

Intelligent Analytics Licensing with FW 9.40 (CPP14) / FW 8.47 (CPP13) & CM 7.74

Whitepaper

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1 Introduction

On the latest Bosch cameras, several video and audio analytics features are available via licenses. This Whitepaper is dedicated to describing the license process in full. It starts with ordering the licenses, claiming the resulting software order IDs in Remote Portal, and then using Configuration Manager to add multiple licenses to multiple cameras at once. The license process also works if the cameras are in their own, protected network with no access to Remote Portal, as long as some (manual) data transfer into this network is possible.

1.1 Supported Cameras

For information on supported cameras, refer to the Bosch Video Product Selector: www.videoselector.boschsecurity.com

1.2 License Types

All licenses are permanent licenses that are activated once and remain valid afterwards. Each license can only be activated once on a single camera. Each license is independent.

1.3 Requirements

Cameras need to have at least FW 8.47 (CPP13) respective 9.40(CPP14). Configuration Manager needs to be at least version 7.74.

2 IVA Pro Licenses

2.1 IVA Pro Buildings

Based on deep learning, IVA Pro Buildings is ideal for intrusion detection and operational efficiency in and around buildings. Without the need for any calibration, it can reliably detect, count, and classify persons and vehicles in crowded scenes. It can alert operators immediately as queues begin to form. IVA Pro Buildings also covers pre-determined video analytics alarm rules such as line crossing, loitering, and object in a designated field, allowing for greater flexibility in deployment.

IVA Pro Buildings is always included by default in any camera supporting IVA Pro.

2.2 IVA Pro Perimeter

Intelligent Video Analytics (IVA) Pro Perimeter is well-suited for reliable long-range intrusion detection, alongside perimeters of buildings, energy facilities, and airports even in extreme weather. Based on advanced background subtraction, it can detect crawling, rolling, and other suspicious movements inside, outside, and under various environmental and lighting conditions while minimizing false triggers.

IVA Pro Perimeter is included by default on any camera supporting IVA Pro with range of 7000 and above, and an additional, licensed option on FLEXIDOME 5100i (IR). CTN: MVC-IVA-PER

2.3 IVA Pro Traffic

Founded on deep learning, Intelligent Video Analytics (IVA) Pro Traffic is designed for ITS applications such as counting and classification, as well as Automatic Incident Detection. It supports strategies that enhance mobility, safety, and the efficient use of roadways and solutions for intersection monitoring. It achieves accuracy levels beyond 95% for real-time event detection and aggregation of comprehensive data necessary for highway and urban infrastructure planning. Data collected provides actionable insights for improving the efficient use of roadways and the safety of persons and vehicles at intersections, on highways, and in tunnels. Robust algorithms based on deep neural networks are trained to ignore potential disturbances caused by vehicle headlights or shadows, extreme weather, sun reflections, and shaking cameras.

IVA Pro Traffic is an additional, licensed option on any camera supporting IVA Pro. CTN: MVC-IVA-TRA

2.4 IVA Pro Intelligent Tracking

Intelligent Video Analytics (IVA) Pro Intelligent Tracking, based on AI and deep learning, is designed to give our 7100i series PTZ cameras the ability to add intelligence when the camera is in motion (while panning, tilting, or zooming). IVA Pro Intelligent Tracking adds AI to the Intelligent Tracking. It also brings AI, with the ability to separate close objects and classify them as person and vehicle, to a globally available video analytics outside of prepositions, which can be used even when the PTZ camera is moving.

IVA Pro Intelligent Tracking is an additional, licensed option available on MICs and AUTODOMEs cameras supporting IVA Pro. CTN: MVC-IVA-IT

2.5 IVA Pro Visual Gun Detection

Intelligent Video Analytics (IVA) Pro Visual Gun Detection is based on deep learning and is designed for automatic detection and classification of people and brandished firearms. It supports strategies to improve security, for example, of schools or government buildings.

