

XProtect[®] LPR 2016 R3

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Feature Overview

Key features

Capture

- Compatible with all cameras supported by Milestone
- Multi-lane detection with a single camera

Recognition

- Scalable server based recognition engine
- Supports more than 100 countries and states with dedicated optimized recognition algorithms (country modules)
- Generic country modules for selective regions: Australia, EU-zone, United States, and generic worldwide module

Match List Management

- Unlimited number of match lists for correlation of recognized license plates (examples: employees, guests, stolen vehicles, priority customers)
- Supports custom data as complement to license plate information, such as owner details, driver name, type of vehicle

Monitor

- Track vehicles by viewing LPR events and related video
- Enable modular camera views where license plate recognition events can be displayed together with corresponding video
- Raise alarms based on match lists matching using the alarm management function in the XProtect Smart Client

Action

- Saves time by automating manual actions
- Events can be generated on actual recognition or match with a specific match list
- LPR events can for example control cameras, external peripherals such as parking barriers and gates or generate alarms

Investigate and Report

- The dedicated LPR tab in XProtect Smart Client provides extensive search capability to list recognized license plates events, related video and possible match list information
- Data drilling functions enables swift analysis of LPR events related to specific camera, vehicle identity, country or match list (for example stolen vehicles)
- Generate LPR reports with license plate information, video thumbnails of associated video, and a license plate close-up image

Integration

- XProtect LPR can propagate events to third party applications integrated via the MIP SDK with a wide range of application areas:

- Look-up of vehicles in central registers
- Feeding tracking-, payment- and statistical applications with license plate information

Integration options

- XProtect LPR can propagate events to third party applications integrated via the MIP SDK with a wide range of application areas:
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Detailed Product Features

LPR Monitoring View Item

- A dedicated LPR monitor view item presents a combined camera view and an event list displaying recognized license plate information. The LPR monitor view item can be used in any XProtect Smart Client view
- The LPR event list provides real-time license plate information for the identified vehicle, including country (if dedicated country modules is used in the system), match with possible match lists, and complementary vehicle information defined as custom data in the match list
- LPR monitor view items can be used in independent playback in line with normal camera view items. In independent playback the event list with license plate information can be reviewed with the possibility to directly jump to a specific vehicle and playback recorded video from the associated camera
- A shortcut makes it possible select any vehicle identified in the LPR Monitor and get a listing of the specific license plate recognition events in the LPR tab

Match List

- Central and instant management of match lists across multiple LPR servers
- Supports unlimited number of match lists for correlation of recognized license plates (examples: employees, guests, stolen vehicles, priority customers)
- Supports up to five custom data fields per match list as complement to license plate information, which can be used for complementary information such as owner details, driver name, type of vehicle
- Match lists may be edited in the VMS or NVR management interface, or from the LPR tab in the XProtect Smart Client

- Import and export possibilities makes it easy to work with centrally managed external or off-line lists

LPR Tab

- A dedicated LPR tab provides overview of recognized license plates, and provides a link between the identified vehicle and the recorded video
- Extensive filtering functions on specific camera, vehicle identity, country or match list and time, make investigations easy with wide possibilities for analysis and data drilling
- Immediate access to related video, makes it possible to instantly review recorded video related to any identified vehicle
- Detailed and more extensive investigations of specific events can be done by launching a full playback window with time navigation for the given event. This also makes it possible to include additional cameras in the investigation and produce evidence material easily for a given event
- Built in reporting support makes it easy document recognized vehicles based on the data analysis in the LPR event list. The report is generated as a pdf report, and includes license plate and possible match list details, a video thumbnail and a close-up of the recognized license plate
- Smart Client users can manage LPR match lists from the LPR tab

Integration with XProtect Smart Client functions

- XProtect LPR is seamlessly integrated with the XProtect Smart Client, where the availability of the XProtect LPR application tab can be controlled centrally for individual users
- Events from the recognition of an individual license plate, or a match with a match list, can be used can be used to generate alarms in the alarm manager
- In the XProtect Advanced VMS products the events are available for the rule engine and can hence trigger any action, including control of external peripherals

