Mandatory Requirements

VCAST Streaming Server 6800R-RN (VC-SR6800R-RN)

General Features:

- Support high-quality video/audio broadcast at various bit-rates for multiple devices (PC, TV via VBOX or Windows Mobile)
- Support live and on-demand video / audio broadcasting via any TCP/IP networks
- Highly scalable and expandable from small to large scale of streaming
- Ease of support and maintenance with remote management
- Support latest streaming technologies for best user experience over Internet, Intranet or Wireless
- Reliable for 7/24 operation with high availability and backup options
- Support publishing, re-broadcasting and content delivery via Vcast Network for global broadcasting (optional at charge-basis)
- Fully compatible and managed by Vcast Content Management System
- Provided by **Certified Windows Media Hardware Product Vendor** (Integrated Capture/Encoding Solutions and Appliances) listed in http://www.microsoft.com/windows/windowsmedia/service_provider/Hardware/default.aspx#capture
- Provided by **Certified Windows Media Software Product Vendor** (Software/Content Management) listed in http://www.microsoft.com/windows/windowsmedia/service_provider/Software/default.aspx#content

Streaming Features:

- Support and compatible with Windows Media 6, 7, 8, 9, SMPTE VC-1, MP3, RealAudio, RealVideo, Quick Time, AAC and AAC+ formats
- Support unlimited* no. of broadcasting channels
- Support "Fast Streaming" capabilities which can effectively eliminate buffering time, and reduce the playback interruptions due to network conditions. Features like Fast Start, Fast Cache, Fast Recovery, and Fast Reconnect provide an always-on viewing experience by streaming content with minimal buffering and down-time, even over high latency network connections such as wireless and satellite.
- Support instant-on/always-on playback which can dramatically improves streaming reliability, responsiveness user experience and virtually eliminating annoying buffering delays and interruptions when playing digital media content
- Support Advanced Fast Start, Advanced FF/RW, and Play While Archiving (for Windows Media Player v10 or above only)
- Support Unicast / Multicast streaming and rollover from multicast to unicast automatically
- Provides simplified, flexible administration with increased reliability, security and scalability
- Support multiple streams failover and redundancy
- Support Internet authentication method (Digest, Kerberos or NTLM, NTFS ACL, Anonymous access or IP Address) and Vcast authentication plug-in(s) for integration with 3rd parties
- Support traffic management and logging
- Support wireless adaptive streaming with enabled forward error correction (FEC)
- Support redistribution via Vcast Streaming Server, Vcast Network or Content Delivery Network (CDN) model using Vcast CDN add-on module (optional)

VCAST Content Management (VCM) Lite Features:

Video search and browsing	
General features:	• Each video clip should contains at least the following information in their profile: - Title - Description - Keywords - Author - Copyright - Bandwidth - Duration - File size

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Mandatory Requirements	
	• Video duration can be auto-detected by the VCM • Local Database (Size up to 4GB limit)
Upload video:	• Support at least 100 MB file size or above using web-based interface by HTTP protocol (TCP port 80 or 8080) • Progress status bar shows during file upload for the uploading status • Video clips will not be published to public until the approval of authorized users
Search video:	• Support multiple criteria searching of video clips by the fields of video profile including title, description, keywords, author, copyright, bandwidth, duration and file size • Support video preview by unicast on-demand streaming model • Support sorting in order for searching results (e.g. by title, duration, etc.)
Delete video:	• Video clips can be selected and deleted by authorized users • Video clips can be deleted in batch mode (i.e. delete multiple video by a simple click)
Channel	
General features:	• Support unlimited* of channels • Support Unicast streaming*
Create channel:	• Administrator can create channel(s) which contains live or on-demand video streams
Edit channel:	• Information and the scheduled content of the channel can be edited by authorized users
Delete channel:	• Channels can be deleted by authorized users

Streaming Specifications	
Supported Streaming Protocol & Broadcasting Method:	• RTSP, HTTP • Unicast, Multicast (Support Rollover to Unicast) • Streaming Cache and Proxy • Wireless adaptive streaming • Re-broadcast from Vcast Streaming Servers or Vcast Streaming Encoders
	Optional Add-on Module: • Vcast CDN (Content Delivery Network)
Max. Concurrent Streams:	• 2,000 live concurrent streams for up to 600Mbps throughput • 500-1000 on-demand streams for up to 200Mbps throughput
Support Broadcasting Channel:	• Unlimited*
Support Streaming Format:	• Windows Media 6, 7, 8, 9, SMPTE VC-1, MP3, RealAudio, RealVideo, Quick Time, AAC and AAC+ formats
Advanced Streaming Technology:	• Fast Start, Fast Cache, Fast Recovery, Fast Reconnect, Instant-on/Always-on, Advanced Fast Start, Advanced FF/RW and Play While Archiving
Security Authentication	• Digest, Kerberos or NTLM, NTFS ACL, Anonymous access or IP Address • Vcast authentication plug-in(s) for integration with 3rd parties
Failover and Redundancy	• Support multiple sources from Vcast Streaming Encoder and switch over automatically • Support resilience and failover
Activity Logging and Reporting	• Support Unicode or ANSI characters • Support specified logging cycle period
Bandwidth and Traffic Management	• Player connections • Outgoing distribution connections • Aggregate player bandwidth • Aggregate outgoing distribution bandwidth

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Mandatory Requirements
- Bandwidth per stream per player   - Bandwidth per outgoing distribution stream   - Connection rate   - Player timeout inactivity   - Connection acknowledgement   - Incoming bandwidth   - Fast Start bandwidth per player   - Fast Cache content delivery rate

Hardware Specifications	
Processor:	• Quad Core Intel® XEON E5405A or above
Memory:	• 2 x 1GB ECC Fully Buffered DDR2 RAM
Storage Capacity:	**Main Storage:** • 5 x 146GB SAS hot-plug HDD in RAID 5 Configurable to support H/W RAID 0, 1,1E, 5, 5EE, 6, 10, 50, 60, JBOD • Optical Drive (DVD+/-DL, DVD+/-RW, DVD+/-R, DVD-RAM, CD-ROM, CD-RW) **Optional Upgrades:** • External USB Floppy Disk Drive
Network Interface:	• 2 x 10/100/1000Mbps Ethernet (RJ45, Copper)
Power Input Voltage:	• 115 VAC (90 to 132 VAC related input) or 230 VAC (180 to 264 VAC related input)
Output Power:	• 2+1 650W hot-swap redundant power supply
Keyboard & Mouse:	• Wired keyboard and mouse
Chassis Enclosure and Dimension:	• 3U 19' inch rack-mountable chassis 660 x 430 x 132 (D x W x H) mm
Preinstalled OS & Software:	• Microsoft® Windows Server 2008 Enterprise Edition (64 bits) • Microsoft® Windows Media Services 9.5 • Helix Server Unlimited • Microsoft® Windows Media Player 11 • Remote control tools for remote administration via TCP/IP

* Limited by the hardware capability