

Any Time, Any Where, Any Things with NXWitness



About



- Since 2010. HQ in CA, USA.
- A multi-cultural, diverse team with presence in United States, Russia, Taiwan, China, Australia, the Netherlands, Belgium, Germany, Spain, and Sweden.
- Clients in nearly every vertical market segment spread across 130 countries.
- We power the video that monitors the largest factory in the world.
- More than 800,000 IP video devices licensed in just under 4 years since the release of our first commercial software in 2013.
- More than 350,000 IP video devices licensed in just over 3 years since the release of our first commercial software.
- Users in every major vertical market segment.
- Office in USA, Russia and Taiwan.
- Provide zero time difference support.
- **3 Years Growth reaches 2,600%.**
- No.136 fast growth company in USA.
- No. 7 fast growth software company.
- **Fast grow up in this slow industry!**



Top Software
Companies



Los Angeles Long
Beach-Analyst
CA Metro Area



Top California
Companies



BUILT for USERS

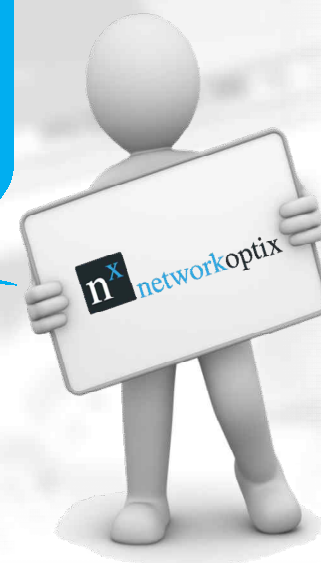


Witness VMS



Network Optix' mission is to create a completely open video platform with the power to enable the rapid integration of networked video into any application running on any operating system on any hardware.

Sergey Bystrov, CTO & Co-Founder

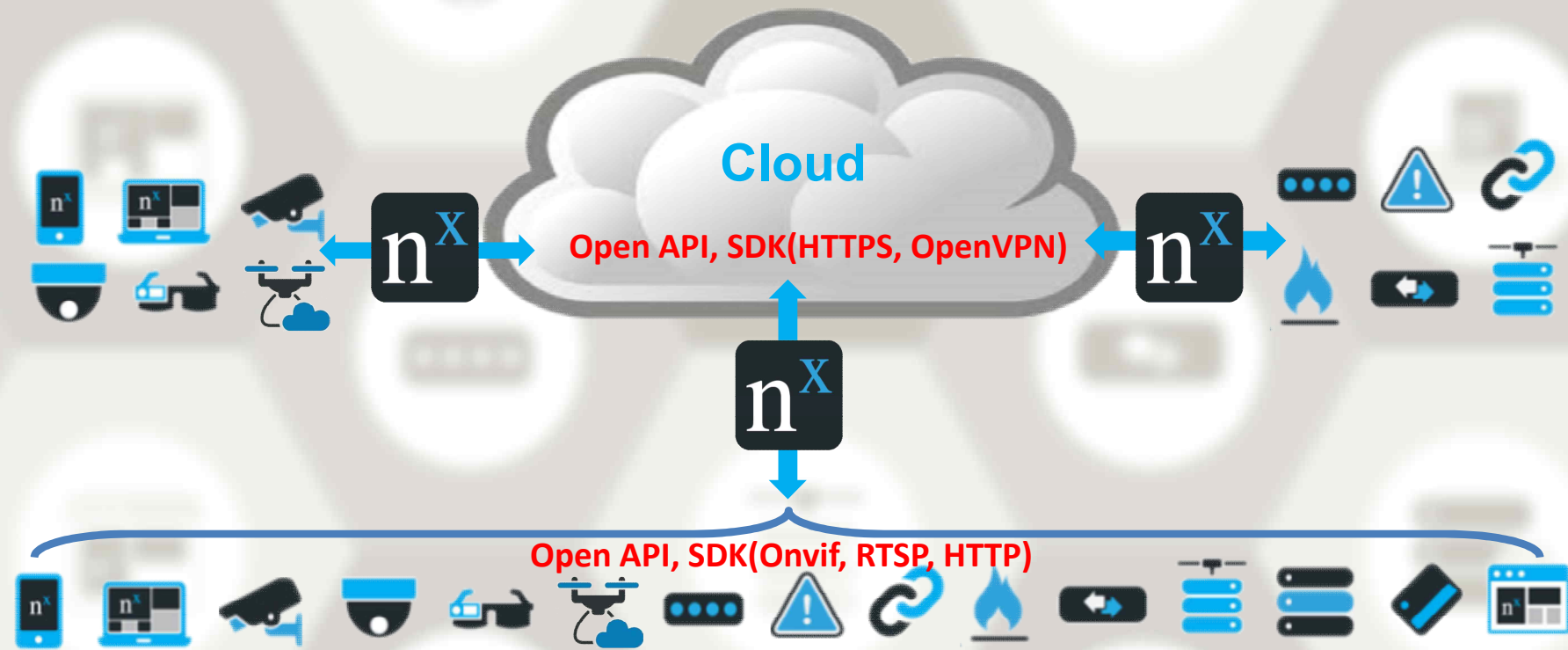




Keypoint



Witness VMS is Open Platform.

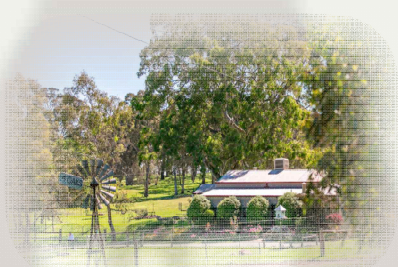




Witness VMS

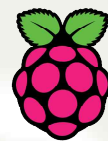


☞ NX Witness based on open platform is available anything with any embedded board.



- Control
- Measurement
- Monitor
- Alarm
- Counter
- Detect
- Security
- Access
- Digital Signage
- Temperature
- Humidity
- IPTV
- CMS
- VMS
- LPR
- 90°

Just make design, **NX** is can do.



RaspberryPi



Demo Video

<https://www.youtube.com/watch?v=mTHicNwbQA4&t=30s>

<https://www.youtube.com/watch?v=tX4nnJ8tK8I>

<https://www.youtube.com/watch?v=pe7c7pTPPEg>

<https://www.youtube.com/watch?v=PenhGpJMa6U>



Witness VMS

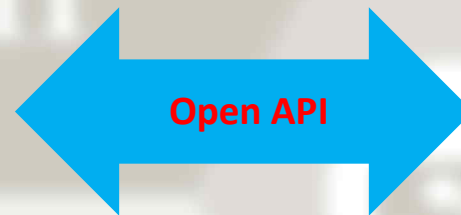


☞ NX Witness is open platform. Ready to be connected any device.



- AR, VR
- Drone
- IOS, Android
- Control
- Voip
- Chat
- Video
- [CSA]
- Remote View
- Remote control
- Access
- Digital Signage

Just connect any device **by NX. And Share.**



Demo Video

<https://www.youtube.com/watch?v=tEFWAGjB2G4>

<https://www.youtube.com/watch?v=IAlyCNL5MP8&feature=youtu.be>

<https://www.youtube.com/watch?v=5KdxCuD5-dU&feature=youtu.be>

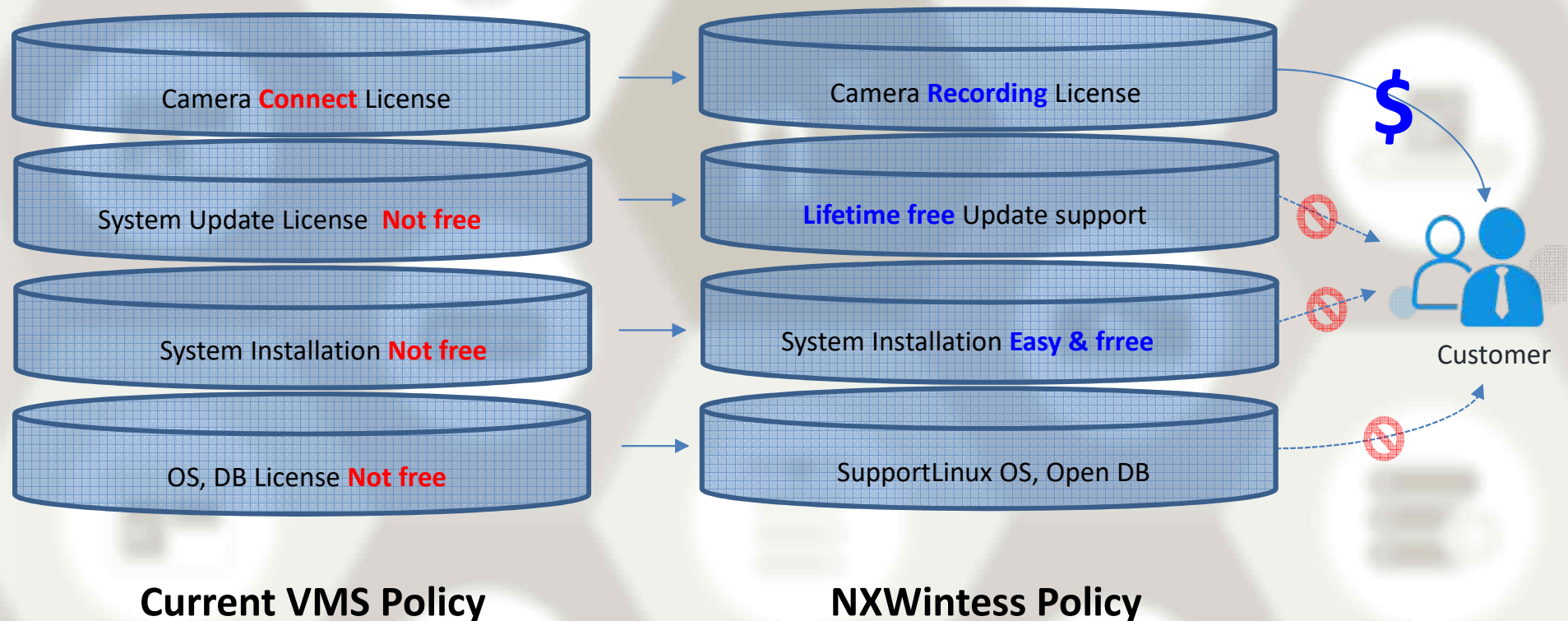
<https://www.youtube.com/watch?v=6Fm3Pjgq9Ww&feature=youtu.be>



Witness VMS



👉 Network Optix is an international RND provider of video control solution engineers to analyze and improve these problems. As a latecomer to the video control solution, professional developers in each sale are gathered to support product upgrades quickly in response to continuous development and response.

