

# Windows 10

## Road to 20H1

**Vito Macina**

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macinando



vitomacina

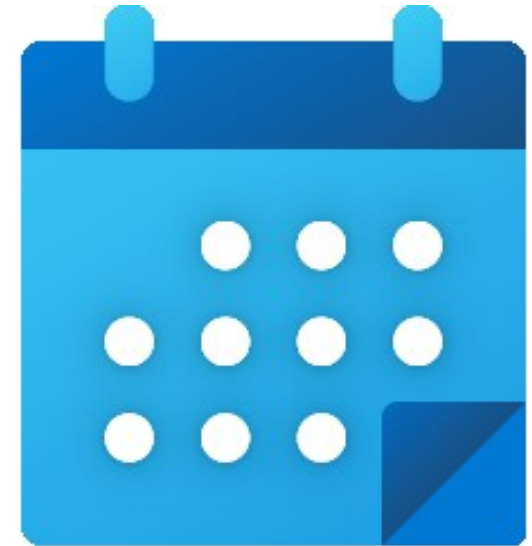
# Agenda

## Windows 10

- Where we are?
- Modern Devices
- Stay Current

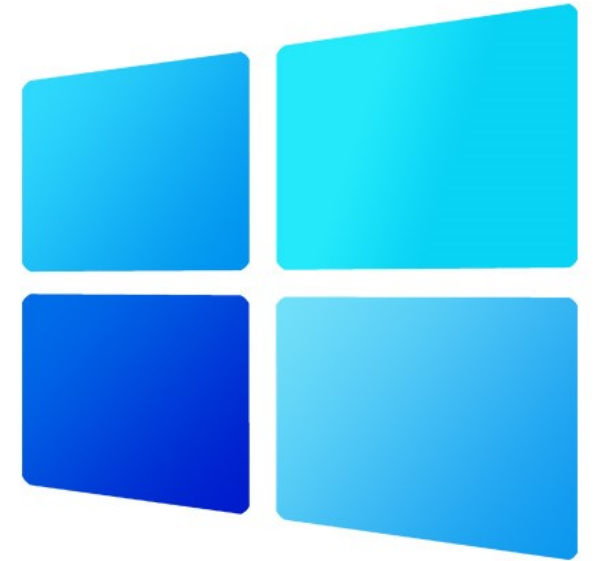
## Road to 20H1

- 19H2 approach
- WaaS updates
- 20H1 pills



# Windows 10

WHERE WE ARE?



# New IT challenges

# Current IT challenges

## On-premises



Legacy devices

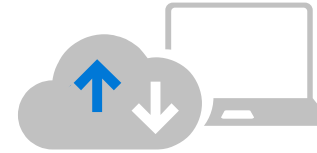
Windows 7

Office

Active Directory

ConfigMgr

Windows Defender



## Modern Workplace

Modern devices

Windows 10

Office 365

Azure Active Directory

Microsoft Intune

Microsoft Threat Protection

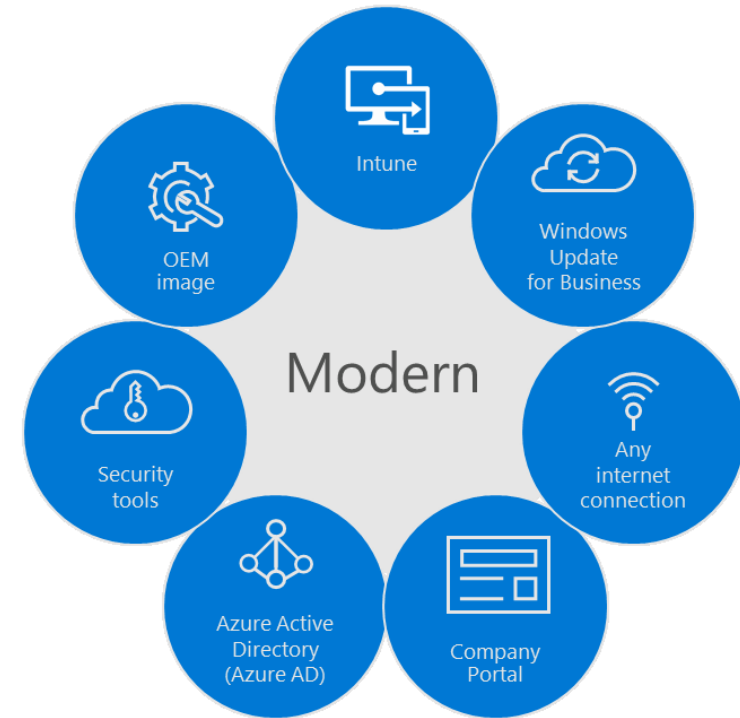
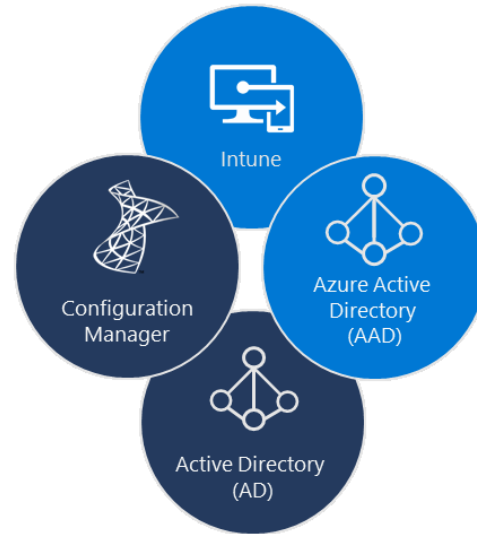