IVA Pro Visual Gun Detection is an additional, licensed option available on FLEXIDOME 8100i, FLEXIDOME 5100i, DINION 7100i and DINION 5100i. CTN: MVC-IVA-VGD

2.6 IVA Pro Appearance

Need to find a specific person in your surveillance system? IVA Pro Appearance, a software solution based on AI capabilities of our cameras, analyses the appearance of people for later forensic search in video management systems like Bosch BVMS. Instead of manually searching through a multitude of cameras and times, IVA Pro Appearance allows to automatically highlight persons based on the gender, color and length of clothes and hair, as well as wearing hats, glasses, bags or backpacks.

IVA Pro Appearance is available on FLEXIDOME 8100i, FLEXIDOME 5100i, DINION 7100i and DINION 5100i. CTN: MVC-IVA-APC

2.7 IVA Pro PPE

IVA Pro PPE is a new application-specific video analytics software designed to detect the proper use of Personal Protective Equipment (PPE) and promptly alert when missing. The new software enhances safety compliance and operational efficiency, potentially reducing accident risk and promoting health and safety.

IVA Pro PPE is available on FLEXIDOME 8100i, FLEXIDOME 5100i, DINION 7100i and DINION 5100i. CTN: MVC-IVA-PPE

2.8 IVA Pro License Plate

Based on advanced deep learning techniques, IVA Pro License Plate excels in real-time identification of license plates in parking applications or city environments. It supports strategies that improve traffic flow, reduce congestion, and enhance safety at intersections, toll booths, and parking facilities.

IVA Pro License Plate is available on DINION 7100i IR and DINION 5100i IR. CTN: MVC-IVA-LPR

2.9 IVA Pro Vehicle Make Model

Based on advanced deep learning techniques, IVA Pro Vehicle Make Model excels in real-time identification of vehicles in parking applications or city environments. It enables more refined forensic search for specific vehicles in places where license plate recognition is no option.

IVA Pro Vehicle Make Model is available on DINION 7100i IR and DINION 5100i IR. CTN: MVC-IVA-MMR

2.10 IVA Pro License Plate + Make Model

IVA Pro License Plate + Make Model combines the licenses IVA Pro License Plate and IVA Pro Vehicle Make Model.

IVA Pro License Plate + Make Model is available on DINION 7100i IR and DINION 5100i IR. CTN: MVC-IVA-LPRX

2.11 IVA Pro Dangerous Good Signs

Based on advanced deep learning techniques, IVA Pro Dangerous Good Signs is designed to deliver exceptional performance in detecting and reading ADR signs on trucks. IVA Pro Dangerous Good Signs is specifically tailored for applications in urban traffic management and logistics, enhancing safety and operational efficiency. IVA Pro Dangerous Good Signs supports strategies that improve hazardous material transport monitoring, emergency response, and regulatory compliance.

IVA Pro Dangerous Good Signs is available on DINION 7100i IR and DINION 5100i IR. CTN: MVC-IVA-DGS

3 Intelligent Audio Analytics Licenses

3.1 Intelligent Audio Analytics Gunshot Detector

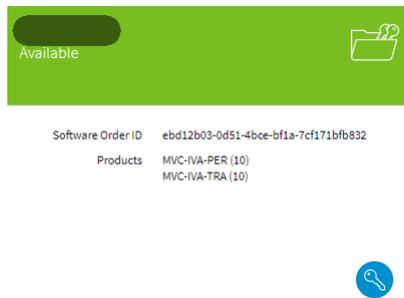
The Intelligent Audio Analytics (IAA) Gunshot Detector license offers a discharge detection of various types of firearms, such as hand guns and long guns in both indoor and outdoor applications. It triggers an alarm functionality to alert the operator when the sound event matches an audio signature of a sound detector. By capturing audio without needing to record it, Intelligent Audio Analytics generates metadata that is seamlessly integrated in the Intelligent Video Analytics metadata stream. This metadata is sent via the network and can be recorded with the video stream.

This detector also includes the T3 / T4 Alarm detector to detect alarm sound of a smoke (T3) and carbon monoxide (T4) detector.

