

Windows versions

In Axis Network Video Recorders

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1. Introduction

This document aims to clarify which Windows versions are used in AXIS Network Video Recorders and why specific servicing channels are being used. It also lists the upgrade path for different products and the eligibility to Windows 11.

2. Current Windows version

Currently produced NVRs (AXIS S12 Series, AXIS S21 Series, AXIS S22 Series, AXIS S93 Series) are shipped from factory with Windows 10 IoT Enterprise LTSC 2021 (21H2).

Products produced earlier may have a different operating system, for example Windows 10 IoT Enterprise 1909 SAC which was used for a couple of years.

For a video surveillance application, **Windows Long-Term Servicing Channel (LTSC)** is the most suitable servicing channel. It offers a longer support period from Microsoft (up to 10 years), smaller updates with less new features, meaning lower risks for introducing new issues, less maintenance requirements... This servicing channel focuses mostly on delivering Security updates and bug fixes.

Windows 11 IoT Enterprise GAC (General Availability Channel) has been available for a while, but it has a much shorter support period, bigger updates and does not fully fit our type of application. This version will not be used in Axis products.

You can read more about LTSC [here](#) and General Availability Channel (SAC/GAC) [here](#).

3. Future updates

Windows 11 IoT Enterprise LTSC 2024 has been released by Microsoft to Windows device makers late May 2024. Axis is working on making this new version available on future products.

Windows 11 IoT Enterprise GAC (General Availability Channel) was released earlier but it has a much shorter support period, bigger updates and does not fully fit our type of application. This version will not be used in Axis products.

4. Recommendations

Due to Microsoft licensing policies, it will technically not be possible to do an in-place upgrade from **Windows 10 IoT Enterprise LTSC 2021** to the upcoming **Windows 11 IoT Enterprise LTSC 2024 (24H2)**. Such upgrade will require a full re-installation of the operating system and a new license to be purchased by the customer, from a Microsoft dealer. Axis cannot support the customer in this process.

Customers currently running **Windows 10 IoT Enterprise SAC** are advised to update to the latest Windows 10 version available on this service channel (currently 22H2) and apply patches that may be released by Microsoft until retirement date (October 14, 2025).

Note

Axis is not able to support to the same extent a system with a different operating system than the one shipped with the product. Any recovery kit sent by Axis Technical Services will be based on the operating system the product was sold with.

5. Servicing channel

5.1. Why is LTSC being used?

1.1.1 *From Microsoft's website:*

The Long-Term Servicing Channel is designed to be used only for specialized devices (which typically don't run Office) such as ones that control medical equipment or ATMs.

The LTSC edition of Windows 10 provides customers with access to a deployment option for their special-purpose devices and environments. These devices typically perform a single important task and don't need feature updates as frequently as other devices in the organization.

Feature updates are offered in new LTSC releases every 2–3 years instead of every 6 months, and organizations can choose to install them as in-place upgrades, or even skip releases.

Microsoft is committed to providing bug fixes and security patches for each LTSC release during the extended LTSC servicing lifecycle.

1.1.2 *Axis strategy*

LTSC is the best Servicing Channel for a Network Video Recorder which runs a Video Management Software, and which shall be interrupted as little as possible to apply feature updates. Typically, an NVR will not need new functionality for Cortana, Edge, and all in-box Universal Windows apps. LTSC is the servicing channel that is commonly being used in the video surveillance industry for Windows products.

6. Support

Product support after Windows 10 IoT Enterprise SAC retirement date.

Axis is committed to providing support to customers as long as it is commercially and technically reasonable.

For AXIS Camera Station Pro, we have more control and will ensure the product works at least during its warranty period. For Windows support, Axis cannot commit to full support, as this is out of our control, but we are confident that Microsoft will, as they have done in the past, provide additional support, even after retirement date (October 14, 2025), for critical security issues and bug fixes.

