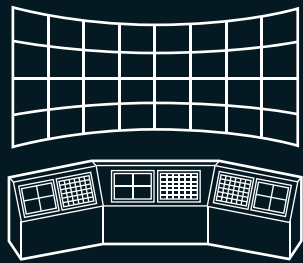


# Unlimited Servers Solution

## NUUO Central Management System

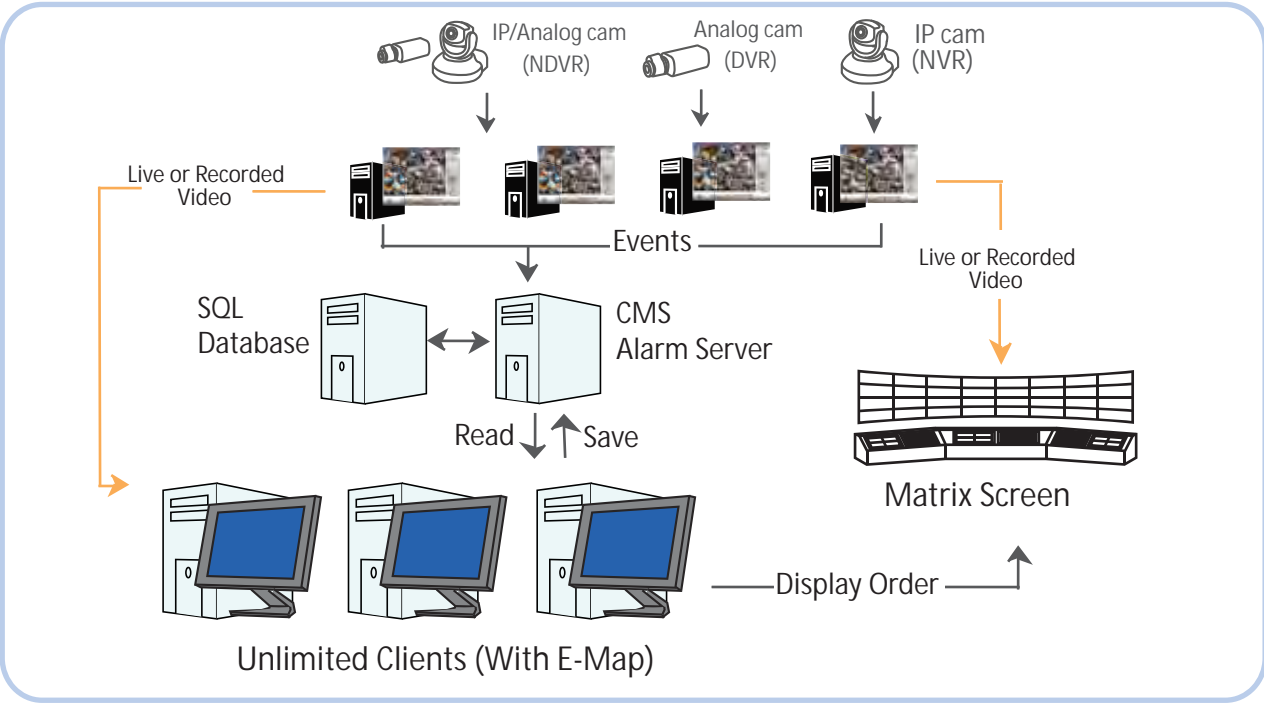
# Unlimited Servers Solution

## NUUO Central Management System



Function	Description
<b>Key features</b>	
Client Server Architecture	One CMS server could be connected by several CMS clients
Supported Devices	Support all NUUO based site, as well as all IP camera brands supported by Main Console. (ACTi, Arecont, Axis, EtroVision, IQeye, JVC, LevelOne, Lumenera, Mobotix, Panasonic, Pixord, Sony, Toshiba, VIVOTEK, Zavio)
Unlimited Server Solution	Unlimited access of cameras and DVR/NVR site
Multiple Matrix System	Unlimited matrix consoles could be connected through network
Live Viewing	Up to 64 concurrent camera viewing for each matrix console
Full Alarm Management	Acknowledge or manage alarm log in the most efficient way
<b>Triple Monitor Scenario</b>	
Default Monitor #1	Navigation Panel / Map Section
Default Monitor #2	Live Matrix System
Default Monitor #3	Alarm List / Message List / Remote Playback
<b>CMS Server</b>	
Alarm Database	Use SQL Server 2005 Express to store all the alarms
Central Server	Store the site map data by hierarchical structures
	Directly connect to surveillance server to get alarm notifications
	Provide TCP service for CMS clients' access through network
	Registers different time zones into UTC format
Supported Notification Type	Send E-mail / SMS message
<b>E-Map</b>	
Map Tree Hierarchy	Unlimited level of display site map
Maps Formats	Supported image format: BMP, GIF, JPEG, PNG, and TIFF
Define Surveillance Servers	New / Edit / Delete / Disable and Enable
Define Cameras	New / Edit / Delete
Navigation Tools	Use to use zoom in, zoom out and drag operation
Indicators on Maps	Indicators for maps, servers, cameras and I/O devices Indicator icons support image format with alpha channel (TIFF)
Instant Status Notification	show correspondingly small icon nearby the devices automatically to notify users of the events
Intuitive Operation on Maps	Open Last Alarm, Open Live Video Window, Open Instant Playback Window, Backup Recorded Video, View Server Status Report
Live Popup Window	Live popup window to show live video with PTZ control panel
Playback Popup Window	Remote playback popup window to show recorded video
<b>Alarm Management</b>	
Supported Alarm Type	Video Signal Abnormal, Digital Input Trigger (Normal / Emergency), Network Abnormal, DVR / NVR Abnormal, Motion / Missing / Foreign / Focus / Blocked, Low Disk Space, CPU temperature High / Fan Speed Low
Action when Alarm	Instant notifications on map and event list
	Go to specific map layer
	Play sounds
	Automatically show live video on popup window