Microsoft 365

# Evolution to Modern Workplace



## Co-management



# Evolution to Modern Workplace



ON DEMAND

**Modern Windows 10 and  
Office 365 deployment with  
Windows Autopilot, Desktop  
Analytics, and Microsoft  
Endpoint Manager**

Microsoft Ignite





# Windows 10 for everyone

## Editions

Windows 10 Home	Windows 10 Pro
Windows 10 Enterprise	Windows 10 IoT Core
Windows 10 Education	Windows 10 Mixed Reality

## Configuration

- Windows 10 Home in S mode
- Windows 10 Pro in S mode
- Windows 10 Enterprise in S mode
- Windows 10 Pro for Workstations

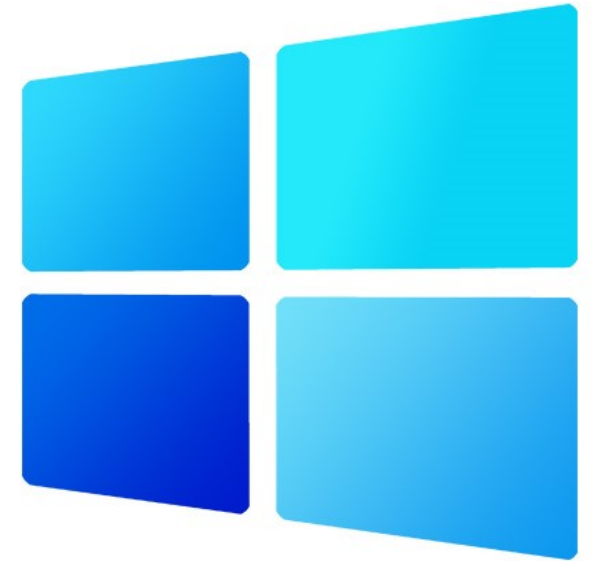
## Devices

- Desktop
- Notebook
- Workstation
- Convertible
- Tablet
- AIO
- IoT
- ...