7. Upgrades and eligibility

7.1. Windows 11 eligibility

The table below shows the product eligibility to Windows 11, from a hardware perspective as well as from a software and licensing perspective.

Product	Hardware eligible to Windows 11	Upgrade path from Win 10 to Win 11 possible?	Comment
AXIS S12 Series	Yes	No	No upgrade from Windows 10 LTSC 2021 to Windows 11. Customer needs to purchase their own Windows 11 license.
AXIS S93 Series	Yes		
AXIS C7050 Mk III	Yes		
AXIS S2108	Yes		
AXIS S22 Series	No	No	Unsupported CPU
AXIS S9002 Mk II	Yes	Yes	
AXIS S1116 MT/Racked	Yes	Yes	
AXIS S1132 Rack/Tower, S1148	Yes (only products with TPM)	Yes (only products with TPM)	TPM included after ~August 2021 *
AXIS S9101 Mk II	No	No	No TPM
AXIS C7050 Mk II	No	No	No TPM
AXIS S10 Mk II Series	No	No	Hardware not eligible
AXIS S20 Series	No	No	Hardware not eligible

7.2. Upgrade path

The diagram below shows the theoretical operating system upgrade path for the different products.

Note

* Shipping dates for TPM and LTSC are estimated shipping dates from Axis Configuration and Logistic Centers. They may vary from a model and region to another. Please refer to the sections below for identifying if a unit includes TPM and to determine its servicing channel.
Axis Technical support can also assist during this process.



¹ Some products have been updated during their lifetime and TPM was only part on the later hardware revision. Check the following section for identifying if your product contains a TPM.

² Shipping date refers to shipping date from Axis Configuration and Logistic Centers. The date is an estimation and varies depending on the region.

1.1.3 TPM

Identifying if a product has a Trusted Module Platform (TPM)

TPM was added to AXIS S11 and S22 Series during their lifetime. If the unit contains a TPM, the labels located on the box and underneath the product have “TPM included” written on them:



1.1.4 Service channel

Identifying the servicing channel of a product

The servicing channel (i.e. LTSC or SAC) the product was shipped with, can be found on the COA sticker located underneath the product. See example below:



8. Considerations

Timing of Windows feature delivery varies by device. Windows feature availability may vary by market/region. Therefore, a product might be eligible to a certain update, but it may take time until the update is available in the Windows Update page.

This is controlled by Microsoft and Axis is not responsible for the availability of the updates, nor able to provide more information regarding the timing of delivery.

9. Sources / useful links

Windows 11 LTSC announcement:

<https://techcommunity.microsoft.com/t5/windows-it-pro-blog/windows-client-roadmap-update/ba-p/3805227>

Windows services channels:

<https://learn.microsoft.com/en-us/windows/deployment/update/get-started-updates-channels-tools#servicing-channels>

Windows 10 Enterprise LTSC:

<https://learn.microsoft.com/en-us/windows/whats-new/ltsc/overview>

Windows 11 system requirements check:

<https://support.microsoft.com/en-us/windows/how-to-check-if-your-device-meets-windows-11-system-requirements-after-changing-device-hardware-f3bc0aeb-6884-41a1-ab57-88258df6812b>

Windows 10 IoT Enterprise lifecycle:

<https://learn.microsoft.com/en-us/lifecycle/products/windows-10-iot-enterprise>

Windows 10 IoT Enterprise LTSC 2021 lifecycle:

<https://learn.microsoft.com/en-us/lifecycle/products/windows-10-iot-enterprise-ltsc-2021>

Windows 11 IoT Enterprise lifecycle:

<https://learn.microsoft.com/en-us/lifecycle/products/windows-11-iot-enterprise>

Windows client roadmap update:

<https://techcommunity.microsoft.com/t5/windows-it-pro-blog/windows-client-roadmap-update/ba-p/3805227>

Windows 10 22H2 end of support date updated:

<https://learn.microsoft.com/en-us/lifecycle/announcements/windows-10-22h2-end-of-support-update>