

# **AXIS Camera Station Pro**

User manual

# Migrate to AXIS Camera Station Pro

In most cases, upgrading from AXIS Camera Station 5 to AXIS Camera Station Pro is easy. However, please be aware of the following:

- You need a My Axis user account, and we'll ask you to select an existing organization or create a new organization.
- We'll convert licenses registered on your AXIS Camera Station 5 system to the corresponding AXIS Camera Station Pro licenses. For a limited time after the launch of AXIS Camera Station Pro, we'll offer this service without any cost.
  - We'll convert licenses included with AXIS S Series network video recorders and all additional registered licenses into lifetime licenses tied to the network video recorder hardware.
  - We'll convert licenses registered on other hardware and virtual machines into 5-year subscription licenses.
  - See for more information.
- We have changed the default port number used by the AXIS Camera Station Pro server, which can impact your system if you have:
  - Clients accessing remote servers.
  - Configured remote access ports in your network firewall.
  - Manually selected ports.
  - Installations with Axis Body Worn systems.
  - Integration to other systems, such as POS systems and alarm centrals.
  - Configured multi-server for Secure Entry.

The most critical information is listed above. You can find more information and details regarding the upgrade in the sections below.

We hope you enjoy using AXIS Camera Station Pro!

The ACS teams at Axis

# Licensing

When licensing, AXIS Camera Station Pro asks you to register your system with an organization. You can either create a new organization or choose an existing one. The organization is an entity that combines all the system installations under one name for easier governance and management.

### Note

- If you're using online licensing, we will convert the AXIS Camera Station 5 licenses when you upgrade and register your system. Once we've converted the licenses to AXIS Camera Station Pro licenses, they are blocked and can no longer be used with AXIS Camera Station 5 systems.
- If you're using offline licensing, the licenses are not automatically migrated even if you're an administrator in AXIS Camera Station. You must sign in to License Manger with the same My Axis account as in the AXIS Camera Station License portal. A My Axis account is required to register the licenses on the AXIS Camera Station License Portal.
- You can convert your unused AXIS Camera Station 5 license keys in AXIS License Manager to 5-year licenses or Expansion licenses for AXIS Camera Station Pro.

See for more information.

# Licensing on Axis network video recorders

We will convert all AXIS Camera Station 5 installations on Axis network video recorders to hardware-tied lifetime licenses for AXIS Camera Station Pro. This applies to the following network video recorders:

AXIS S11 Series

- AXIS S12 Series
- AXIS S21 Series
- AXIS S22 Series

We will also convert any additional licenses registered to your system to hardware-tied lifetime network video recorder licenses for AXIS Camera Station Pro.

# Licensing on third-party servers

We will convert all purchased licenses to corresponding 5-year subscription licenses.

# New port range in AXIS Camera Station Pro

We have changed the port range in AXIS Camera Station Pro, which means that when you upgrade to AXIS Camera Station Pro, the base port is 29200. We will keep manually configured ports as they were but update any default ports to the new range. You must re-configure any third-party integrations.

See Port list in the AXIS Camera Station user manual for more information.

### **Important**

The changed port range can affect the following:

- The connection between the Axis body worn system and AXIS Camera Station Pro. See .
- Third-party integrations.
- External HTTPS triggers. You must manually update external HTTPS triggers to use the updated port unless you override the default port configuration.
- If you're upgrading from AXIS Camera Station 5.xx and using Multi-Server in Secure Entry with the default port, you must change to the new default port 29215 on all connected sub servers to resume functionality.

# Axis body worn system integration

# Important

If you've integrated an Axis body worn system, you must renew the certificates and apply a new connection file with the updated ports. Once you've applied the new connection file, your body worn system can reestablish its connection to your AXIS Camera Station Pro server. We recommend testing the new connection to make sure the body worn system can transfer recordings to AXIS Camera Station Pro.

Read about how to renew certificates in the AXIS Camera Station Pro user manual.

# **Upgrading from AXIS Camera Station 5**

If you have AXIS Camera Station 5 clients on computers without AXIS Camera Station servers, you need to upgrade the clients manually. Download and install the .msi file for client only.

