NUUO Hybrid Appliance Specification
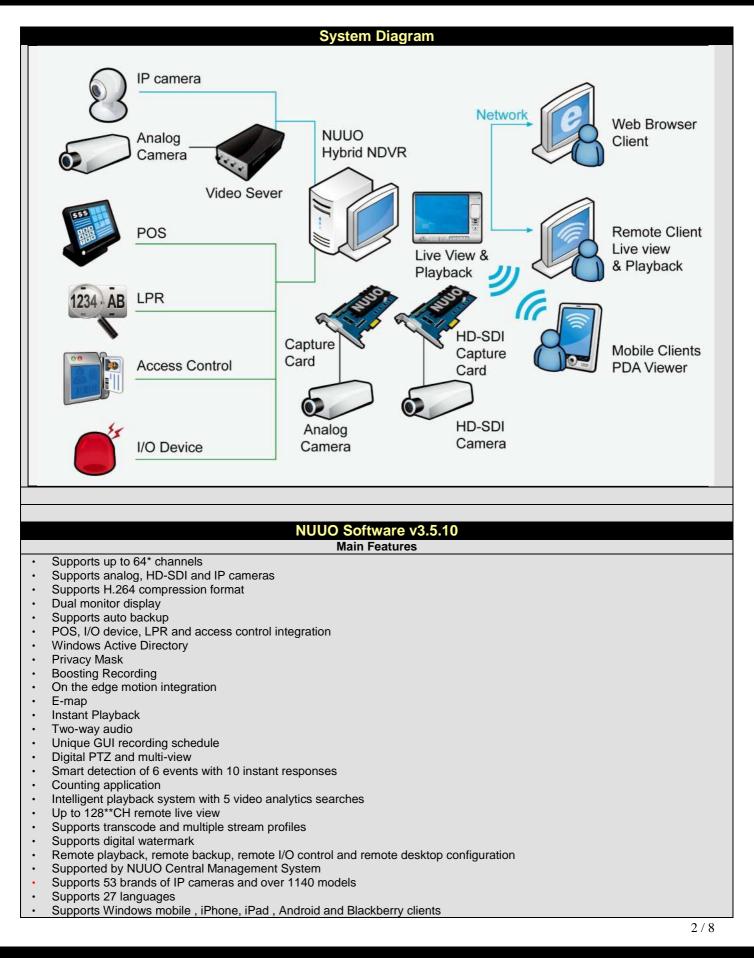
NUUO Hybrid Appliance	
Style	 **4U**
Part Number Server	NH-4100
IP License Supported	SCB-IP+01 / SCB-IP+04 / SCB-IP+08 / SCB-IP+16 / SCB-IP+32 / SCB-IP+64
Capture Card Supported	Main Console SCB-6000S / SCB-7000S / SCB-7100 / SCB-8000 Series
Max. Camera (through upgrade of IP License and Capture Card)	64
Server O/S	Windows 7 64 bit Professional
Video Compression	H.264, MPEG4, MJPEG, MxPEG
Recording Performance	Refer to NUUO Project Calculator (http://support.nuuo.com/calculator)
CPU	Intel i5 2400 3.10GHz
Memory	4GB
PCI/PCI-e Slots	4x PCI-e
Optical DVD-RW	DVD+-RW
System Drive	250 GB
Removable HDD Trays	4x SATA II
HDD Support	3TB per drive (Max. 4 drives)
Max. Storage (Internal)	12TB
Hot Swappable	None
RAID	Requires independent RAID controller card
External Storage	iSCSI
External Ports	6x USB, 2x COM Port, 1x Speaker, 1x Microphone
Ethernet NIC	2x Gigabits Ports
Video Output	1x VGA (D-sub) 1x DVI
Voltage	100-240V
Power Consumption	400W
Dimension (HxWxD)	528.0 x 481.8 x 176.8 mm
Weight (without HDD)	17.1 kg (37.70 lbs)
Temperature	Operating: 0C~40C
Humidity	5% ~ 95%
Supported Language	Bulgarin, Chinese (Simplified) Chinese (Traditional) Czech, Danish, English, Farsi, Finnish, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Norway, Polish, Protuguese (Brazil), Protuguese (Protugal), Romanian, Russian, Serbian, Slovak, Spanish, Swedish, Thai, Turkish

