

Vbrick® Distributed Media Engine

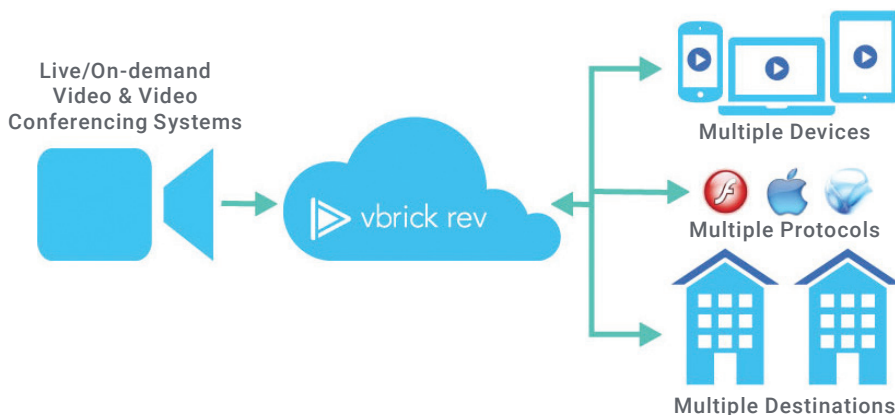
Software Edition

The Vbrick Distributed Media Engine (DME) forms the backbone of the Rev® enterprise Content Delivery Network (eCDN). It enables efficient video broadcasts to large audiences by supporting a variety of endpoints, including popular smartphones and tablets. People in regional offices or on remote campuses can view high-definition video, either live or stored, without taxing data connections to a central site.

The DME intelligently provides media redistribution, edge caching, media transformation and the serving and storage of video-on-demand content. A typical deployment has one or more central DMEs connected to edge DMEs. A single stream of media from a central site can support tens of thousands of live views and then be stored locally for on-demand access by thousands more.

The DME also integrates with SIP-based video conference systems to stream conferences to thousands of employees, including to their mobile devices. Transrating stream and Vbrick MixTM mobile streaming application options also are available.

FIGURE 3: The DME intelligently provides media redistribution, media transformation and the serving and storage of video-on-demand content.



APPLICATIONS

The DME is deployed on the network edge to support endpoints requiring RTP, RTMP (Flash), Flash Multicast (RTMFP), HDS, HLS (Apple Adaptive), MPEG2TS (Transport Stream) and Smooth Streaming streams as well as firewall friendly progressive downloads.

- ▶ Live Meeting and Event Broadcasting
- ▶ Training and Lecture Capture
- ▶ Television Distribution
- ▶ On-demand Content Management and Distribution
- ▶ Surveillance and Security

PRODUCT AT A GLANCE

MEDIA REDISTRIBUTION

- ▶ Ingests and reflects media streams, unicast to unicast or unicast to multicast. One stream serves thousands. Mix SD and HD live streams supported.

MEDIA TRANSFORMATION

- ▶ Converts standard H.264 RTP to Flash, Flash Multicast, HDS, Apple Adaptive, and Transport Stream providing video to PCs, Macs, tablets, and smartphones. Dynamically transforms resolutions and bitrate of a stream for devices/locations requiring a smaller stream.

VIDEO ON DEMAND

- ▶ Local content storage and video serving allow frequent content to be accessed locally without burdening data connections to larger central sites.

VIDEO CONFERENCE EXTENSION

- ▶ Optional solution enables SIP-based integration with popular video conferencing equipment. Allow thousands to watch a video conference from anywhere including popular mobile devices.

INTEGRATED SOLUTION

- ▶ Integrated with the Rev video management platform, assuring that only authorized users have secure access to content and that central reporting is available regardless of the user's location.

FEATURES AND BENEFITS

Bandwidth Conservation - Redistribute high-quality, live or on-demand, media via RTP multicast. Leveraging multicast eliminates the need to incrementally scale network bandwidth to support more viewers. Transform higher resolution and bandwidth streams to work in bandwidth-challenged environments.

Intelligent Central Management - Content is created once and then intelligently managed by Rev.

Media Transformation - Stream high-quality H.264 content once and leverage the DME at distributed locations to deliver multiple formats including Flash, Flash Multicast, HDS, HLS (Apple Adaptive), Smooth Streaming as well as Transport Stream and HTTP progressive download; DME delivers video to multiple types of endpoints concurrently.

Mobile Device Support - Enables delivery of live H.264 content to mobile devices as Flash, Apple Adaptive and Smooth Streaming or supports HTTP progressive download of video-on-demand content.

Secure - Designed to meet the security requirements of demanding government and enterprise information assurance policies.

Enhanced User Experience - The DME easily accommodates increased user demand without degrading performance or the viewing experience.

LICENSING

	MODEL 7530	MODEL 7550	MODEL 7570
LICENSE LEVEL	SMALL	MEDIUM	LARGE
RECOMMENDED CONCURRENT USERS	100 OR FEWER	1000 OR FEWER	2,200 OR MAXIMUM
MAXIMUM THROUGHPUT	250 MBPS	500 MBPS	3.2 GBPS

SYSTEM REQUIREMENTS

	MODEL 7530	MODEL 7550	MODEL 7570
REQUIRE VIRTUAL CPUS	2 CORE	4 CORE	8 CORE
REQUIRE MEMORY	4 GB	16 GB	32 GB
NETWORK INTERFACE	VMWARE E1000	VMWARE E1000	4X VMWARE E1000 OR EMULATED 10-GBPS INTERFACE

PRODUCT SPECIFICATIONS

HYPERVISOR VERSION

- ▶ ESXi 4.1, 5.0, 5.1, 5.5
- ▶ Windows Hyper-V Server 2012, 2012R2

PLAYER SUPPORT

- ▶ Adobe Flash Player
- ▶ HTTP Dynamic Streaming (HDS)
- ▶ Apple Adaptive Player on iPhone and iPad using HTTP Live Streaming (HLS)
- ▶ Windows® Media Player 12 or Vbrick plug-in
- ▶ QuickTime Player (Windows & Mac)

INCOMING PROTOCOLS

- ▶ RTP
- ▶ RTMP
- ▶ MPEG2TS with KLV
- ▶ FTP for VOD file transfer
- ▶ Smooth Stream from IIS Server
- ▶ SIP (optional)

OUTGOING PROTOCOLS

- ▶ RTMFP Flash Multicast
- ▶ RTP - unicast & multicast
- ▶ RTMP - unicast
- ▶ MPEG2TS with KLV - unicast & unicast
- ▶ HDS - unicast
- ▶ HLS - unicast
- ▶ HTTP (Progressive Download)
- ▶ Smooth Stream
- ▶ Stored Windows Media via Progressive Download

MANAGEMENT

- ▶ HTTP/HTTPS for management
- ▶ GMPv3
- ▶ SNMP v1, 2, 3