

IP Matrix Server Software
WV-ASC970
(Version 4.0)

2011/Mar

Panasonic System Networks Co.,Ltd.

Panasonic ideas for life

New

What are improved in ASC970 V4?

2

- *New i-PRO SmartHD camera support*

Cameras: WV-SP105/SP102/SC385/SW395/SF346/SF342



- *HD716/616 integration enhancement*

HD716/616 can be registered as i-PRO node so that GXD400/ASM970 can receive video image from HD616/716 through NW I/F on HD716/616

- *I/O-Ethernet Convertor support as alarm trigger source*

ADVANTECH ADAM-6050/6060/6066

Fixed Camera stream Mode support on GXD400

In the case of that the customer requires precise full frame rate recording at any time, please select this mode to reduce camera's workload for GXD400.

Specify Stream1 or Stream2 to display on both SXVGA and VGA area on GXD400 regardless of the area size.

*In this mode, the certain stream, VGA or QVGA, can be up-scaling according to area size as below chart.

Down-scaling is not available

	SXVGA Area	VGA Area
3M (JPEG)	N/A	N/A
1.3M(SXVGA) (JPEG, H.264)	Yes	N/A
VGA (JPEG, H.264, MPEG-4)	Yes	Yes
QVGA (JPEG, H.264, MPEG-4)	Yes	Yes

Up-scaling is available



Multicast auto start support

In multicast system, the communicating way between ASM970 and cameras is improved to decrease the processing load on Cameras.

*GXD400 doesn't support it.

- *16:9 Full HD screen view support*



- *Audio Support*

-Audio reception (from camera/DVR to PC) is available for the Channel1 of ASM970/GXD400

-Audio transmission (from PC to camera) is up to 5 minutes per transmission

- *Downloaded File converter “ND Image Converter”*

“n3r” file can be converted to “MP4” file by this tool

** This tool works only on the PC installed ASM970*



Download operation improvement

Easy Download from search result



Search Result

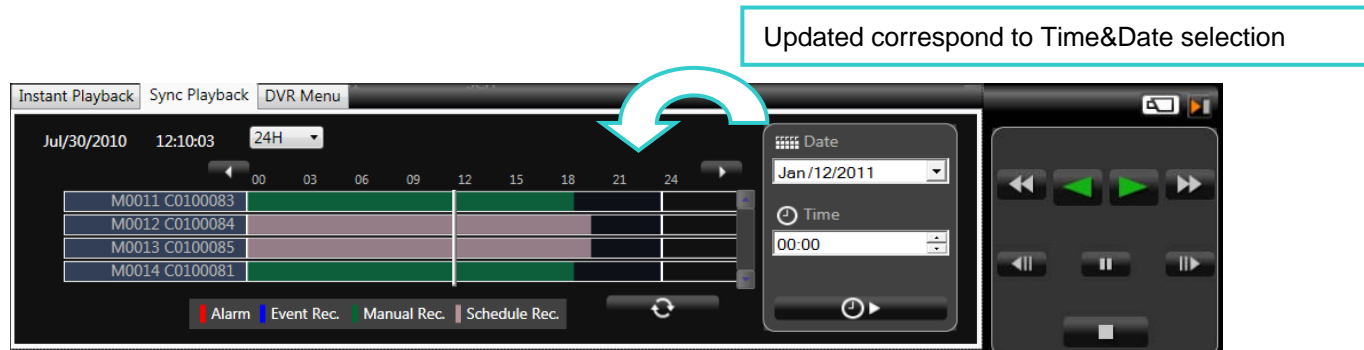
Selectable the step of Playback

Selectable x2/x3/x4/x5/x6/x7 fast-forward & Back-forward on the right click menu



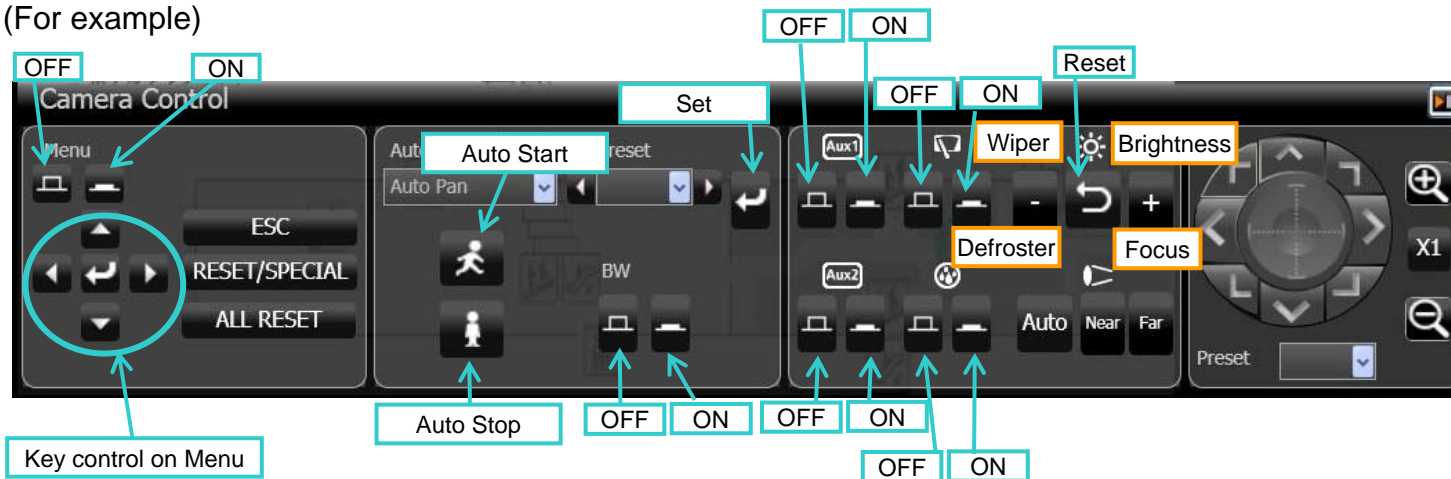
Timeline display improvement

Timeline display is quickly updated correspond to Time&Date selection before the "Go-to-Date" button is clicked



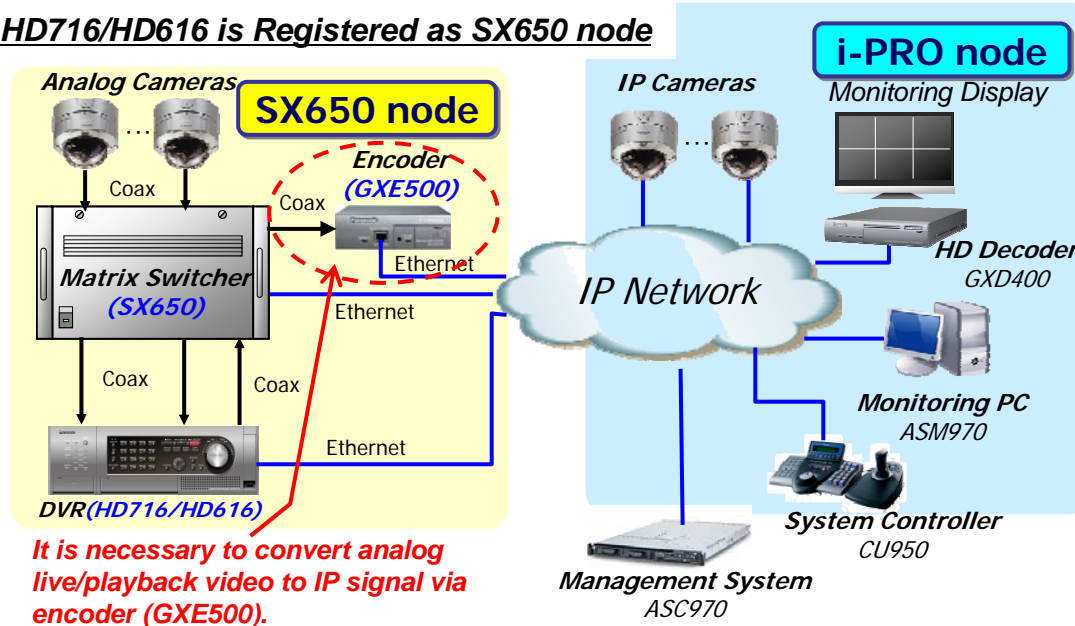
Change the title on the button to picture icon

(For example)



Key Point of HD716/616 Integration enhancement

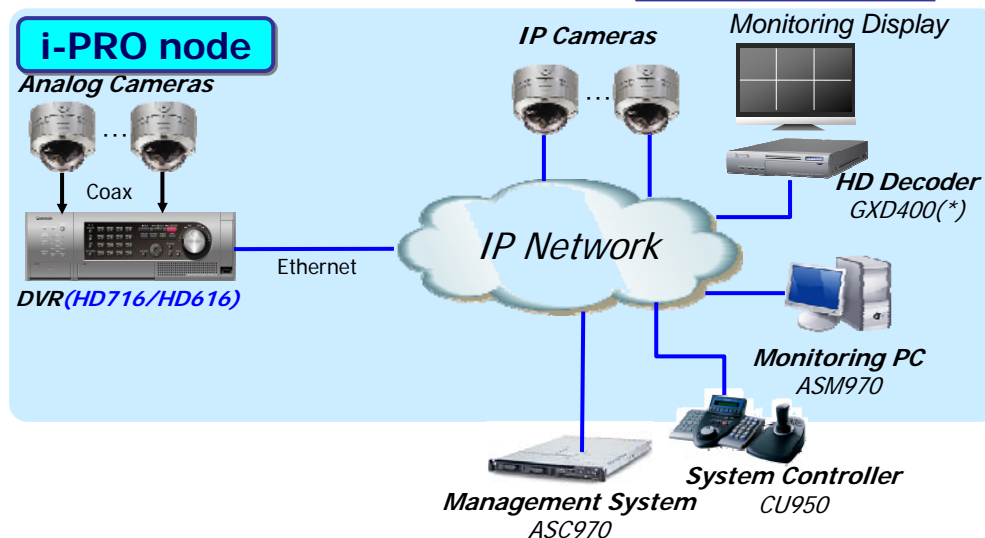
● HD716/HD616 is Registered as SX650 node



Analog DVR (HD716/HD616) can be migrated into IP system **with Matrix Switcher and Encoder.**

● HD716/HD616 is Registered as i-PRO node

Available after Ver.4

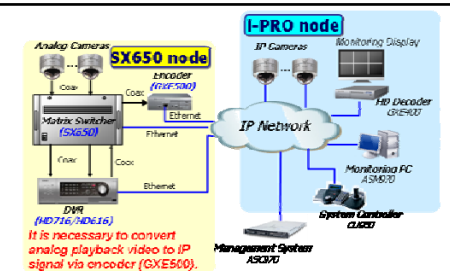
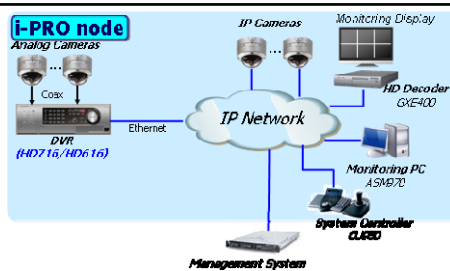


Analog DVR (HD716/HD616) can be migrated into IP system **without Matrix Switcher and Encoder.** (HD716/HD616 will be managed as an i-PRO device.)

*Required GXD400 ver2.20 or later

Difference of the functions

Available after Ver.4

	Registered as SX650 node	Registered as i-Pro node
		
Live viewing on GXD400	<p>OK (via GXE500)</p> <p>*Resolution and frame rate depend on the setting of GXE500 (up to VGA/25fps).</p>	<p>OK (directly), Rec resolution only</p> <p>*Resolution and frame rate are limited and depend on the recording setting of HD716/616.</p>
Playback on GXD400	<p>*See next page</p>	<p>*See next page</p>
Live viewing on ASM970	<p>OK (via GXE500)</p> <p>*Resolution and frame rate depend on the setting of GXE500 (up to D1/25fps).</p>	<p>OK (directly), Rec resolution and QVGA</p> <p>*Resolution and frame rate are limited and depend on the recording setting of HD716/616.</p>
Playback on ASM970	<p>*See next page</p>	<p>*See next page</p>
DVR control from CU950	<p>OK (directly) *GUI menu control is possible</p>	<p>OK (directly) *GUI menu control is impossible</p>
Analog camera control from CU950	<p>OK (via SX650) *GUI menu control is possible</p>	<p>OK (directly) *GUI menu control is impossible</p>
DVR control from ASM970	<p>OK (directly) *GUI menu control is possible</p>	<p>OK (directly) *GUI menu control is impossible</p>
Analog camera control from ASM970	<p>OK (via SX650) *GUI menu control is possible</p>	<p>OK (directly) *GUI menu control is impossible</p>
Local Monitor connected to HD716 /616 control from CU950/ASM970	<p>N/A</p>	<p>N/A</p>

Frame rate of HD616/716 on Live

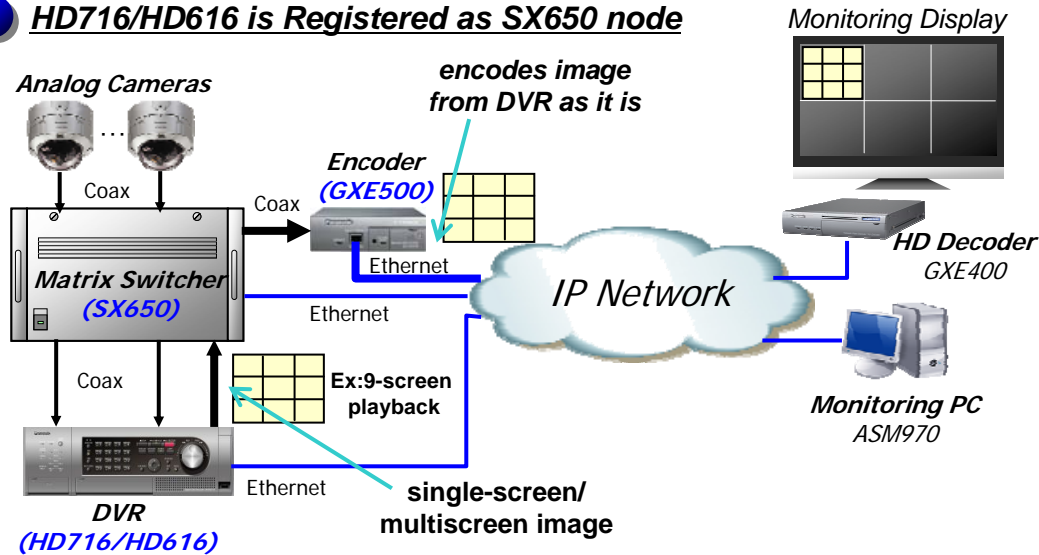
Live	Frame	Field
HD716	up to 12.5fps	up to 12.5fps
HD616	up to 6.25fps	up to 6.25fps

Frame rate of HD616/716 in Rec resolution

Rec Resolution	Frame	Field
HD716	up to 12.5fps	up to 25fps
HD616	up to 6.25fps	up to 12.5fps

Difference of the Playback

● HD716/HD616 is Registered as SX650 node



- GXD400 or ASM970 displays DVR playback the same as DVR analog output.
- Only One fixed pattern Image of a certain DVR can be displayed at every GXD400 or ASM970.

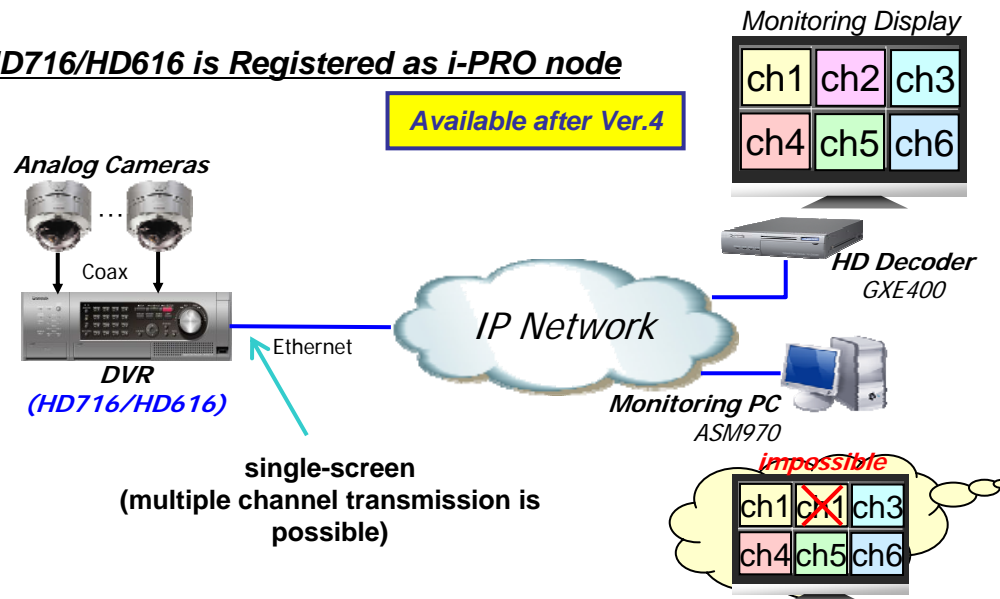
multiple screen
with single monitor



Single screen
with multiple monitors

● HD716/HD616 is Registered as i-PRO node

Available after Ver.4



- Multiple channel can be playback synchronously or asynchronously on ASM970, only asynchronously on GXD400.
- Displaying same channel of a DVR is impossible on different monitors of one GXD400 or ASM970.

single-screen
(multiple channel transmission is possible)

- *Discontinued*

MPU955A is discontinued in September,2009.



- *WV-ASC970 is offered as software that runs by PC.*

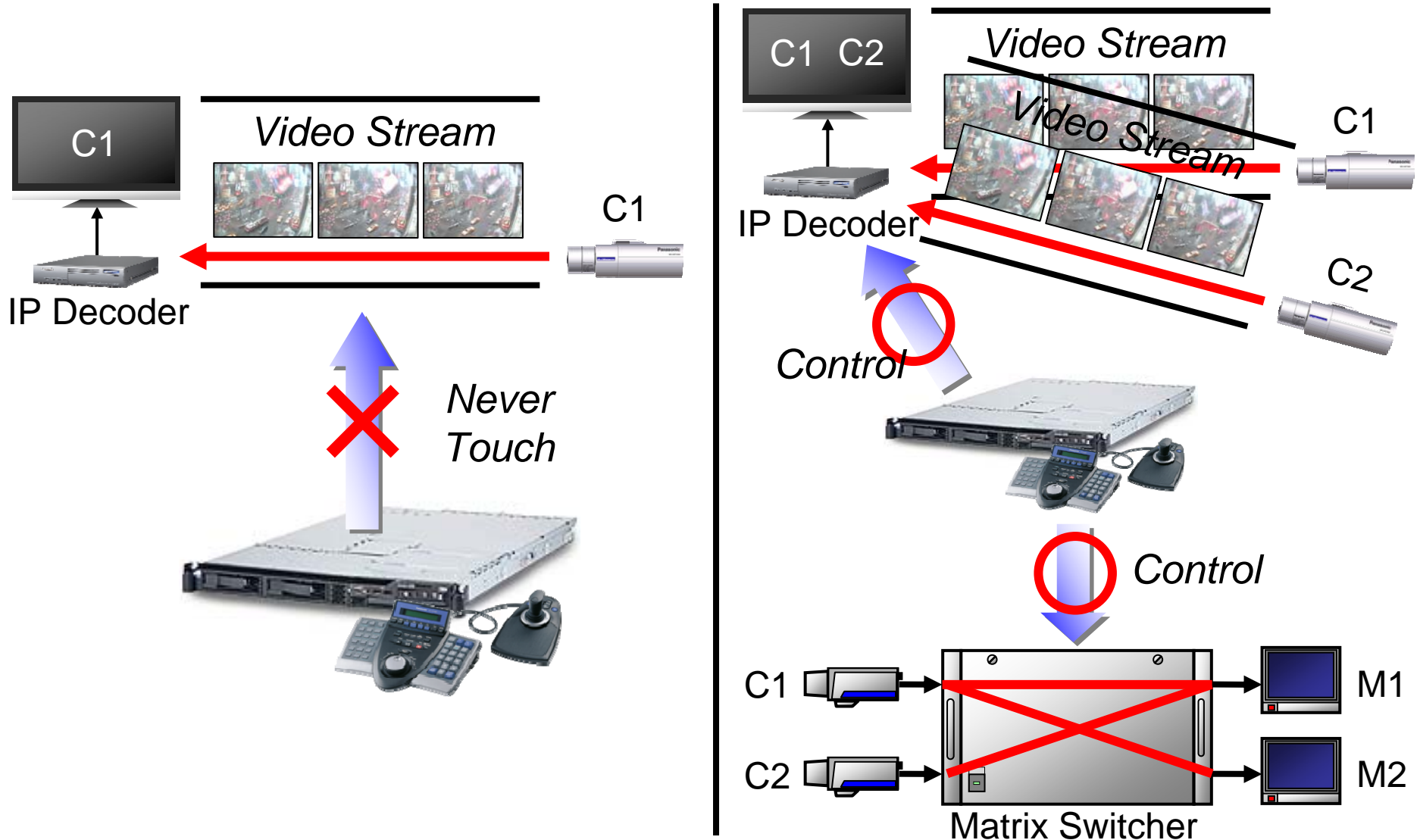


WV-ASC970 is a system management software which has the function of MPU955A and ASC960 and the control of the i-Pro device.