	Automatically show live video on live matrix system
	Send SMS
	Send Email
Alarm Viewing	Filter tools to survey existing alarm history
Alarm Detail Popup	Show / Print a specific alarm with image preview
Advanced Alarm Search	Access required alarm logs in the most efficient way
<b>Matrix System</b>	
Live Viewing	Up to 64 concurrent camera viewing
Grid Type	1, 4, 9, 13, 16, 25, 36, 49, 64
View Type	Flexible auto scan mechanism and full screen viewing
Automatically Popup	Show the live video associated with alarms
PTZ Panel	Floating PTZ panel to manipulate cameras on the matrix system
<b>Remote Playback System</b>	
Remote Playback	Up to 16 concurrent camera viewing
Grid Type	1, 4, 9, 16
Export Function	Save as image and video, as well as printing
Smart Search	Fast search based on the specific event
<b>Miscellaneous</b>	
UserGroup Authority	Alarm Management, View Alarm Image, View Live Video, View Recorded Video, PTZ Control, Control Digital Output, Remote Desktop, Access Devices.
User Authority	User/Password, Phone Number, Email, UserGroup, Coverage, Matrix Profile
Built-in Remote Desktop	CMS could control NUUO servers through remote desktop protocol

**Intuitive E-map GUI alarm indication**  
**Capability to remote distance server**  
**64 screen divide for each video matrix**  
**Managing all NUUO products**



NUUO Central Management System diagram

### Feature Highlights

#### High Compatibility

Supports all NUUO NVR/DVR based site, as well as all IP camera brands supported by Main Console (ACTi, Arecont, Axis, EtroVision, IQeye, JVC, LevelOne, Lumenera, Mobotix, Panasonic, Pixord, Sony, Toshiba, VIVOTEK, Zavio).

#### Unlimited Server Solution

There is no limitation for the number of camera and DVR/NVR sites.

#### Unlimited Matrix Consoles

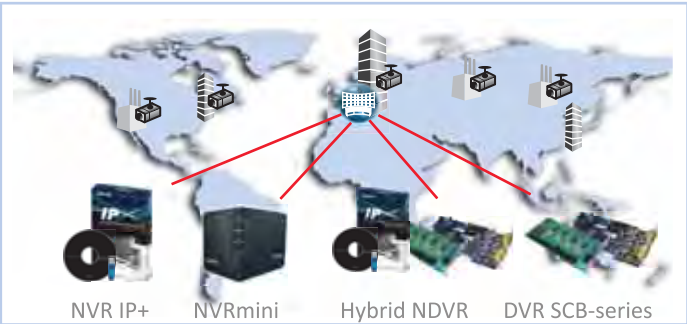
Each matrix can displays up to 64 concurrent live camera viewing.

#### Powerful Alarm Management

Intuitive E-Map GUI indicates all the devices and real-time alarm altering information. Administrator can take advantage of full alarm management to acknowledge or update alarms status in the most efficient way.

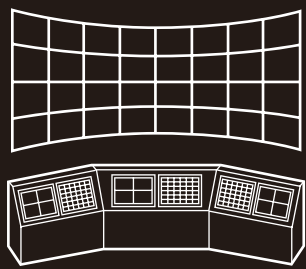
#### Remote Configuration

Enables administrator to manage remote servers.



NUUO NVR based Central Management System (NCS), a powerful system, which brings the traditional CMS system outside of the control room through internet access. Network based key operation system can manage unlimited combinations of analog + network cameras locating worldwide, and operate them via unlimited working stations, simultaneously. It's considered to be the Omni-solution for large scale projects, such as, factory plants, security companies, defenses facilities, justice facilities, etc.





