

# Vbrick Distributed Media Engine

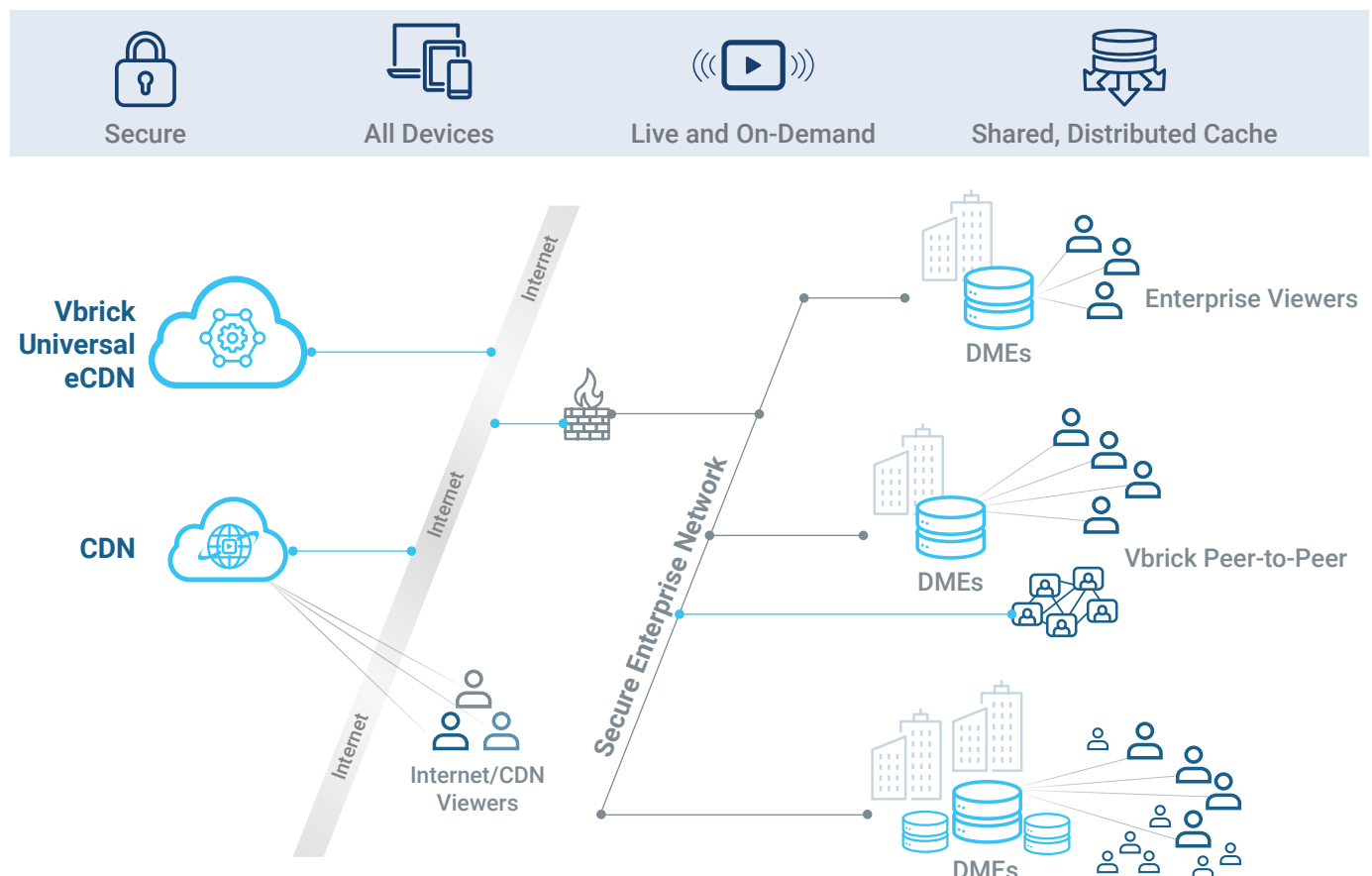
Vbrick's proprietary Distributed Media Engine (DME) operates at the edge of your network for faster, more efficient video delivery. Designed to cache, distribute, and optimize video streams, the DME ensures smooth, high-quality video playback for large audiences, whether on PCs, Macs, smartphones, or tablets. No matter where your team is – in regional offices or on remote campuses – they can enjoy HD video content live or on-demand without overloading your network.