What is ASC970?

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WV-ASC970 doesn't touch any video stream. It just controls devices. Therefore it can control large scale systems and keep high performance operation.



*What are the benefits of
WV-ASC970?*

1. Panasonic Total System Quality

WV-ASC970 maximally brings out the picture quality and the functions from Panasonic devices that another partners can't do.

In addition, as Panasonic devices are designed for high reliability, the server provides a fully controlled stable system.

Picture Quality

Functionality

High Reliability

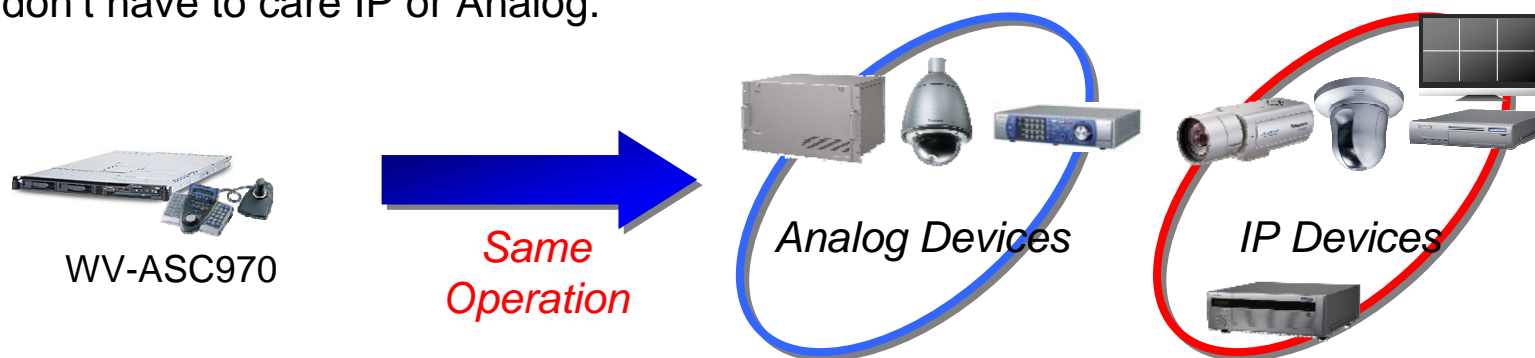
2. Smooth migration from Analog system to IP system without wasting investment in the existing Analog system

WV-ASC970 can control both Analog devices and IP ones so that we can smoothly migrate current Analog systems to IP systems with adding encoders only.



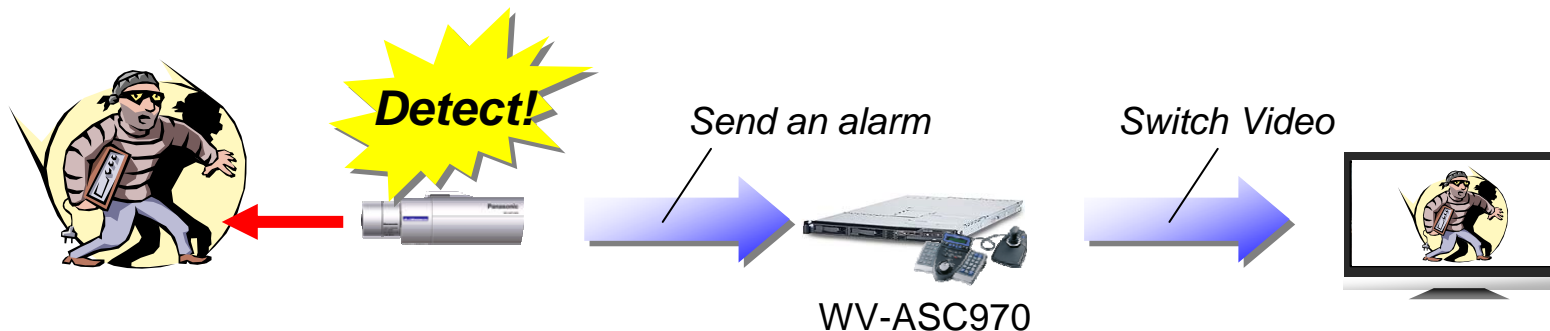
3. Seamless Easy Operation

Customers can seamlessly control IP and Analog devices with same and easy operation through WV-CU950 joystick controllers. You don't have to care IP or Analog.



4. Reduces Operators' Workload

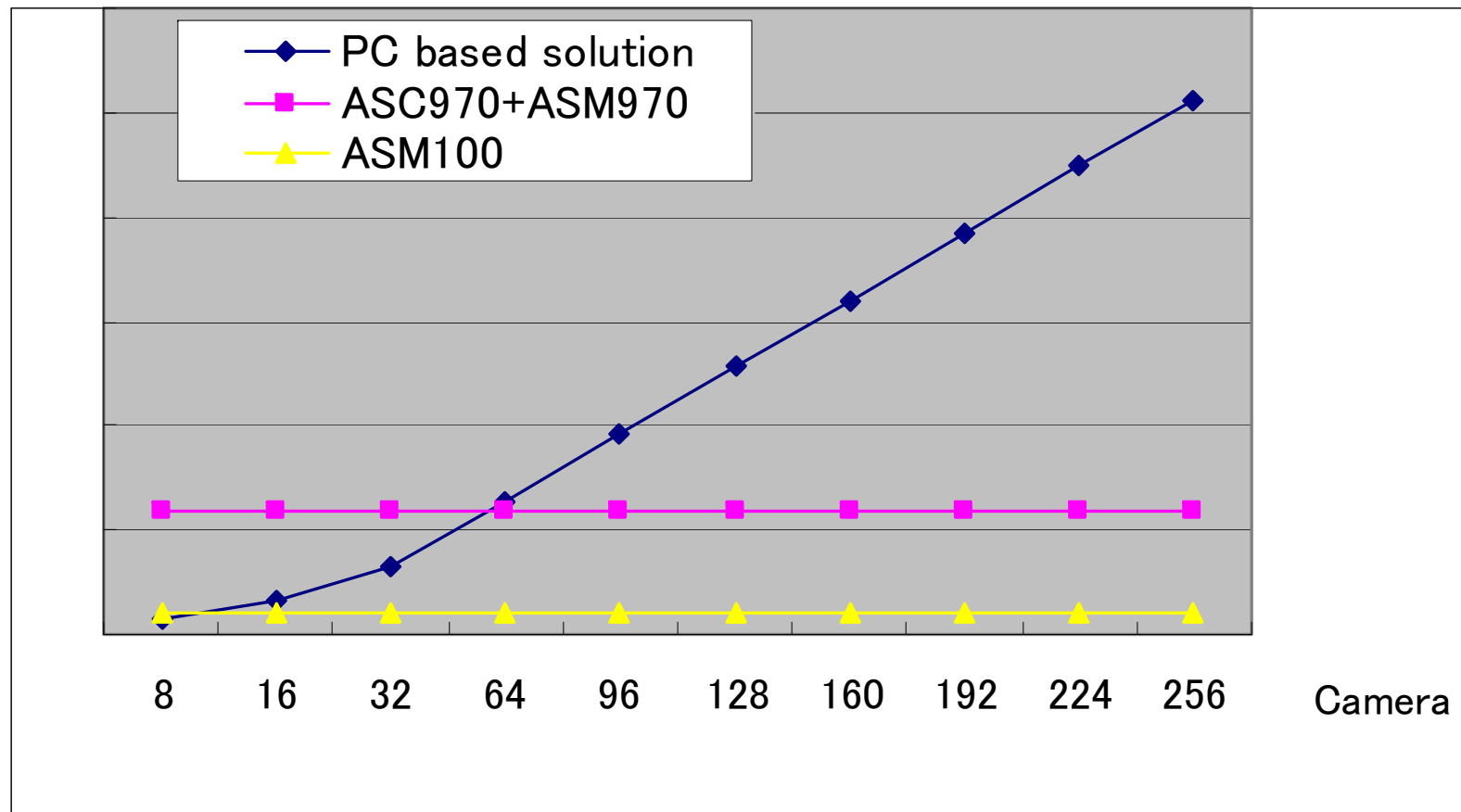
WV-ASC970 supports various alarm sources and drives useful alarm actions such as Video Switching, Preset, Sequence and so on. Also, it provides scheduled actions. Thus operators can reduce their operation burden with the quite automatic operations.



5. Saves Initial Cost

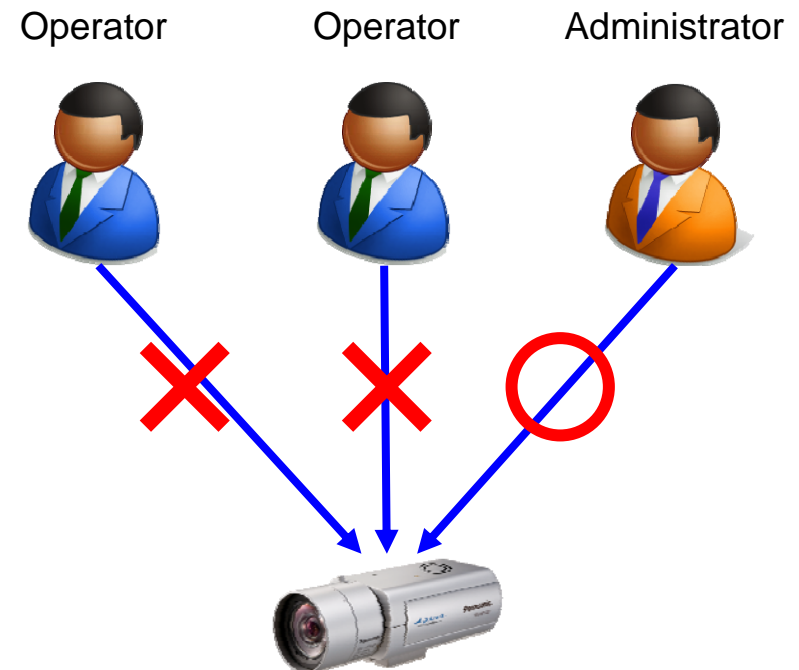
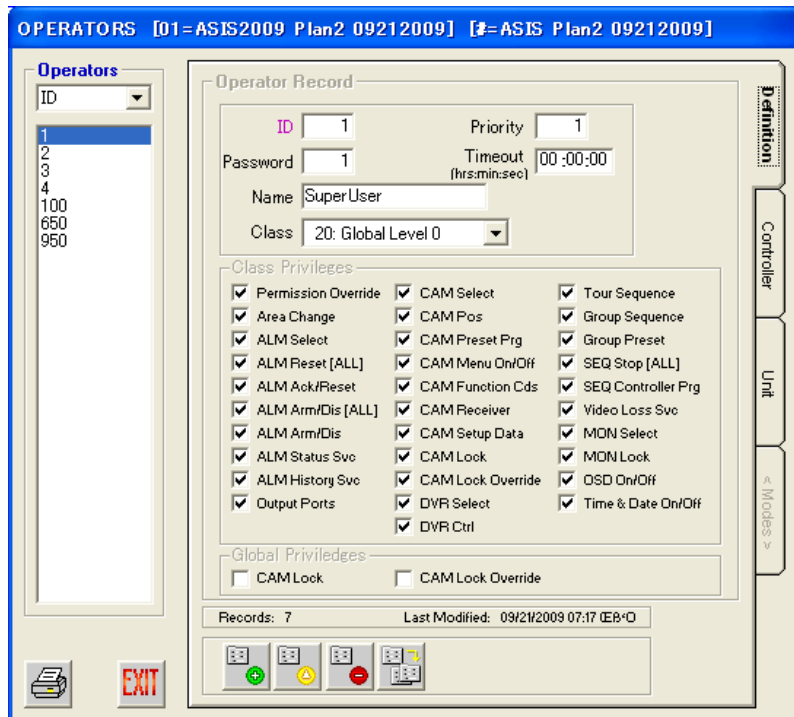
WV-ASC970 doesn't need any camera license fee.

Therefore Panasonic solutions with WV-ASC970 saves initial cost against PC-based management server solutions when customers install security systems first.



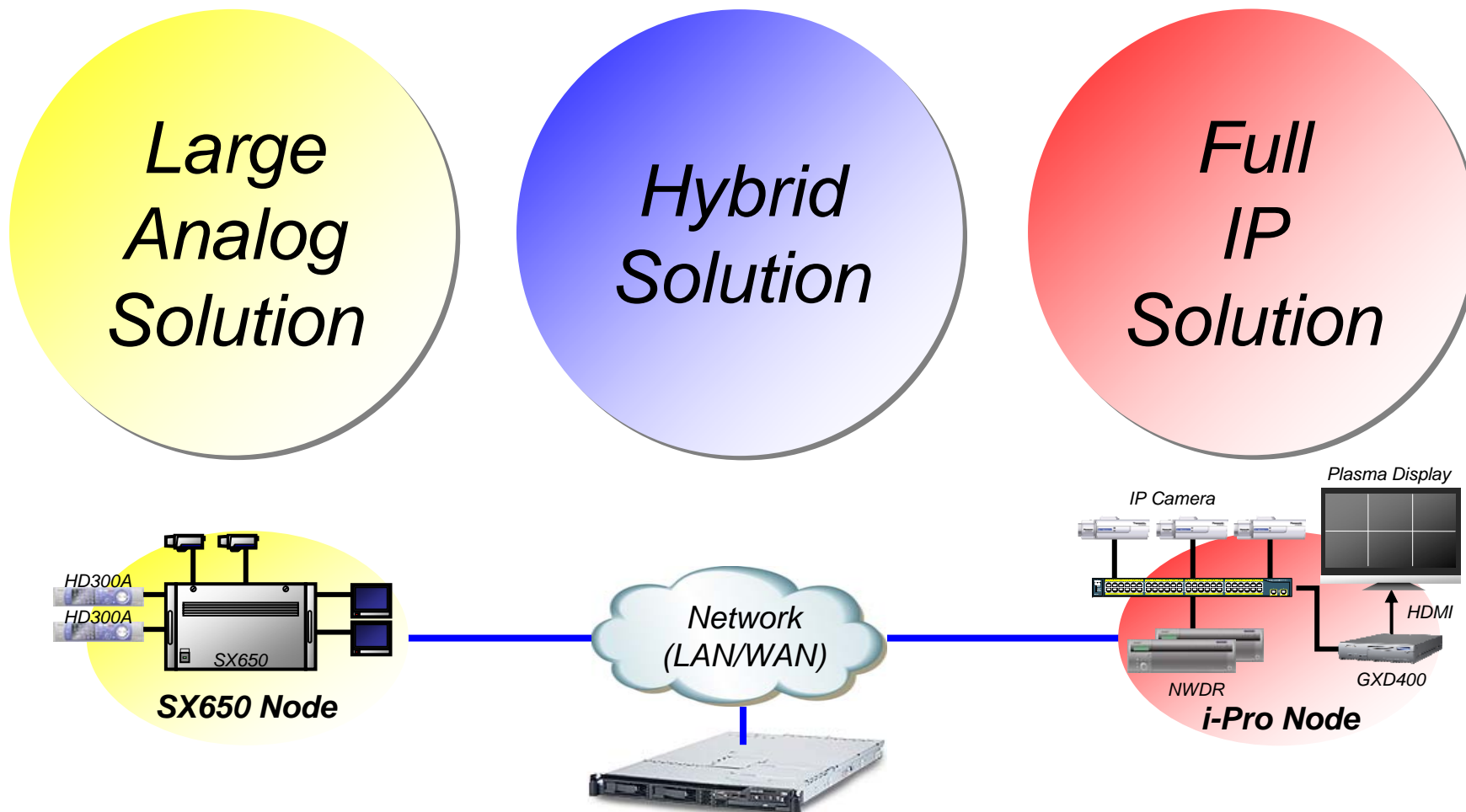
6. Powerful User Management

WV-ASC970 provides powerful and flexible user management like privilege, priority or monitor/controller permission so that it can support operation for multi-site system or enterprise system.



WV-ASC970 Key Features

WV-ASC970 can provide powerful and flexible solutions for customers diverse requirements.



Surveillance System Management Server for IP, Analog or Hybrid solution

KEY FEATURES

- ◆ *Built for Large Scale System*
 - *e.g. 1535 x 1024 + 64 controllers : Hybrid system (SX650 + IP system)*
- ◆ *Flexible System Design:*
 - *IP Solution*
 - *Analog Solution*
 - *Hybrid Solution*
- ◆ *Various Alarm Management(2048 alarm inputs)*
- ◆ *Multi-Site System Capability (Up to 64 sites)*
- ◆ *Redundant Capability for High Reliability*
- ◆ *No Device License Fee*

*WV-ASC970
(Software)*



*Linux Server
for WV-ASC970*

Supported Devices

Revised

Analog / IP	Category	Model
Analog	Matrix Switcher	SX650, SX850 (Discontinued)
	DVR (Digital Video Recorder)	HD300/HD300A series, RT416, HD616/716
	Analog Camera	Via Matrix Switcher or DVR
IP (GX900 series)	MPEG2 Encoder	GXE900 (NTSC only)
	MPEG2 Decoder	GXD900 (NTSC only)
IP (i-Pro series)	IP Cameras	All i-PRO cameras
	PTZ	NS202/202A, NS954, NW964, NS324, SC385, SW395
	Fixed Dome	NF284, NW484S, NF302, NW502S, SF33x, SF346, SF342
	Fixed Box	NP244, NP1004, NP304, NP472, NP502, SP30x, SP105, SP102
	NWDR (Network Disk Recorder)	ND200 (*2), ND300/300A (*2), ND400 (*2)
	Encoder	NT304, NT314, GXE500
	Decoder	GXD400
	Controller	CU950
	Video Management Software (GUI)	WV-ASM970(*1)

*1: Search functions are supported with ASM970 only. Setup function is not supported.

Large Scalability

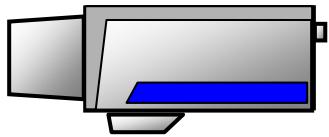
21

WV-ASC970 has large scalability for enterprise surveillance systems.

Max System Size per ASC970: Input 1535 x Output 1024

(Hybrid system: SX650 + IP system)

Camera



1535*

Monitor



1024*

DVR/NWDR



64*

Controller



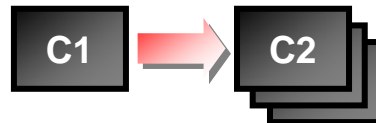
64 *

Alarm



2048

SEQ



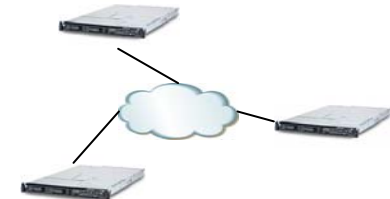
128 programs
128 steps/program

User



512

Satellite



64

* Specifications for Analog, IP or Hybrid system → Refer to next page

WV-ASC970's scalability for IP or Hybrid system are different from Analog.

Max System Size per WV-ASC970 server								
System	Analog System			Hybrid System				IP System
Node Name	SX650	SX850 (discontinued)	SX850 (discontinued) + SX650	SX650		SX850 (discontinued)		i-Pro
				GX	i-Pro	GX	i-Pro	
Cameras	512	1024	1536	1536	1535 *1	2048	2047 *1	1023 *7
Monitors	64ch	256ch	320ch (total)	320ch (total)	1024ch (total) *1	512ch (total)	1024ch (total) *1	1024ch
(breakdown)	SX650 : 64 (Full matrix)	SX850 : 256 (Full matrix)	SX850 : 256 SX650 : 64	SX650 : 64 GX : 256 *2	SX650 : 64 i-Pro : 1024 *3	SX850 : 256 GX : 256 *2	SX850 : 256 i-Pro : 1024 *3	i-Pro : 1024 *3
DVR/NWDR	32	64	64	64 *1,*6		64 *1		64
Controllers	64	64	64	64		64		64
Alarms	2048 *5	2048 *5	2048 *5	2048 *5		2048 *5		2048 *5
Sequences	128	128	128	128		128		128
Steps per Sequence	64	64	64	128		128		128
Users	512	512	512	512		512		512
Satellites	64	64	64	64		64		64

Total max
1023
i-Pro
devices
*4

- *1: Total # of Cameras/DVR/NWDR/Decoders have to be 1023 or less
- *2: e.g. GX(256) : 64 x GX900(4 screen)
- *3: e.g. i-Pro(1024) : 32 x GXD400(6 screen) and 52 x ASM970(16 screen)
- *4: It depends on system design. If you want to control more than 512 i-Pro devices from 1 WV-ASC970 server, contact Panasonic sales representatives.
- *5: ASC970 can input up to 256 alarms simultaneously. *6: Max 32 for DVR.
- *7: If you use encoder, analog camera needs to be counted up to 2048.

