

# NUUO NVRsolo Plus 3



Trusted Video Management



NP-2xx0S (xx=04, 08, 16)

### Main Features

- Embedded Linux – safer solution against PC crashes and virus attacks
- One-click setup for more than 130 brands of IP cameras
- ezNUUO – free from router settings for web/ mobile viewing
- Support Point of Sale (POS)<sup>1</sup>
- Alarm source of NUUO Central Management System
- RAID 0,1 support
- Support Camera motion event
- Support camera multi-stream setting<sup>2</sup>
- Support H.264 and H.265 format
- 2nd stream record – Dual record<sup>3</sup>
- Support camera two-way audio
- Support camera snapshot
- IP Camera reboot, reset and firmware upgrade could be done through local UI (only on supported camera)<sup>4</sup>
- UPnP support for mass upgrade SNVRs/IP Camera firmware by IPInstaller (only on supported camera)
- Remote I/O solution and camera I/O integration
- Real-time digital output, Email alert and push notification on mobile
- Digital watermark
- NTP server synchronization
- Support HDD S.M.A.R.T self-test
- Support 100 up brands of IP cameras and thousands of integrated camera models

### Remote Client Application

- Support Multi-Stream for remote live view bandwidth control (Original / 500 kbps / 100 kbps)
- Support mobile client for iPhone / iPad / Android<sup>5</sup>
- Up to 128 CH remote live view with multiple monitors

### Web

- Web-based configuration, live viewer, playback (On IE 11 or Edge IE mode)
- Online GUI recording schedule
- Panorama 360° PTZ (ImmerVision and VIVOTEKfisheye)
- Generic dewarping (fisheye)
- Digital PTZ and multi-view
- Support joystick for easier camera control

## Specification

- Playback with 5 types of intelligent event search
- E-map with indicator
- Auto port-forwarding
- Playback speed through remote client can support up to 64X

## Specifications

Model	NP-2040S	NP-2080S	NP-2160S
<b>Maximum Numbers of Licenses</b>		16 <sup>6</sup>	
<b>Based License</b>	4	8	16
<b>Output Resolution</b>		HD	
<b>Decoding Capacity</b>	1ch 4K, 4ch FHD, 8ch D1, 16ch D1@30fps		
<b>Throughput</b>		200 Mbps <sup>7</sup>	
<b>Number of Drives</b>		2 × SATA III ports	
<b>Max Storage Per Drive</b>		16 TB	
<b>Max Storage per volume</b>		16 TB	
<b>RAID Level</b>		RAID 0, 1	
<b>RAM</b>	DDR3, 512 MB		
<b>I/O Interface</b>	Input 8ch + Output 2ch		
<b>USB</b>	2 × USB 2.0		
<b>LAN</b>	2 RJ-45 ports (10/100/1,000 Mbps)		
<b>Audio</b>	1 in / 1 out		
<b>Voltage</b>	12V DC / 3A		
<b>Power</b>	MAX Power 15 W		
<b>Device Dimension (HxWxD)</b>	46 × 372 × 310 mm ( 1.81 × 14.6 × 12.2 inches)		
<b>Device Weight</b>	1.93 kg (4.25 lbs) without HDD		
<b>Temperature</b>	-10 °C ~ 50 °C (14 °F ~ 122 °F), Operating with HDDs		

## Specification

Humidity	Less than 90% RH, Operating with HDDs
Support Format	MPEG-4, M-JPEG, H.264, H.265
Certification	CE, FCC

## Remote Client System Minimum Requirement

OS	Win7 (32 and 64-bit) / Win8 (32 and 64-bit) / Win8.1 (32 and 64-bit) / Windows 10 iOS 8.0 and above & Android 5.0 and above <sup>9</sup>
CPU	Core 2 Duo, 2.6GHz
RAM	1 GB
LAN	
Transmission Speed	10 Mbps
Supported Browser	IE 9 or Edge IE 9 mode and above

