# MAXPRO® NVRs Overview

## **Network Video Recording Solution**

Honeywell's MAXPRO NVR is a flexible, scalable and open IP video surveillance system, including the MAXPRO NVR (XE, SE, PE) with 8 to 128 channels and MAXPRO NVR Hybrid (XE, SE, PE) with 16 to 64 channels as well as a software based solution that offers from 4 to 128 channels.

Supporting Honeywell's high definition (HD) cameras and broad integration with third party IP cameras and encoders, the MAXPRO NVR family is a powerful HD IP recording and security monitoring system for a variety of applications.

#### Open - Broad Device Integrations

- Integrates to full line of Honeywell IP cameras and encoders
- Support for ONVIF Profile S and Profile G, PSIA, real time streaming protocol (RTSP) and multicast standards and Honeywell ISOM secure configuration protocol (supported by specific equIP® camera models)
- Native device integrations supporting equIP® Series cameras' new features: 4K resolution, H.265 video compression codec, 3D PTZ control, 360° camera, multi-imager camera support, intelligence events and bounding boxes on objects detected by specific video analytics
- Single channel license (8, 16, 32, 48, 64 or 128 channels) for Encoders and multi-imager 360° cameras
- Keyboard control with UltraKey Plus and UltraKey Lite over ethernet.

#### Easy to Install and Use - Turnkey Solution

- Pre-installed with all required software and pre-licensed for 8, 16, 32, 48, 64 or 128 channels with no extra channel license costs
- NVR Software version includes all required applications and licenses for up to 128 channels
- Easy 3-Click\* wizard to live video for auto configuration
   quick and efficient IP system install
- Simple and logical configuration pages make setup a breeze even for the novice installer
- Supports simultaneous recording, live monitoring, search and







system management for up to 64 IP cameras including high definition formats with easy to use clients

- Easy to use desktop clients, web client and mobile apps
- Intelligence events from cameras can be viewed at the alarm panel, and trigger recording on MAXPRO NVRs for further investigation
- Learn One, Know them All Common featurerich user experience across the MAXPRO NVR Family and MAXPRO VMS / Viewer provides familiarity across a broad range of Honeywell products saving training costs
  - \*With default settings and in a local area network for specific models

#### Scalable Integrated Security Solution

- Multiple MAXPRO NVRs deployed for system expansion using a distributed architecture and integrated with the MAXPRO Viewer multi-site software or MAXPRO VMS enterprise video management system
- Integration with Honeywell WIN-PAK® and Pro-Watch® Access Control Systems providing an integrated Access Control, Intrusion and Video solution

#### MARKET OPPORTUNITIES

The continual growth of IP networks and the demand for high definition video have led to the need for convergence of building security systems and IT systems for many companies across the globe. This has resulted in a strong demand for an all-IP end-to-end enterprise security system deployment. The 2U rack mount small form factor, high performance, and reliability of the MAXPRO NVR PE unit makes it an ideal solution in installations where digital video is mission critical. The feature rich, easy to install and use MAXPRO NVR SE and XE provide the operational power to address the needs of a wide variety of applications including healthcare clinics, commercial, retail, property management and many others. The MAXPRO NVR Hybrid models provide the same benefits as above in a hybrid IP-analog package.



## MAXPRO® NVR Overview

### Network Video Recording Solution

#### SOFTWARE FEATURES

#### **Multi-Platform Support**

- Allows local or remote operations including live and recorded video monitoring, configuration and system management in a single desktop client interface.
- Support for Web Client on Windows PC (Internet Explorer, Chrome and Firefox browsers) and Mac (Safari browser). Supports live, playback/search of recorded video for up to 4K resolution on all cameras, taking snapshots and viewing presets for PTZ cameras.
- Support for mobile monitoring clients on iOS and Android Phones and Tablets with MAXPRO NVR apps: Login securely with https communication, Create favorite salvos (cameras up to 3x3 on tablets and 2x4 on phones per salvo), View Live and Recorded Video, Perform PTZ control through Presets and Monitor & Manage Alarms, Support Touch ID on iOS devices for fast and secure login.
   \*H.265 is not currently supported on Web client and mobile Apps.