#### Note

It's not possible to run an AXIS Camera Station 5 client together with an AXIS Camera Station Pro server installation. You must upgrade both client and server.

If the AXIS Camera Station version on your server is earlier than 5.24, you must first upgrade to AXIS Camera Station to *the version you can find here on axis.com* due to database changes. From your 5.24 installation, you can upgrade to AXIS Camera Station Pro. Upgrading can take time due to the many changes in the last few years.

# System and hardware requirements

The installer can only run on 64bit systems or operating systems. We recommend 16GB of RAM. The minimum RAM size is 8GB. Check the latest *release notes* and for all requirements.

# Mobile app

When upgrading to AXIS Camera Station Pro, also update your mobile app to the latest version.

# Multi-server systems

If you have many servers in your system, give the servers names so it's easy to understand where the servers are located.

# Optional cloud connected services

You can install AXIS Camera Station Pro on an independent private network, but there is also an option to connect to cloud services.

To access cloud-connected services, you need a My Axis account and to register your server with an organization.

If you've used AXIS Device Management Extend before, you can get a message saying that your system is only "partially" registered. If that happens, click the retry link to update the edge host.

# Organization

When you register AXIS Camera Station Pro you need to create an organization. The organization holds your Axis installation together for better management. You can read more about the organization in and *in the My Systems user manual*.

# My Systems

From My Systems, you can access the connected services:

- server monitoring
- user management
- license management
- device management
- video operations

#### Note

The user management for the AXIS Camera Station Pro server and My Systems is separate. In AXIS Camera Station Pro, you can manage users locally on the server or through Active Directory, while My Systems is a separate cloud solution with no connection to Active Directory. You must create all users in My Systems, even if they exist on the AXIS Camera Station Pro server.

### **AXIS Data Insights Dashboard**

The AXIS Data Insights Dashboard is bundled and installed with AXIS Camera Station Pro but is not enabled by default. For information on how to enable the dashboard, read AXIS Data Insights Dashboard in the AXIS Camera Station Pro user manual.

#### Note

AXIS Data Insights Dashboard uses more memory when it's on. See for more information.

### Additional features in AXIS Camera Station Pro

For more details on the changes and new features in AXIS Camera Station Pro, read the *release notes* and *What's new in AXIS Camera Station Pro*.

### **Install AXIS Camera Station Pro**

# Before you install

Carefully read the following before you upgrade to AXIS Camera Station Pro:

- For more in-depth information about the latest release, read the release notes.
- Before you upgrade to, or install AXIS Camera Station Pro, make sure you're using the correct port settings if you have a firewall other than the Windows Firewall, or any custom port configurations. You can check the port settings in Service Control. Read *Port lists in the user manual* for more information.
- We don't support downgrading from AXIS Camera Station Pro.
- All AXIS Camera Station 5 licenses registered on your current server are converted to AXIS Camera Station Pro licenses during the upgrade. The conversion is irreversible.
- There are two different installation files. The main file contains both server and client software, use this for your main server installation. For installation of the client only to an operator workstation use the client-only file.
- Read the for requirements and system design advice.
- Microsoft Visual C++ 2015-2022 Redistributables (x86 and x64) are required for the full (client and server) installation, and must be pre-installed manually if running silently or passively. You can find the latest supported downloads on *learn.microsoft.com*.

# Organizations and cloud connected services

If you want access to our cloud connected services, including cloud server health monitoring, cloud web client for video operation, device and cloud user management, and automatic online licensing, you must register your system with an organization. Keep in mind the following:

- The roles in an organization determine the permissions assigned to users for the cloud connected services and are separate from users and roles in the AXIS Camera Station Pro server. This means that a person can have different users and permissions when accessing the AXIS Camera Station Pro server using the Windows client and when using the cloud web client.
- The permissions for the cloud roles in an organization are pre-defined and non-configurable.
- For cloud connected services, user access rights are set on a global level. So, for example, a user that has
  operator access in an organization also has operator access to all systems registered within the
  organization.
- Subscription licenses are tied to an organization, and you can't move them from one organization to another.
- Lifetime licenses tied to an AXIS S series server follow their server.
- You can't easily move a system from one organization to another organization.
- Organizations are flat meaning that all systems are on the same level under the organization.
- To register a server with an existing organization, you must be an administrator in the organization.
- You must be an administrator or owner to give users roles for the organization.
- If you are using AXIS Device Manager Extend and you connect your server to an existing organization be aware that AXIS Camera Station Pro overwrites all previous configurations in AXIS Device Manager Extend.