[note]

Node Name	Product	
SX850	SX850	
SX650	SX650	
GX	GXE900/GXD900	
i-Pro	All i-Pro Cameras	
	Encoder	NT304/314, GXE500
	Decoder	GXD400
	NWDR	ND200/300/400

WV-ASC970's scalability for IP or Hybrid system are different from Analog.

Max System Size per WV-ASC970 server							
System	Analog System			Hybrid System		IP System	
Node Name	SX650	SX850 (discontinued)	SX850 (discontinued) + SX650	SX650 + i-Pro	SX850 (discontinued) + i-Pro	i-Pro	
Cameras	512	1024	1536	1535 *1 <small>(SX650:512 + i-Pro:1023)</small>	2047 *1 <small>(SX850:1024 + i-Pro:1023)</small>	1023 *6	} Total max 1023 i-Pro devices *3
Monitors	64ch	256ch	320ch (total)	1024ch (total) *1	1024ch (total) *1	1024ch	
(breakdown)	SX650 : 64 (Full matrix)	SX850 : 256 (Full matrix)	SX850 : 256 SX650 : 64	SX650 : 64 i-Pro : 1024*2	SX850 : 256 i-Pro : 1024 *2	i-Pro : 1024 *2	
DVR/NWDR	32	64	64	64 *1,*5	64 *1	64	
Controllers	64	64	64	64	64	64	
Alarms	2048 *4	2048 *4	2048 *4	2048 *4		2048 *4	
Sequences	128	128	128	128	128	128	
Steps per Sequence	64	64	64	128	128	128	
Users	512	512	512	512	512	512	
Satellites	64	64	64	64	64	64	

- *1: Total # of Cameras/DVR/NWDR/Decoders have to be 1023 or less
- *2: e.g. i-Pro(1024) : 32 x GXD400(6 screen) and 52 x ASM970(16 screen)
- *3: It depends on system design. If you want to control more than 1023 i-Pro devices from 1 WV-ASC970 server, contact Panasonic sales representatives.
- *4: ASC970 can input up to 256 alarms simultaneously.
- *5: Max 32 for DVR.
- *6: If you use encoder, analog camera needs to be counted up to 2048.

[note]

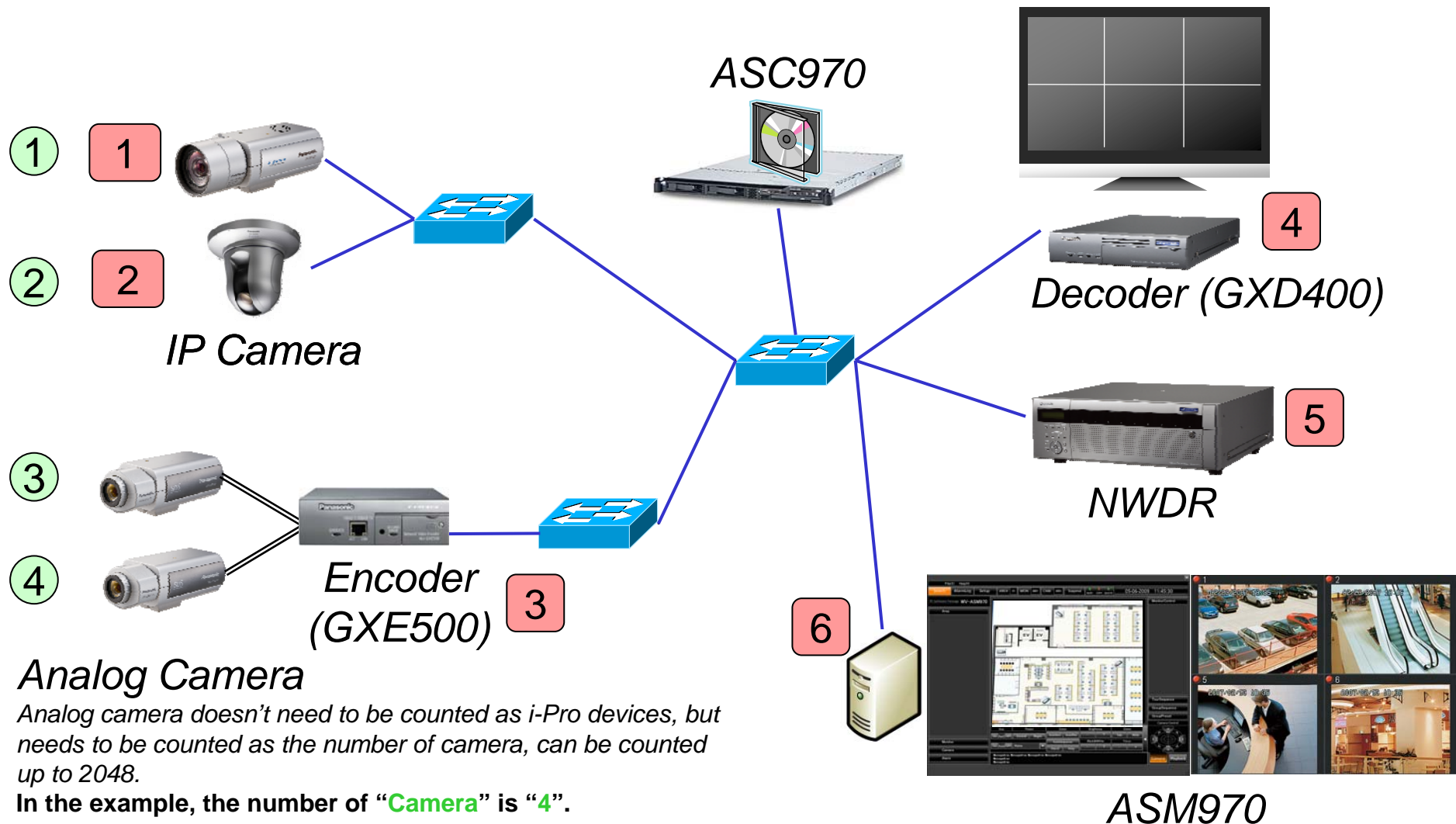
Node Name	Product	
SX850	SX850	
SX650	SX650	
i-Pro	All i-Pro Cameras	
	Encoder	NT304/314, GXE500
	Decoder	GXD400
	NWDR	ND200/300/400

Counting i-Pro devices

24

Note that the number of I-Pro devices includes IP camera, NWDR, Encoder, and Decoder.

In the example below, the number of “i-Pro devices” is “6”.

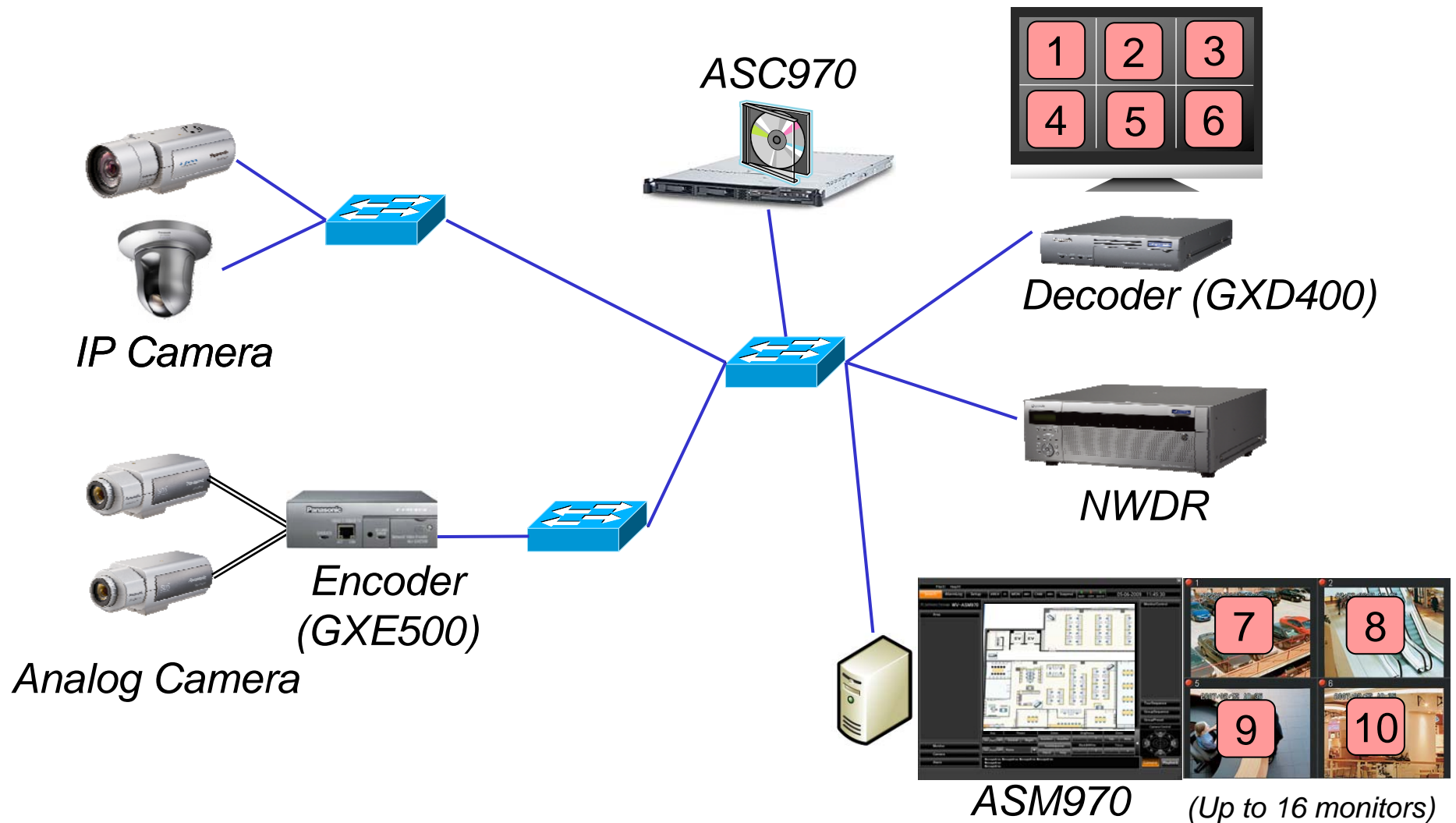


Counting i-Pro Monitors

25

Note that the number of I-Pro monitors includes each screen of GXD400.

In the example below, the number of “i-Pro monitors” is “10”.



Monitors Selection

Note that it needs to set monitor number up to 6 each GXD400 in Admin Console, and select monitor number by CU950.

'Admin Console' Operation

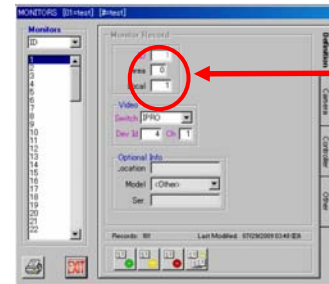
- 1. Register GXD400 as the IPRO device
- 2. Set monitor number each GXD400

In case of GXD400, it is possible to set monitor number from 1 to 6 for multi-screen.

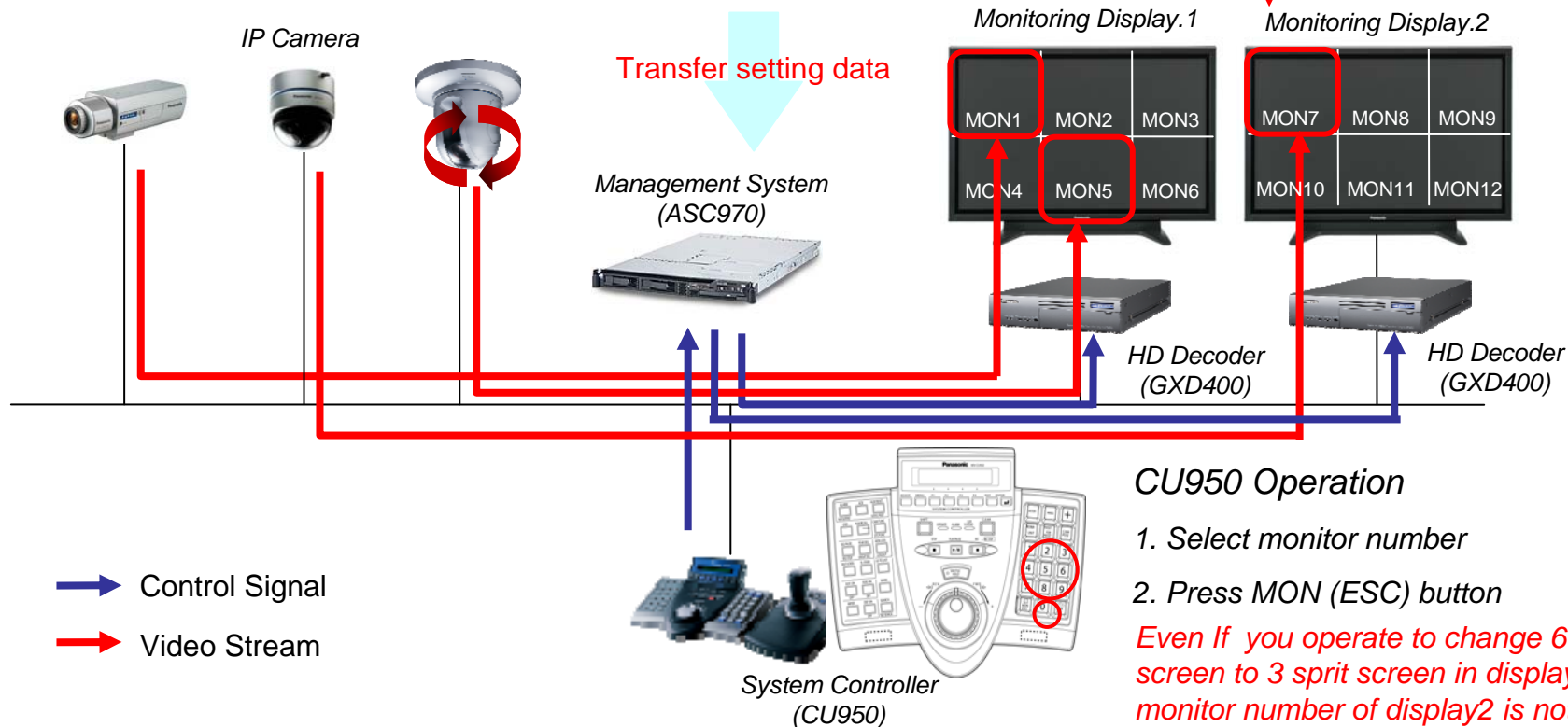
IPRO Device Registration



Monitor Number Setting



Link monitor number to monitoring display



➡ Control Signal
➡ Video Stream

Monitoring Display. 1



Monitoring Display. 2



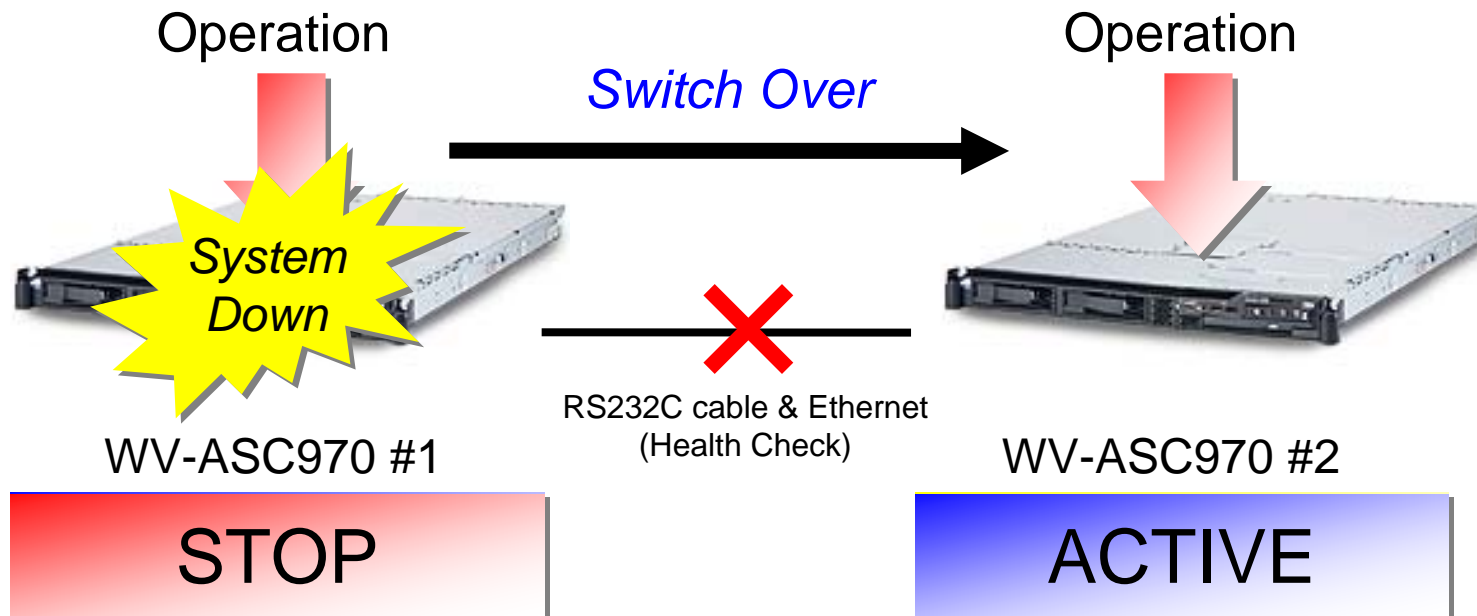
CU950 Operation

- 1. Select monitor number
- 2. Press MON (ESC) button

Even If you operate to change 6 split screen to 3 split screen in display 1, monitor number of display2 is not changed. (start from MON7)

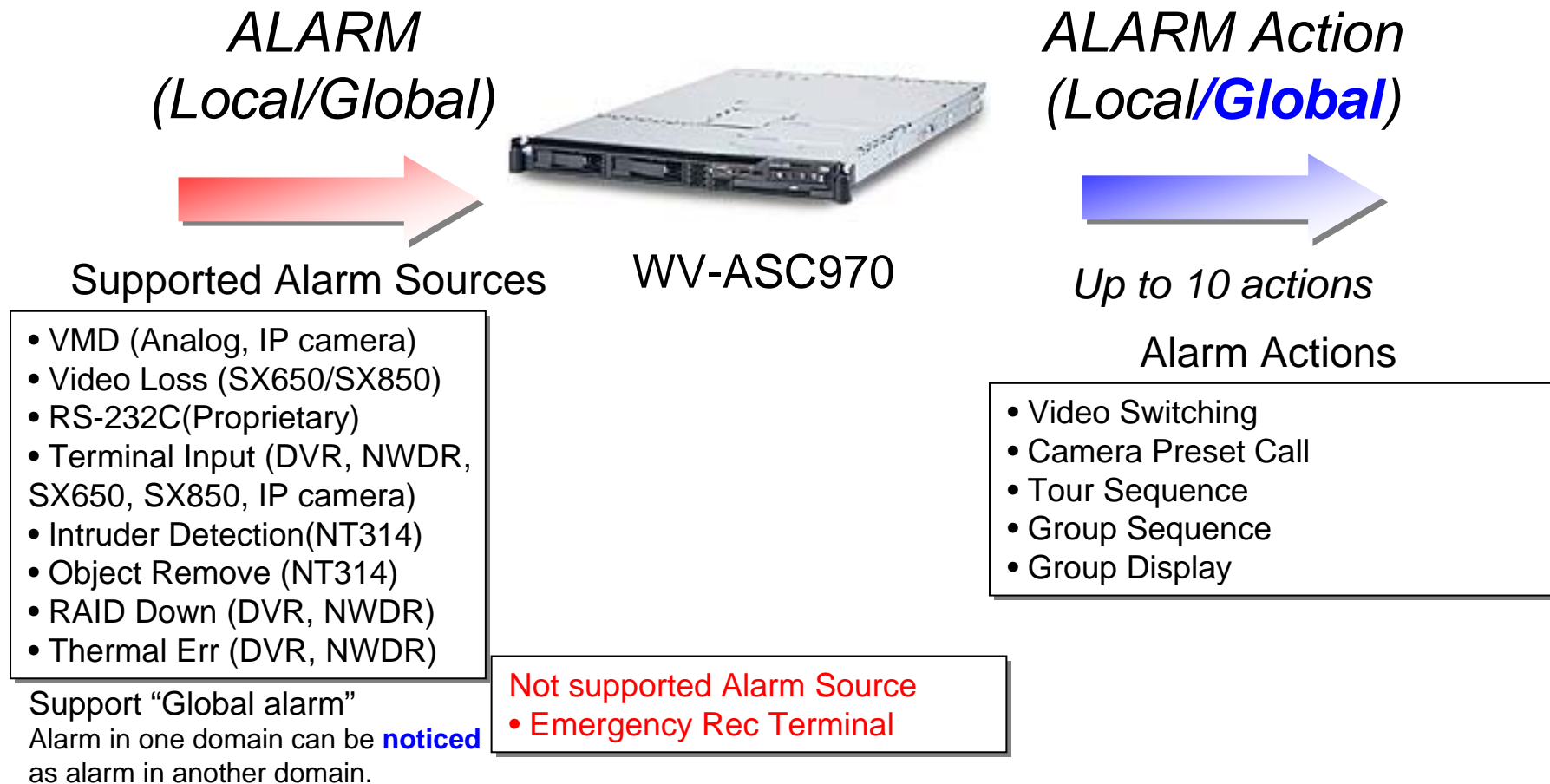
- **Redundant function**

We suggest WV-ASC970 redundant system which can consist of 2 servers. It can switch over the operation to the standby one when any serious problem happens in the active one. (Automatic switching over)