Recognition

- Scalable server based recognition engine, where unlimited number of LPR servers can be used

- Supports more than 100 countries and states with dedicated optimized recognition algorithms (country modules)
- Generic country modules for selective regions: Australia, EU-zone, United States, and generic worldwide module
- Any combination of country modules may be activated in a system, given that the licensed number of concurrent active country modules is not exceeded
- For complete list of supported countries and license plate styles, please refer to Milestone website: <http://www.milestonesys.com/our-products/xprotect-addons/xprotect-lpr/xprotect-lpr-supported-license-plates/>

Configuration and administration

- Configuration and administration of XProtect LPR is made as an integral part of the management interface of the XProtect VMS system or Milestone Husky NVR product it is used together with
- Intuitive configuration wizard supports the system administrator through all configuration steps and provides recommendations to configuration settings.
- Snapshot driven configuration and optimization of the recognition algorithms for high recognition accuracy and optimal system performance
- Automatic validation of configuration settings against the snapshots series, where the confidence level for each license plate reading is presented and the accuracy can be confirmed by the administrator
- Possibility to import already captured snapshot series
- Access to advanced configuration settings, with the ability to verify any change against the snapshot

System Components

- **LPR Server**
Runs the license plate recognition engine
- **LPR Plugin for Event Server**
Generates of recognition events based on license plate match lists
- **LPR Plugin for Management Client/Application**
Configuration of the XProtect LPR system
- **LPR Plugin for XProtect Smart Client**
Operational presentation layer

Miscellaneous

XProtect LPR 2016 R3 system requirements

The minimum system requirements for XProtect LPR servers running the license plate recognition logic are available on the Milestone Systems website: <http://www.milestonesys.com/SystemRequirements>.

As the system requirements for the license plate recognition logic is processor intensive, and varies significantly dependent on the environmental conditions, camera settings and other parameters, Milestone recommends anyone installing XProtect LPR to study the guidelines provided in the Administrator's Guide firstly.

Supported languages

The operator interface of XProtect LPR is localized to the same languages as XProtect Smart Client. The management interface is localized to the same languages as the Milestone video management software product that XProtect LPR is being used with. For details on supported languages, please refer to: <http://www.milestonesys.com/SupportedLanguages>.

Supported Milestone products

XProtect LPR 2016 R3 is an XProtect add-on product compatible with all Milestone video management software and Milestone Husky NVR products, except XProtect® Essential and Milestone Husky™ M10.

To benefit from the full functionality of XProtect LPR 2016 R3, the latest service release of the following products should be used:

- XProtect® Corporate 2016 R3
- XProtect® Expert 2016 R3
- XProtect® Professional 2016 R3
- XProtect® Express 2016 R3

XProtect LPR is compatible with all Milestone Husky NVR units except Husky M10. To benefit from the full functionality of XProtect LPR 2016 R3, the XProtect VMS product used on the Husky NVR unit shall be updated to the latest 2016 R3 version.

Licensing Structure

XProtect LPR 2016 R3 is licensed through three different licenses, and follows the same principal licensing scheme as earlier versions of the product:

- XProtect LPR Base License
The XProtect LPR Base License unlocks the full license plate recognition functionality for a single XProtect VMS system or Milestone Husky NVR, allowing an unlimited number of XProtect Smart Clients and XProtect LPR servers to be installed on the given VMS or NVR system.
- XProtect LPR Camera License
One XProtect LPR Camera License is needed per camera stream on which the license plate recognition functionality is to be applied. The XProtect LPR Camera License is needed in addition to the device license in the XProtect VMS or Milestone Husky NVR system.
- XProtect LPR Country Module License
The XProtect LPR Country Module License controls how many different recognition modules that can be active in the system simultaneously. Any combination of the more than 100 generic and country optimized modules can be used. The XProtect LPR Base License includes five country modules, and additional country modules can be purchased individually via the XProtect LPR Country Module License.