

MAXPRO VMS AND NVR MASK DETECTION AND SOCIAL DISTANCING VIDEO ANALYTICS

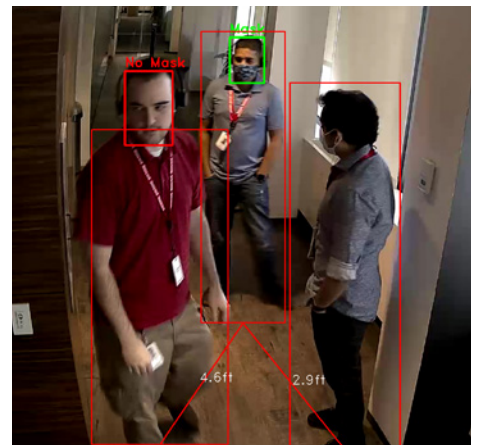
The Honeywell MAXPRO VMS/NVR solutions conducts real-time monitoring of people within a building to determine compliance to a building's customized guidelines on wearing mask and social distancing adherence with deep learning AI capabilities.

The advanced analytics provide a very high accuracy, when used in the recommended operating conditions*, and can isolate and report any instances of non-compliance to buildings and facilities managers. Currently, most building operators do not have effective ways of monitoring compliance with social distancing and mask guidelines. The easy-to-use interface provides live monitoring and counts the number of people in the field of view of the camera and detects masks or PPE. The solutions report on activity throughout the day so owners and managers can identify usage or issue trends and even manage access control if needed based on non-compliance events. This can be used with your existing Honeywell camera infrastructure and VMS/NVR to enable these analytics which can be applied to various verticals. Whether it is to monitor mask and social distancing compliance in an office building or at airport terminals/gates to monitoring adherence in a retail store.

Both these analytics are now available on the MAXPRO VMS R600 and NVR R6.0 platforms with a service pack. It can be installed on an existing NVR (to support up to 2 channels for analytics) or as a remote analytics server (to support up to 4 channels for analytics).

MASK DETECTION

Mask Compliance Detection feature tracks and detects the Masks on the people's face in a given scene. This feature tracks the people with or without masks in a real time scenario and generates an alarm if there is a violation in the scene. This feature helps in tracking the people those who are violating the compliance of wearing a mask in public places. This feature requires a dedicated license to configure and use.

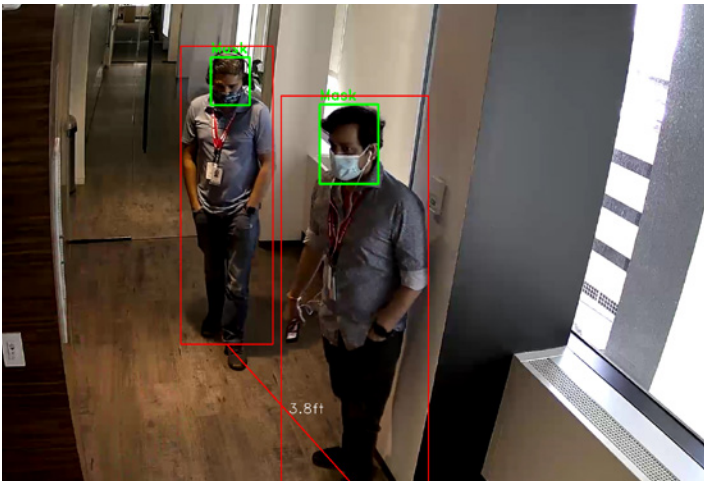


SOCIAL DISTANCING VIOLATION DETECTION

Social Distancing Violation detection feature traces and tracks the distance between two or more people with inbuilt analytics and algorithms. This feature tracks the two or more people in a real time scenario and generates an alarm if there is a violation in the scene. This feature helps in your premises to track & ensure social distancing is followed which in-turn a critical step for people to avoid being infected. This feature requires a dedicated license to configure and use.

