

ACTi Corporation

Introduction











Introduction

- Company Overview
- 3 Keys to Success together with ACTi
- NDAA & TAA Compliance
- Vertical Market Solutions
- Successful Projects



- Solutions Overview
- Camera Technologies
- Cameras
- VMS Technologies & Core Features
- Standalone NVR Servers
- Central Management System



Work with ACTi

- ACTi Project Planner
- Project Support
- Become a Member













Name: ACTi Corporation

Incorporation Date: 2003

Headquarters: Taipei, Taiwan

Product Development

Manufacturing

Customer Service

Technical Support

US Headquarters: Irvine, California

Customer Service

Technical Support

Warehouse

Core business: End-to-End video surveillance

solution provider

Core technologies: IP hardware, software, video analytics.









3 Keys to Success together with ACTi

1. Specifications

Wide range of products with very competitive specifications.

Cameras: 12MP, analytics, customized cameras

NVR: up to 256 channels, 144 channel live view, redundancy

CMS: up to 200 000 channels

NDAA and more ...

2. Quality

ACTi shows the excellent video quality proof directly online at www.acti.com/videoclips

3. Price

Extremely competitive price for given high quality.







3 Keys to Success together with ACTi

Success with ACTi

Combining the advantages of having great Specifications, Quality, Price and End-to-End **Solution AT THE SAME TIME**, allows you to:

- 1. Have higher win rate of the projects
- 2. Maximize your profit margin with minimum risks
- 3. Have higher success with POC and UAT thanks to ACTi assured unified end-to-end solution.







3 Keys to Success together with ACTi

The Challenges of Other Manufacturers

- The brands offering good prices usually lack quality or their specifications do not help you win projects.
- The full solution consists of multiple manufacturers and their mutual integration is not guaranteed. When issues happen, difficult to share responsibility.







NDAA and TAA Compliance



- Camera SoC from Taiwan, Japan and the United States.
- 150+ camera models, all fully complying with NDAA H.R. 5515.
- Cameras made in Taiwan, therefore also TAA compliant.
- ACTi also offers Windows and Linux based VMS all NDAA and TAA compliant.
- ACTi has designed and manufactured its own SoC A1, further assuring compliance.





References: <u>US Congress Bill</u> (NDAA H.R. 5515, Sec. 880)







NDAA and TAA Compliance

ACTi Advantage

- NDAA + TAA + Best Price, for all camera and VMS types -> Win public sector projects
- Made in Taiwan -> Taiwan is famous for being the source of reliable technological products.
- Non-Chinese SoC cameras and VMS -> Win public sector projects

The Challenges of Other Manufacturers

- **Leading Chinese brands -> they are not NDAA compliant**
- Non-Chinese brands -> their price is too high







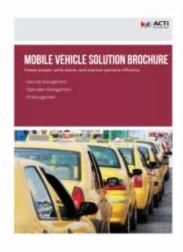
Vertical Market Solutions



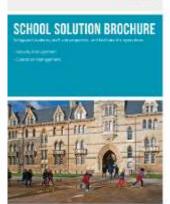




















Successful Projects



http://reference.acti.com/







Products & Solutions







Solutions Introduction

End-to-End Solutions

For video surveillance related projects ACTi can provide the complete end-to-end solution, consisting of:

- **Cameras & Accessories**
- **NVR**
- Storage
- **CMS**
- TV Wall
- **Redundancy Systems**
- **Backup Systems**
- **Desktop and Mobile Client Applications**
- **System Health Management**
- **Video Analytics**







Solutions Introduction

Benefits of ACTi Solutions

- **Complete solution with wide range of choices:**
 - A. All types of cameras (box, bullet, dome, PTZ, multi-imager, cube, zoom cameras, covert cameras)
 - Flexible NVR options Windows-based and Linux-based, from 4-256 channels.
- Single contact for sales services and fulfillment
- Single contact for technical support







Solutions Introduction

The Challenges of Other Manufacturers

- 1. **Pricing.** The total solution price will be high when the solution consists of 2 or more manufacturers' products. Example: One VMS brand and one camera brand combined.
- **Integration.** Very difficult to deal with the product integration issues three-way communication.
- **Troubleshooting.** When post-installation issues occur, it will sometimes be difficult to determine which of the manufacturers is responsible. Technical support overhead.