IAA Gunshot Detector is available as a licensed option on FLEXIDOME panoramic 5100i. CTN: MVC-IAA-GUN

4 License Process Overview

When you order software, you will get a Software Order ID back. A Software Order ID can contain multiple different license types in different quantities. In the example here, the Software Order ID contains 10 IVA Pro Perimeter licenses and 10 IVA Pro Traffic licenses:



The software license activation process for camera features like IVA Pro consists of the following steps:

1. Order software products
2. Receive a Software Order ID
3. Claim the Software Order ID in Remote Portal
4. Get the system info file as hardware identification of the respective cameras
5. Assign licenses to cameras
6. Upload the licenses onto the cameras

All licenses are administered in the Remote Portal. You will need to register there to claim the Software Order IDs, see chapter 5.

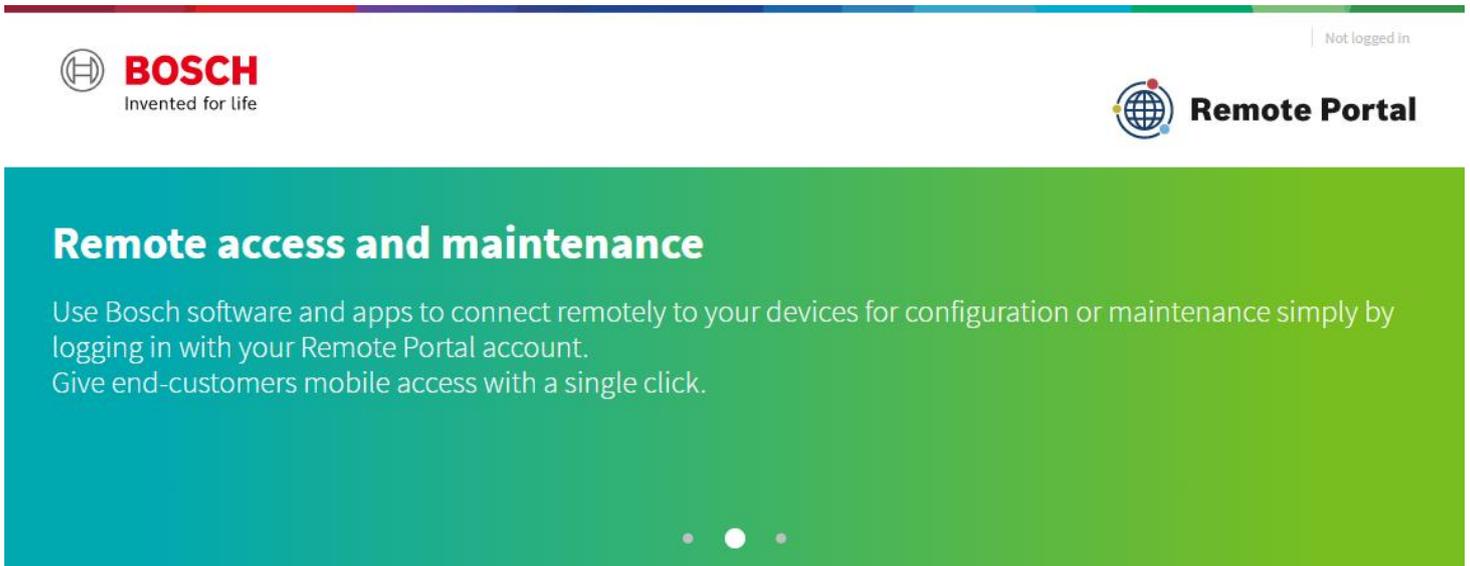
To support activating licenses on multiple cameras at once, the Configuration Manager has been chosen as the main tool for camera license handling. Configuration Manager will communicate between cameras and Remote Portal to automate the license activation steps 4-6 as much as possible, see chapter 6.

To accommodate for cameras that reside in dedicated networks with no direct access to Remote Portal, the splitting of tasks and changing between networks is supported. Configuration Manager needs to be connected to the cameras for step 4 & 6, and to the Remote Portal for step 5.

While the Configuration Manager automates the transmission of system info file and activation file, this can also be done manually, see chapter 7.

5 Remote Portal: Claiming Software Order IDs

The Remote Portal is located at <https://remote.boschsecurity.com/>. You need to register an account in Remote Portal to access any licenses. Afterwards, login to the Remote Portal.