Following are the list of alarms that are generated in NVR for Mask and Social Distancing detection features:

- Person Detected with Mask
- Person Detected without Mask
- Social Distancing Violation



*Refer Operating conditions guide for Mask Detection and Social Distancing

FEATURES AND BENEFITS



Drive compliance based on govt. guidelines of opening up business by creating compliance reports of alerts



Real-time monitoring to ensure staff and other patients are adequately informed and protected and if people within a zone are following social distancing guidelines



Use of **video analytics** with high accuracy (> 90% with recommended operating conditions) to isolate and report non-compliance



Use Honeywell's **open-ecosystem** to drive access control using non-compliant events



Receive alerts on number of people not-adhering to SD guidelines along with ability to toggle on/off



Easy to use interface with live monitoring and people count on the same interface

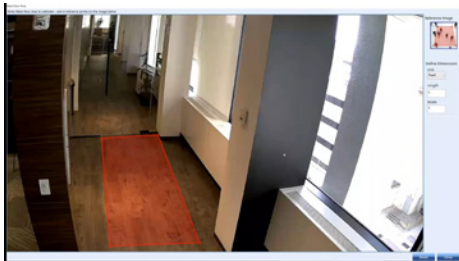
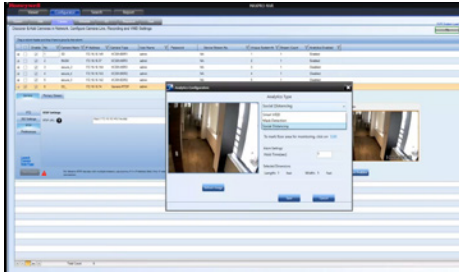
SUPPORT FOR REMOTE ANALYTICS SERVER

MAXPRO R630 released support for Remote analytics Server configuration for Mask and Social Distancing on i8700 Machines. This configuration is required for existing systems which do not have enough processing capacity to run analytics. Refer to the MAXPRO NVR 6.3 Installation and Configuration Guide on how to configure.

SETUP & CONFIGURATION

Leverage existing NVR to do the configuration for analytics

- **Simple and quick setup** using exiting NVR configuration workflow for cameras
- **Easy to use steps** to perform calibration of existing field of view of camera for higher accuracy
- **Setup events and alarms** or enable/disable the analytics from existing configuration workflow of VMS and NVR



EVENTS & REPORTING

Enable your VMS and NVR to receive events and generate reports for analysing hot zones with non-compliance

- **Mask Detection alarm:** Raises events for both person wearing a mask and not wearing a mask.
- **Social Distancing Violation Alarm:** This is the first instance where violations are found in camera view.
- **Concept of Hold Time** to allow operators to configure the specific time for which the violation is stable (alarm raised post that)

PERFORMANCE RECOMMENDATIONS

Remote Analytic Box (1080p reference)

Number of cameras with Mask Analytics supported : 4

or

Number of cameras with Social Distancing Analytics supported : 4

Local NVR :

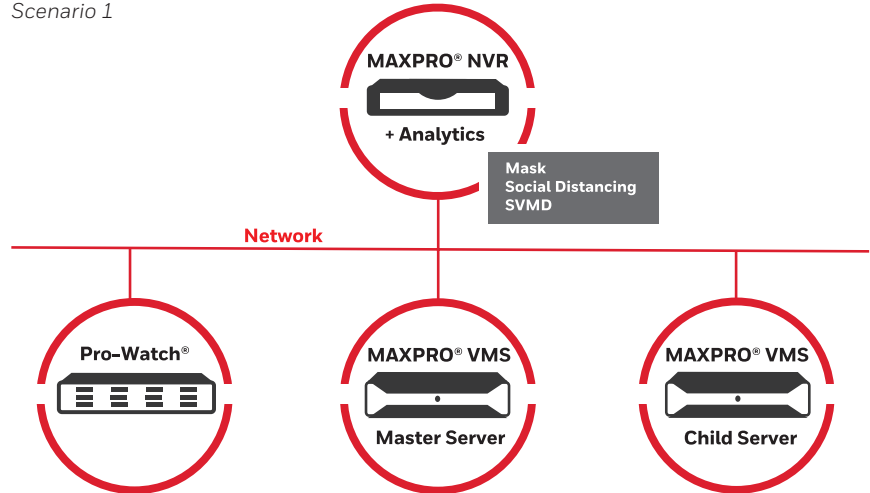
Number of cameras with Mask Analytics supported : XE : 1 ; SE & PE : 2