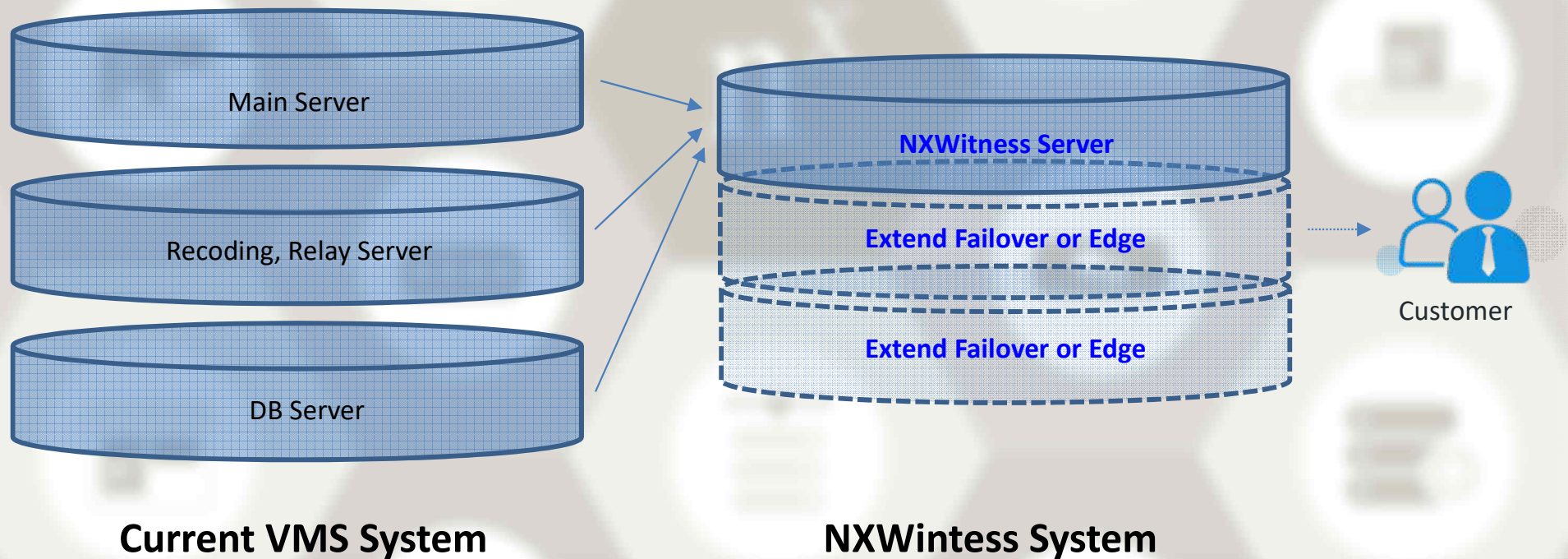




Witness VMS

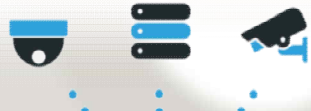


✎ NX Witness VMS is an optimized architectural structure that implements the functions of operation, storage, distribution and management on one server. Fail-over function compared to other vendors' VMS can be implemented as low-resource without additional cost.





Witness VMS

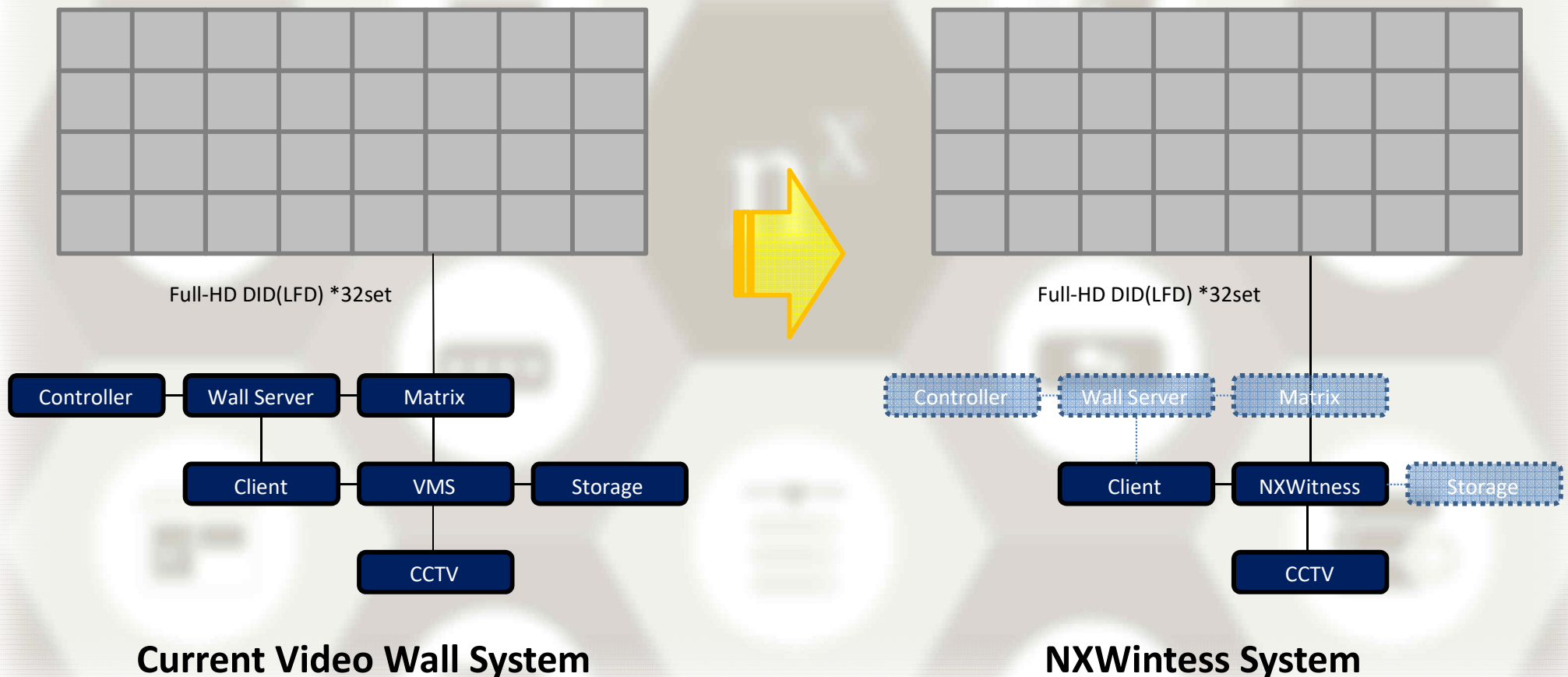


Demo Video

<https://www.youtube.com/watch?v=eox7puuhKCM>

<https://www.youtube.com/watch?v=m48t0JlrN8o>

☞ NX Witness VMS has many advantage in building video control center by implementing VideoWall function including VMS on one server with optimized architectural structure.





Case Study



Thailand (泰國)



ChiangMai City Surveillance

Key Feature: Nx1, Nx Video Wall.

Total channels: Phase1 for 536CH, Phase 2 for 528CH.

One Nx1, 4CH tiny NVR, for one cross road.

Record on local and merge all Nx1 to a big system.

Security men manage all video in center room.

If no viewing, there is no bandwidth between center and edge.

Save bandwidth.

By Nx Video Wall, the monitors can be merged to a big one without matrix hardware.



Phitsanulok City Surveillance

Key Feature: Hive Architecture, RTSP support.

Total channels: 5,000CH. (On process)

The Phitsanulok government wants to manage all existing NVR but too many brands.

Nx gets all IP cameras by ONVIF or RTSP and gets all NVRs by RTSP.

For Nx, it is just an easy work.





Thailand (泰國)



Police Security Project

Key Feature: Smooth UI, Price, Free upgrade.

Total channels: Phase 1 for 226CH, Phase 2 for 684CH.

Thailand Police Department wants to replace their old system to a long term use system and Nx can support for free upgrade forever.

Smooth UI and lower price than the old Honeywell system are the win points.



Power Station Project

Key Feature: Hive Architecture, Open API/SDK, NAS supported.

Total channels: 1,118CH. (On process)

Nx Servers will be set in all the power stations and merged to a big system.

Easy manage, open API/SDK for integration and NAS supported are key points.





Taiwan (臺灣)



Airforce Project

Key Feature: Hive Architecture, Failover, Advanced PTZ, Free upgrade.

Total channels: Phase 1 for 132CH.

Taiwan Airforce Project is a multiple years project so a long term system is needed.

Easy management, Failover are also key points for the end users. By using Nx Advanced PTZ, they totally forget the joystick.



Coast Guard Administration

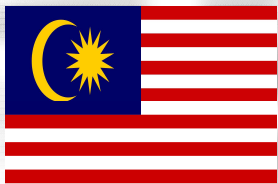
Key Feature: Hive Architecture, Generic Event.

Total channels: 600CH.

To secure coast around Taiwan.

Merge all Nx Server from all CGA stations for management. Integrate IVA cameras to do Intelligent monitoring by Nx Generic Event.





Malaysia (馬來西亞)



Sultan Abdul Aziz Shah Airport

Key Feature: Smooth UI, Video Wall, failover.

Total channels: 80CH. (On process)

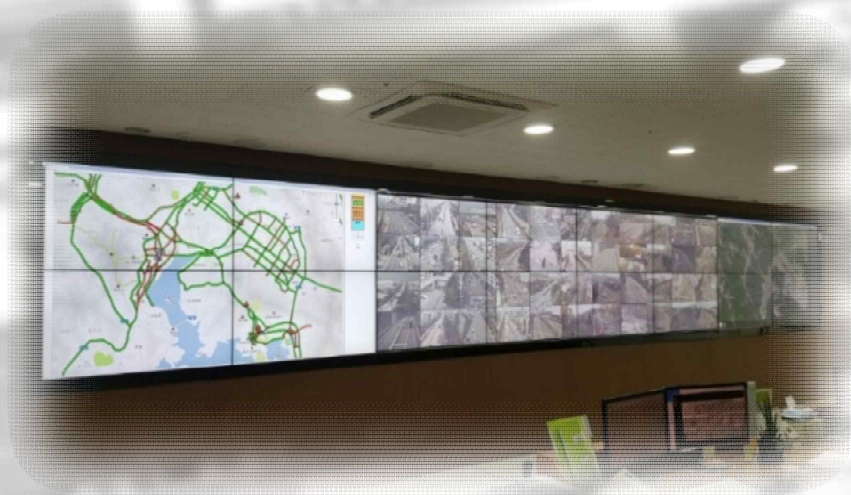
A small project to replace some NVRs.

Failover is MUST HAVE for high level security area like an airport.

To push camera on the Video Wall is something the end users need as well.



Republic of Korea (大韓民國)



Changwon Traffic Broadcasting System.

Key Feature: 64Ch SD Video Server, Stream from Police station, But 25~31Mbps network.

Total channels: 64CH. (On process)

Main Server Install to Police station.

Edge Server Install to TBN.

Mutil Client install to TBN.



DaeJeon Korea Railroad Corporation

Key Feature: Hive Architecture, NAS supported., failover.

Total channels: 200CH. (On process)

A small project to replace some DVRs.

365Day/24Hours Security Monitoring.

Must working Fail-Over.



Republic of Korea (大韓民國)



Jeollanam Provincial Government

Key Feature: Dual System (Analog 3Ch+Digital 16Ch)

Video Wall Daul, failover.

Total channels: Video 64CH. PC Stream 32Ch (On process)

Real-time disaster safety monitoring.

IIISYS intelligent system interworking

Dupelx Video Wall System



Korea Rural Community Corporation

Key Feature: 24Ch FHD PTZ IP Camera, 4 NVR system, 6 PC Stream.

Total channels: 35CH. (On process)

Interworking with Techwin NVR.

Monitoring to Innodex VMS.