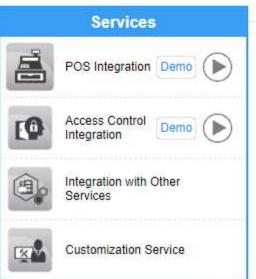


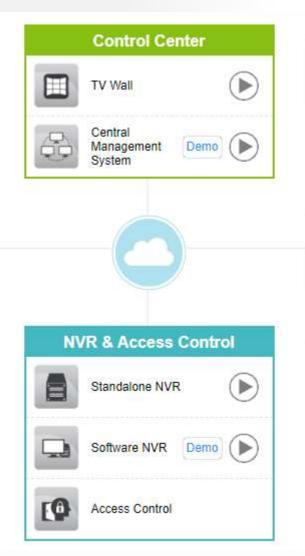




Solutions Overview















Camera Technologies







198



Camera Series

Example Analog, Excellent Price Y71 **Excellent Price** Z98 Specifications, Quality and Price A425 **Special Applications** B Superb Quality, Easy to Install B76A Mission Critical Project Models







Camera Types

		Example
1	Cube / Covert	Q 1 15
2	Box / Varifocal Box / Zoom Box	A29
3	Fixed Bullet / Mini Bullet	Z3 8
4	Varifocal / Zoom Bullet	A46
5	Indoor Fixed Dome & Fisheye / Hemispheric	B 5 11A
6	Indoor Varifocal / Zoom Dome	E 67
7	Outdoor Fixed Dome & Fisheye/Hemispheric	B 7 6A
8	Outdoor Varifocal/Zoom Dome	Z87
9	PTZ/Speed Domes & Mini Domes	198
9	PTZ/Speed Domes & Mini Domes	198







	Analog Mini Bullet	Analog Dome
Туре		
In/Out	Outdoor	Outdoor
Lens	Fixed focal	Fixed focal
2MP	Y31	Y71
5MP	Y32	Y72







Box Cameras (NDAA)

	Micro Box		Вох				
Туре			O				
In/Out	Outdoor	In/ou	tdoor	Outdoor	In/Outdoor		
Lens	Fixed focal	Fixed focal	Varifocal	Fixed Focal	Zoom		
Zoom ratio					36x		
2MP	Q22*, Q22-K1*	E217, A29		E23	129		
5MP			A213				

^{*} Day mode only







Туре	Mini Bullet	Zoom Bullet				
In/Out	Outdoor		Outdoor			
Lens	Fixed focal		Zoom			
Zoom ratio		2.8/4.3/5x	10x	22/30/36x		
1/1.3MP			B44			
2MP	Z38	Z48, A425	E417	142		
ЗМР		A49				
4MP	Z39	Z49		Z411		
5MP	Z315	A426, A46				
8MP	Z37, Z310	Z47, A421				







Fixed Dome Cameras (NDAA)

Туре	Mini I	Dome	Dome		Hemispheric Dome	
In/Out	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
Lens	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
2MP	A95	E936*, Z97, E933		Z73		
ЗМР		E99M*, E918* E928				
4MP		Z98		Z71, Z72, A71, A76		
5MP	E93*, E96(FE)*	E925(FE), Z715	E54	Z75		A713
6MP					B57	
8MP		Z714				
10MP	E97*					
12MP					B511A	B76A, A711

^{* =} Day only; (FE) = Fisheye







Zoom Dome Cameras (NDAA)

Туре	Zoom Dome					
In/Out	Ind	oor	C	utdoor		
Lens	Zo	om		Zoom		
Zoom ratio	3x	4.3x	2.4x/3x	4.3x/4.4x/5x		
1.3MP	B64					
2MP			B83, B85	Z85, A83, A85		
3МР		E618				
4MP			Z82, Z86, Z87, A811 A820			
5MP			B81 A826, A86			
8MP		Z810, A817				
10MP				E816		







PTZ Cameras (NDAA)

Туре	Speed Dome							
In/Out	Indoor		Outdoor					
Zoom ratio	30x	20x/22x	20x/22x 25x 30x 33x 36x 40x					
2MP	B934	B916 I96 I98(IR) I915(IR) A956(IR)						
4MP		Z952(IR) Z956						
8MP		A950(IR) A952(IR)	A950(IR) 7954(IR)					







Cube & Covert Cameras (NDAA)

	Cube	Fisheye Cube	L-Shape Pinhole Covert
Туре	•		
In/Out	Indoor	Indoor	Indoor
Lens	Fixed	Fixed	Fixed
1MP	E11, E11A		
2MP			Q113
5MP	E13A, E19*		Q115
10MP	E14	E16	

^{*} Coming soon







Covert Camera Installation Options

Wall Mount

(inside the wall)

Surface Mount (outside the wall)



Tilted Mount (outside the wall)



Q113 Q115



Disguise Mount (Height-Strip)









Multi-Imager Cameras (NDAA)



Q450

8MP Multi-Imager 180 **Degree Bullet**

- •8 Megapixel
- Day & Night with Superior Low Light Sensitivity and Adaptive IR LED
- •Fixed Lens with f2.8mm/F1.6
- Superior WDR
- •H.265 Compression
- Super wide angle
- Event trigger, response and notification







VMS Technologies & Core Features















Visual Tracking

 Move between adjacent cameras and follow an object of interest across the property.