# Windows 10

MODERN DEVICES

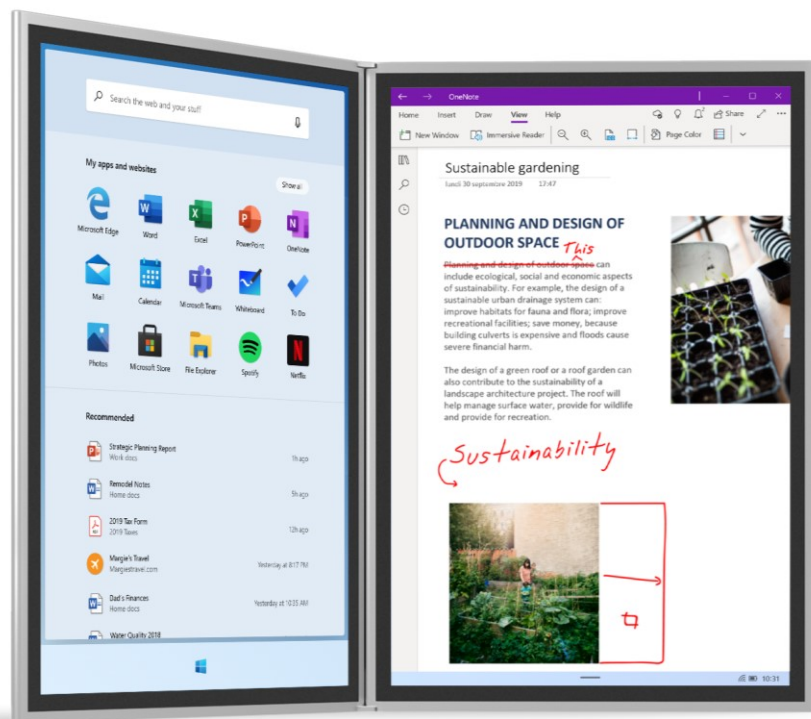


# Windows 10 on ARM

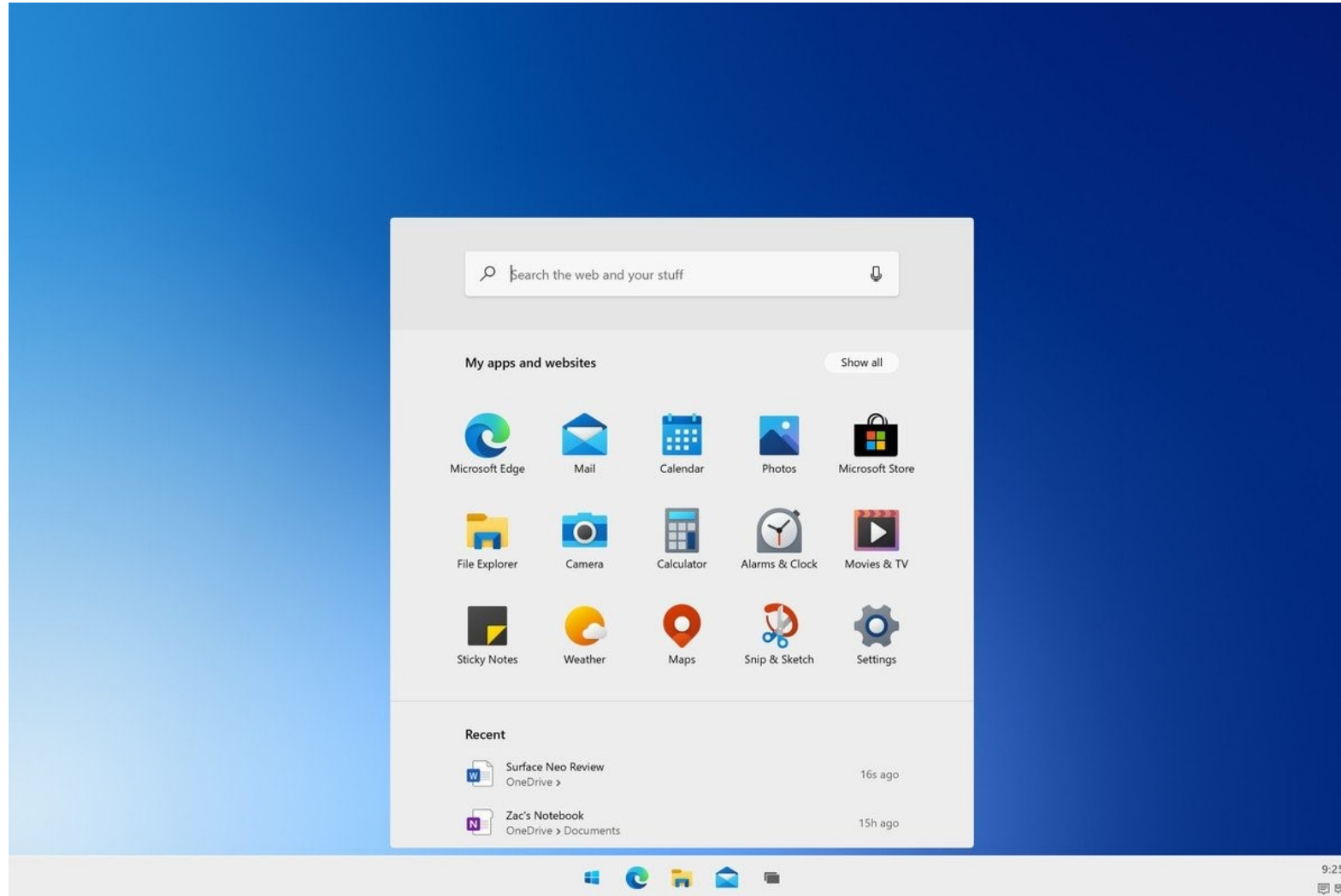
Windows Server Update Services (WSUS) does not support the ability to deliver drivers and firmware to Surface Pro X.