Function

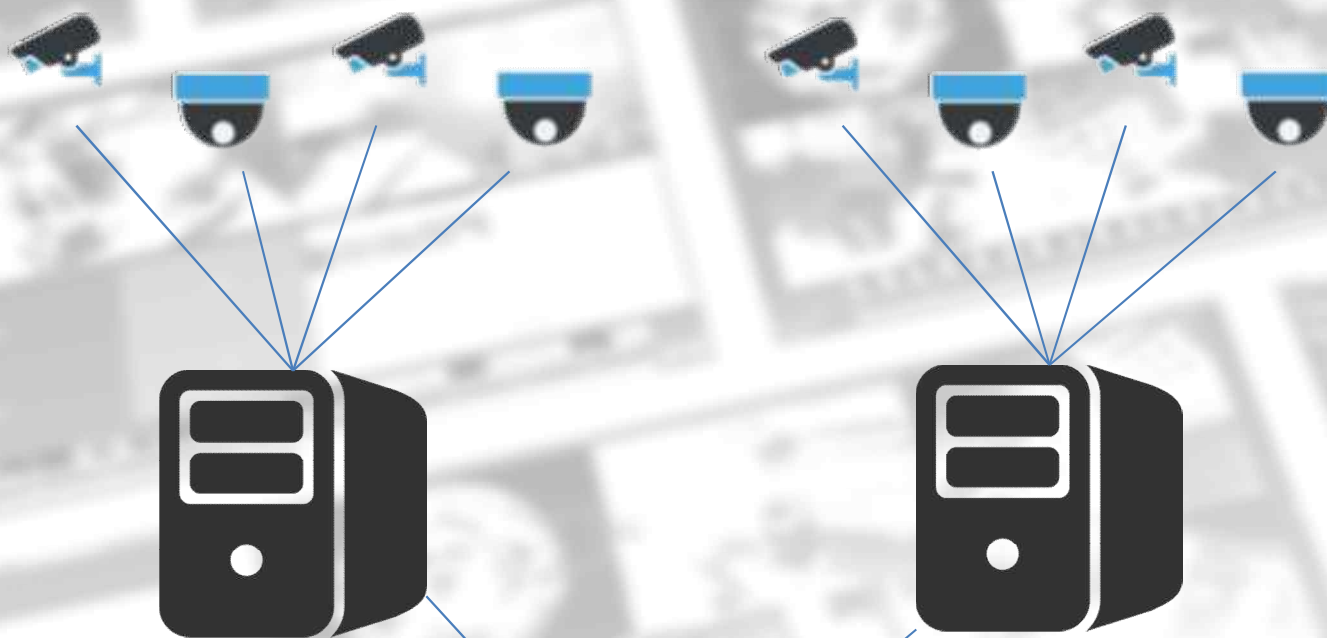


Difference between Nx & NVR

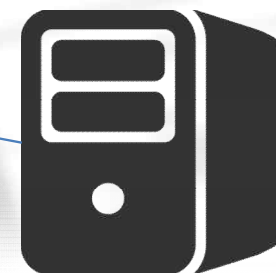


Stand alone NVR – Less features

NVRs connect to IP cameras



USER connect to CMS to view

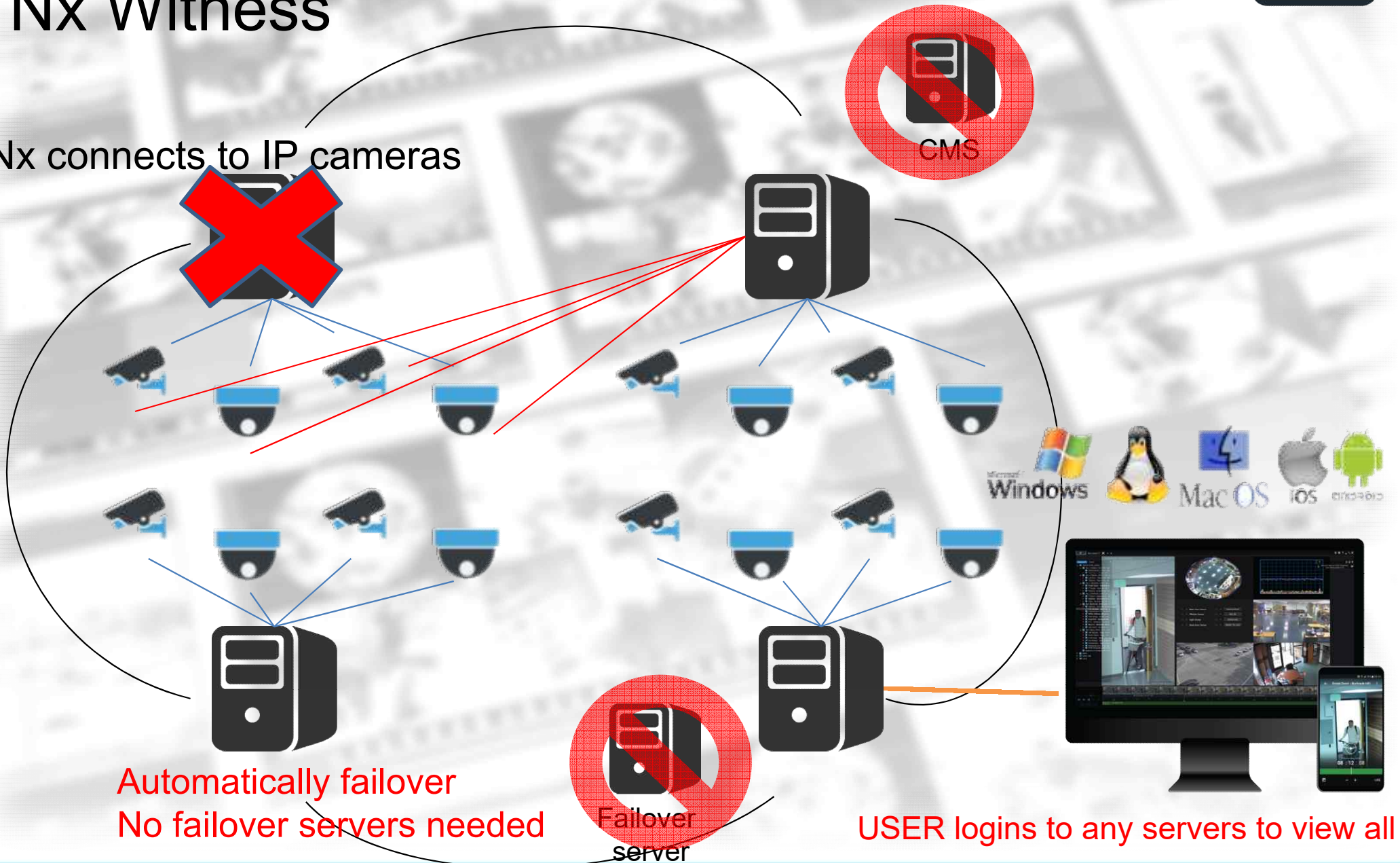


a CMS collects all NVRs

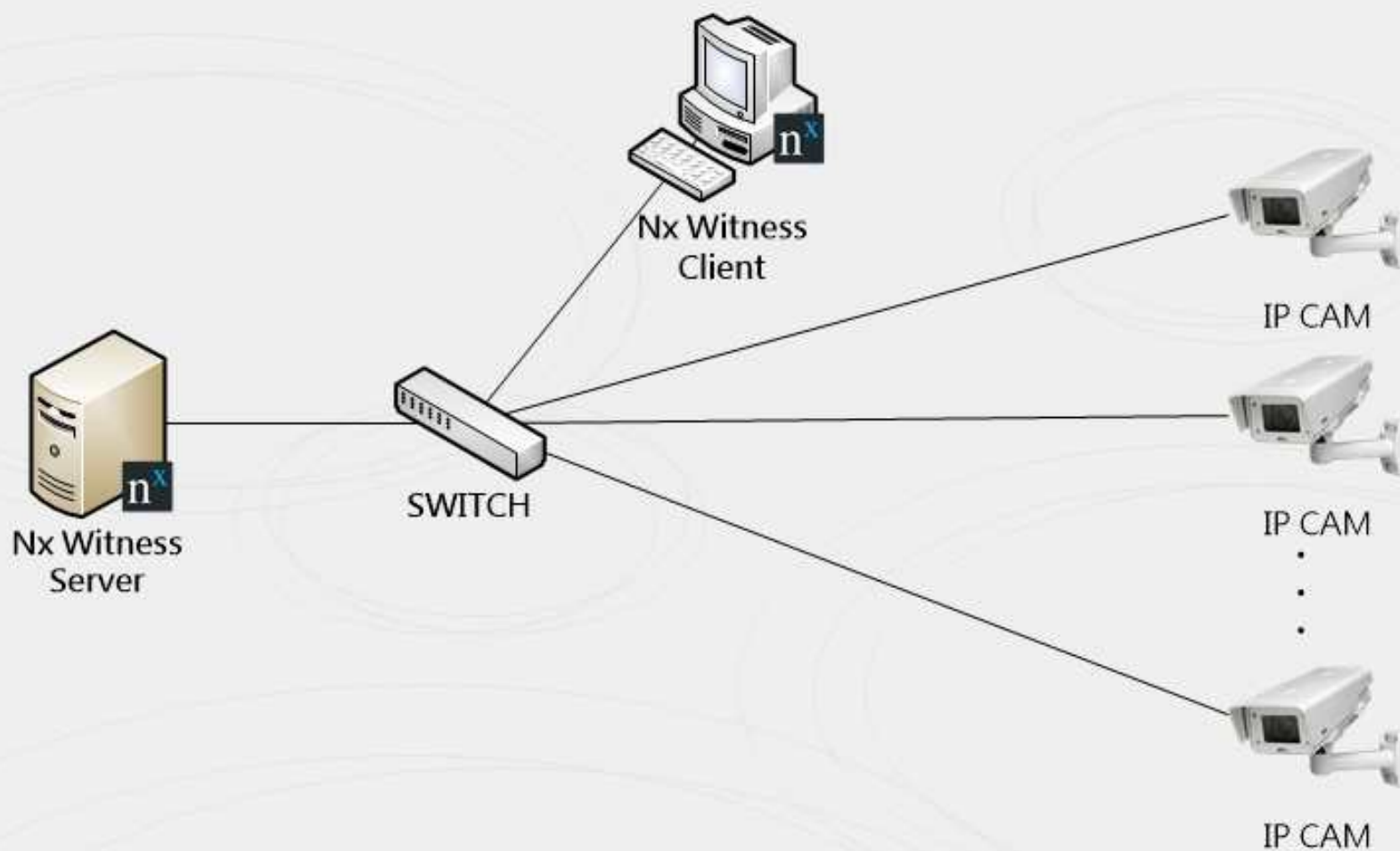
Nx servers link to each other without CMS

Nx Witness

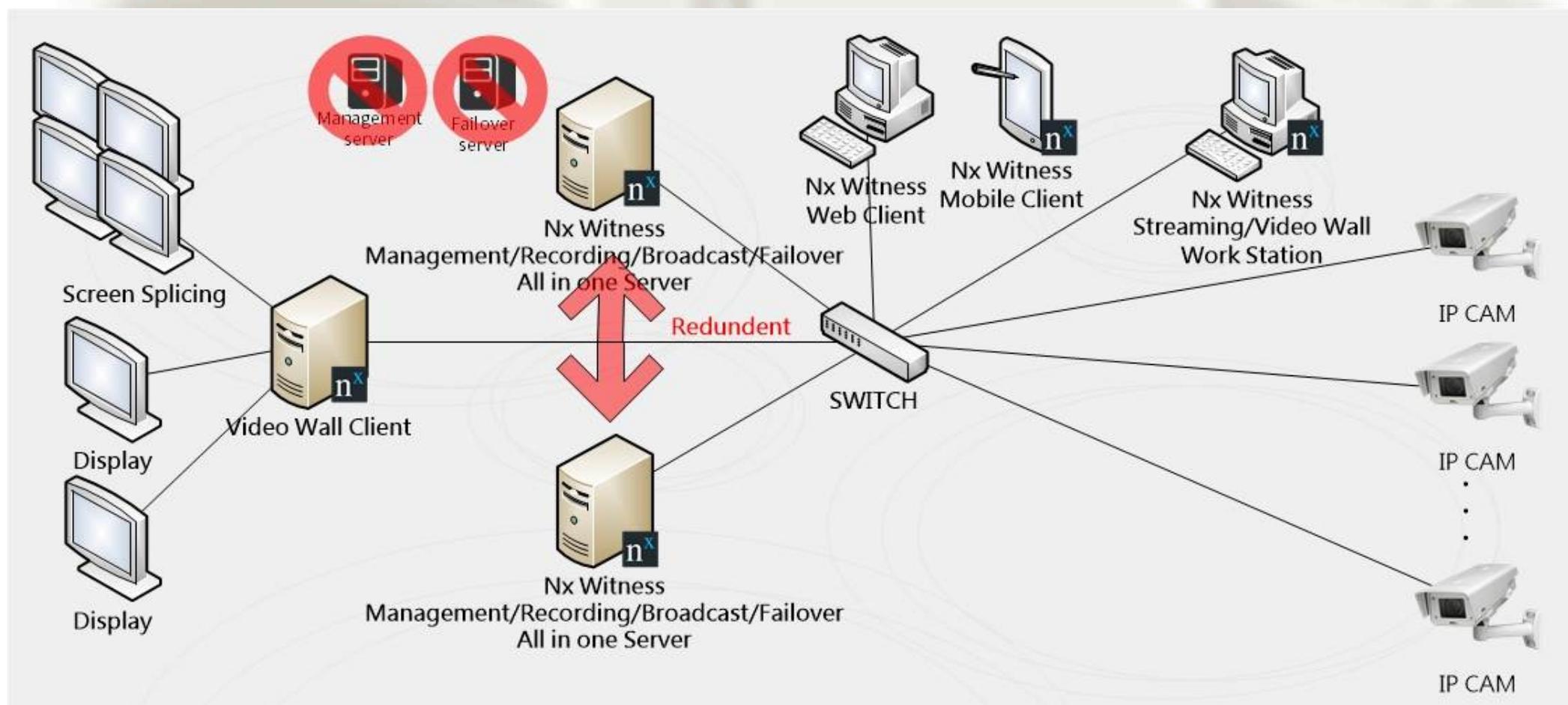
Nx connects to IP cameras



Nx can be simple



Nx can be advanced



Easy interface



Flexible UI

Easy to use. Low effort to learn.
Remember? Even a grandmother knows how to use.