eMaps & Live Maps

•Intuitively navigate through the camera system

Thumbnail Search

 Display large intervals of video in thumbnails to narrow down to a specific event

Smart Search

 Specify an area to search for activity on playback

Push Video

 Send real-time video from your phone to the NVR

Smartphone Notifications

•Get real-time notifications on your phone or tablet (iOS and

Web Controller

•Embed any website







Standalone NVR/DVR Series

YVR

Hybrid DVR, 4-16 Channels, Linux, Plug-and-Play

YVR-120

Example

ZNR

NVR, 4-32 Channels, Linux, Plug-and-Play

ZNR-126

ENR

NVR, 4-32 Channels, Linux, Advanced Features

ENR-010P

GNR

NVR, 32-72 Channels, Windows, Full Features, NVR 3

GNR-340

INR

NVR, 64-256 Channels, Windows, Mission Critical, NVR 3

INR-470







Standalone NVR/DVR Servers (NDAA)

Max CH	Free IP Cam	Free Analog	PoE	Mini	Desktop	Tov	ver			mount	
Widx CIT	License	Cam License	ports	1 bay	2 bays	4-5 bays	6 bays	4 bays	8 bays (RAID*)	12 bays (RAID*)	16 bays (RAID*)
4	4	-	4	ENR-010P							
6	2	4	0	YVR-120							
8	8	_	0	ZNR-126							
0	0	_	8								
9	9	-	8	ENR-020P							
12	4	8	0	YVR-121							
16	1.6		0	ZNR-127	ENR-130						
16	16	_	16		ZNR-221P						
24	8	16	0	YVR-122							
32	32	-	0					ZNR-423			
64	64	-	0						ZNR-424		
100	32	-	0			BNR-300 GNR-340	GNR-350				
128	64	-	0						GNR-410		
144	64	-	0						INR-406*		
256	64	-	0						INR-407*	INR-401* INR-415* INR-470*	INR-413*







Transportation NVR Servers (NDAA)

Max CH	Free License	PoE ports	Transportation S	Standalone NVR
			1 bay	2 bays
16	16	4	MNR-320P MNR-330P	
32	16	0		MNR-310







Introduction of NVR 3 Product Family

NVR 3 is one of the most famous ACTi products – it is a professional and elegant network video recorder platform with wide range of features and extremely reliable performance!

Both standalone and software versions available.



Software editions of NVR 3





Standalone NVR options based on NVR 3 (INR and GNR series)







Unique Value of NVR 3

- Up to 200 cameras per server.
- Up to 144 channels per monitor less TV panels needed. (unique value)
- It manages the smart events from the camera (motion, analytics, digital input).
- Supports wide range of clients: Workstation, Full web client, Lite web client, Mobile client for iOS/Android. (unique value)
- E-Map and Google Map with camera locations for intuitive monitoring.
- Can be managed with ACTi Central Management System (CMS 2) in case of large projects. The CMS can manage up to 200,000 channels. (unique value)
- Redundancy and backup services available. (unique value)
- All the upgrades free of charge (unique value)
- No annual fees (unique value)







Editions and Versions of NVR 3

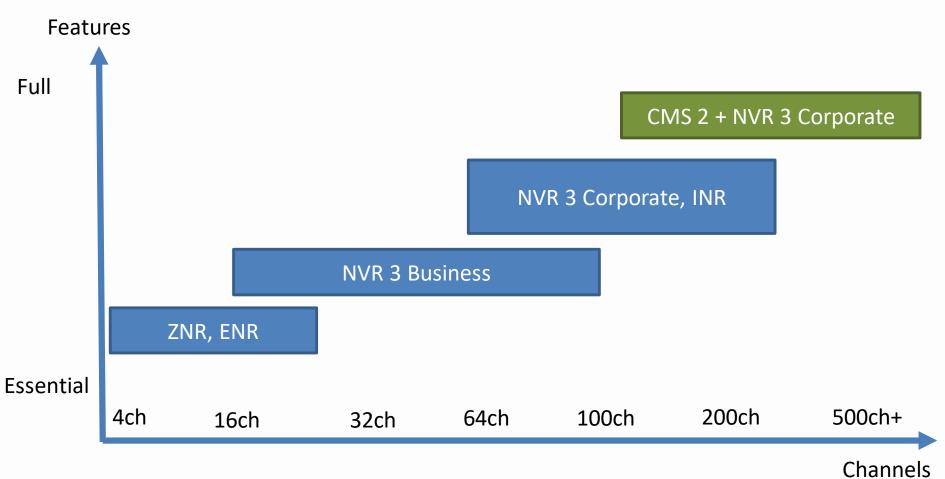
- There are two **EDITIONS** of NVR 3 available **Business** and **Corporate**.
- Depending on the scale of the project, the user can choose either NVR 3 Business or Corporate.
- It is also possible to upgrade the servers with the existing Business edition to the Corporate edition.
- There are regular updates available for both editions, usually once per quarter. These updates are called **VERSIONS**.
- ACTi offers the updates for free!
- The latest version of NVR 3 is 3.0.16.







