

# Empowering Video Surveillance

Highly Integrated. Simple to Deploy.



## Vess A2000 & Vess R2000 Series

### High Performance NVR Appliance and Storage Solutions for Video Surveillance

The latest advances in video surveillance are helping a growing number of organizations and corporations protect their interests from the diverse and growing threats that exist today. As a worldwide storage leader, PROMISE Technology develops high-performance storage solutions that solve the unique challenges customers face in video surveillance. With outstanding design, performance, and support, PROMISE's industry leading NVR storage appliances and external storage solutions deliver the optimal mix of features and capabilities that exceed the critical requirements of video surveillance.



# NVR Storage Appliances for IP Video Surveillance

## Vess A2000 Series Highlights

- Optimized for video surveillance recording
- Ideal for up to over a hundred full-HD IP cameras
- Integrated solution results in less management overhead
- Easy & affordable to scale with the Vess R2000 external storage series
- Hot swappable drive bays, redundant power supplies, & One Plug Auto Service ensure Vess is incredibly easy to administer & maintain

The Vess A2000 Series NVR storage appliances are engineered specifically to be the best solution for midsize to large-scale IP video surveillance deployments. Featuring failsafe protection that provides continuous recording without dropping frames under live playback conditions, it is ideal for 32 to over a hundred full-HD IP cameras, making it perfect for gaming, banking, transportation, manufacturing and many more industries.



## Flexible Solution

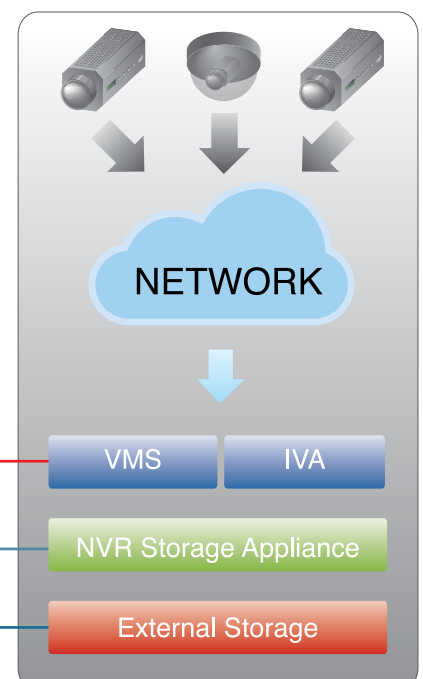
The Vess A2000 Series is integrated with the operating system of your choice, and customers are provided with the option to purchase the system with or without hard disk drives. The Vess A2000 Series ships without video management software (VMS) installed, allowing users the flexibility to deploy the VMS of their choice.

Additionally, the stand-alone Vess NVR greatly reduces support and equipment costs because there is no separate RAID storage unit to manage, eliminating the need for a server, controller cards, external cables, and a separate storage enclosure for a complete video surveillance system; the Vess NVR storage appliance does it all!