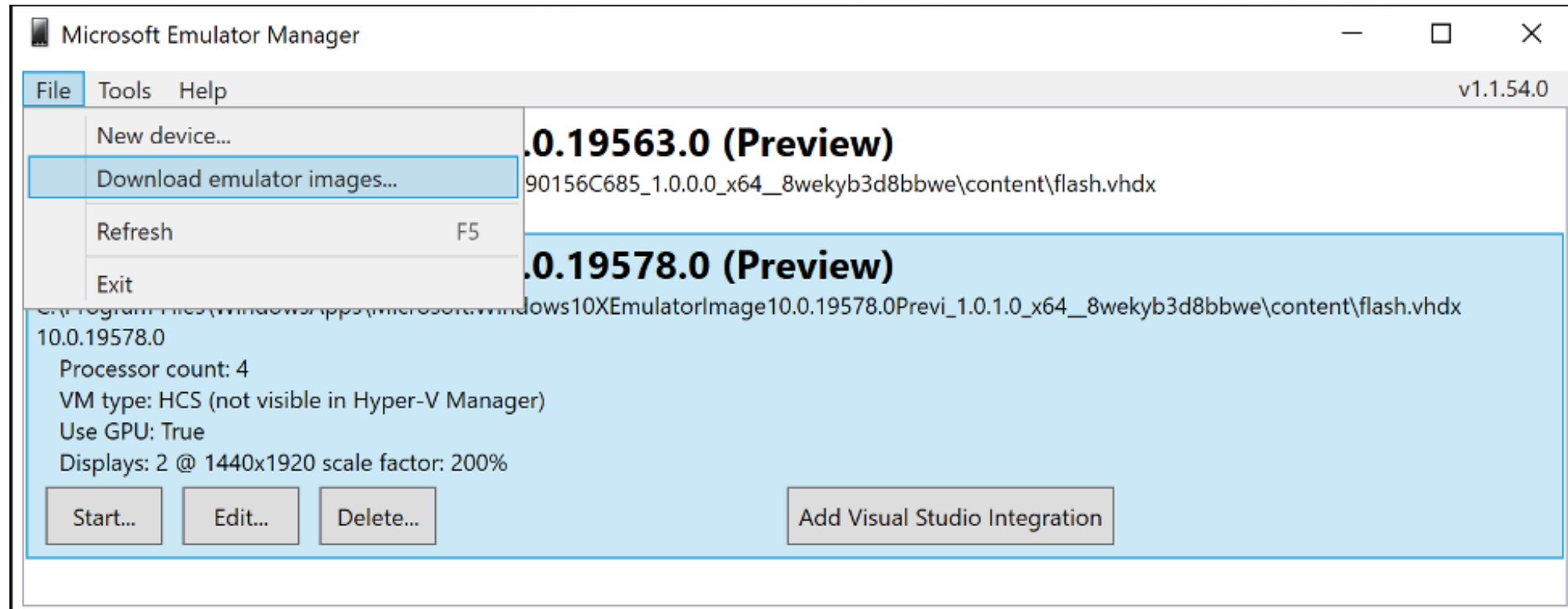
# Windows 10X



# Windows 10X

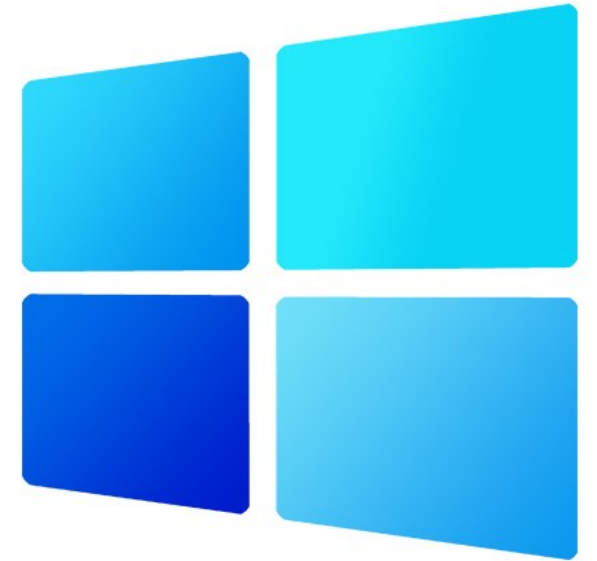


# Microsoft Emulator Manager



# Windows 10

STAY CURRENT





# Why Stay Current?



Improved management, performance, stability and latest hardware support



Enhanced security against modern threats and zero-day attacks



Access to the latest features and capabilities for better productivity and creativity

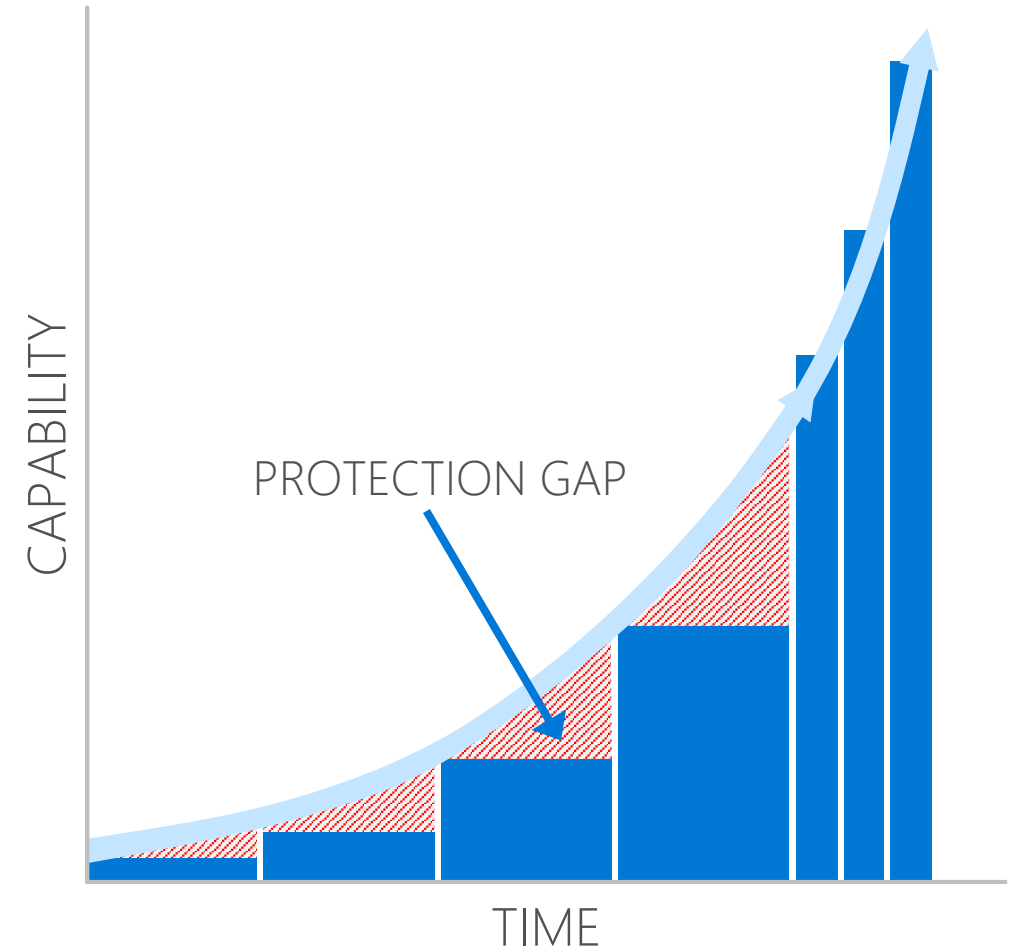


# Staying Secure

Attackers take advantage of periods between releases



Stay ahead of the attackers with continual software improvements



PRODUCT RELEASE

THREAT SOPHISTICATION

# Windows 10 gets better with each update

With enhanced security, more tools for IT and end user productivity features

- Windows Defender Antivirus
- Windows Hello
- Microsoft Edge
- Device Guard
- Credential Guard
- BitLocker
- SmartScreen
- Windows as a service
- In-place upgrades
- Continuum
- Cortana
- Windows 10 core

1507

- Mobile Device Management
- AAD Join
- Windows Store for Business
- Windows Update for Business
- Mail, Calendar, Photos, Maps, Groove, Skype
- Windows Defender Antivirus
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1511

- Windows Information Protection
- Windows Hello for Business
- Windows Analytics Upgrade Readiness
- App-V, UE-V
- Hybrid Azure Active Directory Join
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1607

