

# Solution Overview

## Surveillance

### Dell EMC Surveillance Partner Validations

#### EMC VNX, EMC VNXe, and Dell EMC Isilon

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This document shows how we partner with leading Surveillance providers to configure various Dell EMC arrays, clusters, and cloud storage offerings to easily implement onto an Dell EMC storage system.

See the [Surveillance Solutions Partner Validations](#) web page for links to the Partner Sizing and Configuration guides.

- [Validation testing](#)..... 2
- [Functional testing](#)..... 2
- [Body-worn and VMS verifications](#)..... 3
- [VMS Validations](#)..... 3
- [VMS versions tested](#)..... 4
- [EVT testing](#)..... 7



## Validation testing

Validation testing determines the performance baseline, including bandwidth specifications and failure and recovery scenarios, for Video Management Software (VMS) providers when using Dell EMC storage systems. Various test scenarios are performed that replicate typical production environment activities related to several different system component failures and normal break fix best practices.

You can use the results presented in this document to determine what specific version of the ISV software, Dell EMC storage platform, model numbers, and Dell EMC storage operating environment have been validated. These results are based on tests that were conducted by the Dell EMC Surveillance Lab team in collaboration with the respective ISV.

### **Dell EMC arrays and clusters**

Dell EMC storage arrays are ideal for storing video and audio data. Dell EMC offers the following storage options for video and audio data:

- EMC VNX
- EMC VNX-VSS
- EMC VNXe
- Dell EMC Isilon

### **Storage protocols**

The network protocols used in validation testing include:

- FC
- iSCSI
- SMB2 (CIFS)
- NFS

## Functional testing

Functional testing differs from validation testing in that functional testing verifies that a VMS is compatible with Dell EMC storage systems. For video management applications the Functional test verifies compatibility for write, read, archive retention policies, and stable connectivity.

This type of testing does not include failure and recovery scenarios and performance benchmarking. Functional testing does not establish sizing guidelines but it may include the results from a single server baseline test.

## Body-worn and VMS verifications

The following table shows the VMS and Body camera providers that have partnered with Dell EMC for Functional testing.

**Table 1** Functional testing

Partner	Verification Test type	Isilon	VNX	CloudArray Isilon	CloudArray ECS
Axon Commander	Body Camera	X	X	-	-
DutyVue	Body Camera	X	X	X	X
Edesix	Body Camera	X	X	X	X
IndigoVisionFL	Body Camera	X	X	X	X
LenSec	VMS	X	-	-	-
NUUO	VMS	-	X	-	-
Reveal	Body Camera	X	X	X	X
VIEVU	Body Camera	X	X	X	X

## VMS Validations

The following table shows the VMS providers that have partnered with Dell EMC for Validation testing. Tier 1 indicates that the array can be used for primary storage for the surveillance workload. Tier 2 indicates that the array can be use as a secondary storage platform.

**Table 2** VMS Validation testing with VNX and Isilon

Video management software	Isilon			VNX		
	Tier 1	Tier 2	Protocol	Tier 1	Tier 2	VMWare Datastore
Aimetis	X	-	CIFS	X	-	iSCSI
Avigilon	X	-	CIFS	-	-	-
Bosch	-	-	-	X	-	iSCSI
Cisco	-	-	-	X	-	iSCSI
Digifort	-	-	-	X	-	iSCSI
FLIR (formerly DvTel)	X	X	CIFS	X	-	iSCSI
Genetec	X	-	CIFS	X	-	iSCSI

**Table 2** VMS Validation testing with VNX and Isilon (continued)

Video management software	Isilon			VNX		
	Tier 1	Tier 2	Protocol	Tier 1	Tier 2	VMWare Datastore
Godrej IQ Vision	-	X	CIFS	X	X	iSCSI
Honeywell	X	-	CIFS	-	-	iSCSI
IndigoVision	X	-	CIFS	-	-	-
ISS	X	-	CIFS	X	-	iSCSI
LENSEC	X	-	CIFS	-	-	-
Milestone	-	X	CIFS	X	X	iSCSI
Gognify (formerly NICE)	X	-	CIFS	X	-	iSCSI
Surveillus	X	-	NFS	X	-	iSCSI
Synectics	X	-	CIFS	X	-	iSCSI
Verint	X	-	CIFS	X	-	iSCSI

## VMS versions tested

The following table shows the VMS, Isilon OneFS, and VNX firmware versions that have been included in Validation testing.