No matter what platform you work on



• Cross Platform -

Have to get in the security room for monitoring cameras?

- Try Nx Client for remote viewing!

Only clients for Windows?

- Try our Ubuntu and Mac OS Client!

Have to install software to monitor the cameras?

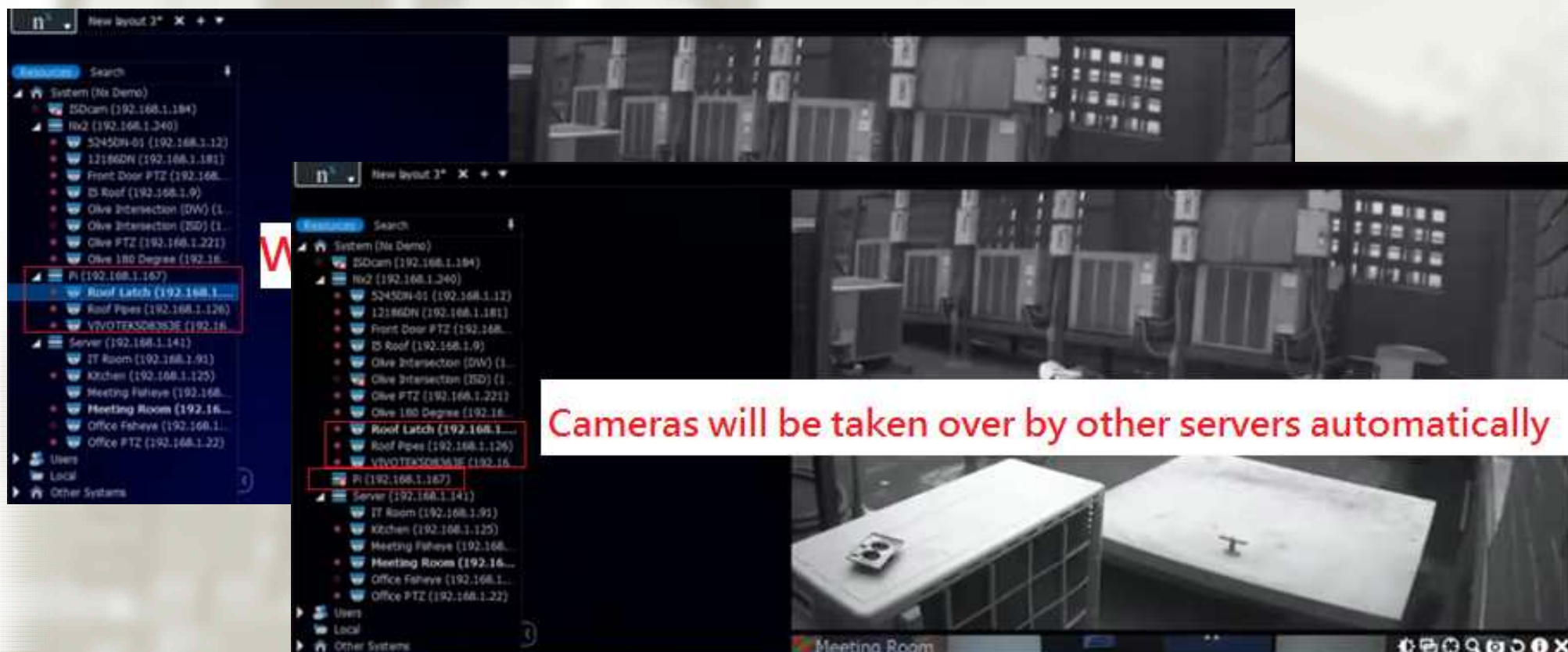
- Run your browser to try our Web Client. No any plug-ins needed.

Your cell phone can be helpful.

- Try our Mobile Client.

Smooth and easy-use!

We think this is **MUST HAVE** – **FAILOVER**



• **FAILOVER** -

Get a call from your customer that the server fails on holidays?
No worry, another server is taking over the recording works.
Take your time, Nx system is never your burden.



Witness VMS



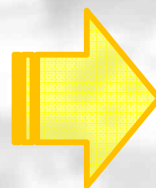
Demo Video

<https://www.youtube.com/watch?v=-6k1xWhY700>

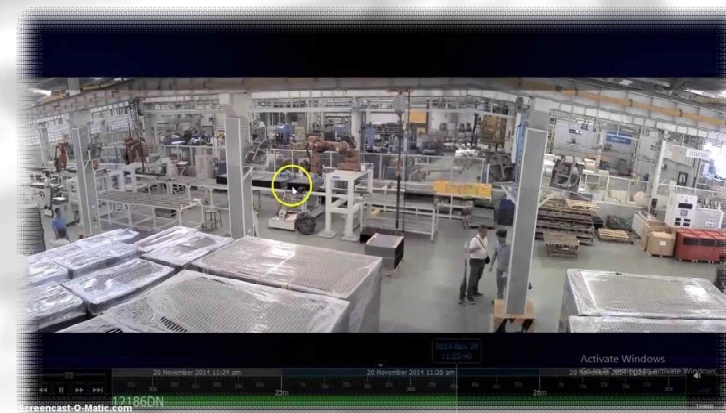
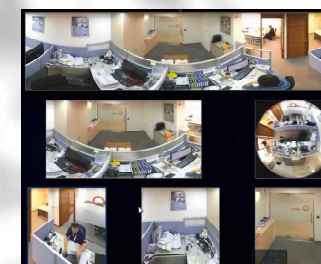
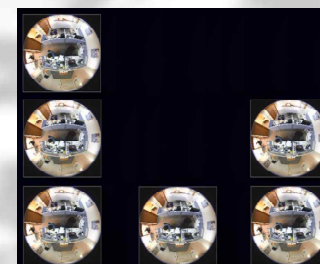
<https://www.youtube.com/watch?v=HTBXufDqmyM&t=12s>

➡ NXWitness has exclusive Dewarping + Virtual PTZ technology about ultra-high resolution Fish-Eye 360 degree monitoring and multiple control are possible

Really need so many cameras? –
really, try our **Fisheye Dewarping**



Sometimes you just
need one FISHEYE



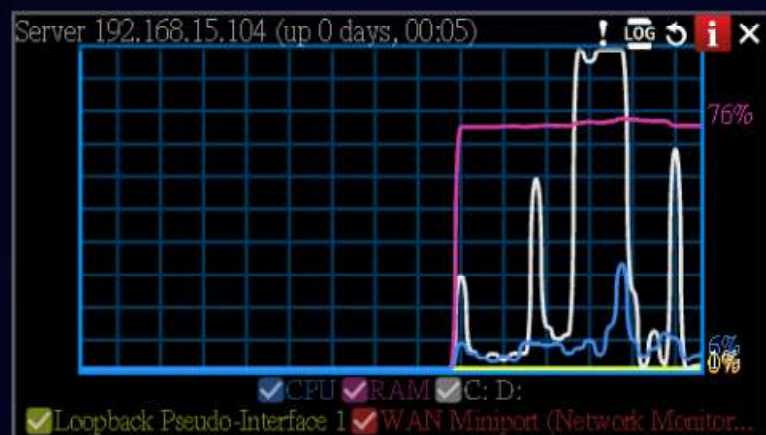
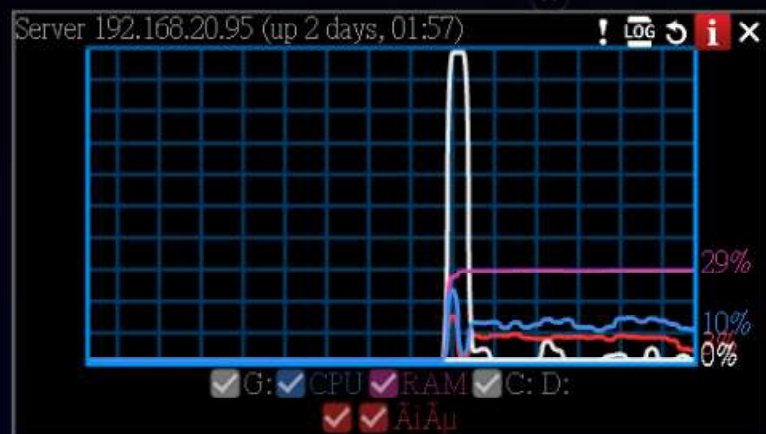
A good reason for high resolution cameras –
Zoom



Use one camera as multiple

Health Monitor –

We care about your servers!

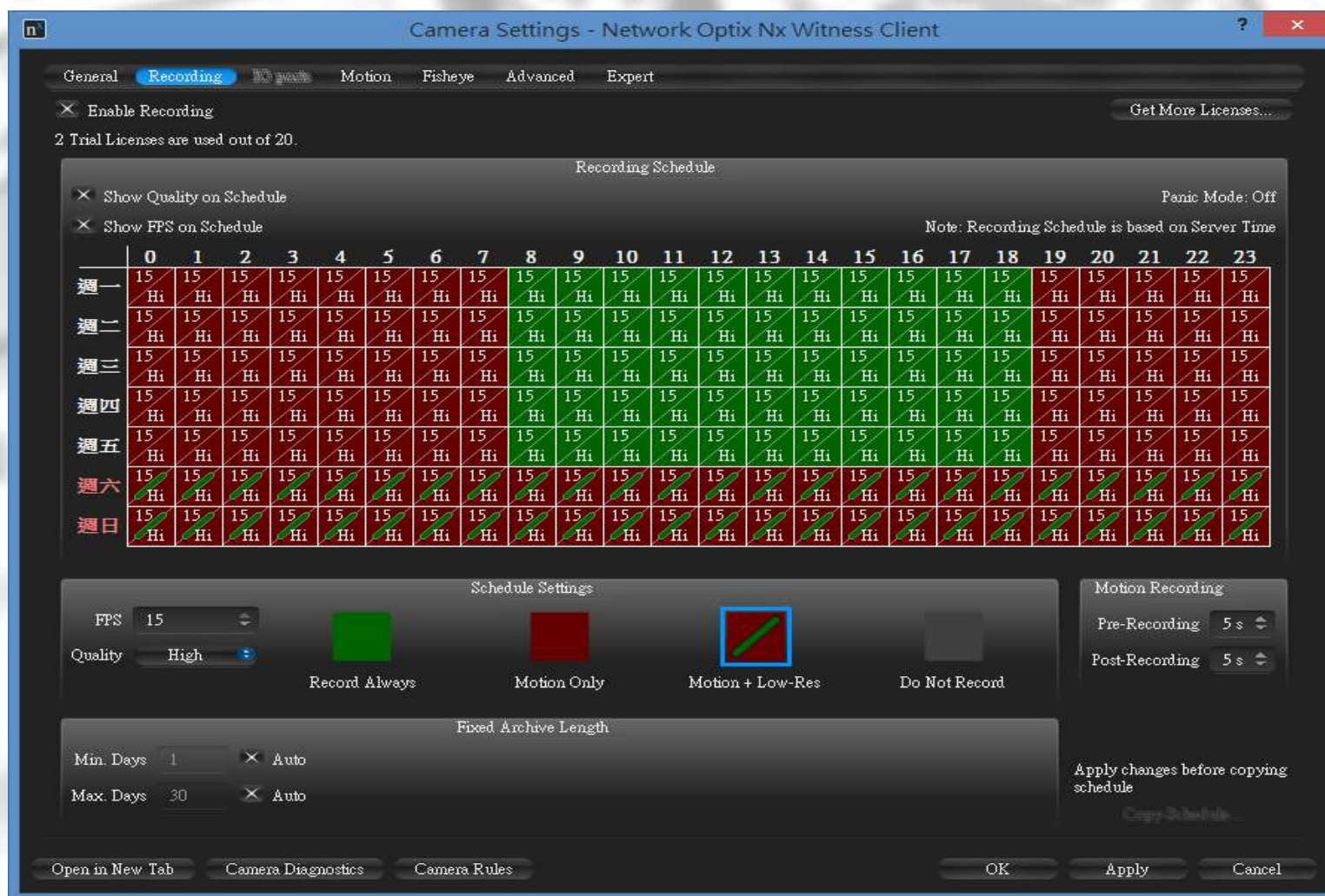


- **Dynamic** health monitor. CPU/RAM/HDD loading/NIC
- Get all NVRs status clearly!