- Windows Autopilot
- Windows Defender ATP
- Windows Defender Security Center
- Express update delivery
- Hyper-V
- Windows 10 Subscription Activation
- Windows Insider Program for Business
- Paint 3D
- Cortana at work
- Night light, mini view
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1703

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With enhanced security, more tools for IT and end user productivity features

- Windows Defender Exploit Guard, System Guard, Application Guard, Application Control
- Mobile Device Management
- Windows Analytics Update Compliance
- Windows Analytics Device Health
- Co-management
- Enterprise search in Windows
- Continue on PC
- OneDrive Files On-Demand
- Narrator
- Mixed Reality Viewer

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1709

- Windows Analytics – Spectre & Meltdown, Delivery Optimization, Application Reliability Logon Health
- WDATP Automated Remediation
- Conditional Access based on WDATP device risk
- Threat Analytics
- Emergency Outbreak Updates
- Advanced hunting
- Cloud Credential Guard
- Diagnostic data viewer
- Windows Autopilot enrollment status page
- Windows 10 Enterprise in S mode
- Shared Windows Devices
- Nearby Sharing
- Dictation
- Timeline

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1803

- Microsoft Defender ATP new attack surface area reduction controls
- Investigation and remediation across Office 365 ATP and Microsoft Defender ATP
- Web Authentication in Microsoft Edge
- Windows Hello with FIDO 2.0
- 30 months of support for September releases
- Windows Autopilot Self-deploying mode
- Windows Autopilot Hybrid Azure AD join
- S Mode Block Switch
- Microsoft Edge kiosk mode
- Desktop Analytics (Preview) – Intelligent Pilot Selection and ConfigMgr Integration
- ReadyforMicrosoft365.com
- Microsoft Edge experience improvements
- Accessibility enhancements
- Access the clipboard across devices
- Your Phone

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1809

- Windows Virtual Desktop (Preview)
- Microsoft Defender Advanced Threat Protection enhancements
- Attack Surface Reduction enhancements
- Next Generation Protection enhancements
- Tamper Proofing Capabilities
- Windows Sandbox
- Application Guard enhancements
- Sign-on with Password-less Microsoft accounts
- New Kimojis and Emojis
- Accessibility Improvements
- Windows Shell enhancements
- Windows Timeline
- Device Management Policies
- Intune Security Baselines
- Enhanced Enrollment Status Page
- Windows AutoPilot White Glove
- Setup Diag
- Automatic Restart Sign On (ARSO)
- Reserved Disk Space
- Improved Delivery Optimization (DO)

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1903

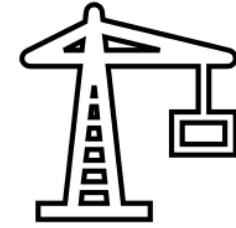
# Top customer conversations & challenges