Software Main Value Position







Software NVR Editions

- ACTi software NVR is called NVR 3.
- It has two editions Business & Corporate.
- Business for a single site, up to 100 channels
- Corporate multi-site or over 100 channels

More info:

http://www.acti.com/products/software-nvr



NVR3 Edition	NVR 3 Business	NVR 3 Corporate
Maximum channels	100	200
Free licenses	32	1
Free 3rd Party Camera Channels Included	1	1
CMS Support	-	✓
Live view	✓	✓
Synchronized playback	✓	✓
Event management	✓	✓
Event by camera's audio	✓	✓
Restore video from local storage	✓	✓
Password protected Playback	✓	✓
Account lockout	✓	✓
Absolute PTZ (click target)	✓	✓
Active Directory	✓	✓
IVS camera event	✓	✓
е-Мар	✓	✓
Visual Tracking	✓	✓
Google map	-	✓
Embedded websites in Live View	-	✓
Push notification	-	✓
Video Push from mobile to NVR	-	✓
Video Push from camera to NVR	-	✓
Thumbnail based search	-	✓
Dual stream recording	-	✓
POS integration	-	✓
Access control integration	-	✓
Network DIO	-	✓
Redundancy Support (N 1, N-to-N)	✓	✓
Maximum display layout grid	144	144







NVR 3 Client Options

NVR 3 Server



WORKSTATION

FULL WEB CLIENT

LITE WEB CLIENT

MOBILE CLIENT







NVR 3 Lite Web Client Introduction

In addition to already supporting Workstation client, Mobile client and Full-featured Web client, the NVR version v3.0.16 also introduces Lite Web Client option.

Lite Web Client is the simplified edition of the browser-based client application. It has less features enabled and simpler appearance, making it very user-friendly for the types of users who are not very technical and do not require full set of features.

While the Full-featured web client is available for Microsoft Edge browser (compatibility mode), the Lite web client can be used with various browsers:

- Chrome
- **Firefox**
- Safari
- Edge







Primary Users of the Lite Web Client

ACTi Web Client Value Position				
Role	Client PC	Workstation app	Full Web Client	Lite Web Client
IT Admin (setup)	Dedicated	Υ	Υ	
Security Officer	Dedicated	Υ	Υ	
Supervisor/ Manager	May change anytime			Υ
Owner	May change anytime			Υ







Full Client vs Lite Client Comparison

NVR 3 Corporate v3.0.16	Workstation Application	Web Browser		
		Full Client		Lite Client
		Edge in IE Mode (Windows 10 or later)	Chrome, Firefox, Safari, Edge (normal mode)	Chrome, Firefox, Safari, Edge (normal mode)
Live View Layouts	Up to 144 channels	Up to 144 channels	-	Up to 16 channels
Playback	Yes	Yes	-	Embedded Playback (see the next slide)
Events	Yes	Yes	-	-
PTZ control	Mouse, Joystick	Mouse, Joystick	-	Mouse only
Codec	H.265, H.264, MJPEG	H.265, H.264, MJPEG	-	H.264, MJPEG
Audio	2-way	2-way	-	Audio-in
Stream Switcher	Yes	Yes	-	Default Stream
Setup and Playback tab	Yes	Yes	-	-
Export	Yes	Yes	-	-







How to Enable Full Web Client

It is very easy to enable the NVR 3 Full Web Client in your **Microsoft Edge** Browser. It just requires one-time setup with a few clicks.

For the convenience, the simple instruction can be found here:

https://Download.acti.com?id=31324





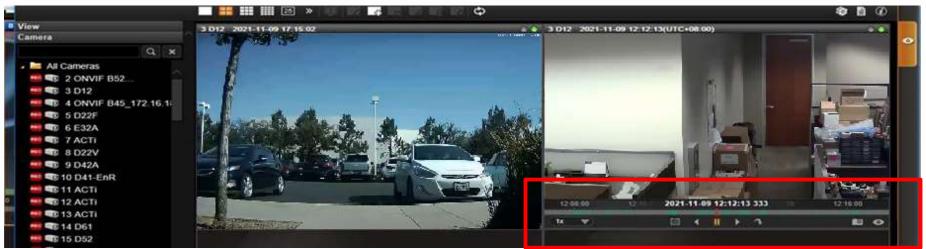




Instant Playback vs Embedded Playback

While the Workstation app and the Full web client can do multi-channel playback under Playback tab, or playback pop-up on the top of the Live View layout, the Lite Web Client uses Embedded Playback – the playback can be used inside the Live View channel.

