



VIDEO BROADCAST SERVER

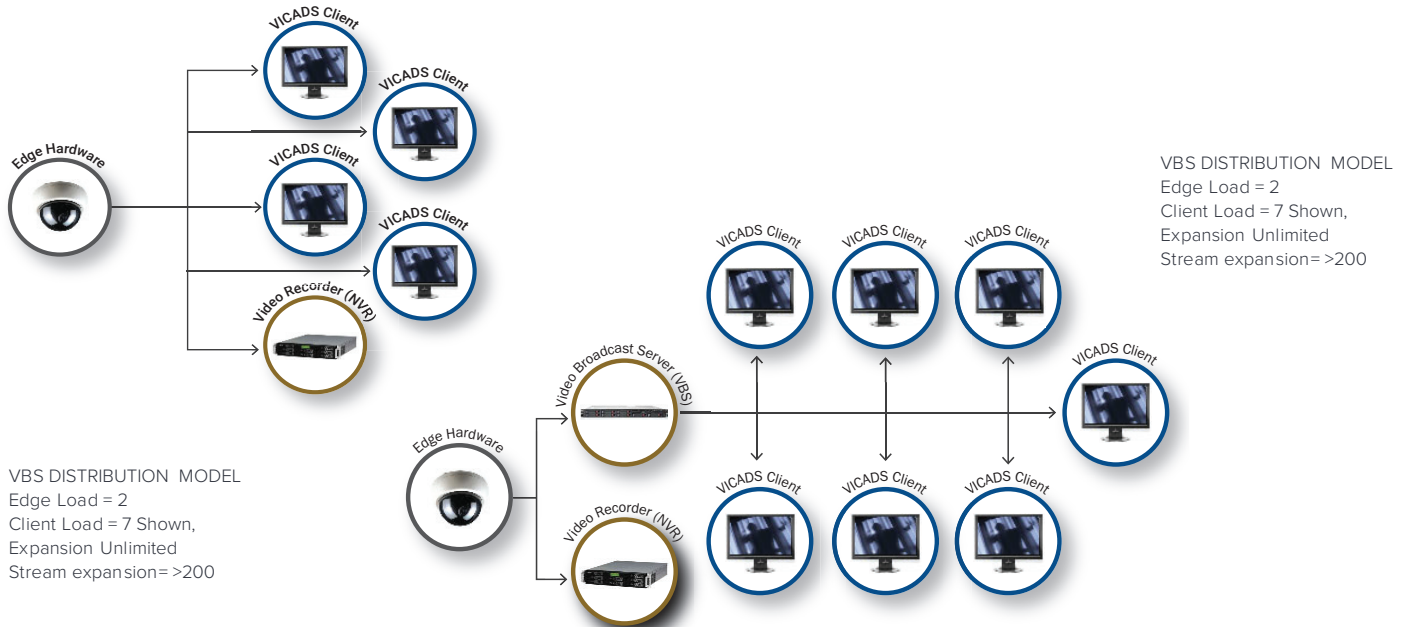
RELIABLE | INTELLIGENT | CERTIFIED

Product Overview

The Video Broadcast Server (VBS) is a component of the overall VICADS® video management solution.

The VBS is a very efficient and robust video stream replicator that serves all VICADS viewing clients (Personal Viewers, Softwalls and Radarwalls) distributed across the video network. The VBS supports MJPEG, JPEG (snapshot) and RTSP as source streams and delivers the video over RTSP or MJPEG. The VBS does not perform transcoding so input signals are not modified which adds to the speed and efficiency of the system.

Features	Benefits
Sturdy, Scalable, Serviceable	Designed for high reliability minimal downtime applications, expansion without obsolescence
Redundancy and Regionalization	Fully redundant hardware configurations for mission critical applications.
Intelligent Load Balancing	Clustered units that load balance intelligently and automatically to manage bandwidth.
High Visual Information Fidelity	Allows limited edge hardware to produce a single stream regardless of live video clients.
Easy Setup and Maintenance	DoD Risk Management Framework (RMF) Compliant Secure, Encrypted Web Configuration
Information Assurance Posture	Integrates with Active Directory and VICADS Server so configuration is quick and easy.



HARDWARE SPECIFICATIONS

SPECIFICATION	DESCRIPTION	NOTES
Operating System RAID Controller	Microsoft® Windows Server 2016 RAID P408i-a w/ Smart Storage Battery	64 Bit, Member Server RAID 0,1,5,6
Storage	2- 960GB SATA SSD Drives	RAID 1, Operating System, 8LFF chassis
Memory	2- 16GB PC4-2666V	32GB RAM
Processor	2- Intel Xeon Silver 4110	Dual Processors, 8C/16T
Network	2- 1Gb network interfaces	RJ-45
Power Supply	2- 500W Power Supply	Redundant
Power Consumption	Max: 4A @ 120VAC / 2A @ 240VAC	Per Supply
Peripherals	2- 1.83 m (6") 10A US	U.S. Power Cords
Form Factor	2- RU (3.5")	With lockable front bezel & dust cover
Warranty	3-year standard, 5-year optional	Limited
Hardware Part Number	10-20003-004 10-37000-001 10-38001-001	VICADS Broadcast Server 2016 HP VICADS Broadcast Server 2016 HP Management /or Spares Kit VICADS (MGMT, VBS, NVR) 5-yr Warranty HP
Software Part Number	10-40003-000	VICADS Broadcast Server Site License, V4