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System Diagram

NUUO Software v3.5.10

Main Features

- Supports up to 64* channels
- Supports analog, HD-SDI and IP cameras
- Supports H.264 compression format
- Dual monitor display
- Supports auto backup
- POS, I/O device, LPR and access control integration
- Windows Active Directory
- Privacy Mask
- Boosting Recording
- On the edge motion integration
- E-map
- Instant Playback
- Two-way audio
- Unique GUI recording schedule
- Digital PTZ and multi-view
- Smart detection of 6 events with 10 instant responses
- Counting application
- Intelligent playback system with 5 video analytics searches
- Up to 128**CH remote live view
- Supports transcode and multiple stream profiles
- Supports digital watermark
- Remote playback, remote backup, remote I/O control and remote desktop configuration
- Supported by NUUO Central Management System
- Supports 53 brands of IP cameras and over 1140 models
- Supports 27 languages
- Supports Windows mobile , iPhone, iPad , Android and Blackberry clients

* The maximum number of camera connections depends on the total bit rate of the IP cameras. Please check NUUO Calculator on http://support.nuuo.com/calculator/

* *The maximum number of camera connections depends on the client's hardware configuration.

Specifications

System, setting, management and integration:

- **Open Platform**: Supports over 1140 models of IP cameras, megapixel cameras and video servers from 53 brands of network camera manufacturers; supports H.264, MPEG-4, MJPEG, MxPEG video formats; integrates various systems including point of sale (POS) and I/O devices, license plate recognition and access control system. SDK for access control integration available upon request.

- **Multi-site/Multi-server**: Each NH-4100 supports up to 64* channels, from IP cameras and video encoders with analog cameras, and can be managed by NUUO CMS or remote live view client for centralized management in multi-site projects.
  * The maximum number of camera connections depends on the total bit rate of the IP cameras. Please check NUUO Calculator on http://support.nuuo.com/calculator/

- **Disk Load Balance**: NUUO software improves recording performance to utilize several disks and dynamically distributes the video loads among the disks to improve throughput.

- **Multiple Video Clients**: NUUO NH-4100 can stream video to multiple Remote Live Viewers, web clients and mobile clients simultaneously.

- **Intelligent Video Analytics**: NUUO IVS supports 6 types of video analytics including general motion, missing object, camera occlusion, foreign object, focus lost and signal lost. Each IVS alarm can trigger up to 10 unique instant notifications.

- **Intelligent PTZ**: Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO NVR. Preset points and patrol functions are also available on many camera models.

- **GUI Recording Schedule**: Intuitive GUI recording schedule featuring continuous recording, motion recording and the 6 unique event recording modes. Users can define the recording schedule for each camera on a day by day basis.

- **Dual Monitor:** Up to 64* channels of live view video can be displayed per monitor. Monitor 1 can display live view video or act as alarm monitor, and Monitor 2 can be used for live viewing, acting as alarm monitor or playback
  * The maximum number of camera connections depends on the total bit rate of the IP cameras. Please check NUUO Calculator on http://support.nuuo.com/calculator/

- **Transcoding**: Record and display live video at different frame rate and resolution.

- **Boosting Recording:** Dynamically boost recording quality on motion and other events to optimize recording storage.

- **Advanced E-Map:** Capability to import custom image file, place the cameras and I/O on the map to indicate where events are being triggered with a convenient video preview window.

- **User-Friendly Interface:** GUI recording schedule, camera drag and drop, I/O control menu and PTZ control menu.

- **Automatic Camera Model Detection:** automatically search for all available IP cameras within the network (camera must support UPnP protocol). For cameras that don't support UPnP, users can manually insert the IP camera. The auto detection function will help the user to find the brand and model of the camera after specifying its IP address.

- **Counting Application:** intelligent 2-way (in and out) counting of object, people and traffic.

- **User Authority Management:** Support unlimited number of users with detailed and fully customizable user privilege on each user.

- **Windows® Active Directory:** Synchronized with Windows® Active Directory server to manage user privilege and control of camera action.

- **Network Flow Monitor:** Data streaming bandwidth of each remote client connection to NH-4100 can be monitored and blocked if flow rate is too high.

- **Auto Recycle:** Automatically recycle recording files when the storage is full. Separate recycle schedule between recordings and varies log files.

- **SDK Integration Support**: Open SDK for integration with third-party systems such as access control, automation, burglar alarm, video analytics and others.