## Mid to Large Range NVR Appliance Storage Solutions with 3<sup>rd</sup> Party VMS



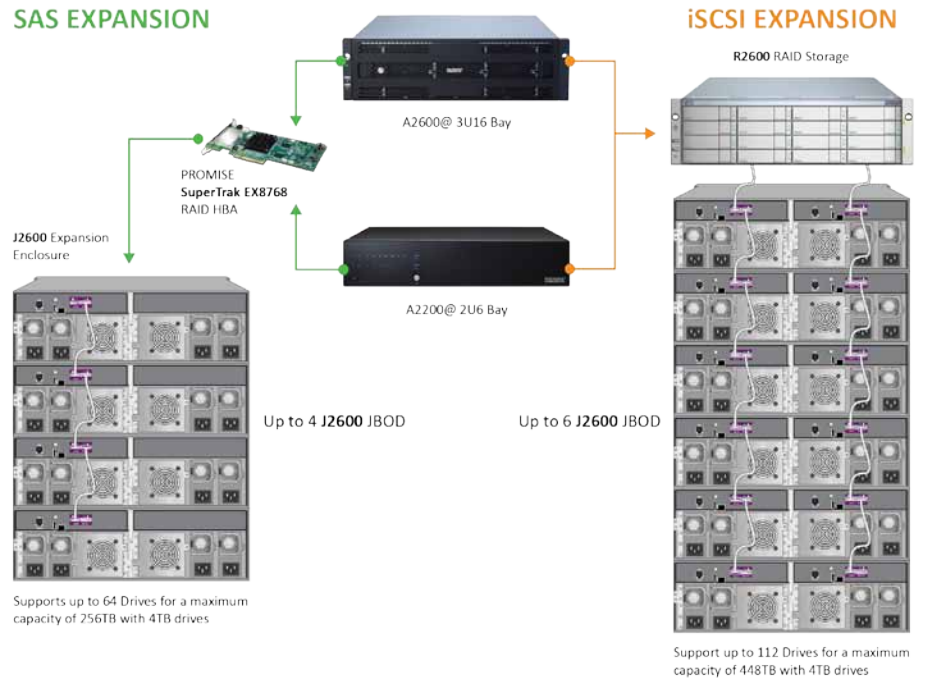
## PROMISE Proposal



# NVR Storage Appliances for IP Video Surveillance

## Integrated Solution - Easier to Manage & Grow

The all-in-one Vess A2000 solution makes it incredible easy to scale as your surveillance needs grow. Security practitioners can easily scale with no user configuration, just plug and add. When external storage is a must, easily scale up with PROMISE's Vess external storage series, creating a total video surveillance solution that combines a recording appliance and external storage.



## System Video Throughput

The Vess A2000 Series can support up to over a hundred full-HD IP cameras. Check out the table below to see the number of cameras supported based on the image resolution, file type, compression ratio, and frames per second.

Video Quality (Compression Ratio)	Image Resolution	CODEC	Vess A2200 (Max. Camera#)			Vess A2600 (Max. Camera#)			Image Resolution	CODEC	Vess A2200 (Max. Camera#)			Vess A2600 (Max. Camera#)		
			10FPS	20FPS	30FPS	10FPS	20FPS	30FPS			10FPS	20FPS	30FPS	10FPS	20FPS	30FPS
High	4CIF (704x576)	H.264	176	162	159	Max.	178	177	1080P (1920x1080)	H.264	90	73	55	156	102	87
Medium		H.264	Max.	176	171	Max.	Max.	Max.		H.264	162	90	79	178	156	117
Low		H.264	Max.	Max.	Max.	Max.	Max.	Max.		H.264	176	162	142	Max.	178	172
High		MJPEG4	176	162	142	Max.	178	172		MJPEG	55	30	20	87	49	28
Medium		MJPEG4	Max.	176	163	Max.	Max.	Max.		MJPEG	77	55	36	108	87	63
Low		MJPEG4	Max.	Max.	176	Max.	Max.	Max.		MJPEG	142	77	64	172	108	94
High	720P (1280x720)	H.264	171	159	90	Max.	177	156	3MP (2048x1536)	H.264	82	55	42	132	87	76
Medium		H.264	Max.	171	162	Max.	Max.	178		H.264	159	82	73	177	132	102
Low		H.264	Max.	Max.	176	Max.	Max.	Max.		H.264	171	159	90	Max.	177	156
High		MJPEG	85	64	55	144	94	87		MJPEG	42	25	16	76	42	21
Medium		MJPEG	159	85	77	177	144	108		MJPEG	73	42	30	102	76	49
Low		MJPEG	171	159	142	Max.	177	172		MJPEG	90	73	55	156	102	87
High	1.3MP (1280x1024)	H.264	162	90	82	178	156	132	5MP (2560x1920)	H.264	64	36	30	94	63	49
Medium		H.264	176	162	159	Max.	178	177		H.264	85	64	55	144	94	87
Low		H.264	Max.	176	171	Max.	Max.	Max.		H.264	159	85	77	177	144	108
High		MJPEG	82	55	42	132	87	76		MJPEG	30	16	16	49	21	1
Medium		MJPEG	159	82	73	177	132	102		MJPEG	55	30	20	87	49	28
Low		MJPEG	171	159	90	Max.	177	156		MJPEG	77	55	36	108	87	63

## Vess R2000 External Storage Series

### Highlights

- Industry leading performance and reliability at an excellent price
- Expand up to 112 disk drives with Vess J2000 expansion units
- Supports 6Gbps & 3Gbps SAS & SATA drives simultaneously
- Dual active/active SAS JBOD I/O modules
- 3U-16 form factor featuring hot-swappable drive bays
- Reliable N+1 redundant power supplies
- Energy efficient system reduces power and cooling costs

The high availability active-active Vess R2000 Series is designed for data-intensive industries, including midsize to large scale surveillance installations where downtime is unacceptable and where large external storage capacity, support for on-demand expansion, long retention periods, and reliable high bandwidth throughput are a must.



Vess R2000

### Operating Mode Customized for Video Surveillance

The Vess R2000 Series is conveniently designed to feature an operating mode for video surveillance customers. Surveillance mode delivers more reliable and stable performance for surveillance video recording, especially when an array is in a critical state or during rebuild.