PERFORMANCE SPECIFICATIONS

SPECIFICATION	DESCRIPTION												
Video Input Formats	JPEG, MJPEG, MPEG4 (RTSP), H.264 (RTSP)												
Video Output Formats	MJPEG, MPEG4 (RTSP), H.264 (RTSP)												
# of Simultaneous Input streams ¹	Configuration dependent												
# of Simultaneous Output streams ¹	Configuration dependent												
Examples with one VBS and teamed 1Gb NICs	<table border="0"> <tr> <td>50 (input) x 50 (output) {MJPEG}</td> <td>4CIF resolution, 30 FPS, Total BW ~1073 Mbit/s</td> </tr> <tr> <td>40 (input) x 40 (output) {MJPEG}</td> <td>BW ~1034 Mbit/s</td> </tr> <tr> <td>25 (input) x 25 (output) {MJPEG}</td> <td>1080P resolution, 10FPS, Total BW ~955 Mbit/s</td> </tr> <tr> <td>200 (input) x 200 (output) {MPEG4/H.264}</td> <td>4CIF resolution, 30FPS, 2.6 Mbps ea, BW ~1040 Mbit/s</td> </tr> <tr> <td>175 (input) x 175 (output) {MPEG4/H.264}</td> <td>720P resolution, 15FPS, 3.0 Mbps ea, Total BW ~1073 Mbit/s</td> </tr> <tr> <td>125 (input) x 125 (output) {MPEG4/H.264}</td> <td>1080P resolution, 10FPS, 4.3 Mbps ea, Total BW ~1083 Mbit/s</td> </tr> </table>	50 (input) x 50 (output) {MJPEG}	4CIF resolution, 30 FPS, Total BW ~1073 Mbit/s	40 (input) x 40 (output) {MJPEG}	BW ~1034 Mbit/s	25 (input) x 25 (output) {MJPEG}	1080P resolution, 10FPS, Total BW ~955 Mbit/s	200 (input) x 200 (output) {MPEG4/H.264}	4CIF resolution, 30FPS, 2.6 Mbps ea, BW ~1040 Mbit/s	175 (input) x 175 (output) {MPEG4/H.264}	720P resolution, 15FPS, 3.0 Mbps ea, Total BW ~1073 Mbit/s	125 (input) x 125 (output) {MPEG4/H.264}	1080P resolution, 10FPS, 4.3 Mbps ea, Total BW ~1083 Mbit/s
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# of Users	Unlimited												
# of Servers	Unlimited; multiple VBS automatically load balance and failover												
Output Resolution Supported ²	1080P 30FPS Functionally Tested												
Certifications & Approvals	DoD Approved for PL1N and PL1-PL4, DoD RMF compliant												

ENVIRONMENTAL SPECIFICATIONS

NOMENCLATURE	TEMPERATURE HUMIDITY ³ & ALTITUDE (NON-OPERATING)	TEMPERATURE & HUMIDITY ³ & ALTITUDE (OPERATING)	ESTIMATE BTU LOAD ⁴ (PER SERVER)
VICADS Broadcast Server	-30°C to 60°C (-22°F to 140°F) 5-95% (non-condensing) 9144 m (30,000 ft)	10°C to 35°C (50°F to 95°F) 8-90% (non-condensing) 3050 m (10,000 ft)	1979 BTU/hr (maximum)

DIMENSIONAL SPECIFICATIONS

NOMENCLATURE	HEIGHT (H)	WIDTH (W)	DEPTH (D)	CLEARANCE (REAR) ⁶	WEIGHT ⁷
VICADS Broadcast Server 2016 HP	3.44"	17.54"	28.75"	4"	19.5kg (43lbs)

- ¹ 1 VBS loading recommended @ 50% of total available bandwidth for network interface cards. Multiple VBSs are possible to enhance load characteristics. Contact factory for details
- ² Higher resolution inputs reduce overall capabilities. Resolutions greater than 1080P and frame rates greater than 30 are not limited by software but are not functionally tested.
- ³ Altitude deratings against operating temperature are 1.0°C per 305m (1.8°F per 1000ft). Extended temperatures can be achieved in specific configurations. Contact factory for details.
- ⁴ Heat dissipation (BTU/hr) data is based on 120VAC power input and is provided as an estimate for reference only.
- ⁵ Allow an additional 1 RU (1.75") Air Gap between each racked component.
- ⁶ Clearance is a recommended space budget in addition to machine dimensions to allow for cables & routing.
- ⁷ Exact weight depends upon configuration
- [†] Specifications are subject to change without notice. PSG is not responsible for customer use of this data.