Read the My Systems user manual for more information about organizations.

### Install

When you download AXIS Camera Station Pro you can choose between these installers:

An msi file for a full server and client installation.

An msi file for a client installation only.

### Note

- Make sure you have full administrator rights on the computer you want to install AXIS Camera Station
- When you upgrade AXIS Camera Station Pro to a newer version, the background service stops and there
  will be no recording during the upgrade. The background service starts again after the upgrade.
- 1. Go to https://www.axis.com/products/axis-camera-station-pro, sign in with your MyAxis account, and download your preferred installer for the latest version of AXIS Camera Station Pro.
- 2. Double-click the downloaded file and click Yes to allow it to make changes to your device.
- 3. Follow the on-screen instructions in the setup assistant.

### Installation scenarios

In addition to the important information in and , here are some examples of typical installation scenarios and how to manage them. In all these examples, we assume that you want to connect your system to our cloud services.

# Upgrade to AXIS Camera Station Pro as end customer - example 1

#### Scenario:

I'm an end customer who wants to upgrade to AXIS Camera Station Pro myself. I haven't previously connected any cloud services and I have no previous organizations or My Axis account.

# To upgrade:

- 1. Create a My Axis account on www.axis.com.
- 2. Install AXIS Camera Station Pro, see .
- 3. Open the AXIS Camera Station Pro Windows client and follow on-screen instructions for licensing and registering the server with an organization.

# Upgrade to AXIS Camera Station Pro as end customer - example 2

#### Scenario:

I'm an end customer who wants to upgrade to AXIS Camera Station Pro myself and I'm already using cloud services such as secure remote access, Cloud server monitoring or have registered Companion sites with my existing My Axis account.

#### **Important**

- When you register your server with an organization, make sure you select the correct organization, or create a new one.
- Make sure you're the owner of the organization you want to connect with or create a new organization
  where you are the owner. But remember that you can't transfer any ACS Pro Subscription licenses once
  they are linked to an existing organization.

### To upgrade:

- Install AXIS Camera Station Pro. see .
- 2. Open the AXIS Camera Station Pro Windows client and follow on-screen instructions for licensing and registering the server with an organization.

#### Note

If you have more than one organization, make sure you select the appropriate one when registering the system.

# Installing server as a system integrator - example 1

#### Scenario:

I'm a system integrator installing a server for a customer without any connected cloud services, organizations, or My Axis account.

### Important

- If you as a system integrator register the server in your own organization, you can't easily move it to the customer's organization later.
- If you as a system integrator redeem any licenses for the server in your organization, you can't move it to the customer's organization later.

# To upgrade:

- 1. Ask the customer what they would like to name their organization.
- Install AXIS Camera Station Pro, see .
- 3. Open the AXIS Camera Station Pro Windows client and follow on-screen instructions for licensing and registering the server with an organization. The system integrator creates an organization during the registration process.
- 4. Ask the customer to create a My Axis account on www.axis.com.
- 5. The system integrator invites the customer as owner of the organization.
- 6. The customer accepts the invitation, removes ownership from the system integrator, and, when applicable, completely removes the system integrator user from the organization.

# Installing server as a system integrator - example 2

#### Scenario:

I'm a system integrator installing a server for a customer that wants to use their existing organization.

### **Important**

- If you as a system integrator register the server in your own organization, you can't easily move it to the customer's organization later.
- If you as a system integrator redeem any licenses for the server in your organization, you can't move it to the customer's organization later.
- Before you upgrade, you must have ownership of the customer's organization.

# To upgrade:

- 1. The customer invites the system integrator as owner of their organization.
- 2. Install AXIS Camera Station Pro, see .
- 3. Open the AXIS Camera Station Pro Windows client and follow on-screen instructions for licensing and registering the server with an organization. The system integrator creates an organization during the registration process.