#### **Enhanced Monitoring with Desktop Clients**

- Support for 16:9, 4:3 and Streched salvos.
- Multi-zoom views on HD video and support for Profile cameras to create virtual
  cameras by digitally zooming into the field of view. Example: Zoom in on a cash
  register in one view of the HD camera while at the same time monitoring the cash
  operator in the zoom out view of the HD camera.
- Intuitive video rendering engine that optimizes CPU utilization with variable frame rates
- Enhanced H.264 and H.265 HD video rendering on remote desktop clients with support for monitoring of up to 20 1080p HD cameras in real time (30 fps)/600 fps 1080p HD with no-time lapse using the GPU capabilities of in-built processor graphics with 6th generation and newer Intel® Core™ Processors for client systems. Up to 4 1080p HD @ 30 fps/120 fps on local client.
- Quick camera drag-and-drop connection for seamless live view experience
- Supports GPU acceleration for smooth 4K and 1080p 60 fps rendering.
- Video Surround feature simplifies the process of tracking subjects through a set of surrounding cameras.
- Support for 3D Positioning to allow the operator to pan, tilt and zoom into a specific region of interest efficiently by just clicking the live view window.
- IP PTZ control and digital zoom on fixed cameras. 360° viewing experience and 180° stitched view of equIP multi-imager cameras providing heightened situational awareness and increased video surveillance coverage.

#### Reduce Overheads with Flexible Streaming Options

- Multi-stream support Support multiple streams from cameras with varying resolutions and frame rates for live, recording, low bandwidth desktop clients, web clients and mobile apps.
- Support for auto switching of streams utilized by the client with multi-stream cameras, saving workstation hardware cost by displaying more cameras simultaneously with lower resolution streams instead of the primary HD streams.
- Support for On-Demand Live Streaming and Event Recording to save connectivity
  costs by stopping camera streaming to the NVR when no NVR clients request live
  viewing and no events occur.
- Network throttling options for optimized streaming and client rendering under low bandwidth without interrupting critical business data transfers in the same network.

#### Efficient Investigation with Smart Search and Playback

- Fast search by date/time, enhanced time line, time jump, bookmarks, SMART
  Motion search, calendar, preview, film strip view and events. Increase productivity
  with more efficient search/investigation: Get to the relevant video in few clicks
  without having to review hours of recordings.
- Smooth reverse playback for real-time investigation of incidents

- SMART Motion search Fast and efficient forensic search and investigation for objects/motion on recorded video using Honeywell SMART motion detection Analytics algorithms on the Client PC without impacting the NVR Server load.
- Capture and export clips and still images in simple .wmv, .asf, .mpvc and .bmp formats. Clips (.wmv) signed with digital signature for authentication.
- MAXPRO Video Container (.mpvc) format support only playable in MAXPRO
  desktop clients and standalone Clip Player, quicker exports of raw video and support
  for estimating clip size and split to multiple clips to ensure clip storage media
  matches, include clip player with exported clip for easier review of video evidence
  and efficient investigation.
- Clip Player Portable standard secure player for archived and exported clips (\*.mpvc), 360 camera de-warping and 2x2 Salvo support, Smooth playback support with up to 256x review speed, No software installation required to run on a Windows PC, option to include with clip export.

#### React Fast and Protect your Assets

- Flexible Motion detection (VMD) options with Server (SMART VMD) or Camera based motion events support. Reduced false alarms with object based motion detection analytics with SMART VMD.
- Annotation with bounding boxes on objects detected by IntrusionTrace and LoiterTrace from equIP cameras in both live view and playback for visual notification and verification
- Ability to investigate events and alarms by simultaneously viewing alarm videos at various stages. For every alarm, users can view the video captured during pre-alarm, on-alarm, and post-alarm, and also view live video from the camera which triggered the alarm
- Email notification on camera, system and operator events.

#### **Enhanced Recording Engine and Edge Storage**

- Separate event video, continuous recording and archived video retention times.
- Video Archival Archive large amounts of recorded Video data for long term storage either scheduled or manually, review through NVR desktop client or standalone Clip Player.
- Support for scheduled backfilling of the recordings from the edge storage of equIP 1080p IR PTZ, 1080p WDR and 4 MP WDR cameras to the NVR using ONVIF Profile G for robust recording against temporary network failure.
- 1+1/N+M recorder failover and failback automatically or manually with MAXPRO VMS.
- Robust indexing system and data integrity service for enhanced recording reliability.

#### Efficient Site Management with Intuitive User Interface

- Easy to use and enhanced camera configuration and discovery workflow Reduce over configuration using NVR System Load and Storage Calculator and ensure the system is configured to meet requirements for retention and reliability.
- Status Monitor Save operational costs with an integrated Dashboard to easily monitor the health and recording status of all the MAXPRO NVRs from any workstation or PC in the network.
- Role-based operator privileges supporting Windows and local users.
- Easy navigation with UltraKey Plus and UltraKey Lite keyboard control over Ethernet.
- Event history and operator log reporting with export to PDF, Crystal Reports, Excel or Word
- Local and multi-language support.
- Advanced security features with encryption support for communication between desktop client to NVR and secure https login for Web Client and Mobile apps.
- Support for secured communication between MAXPRO NVR and VMS, server and client.

