updates, company meetings, lectures, and product introductions of no more than 2 hours duration. A different encoder product should be considered for use cases that require non-stop encoding for greater than 2 hours. Table 3 gives recommended upper limits for encoder format settings according to the intended use for the Cisco DME 2200. The recommended upper limits for window size and bit rate are based on a maximum CPU usage of 75 percent on the Cisco DME 2200. The Cisco DME 2200 is also compatible with the slide synchronization function of the Cisco DMM 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	Microsoft Windows Media	640 x 480	2 Mbps	2; variable for smaller window sizes and lower bit rates
General webcasting for live and on-demand content	MPEG-4/H.264	640 x 480	2 Mbps	2; variable for smaller window sizes and lower bit rates
Cisco DMM Live Event Module (for use with slide synchronization for live events)	Microsoft Windows Media	640 x 480	2 Mbps	2; variable for smaller window sizes and lower bit rates

Ordering Information

To place an order, visit the Cisco Ordering Homepage and refer to Table 4.

Table 4. Ordering Information

Product Name	Part Number
Cisco DME 2200	DMS-DME-2200

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 (TCO), business agility, and network availability to increase the business value of your network and your return on investment (ROI). 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 in the prepare, plan, design, and implement phases of the network lifecycle helps you successfully deploy a reliable, high-performance Cisco DMS. Specific activities include:

- User feature and function 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 helps ensure that Cisco products operate efficiently and benefit from the most up-to-date system software. Cisco SMARTnet® and SMARTnet Onsite support provide registered access to Cisco.com for online technical assistance, access to the Cisco Technical Assistance Center (TAC), Cisco IOS® Software updates and upgrades, and advance replacement of failed hardware.

To learn more about Cisco Services for Cisco DMS, 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.

For More Information

For more information about the Cisco DME 2200, visit http://www.cisco.com/go/dms or contact your local Cisco account representative.

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at **www.cisco.com/go/offices.**

Printed in USA C78-504500-02 07/10