- **Linux base OS – Small Risk of virus attack**

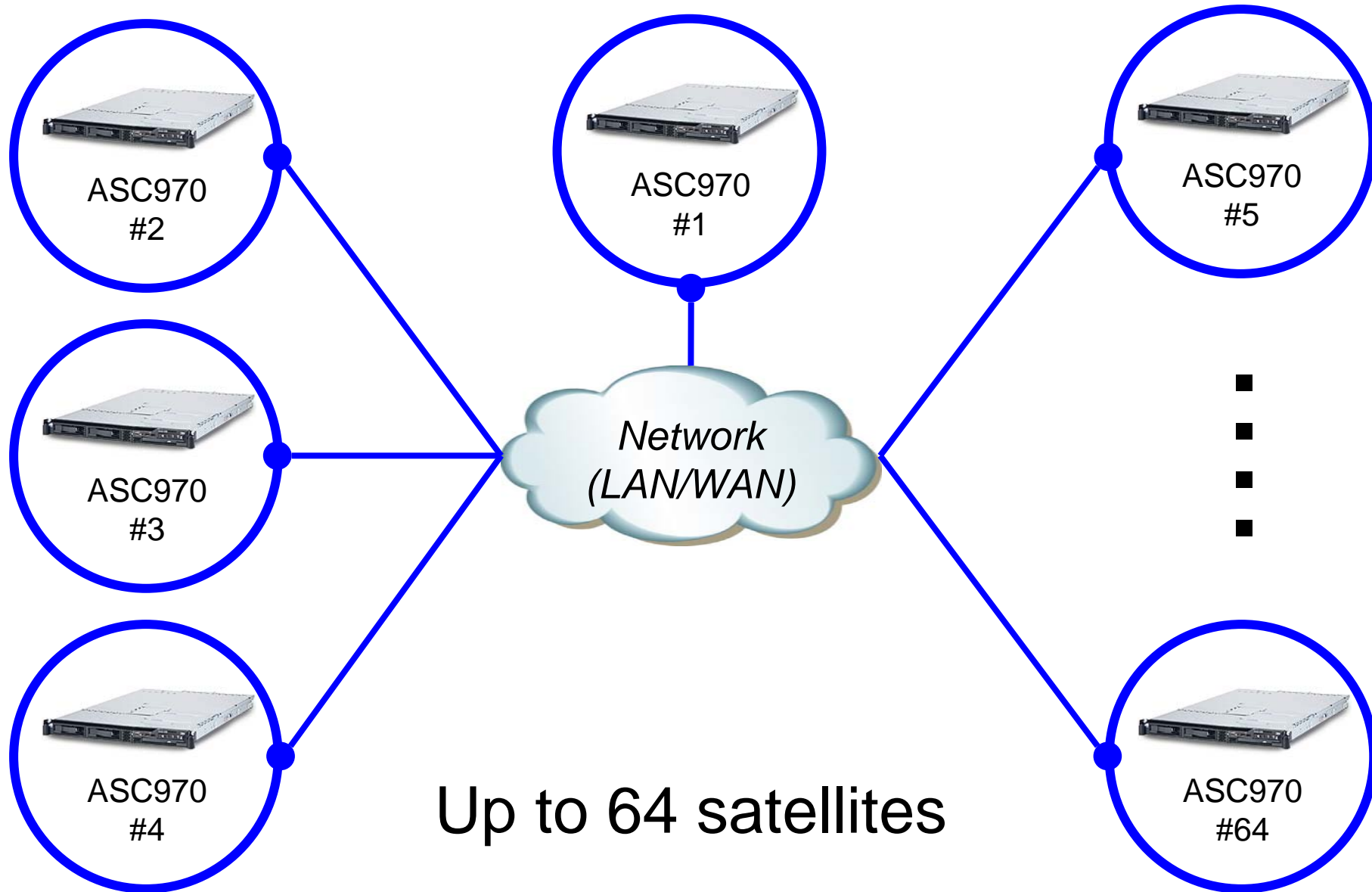
WV-ASC970 supports various alarm sources and can implement up to 10 programmed actions according to the alarms.



Satellite System Capability

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WV-ASC970 is capable of up to 64 satellites system.



Consecutive camera ID can be used on Satellite System.
 Either global ID or local ID is used with setting on ASC970 Admin.

Example of global camera ID selection (In the case of operator in Domain2 selecting cameras)

-Ver.2&Ver.3

Camera selection with local camera ID

```
Unit 1/Cam 1 -> Cam 100001
Unit 1/Cam100 -> Cam 100100
Unit 2/Cam 1 -> Cam 1 or Cam 200001
Unit 2/Cam100 -> Cam 100 or Cam 200100
Unit10/Cam 1 -> Cam1000001
Unit10/Cam100 -> Cam1000100
```

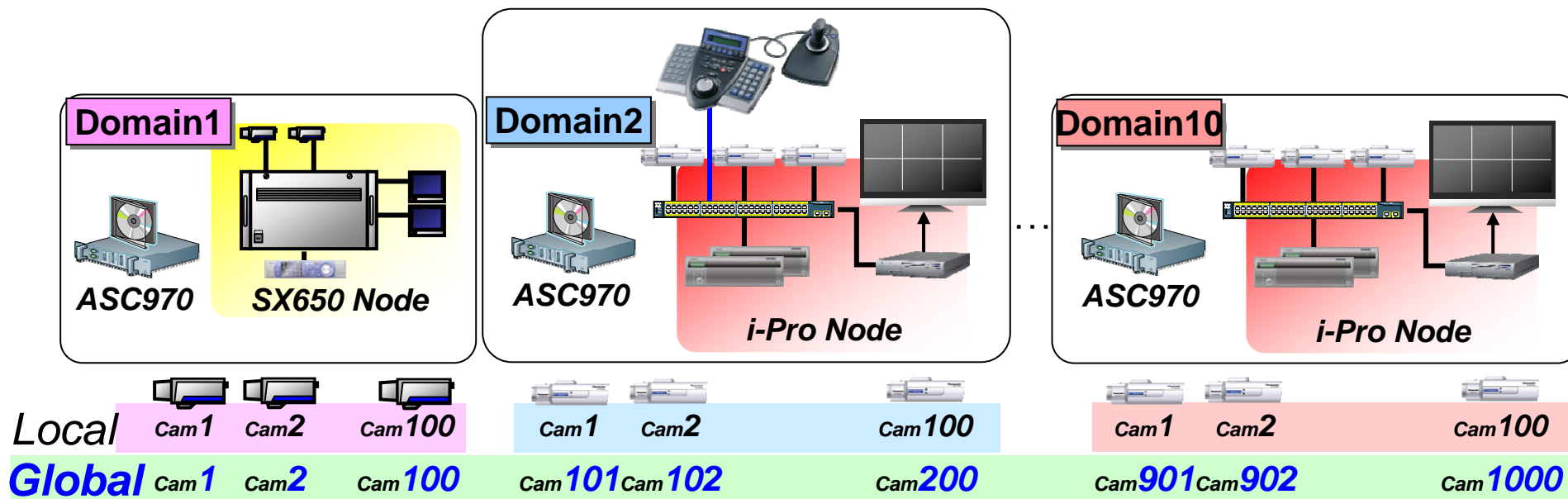
Domain Unit ID (1or2-digit) + Local Camera ID (5-digit)

Ver.3-

Camera selection with **global** camera ID

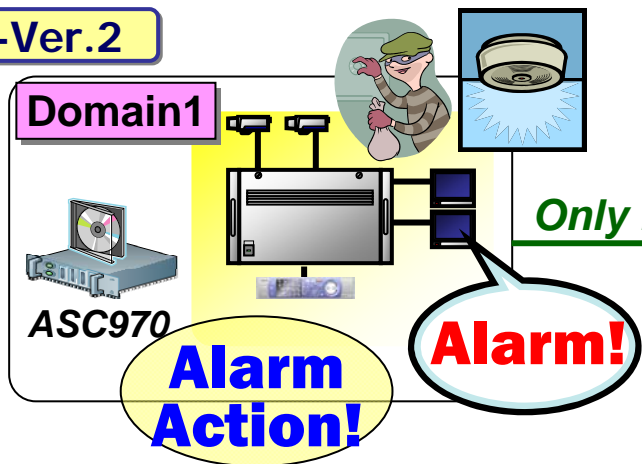
```
Unit 1/Cam 1 -> Cam 1
Unit 1/Cam100 -> Cam 100
Unit 2/Cam 1 -> Cam 101
Unit 2/Cam100 -> Cam 200
Unit10/Cam 1 -> Cam 901
Unit10/Cam100 -> Cam 1000
```

Global Camera ID (1to7-digit)

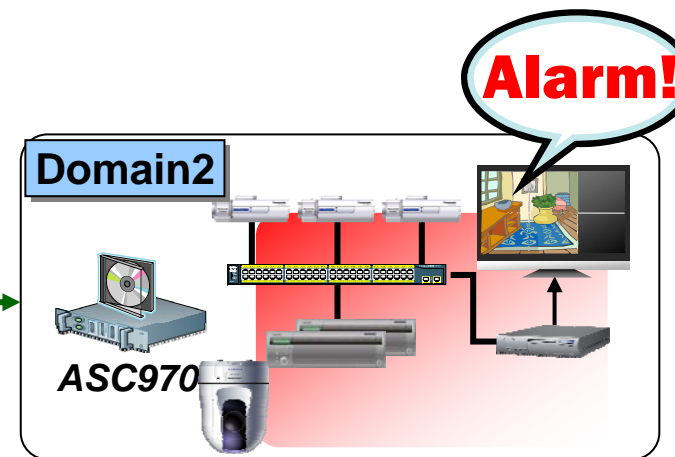


When alarm is triggered, Alarm action is conducted beyond the domain

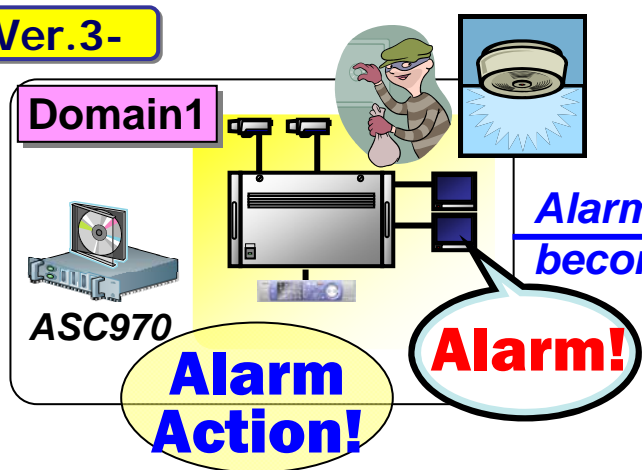
-Ver.2



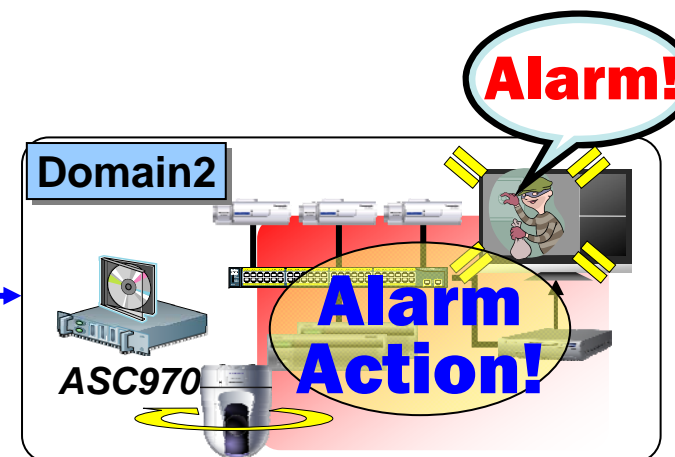
Only notification is possible



Ver.3-



Alarm action beyond domain becomes to be possible!



- Camera Preset Call
- Tour Sequence
- Group Sequence
- Group Display
- Video Switching

WV-ASC970 PC requirements

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OS

RedHat Enterprise Linux 5
RedHat Enterprise Linux 5.3 server(x86) or later
** Current version is 5.5.*

CPU

Intel® Xeon® Dual-Core 2.33 GHz or faster

Memory

1GB or more

NW interface

100/1000 Mbps or higher NW interface x 2 or x 3
RS-232C interface x 1 (for Redundant)
** Necessary of additional RS-232C interface for other systems co-operation*

HDD volume

80GB or more

Others

CD-ROM drive (for install)

It is necessary to install the following services in OS (RHEL5.5).

Desktop Environments > GNOME Desktop Environment

* It is automatically installed, when [Customize now] is selected.

Servers > FTP Server * It is necessary to check xferstats in [Optional packages].

Servers > Legacy Network Server --- telnet-server and tftp-server only

* It is necessary to check it in [Optional packages].

Servers > PostgreSQL Database

Servers > Server Configuration Tools

* It is automatically installed, when [Customize now] is selected.

Servers > Web Server

Base System > Administration Tools

* It is automatically installed, when [Customize now] is selected.

Base System > Base * It is automatically installed, when [Customize now] is selected.

Please be careful this item is added.

Base System > System Tools --- Wireshark and net-snmp-utils only

* It is necessary to check in [Optional packages].

Base System > X Window System

* It is automatically installed, when [Customize now] is selected.

It is necessary to disable the following services in OS (RHEL5.5).

Firewall

SELinux (Kernel Access Control)

Functions List

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Functions / Specifications	Detail Information	
Large Scalability	Cameras	1535 (*Hybrid system: SX650 + IP system)
	Monitors	1024
	Controllers	64
	DVR/NWDR	64 (*Max 32 for DVR)
	Alarms	2048
	Sequences	128
	Steps per Seq	128
	Users	512
	Domains	64
Analog Camera Operation * Via DVR or MX-SW or GX	PTZ Focus Adjustment Iris Adjustment Preset Program Preset Call Camera Menu (except DVR)	
i-Pro Camera Operation	PTZ Focus Adjustment Iris Adjustment Preset Program Preset Call	

Functions / Specifications	Detail Information
Recorder Operation (NWDR)	Playback control (Playback, R-Playback, T&D Playback, FF, REW, Pause, Stop) Search on WV-ASM970
Recorder Operation (HD300/300A, RT416)	Playback control (Playback, R-Playback, T&D Playback, FF, REW, Pause, Stop) REC control (REC start, REC stop) Search on Monitor Configuration on Monitor
Monitor Operation (DVR, MX-SW, GX)	OSD (except DVR) Video Switching Multi-screen (DVR only) Tour Sequence
Monitor Operation (GXD400)	OSD Video Switching Multi-screen Tour Sequence
Group Operation	Group Display Group Preset Group Sequence

Functions List

36

Functions / Specifications	Detail Information
Alarm Operation	Alarm Knowledge, Alarm Reset, Alarm Arm/Disarm Alarm Output Control
Alarm Action	Up to 10 programmable Alarm Actions per alarm Camera Preset Call Tour Sequence Group Sequence Group Display Video Switching Global alarm action
Alarm Trigger source	Motion Detect(Analog, i-Pro cameras) Video Loss (except DVR) RS-232C (Panasonic proprietary) Panasonic Alarm Protocol Global Alarm
Event Schedule * Local only	Tour Sequence Group Sequence Group Preset Video Switching Alarm, Mode
Alarm Output of SX650/SX850	Control Alarm Output On/Off by CU950 (SX850: Normally Open or Normally Closed selectable) (SX650: Open collector output)

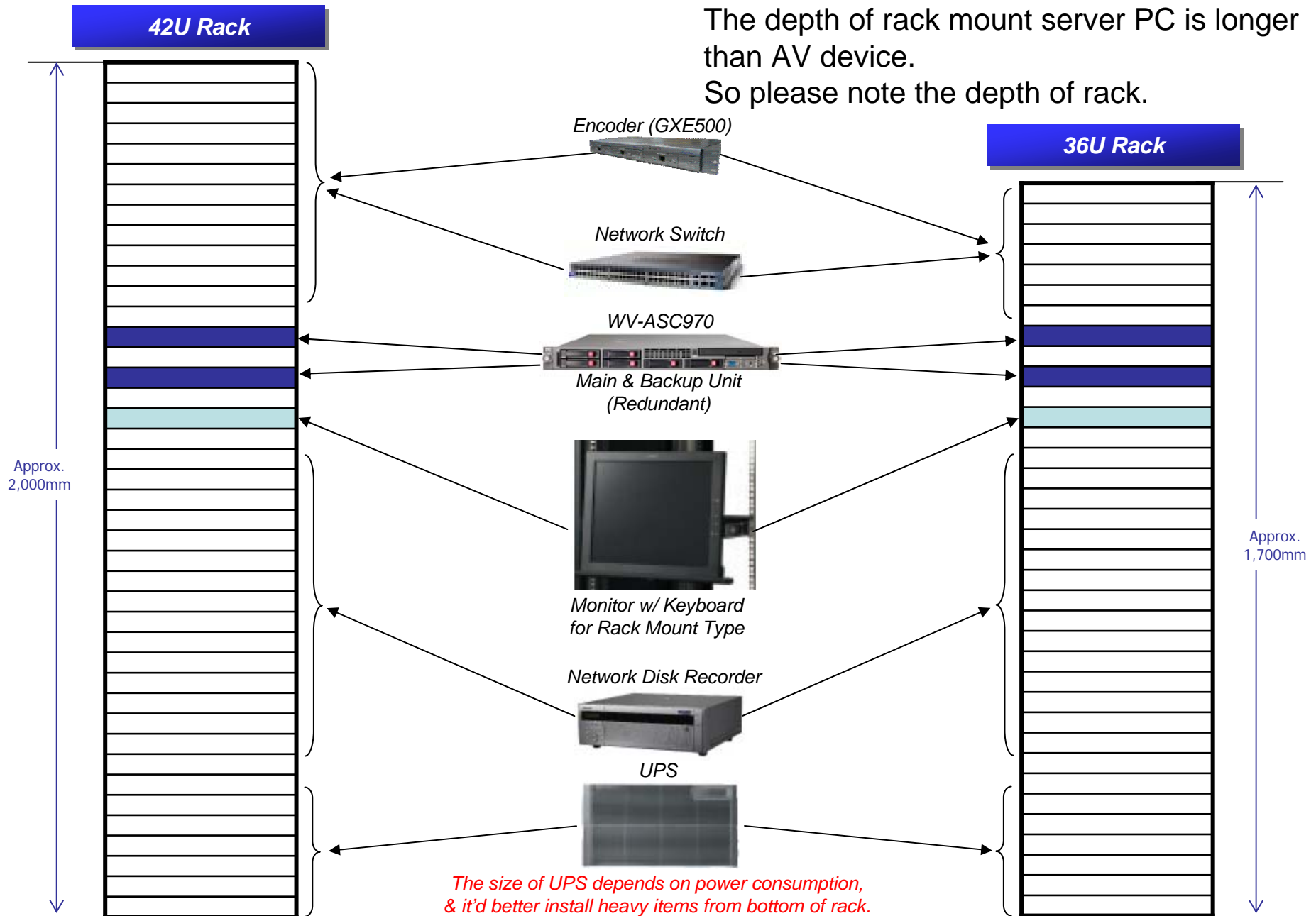
Functions List

37

Functions / Specifications	Detail Information
User management * Local User	Multiple Operator Levels Device to Resource Privilege Operator to Device Privilege Operator to System Function Privilege
Priority management	Multiple Device Priority Levels (65000) Multiple Operator Priority Levels (65000) Multiple Alarm Priority Levels (65000) Multiple Event Priority Levels (65000)
Redundant	2 WV-ASC970 servers redundant system