Easy to set recording

Recording Schedule

Support motion HQ & always LQ record





Audit Trail – Who did it? Nx always knows!

Audit Trail - Network Optix Nx Witness Client

Search: [] From 11/4/15 - till 11/4/15 - Refresh

Filter: ☒ Login/logout ☒ Watching live ☒ Exporting video ☒ System actions ☒ Event rules ☒ Select all
☒ User actions ☒ Watching archive ☒ Camera actions ☒ Server actions ☒ E-mail settings

Sessions Cameras

Session begins	Session ends	Duration	User	IP	Activity
11/4/15 5:05 PM		0m	admin	122.116.27.82	
11/4/15 5:00 PM	11/4/15 5:11 PM	11m	admin	192.168.1.111	
11/4/15 2:39 PM	11/4/15 2:43 PM	4m	admin	49.214.181.19	
11/4/15 11:47 AM		0m	admin	192.168.1.117	
11/4/15 11:09 AM	11/4/15 11:26 AM	17m	admin	192.168.1.117	

Details

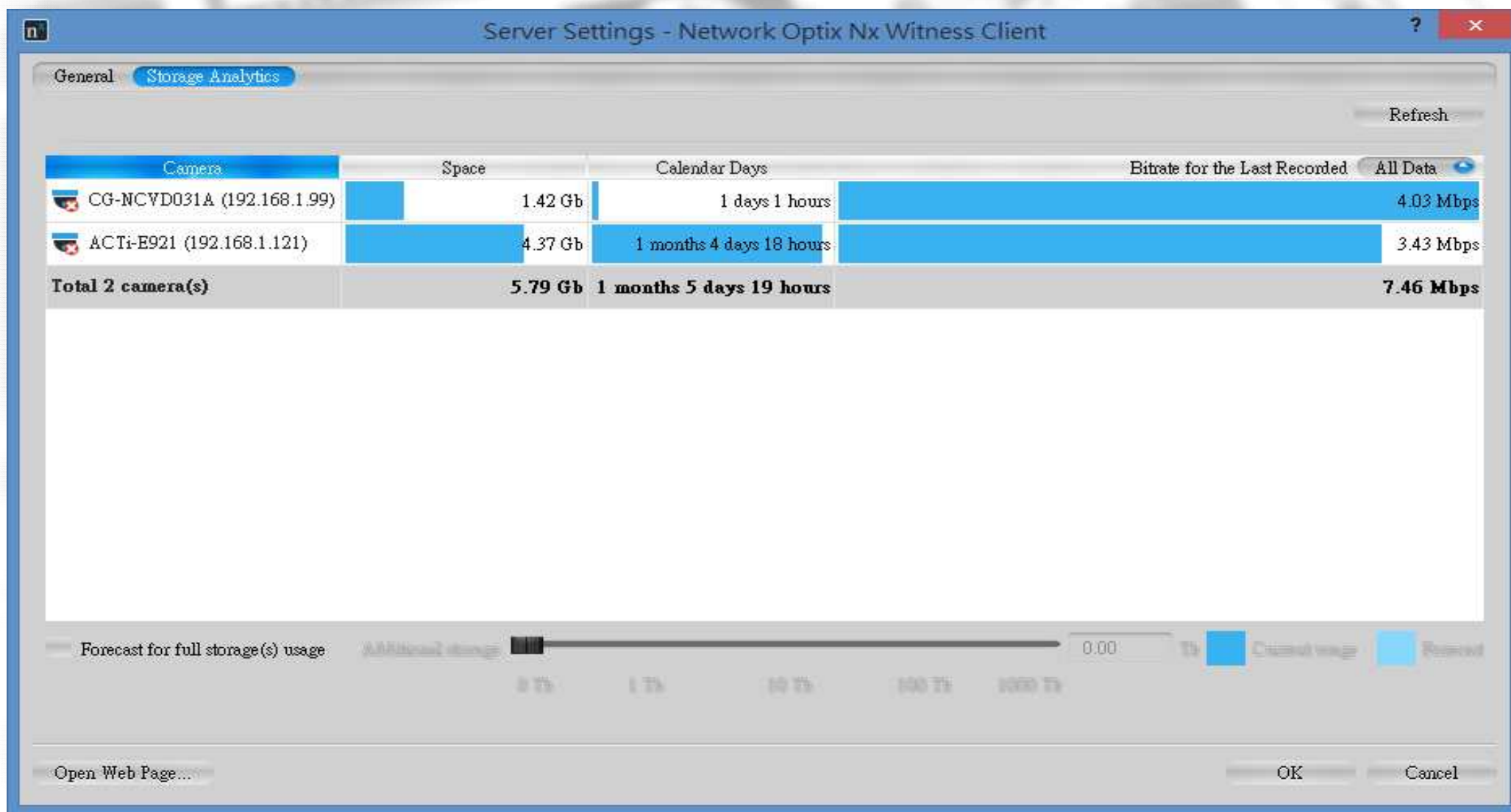
Date	Time	User	IP	Activity	Description	View it
11/4/15	5:13 PM	admin	122.116.27.82	Exporting video	11/4/15 5:11 PM - 11/4/15 5:11 PM, 1 Camer	▶ Play this
	5:07 PM	admin	122.116.27.82	Exporting video	11/4/15 5:04 PM - 11/4/15 5:04 PM, 1 Camer	▶ Play this
	5:07 PM	admin	122.116.27.82	Exporting video	11/4/15 5:04 PM - 11/4/15 5:04 PM, 1 Camer	▶ Play this
	5:06 PM	admin	122.116.27.82	Watching archive	11/4/15 5:04 PM - 11/4/15 5:05 PM, 1 Camer	▶ Play this
	5:05 PM	admin	122.116.27.82	Watching live	11/4/15 5:05 PM - 11/4/15 5:06 PM, 1 Camer	▶ Play this
	5:05 PM	admin	122.116.27.82	Login	Nx Witness/2.4.0.9813	
	5:00 PM	admin	192.168.1.111	Watching live	11/4/15 5:00 PM - 11/4/15 5:11 PM, 1 Camer	▶ Play this
	5:00 PM	admin	192.168.1.111	Watching live	11/4/15 5:00 PM - 11/4/15 5:11 PM, 4 Camer	▶ Play this
	5:00 PM	admin	192.168.1.111	Login	Nx Witness/2.4.0.9813	
	4:31 PM	admin	192.168.1.117	Watching live	11/4/15 4:31 PM - 11/4/15 4:45 PM, 1 Camer	▶ Play this
	2:40 PM	admin	49.214.181.19	Watching archive	11/2/15 9:51 AM - 11/2/15 9:52 AM, 1 Came	▶ Play this
	2:39 PM	admin	49.214.181.19	Watching archive	11/4/15 9:51 AM - 11/4/15 9:52 AM, 1 Came	▶ Play this
	2:39 PM	admin	49.214.181.19	Watching archive	11/4/15 1:38 PM - 11/4/15 1:39 PM, 1 Camer	▶ Play this
	2:39 PM	admin	49.214.181.19	Watching archive	11/4/15 12:38 PM - 11/4/15 12:39 PM, 1 Cam	▶ Play this
	2:39 PM	admin	49.214.181.19	Watching archive	11/4/15 11:39 AM - 11/4/15 11:39 AM, 1 Car	▶ Play this
	2:39 PM	admin	49.214.181.19	Watching live	11/4/15 2:39 PM - 11/4/15 2:39 PM, 1 Camer	▶ Play this
	2:39 PM	admin	49.214.181.19	Login	Nx Witness Android Client/2.4.0-prod.9813	
	1:06 PM	admin	192.168.1.117	Watching archive	11/2/15 9:51 AM - 11/2/15 9:52 AM, 1 Came	▶ Play this

OK

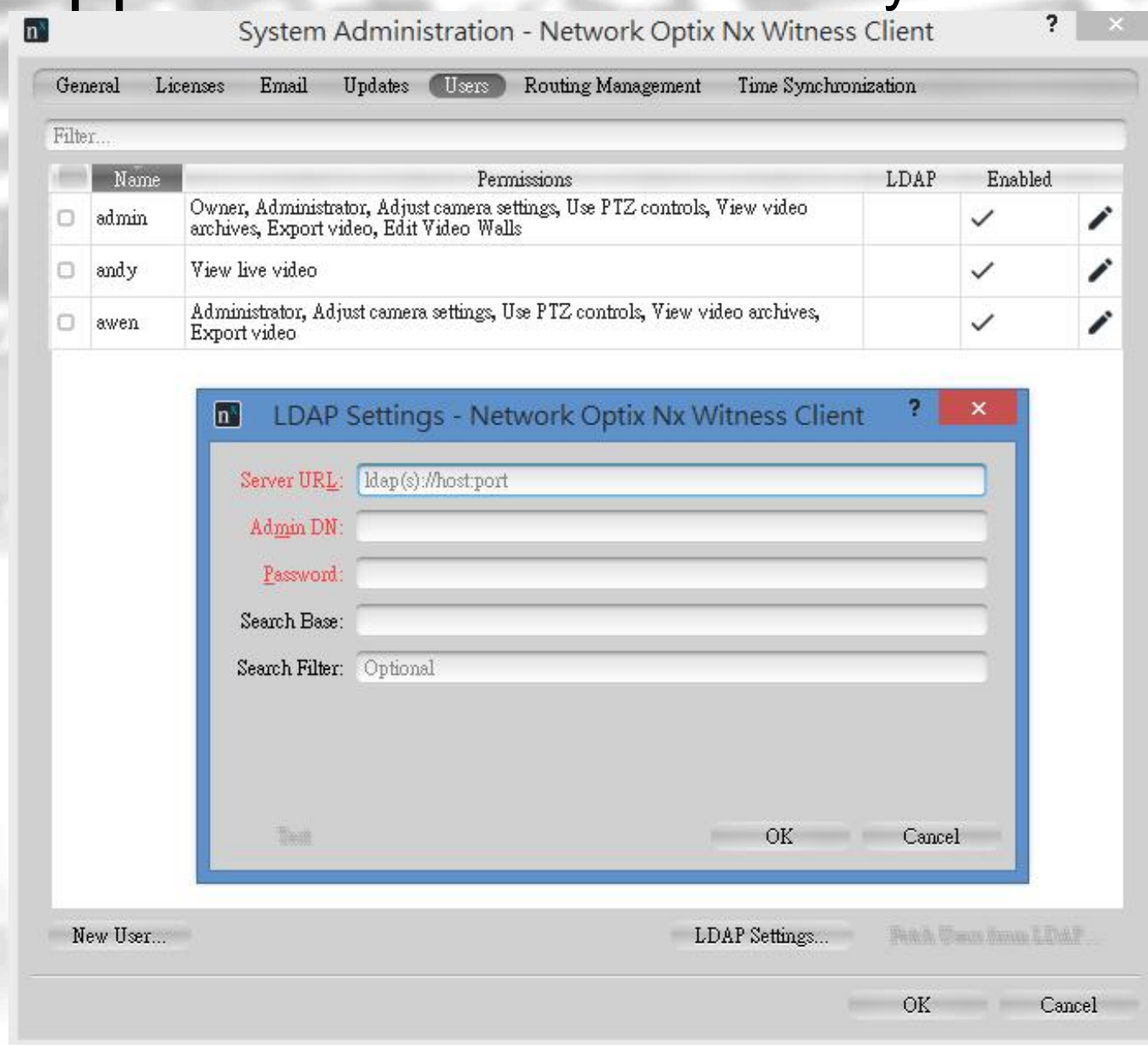


Storage Analytics

Storage is important. Enough or nor? How to check?