# MAXPRO® NVR Overview

Network Video Recording Solution

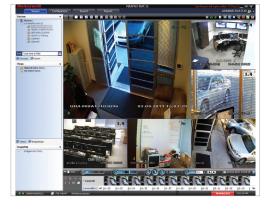
## **CLIENT WORKSTATION SPECIFICATIONS**

MAXPRO NVR Desktop Client Only Workstation—Specifications			
	With GPU Rendering Capability*		Without GPU Rendering Capability
	Minimum	Recommended	Recommended
PERFORMANCE CONFIGURATION	Up to 13 1080p HD Cameras, 1 Monitor (390fps @1080p HD)	Up to 20 1080p HD cameras, 2 Monitors (600fps @1080p HD)	Up to 9 HD Cameras (1 selected panel only, Throttle Frame Rate setting enabled)
PROCESSOR	Intel® Core™ i5-4460 or equivalent 4th generation Intel® Core™ Processors for client systems	Intel® Core™ i7-7700K or equivalent 7th generation Intel® Core™ Processors or above for client systems	Intel® Core™ 2 Duo Processor E6750 2.66 GHz or Quad Core Intel® Xeon® E5405 2.0 GHz
GRAPHICS ADAPTER	In-built Processor Graphics (GPU):Intel® HD Graphics 530, 4600, or equivalent		512 MB or higher Display Card (Optional)
SYSTEM MEMORY (RAM)	16 GB		4 GB
OS & APPLICATION – HARD DISK DRIVE OR PARTITION	Minimum 100 GB Partition drive or separate hard drive		
NETWORK INTERFACE	Minimum – 1 Gigabit network interface card		
OPERATING SYSTEM	Microsoft® Windows 10 (64bit)		Microsoft® Windows 10 (64bit)
OPTICAL DRIVE	DVD-RW		
MONITOR RESOLUTION			
KEYBOARD/MOUSE	102-key keyboard and mouse		

NOTE: The performance specifications above are recommended for systems with fixed or PTZ cameras only. Oncam Grandeye 360 cameras are not supported with GPU rendering and use CPU rendering by default. On Windows 7 workstations, GPU rendering is only supported through the motherboard monitor outputs and any additional graphics cards should be disabled in BIOS. On Windows 8.1, Windows 10 workstations with Intel GPU and any additional graphics cards, at least one monitor should be connected to the motherboard monitor output.

 $<sup>^{\</sup>star}$  - H.265 cameras are supported with GPU rendering only with v4.5 or newer version.





Quad



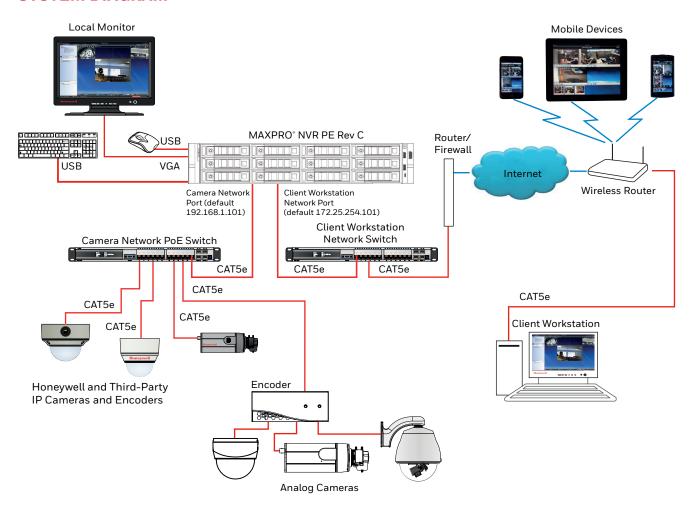
SMART Motion Search



# **MAXPRO® NVR Overview**

Network Video Recording Solution

#### **SYSTEM DIAGRAM**



#### For more information

www.security.honeywell.com/

#### **Honeywell Commercial Security**

715 Peachtree St. NE Atlanta, GA 30308 1.800.323.4576 www.honeywell.com ONVIF and the ONVIF logo are trademarks of ONVIF Inc. Honeywell reserves the right, without notification, to make changes in product design or specifications.