Welcome to the Remote Portal

Bosch Remote Portal connects you to your Bosch Security devices from anywhere and lets you perform remote administration and maintenance anytime.

Registration is free.

[Sign Up](#)

Login

[Forgot your password?](#)

Keep me logged in

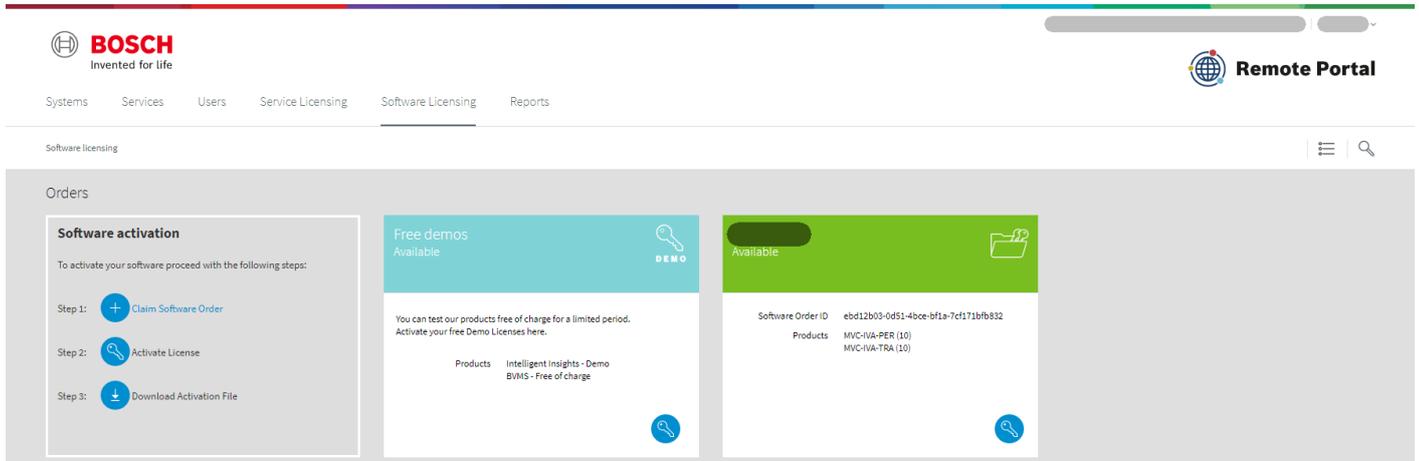
[Login](#)

[Login with Bosch ID](#)