#### Note

If you have more than one organization make sure you select the appropriate one when registering the server.

4. The customer removes ownership from the system integrator.

### Add a new server - example 1

#### Scenario:

I'm an end customer and want to add a new server (folder) to my organization.

Currently we support a flat structure under the organization. Each folder represents a server. You can't create a custom folder structure under the organization. If you have multiple AXIS Camera Station Pro servers, you must register them one at a time, and they will appear as separate folders.

# Important

You can only manage user roles on the organization level. User roles within an organization apply to all Axis cloud applications. This means that an administrator in the AXIS Camera Station applications is an administrator in all other cloud connected apps.

# To add a new server to an organization:

- 1. Install AXIS Camera Station Pro, see .
- 2. Open the AXIS Camera Station Pro Windows client and follow on-screen instructions for licensing and registering the server with an organization. During the registration process, select the organization you want to add the new server to.

When you've finished registering the server, it appears as a folder in the selected organization.

# Hardware guidelines

This section gives you the expertise to design and configure your own AXIS Camera Station Pro system. The system's computer requirements depend on various factors, with the number of connected devices and their generated bitrate being the primary determining factor for the hardware requirements.

In Server requirements and Client requirements, you can find multiple tables that describe various levels of AXIS Camera Station Pro system requirements. These tables are a great starting point for designing your system, however, we recommend reading System design and maintenance as well, which provides more detailed information on essential topics.

When designing a system, it's imperative to anticipate and plan for unforeseen situations that could potentially slow down the system's performance. By incorporating a buffer into the system design, you can ensure that it remains fast and responsive even in the face of unexpected events. Additionally, it's important to consider the future and make provisions for potential changes to the system. Futureproofing can help you avoid unnecessary upgrades and ensure that your system remains relevant and useful for years to come.

Whilst designing and configuring a system using external hardware is always the customer's prerogative, a good option to consider is Axis *network video recorders* and *workstations*. Our hardware is designed to meet specific needs and has gone through extensive testing to provide a reliable recording solution with an outstanding user experience. Check the product pages for more details on our out-of-the-box ready recording solutions.

# Server requirements

The following tables list server requirements for physical servers. For virtual machines, refer to the technical paper about *AXIS Camera Station in virtual environment*.

#### Note

The table labeled **Minimum** shows the minimum system requirements for running AXIS Camera Station Pro. Systems with the minimum requirements don't support the free text search feature in Smart search 2. Using advanced features that subsequently require more system resources, can result in a suboptimal user experience. See and for more information.

#### Up to 128 Mbit/s recording bit rate or 8 video channels and a maximum of 16 doors:

Minimum	
OS	Windows 10 Pro or later <sup>(1)</sup>
CPU	Intel® Core i3 <sup>7th Gen</sup> / Intel® Elkhart Lake
Memory	8 GB DDR4
OS drive	120 GB SSD
Storage drive	Single HDD
Network	1x NIC @ 1 Gbps

#### Up to 128 Mbit/s recording bit rate or 8 video channels and a maximum of 16 doors:

Recommended		
OS	Windows 10 Pro or later <sup>(1)</sup>	
CPU	Intel® Core i38th Gen / Intel® Core i39th Gen	
Memory	16 GB DDR5	
OS drive	256 GB SSD	

Storage drive	Single HDD <sup>(2)</sup>
Network	1x NIC @ 1 Gbps

# Up to 256 Mbit/s recording bit rate or 32 video channels and a maximum of 64 doors:

Recommended	
OS	Windows 10 Pro or later <sup>(1)</sup>
СРИ	Intel® Core i58th Gen / Intel® Core i312th Gen
Memory	16 GB DDR5
OS drive	256 GB SSD
Storage drive	Single or multiple HDDs <sup>(2)</sup>
Network	1x NIC @ 1 Gbps