**Application  
Compatibility**



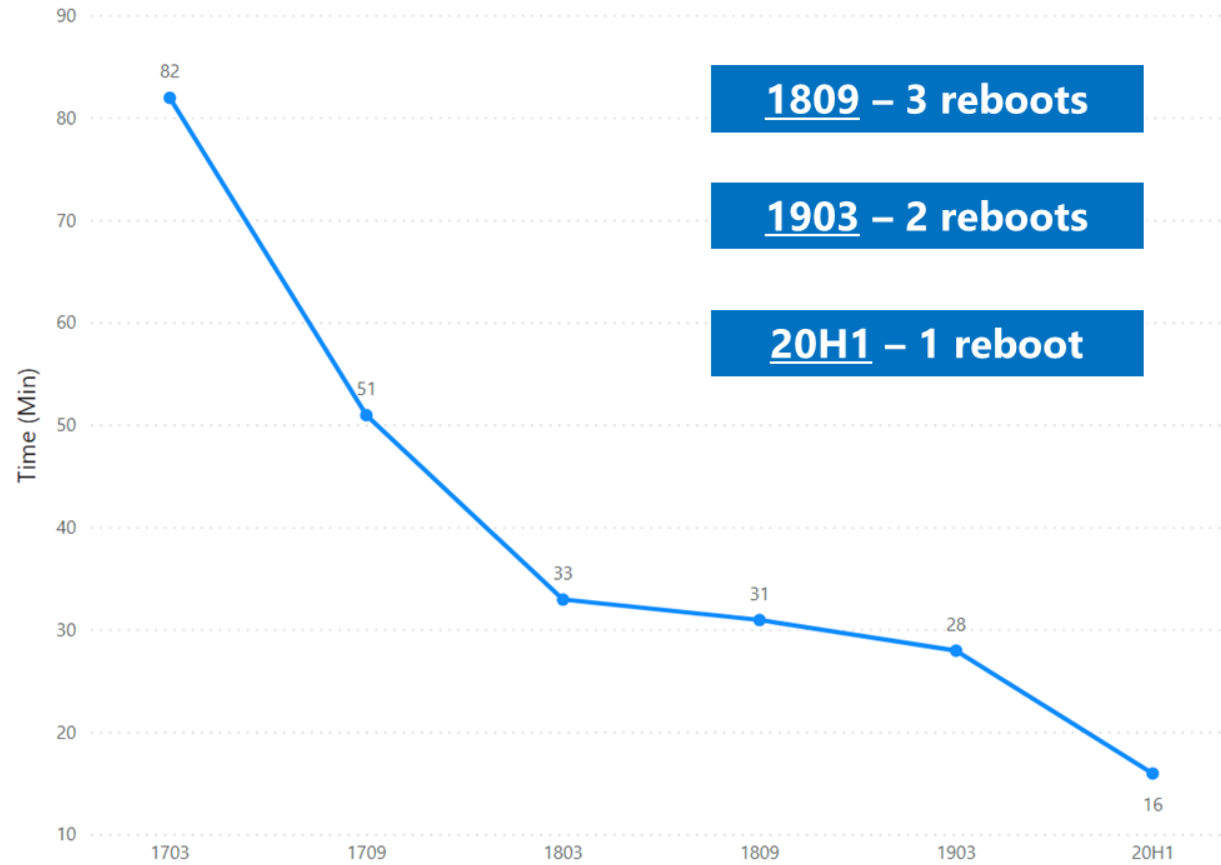
**Bandwidth  
Impact**



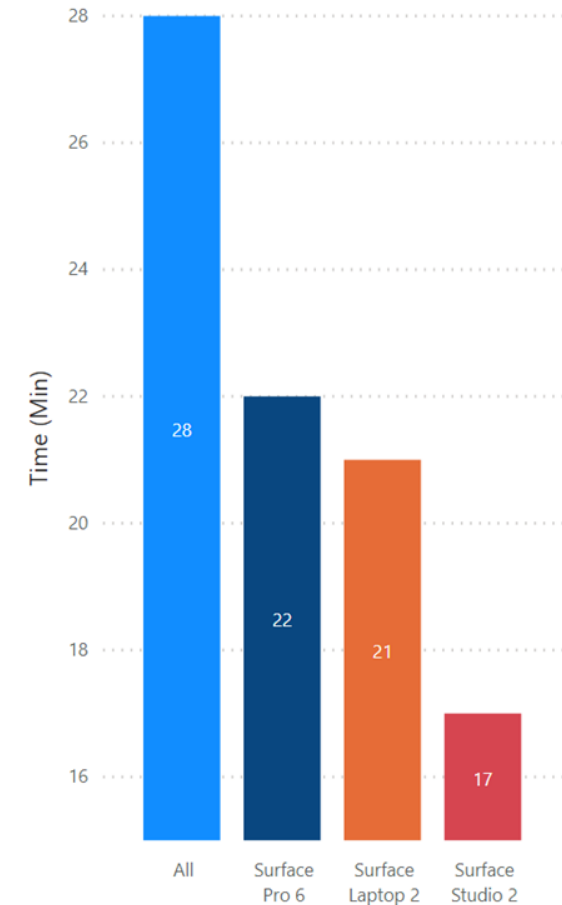
**Package & Payload  
Sizes**

# Reducing Feature Update offline time

Feature Update median offline time



1903 Feature Update median offline time



# Road to 20H1

19H2 APPROACH

# 19H2

September 2019

1909

November 2019



# Understanding Windows 10, version 1909

- Windows 10, versions 1903 and 1909 share a common core operating system with an identical set of system files.
- Version 1909 is included in the latest monthly quality update for Windows 10, version 1903 (released October 8, 2019)
- New features will remain dormant until they are turned on through the “enablement package,” a small, quick-to-install “master switch” that activates the Windows 10, version 1909 features.



# Overview Windows 10, version 1909

- Update to 1909 using Quality Update process and experience
- New features delivered inside LCU via Servicing
- 30 months of support for Enterprise e Education editions
- Windows 10 1909 contains 4 components:
  - **1903** – Any 18362.xxx build
  - **LCU** – Latest Cumulative Update with 1909 features “turned off”
  - **SSU** – Servicing Stack Update that makes eKB installable
  - **eKB** – Enablement KB that turns on the 1909 features and marks the system as 1909

# Deploying Windows 10, version 1909



<b>Starting Windows Version</b>	<b>Deployment Behavior</b>
Windows 10, version 1809 or earlier	No changes
Windows 10, version 1903	Faster update to Windows 10, version 1909

# Deploying Windows 10, version 1909 (WSUS)

Starting Windows version	Deployment
Windows 10, version 1809 or earlier	No changes.  Windows 10, version 1909 media will be available on general availability to all the channels as earlier Windows 10 releases.
Windows 10, version 1903	"Feature Update to Windows 10 version 1909 via Enablement Package ( <a href="#">KB4517245</a> )"  <b>or</b>  Windows 10, version 1909 media.

More details?



The image shows a screenshot of the ICT POWER.IT website. The top navigation bar is dark grey and contains the following items from left to right: the logo 'ICT POWER.IT' with a lightning bolt icon, and menu items for 'Home', 'Blogs', 'Sistemi', 'Cloud', 'Tecnologia', 'Normative', 'Video', 'Eventi', 'Community', and social media icons for Facebook, Twitter, LinkedIn, YouTube, and RSS. A search icon is located on the far right of the navigation bar. The main content area features a large blue background with a white Windows logo and the text 'Windows 10' centered above the large white text 'November 2019 Update'. Below this, the date 'November 12, 2019' is displayed in a smaller white font. A faint, semi-transparent Windows logo is visible in the background on the right side of the page.