- **Upgrade notification**: Automatically obtain upgrade notification from NUUO website to download the latest version.

Live display:

- **Multi-view**: NUUO software can duplicate the same live view video onto multiple channels and digitally zone in to see the details of different spots on cloned channels without losing the original live view video.

- **Intelligent PTZ**: Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO software. Preset points and patrol functions are also available on many camera models.

- **Monitor Resolution**: Supports 1024x768, 1200x900, 1280x1024, 1440x900, 1600x1200, 1680x1050, 1920x1080, 1920x1200 screen resolutions

- **Advanced E-Map**: Freedom to import custom image file, place the cameras and I/O on the map to indicate where events are getting triggered with a convenient video preview window.

- **Bandwidth Monitor**: Monitor and display the bandwidth usage of individual cameras and remote viewing clients.

- **Two-way Audio**: Listen and record audio from camera's microphone. Talk to IP camera's speaker.

- **Instant Playback:** Allow to play the last few minutes of any live video channel on MainConsole and Remote Live View

- **Privacy Mask**: Protect privacy of the sensitive image by blocking out sensitive areas from view and covering the areas with black boxes in live, playback and exported video.

Playback, search, export and secure data:

- **Post-Recording Processing:** Search for 5 types of different analytics events, digital PTZ and video enhancement tool are all available in playback.

- **Multi-Channel Playback**: Play up to 16 channels of recorded video simultaneously both locally and remotely. Forward playback at 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, 32x, 64x.

- **Video Enhancement**: Fine tune the image's visibility, sharpen, brightness, contrast or even grey scale.

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- **Intelligent Search**: Search for 5 different special events (general motion, missing object, foreign object, camera occlusion and signal lost) in recorded files with date, time and log file.

- **Video Export:** Take a snapshot of the recording in JPEG/BMP format or export a section of the video in "AVI" and "ASF" format.

- **Auto and Manual Backup**: Schedule or manual backup the recording for archiving purposes or backup the recording with an embedded player to watch at a separate location. NUUO software supports both local and remote backup to local HD, CD, and DVD.

- **Log data**: Unusual event, system log, counting application, POS log and export and backup can export to "xls" or "txt" file

- **Watermark**: Protect for original recording from alternation with our watermark verification tool.

- **DBTool**: Reconstruct, repair or relocate the recordings in local drive, or external drive.

Remote operations:

- **Multiple Live View Display**: Streaming live video from multiple NUUO servers simultaneously. Dual monitors support with up to 128 channels per monitor (64* channels per monitor).
  * The maximum number of camera connections depends on the total bit rate of the IP cameras. Please check NUUO Calculator on http://support.nuuo.com/calculator/

- **Multi Playback Channels Display:** Remote playback of 16 channels recording from any one of NH-4100.

- **Intelligent PTZ**: Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO NVR. Preset points and patrol functions are also available on many camera models.

- **I/O Event Control**: Easy to use input and output control panel to remotely trigger digital outputs and monitor input status.

- **E-Map**: A map view of where each camera and I/O devices are located with a convenient preview window.

- **Two-way Audio**: Listen and record audio from camera's microphone. Talk to IP camera's speaker.

- **Remote Backup:** Backup the video into .DAT format with a NUUO player attached for easy achieve and viewing purposes.

- **Web-browser (client)**: Display up to 64 channels of live video stream or 16 channels of playback in I.E. from any single NH-4100. Support direct login information (user/pass) in a URL address

- **PDA Viewer**: Up to 16 channels snapshot or 1 channel live display; PTZ and I/O control.

- **Mobile Client**: Support iPhone, iPad, Android and Blackberry application client to live view video and control PTZ functions.

Extension service:

- **Central Management System:** Ultimate central monitoring solution for grand scale projects and projects with multiple sites. Fully compatible with all NUUO servers (NH-4100, NVR, DVR, NDVR and NVRmini).

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- **Remote Desktop Service**: Embedded remote desktop server that will host for any NUUO remote desktop clients to remotely configure NUUO software (remote desktop client is installed separately).

- **3GPP Service**: NUUO software supports mobile devices through 3G network to stream live view video.

External device:

- **Point of Sale (POS)**: NUUO Point of Sales system works on NUUO software by overlaying the transaction text from cash register onto live video channels. All POS recordings are searchable.

- **External I/O Capacity:** Please refer to our I/O box section: C24/C26/C28 for more details.