# Up to 512 Mbit/s recording bit rate or 64 video channels and a maximum of 128 doors:

Recommended		
OS	Windows 10 Pro or later <sup>(1)</sup>	
СРИ	Intel® Xeon E <sup>11th Gen</sup> / Intel® Xeon Silver <sup>2nd Gen</sup> scalable	
Memory	16 GB DDR5	
OS drive	480 GB SSD	
Storage drive	4x HDD RAID 5,6 or 10 <sup>(2)</sup>	
Network	2x NIC @ 1 Gbps	

# Up to 1500 Mbit/s recording bit rate or 150 video channels and a maximum of 400 doors:

Recommended	
OS	Windows 10 Pro or later <sup>(1)</sup>
СРИ	Intel® Xeon Silver <sup>3rd Gen scalable</sup>
Memory	32 GB DDR5
OS drive	480 GB SSD
Storage drive	12x HDD RAID 6 or 10 <sup>(2)</sup>
Network	2x NIC @ 10 Gbps

<sup>(1)</sup> For a list of supported Operating Systems, refer to the *release notes*. We recommended always using the latest service pack available from Microsoft.

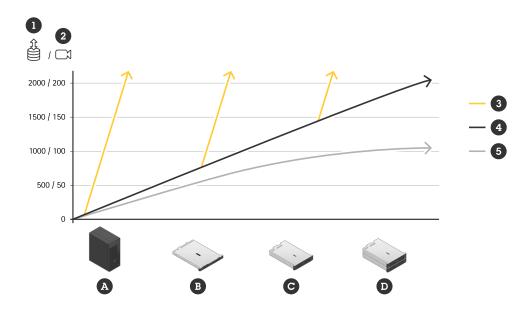
# Server scalability

In general, to scale a system, you can use more powerful hardware. However, this approach has a limit. When the system approaches a 150-video channel count, we recommend that you split the system into several servers.

<sup>(2)</sup> For best performance and reliability, use local storage or a high-performance storage medium. Use only surveillance-class or enterprise-class drives for video storage.

Moreover, if you expect heavy usage on the system, for example, when many video operators perform playback and scrubbing simultaneously, this recommendation should be taken at a lower channel count.

To scale a system with more devices per server, record on the AXIS S30 Recorder Series instead of a local disk or NAS. This approach significantly reduces the workload on the server and allows for more video channels to be added on less powerful server hardware.



- 1. Recording bitrate
- 2. Number of video channels per server
- 3. Recording on AXIS S30 Recorders
- 4. Recording on local disk
- 5. Recording on local disk with many active operators performing playback
- A. AXIS S1216 or similar
- B. AXIS S1232 or similar
- C. AXIS S1296 or similar
- D. Several AXIS S1296 or similar

# Client requirements

# Basic setup with 4K support and one monitor:

Minimum	
OS	Windows 10 Pro or later <sup>(1)</sup>
СРИ	Intel® Core <sup>7th Gen</sup>
Memory	8 GB DDR4
OS drive	128 GB SSD
Network	1x NIC @ 1 Gbps
Graphics card	Intel® HD Graphics 630

# Basic setup with 4K support and one monitor:

Recommended	
OS	Windows 10 Pro or later <sup>(1)</sup>
CPU	Intel® Core <sup>12th Gen</sup>
Memory	8 GB DDR5 Dual channel
OS drive	256 GB SSD
Network	1x NIC @ 1 Gbps
Graphics card	Intel® UHD Graphics 730

### Advanced setup with 4K support and up to four monitors:

Recommended	
OS	Windows 10 Pro or later <sup>(1)</sup>
СРИ	Intel® Core <sup>12th Gen</sup>
Memory	16 GB DDR5
OS drive	256 GB SSD
Network	1x NIC @ 1 Gbps
Graphics card	Nvidia T600 or similar

<sup>(1)</sup> For a list of supported Operating Systems, refer to the *release notes*. We recommended always using the latest service pack available from Microsoft.

# System design

# **Planning**

Use AXIS Site Designer to plan your system and track your projects, get estimates for storage space, network bandwidth and equipment. Refer to when selecting the hardware for your Network Video Recorder.

# **Dedicated server**

We recommend running an AXIS Camera Station Pro server on a dedicated computer without any other critical or management software, such as databases, Active Directory servers, and print or telephony servers.