Rack Configuration Example

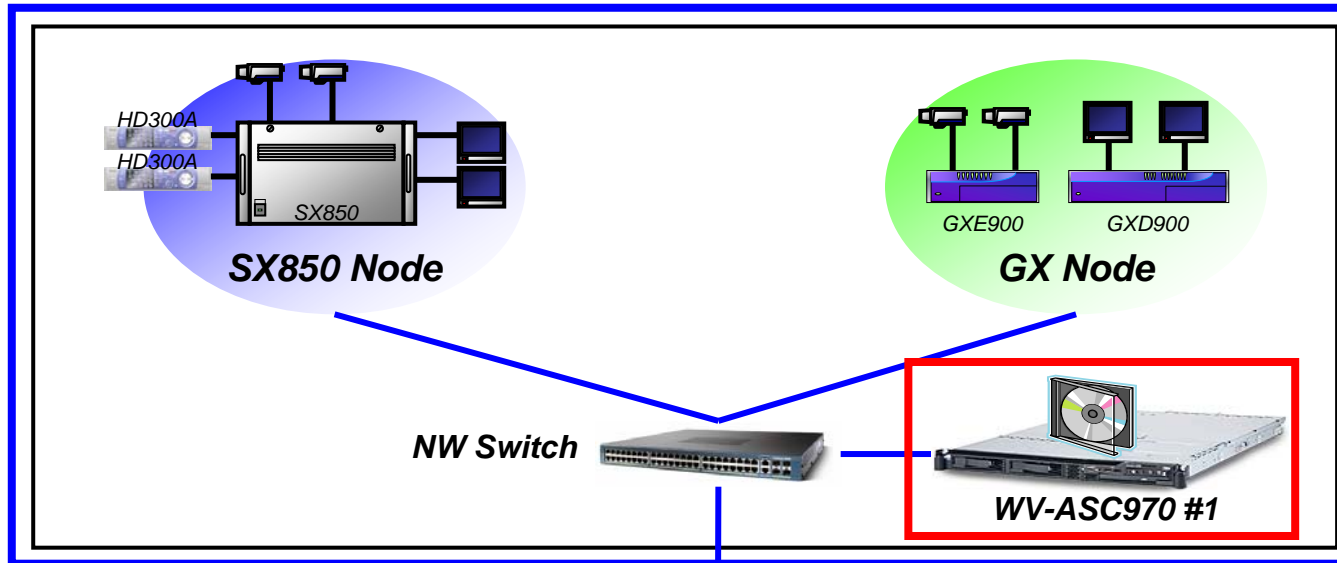
38



System Concept

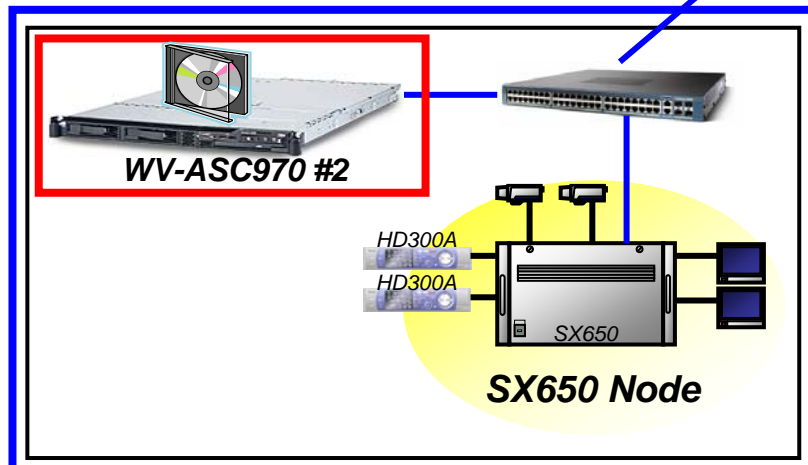
Domain Concept

1 WV-ASC970 unit = 1 Domain unit

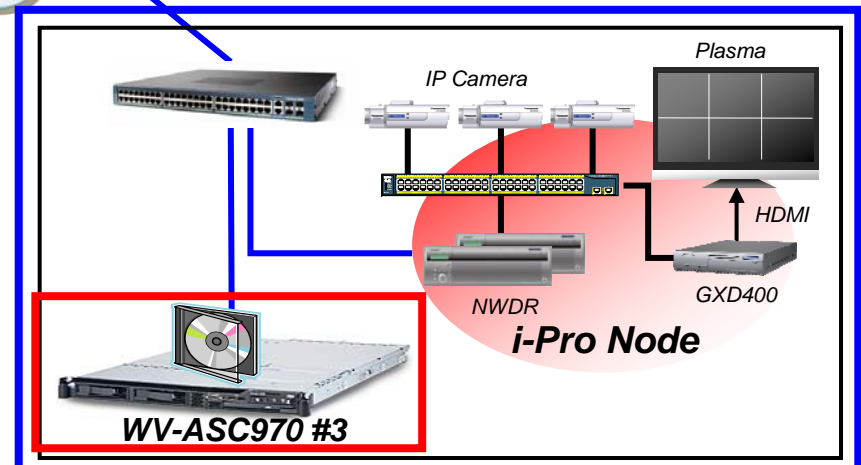


Domain unit 1

Domain unit 2



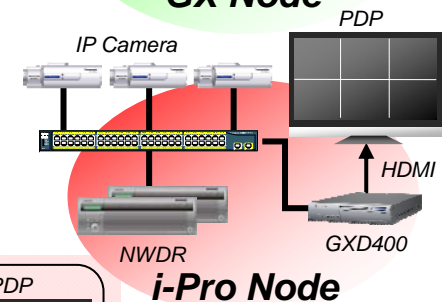
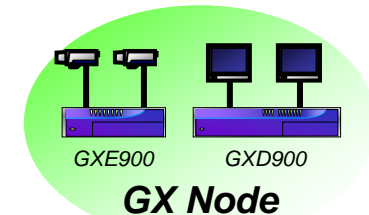
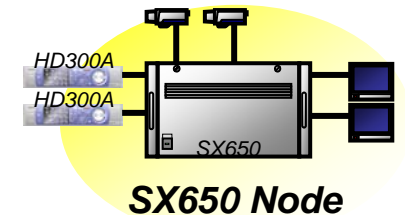
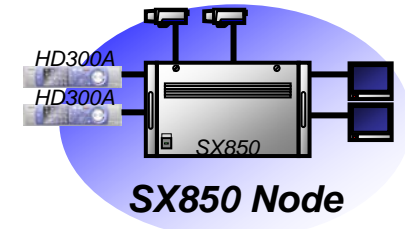
Domain unit 3



Node Concept

WV-ASC970 categorize products as follows

Node Name	Product	
SX850	SX850	
SX650	SX650	
GX	GXE900/GXD900 (NTSC only)	
i-Pro	Encoder	NT304/314, GXE500
	Decoder	GXD400
	NWDR	ND200/ND300A/ND400



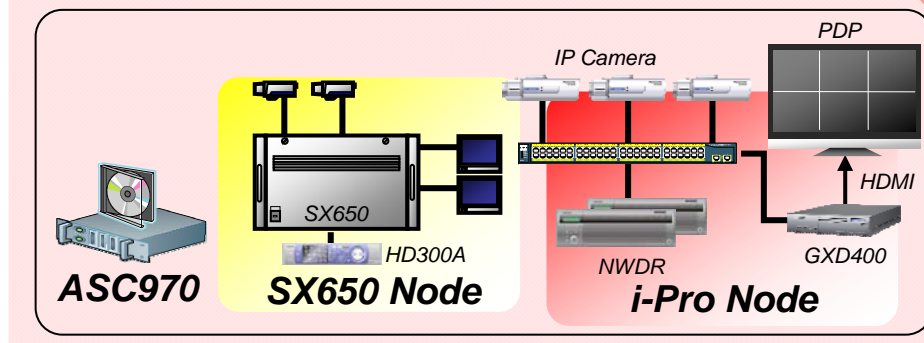
<Notes>

- The same type of node can not exist together in the same domain.
- Up to 2 different types of nodes can exist in one domain.

<PAL case>
Acceptable configuration
in a domain (6 types)

1. SX650 + SX850
2. SX650 + i-Pro
3. SX850 + i-Pro
4. Analogue Only : SX650
5. Analogue Only : SX850
6. i-Pro only

OK 2 types of nodes in one domain

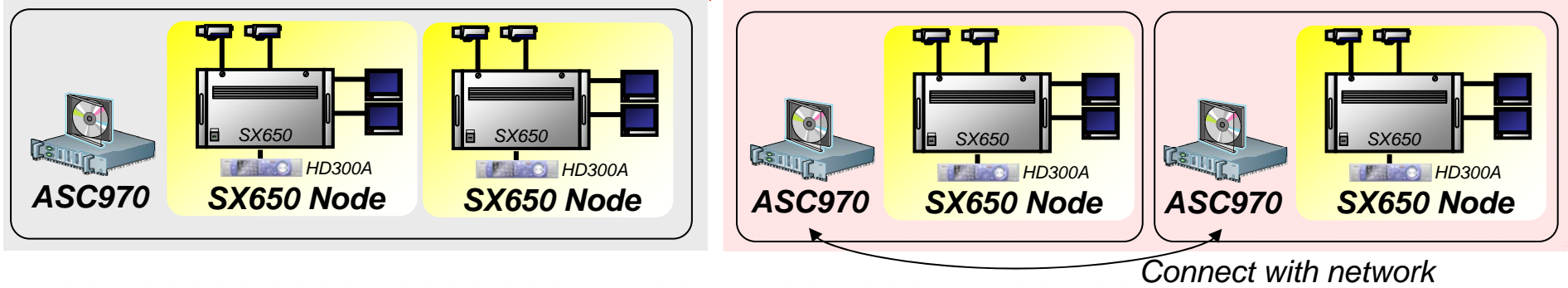


Node Concept

Case 1

NG Same nodes in one domain

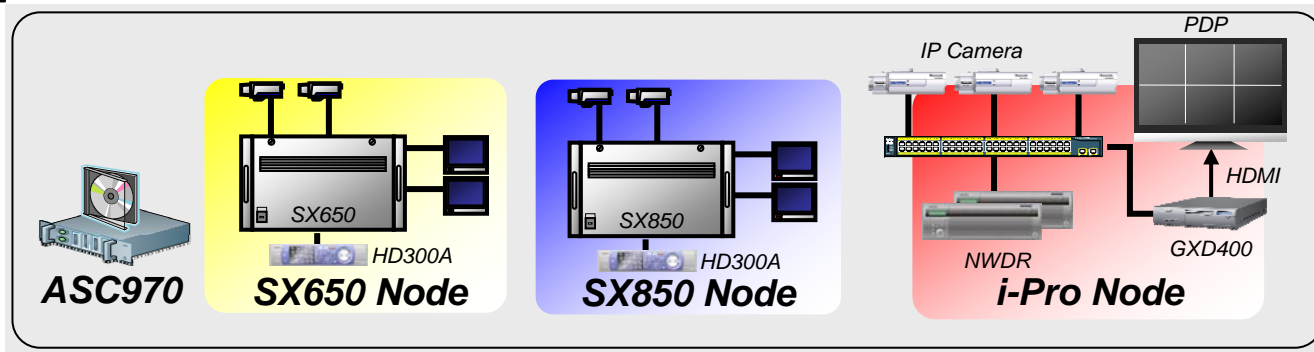
OK Separate with two domain



Case 2

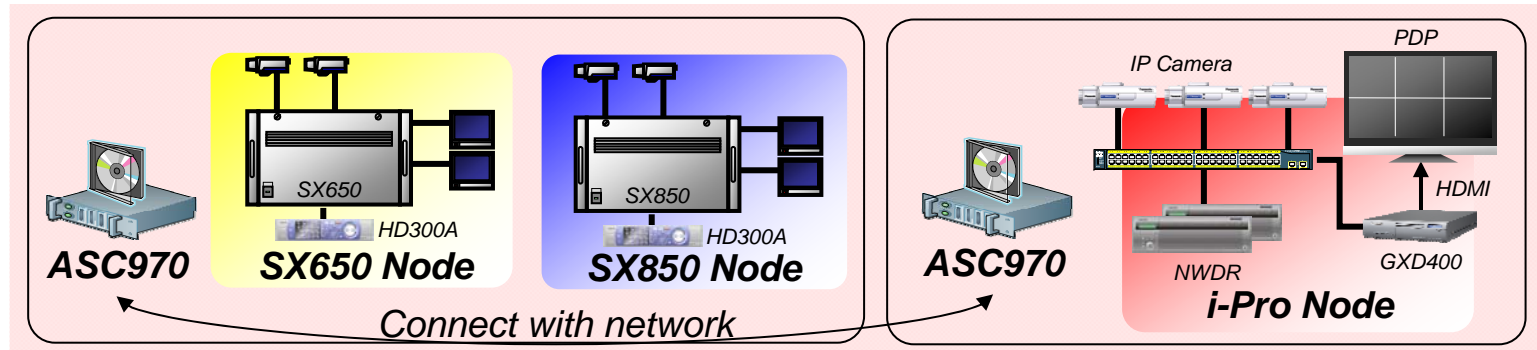
NG

3 types of nodes in one domain



OK

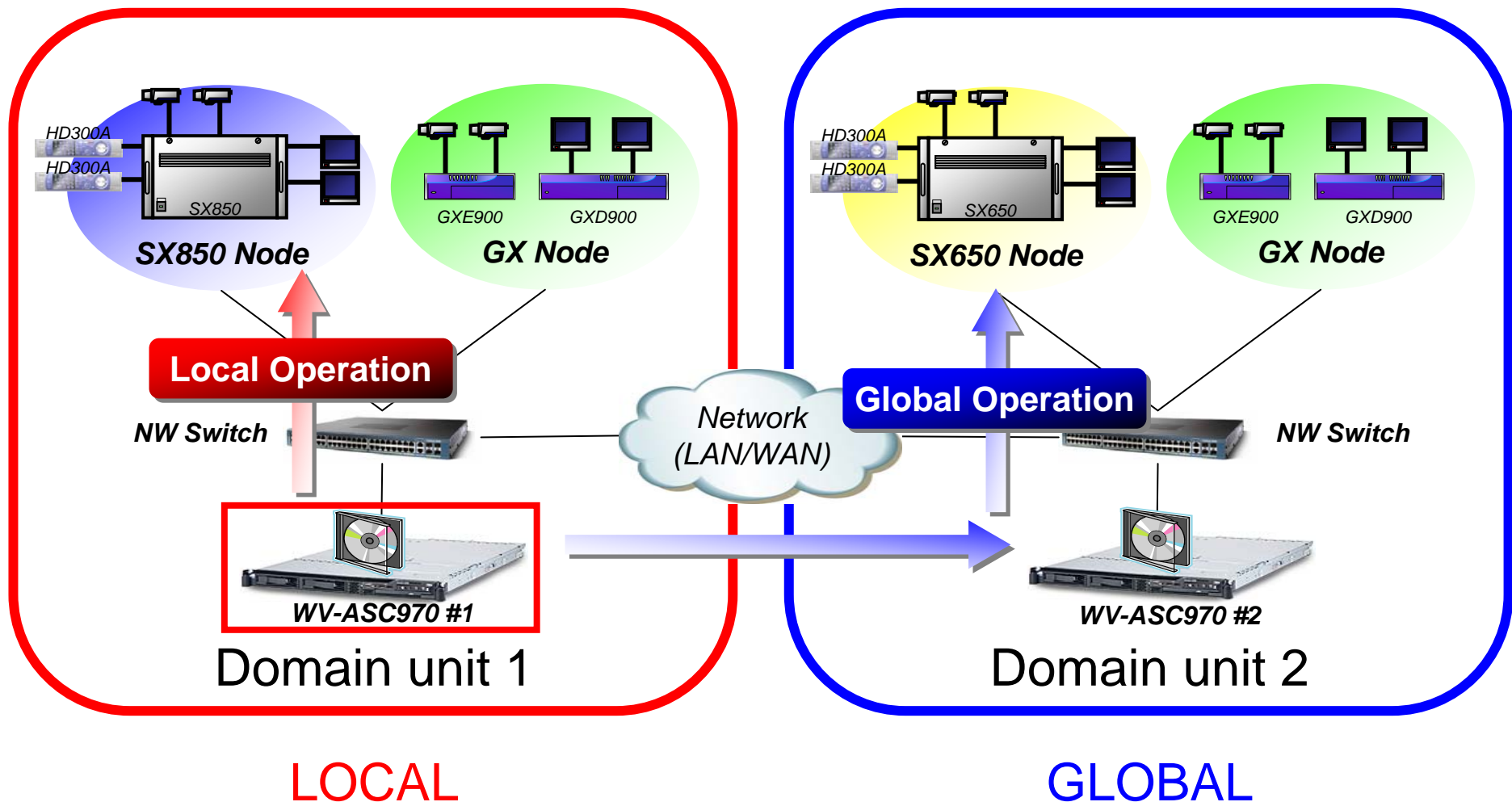
Up to 2 types of nodes in each domain



Local / Global Concept

43

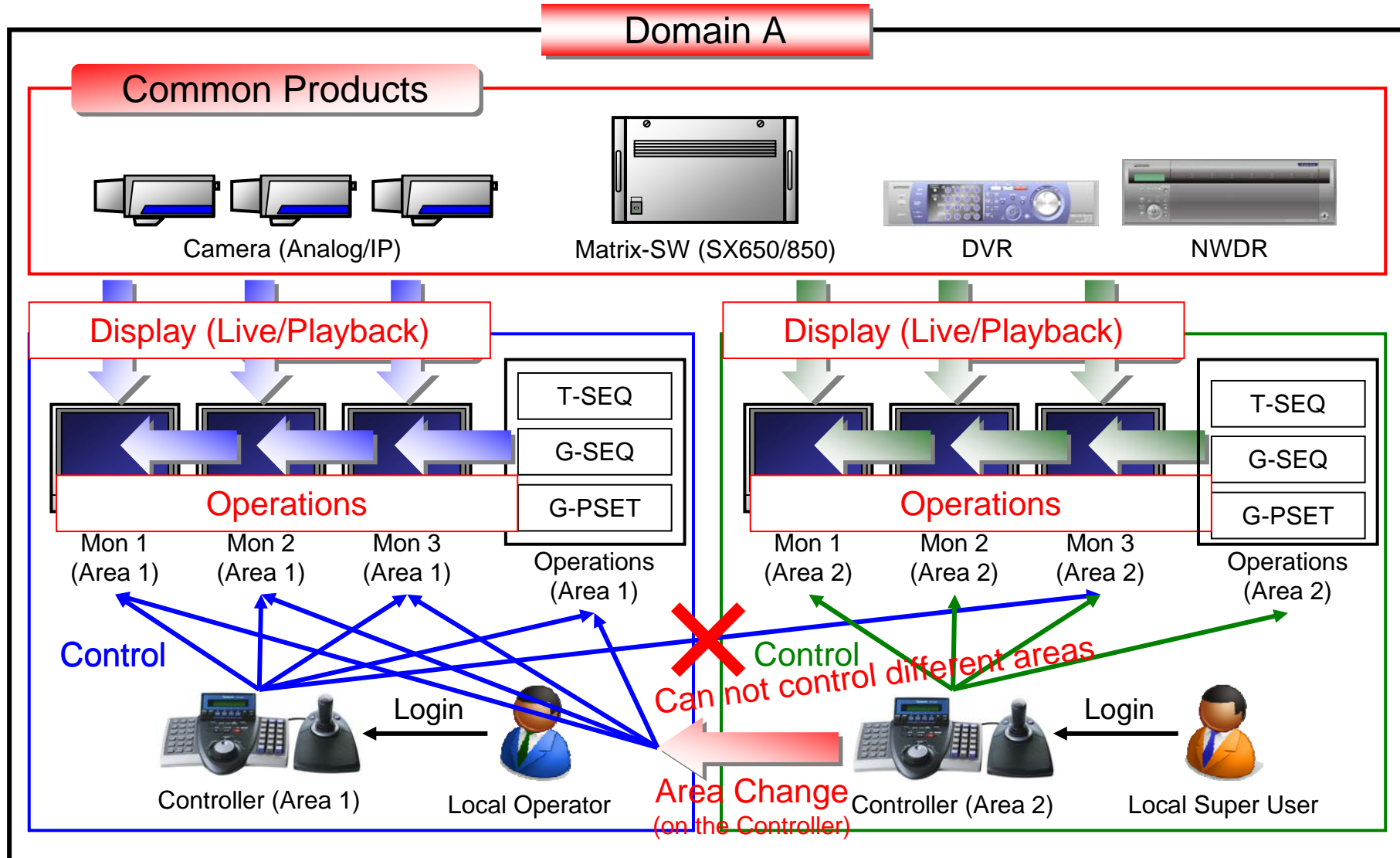
WV-ASC970 regards its domain unit as Local and regards domains of another WV-ASC970s as Global.