- **Panomorph PTZ Camera (360°):** Integrates ImmerVision Lens (IMV1-1/3 Lens supported) to view Live, record and playback the complete 360x180 FOV. Users can easy to detect, track and analyze throughout the entire area.

- **3rd Party Integration**: Metadata Plugin technology support 3rd party software including license plate recognition, access control and so on. Though Metadata Plugin, users can manage metadata by recording real time information in databases which can describe events that link to video and audio. The system provides smart search tool to retrieve information and recorded video.
  *V3.5 will support Visec (LPR) and Tyco (access control).

Smart guard:

- **Smart detection** of 6 camera events, 14 different user-defined POS events, digital input events and 4 system events. The combination of our smart guard events is a powerful tool to combat vandalism and provide a platform for operators to monitor and respond to live events immediately.
  - Camera Events:
    - General Motion (Multiple sensitivity)
    - Edge Motion
    - Missing Object
    - Foreign Object
    - Focus Lost
    - Camera Occlusion
    - Signal Lost
  - Signal Digital Input Event
  - System Event:
    - System alarm on Disk Space Exhausted
    - System alarm on System Health Unusual (CPU temperature)
    - System alarm on Resource Depleted (CPU loading)
    - System alarm on Network Congestion

- **Instant alarm notification** is the fastest and most cost efficient way to automatically respond to any smart detection event.
  - 10 automatic instant alarm responses:
    - On Screen Display
    - Play Sound
    - Send E-mail
    - Phone Call
    - PTZ Preset Go
    - Signal Digital Output
    - Send a SMS message
    - Send to Central Server
    - Send Snapshot to FTP

- Popup E-Map on Event
- **Schedule-based:** Users can define the smart guard schedule for each event on a day by day basis

NUUO Software Specifications	
Model	SCB-IP+ Series
IP Camera Input(s)	4, 8, 12, 16, 25, 32, 36, 64*
Version	3.5.10
IP Camera Brand(s) Supported (with device pack v1.14.0)	ACTi · Arecont · ARM · ATLANTIS · AXIS · BASLER · Bosch · Brickcom · CAMTRON · CISCO · CNB · CORUM · CTCunion · CryptoTelecom · Dallmeier · Digimerge · D-Link · DYNACOLOR · ENEO · EverFocus · EYEVIEW · FINE · Forenix · Grandstream · HiTRON · HIKVISION · Honeywell · iCANTEK · IQinVision · JVC · Levelone · LILIN · LINKSYS · LOREX · Lumenera · MESSOA · MOBOTIX · MOXA · NetworkCamera · Panasonic · Pelco · PiXord · PLANET · Onvif · SAE · SAMSUNG · Santec · SANYO · Seriim · SONY · StarDot · TOSHIBA · TRUEN · UDP · vForge · Videosec · VIVOTEK · Y-CAM · ZAVIO
Digital PTZ	Supported in Live view and Playback
Multiple Show	Supported in Live view
Dual Monitor	Enable maximum 64 channels with two screens to show live video or one monitor for live video and one for playback.
Screen Resolution	1024x768, 1200x900, 1280x1024, 1440x900 1600x1200, 1680x1050, 1920x1080, 1920x1200
Audio & Video Recording	Synchronized audio & video recording.
Screen Division	1/4/6/9/10/13/16/25/36/49/64 divided screen.
Compression Format	H.264;MPEG-4;M-JPEG;MxPEG
Recording Type	Continuous record, record by digital input, motion record, event recording, boosting recording, record by schedule, manual record
Playback Channels	Playback Maximum 16 channels under several modes & full screen.
Playback Control	Playback, backward playback, fast forward/backward playback.
Auto Recycling Recording	Auto recycling when storage disk is full.
Available I/O Function	Supporting I/O Box
Available POS Device	SCB-C31 RS232 to Ethernet Convertor
Note	
* The maximum number of camera connections depends on the server's hardware configuration and the total bit rate of the IP cameras. Please check NUUO Calculator on http://support.nuuo.com/calculator/	

Support Language			
Bulgarian	Chinese (Simplified)	Chinese (Traditional)	Czech
Danish	English	Farsi	Finnish
French	German	Hebrew	Hungarian
Italian	Japanese	Korean	Norway
Polish	Portuguese (Brazil)	Portuguese (Portugal)	Romanian
Russian	Serbian	Slovak	Spanish
Swedish	Thai	Turkish	