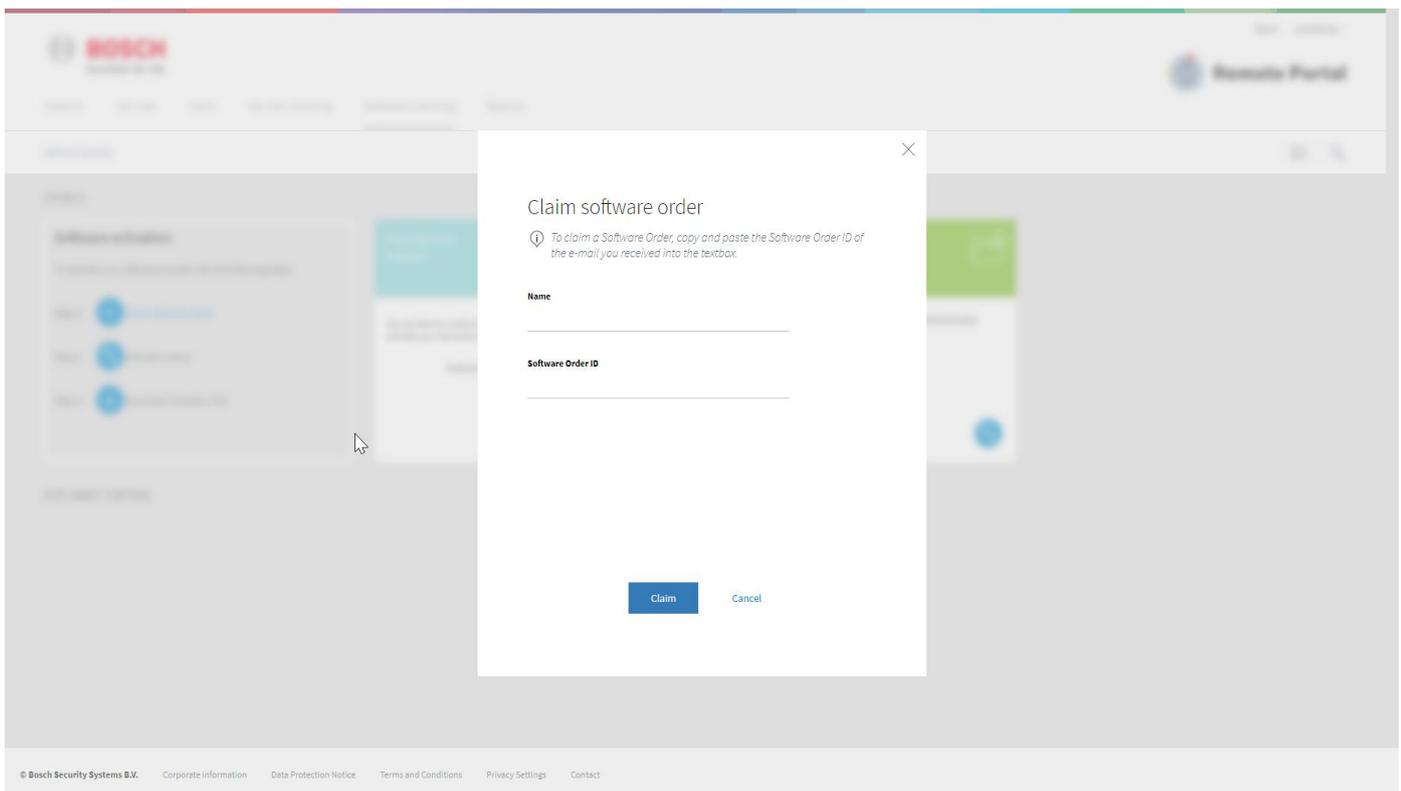
You need to have the Administrator role in Remote Portal in order to manage licenses, both for claiming the software order ID in the Remote Portal (see chapter 5.1), and to activate the licenses directly via Remote Portal (see chapter 7)

5.1 Claiming software order ID

1. Go to **Software Licensing**.
An overview of your order appears



2. Click on **Claim Software Order** on the left of that page.
A popup appears.
3. Enter a name and the Software Order ID you received from your software order.
4. Press **Claim**.



Your software order appears on the Software License overview page and is ready for deployment to your cameras.

6 Configuration Manager: Assigning Licenses to Cameras

6.1 Connecting Configuration Manager to Remote Portal

1. Click the Remote Portal icon in the left toolbar: 
2. Enter your Remote Portal credentials in the popup and click **OK**.
Configuration Manager will automatically connect to Remote Portal whenever possible.

Remote Portal
✕

User
▼

Password
👁

Remember

OK

Cancel

6.2 Selecting the cameras from the device overview list

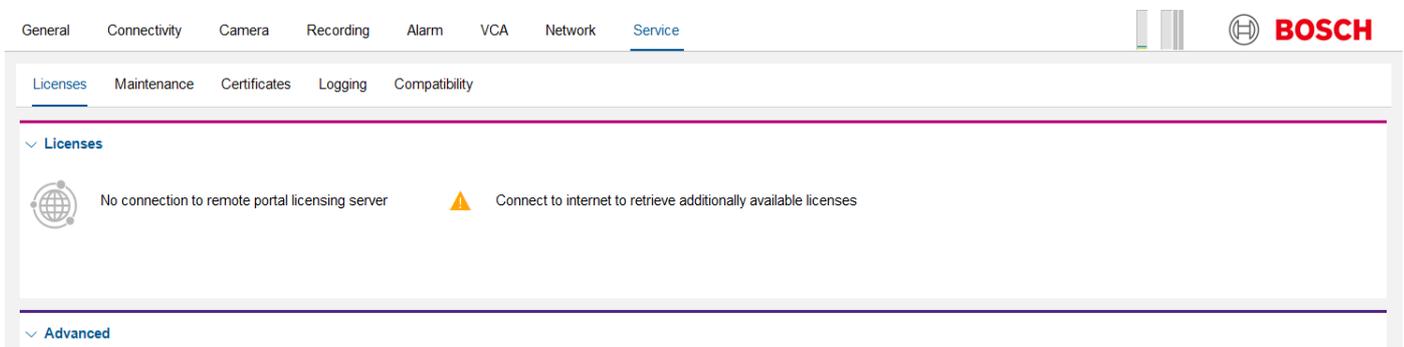
Multi-selection is available and recommended to use to speed up the process.