Embedded Playback:





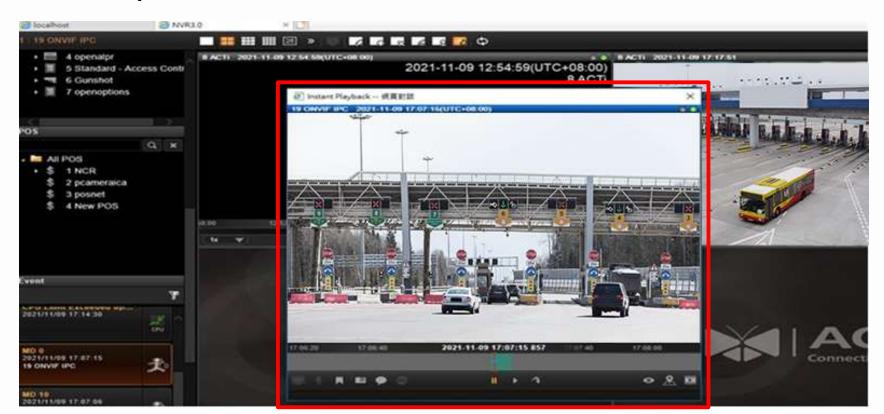




Instant Playback vs Embedded Playback

In comparison, the full-featured web client and the Workstation application are using what we call "Instant Playback" – it is the pop-up of the playback window on the top of the live view.

Instant Playback:









ACTi Mobile Client App

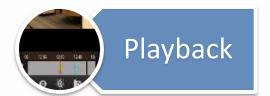












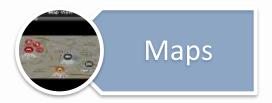






















NVR & CMS Licenses are per camera/channel

• Licenses are not tied to your camera (easy replacement)

One-time purchase

- No annual / recurring fees
- No upgrade fees / SUP packages
- No support fees







Redundancy Solutions for NVR 3 Editions

There may be situations where the NVR server may become inaccessible, and the cameras have no recorder to send the video stream to. It could happen due to the network failure, data switch failure, power outage, human error or due to any other reasons. Even though such incidents are very unlikely to happen, the mission critical solutions should have a protection against that.

The **seamless service** can be achieved by using **NVR Redundancy Service**. It would ensure that whenever the original NVR is not accessible, the alternative system will immediately step in and start recording the video streams of the cameras belonging to the original NVR.

ACTi offers two kinds of Redundancy Service solutions: N+1 and N-to-N

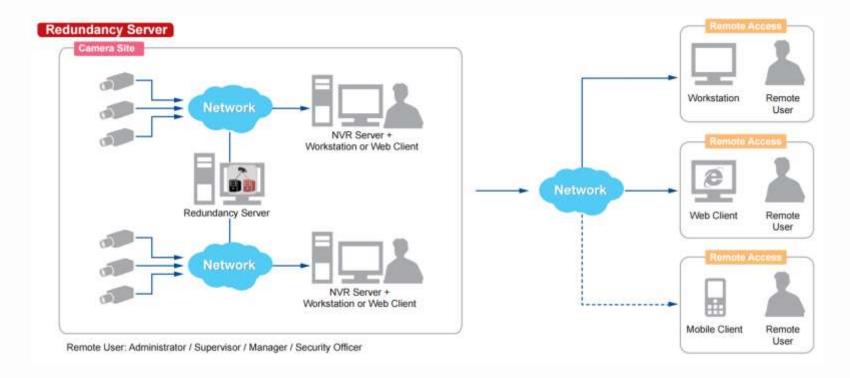






N+1 Redundancy

There will be an additional NVR 3 server installed in the network which will stay idle and watch over the other NVR servers. By activating the redundancy service licenses (LRDS3000) in that idle NVR 3 server, it will have the capability to watch over the other NVR 3 servers. One redundancy server can monitor up to 16 other NVR servers. If any of those NVR servers becomes inaccessible, then the redundancy server will notice it and will immediately take over the camera management of the original NVR.



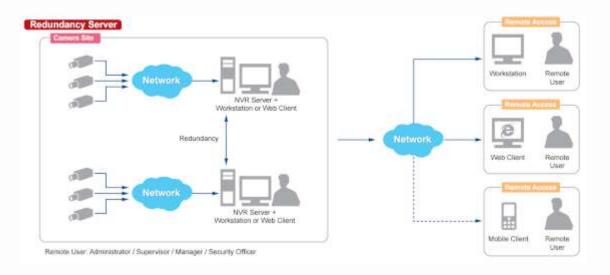






N-to-N Redundancy

There is also another way to set up the redundancy without requiring the additional server to be installed. It is called N-to-N redundancy. It means that when there is a group of NVR servers installed in the same network, they can watch over each other and take over the cameras of the inaccessible NVR server.



