



VESS A-SERIES NVR APPLIANCES FOR IP VIDEO SURVEILLANCE

Ideal Customer Profile

- IP video surveillance deployments
- Surveillance customers who need to store data for anywhere from several weeks to years
- Looking for an IP video surveillance solution that is inexpensive and easy to deploy

Typical Customer Needs

- Best price/performance
- Low latency recording
- Easy to deploy, use and maintain
- Failsafe data protection
- Easy to scale as needs grow

Typical Customer Pain Points

- Applying storage designed for IT in surveillance applications
- Dropped video frames
- Difficulty in administering & maintaining storage solutions
- Too expensive
- Integrating hardware and software from several different vendors

Typical Use Cases

 Ideal for IP video surveillance deployments of any size and in any industry



Why Do Customers Buy the Vess A-Series?

- **SmartBoost Technologies:** Unique technologies which allow the systems to handle a much higher number of IP cameras:
 - Predictive Playback Utilizes idle recording times to monitor read patterns to predict where the next playback will be needed so the hard disk drives are not competing with the workload of the system.
 - **Sequential Pattern Recording** Eliminates the heavy workloads caused by random write patterns. Monitors recording patterns and collects data in the cache buffer and only writes data to the drives once a full stripe is ready, creating a sequential recording pattern with the smoothest performance.

Reduces Deployment Costs and Complexity: Reduces support and equipment costs because there is no separate RAID storage unit to manage, eliminating the need for an extra server, controller cards, external cables, and a separate storage enclosure.

- **Open Platform:** Compatible with a range of VMS including Aimetis, Axxonsoft, CamIQ, CSVi, Digifort, OnSSI, SeeTec, Genetec, and Milestone and IP cameras from Axis, Bosch, Samsung and Sony.
- **Milestone XProtect Plug-in:** Makes storage management significantly more convenient for users as the Vess GUI is embedded in the XProtect application and runs as an integrated part of the software.
- Surveillance Project Design Tool: Helps determine the overall installation requirement of a given project by calculating total storage space, bandwidth needed, recording server and external storage requirements
- Smooth Scalability: Easily expand via iSCSI by adding Promise Vess R2000 storage with built-in SmartBoost Technology either for live recording on external storage or for archiving.
- **Easy Management & Serviceability:** Hot swappable drive bays, redundant power supplies, & One Plug Auto Service