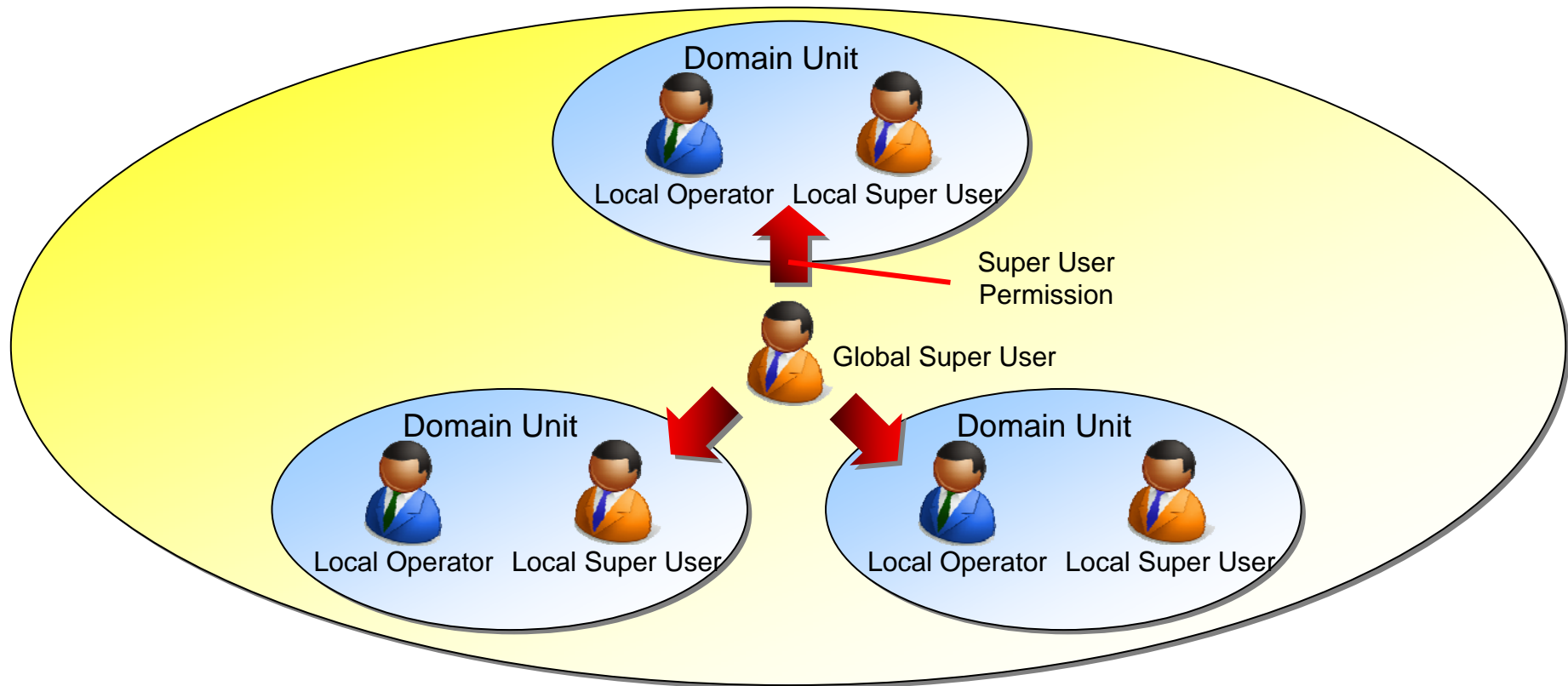
Area Concept

44

“Controller”, “Monitor”, “Tour/Group SEQ” and “Group Preset” are belong to any area in a single domain.
Local Operator can control the devices only in the same area where he/she logs in.
Local Super User can control the devices in the same area and in the different areas.



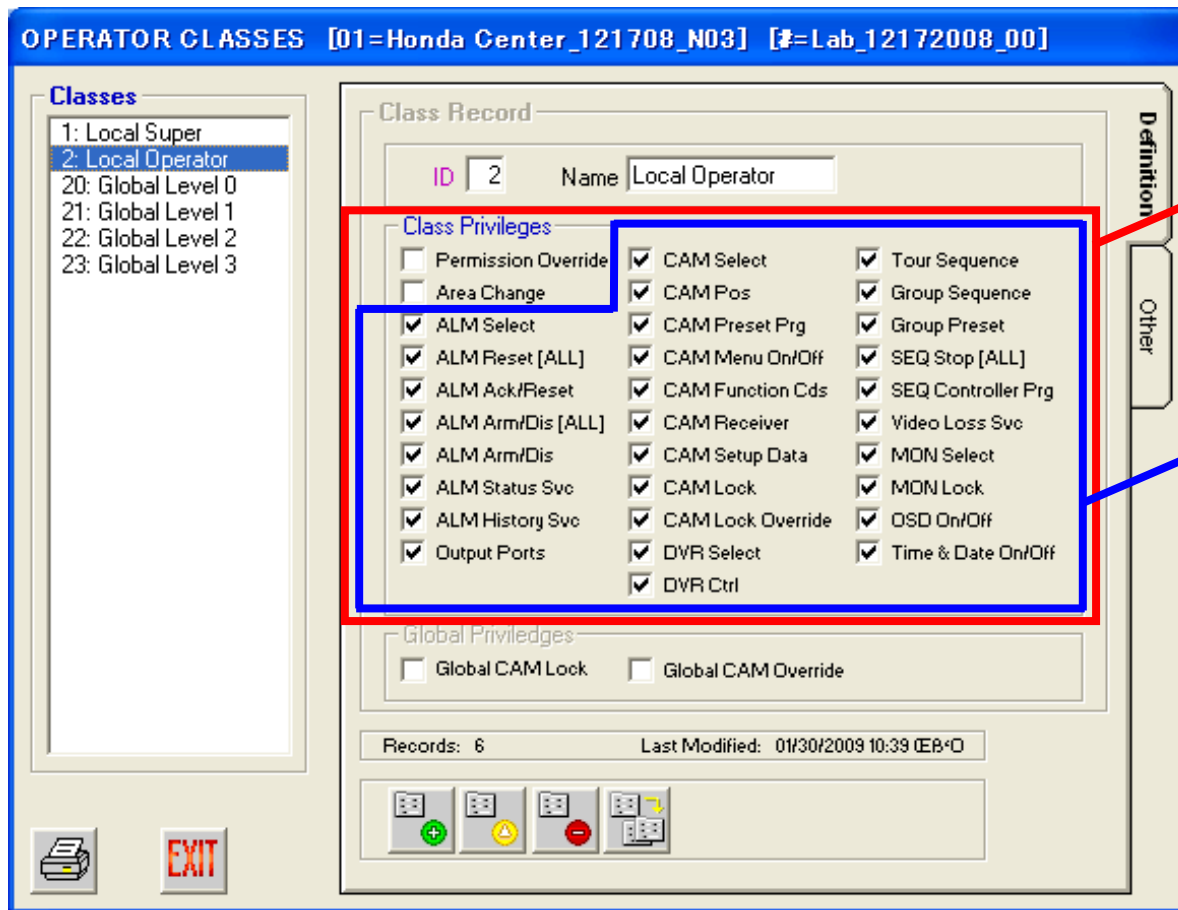
Local User / Global User



	<i>User Class</i>	<i>Description</i>
1	Local operator	Local operator can operate its own domain unit
2	Local super user	Local super user can operate & override its own domain unit
3	Global super user	Global super user can operate & override all the domain units

Local Operator / Local Super User

The difference between Operator and Super User is the granted privileges.
“Permission Override” and “Area Change” are for Super User only.



Local Super User

Super user should have all privileges.

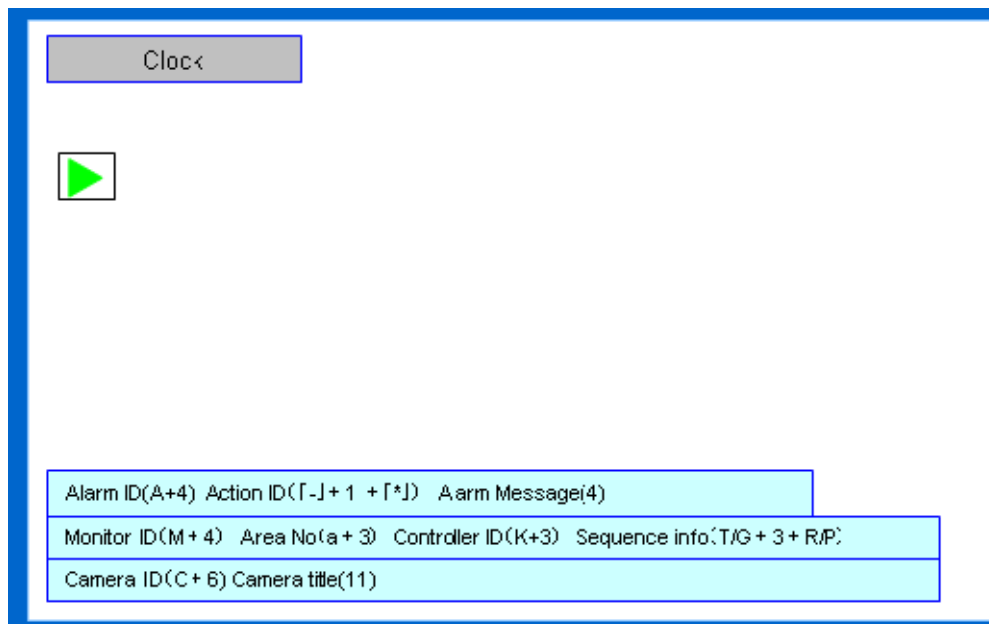
Local Operator

Operator can be granted any privileges except for “Permission Override” and “Area Change” when operator is created.

Admin Console (Configuration Tool)

● OSD information

*Various information are displayed on screen display (OSD).
Operator understand operation status easily.
you can set display On/Off each line.*

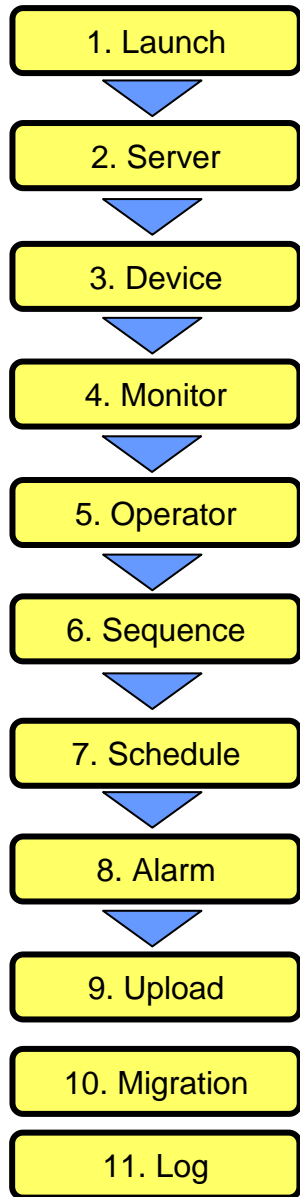


Item	Format
Alarm ID	Annnn
Action ID	-n (n=0~9)
Alarm Message	Max 6 character
Monitor ID	MnnnnL (nnnn=0001~9999) "L" is Monitor Lock
Area No.	annn (nnn=1~999)
Controller ID	Knnn (nnn=1~999)
Sequence info	Tour Sequence: TnnnR Group Sequence: GnnnR R: Running, P: Pause (nnn=1~999)
Camera ID	Cnnnnnn (nnnnnn=100001~999999)
Camera title	Max 11 character
Clock	Time & Date Live: Time of camera Playback: Playback time
Play icon	Playback status Play, Pause, Fast Play (x2~x7) Rewind (x2~x7)
Red frame	Alarm

Admin console software

Set up Flow Chart

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As well as admin console of MPU955A

Register camera

Set up sequence

Step	Camera	CPreset	Dwell	AUX1	AUX2
1	1	1	7		
2	2	2	7		
3	3	1	7		
4	4	2	7		
5	5	1	7		
6	6	2	7		
7	7	1	7		
8	8	2	7		
9					
10					
11					

Register monitor

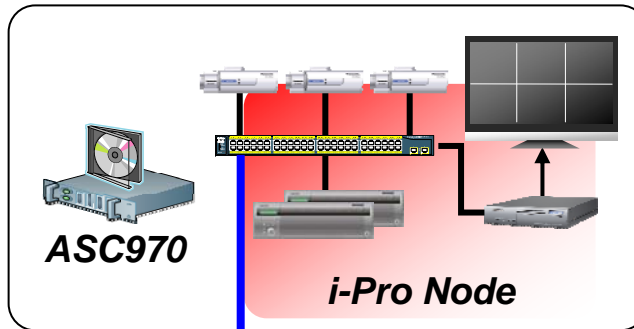
Setup data downloaded from i-PRO Configuration Tool (V3.2 or later) can be used for setup of ASC970 system.

-Ver.2

All devices and all items have to be registered manually.



The bigger system becomes, the harder work for registration becomes.

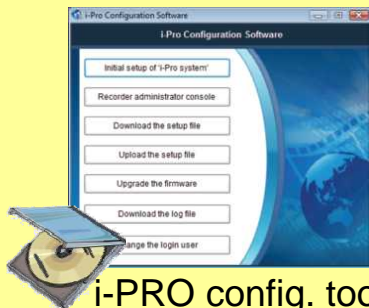


Following items are registered automatically

- All i-PRO devices
- Camera model and IP address
- Encoder model and IP address
- Decoder model and IP address
- Monitor with decoder
- NVR model, IP address and camera relations

Ver.3-

1. Configure the system with i-PRO configuration tool

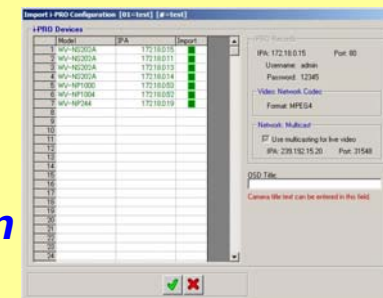


i-PRO config. tool

2. Download the setup file to PC

3. Import i-PRO configuration to ASC970 Admin

4. Setup remaining items



ASC970 Admin

OS

Microsoft Windows XP Professional SP3,
Windows Vista Business 32-bit SP2,
Windows7 Professional 32-bit
(English / Chinese edition)

PC

Intel Pentium 4 3.0 GHz or higher

Memory

512MB or more

NW interface

10/100 Mbps or higher NW interface




HDD volume

200MB or more

Others

CD-ROM drive (for install)

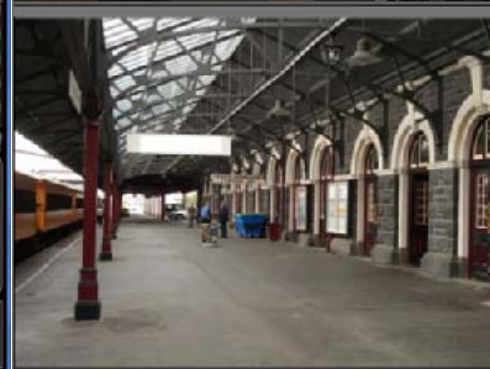
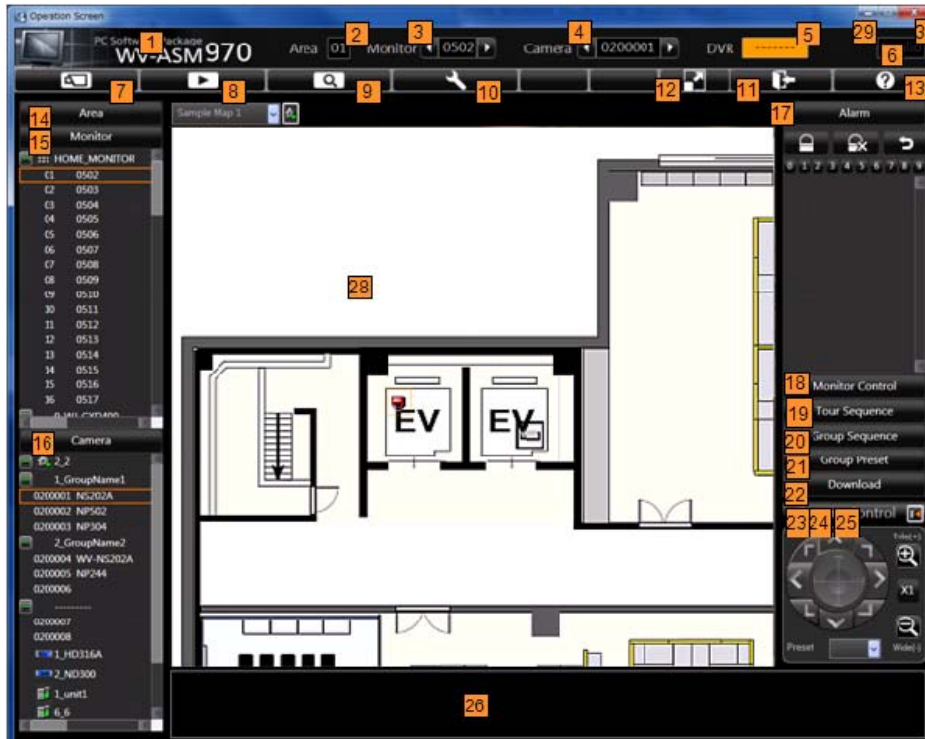
GUI software

Functions/ Features		WV-ASC970 Ver4 + WV-ASM970 Ver3	WV-ASM100 Ver8	WV-ASM100L Ver8
				
User Priority Management		YES	N/A	N/A
Monitor Wall (GXD400 / ASM970)		YES	N/A	N/A
Alarm Action Programming		10 actions per one alarm	fixed action	fixed action
Supported Devices	Matrix Switcher	YES (*1)	N/A	N/A
	DVR	HD316/316A (*1), RT416 (*1), HD616/716	HD316A, RT416, HD616/716 *HD316(nonA) is not supported.	HD316A, RT416, HD616/716 *HD316(nonA) is not supported.
	NW Cam/ Enc	All i-PRO cameras / encoders	All i-PRO cameras /encoders	All i-PRO cameras /encoders
	NWDR	ND200/ND300A/ND400	NV200/ND200/ND300A/ND400	NV200/ND200/ND300A/ND400
Internetmode (over HTTP) view		N/A	YES (i-PRO cam/HD716/616/NV200)	YES (i-PRO cam/HD716/616/NV200)
License for Client PC		1x ASM970 supports 32x PC	1x ASM100 supports 1x PC	1x ASM100L supports 1x PC
Map Function		YES	YES	N/A
Controller (CU950) Connection		YES	YES	N/A
16:9 screen view		YES	N/A	N/A
Multiscreen		Total 16	Total 20 (16+4)	Total 16
Multiscreen pattern		1/4/7/9/ 10/13/16	1/4/9/16	1/4/9/16
Timeline Search		YES	N/A	N/A
Number or windows		Up to 2 windows (Operation&Map / Monitoring)	Up to 3 windows (Operation / Map / Monitoring)	1 monitor (Operation)
Audio		YES	YES	YES
Snapshot		N/A	YES	YES

(*1) To see images on ASM970 (not on the monitor connected to DVR or Matrix Switcher directly), encoder is required.

*Software versions of ASC970 and ASM970 need to be combined as follows.
(If wrong combination, they would not work correctly.)*

		Apr./2010-	Sep./2010-	Feb./2011-
ASC970 (Server software)	Version 1.0	Version 2.0	Version 3.0	Version 4.0
ASM970 (Client software)		Version 1.0	Version 2.0	Version 3.0



#	Panel Name		#	Panel Name	
01	Logo		17		Alarm Panel
02		Area ID Display	18		Monitor Control Panel
03	Information Display Area	Monitor ID Display	19	Right Panel Area	Tour Sequence Panel
04		Camera ID Display	20		Group Sequence Panel
05		DVR ID Display	21		Group Preset Panel
06		Server PC Status Display	22		Download Panel
07		Camera Control Button	23		
08	Button Area	Playback Control Button	24	Under Panel Area	Playback Control Panel
09		Search Button	25		Search Query Panel
10		Setup Button	26		Message Window
11		Logout Button	27		Search Result List
12		Maximize/Restore Button (Same as F11 key)	28		Map Window
13		Help Button	29		Minimize Button
14		Area	30		Close Button
15	Left Panel Area	Monitor Tree Panel	-		F11 key
16		Camera Tree Panel			

ASM970 PC Requirements

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It is recommended to install this software on a PC that meets the following system requirements.