ICT POWER.IT

Home Blogs Sistemi Cloud Tecnologia Normative Video Eventi Community

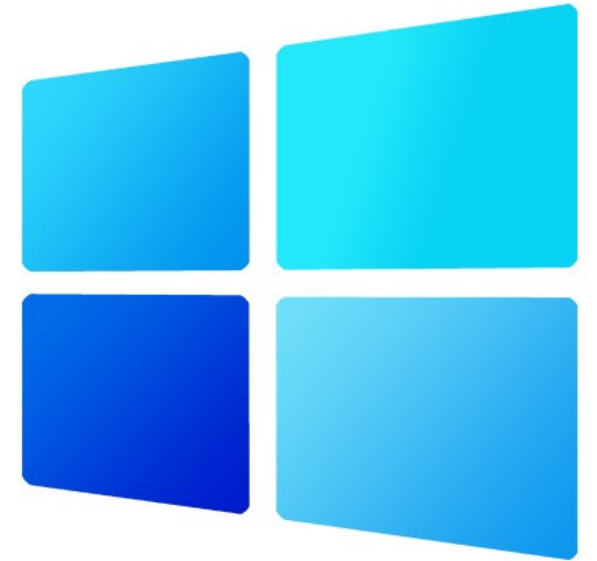
Windows 10

November 2019 Update

November 12, 2019

# Road to 20H1

WAAS UPDATES



*"Right now we're releasing Windows 10, and because Windows 10 is the last version of Windows, we're all still working on Windows 10."*

Jerry Nixon – Software Development Engineer – Ignite 2015

# Windows as a Service, you know?

A light blue circle with a thin grey border containing the text "Quality Updates" in blue.

## Quality Updates

### **A single cumulative update each month with no new features**

- Security fixes, reliability fixes, bug fixes, etc.
- Supersedes the previous month's update

A light blue circle with a thin grey border containing the text "Feature Updates" in blue.

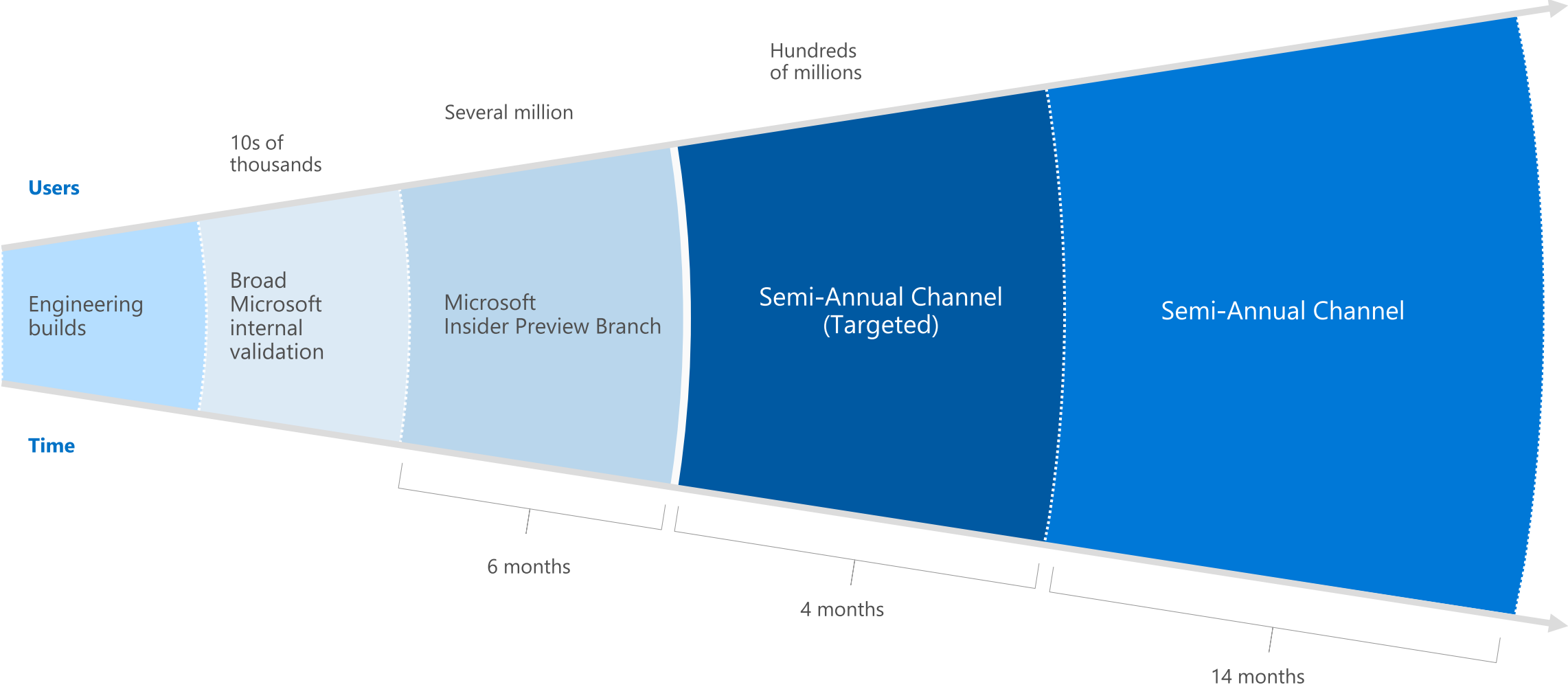
## Feature Updates

### **Twice per year with new capabilities**

- New features and innovation APIs and security capabilities
- Very reliable, with built-in rollback capabilities
- Simple deployment using in-place upgrade, driven by existing tools
- Try them out with Insider Preview