Technical Specifications

	Vess A2200	Vess A2600	Vess A2330	Vess A3340	
General Information					
Camera Range ²	32-64	64-128	Up to 35*	Up to 80*	
Form Factor	2U, 19" Rackmount	3U, 19" Rackmount	2U, 19" R	ackmount	
Number Of Drives	6 Drives (3.5")	16 Drives (3.5")	6 Drives (3.5")	8 Drives (3.5")	
Drive Type	SATA (6Gb/s ¹ or 3Gb/s), N	VCQ, TCQ, Hot Swappable	SA	ATA	
# of Controllers	Single				
System Processor	Intel® Core™ i3	Intel [®] Xeon [®] E3	Intel [®] Celeron J1900	Intel [®] Xeon [®] E3	
System Memory	8GB Default (Max 16GB)	8GB Default (Max 16GB)	8GB DDR3	8GB DDR4 (Max 32GB)	
I/O Interface	4x Gigabi	t Ethernet	2 x Gigab	it Ethernet	
Storage Expansion	iSCSI				
Max # of HDDs Supported	Up to 118 drives through iSCSI & JBOD expansion	Up to 128 drives through iSCSI & JBOD expansion	Up to 118 drives through iSCSI & JBOD expansion	Up to 120 drives through iSCSI & JBOD expansion	
Other Interfaces					
# of USB Ports	4x USB 3.0, 2x USB 2.0	4x USB 2.0	4x USB 3.0, 2x USB 2.0	6x USB 3.0, 2x USB 2.0	
PCI Express Ports	1x 16-lane Gen 2.0 PCle, 2x 8-lane Gen 2.0 PCle	1x 16-lane Gen 2.0 PCle, 3x 8-lane Gen 2.0 PCle	N/A	1 x PCle 3.0 x 8 1 x PCle 3.0 x 4	
Graphics	D-sub VGA	and HDMI	D-sub and HDMI	D-sub, HDMI and Display Port	
Serial Interfaces	2x RS-232C ((D-sub 9-pin)	3x RS-232	1x RS-232	
Audio & Microphone	2x 3.5mm	Audio Jack	2x 3.5mm Audio Jack	3x 3.5mm Audio Jack + SPDIF	
Sensor Input/Alarm Ou	put				
Sensor In		24V, photo coupler input x 8			
Alarm Out		hanical relay output x 8			
RAID Operational Feat					
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50 Any combination can exist at the same time	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60 Any combination can exist at the same time	0, 1,1E, 3, 5, 6, 10 (0+1), 30, 50; An tii	y Combination can exist at the sam me	
Hot Spares		Multiple global or dedicated hot-s	pare drives with revertible option		
Max. LUNs per System/		256/32			
Array			/32		
Software			/32		
Software			/32		
Preloaded OS (64-bit)	Windows Embedded Star Windows Server 2012			dded Standard 7	
	Windows Server 2012	ndard 7 Runtime (WS7P),	Windows Embe		
Preloaded OS (64-bit) Management Tools	Windows Server 2012	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C	Windows Embe Graphics, OPAS Service via USB, SDK		
Preloaded OS (64-bit) Management Tools Appliance Mode	Windows Server 2012	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C Surveillance Optimization @ A	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade		
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification	Windows Server 2012	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade		
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information	Windows Server 2012	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C Surveillance Optimization @ A Email, SNMP,	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade Buzzer, LEDs		
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input	Windows Server 2012 Graphical UI/SNMP	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C Surveillance Optimization @ A Email, SNMP, 100~240 VA	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz	or API for Integration	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum)	Windows Server 2012 Graphical UI/SNMP 4A (100V);	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C Surveillance Optimization @ A Email, SNMP, 100~240 VA	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A	or API for Integration 2.5A	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Power Supply	Windows Server 2012 Graphical UI/SNMP 4A (100V); Three redundant 250W, Energy-et full-ranging w/PFC, Hot	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or O Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA ; 2A (240V) fficient 80PLUS Certified, 90-264V : swappable N+1 Design	Windows Embe Graphics, OPAS Service via USB, SDK of Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W	or API for Integration 2.5A 350W	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Power Supply BTU	Windows Server 2012 Graphical UI/SNMP v 4A (100V); Three redundant 250W, Energy-ef full-ranging w/PFC, Hot 1288 BTU/hr	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or O Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA ; 2A (240V) fficient 80PLUS Certified, 90-264V swappable N+1 Design 1729 BTU/hr	Windows Embe Graphics, OPAS Service via USB, SDK Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W 375.43 BTU/h	or API for Integration 2.5A 350W 853.25 BTU/h	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Power Supply BTU Fan	Windows Server 2012 Graphical UI/SNMP 4A (100V); Three redundant 250W, Energy-et full-ranging w/PFC, Hot	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or O Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA : 2A (240V) fficient 80PLUS Certified, 90-264V : swappable N+1 Design 1729 BTU/hr able design	Windows Embe Graphics, OPAS Service via USB, SDK of Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W 375.43 BTU/h Swappable	or API for Integration 2.5A 350W	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Power Supply BTU	Windows Server 2012 Graphical UI/SNMP v 4A (100V); Three redundant 250W, Energy-et full-ranging w/PFC, Hot 1288 BTU/hr Hot swappa 10.4kg(22.9 lbs) w/o drives,	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or O Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA ; 2A (240V) fficient 80PLUS Certified, 90-264V swappable N+1 Design 1729 BTU/hr able design 5° ~ 40°C (-40° ~ 60° 15.9kg(35.1 lbs) w/o drives, 27.9kg	Windows Embe Graphics, OPAS Service via USB, SDK of Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W 375.43 BTU/h Swappable 'C non-operational) 6.8kg (14.96 lbs) w/o drives	or API for Integration 2.5A 350W 853.25 BTU/h Redundant 7.38kg (16.23 lbs) w/o drives	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Power Supply BTU BTU Fan Yeight	Windows Server 2012 Graphical UI/SNMP v 4A (100V); Three redundant 250W, Energy-ed full-ranging w/PFC, Hot 1288 BTU/hr Hot swapp: 10.4kg(22.9 lbs) w/o drives, 14.9kg (32.8lbs) w/drives	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or C Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA ; 2A (240V) fficient 80PLUS Certified, 90-264V swappable N+1 Design 1729 BTU/hr able design 5° ~ 40°C (-40° ~ 60° 15.9kg(35.1 lbs) w/o drives, 27.9kg (61.5lbs) w/drives	Windows Embe Graphics, OPAS Service via USB, SDK of Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W 375.43 BTU/h Swappable C non-operational) 6.8kg (14.96 lbs) w/o drives 10.94kg (24.1 lbs) w/drives	or API for Integration 2.5A 350W 853.25 BTU/h Redundant 7.38kg (16.23 lbs) w/o drives 12.9kg (28.38 lbs) w/drives	
Preloaded OS (64-bit) Management Tools Appliance Mode Event Notification System Information AC Input Current (Maximum) Current (Maximum) BTU BTU BTU BTU Safety/EMI	Windows Server 2012 Graphical UI/SNMP v 4A (100V); Three redundant 250W, Energy-ed full-ranging w/PFC, Hot 1288 BTU/hr Hot swapp: 10.4kg(22.9 lbs) w/o drives, 14.9kg (32.8lbs) w/drives	ndard 7 Runtime (WS7P), 2 R2 Standard or Linux via Ethernet, CLI/CLU via Ethernet or O Surveillance Optimization @ A Email, SNMP, 100 ~ 240 VA ; 2A (240V) fficient 80PLUS Certified, 90-264V swappable N+1 Design 1729 BTU/hr able design 5° ~ 40°C (-40° ~ 60° 15.9kg(35.1 lbs) w/o drives, 27.9kg	Windows Embe Graphics, OPAS Service via USB, SDK of Arrays in Normal and Degrade Buzzer, LEDs C, 60 ~ 50Hz 1.1A 250W 375.43 BTU/h Swappable C non-operational) 6.8kg (14.96 lbs) w/o drives 10.94kg (24.1 lbs) w/drives	or API for Integration 2.5A 350W 853.25 BTU/h Redundant 7.38kg (16.23 lbs) w/o drives	
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¹ Hard disk drive still runs at 3Gb/s speed
² The ideal camera range were the test output with fully populated enclosure and 8GB memory under 20FPS, H.264 and High Video Quality compression *This number are tested under criteria w/o frame lost at 720p@30fps@H.264 ** Vess A3340 PoE will be released in Q4, 2016

Specifications may change without prior notice

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