LDAP Support – One account for all systems





Simple Alarm Rule

One event – One action
Easy to make an alarm rule

Alarm/Event Rules - Network Optix Nx Witness Client

+ Add - Delete Event log Advanced...

ACTI_V23--A-XX-15D-00098 X

#	On	Event	Source	->	Action	Target	Interval of Action
*	<input checked="" type="checkbox"/>	On Camera Disconnected	<Any Camera>		Write to log	<System>	Every 6 hours
	<input checked="" type="checkbox"/>	On Camera Disconnected	<Any Camera>		Show notification	All Users	Every 30 seconds
*	<input checked="" type="checkbox"/>	On Input Signal on Camera start	<Any Camera>		Play sound	Door Bell	Instant
*	<input checked="" type="checkbox"/>	On Input Signal on Camera start	ACTi-V23		Show notification	All Users	Every minute

Reset Default Rules OK Apply Cancel



Nx Detection and Action

Event Rules - Nx Witness Client

5d899e12-5f72-08f4-f128-4ab64153d6b6

+ Add - Delete

#	On	Event	Source	->	Action	Target	Interval of Action
	<input checked="" type="checkbox"/>	On Camera Disconnected	<Any Camera>		Send Email	User admin has invalid...	Every 6 hours
	<input checked="" type="checkbox"/>	On Camera Disconnected	<Any Camera>		Show notification	Users	Every 30 seconds
	<input checked="" type="checkbox"/>	On Generic Event	<System>		Bookmark	Recording is disabled ...	N/A
*	<input checked="" type="checkbox"/>	Camera Disconnected	<Any Camera>		Show notification	Users	Every 1 minute
		Archive backup finished			Bookmark		
		Camera Disconnected			Camera output		
		Camera IP Conflict			Camera recording		
		Generic Event			Do HTTP request		
		Input Signal on Camera			Execute PTZ preset		
		License Issue			Panic recording		
		Motion on Camera			Play sound		
		Network Issue			Repeat sound		
		Server Conflict			Send Email		
		Server Failure			Show notification		
		Server Started			Show on Alarm Layout		
		Storage Failure			Show text overlay		
					Speak		
					Write to log		

So tired to search a video? – Smart Search



- Smart Search -

We know to search video is so annoying. By Smart Search, just choose an area and you will get all the motions very soon. **Time is Money!**

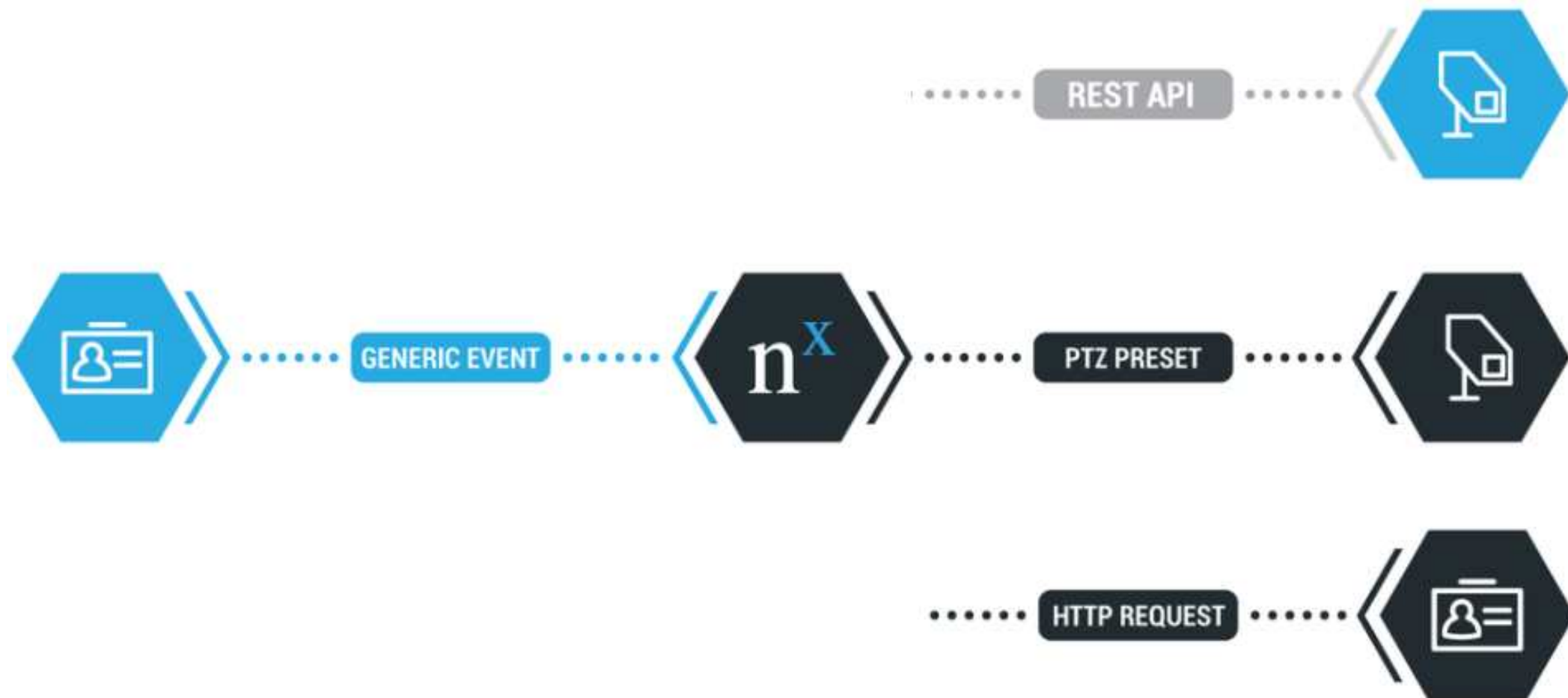
Bookmark – Make your keywords for search



- **bookmark -**

Insert bookmarks with video. Search your video in seconds.

Integration? – Generic Event API



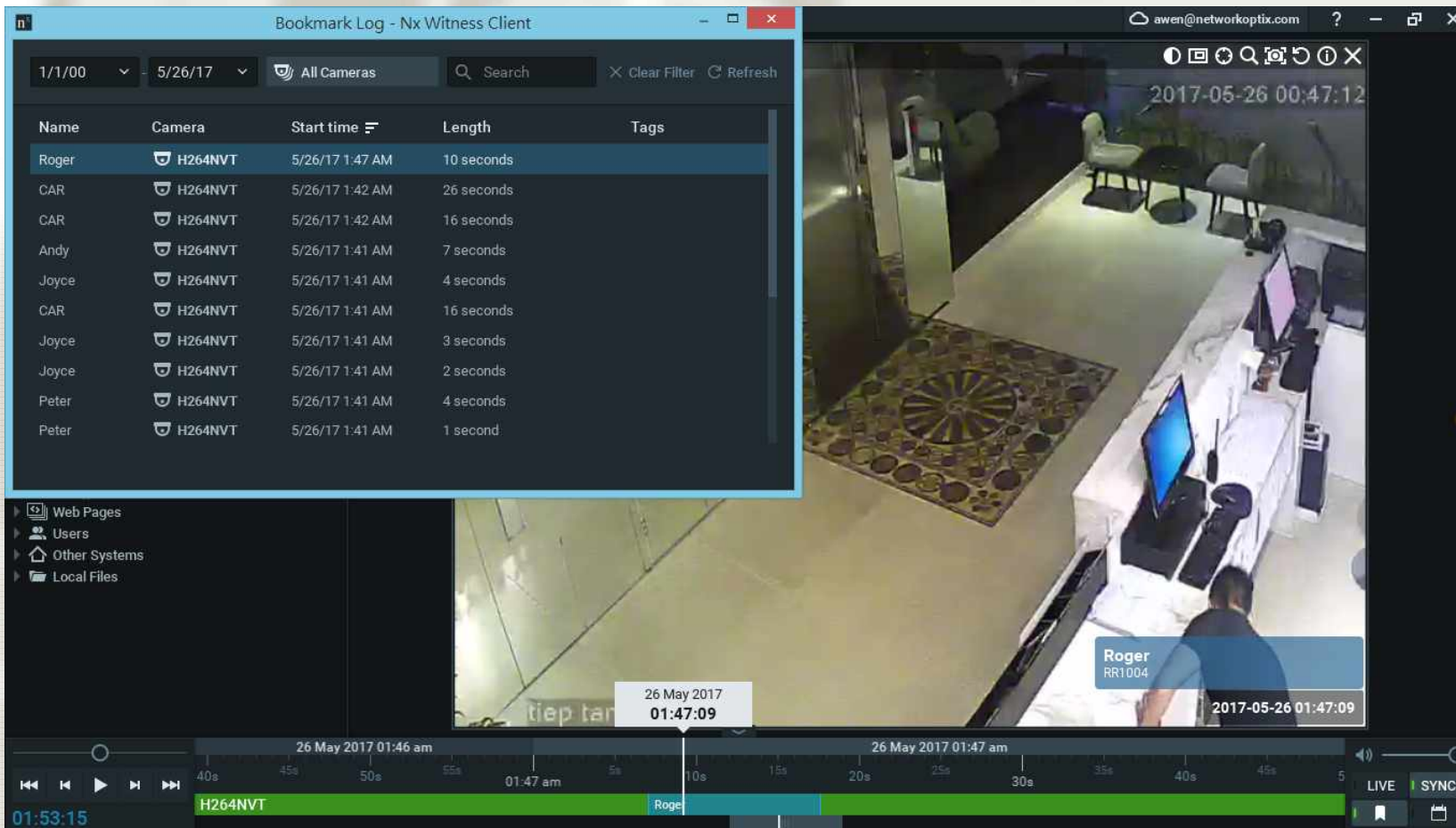
Nx Generic Event API

Any platforms or devices can send the information to Nx by the API.
Sharing information. That is INTEGRATION!

So...Why not just integrate with ACS?



ACS integration



The screenshot displays the Nx Witness Client interface. On the left, a 'Bookmark Log' window shows a list of events with columns for Name, Camera, Start time, Length, and Tags. The main window shows a video playback of a reception area with a desk and a person. A timeline at the bottom indicates the video is from 26 May 2017 01:46 am to 01:47 am. A search bar at the top of the log window allows filtering by name or card number.

Name	Camera	Start time	Length	Tags
Roger	H264NVT	5/26/17 1:47 AM	10 seconds	
CAR	H264NVT	5/26/17 1:42 AM	26 seconds	
CAR	H264NVT	5/26/17 1:42 AM	16 seconds	
Andy	H264NVT	5/26/17 1:41 AM	7 seconds	
Joyce	H264NVT	5/26/17 1:41 AM	4 seconds	
CAR	H264NVT	5/26/17 1:41 AM	16 seconds	
Joyce	H264NVT	5/26/17 1:41 AM	3 seconds	
Joyce	H264NVT	5/26/17 1:41 AM	2 seconds	
Peter	H264NVT	5/26/17 1:41 AM	4 seconds	
Peter	H264NVT	5/26/17 1:41 AM	1 second	

- **Access Control System integrated -**

By Nx Event API, ACS can be easily integrated with Nx.
Search your video by **name** or **card number**.