Number of cameras with Social Distancing Analytic supported : 1

SYSTEM DIAGRAM

NVR+ Analytics deployment

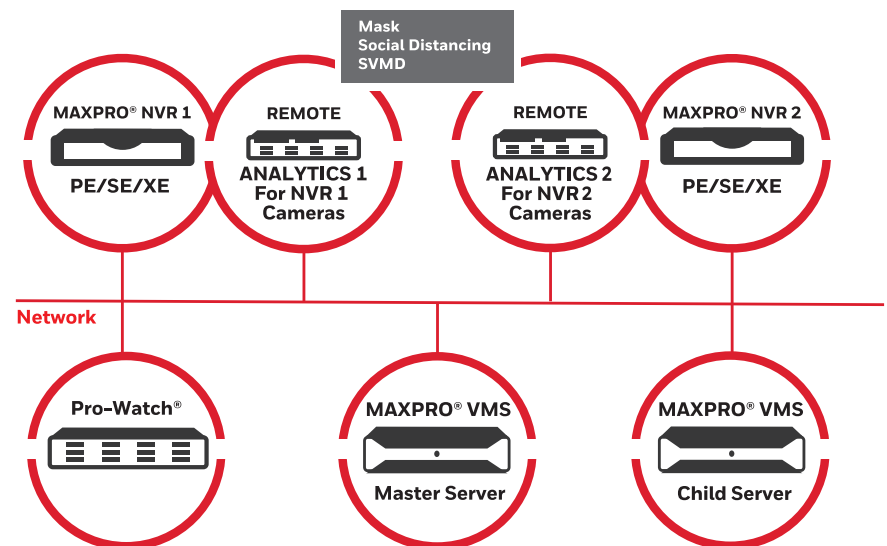
Deployment Scenario 1



Note: We can run analytic on Local NVR itself. Refer to Compatibility sheet for recommendation.

Analytics deployment

Deployment Scenario 2



Note: Currently one NVR to one Remote Analytics Server is Supported

COMPATIBLE NVR HARDWARE

SUPPORTED SYSTEM SPECIFICATION				
NVR Variant	REV	Processor	Mask	Social Distancing
Maxpro Analytic Box*	NA	Intel® Core™ i7 8700	Supported	Supported
Profession Edition	Rev C	Intel® Xeon® Silver 4110	Supported	Supported
Standard Edition	Rev C	Intel® Core™ i7-7700	Supported	Supported
Xpress Edition	Rev C	Intel® Core™ i5-7500	Supported	Supported
Profession Edition	Rev B	Intel® Core™ i7-4770	Supported	Supported
Profession Edition	Rev B	Intel® Core™ i7-4790	Supported	Supported
Standard Edition	Rev B	Intel® Core™ i7-4790	Supported	Supported
Xpress Edition	Rev B	Intel® Core™ i5-4440	Supported	Supported
Operating System	WIN 10 64 OS			
VM	Xeon VM with Bronze, Silver and Gold Processor			

LICENSING AND ORDERING

- Upgrade from MAXPRO VMS R560/NVR R5.6 to MAXPRO VMS R600/NVR R6.0 → Apply MAXPRO VMS R630 and NVR R6.3 service pack on the VMS and/or NVR respectively
- To avail Social Distancing Violation Detection and Mask Compliance Detection features, user needs to buy dedicated license.
- Apply NVR license (HNMHBAPNVR02) which enables 2 camera channels for configuration of Mask detection and social distancing analytics.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
HNMHBAPNVR02	Mask Detection and Social Distancing Analytics – 2 Channels

*: SPECIFICATIONS:

Operating System: Windows 10 IoT Enterprise
 Processor: Intel® Core™ i7 8700
 Memory: 16 GB
 Hard Drive: 250 GB SSD
 Optical Drive: 24X SATA DVD-RW
 Video Card: Nvidia Quadro P620

KEY NOTES

- Camera should meet operating condition to avoid false positive / Negative alarms
- High Confidence scope will help to less false positive / negative alarms
- It is not recommended to enable Mask detection, Social distancing and SVMD analytics for the same camera.
- Video will be rendered at 5 FPS when bounding boxes enabled for Mask and Social Distancing
- Video will Render in CPU mode when bounding boxes enabled for Mask and Social Distancing
- Currently one NVR-one remote analytics server is supported
- Bounding box is supported with 64 bit rendering only

For more information

www.security.honeywell.com

Honeywell Commercial Security

715 Peachtree St. NE
 Atlanta, GA 30308
 1.800.323.4576
www.honeywell.com

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