**Table 3** VMS, Isilon, and VNX versions tested

Video management software	Versions	Isilon OneFS	VNX/VSS firmware	VMWare
Aimetis	6.12.3.0	7.1.0.0	OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	6.14.5.1	7.2.0.1 8.0	-	ESXi 6.0
Avigilon	5.8.2.14	8.0.0.2	-	ESXi 6.0
Bosch	3.0	-	OE5.32.000.5.x OE5.33.006.3.x	ESXi 5.5
Cisco	6.7	-	OE5.33.000.5.x	ESXi 5.5
Digifort	7.1.0.0	-	OE 3.1.3.7141854	ESXi 6.0
FLIR (formerly DvTel)	6.2	6.5.4.4	-	-

**Table 3** VMS, Isilon, and VNX versions tested (continued)

<b>Video management software</b>	<b>Versions</b>	<b>Isilon OneFS</b>	<b>VNX/VSS firmware</b>	<b>VMWare</b>
Genetec	5.2	7.2.0.0 7.2.0.1	OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	5.3	7.2.0.0 7.2.0.1	OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	5.4	7.2.0.0 7.2.0.1	OE5.32.000.5.x OE5.33.000.5.x	ESXi 6.0
Godrej IQ Vision	2014	-	3.1.3.5754151 OE5.32.000.5.x OE5.33.000.5.x	ESXi 6.0
Honeywell	600.1	7.2.1	-	ESXi 5.5 ESXi 6.0
IndigoVision	13.1	8.0	-	-
ISS	8.3	7.2.0.0	OE5.31.000.5.x OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
LENSEC	2.3.0.1	7.1.1.1	-	-
Milestone	2013 R2	7.0 7.1.1.1	3.0.1.4029529 OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	2014	7.0 7.1.1.1 7.2.0.1 7.2.1.0	3.0.1.4029529 3.1.3.5754151 OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	2016	8.0.0.2 8.0.1	3.1.2.5754151	ESXi 6.0
NUUO	2.1.0.63	-	OE5.33.000.5.x	-
Gognify (formerly Nice)	2.7up2	7.1.0.1 7.2.0.0	OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.5
	3.1	7.2.1.1	-	ESXi 6.0
Surveillus	5.8.25	6.5.0.0 7.1.0.0	-	ESXi 5.x
Synectics	1.17.0.16	7.2.1	OE5.33.008.5.11 9	ESXi 6.0

**Table 3** VMS, Isilon, and VNX versions tested (continued)

<b>Video management software</b>	<b>Versions</b>	<b>Isilon OneFS</b>	<b>VNX/VSS firmware</b>	<b>VMWare</b>
Verint	6.4	7.1.0.0 7.1.1.1	OE5.32.000.5.x OE5.33.000.5.x	ESXi 5.x
	6.4.1591	7.2.1.1	3.1.3.7141854	ESXi 6.0
	6.4.3.2811	8.0.0.2	-	ESXi 6.0

## EVT testing

The following table shows the VMS that have been tested with Dell EMC Efficient Video Transport (EVT). Systems that are larger than 10 total agents might require a dedicated EVT Manager server.

**Table 4** EVT Manager with Agent

Partner	VMS	Version	Server/Service					
			Control		Record		Review	
Aimetis*	Symphony	6.14.6.2	N/A	N/A	Symphony Server	No	Symphony Client	No
Genetec	Security Center	5.4	Directory Server	No	Archiver	No	Security Desk	Yes
IQ Vision	Ultimate	2014	Management Server	No	Recording Server	No	Prime View	Yes
Honeywell	Digital Video Manager	600.1	Database Server	No	Camera Server	Yes	DVM Console Client	Yes
IndigoVision	Control Center	13.1	Control Center	Yes	Network Video Recorder (NVR)	Yes	Control Center Client	Yes
Milestone	XProtect	2016	Management Server	No	Camera Server	No	Smart Client	Yes
Gognify	NiceVision Net	3.1	Application Management Server (AMS)	No	SVR	Yes	Control Center	Yes
Synectics*	Digital Recording System	V1.17.0.16	N/A	N/A	Digital Recording System PSN3	No	Synergy 3	No
Verint	Nextiva	6.4.1591	Master	No	Recorder	No	Review	Yes

\* A dedicated EVT Manager server is required.

**Table 5** EVT Agent only

VMS		Version	Server/Service					
			Control		Record		Review	
Aimetis*	Symphony	6.14.6.2	N/A	Yes	Symphony Server	Yes	Symphony Client	Yes
Genetec	Security Center	5.4	Directory Server	Yes	Archiver	Yes	Security Desk	Yes
IQ Vision	Ultimate	2014	Management Server	Yes	Recording Server	Yes	Prime View	Yes
Honeywell	Digital Video Manager	600.1	Database Server	Yes	Camera Server	Yes	DVM Console Client	Yes
IndigoVision	Control Center	13.1	Control Center	Yes	Network Video Recorder (NVR)	Yes	Control Center Client	Yes
Milestone	XProtect	2016	Management Server	Yes	Camera Server	Yes	Smart Client	Yes

**Table 5** EVT Agent only (continued)

VMS		Version	Server/Service					
			Control		Record		Review	
Gognify	NiceVision Net	3.1	Application Management Server (AMS)	N/A	SVR	Yes	Control Center	Yes
Synectics*	Digital Recording System	V1.17.0.16	N/A	N/A	Digital Recording System PSN3	Yes	Synergy 3	Yes
Verint	Nextiva	6.4.1591	Master	No	Recorder	Yes	Review	Yes



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