Although the additional idle server is not required, in order to achieve the redundancy capabilities, each of the NVRs must have unused video channels capacity. For example, a standalone NVR server INR-470 comes with the 64 free channels license included and can be extended up to 200 channels with add-on licenses (LNVR3003).







N-to-N Redundancy

If that server has 150 cameras of its own to manage, it could potentially take the role of watching over 50 more cameras from any other NVR server, provided that the full 200 channels capacity has been enabled with the help of LNVR3003 licenses. In such case, INR-470 becomes the redundancy server for 50 selected camera channels from any other NVR 3 in the network.

Applying the same concept to all the NVR 3 servers, they all will be able to use their surplus channel quota to act as redundancy servers.

This method also provides flexibility - you can decide which camera channels you want to serve under redundancy mode. You can skip less important channels, for example. However, if the full redundancy must be achieved in the network, then on average each NVR should have twice as many video channel licenses activated than there are cameras under that NVR.



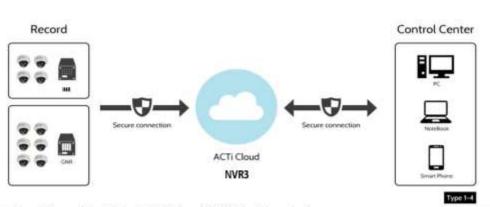




Local Backup Server

NVR Camera NVR Camera NVR Camera

Cloud-based Backup



- · Record in High-Definition (1080p) at local site
- · Record in lower quality/frame rate in the cloud for backup

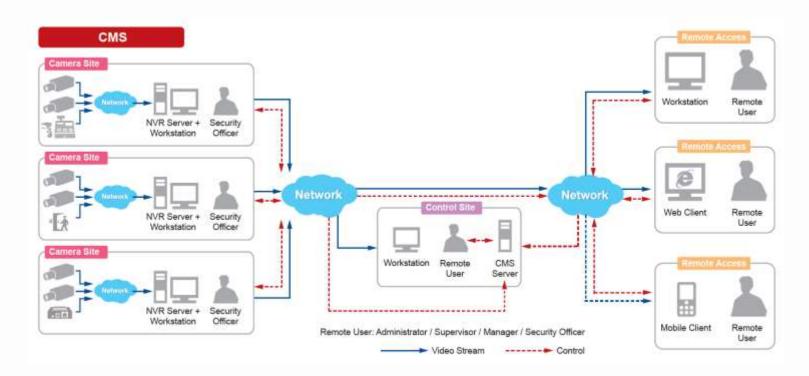






Large Projects: NVR 3 Corporate + CMS 2

ACTi video management system architecture is unique in the video surveillance industry, allowing hundreds of thousands of cameras to be managed from a single central system. The core of the system is the CMS server that can manage thousands of NVR servers and cameras without becoming overloaded with the video streams. The monitoring person can access any of the camera views from the same client window.









Large Projects: NVR 3 Corporate + CMS 2

The CMS Server's role is to index all the video sources and receive events from all of them (the red dotted lines), whereas the video streams (blue lines) never go through the CMS Server itself but are transmitted from the NVR servers to the CMS Clients directly.

The CMS Client connects to the CMS Server to receive the information about all the permitted video sources. Then, based on the pre-defined layout of the user, the CMS Server notifies the client which NVR is responsible for which video source in the given layout. After that, the client knows how to connect to all those sources directly. By doing so, the video streams related traffic will be distributed without giving any burden to the CMS Server.

Thanks to this unique solution architecture, the CMS Server can manage a large number of video sources.

The standard CMS edition that can be downloaded from ACTi website supports up to **6400 video channels**, using the add-on licenses. However, this is not the maximum limit of the CMS Server. The default limit of 6400 has been set to allow highly reliable system performance under most server hardware configurations.

Based on the performance tests, the best server hardware in the market today can run CMS Server with **200 000 channels** with high system reliability.

Each month, newer and more powerful computers are introduced to the market, with better CPU and GPU performances. Therefore, there is no final maximum channel limit of ACTi CMS Server. It will grow as the hardware technology advances.







Control Center Examples

















ACTi NVR Solution Partners

ACTi NVR has been integrated with serval well-known software brands:

POS



























Network DIO



Alarm Verification immix









Other Products







System Health Management



SHM-102

- Monitors the health ACTi NVR 3 Servers, CMS Servers, TV Wall Servers and Cameras
- Send email notification for issues
- Reports and graphs
- Map based monitoring with instant alerts
- License (LMAS50000) is required per each managed server (NVR, CMS, TV Wall)
- The health management plug-in will be installed in each target server.
- The System Health Management server (SHM-102) will be able to monitor the servers via plug-in.