Filter
🔍
📎

Name	URL
▶️ 172.26.9.115	172.26.9....
▶️ 172.26.9.125	172.26.9....

6.3 Assigning the licenses to cameras

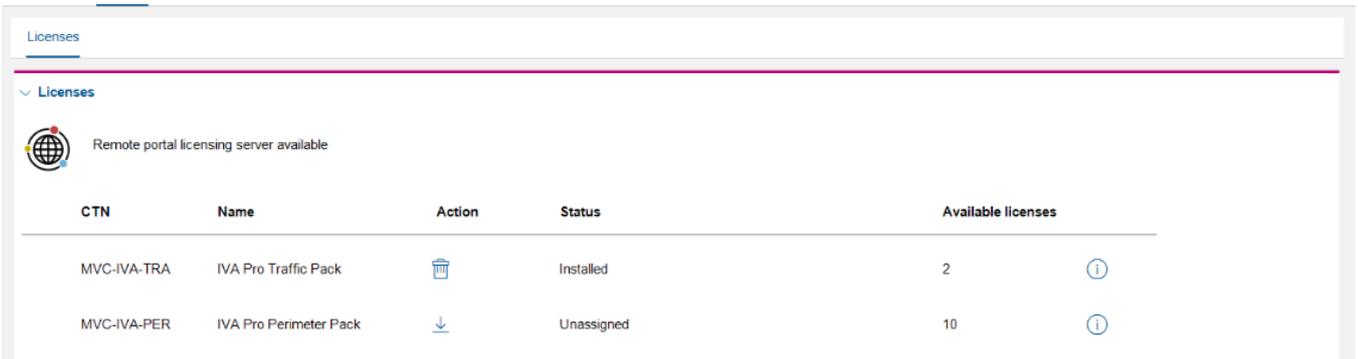
1. To access the licenses page, go to **Services > Licenses**.
The licenses page shows whether connection to Remote Portal is available. Every time you enter this page, the Configuration Manager checks and downloads any missing system info files of the selected cameras, which are used for camera hardware identification.



Connection to Remote Portal is needed at least once for the Configuration Manager to learn what licenses are available. After the first connection to Remote Portal, the available licenses show even if no connection to Remote

Portal is available.

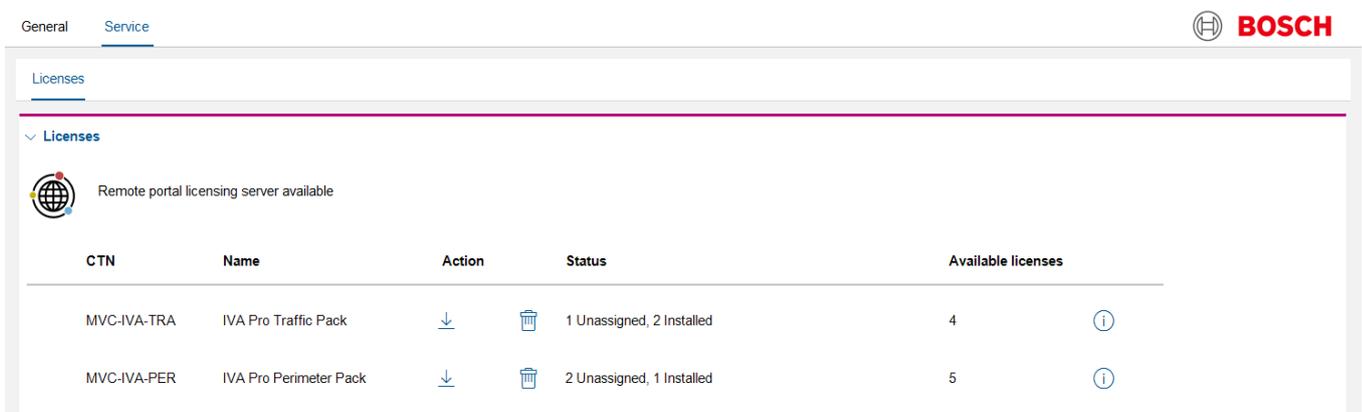
Example: single camera, with IVA Pro Traffic installed:



CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		Installed	2
MVC-IVA-PER	IVA Pro Perimeter Pack		Unassigned	10

When multiple cameras are selected, the license page lists the number of cameras for each license and status, and the **Action** works on all of them.

Example: three cameras:



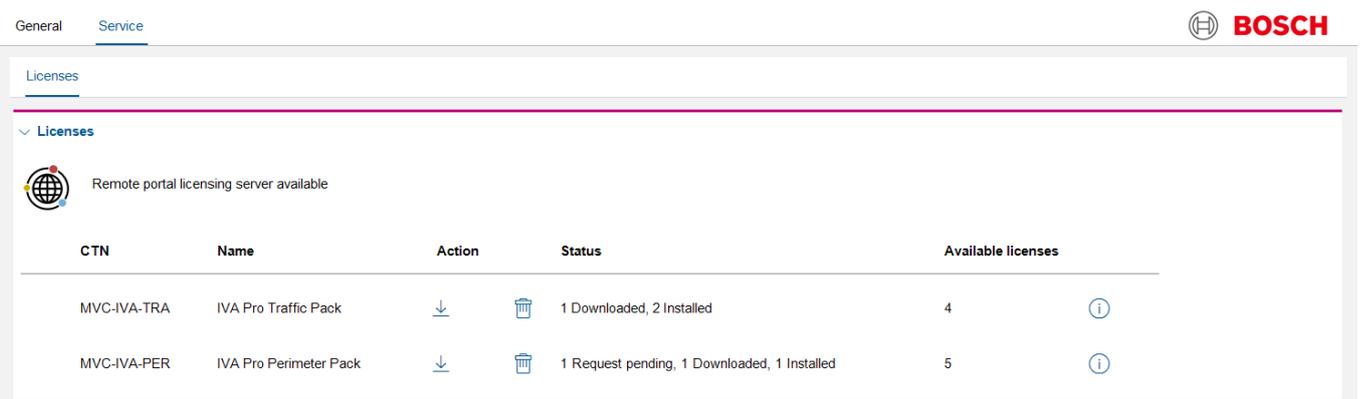
CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		1 Unassigned, 2 Installed	4
MVC-IVA-PER	IVA Pro Perimeter Pack		2 Unassigned, 1 Installed	5

- To ensure connection to Remote Portal, click the icon in the **Action** column to assign a license to one or multiple cameras.

Note that when multiple cameras are selected, all of them will be assigned the licenses.

The status shows **Request pending**.

Example: multi-selection with different status for different cameras:



CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		1 Downloaded, 2 Installed	4
MVC-IVA-PER	IVA Pro Perimeter Pack		1 Request pending, 1 Downloaded, 1 Installed	5

- To save, click .

Configuration Manager requests the licenses bound to the respective cameras and downloads the (hardware-bound) licenses. Once the Configuration Manager has received the licenses, the status changes to **Downloaded**.

General **Service** 

Licenses

Remote portal licensing server available

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		Installed	4
MVC-IVA-PER	IVA Pro Perimeter Pack		Downloaded	5

4. Make sure that the Configuration Manager has connection to the cameras.

General **Service** 

Licenses

Remote portal licensing server available

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		Installed	4
MVC-IVA-PER	IVA Pro Perimeter Pack		Downloaded	5

The license status stays at **Downloaded**.

5. Click  to confirm again.
The licenses are uploaded into the cameras, the cameras will reboot, and the status changes to **Installed**.