DMEs intelligently provide media redistribution, edge caching, media transformation, and the serving and storage of video-on-demand content. Typically, at least one DME is strategically placed either centrally or at

the edge of the enterprise network. This setup allows a single media stream to support tens of thousands of live viewers. Additionally, the video content can be stored locally allowing thousands more users to access it on demand.

DMEs form the backbone of Vbrick's enterprise content delivery network (eCDN), enabling reliable and efficient content distribution across enterprises everywhere. Our suite of eCDN technologies – complete with peer-to-peer, edge caching, multicast, and content delivery network (CDN) options – can be used independently or together for optimized video delivery.

## DMEs INTELLIGENTLY PROVIDE MEDIA REDISTRIBUTION, MEDIA TRANSFORMATION, AND THE SERVING AND STORAGE OF VIDEO-ON-DEMAND CONTENT



## CAPABILITIES

### Video Ingest

- ⦿ Accepts standards-based RTMP and RTSP streams (H.264/aac) from Vbrick or other third-party encoders
- ⦿ Automatically pulls cloud-based streams for local distribution

### Video Transformation

- ⦿ Re-encodes streams for resolution or bitrate optimizations
- ⦿ Packages streams for multi-bitrate playback

### Video Redistribution

- ⦿ Serves or actively reflects video streams sourced locally or from the cloud
- ⦿ Uses multiple distribution technologies: Vbrick Peer-to-Peer, Vbrick Edge Caching, and Vbrick Multicast

### Video On Demand

- ⦿ Supports frequent access with local content caching and video serving, optimizing the costly burden of origin fetches

### Integrated Solution

- ⦿ Provides secure, authorized cloud and local management, assuring only approved users have access to content and reporting, regardless of location
- ⦿ Integrates with common video conferencing systems, including Webex Webinars and Microsoft Teams with support for town hall

### Right-Fit Solutions

- ⦿ Includes unrestricted or size-based licensing: small (model 7530), medium (model 7550), large (model 7570)
- ⦿ Deploys as a software-only virtual machine (VM)

## FEATURES AND BENEFITS

**Bandwidth Conservation** – Redistribute cached or live content using multiple distribution technologies for multiple bandwidth approaches. As an edge cache, DMEs minimize ingress bandwidth for video on demand or live playback. As an option, live can be optimized with Vbrick Multicast, which eliminates the need to incrementally scale network bandwidth to support more viewers. DMEs can also transform high resolution and bitrates streams to more effectively work in a bandwidth-challenged environment.

**Centralized Management** – Controls all DMEs and allows you to optimize bandwidth against specific network topology and use cases.

**Media Transformation** – Stream high-quality H.264/AAC content once to a DME and leverage the DME to deliver the content as is. Alternatively, create additional renditions to deliver as a multi-bitrate stream.

**Mobile Device Support** – Enables optimized delivery of live H.264/AAC content to PCs, Macs, and mobile devices, both on and off LAN.

**Security** – Designed to meet the security requirements of stringent government and enterprise information assurance policies.

**Enhanced Streaming Experience** – The DME easily accommodates increased user demand without degrading performance or the viewing experience.



## SPECIFICATIONS

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
VIRTUAL SYSTEM REQUIREMENTS			
Required Virtual CPUs	4 Core	8 Core	16 Core
Required Memory	4 GB	16 GB	32 GB
Network Interface	VMware E1000	VMware E1000	4X VMware E1000 or emulated 10-Gbps interface

### Hypervisor Version

- ⦿ ESXi 6.7+
- ⦿ Windows Hyper-V Server 2012+
- ⦿ Docker

### Player Support

- ⦿ HTML5 players (HLS.js, Video.js), including Vbrick EVP
- ⦿ Microsoft Teams player
- ⦿ Webex Webinars player

### Incoming Protocols

- ⦿ RTP/RTSP
- ⦿ RTMP/RTMPS

### Outgoing Protocols

- ⦿ HLS - unicast
- ⦿ Vbrick Multicast
- ⦿ HTTP (progressive download)
- ⦿ RTMP/RTMPS - unicast
- ⦿ MPEG2TS with KLV

### Management

- ⦿ HTTP/HTTPS for management
- ⦿ SNMP v1, 2, 3

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