# Unlimited Servers Solution

## NUUO Central Management System



### E-Map

E-Map supports image format including BMP, GIF, JPEG, PNG, and TIFF.

User can edit maps and servers easily; by synchronizing each server, user can access to connected devices.

Make use of navigation tool to zoom in, zoom out, rotate and drag operation.



NUUO NCS enables users operate alarm system in the most intuitive way. From the map, user can not only acquire each device's current status instantly, but also deal with events efficiently by right click each device on map.



Hierarchical map tree - easy manage and access unlimited camera sites quick and easy.

### Hierarchical map tree

User can edit unlimited multi-level site maps which can track back to incident's location efficiently.

### Mobile Map Indicators

Surveillance servers, cameras and I/O devices indicators can be dragged freely to the map and distinguished by different image.

### Instant Status Notification System

Will show correspondingly small icon nearby the devices in the map automatically to notify users of the events. User can know each device's current status easily and clearly from the map.

### Intuitive Map Operations

Once alarm is triggered, user can make instant reactions by requesting alarm information, activating live video and playback video to track back events. Moreover, user can backup recorded video for future examination.

### Alarm Management

#### Supported up to 30 Alarm Types

Alarm could be triggered when signal abnormal, digital input trigger, network abnormal, system setting change, general events, low disk space, and etc.

#### Alarm Priority

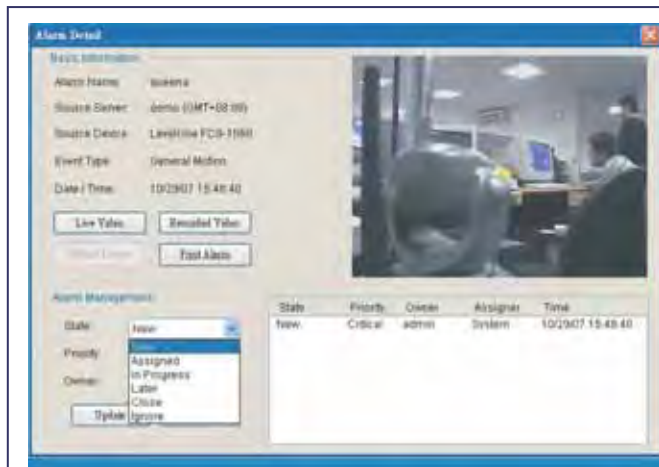
Four different priorities (critical, high, normal, low) can be defined for each alarm so that user can deal with alarms in order.

#### Alarm Coverage

User can define a valid period time for each alarm, for example, detecting general motion only during off-office time.

#### Alarm Management Guide

When an alarm occurs, user can access management guide from the alarm notification on map.



Once alarms are triggered, user can view the snapshot of each event and further view live video or recorded video of source device and related device; Moreover, update alarm status to the latest one.

#### Alarm Procedure

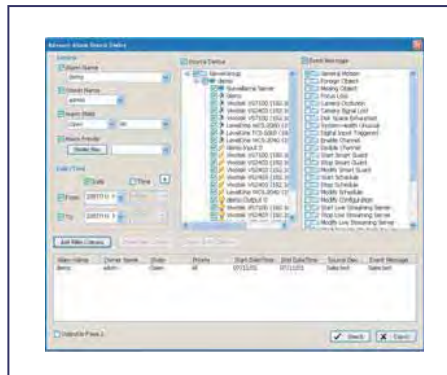
User is allowed to manually change the selected one/multiple/all alarm status and alarm priority. Also, alarm can be assigned to different owners in case default owner is unable to deal with it.

#### Alarm Auto Notifications

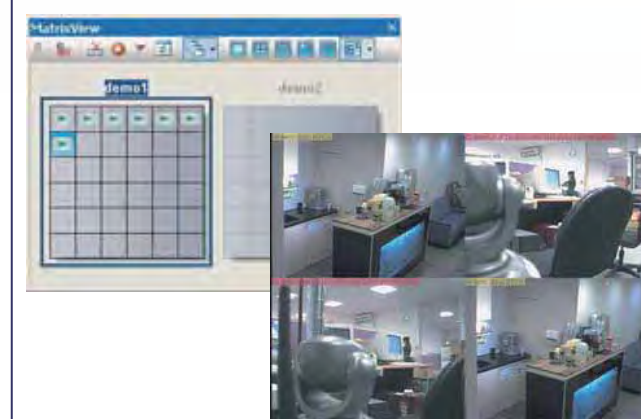
When an alarm occurs, client system can play user-define sound, go to device's map layer, popup device's live video window, show live video or related camera's live video in the chosen matrix; server will send email or SMS message to any selected user.

#### Alarm Viewing

System will show the specific alarm image and alarm detail automatically once the alarm is triggered. User can export selected alarm details to Excel file or even print alarm details.