## Technical Details

### System, Setting, Management and Integration

- Server-Client Architecture:** Centralizes all video data transactions only via NVRsolo to local operators and remote clients. With this centralized structure, total camera loading remains at a stable level, thus ensuring good recording quality even when reaching maximum number of remote client access.
- Open Platform:** Support thousands of integrated camera models and video servers (encoders) from more than 130 brands of major network camera manufacturers.
- One-Click Setup:** NVRsolo can automatically search and add IP cameras on the same subnet (camera should support UPnP protocol or should be implemented its brand's search tool<sup>10</sup>). For those unsearchable cameras, users can manually insert it. The auto detection function will help the user to find the brand and model of the camera after specifying its IP address.
- Storage Optimization:** NVRsolo supports record H.264, H.265 format which helps increase the storage efficiency to nearly 600% higher than MJPEG and 150% higher than MPEG4.
- Friendly GUI Recording Scheduler:** Graphical user interface to set up recording schedules featuring unique day mode and week mode.

## Specification

- **Event & Action:** 4 camera events including motion detection (from server or from camera), connection lost and camera input, 1 input event from remote I/O box, 5 system events and daily system report by Email, 5 instant alarm responses supporting output, Email, E-map popup on web/remote, push notification on mobile and NUUO CMS alarm system.
- **RAID Level Selection:** Supports RAID 0 and 1 for maximum capacity or data protection at the HDD level.
- **Point of Sale (POS):** POS transactions received through NUUO POS box or Ethernet (TPC/IP client). POS text overlay on live view video and recordings. All recorded POS transactions are searchable on the web/remote playback system.
- **I/O Event Control:** With the integration of camera I/O and NUUO I/O Box, the system can start recording when input triggered, or trigger output as an event happens.
- **Various Authorities of Different Kinds of Users:** Web Viewer logins to NVRsolo via 4 different user groups: administrator, power user, user, and guest. Each user group has its own distinctive privilege in system configuration, live view camera and playback records.
- **Synchronization with NTP Server:** Synchronize time weekly/monthly to keep the accuracy of recording time.
- **Log System:** Hardware log keeps track of system operation, NVR log for camera status and user access, NVR event Log for special events, Export and Backup Log for exporting video or video backup action.
- **User Friendly:** Provide users with hints on local interface and HELP tab on the webpage for quick start tips and troubleshooting.
- **Auto Power-on:** The system shall be able to power-on automatically and keep recording after an incident power outage.

## Local Operation

- **Multiple Live View Channel:** Up to 16 channels.
- **Multiple Playback Channel:** Up to 16 channels.
- **Monitor Resolution:** HD 1280 × 720
- **Recording modes:** Emergency Recording, Always Recording, Scheduled Recording, Event Triggered Recording, DI Triggered Recording
- **Emergency Recording:** Click the Emergency Recording button on Live View to active all channels, always recording instantly.
- **Instant Playback:** Play the last few minutes of live videos instantly to investigate recent events.

## Specification

### Remote Client Operation

- **Multiple Live View Channel:** Up to 64 channels of remote connections per unit. Under full loading configuration, 16-channel connections are recommended.<sup>15</sup> Remote Live Viewer client supports 64 channels from multiple servers, and could display up to 128 channels with multiple monitors. In addition, Remote Live Viewer clients can access and display live video from any NUUO Mainconsole family servers simultaneously.
- **Multi-View:** NVRsolo can duplicate the same live view video onto multiple channels and digitally zoom in to see the details of different spots on cloned channels without losing the original live view video or using extra camera licenses.
- **E-Map:** Show device indicator on map for easy finding and tracking device location. Furthermore, a pop-up map to point out the device when an event occurred.
- **Multi-Stream:** Live display multiple camera streams with lower bit rate, while still recording at highest possible quality.
- **Mobile Clients:** Support mobile live viewer for iOS and Android.