System Health Management

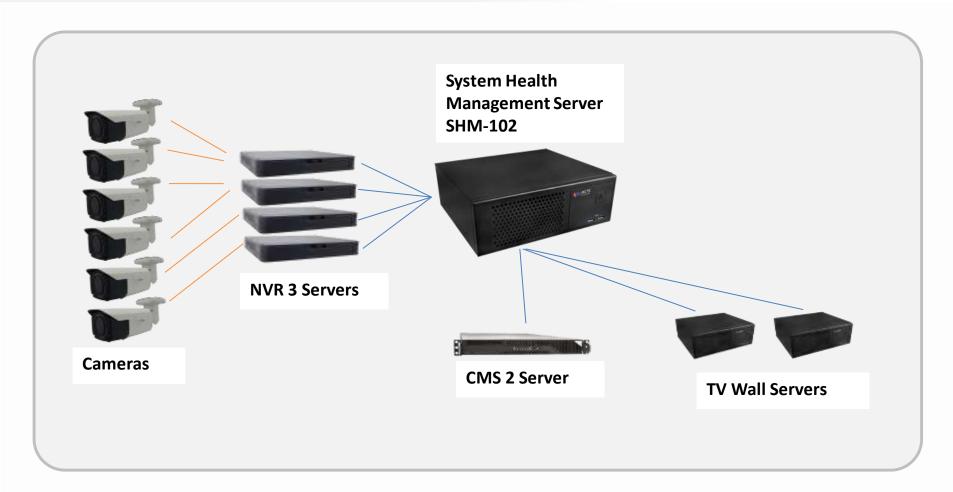
Features		SHM-102	
Managed products for health status Health data	Cameras via ACTi NVR 3	Υ	
	NVR 3, GNR, INR	Υ	
	CMS 2	Υ	
	TV Wall Server	Υ	
	Basic product status	Υ	
	Details	Υ	
	server's system status	Υ	
Health Management	Display health status on web client	Υ	
	Issue ticket auto-generation & assignment	Υ	
Scalability	Maximum number of managed devices	up to 200 NVR servers with related cameras with single SHM architecture	
	Solution options	Use standalone only	
Solution installation	Works outside SHM	Must install plugin to all the managed Windowsbased servers, including NVR 3, CMS 2, TV Wall.	
Licensing	License unit	Per plugin	







System Health Management Architecture



In this example, there are totally 13 managed items via 7 servers. The SHM license LMAS5000 is required for each of those 7 servers. The plug-in shall be installed in each of those 7 servers.

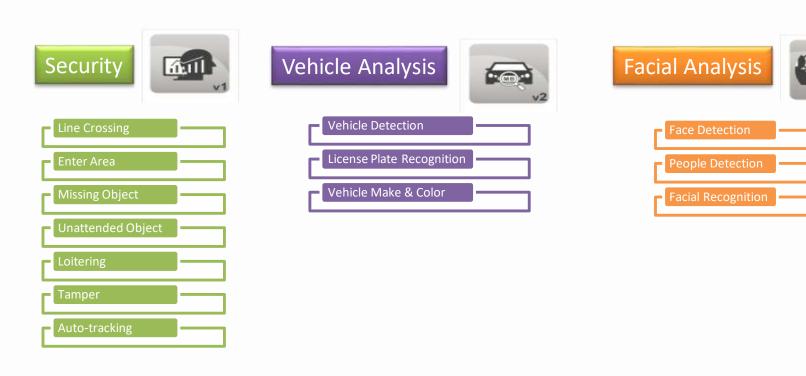






VMS Analytics

- Camera Based (Security / Retail)
- Software/Standalone Server Based (with **Artificial Intelligence**)









NVR 3 Live Demo



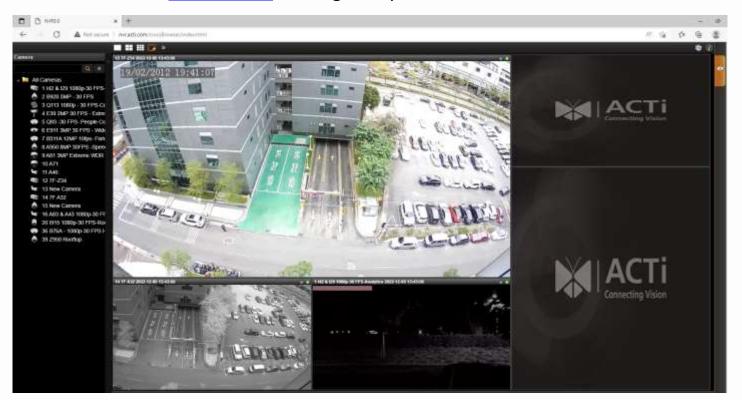




NVR 3 Corporate Live Demo

Welcome to try the basic live demo of ACTi NVR 3 Corporate!

