

**H.264 Distributed Media Engine (DME)**
**VBrick H.264 Distributed Media Engine (DME)**

The VBrick H.264 Distributed Media Engine (DME) simplifies delivery of high definition video and other rich media content across multi-site enterprises and campus environments. The Distributed Media Engine, typically deployed at the network edge, is a single integrated platform which provides media redistribution, media transformation and video-on-demand content storage. The DME accepts a H.264 media stream from a central site and redistributes that content to diverse endpoints including PCs/MACs, mobile phones and televisions/ monitors. This one integrated platform optimizes WAN bandwidth use, simplifies endpoint support and offers local storage of centrally managed content.

The Distributed Media Engine is offered on a choice of three robust hardware platforms, all leveraging VBrick's experience building high performance, low touch, appliances. Requiring only a web browser interface for management, the H.264 DME seamlessly integrates as a distributed element within the VBrick enterprise IP video platform. This includes working in concert with a central VBrick Enterprise Management System (VEMS) to intelligently store and serve content from a local DME.

Deploying the H.264 Distributed Media Engine assures users of access to high definition quality video on both fixed and mobile endpoints, even if they are located across campus or across the world.


**Models**

**8000-0222** Distributed Media Engine Model 7530

**8000-0223** Distributed Media Engine Model 7550

**8000-0224** Distributed Media Engine Model 7570

**Player Support**

- Adobe Flash Player (including applicable Android® and Blackberry® Mobile devices)
- Windows® Player (via VBrick player plug-in)
- Quick Time Player (Windows & Mac)

**Related VBrick Products**

- VEMS Standard, Professional and Enterprise editions
- VEMS Modules: Presenter, Sheduler and Channel Guide
- VEMS NVR 10 and NVR 40
- VEMS SharePoint Integration Module
- OCS streaming Gateway
- HD Set Top Box
- H.264 Video On Demand Server
- 7000 Series H.264 Encoding Appliance
- 7000 Series H.264 Decoding Appliance

**Applications**

The H.264 Distributed Media Engine is deployed on the network edge to support endpoints requiring RTP or RTMP (Flash) streams as well as firewall friendly HTTP progressive downloads. It supports enhanced scalability and performance across the VBrick suite of applications including:

**Meeting and Event Broadcasting** - Provides ubiquitous access to high quality broadcasts and corresponding rich-media content at the network edge.

**Training and Lecture Capture** – Flash streaming and progressive download via HTTP allow for distribution of content to a wide variety of clients including mobile devices.

**Television Distribution** – Simplifies multicast distribution at remote buildings or locations that might not be connected by multicast enabled WAN connections.

**Enterprise YouTube®** – Local content storage reduces burden on WAN.

**Surveillance & Monitoring** – Deliver more content to diverse endpoints over challenging or far flung network environments.

**Digital Signage** – Enhanced performance for greater scalability.

**Features and Benefits**

**Bandwidth Conservation** – Redistribute high quality, live or on-demand, media via RTP multicast; enables more end users to share a single media stream. Leveraging multicast eliminates the need to incrementally scale network bandwidth to support more viewers.

**Features and Benefits**

**Media Transformation** – Stream high quality H.264 content once and leverage the DME at distributed locations to deliver multiple formats (standard RTP or Flash [RTMP] and HTTP progressive download) to reach multiple types of endpoints.

**Mobile Device Support** - Enables delivery of live H.264 content to mobile devices as Flash video or supports HTTP progressive download of video-on-demand content.

**Intelligent Central Management** – Content is created once and then intelligently managed by the VBrick Enterprise Media System (VEMS, regardless of the location. Stored content is appropriately distributed to local DMEs so users have faster access to frequently viewed content without the need to contend with constrained WAN or Internet links.

**Robust Appliance Design** – Requiring only a web browser for management, the DME eliminates the need to separately manage patches and security updates on commercial server operating systems.

**Secure** – Designed to meet the security requirements of demanding government information assurance policies.

**Firewall Friendly** – Supports video on demand content via HTTP download; eliminating barriers imposed by network security policies.

**Enhanced User Experience** - Increases user adoption and impact by assuring outstanding picture quality and response from video applications. The DME easily accommodates increased user demand without degrading performance or their experience.

**Protocols**

**Incoming**

- RTSP Announce
- RTP Over UDP (with RTCP) Unicast and Multicast
- RTP over TCP (with RTCP) Unicast Only
- RTP over UDP (SDP file delivered via FTP)
- FTP for VOD file transfer
- RTMP via RTMP Push over TCP

**Outgoing**

- RTP via RTSP (stream)
- UDP, TCP Interleaved, and HTTP Tunneled
- RTP via RTSP (relay - Push)
- UDP, TCP Interleaved using ANNOUNCE
- RTMP (stream and relay)
- HTTP (Progressive Download)

**Management**

- HTTP/HTTPS for management
- IGMPv3

**Features and Specifications**

	<b>Model 7530 Media Engine 8000-0222</b>	<b>Model 7550 Media Engine 8000-0223</b>	<b>Model 7570 Media Engine 8000-0224</b>
Recommended Users (guidelines for typical uses)	Up to 50 concurrent users	Up to 1000 concurrent users	Up to 2000 concurrent users
Maximum Throughput (in and out)	100Mbps	250Mbps	500Mbps
CPU	Intel i5	Intel Xeon	Intel Xeon
Memory**	2GB	4GB	4GB
Content Storage	(1) 250GB	(4) 146GB RAID 5	(6) 300GB RAID 5
Chassis	Shelf Mount	1RU - Rack Mount	2RU - Rack Mount
Network	Gigabit Ethernet	Gigabit Ethernet	Gigabit Ethernet
Server OS	Embedded	Embedded	Embedded
Power Supplies	102 watt power supply	Redundant 502 watt power supplies	Redundant 570 watt power supplies
Dimensions	<b>Height:</b> 2.44" (6.2cm) <b>Width:</b> 7.56" (19.2cm) <b>Depth:</b> 8.27" (21.0cm)	<b>Height:</b> 1.68" (4.26cm) <b>Width:</b> 8.99" (48.24cm) <b>Depth:</b> 30.39" (77.2cm)	<b>Height:</b> 3.4" (8.64cm) <b>Width:</b> 17.44" (44.31cm) <b>Depth:</b> 26.8" (68.07cm)
Weight	<b>Weight (maximum):</b> 15lbs (6.8Kgs)	<b>Weight (maximum):</b> 39lbs (17.69Kgs)	<b>Weight (maximum):</b> 57.5lb (26.1kg)



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