Barcode scanner should be integrated as well
What a good solution for warehouses!



Barcode scanner integration

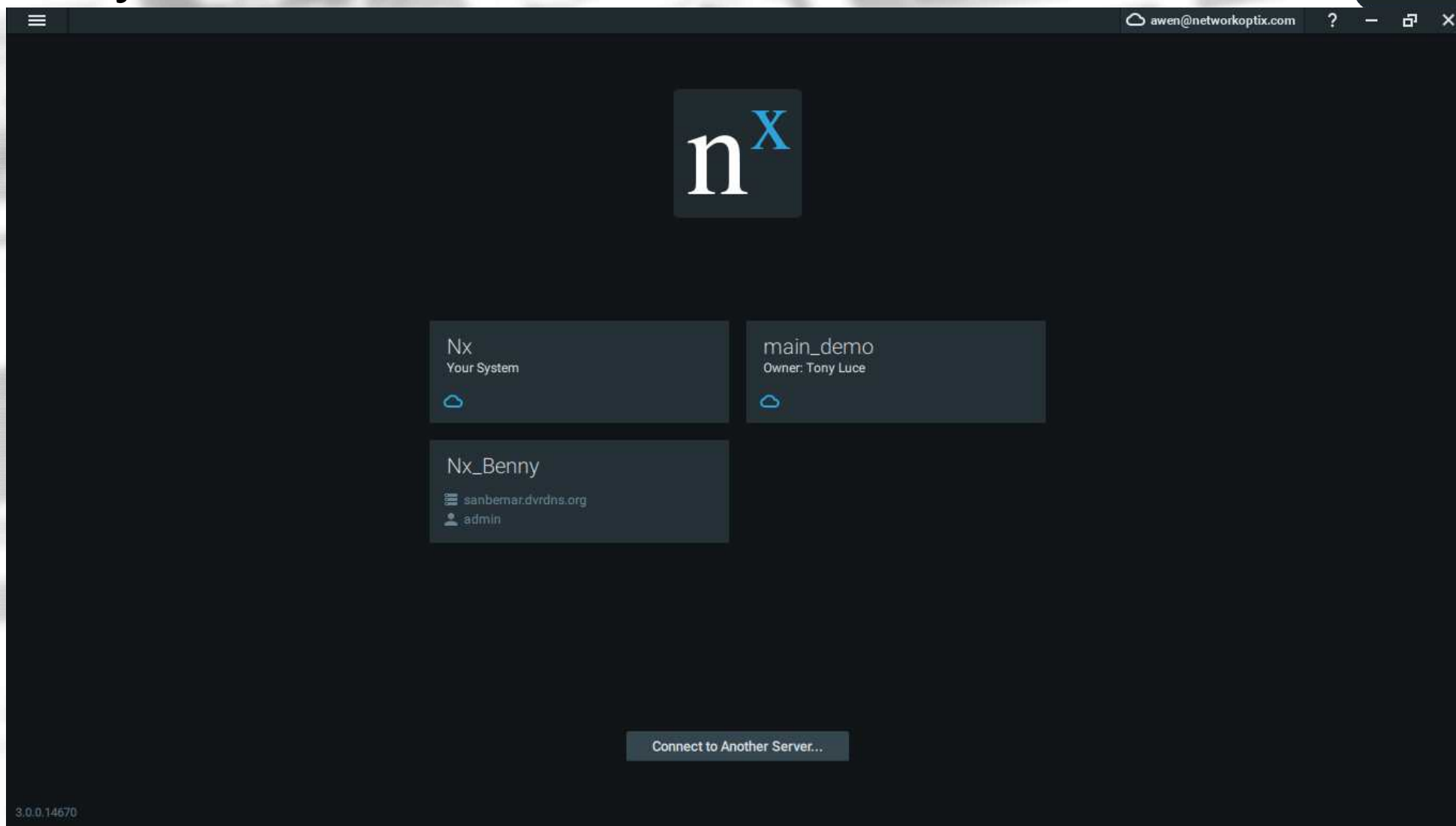


Search by **ITEM NAME/ITEM NUMBER**.

Click to get the video.



Easy, Convenient, Cloud Connection



Install your Nx. Register to Nx Cloud. Connect to Nx wherever you are!

No setting from router! No static IP! No DDNS!



Nx Web Client

Web Client without any plug-ins

nx webadmin Settings Information Web client For Developers Help


search cameras

Andy-laptop

- 00E00ADD0000DM36x_IPNC
192.168.10.168
- ACTi-E921
192.168.1.121
- ACTi-V23
192.168.10.35
- CG-NCVD031A
192.168.1.99**
- SPD970Megapixel_IPCam
192.168.10.30

Server

CG-NCVD031A Resolution: Auto

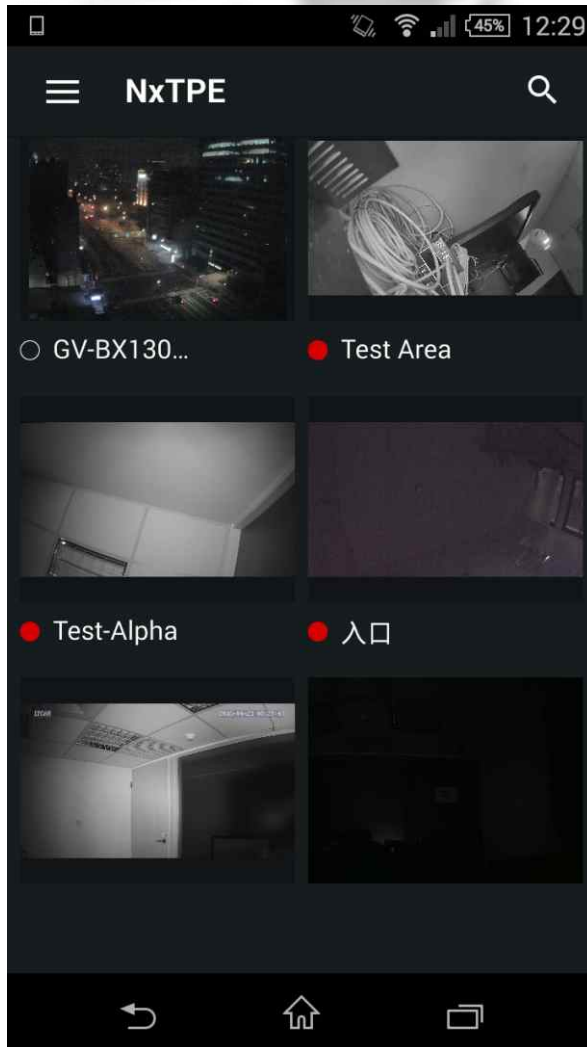


— + || LIVE

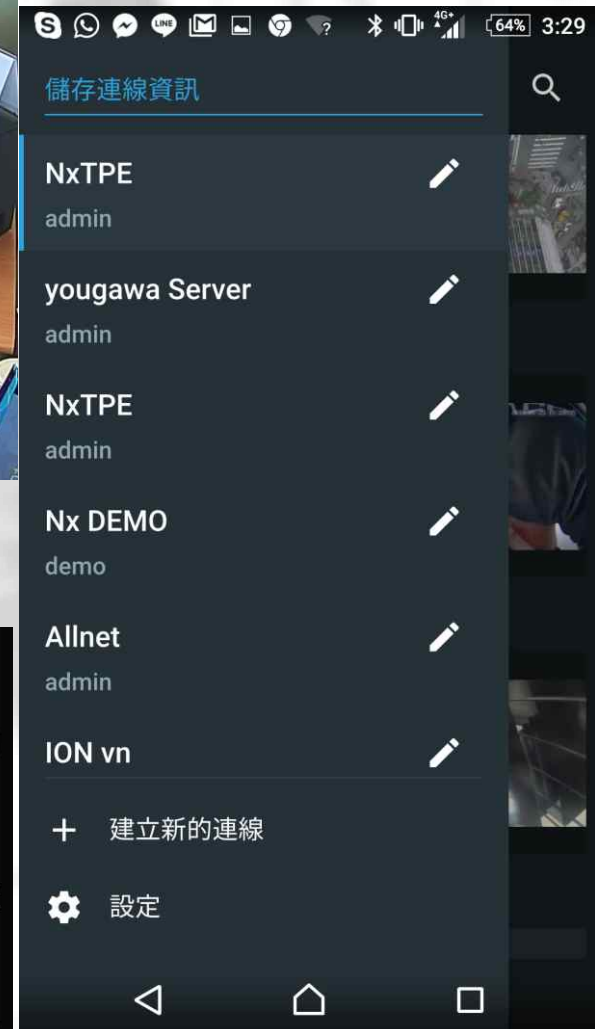
3 November 2015 16:08:07 16:15 16:20 16:25 16:30 16:35 16:40 16:45 16:50 16:55 17:00 17:05

< >

Nx APP



Mobile Client



Interaction Offline Manual

- Embedded interaction offline manual
- Just two clicks to get the answer!

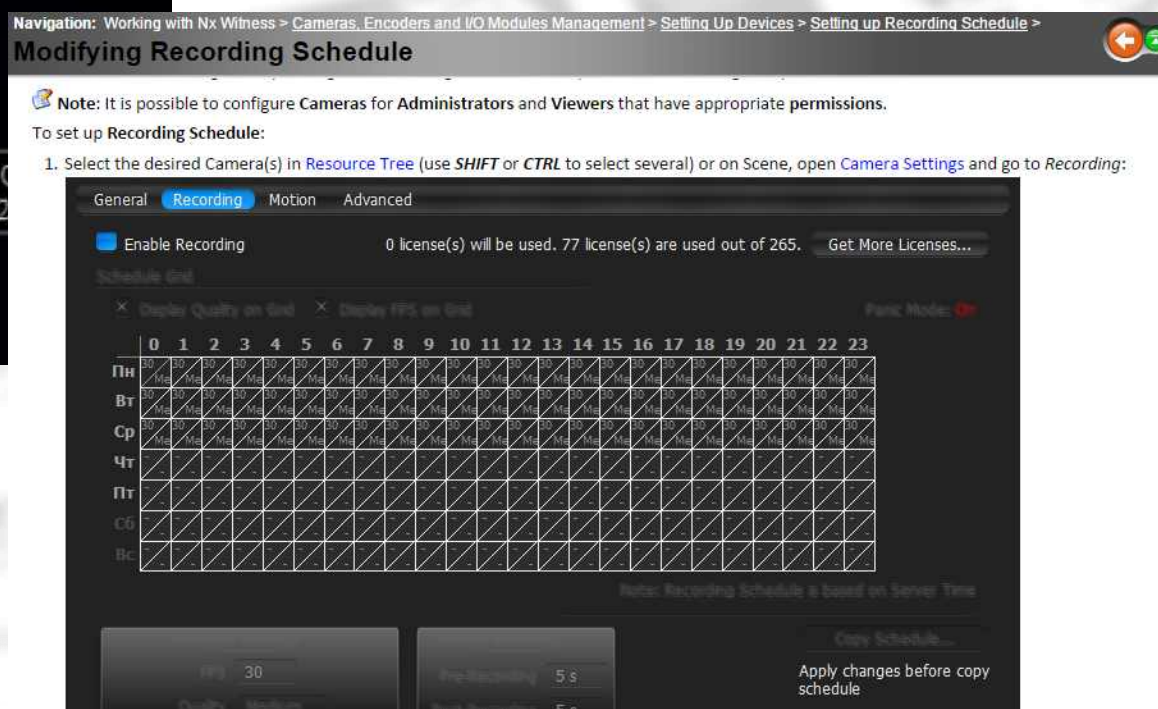


Click question mark



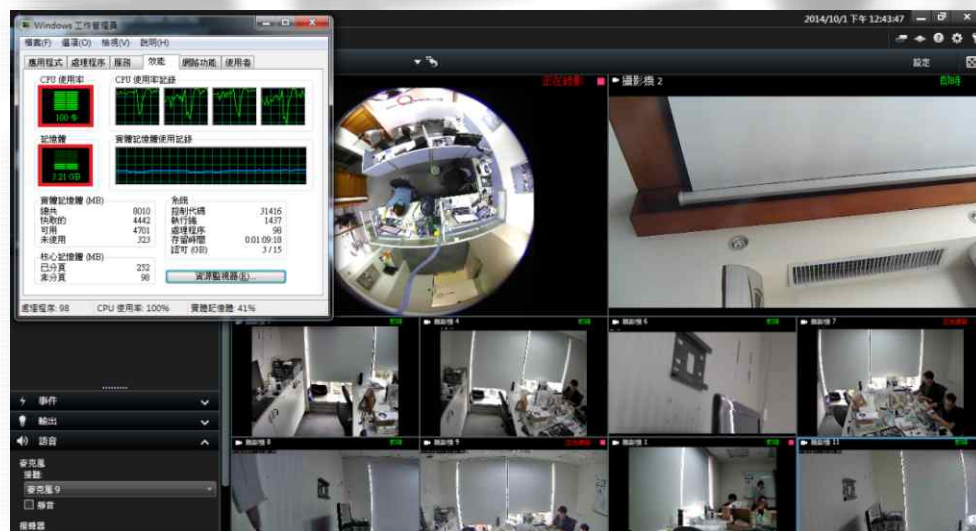
Click question part

Manual appears!