### Playback, Search, Export and Secure Data

- **Post-Recording Processing (remote):** Intelligent search, digital PTZ and video enhancement tool.
- **Intelligent Search (remote):** Search recorded video for 5 events including edge motion, foreign object, missing object, loss focus and camera occlusion.
- **Evidence Export:** Snapshot and print video image in BMP/ JPEG, backup video in DAT, save video in ASF/AVI. The action exporting video or video backup will be recorded in NVRsolo's log system.
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- **Alarm Notification:** Notify users on camera and system events by sound, digital output, push notification, E-mail and NUUO CMS alert.
- **Auto Backup:** Automatically backup the recorded video of previous dates to a designated FTP server.
- **Manual Backup:** Manually backup or delete the recordings from any NVRsolo.
- **Watermark:** Protect original recordings from alteration with NUUO watermark verification tool.

## Specification

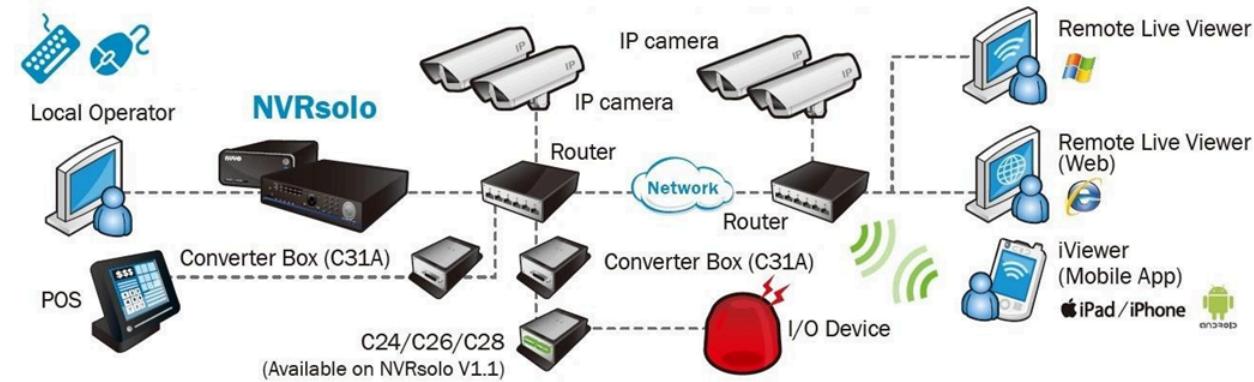
### Extended Service

- **NUUO Central Management System (CMS):** Ultimate central monitoring solution for grand scale projects and projects with multiple sites. Fully compatible with all NUUO Mainconsole family servers.
- **POS Box (from serial port to Ethernet):** NUUO Point of Sales system works on NVRsolo by overlaying the transaction text from cash register or ATM machines onto live video and recordings. All recorded POS transactions are searchable on the web/remote playback system.
- **Remote I/O Box:** I/O signals of NUUO I/O Box are converted to Ethernet through converter, which enables NVRsolo to do more sophisticated applications, such as starting recording when input triggered, triggering output as an event happened, and much more.
- **Panorama 360° PTZ:** Several modes are supported on web/remote live view and playback systems. Generic dewarping: Original mode, Rectilinear mode, Quad mode and Dual-view panorama mode. ImmerVision : Original mode, PTZ mode, Quad mode and Perimeter mode. Vivotek: Original mode, Rectilinear mode, Full-view panorama mode, and Dual-view panorama mode.
- **APC UPS:** Continues to feed the NVRsolo power in an event of power outage.
- **Joystick:** Joystick support on PTZ cameras and software enabled digital PTZ function are both available in web/remote live view. Preset points and patrol functions are also available on many camera models.

### Notes:

1. POS device configuration is only available on the web.
2. Please check the supported camera spec list on the website.
3. NVRsolo with dual record, RAID 1 total throughput with 170 Mbps, RAID 0 total throughput with 170 Mbps.
4. These functions are only available on NUUO, Zavio camera.
5. Please enable the 2nd stream function on the settings page first.
6. License Types: 1, 2, 4, 6, 8 and 10 channels.
7. HDD and volume more than 6 TB decrease the maximum throughput.
8. The actual usable format depends on the IP cameras.
9. Please enable the multi- stream first.
10. Support camera search tools of ACTi, Arecont, and Sony.

### System Diagram



Trusted Video Management