### Live Matrix System



NUUO NCS System supports Unlimited Live View (Matrix) System which can view up to 64 channels with flexible user-defined settings. All settings can save as matrix profile and assign to multiple users. Furthermore, when alarm is triggered, user can view live video of source device or related device instantly in Matrix system.

- Live Matrix System receives all commands from CMS Client system to enable live video viewing on CCTV monitors.
- Each matrix can support up to 64 concurrent camera viewing.
- Support 9 various grid types.
- Support flexible auto scan viewing mechanism and full screen video preview with automatically hidden toolbar.
- CMS Client User can activate floating PTZ panel to manipulate selected camera on the matrix system.
- User can select any matrix grid to popup live video associated with alarms when events are detected.
- Client users can access to different matrix profiles. System can save unlimited matrix profiles and one matrix profile can be loaded by many users.

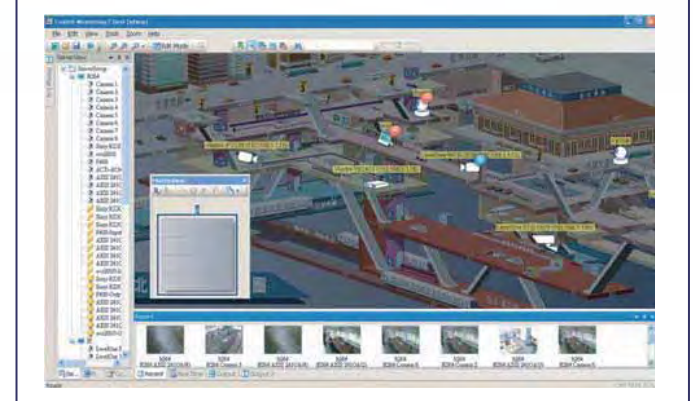
### Remote Playback System

- From CMS Client window, user can access remote playback system for any connected server.
- Support up to 16 concurrent camera viewing.
- Support various grid types such as 1, 4, 9 and 16.
- Export video to "AVI" or "ASF" file; Export single frame to "BMP" and "JPEG" file.
- Support intelligent search for general motion, missing object, foreign object, lose focus and camera occlusion,

### Central Server

- Client/Server architecture enables CMS server to be connected by CMS clients.
- Use SQL Server 2005 Express to store all alarm logs.
- Central Server connects to local surveillance server directly to get alarm notifications and provides TCP service for CMS client to access through network.
- Support real time notification such as email and SMS message.
- Use easily across time zones: Central Server transfers different time zones into UTC, Coordinated Universal Time, and present administrator's local time in the central system.

### Display Mode



- Support Single, Dual, Triple and Multiple Monitors display.
- Triple Monitor Scenario One monitor displays E-Map/Navigation Panel, another monitor shows Live Matrix System while the last monitor indicates Alarm List / Message List / Remote Playback.
- User can select any matrix grid to popup live video associated with alarms when events are detected.
- Client users can access to different matrix profiles. System can save unlimited matrix profiles and one matrix profile can be loaded by many users.

### Miscellaneous

#### UserGroup Authority

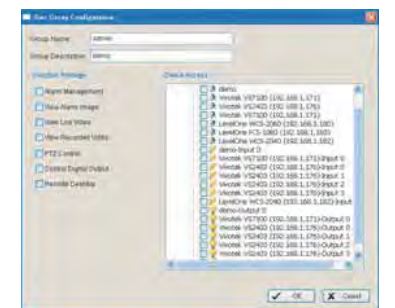
User can define the authority of UserGroup in a most flexible way. Privilege functions, including alarm management, view alarm image, view live video, view recorded video, PTZ control, control digital output and remote desktop, and access devices can be defined differently for each UserGroup.

#### User Authority

Each User belongs to one UserGroup and shares the UserGroup's authority. Moreover, coverage period and access matrix profile can be defined differently for each user.

#### Build-in Remote Desktop

CMS users can configure each connected surveillance server through remote desktop protocol if they have remote desktop authority.



### System Requirement

	Video Matrix	SQL Database	CMS Client	CMS Alarm Server
CPU	Intel Core 2 Duo E6850	Intel P4 3.0 GHz	Intel P4 3.0 GHz	Intel P4 3.0 GHz
RAM	2 GB	2 GB	1 GB	1 GB
Mother-board	Intel 945 or 965 chip, Intel Chipset recommended			
Display	ATI X1300 or above, nVIDIA GeForce 7000series or above			
Ethernet	100 baseT or above, Gigabit LAN recommended			
Hard Disk	80 GB or above			250GB or above
OS	MS Windows XP pro sp2 / 2003			

To avoid hardware conflicts, please use Intel P35/975 Mother-Board and the same model of Display cards in multiple monitor scenarios