# Operating system drive

We strongly recommend using an SSD for the system drive. We also recommend avoiding using the system drive used as a storage option for AXIS Camera Station Pro recordings. This helps maintaining general system stability and achieve better performance, while avoiding fragmentation and bottlenecks.

# Storage drives

For best performance and reliability, use local storage or a high-performance storage medium. Use only surveillance-class or enterprise-class drives for video storage.

# Storage RAID

Stream recording is quite operation-intensive. When using RAID technology, we recommend that you use a hardware RAID controller with high-performance capability combined with surveillance-class or enterprise-class drives for video storage.

# Network attached storage (NAS)

AXIS Camera Station Pro fully supports saving recordings to a NAS. However, saving recordings to a NAS normally decreases the performance slightly compared to using local disks.

#### **Networks**

AXIS Camera Station Pro supports the option of using several network cards and several different networks. This allows for creating a more secure environment with cameras on a separate network; with the AXIS Camera Station Pro server providing secure access to the isolated network. Axis has several *out-of-the-box recording* solutions which are designed with this secure network layout.

# Different client types

Although there is no hard limit, increasing the number of connected clients impacts the AXIS Camera Station Pro server performance. Each connected client slightly increases the CPU load, regardless of the number of streams and stream profiles that the client pulls from the server. Using the AXIS Camera Station Pro Windows client has a low impact on the server system performance in most cases. The AXIS Camera Station Pro Mobile App has a very low impact in general. Using the AXIS Camera Station Pro web client or AXIS Camera Station Cloud web client has a slightly higher impact on the CPU usage of the server than the AXIS Camera Station Pro Windows client.

### Functions and components usage

In AXIS Camera Station Pro, we've added several new features (in the form of so-called "components") and some of these can consume a lot of system resources. The majority should only have a minor impact; however, you need to be cautious in the event that you are planning on using Smart Search 2, free text search, and Axis Data Insights Dashboard on a majority on your cameras. You should either choose a more powerful server or consider limiting the number of cameras being used by those components. When possible, the following altercations can be very useful in this scenario: adding more RAM, upgrading the CPU, and using a larger and faster SSD. Axis is working on a list of components and their impact on the system, but the ones mentioned above are the ones which could affect the system performance today. Free text search requires a minimum of 16GB of RAM.

#### Non-video devices

AXIS Camera Station Pro supports a wide range of non-video devices such as audio devices, door controllers, network switches, and I/O devices. These non-video devices do not load the server to the same extent compared to video devices, such as cameras. Systems can, in general, handle a larger amount of these non-video devices without affecting the performance of the AXIS Camera Station Pro server.

### Virtual machines (VM)

An AXIS Camera Station Pro server can run on virtualized Windows machines. For more information, please see the technical paper about AXIS Camera Station in virtual environment. We don't support running any AXIS Camera Station Pro client on a VM, mainly due to graphical limitations.

### Power supply

Unexpected shutdowns can cause database corruption, damage hardware or corrupt Windows. We highly recommend using a UPS. In critical installations, add a redundant power supply on an emergency power circuit. Consult your equipment or UPS manufacturer to know which UPS to use with your equipment.

# System maintenance

#### The first week

We recommend monitoring your system closely during the first week after installation. It is preferable to review some of the recorded material over all relevant hours to verify that you have adequate video quality. Don't rely

solely on live view only when verifying the quality of video, check recordings done during different levels of illumination and during periods of high activity.

### Free space - operating system drive

We highly recommend maintaining 50 GB of free space on the system drive. If the drive runs out of space, there is a high risk of a crash or corrupted data.

# Free space - storage drives

We recommend that you configure the local storage drives in AXIS Camera Station Pro to keep 5% free space for optimal performance. If you've configured less than 5%, AXIS Camera Station Pro will still function, and prevent the storage drive from becoming full, however, you may experience performance issues on larger systems.

# Integrity - hard drive and file system

Errors in the disk can cause corruption in the database, operating system, or recordings. Check periodically for errors or damaged sectors in the hard drives. Tools like CHKDSK are generally available in Windows to check file system integrity. For pre-emptive maintenance, the S.M.A.R.T. monitoring system is often available for which several monitoring tools exist.