General **Connectivity** Camera Recording Alarm VCA Network **Service** 

Licenses Maintenance Certificates Logging Compatibility

No connection to remote portal licensing server Connect to internet to retrieve additionally available licenses

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic Pack		Installed	4
MVC-IVA-PER	IVA Pro Perimeter Pack		Installed	5

6.4 Selecting Companies

In case of a Remote Portal account with several companies, one can be selected in the Configuration Manager by clicking on the Remote Portal icon on the Services -> Licensing page.

General Connectivity Camera Recording Alarm VCA Network **Service**

Licenses Maintenance Certificates Logging Compatibility

Remote portal licensing server available

1 Device information 2 License info received 3 License claimed 4 License installed 5 Reboot

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic	↓	Unassigned	3

The same Remote Portal connection dialog from the toolbar of the Configuration Manager appears again.

Connect with Remote Portal ✕

Enter your Remote Portal credentials

You don't have an account yet? [Register to Remote Portal](#)

Email address

Password

[Forgot your password?](#) Remember

This time, however, trying to connect with valid credentials, the Configuration Manager will request all the account companies from the Remote Portal and list them for your selection:

Connect with Remote Portal
✕

Enter your Remote Portal credentials

You don't have an account yet? [Register to Remote Portal](#)

Email address

Password

[Forgot your password?](#)
 Remember

ⓘ You have multiple admin company accounts. Select your desired one.

Company Account
 Test company (Technician) ▾

Cancel
Finish and Connect

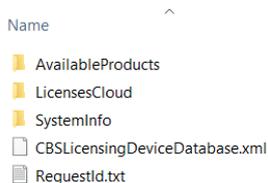
Select the company and continue with the licensing.

6.5 Storage of license information

The Configuration Manager stores all license related information in a dedicated folder.

1. To find that folder, in the left toolbar click > **About**.
A popup appears.
2. Click **System**.
3. Enlarge the popup and select **CBS licensing folder**.

The folder opens. The folder contains the information about available licenses, all system info files downloaded from the cameras, and the hardware-bound licenses downloaded from the Remote Portal.
Note that the licenses cannot be stolen as they are bound to the respective camera hardware.



This folder can also be manually transferred to another Configuration Manager, to transfer system info files or licenses. For that, ensure that all relevant devices are in the respective device trees of the Configuration Managers, e.g. by copying the “Device database” vdb.xml. The link to the device database can also be found in **About > System**.

7 Manual activation of licenses

7.1 Getting the system info file via Configuration Manager

The system info file can be downloaded by selecting a camera, then switching to Service -> Licenses and clicking “Download system info file ...”.

General Connectivity Camera Recording Alarm VCA Network **Service**

Licenses Maintenance Certificates Logging Compatibility

Remote portal licensing server available

1 Device information 2 License info received 3 License claimed 4 License installed 5 Reboot

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic	↓	Unassigned	3

Advanced

Installation code
0105bdf0b91ef7d62804a4189405b35b670000009000000

Fingerprint
*1F5GJA6ZAJ58RG7

Activation key

Installed licenses

Open license file... Uninstall Install **Download system info file...**

With this system info file, now login to the Remote Portal and go to Software Licensing. Select the software order from your list and click on the key item.

The license activation dialog opens. Upload the system info file here. Click through the next screen as IVA Pro licenses don't have a base product like BVMS. Afterwards, the available licenses from the software order will be listed. Licenses which are not available on the target device will be greyed out. Quantity should always be 0 or 1. Click on activate and download the activation file.

With the activation file, go back to the Configuration Manager and upload it via Service -> Licenses -> “Open license file ...”

▼ Licenses



Remote portal licensing server available

1

Device information

2

License info received

3

License claimed

4

License installed

5

Reboot

CTN	Name	Action	Status	Available licenses
MVC-IVA-TRA	IVA Pro Traffic	↓	Unassigned	3 i

▼ Advanced

Installation code

0105bdf0b91ef7d62804a4189405b35b670000009000000



Fingerprint

*1F5GJA6ZAJ8RG7



Activation key

Installed licenses

Open license file...

Uninstall

Install

Download system info file...

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