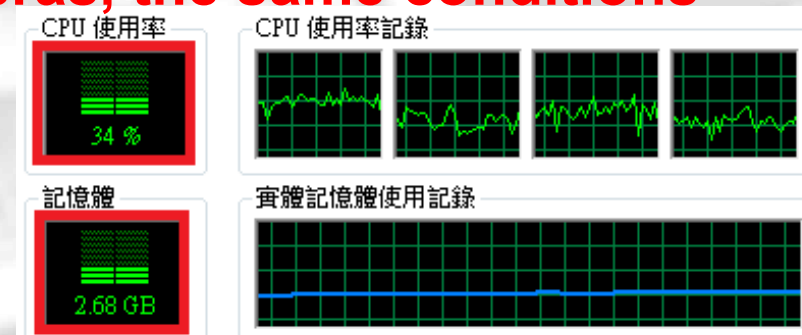
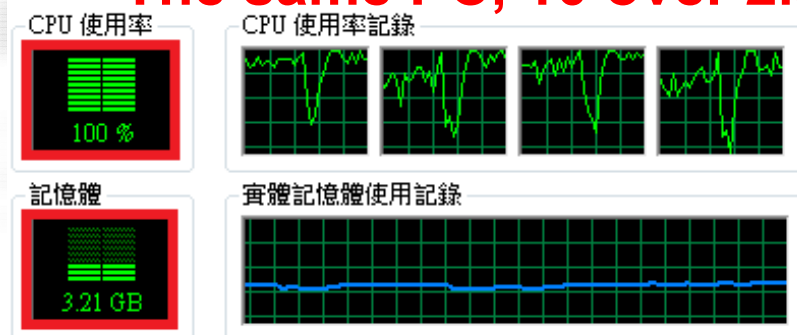


Well performance

- Using GPU from VGA card to reduce loading.



The same PC, 10 over 2MP cameras, the same conditions



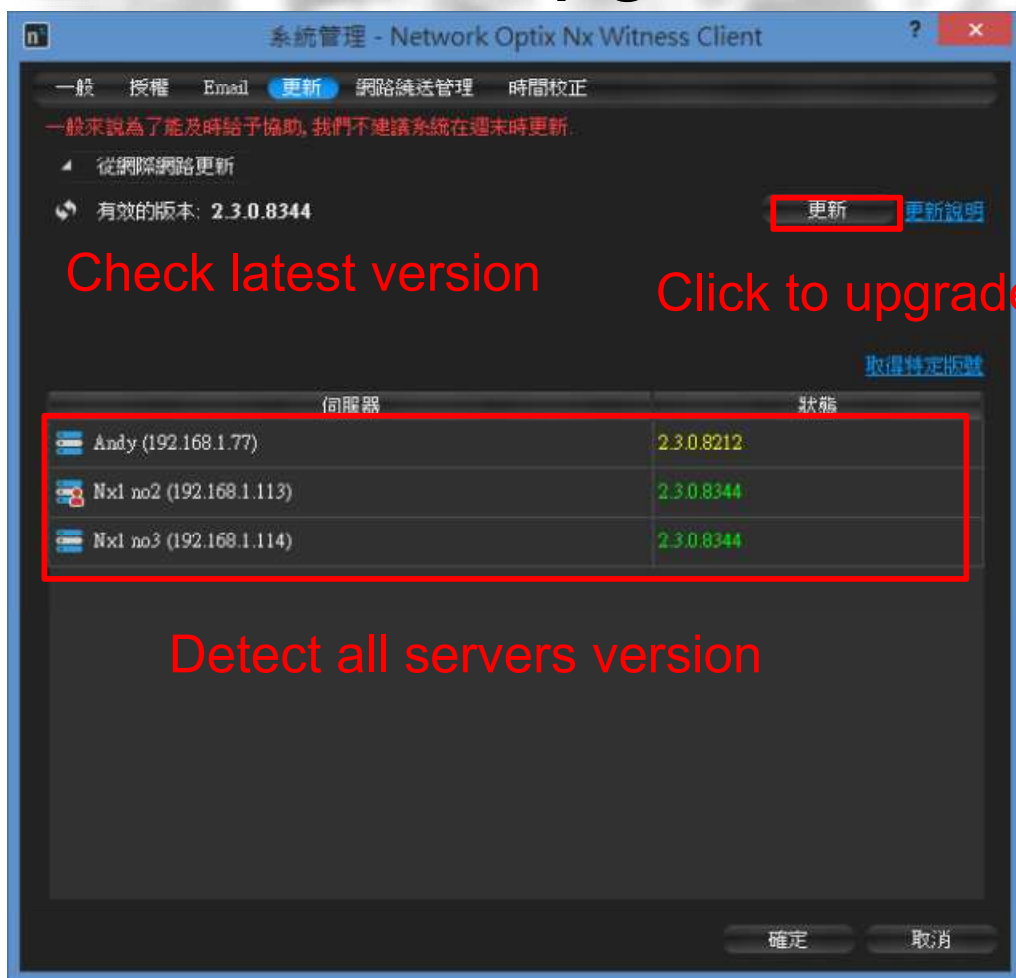
Other VMS

CPU 100% RAM 3.21GB

Nx Witness

CPU 34% RAM 2.68GB

One Click Upgrade



系統管理 - Network Optix Nx Witness Client

一般 授權 Email **更新** 網路繞送管理 時間校正

一般來說為了能及時給予協助, 我們不建議系統在週末時更新.

從網路網路更新

有效的版本: 2.3.0.8344 **更新** [更新說明](#)

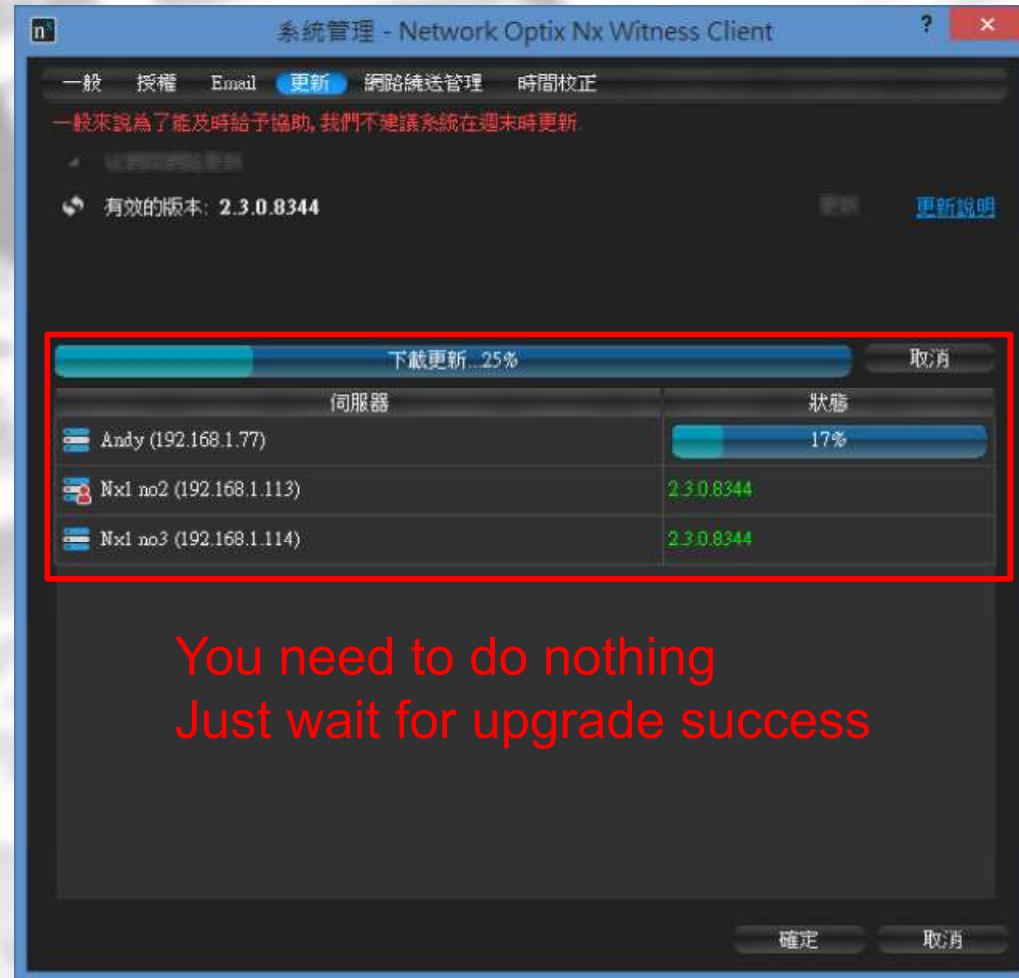
Check latest version Click to upgrade

伺服器	狀態
Andy (192.168.1.77)	2.3.0.8212
Nx1 no2 (192.168.1.113)	2.3.0.8344
Nx1 no3 (192.168.1.114)	2.3.0.8344

取得特定版號

確定 取消

Detect all servers version



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下載更新... 25% 取消


伺服器	狀態
Andy (192.168.1.77)	17%
Nx1 no2 (192.168.1.113)	2.3.0.8344
Nx1 no3 (192.168.1.114)	2.3.0.8344

確定 取消

You need to do nothing
Just wait for upgrade success

API/SDK

- API 、 SDK embedded.


webadmin API reference

Web administration

System API

[getResourceTypes](#)
[getResourceParams](#)
[getMediaServersEx](#)
[getCamerasEx](#)
[getCameraHistoryItems](#)
[getCameraBookmarkTags](#)
[getBusinessRules](#)
[getUsers](#)
[getVideowalls](#)
[getLayouts](#)
[listDirectory](#)
[getStoredFile](#)
[getSettings](#)
[getCurrentTime](#)
[getFullInfo](#)
[getLicenses](#)

+ Server API

+ Video API

+ Proxy API

+ Authentication

This group contains functions related to whole system (all servers).

GET

/ec2/getResourceTypes

try method

Read all resource types. Resource type contain object type such as 'Server', 'Camera' e.t.c. Also, resource types contain additional information for cameras such as maximum fps, resolution, e.t.c

Parameters

Name	Description	Optional	Values
format	Data format. Default value: 'json'	true	ubjson (?) json (?) xml (?) csv (?)

Result

Return object in requested format