### Integrity - RAM

Memory issues are among the hardest to detect and troubleshoot and can impact the system in unpredictable ways. Make sure to periodically check the integrity of your RAM, Windows offers a Memory Diagnostics Tool to scan the memory for errors. Often it's necessary to use a more advanced memory diagnostic tool.

#### Antivirus and firewalls

In some cases, virus scanners can corrupt the database. We recommend that you exclude AXIS Camera Station Pro, its components and the storage drives used for recordings from scans. Both antivirus and firewalls can alter the traffic coming from video devices. Make sure you allow traffic from those devices to flow freely.

You can find information regarding the exclusion of Antivirus in the FAQ What to include in an Antivirus approved list for AXIS Camera Station.

You can find information regarding the exclusion of the firewall in the following FAQs:

- What do I need to configure in my firewall to allow access to AXIS Secure Remote Access?
- Which ports does AXIS Camera Station use?

### **Backups**

AXIS Camera Station Pro performs nightly backups of the main databases to the system drive per default; however, we strongly recommend changing this to a network drive. External or operating system backups can impact the system performance. You can configure backup of recordings on demand or per schedule in AXIS Camera Station Pro. For more information, see the *User Manual*.

### System updates

Allowing Windows Updates to download and install automatically can downgrade performance and cause the system to a forced reboot, which can corrupt the AXIS Camera Station Pro databases. We advise you to schedule a maintenance window where Windows and driver updates can be applied and supervised.

# Sleep, hibernate, suspend

Never allow a computer running AXIS Camera Station Pro to sleep, hibernate, or suspend. Not only will recordings stop, but database corruption might occur from the unexpected stop. Turn off these functionalities in the Windows Power options.

# Licenses

# Standalone licenses 1-year and 5-year for third-party hardware servers

Core subscription licenses for Axis devices and Universal subscription licenses for third-party devices.

- 02990-001 ACS PRO CORE DEVICE 1y Lic
- 02991-001 ACS PRO CORE DEVICE 5y Lic
- 02992-001 ACS PRO UNIVERSAL DEVICE 1y Lic
- 02993-001 ACS PRO UNIVERSAL DEVICE 5y Lic

### Tied-to-hardware licenses

Core licenses are included and tied to the hardware for the lifetime of the recorders. Tied-to-hardware licenses are preloaded on or added to Axis hardware (expansion licenses). They are valid for the lifetime of the hardware, and you can't use them on other hardware.

We offer Core and Universal expansion licenses if you want to add extra licenses to a server. The expansion licenses are also tied to the server for the lifetime of the hardware.

- 02994-001 ACS PRO CORE DEVICE NVR Lic
- 02995-001 ACS PRO UNIVERSAL DEVICE NVR Lic
- 02996-001 Upgrade Core to Universal NVR license

We offer an upgrade license if you want to upgrade included Core licenses to Universal.

# What does "lifetime" mean?

We consider the life of the hardware to be the life of the server's motherboard. If you replace a significant component, such as the motherboard, or if it becomes non-functional, the tied-to-hardware licenses are no longer valid.

An exception is if the on-site support service performs a motherboard replacement during the product's warranty period. In such a case, the tied-to-hardware licenses will still be valid. In the case of RMA, the licenses tied to the replacement hardware replace the tied-to-hardware licenses tied to the faulty server.

# License needs

The table below shows examples of how many licenses you need for different categories of Axis devices.

Product type	Number of connected sensors/analog cameras	Required license
Network camera	>=1	1
Network radar	1	1
Body worn camera	1	1
Video encoder	>=4	1
Video decoder	N/A	1
Network speaker	N/A	1
Network door controller	N/A	1
I/O module	N/A	1 <sup>1</sup>
Network video recorder (AXIS S30 Series)	N/A	0

<sup>1.</sup> Some I/O modules include a license in the box.

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Product type	Number of connected sensors/analog cameras	Required license
Body worn system controller (AXIS W8 Series)	N/A	0
Network switch	N/A	0