### Easy Maintenance and Serviceability

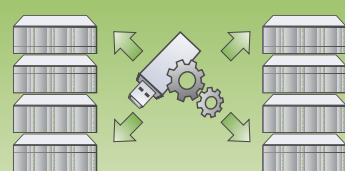
The Vess R2000 Series is designed specifically with budget conscious customers in mind as it features One Plug Auto Service (OPAS) to reduce maintenance complexity and streamline an easier tech support workflow. Simply plug in a USB drive and the user can retrieve information about the system for tech support, upgrade firmware, reset passwords and much more.

#### Systeminfo Retrieval



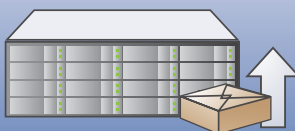
Comprehensive system report that contains detailed information such as NVRAM events and runtime events that have occurred.

#### Quick Installation



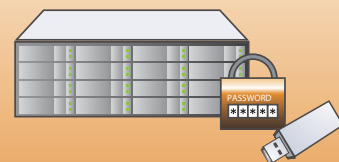
Firmware upgrade is operator-intensive, script for quick installation in initial setup dramatically reduces workload required.

Firmware auto upgrade provides a new user level practice while doing storage system update in the field.



#### Firmware Auto Upgrade

It's always challenging when you deal with numerous login usernames and passwords. It gives flexibility to resolve similar issues.



#### Password Reset




## NVR STORAGE APPLIANCE SOLUTIONS

Model Name	Vess A2200	Vess A2600
Product image		
Product Category	NVR Storage Appliance	NVR Storage Appliance
Availability	Released	Released
Ideal Camera Range	32 to 64	64 to 128
Form Factor	2U6, 19" rackmount	3U16, 19" rackmount
Drive Support	SATA (6Gb/s* or 3Gb/s)	SATA (6Gb/s* or 3Gb/s)
System Processor	Intel® Core™ i3 Dual-core 4-thread	Intel® Xeon® E3 Quad-core 8-thread
System Memory	8GB Standard (max. 16GB)	8GB Standard (max. 16GB)
Max. # of HDDs Supported	118**	128**
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60
Preloaded OS (64-bit)	Windows Embedded Standard 7 Runtime (WS7P), Windows Server 2008 R2 Standard or Linux	Windows Embedded Standard 7 Runtime (WS7P), Windows Server 2008 R2 Standard or Linux
Power Supply	500W (Three redundant 250W N+1 design), 1288 BTU/hr	500W (Three redundant 250W N+1 design), 1288 BTU/hr
Dimensions (H x W x D)	88.2 x 446.2 x 400 mm, 3.5 x 17.6 x 15.7 in	130.1 x 446.2 x 461 mm, 5.1 x 17.6 x 18.1 in
Weight	10.4 kg (22.9 lbs) w/o drives, 14.9 kg (32.8 lbs) w/ drives	15.9 kg (35.1 lbs) w/o drive, 27.9 kg (61.5 lbs) w/ drives
Warranty	3 years and EW plans	3 years and EW plans

\*Initiator still runs at 3Gb/s mode

\*\*Expansion through iSCSI and multiple JBOD expansion enclosures

## SMB STORAGE ARRAY SOLUTIONS

Model Name	R2600iS/R2600iD	R2600tiS/R2600tiD	R2600fiS/R2600fiD
Product image			
Product Category	IP SAN Storage	IP SAN Storage	FC & IP SAN Storage
Availability	Released	Released	Released
Form Factor	3U16, 19" rackmount	3U16, 19" rackmount	3U16, 19" rackmount
Controller	Single/Dual	Single/Dual	Single/Dual
Drive Support	SAS/SATA 6Gb/s	SAS/SATA 6Gb/s	SAS/SATA 6Gb/s
Cache Memory per Controller	2GB Standard (max. 16GB)	2GB Standard (max. 16GB)	2GB Standard (max. 16GB)
Max. # of HDDs Supported	112	112	112
Host Connect Interface	4x 1Gb iSCSI	2x 10Gb iSCSI 4x 1Gb iSCSI	2x 8Gb iSCSI 4x 1Gb iSCSI
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60
Power Supply	500W (Three redundant 250W N+1 design)	500W (Three redundant 250W N+1 design)	500W (Three redundant 250W N+1 design)
Dimensions (HxWxD)	131 x 447 x 507 mm	131 x 447 x 507 mm	131 x 447 x 507 mm
Weight	20.1 kg (44.3 lbs) w/o drives, 31.3 kg (69 lbs) w/ drives	20.1 kg (44.3 lbs) w/o drives 31.3 kg (69 lbs) w/ drives	20.1 kg (44.3 lbs) w/o drives 31.3 kg (69 lbs) w/ drives
Warranty	3 years and EW plans	3 years and EW plans	3 years and EW plans

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