Windows 10 IoT Enterprise FAQ

What is Windows 10 IoT Enterprise?

The Windows 10 IoT Enterprise operating system is a full version of Windows 10 that delivers enterprise manageability and security to IoT solutions. Microsoft has provided operating systems for embedded devices for decades. Windows 10 IoT Enterprise is the latest in the line of "Embedded" operating systems based on Microsoft's mainstream Windows offering. Microsoft's embedded OS offerings began with NT Embedded, followed by XP Embedded and Windows 7 Embedded. Windows 10 IoT Enterprise is Microsoft's most secure release that includes broad device management options and advanced features for IoT solutions. The latter includes machine learning, container support, natural user interface, and simple connectivity to Azure IoT.

How is Windows 10 IoT Enterprise different from other Windows 10 editions?

Windows 10 IoT Enterprise is functionally equivalent to Windows 10 Enterprise, which is Microsoft's most secure, easy to manage, and productive Windows operating systems for large and midsized businesses. The difference is that Windows 10 Enterprise is licensed through Microsoft Volume Licensing (tied to end user at time of purchase) and Windows 10 IoT Enterprise is licensed directly to IoT device builders (OEMs) and includes rules around dedicated use devices.

What kind of devices can I build with Windows 10 IoT Enterprise?

Windows 10 IoT Enterprise edition allows you to build fixed purpose devices with specific allowances and restrictions in the license agreement. A fixed purpose device differs from a general-purpose device in the following ways:

- The device is locked down to a single application or fixed set of applications through the Assigned Access or Shell Launcher features.
- The device powers-on immediately to the experience when received by the end-customer. This is achieved by configuring the device image to skip the normal Windows out-of-box experiences.
- Keyboards, USB ports, and device policies are locked down to constrain the device to be used only in its fixed purpose.
- The OEM licenses the device to the user with the software attached to the device as a complete product and passes through specific Windows terms in their own agreements.
- The OEM provides the end-customer support for their complete product including the functions performed by the operating system.

Can I run classic Windows apps on Windows 10 IoT Enterprise?

Windows 10 is the most compatible version of Windows and we have extensive compatibility tools.

What are the minimum hardware system requirements with Windows 10 IoT Enterprise?

Minimum requirements:

- 1 GHz faster X86 or X64 CPU
- 1 GB RAM (2 GB for 64-bit)
- 16 GB Storage (20 GB for 64-bit)

How can I get Windows 10 IoT Enterprise?

Windows 10 IoT Enterprise is licensed to Microsoft IoT device builder partners. You can acquire your licenses through Arrow Electronics who is an authorized Microsoft distributor for the IoT Channel. Arrow Electronics also provides technical support. Contact them at msembedded@arrow.com

How can I learn more about Windows 10 IoT Enterprise?

Microsoft has many resources on the web starting with general information here: Windows IoT the foundation for your intelligent edge and technical information here: An overview of Windows 10 IoT Enterprise. You can also locate videos and blogs from the Arrow Electronics website here: The differentiation in innovation

Why should customers choose Windows 10 IoT Enterprise?

Windows 10 IoT Enterprise is Microsoft's most advanced and secure version of Windows ever. Since it is Windows, customers can leverage existing skills and infrastructure for management and development. It has excellent application compatibility with Windows Embedded 7 applications, devices and peripherals. It also includes releases in the Long-Term Servicing Channel (LTSC) for devices and stability with 10 years of support. It is also built to connect with Azure IoT to seamlessly and securely bring the power of the cloud to your IoT solutions.

Windows 10 IoT Enterprise 2019 LTSC

What does LTSC mean?

LTSC stands for Long-Term Servicing Channel and is intended for devices that need a longer servicing period. These include dedicated devices, such as industrial controllers, medical equipment, point-of-sale systems, and ATMs. These devices typically perform a single important task, so they don't need feature updates. It's more important that these devices be kept as stable and secure as possible. LTSC releases are supported for 10 years from release. The LTSC servicing model prevents Windows 10 Enterprise LTSC devices from receiving the usual feature updates and provides only quality updates to ensure that device security stays up to date. As a result, LTSC releases don't include components that receive continuous updates like the Microsoft Edge browser, the Microsoft Store for applications, Cortana and other applications.

In contrast, Semi-Annual Channel (SAC) releases are designed for general purpose laptops and PCs that benefit from the latest features to improve productivity. These releases come out twice a year and are supported for 18-30 months.

What is Windows 10 IoT Enterprise 2019 LTSC?

It is the latest LTSC release of Windows 10 IoT Enterprise and came out in November 2018. It is supported until 1/9/2029.
For more detail on lifecycles, see Arrow Electronics' Microsoft Lifecycle page at: Lifecycle

What new features are coming in Windows 10 IoT Enterprise 2019 LTSC?