Items	Requirements
OS	Microsoft® Windows® XP Professional SP3 (32-bit) Microsoft® Windows Vista® Business SP2 (32-bit) Microsoft® Windows Vista® Business SP2 (64-bit) Microsoft® Windows® 7 Professional (32-bit) Microsoft® Windows® 7 Professional (64-bit)
OS language	English, Chinese (Simplified Chinese)
Computer	IBM PC/AT Compatible
CPU	Intel® Core 2 Duo 2.66 GHz or faster Intel® Core™ 2 Quad Q9650 or faster (When operating H.264 images) Intel® Core™ i7-920 or faster (When operating H.264 images)
Memory	1 GB or more 3 GB or more (When operating H.264 images)
Video memory	VRAM 128 MB or more (64 MB minimum), compatible with DirectX®9.0c
CD-ROM drive	Necessary to install this software
Monitor	1280 x 1024 pixels or higher 24-bit True color or better (Full color recommended)
Network Interface	100BASE-TX/1000BASE-T
Web browser	Microsoft® Internet Explorer® 6.0 SP3 Microsoft® Internet Explorer® 7.0 SP1 Microsoft® Internet Explorer® 8.0

1. No License Fee (Dongle is unnecessary)

*Need to purchase one WJ-ASM970 per one WJ-ASC970

2. Easy management for device information
(Version number etc)

3. No need for Each PC's configuration

4. Total system operation by software

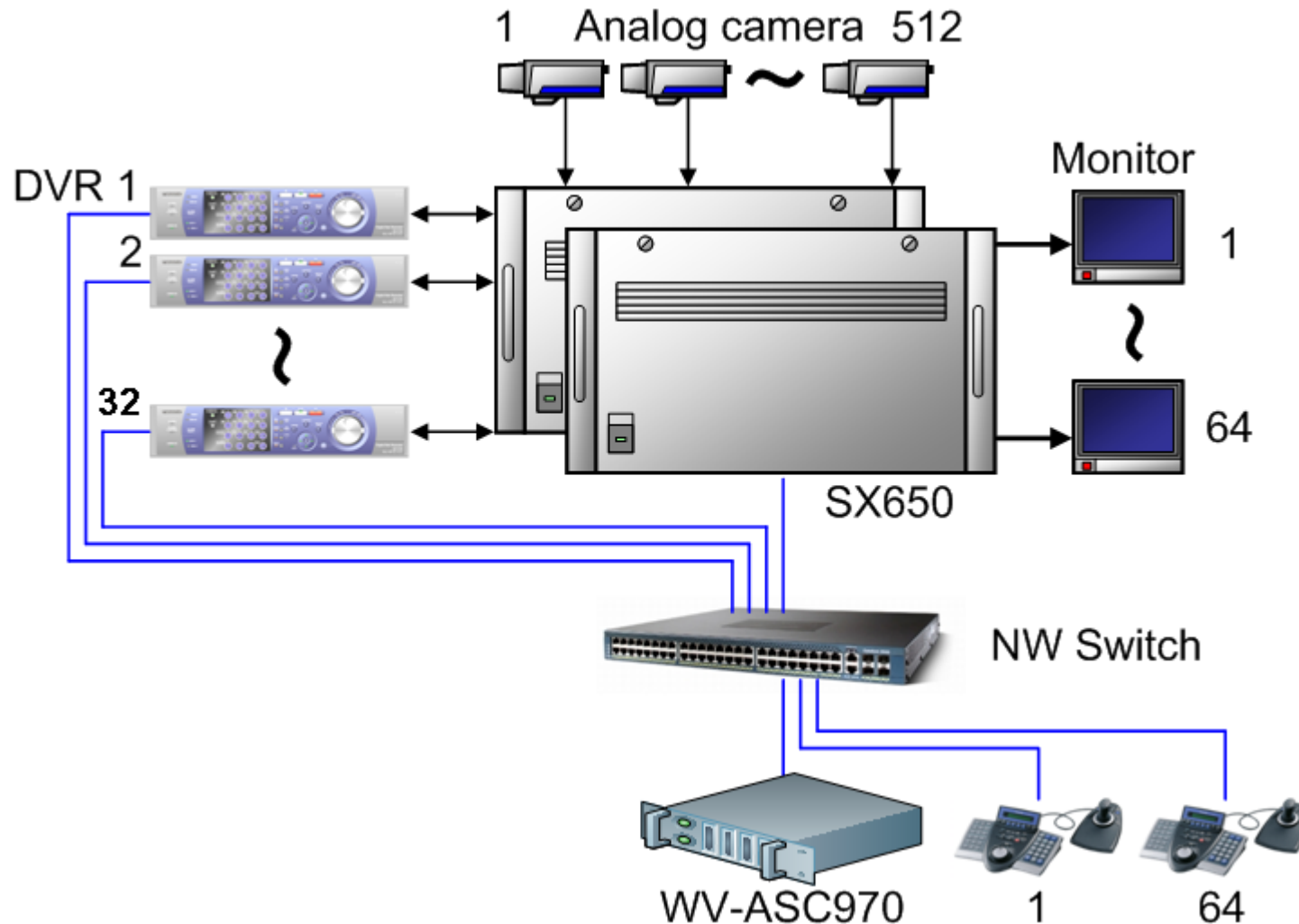
Flexible System Design

Analog System (Single domain)

59

● SX650/SX850 in Single domain

Max Node Capacity: 512 x 64 (SX650), 1024 x 256 (SX850)

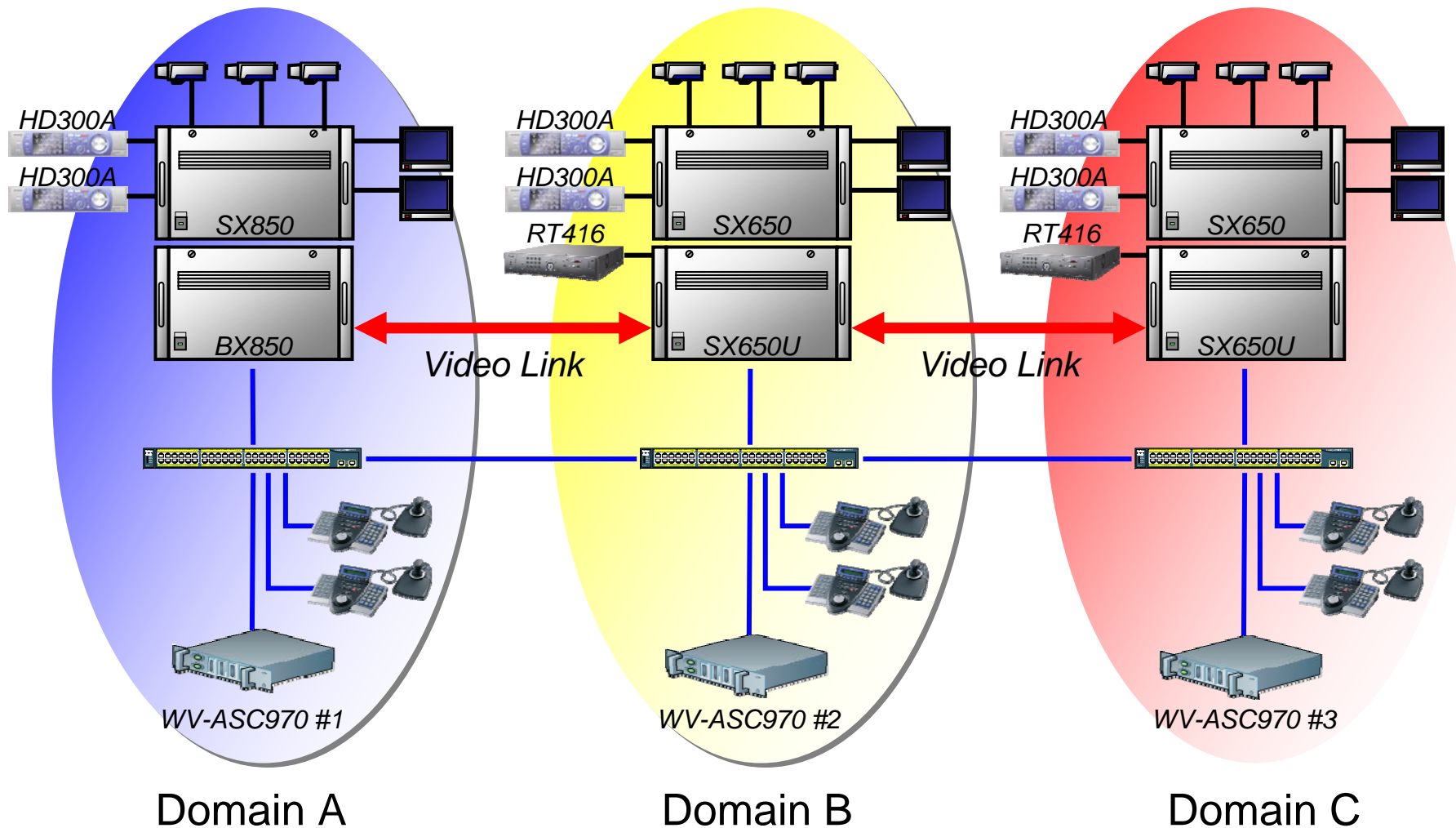


Analog System (Multi domain)

60

● SX650/SX850 in Multi domains

Max Node Capacity: 512 x 64 (SX650), 1024 x 256 (SX850)

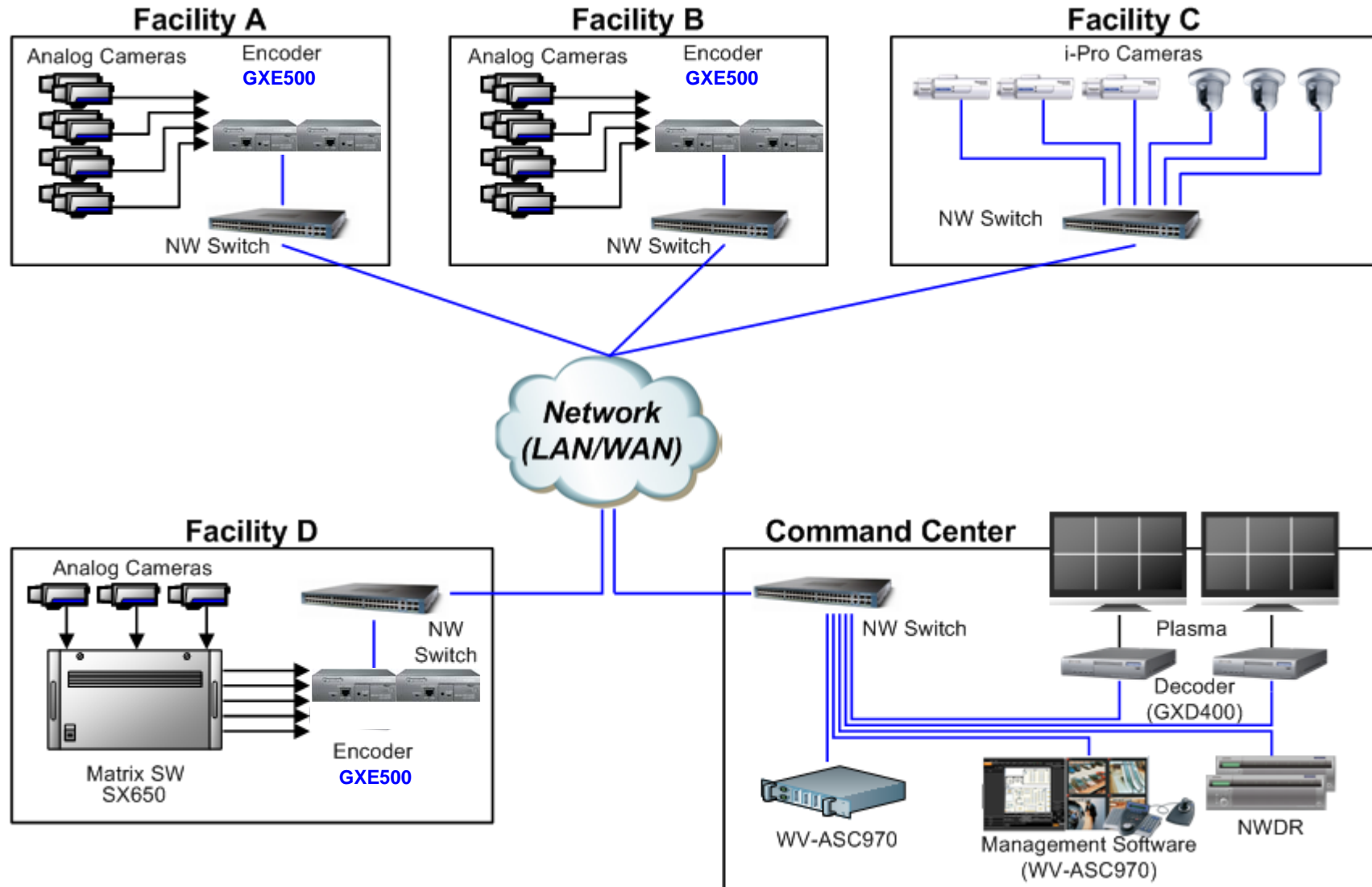


Hybrid System (Single domain)

61

Hybrid with GXE500 in Single domain

Max System Capacity per Domain: 1535 x 1024 including 1023 i-PRO devices



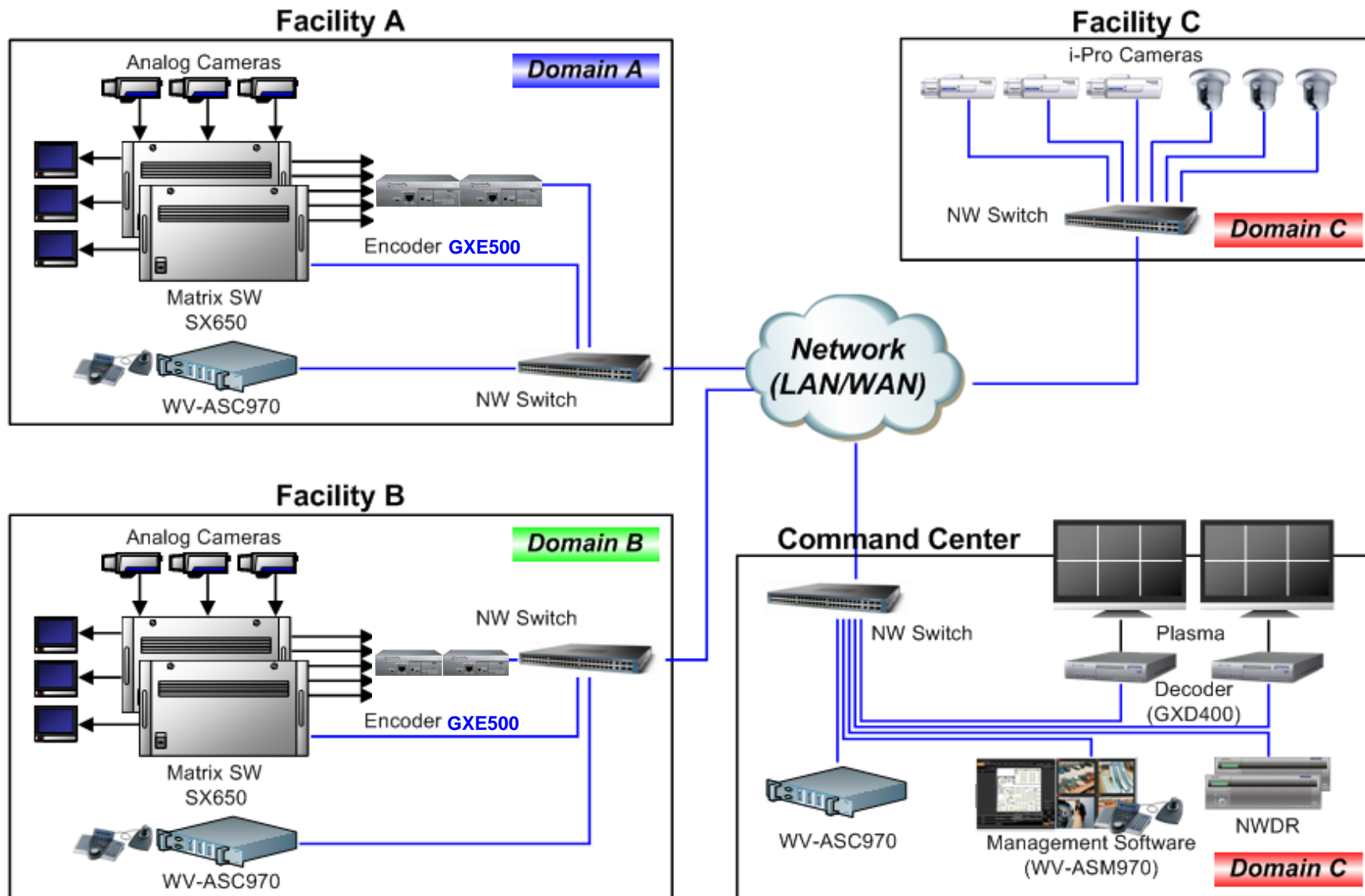
Hybrid System (Multi domain)

62



Hybrid with GXE500 in Multi domains

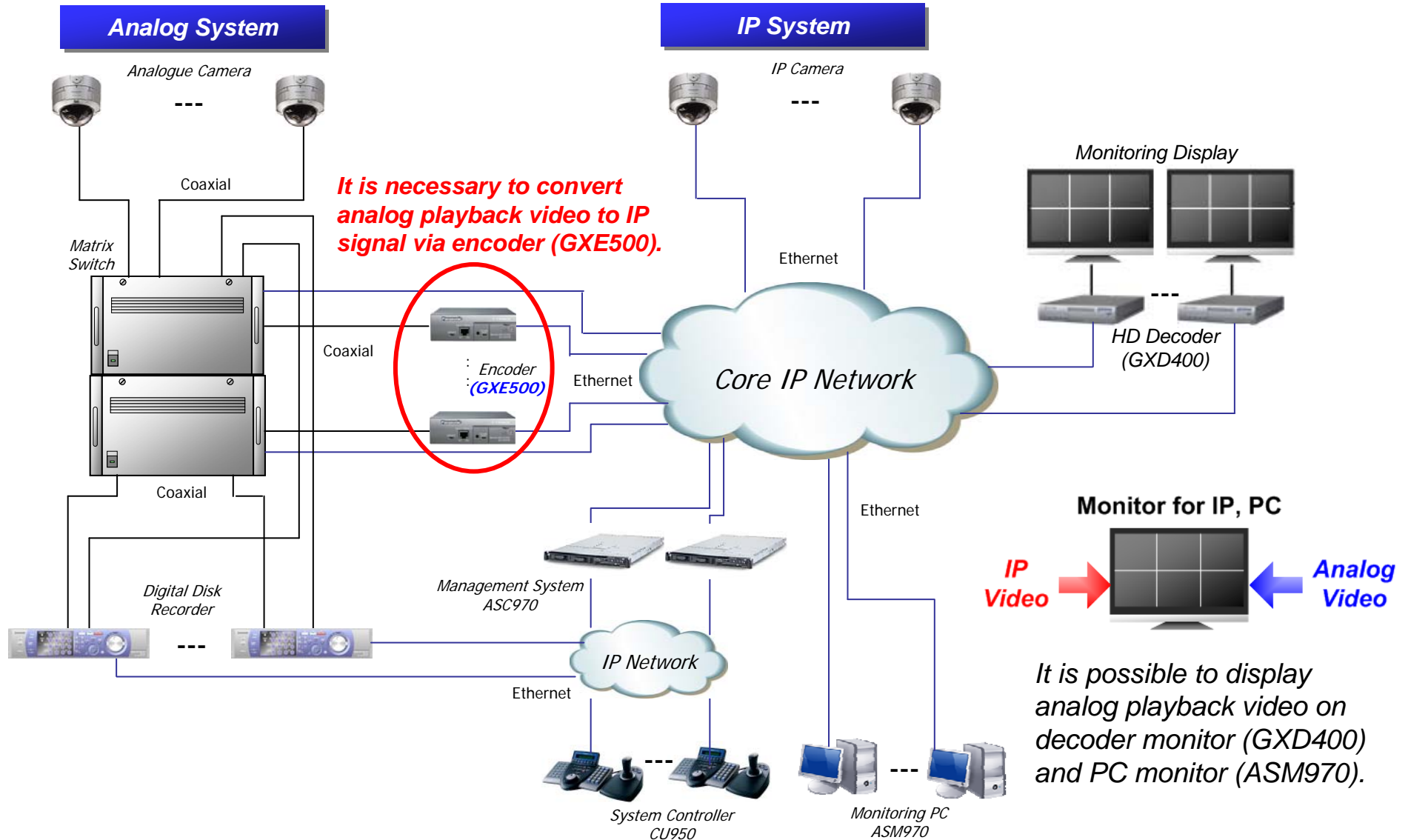
Max System Capacity per ASC970: 1535 x 512 including 1023 **i-PRO** devices