You can use any of the browsers (Edge, Chrome, Firefox, Safari). Enter the address <u>nvr.acti.com</u>, user: guest, password: 123456



For full demo (including playback, setup and other features), please contact ACTi representative or register to become ACTi member.





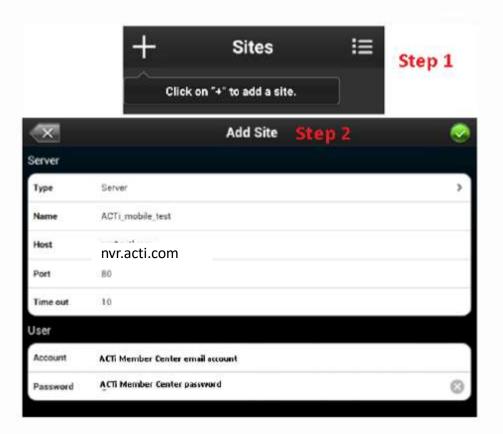


NVR 3 Corporate Live Demo

You can also test the live demo with **ACTi Mobile Client**.

Install ACTi Mobile Client to your mobile device (Android or iOS).

User: demo, password: 123456; or use your ACTi membership credentials.







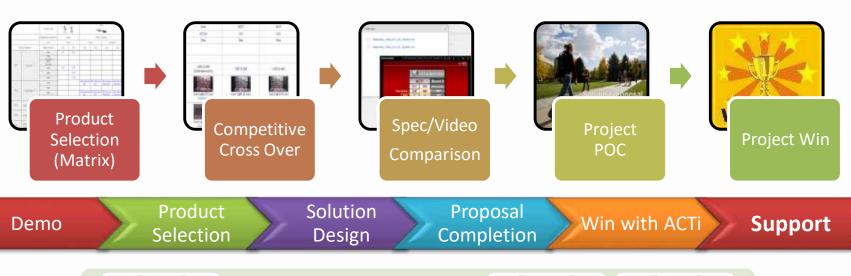


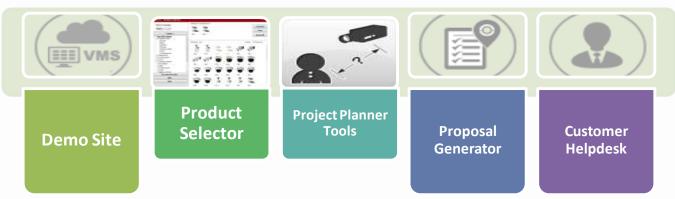






Support in All Project Stages









Project Planner

ACTi has the widest range of professional project planning tools available in the market. ACTi customers can enjoy these tools for free.

ACTi tools help you succeed even without learning about products and solutions!







1

+

Project Planner

Products



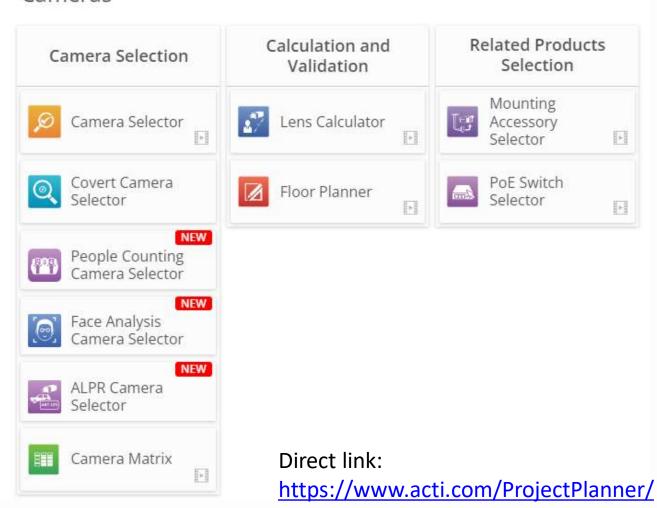
Standalone Video Management System

Software Video Management System

Solution

Solution Validator

Cameras







Technical Support



ACTi provides free real-time technical support service to all the customers who have purchased the products through the authorized distribution channels.

Remote access for instant troubleshooting. Service tickets for effective fix-up.

Customer Helpdesk Platform (CHD):

www.acti.com/chd

It is web interface where the issues are registered and resolved.

Phone:

US: +1-866-410-2284 (Support office in Irvine, California)

Mon-Fri 9am to 8pm EST





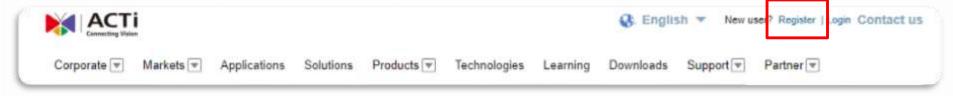


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Thank You