The table below highlights the new features since Windows 10 IoT Enterprise 2016 LTSC.

1703 SAC (RS2)	1709 SAC (RS3)	1803 SAC (RS4)	809 LTSC (RS5)
> New Point-of-Service peripherals > Power & performance optimization > Windows Hello enhancements > Cortana Wake-On-Voice enablement > Virtualization-based Security > Windows wireless docking > Windows Miracast projection	> Multi-app Assigned Access for UWP and Win32 apps > eSIM support for data > Usermode bus access with RhProxy Preview > Container hosting > Device Health Attestation > Azure IoT Services: Edge, Device Provisioning Service & Management support	> Autologin Kiosk setup via MDM > Assigned Access (AA) (w/Intune) & Shell Launcher CSPs > Multi-app AA for a group of authorized users > Multi-monitor support for AA > Kiosk app status monitoring via MDM > General Data Protection Regulation (GDPR) compliance	> LTSC release with 10 years of OS support > Windows ML runs on device with GPU acceleration Preview > Azure IoT Edge support to move cloud computing to the Intelligent Edge

Can customers obtain license rights for multiple OS versions?

In general, Microsoft provides a license right for one OS version, so a customer must pay for each LTSC version. There are a couple other license rights for specific customer scenario's, namely:

Migration Rights, Microsoft provides "Migration Rights" for up to 12 months with new OS releases. This supports customers that intend to use the latest OS up to 12 months to install the latest version. The customer purchases a device with the latest OS release (e.g. Windows 10 IoT Enterprise 2019 LTSC), then can use an earlier version (e.g. windows 10 IoT Enterprise 2016 LTSC) for up to 12 months before moving to the latest version. These rights are primarily used to support new OS testing and in-process deployment scenarios.

If a customer purchases a new device with Windows 10 IoT Enterprise 2016 Migration Rights, are they eligible to move to Windows 10 IoT Enterprise 2019 LTSC for free?

No, Windows 10 IoT Enterprise 2019 LTSC is separately licensed and the customer will need to purchase a new license. Windows 10 IoT Enterprise 2019 LTSC Field Upgrade SKU's are available for this scenario when the customer is ready to adopt Windows 10 IoT Enterprise 2019 LTSC.

Are existing Windows customers eligible to move to Windows 10 IoT Enterprise 2019 LTSC for free?

No, in general each LTSC is a new operating system supported for 10 years and will require customers to purchase a new license.

How can existing Windows 10 IoT Enterprise customers move to Windows 10 IoT Enterprise 2019 LTSC?

Existing customers with Windows 10 IoT Enterprise 2015/2016 LTSB will need to purchase a Windows 10 IoT Enterprise 2019 LTSC Field Upgrade.

Windows Embedded 7 End of Support

When does support end for Windows Embedded 7?

The table below provides the end of support dates for Windows Embedded 7 versions.

Product	Lifecycle Start Date	Mainstream Support End Date	Extended Support End Date
Windows Embedded Standard 7 Service Pack 1	2/28/2011	10/13/2015	10/13/2020
Windows 7 for Embedded Systems Service Pack 1	2/22/2011	1/13/2015	1/14/2020
Windows Embedded POSReady 7	9/10/2011	10/11/2016	10/12/2021
Windows Embedded POSReady 2009	3/10/2009	4/8/2014	4/9/2019

Definitions for Mainstream and Extended support can be found here: Fixed Lifecycle Policy

Can customers get Extended Security Updates for Windows Embedded 7?

Yes, Extended Security Updates are available for up to 3 years after end of support. The program provides 'critical' security updates. Contact your device OEM for more details.

Critical security updates are defined here https: Security Update Severity Rating System

Can Windows Embedded 7 customers upgrade to Windows 10 IoT Enterprise?

The simplest way to find out if an upgrade is possible is by contacting the device OEM. The other method is to verify that all of the hardware and software is supported by Windows 10 IoT Enterprise and purchase Software Assurance through Microsoft Volume Licensing channel. With the latter option, the support responsibility shifts from the OEM to Microsoft and the customer becomes responsible for creating and maintaining system images.

When is the next LTSC?

The next LTSC release hasn't been announced. Microsoft never publishes feature updates through Windows Update on devices that run Windows 10 IoT Enterprise LTSC. Instead, it typically offers new LTSC releases every 2–3 years, and organizations can choose to install them or even skip releases over a 10-year life cycle.

Via Email
msembedded@arrow.com

Online
arrow.com/arrow-services/msembedded

 twitter.com/arrow_services

 facebook.com/ArrowFiveYearsOut

 linkedin.com/showcase/arrowservices

 youtube.com/ArrowFiveYearsOut

Five Years Out