Hybrid System (Multi domain)

63

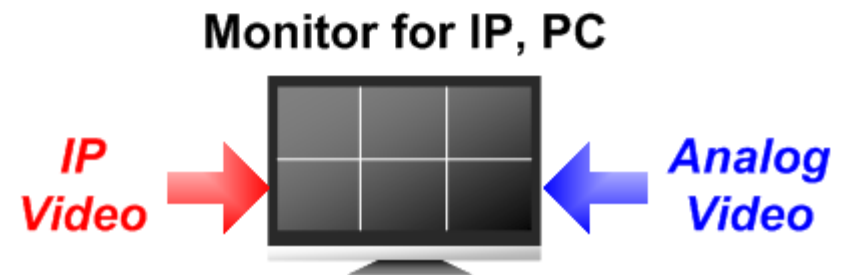
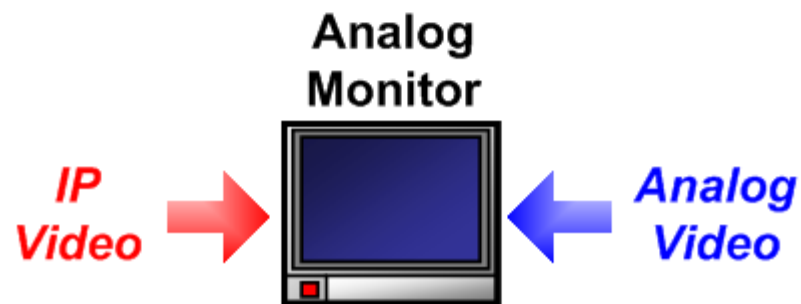
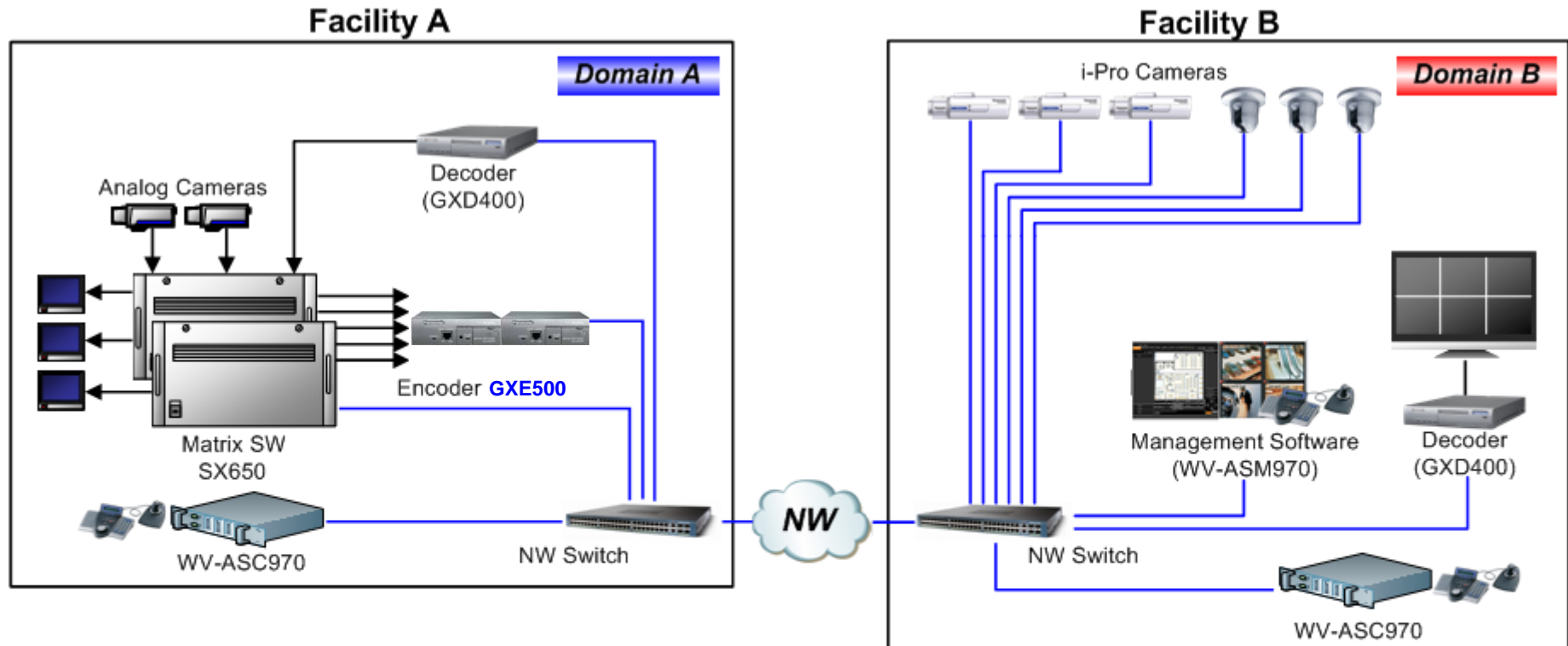
- **Hybrid with Analog DVR & GXE500 in Multi domains**
Max System Capacity per ASC970: 1535 x 1024 including 1023 i-PRO devices



Hybrid System (Multi domain)

64

Complete Hybrid System (with i-PRO Decoder)

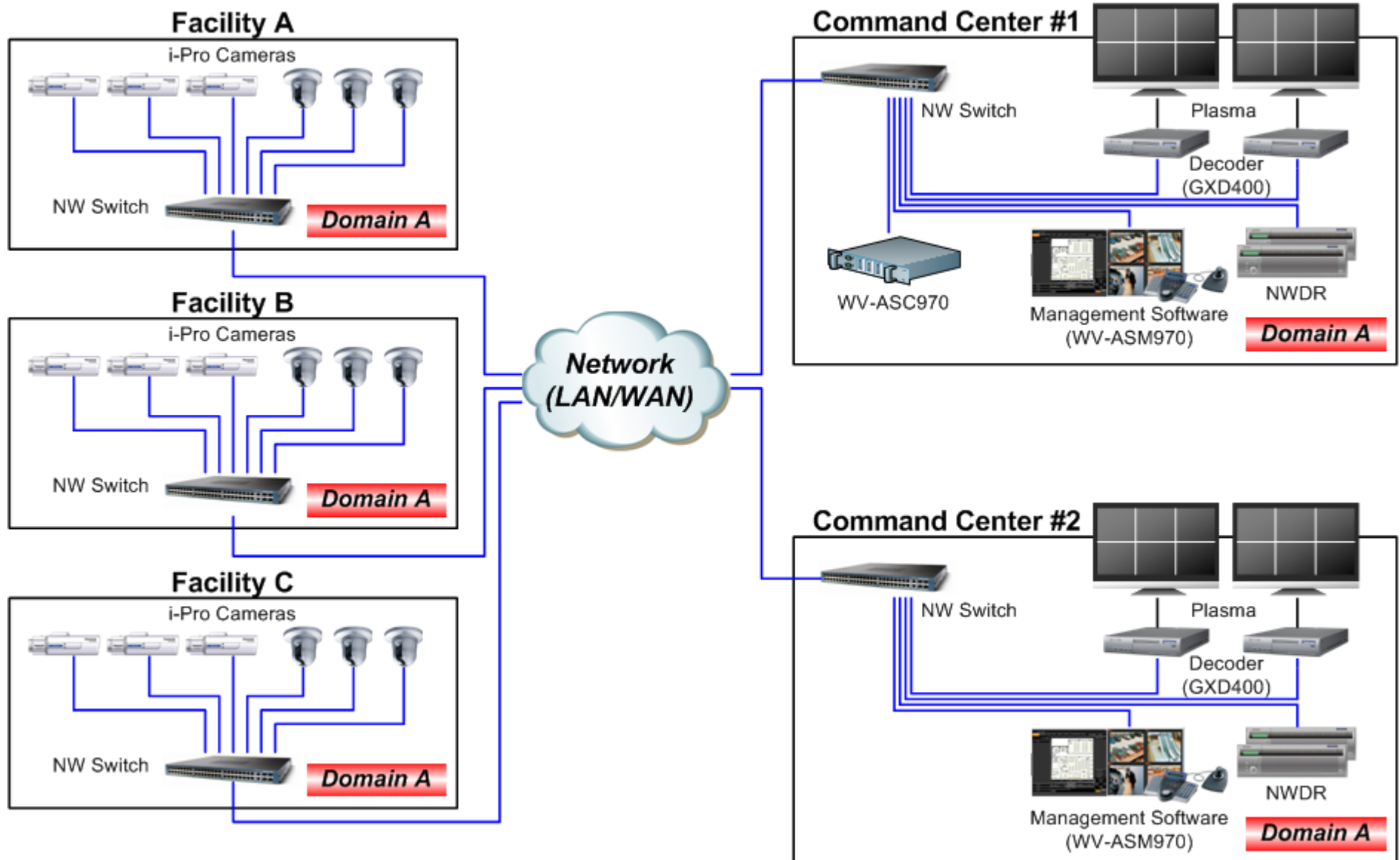


It is possible to display IP video and Analog video on Analog monitor as well as IP/PC one.

Full IP System (Single domain)

65

● Full IP system with *i-PRO* products

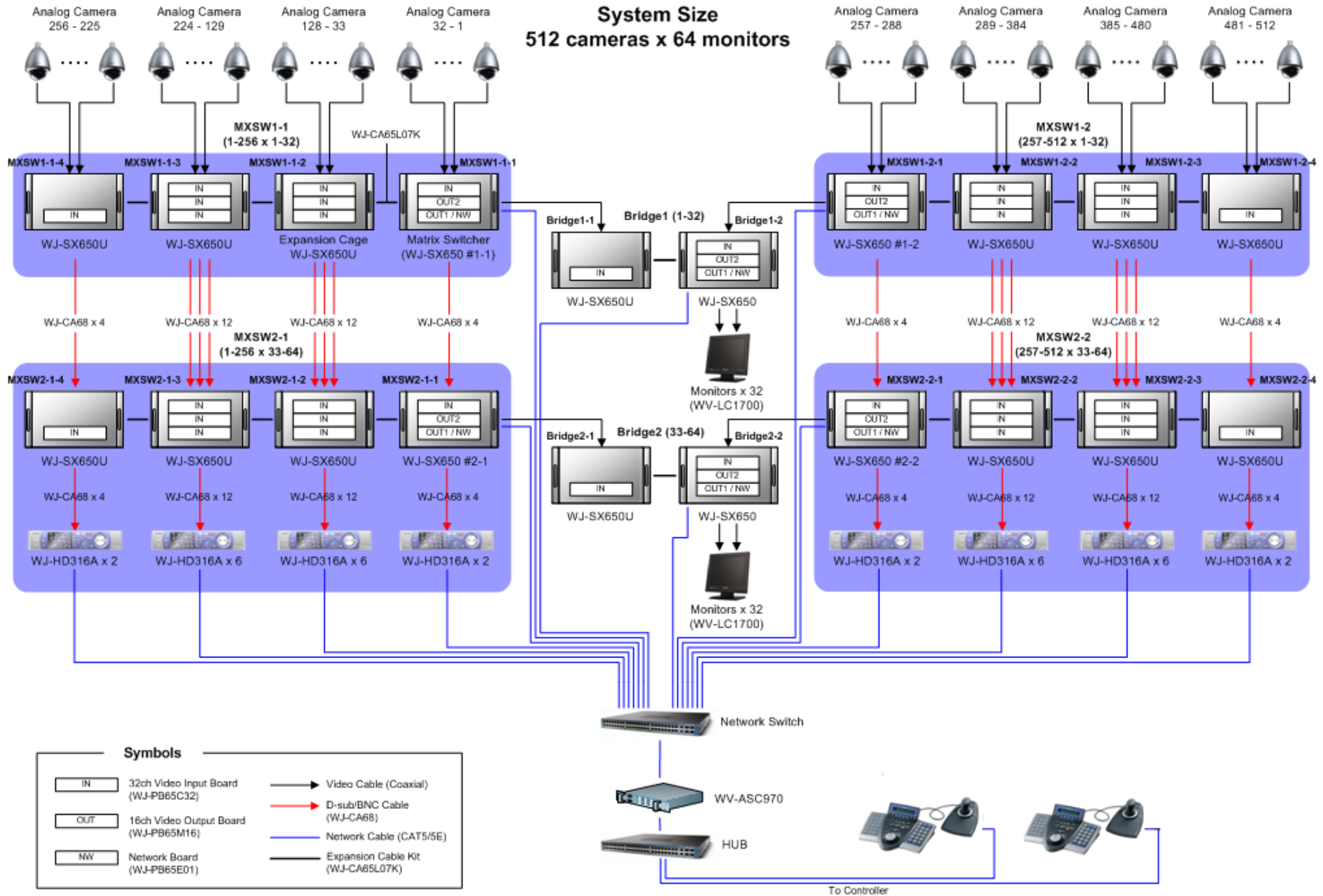


System Design Example

Analog System

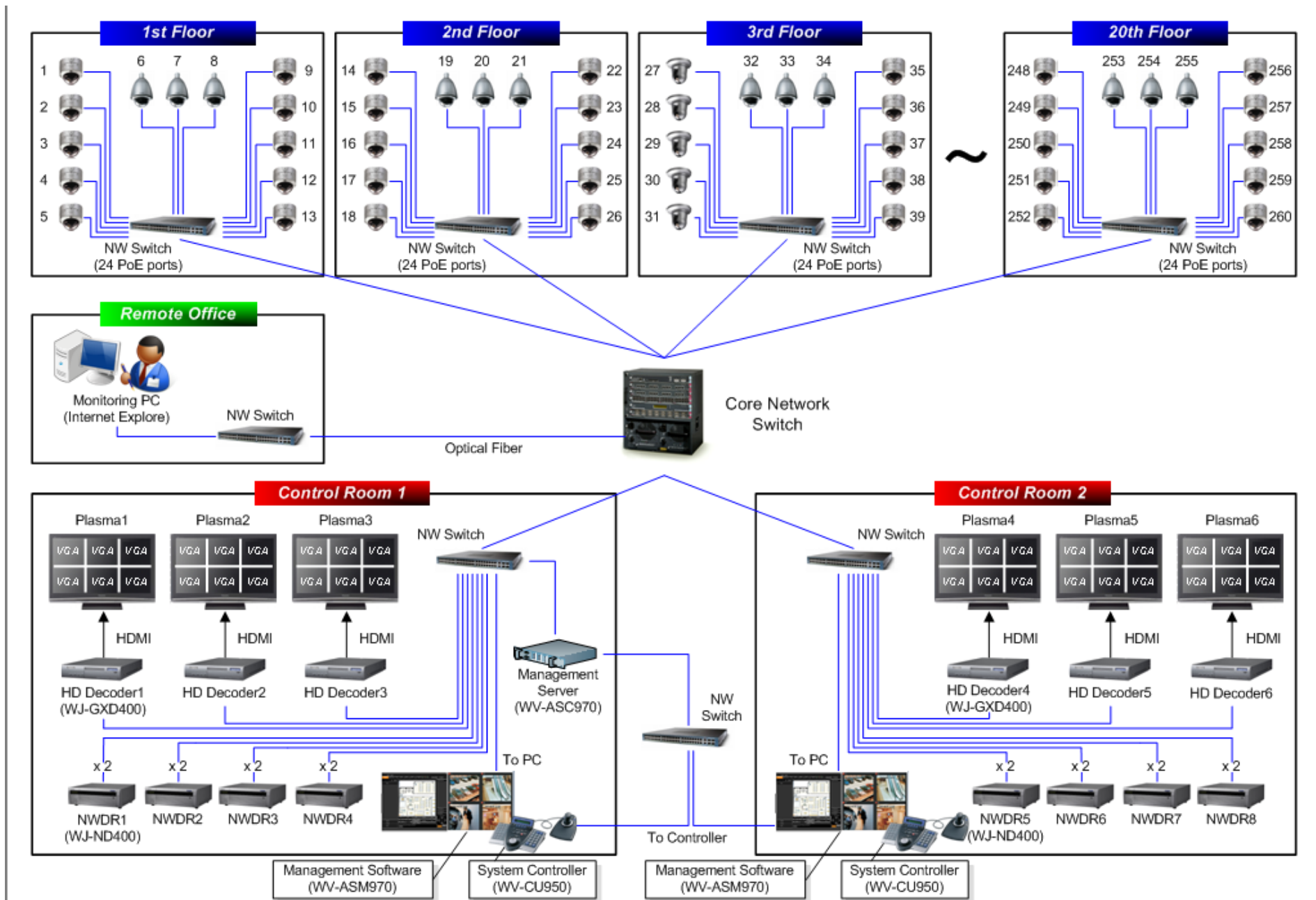
67

System Size
512 cameras x 64 monitors



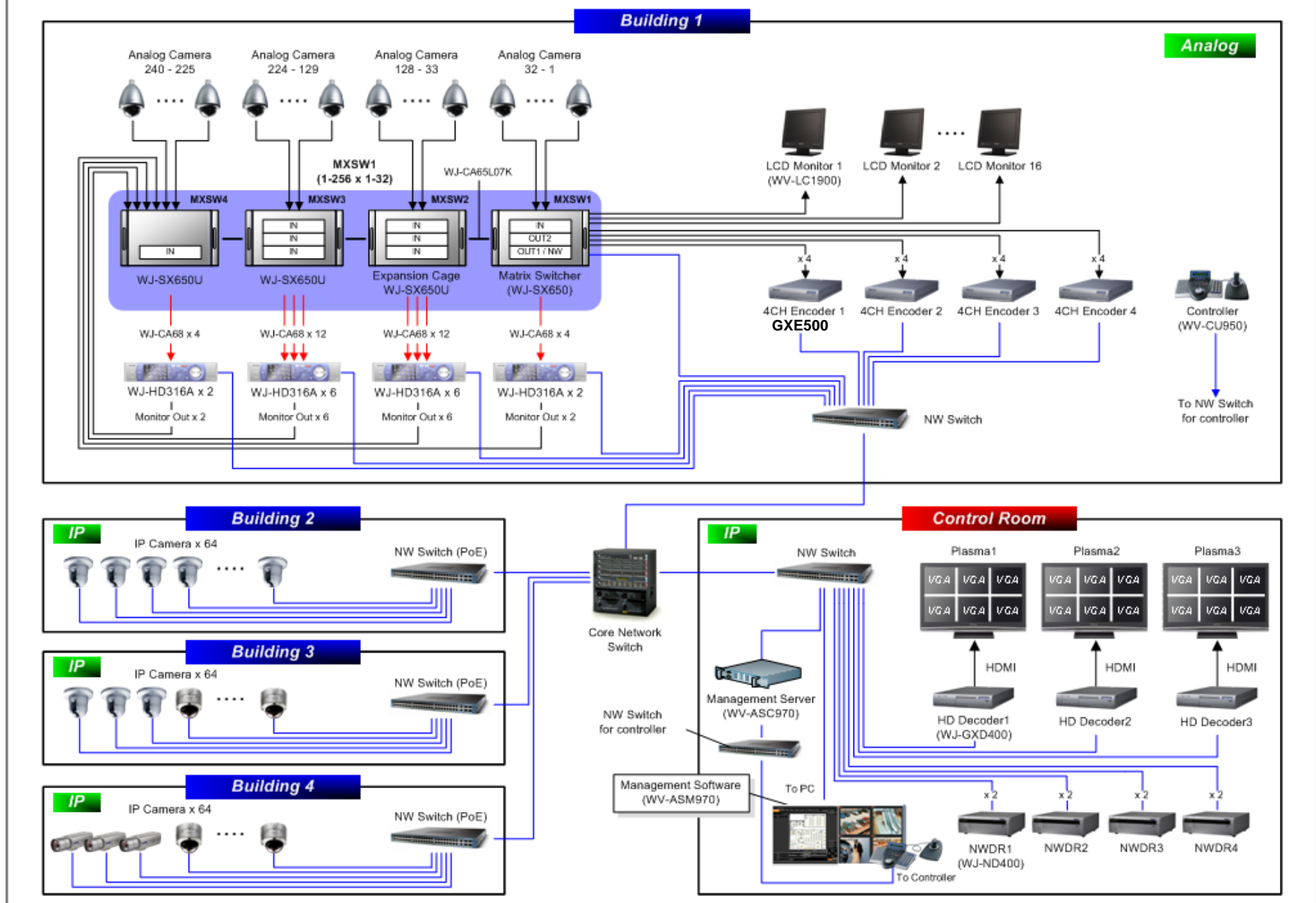
IP System

68



Hybrid System

69



Satellite System

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