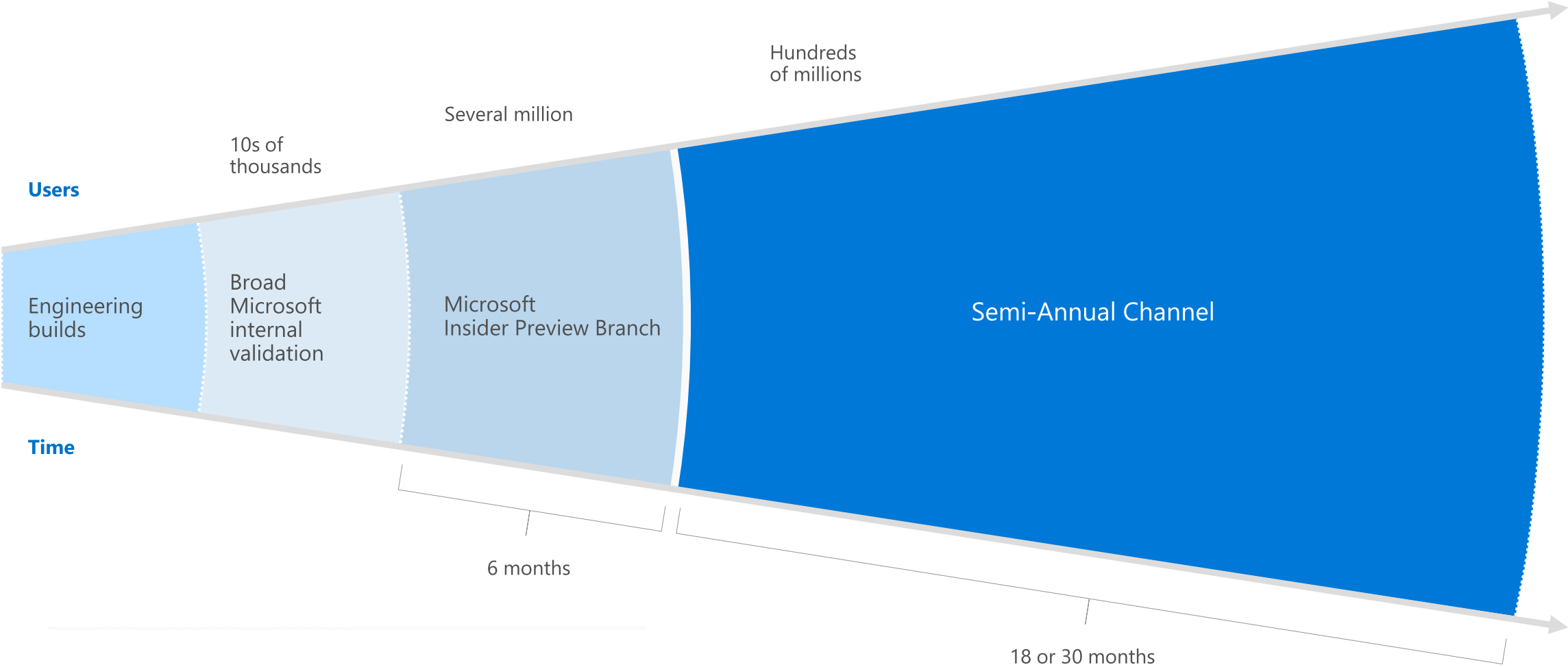


# Windows as a Service, Deployment rings



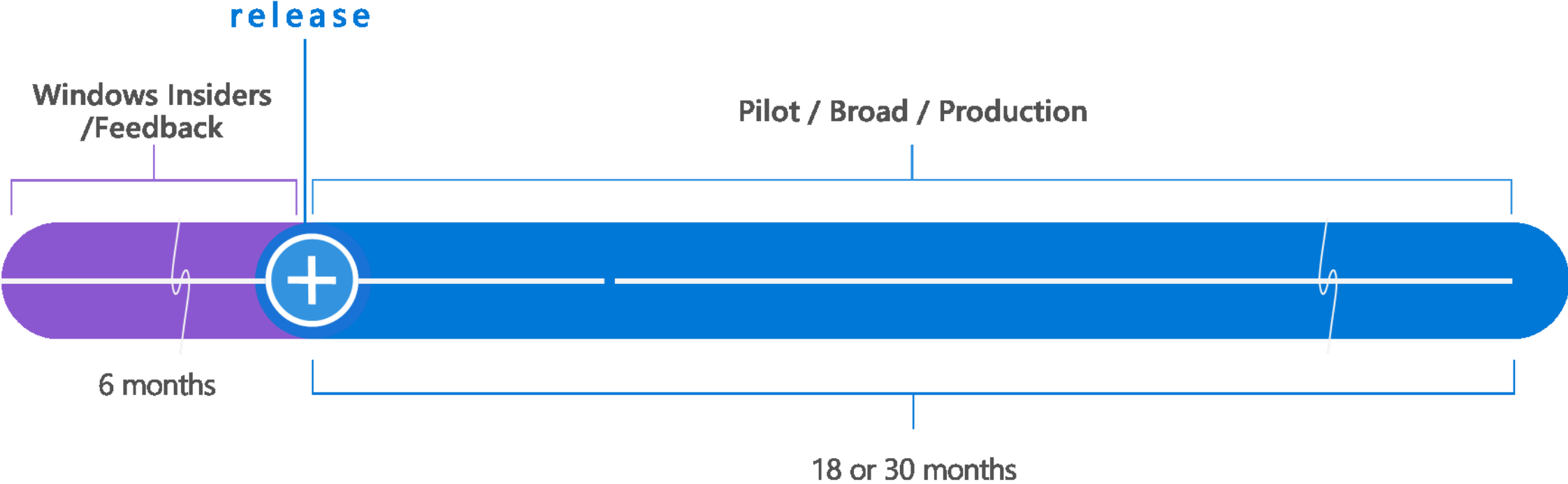
\*Conceptual illustration only

# Windows as a Service, Deployment rings

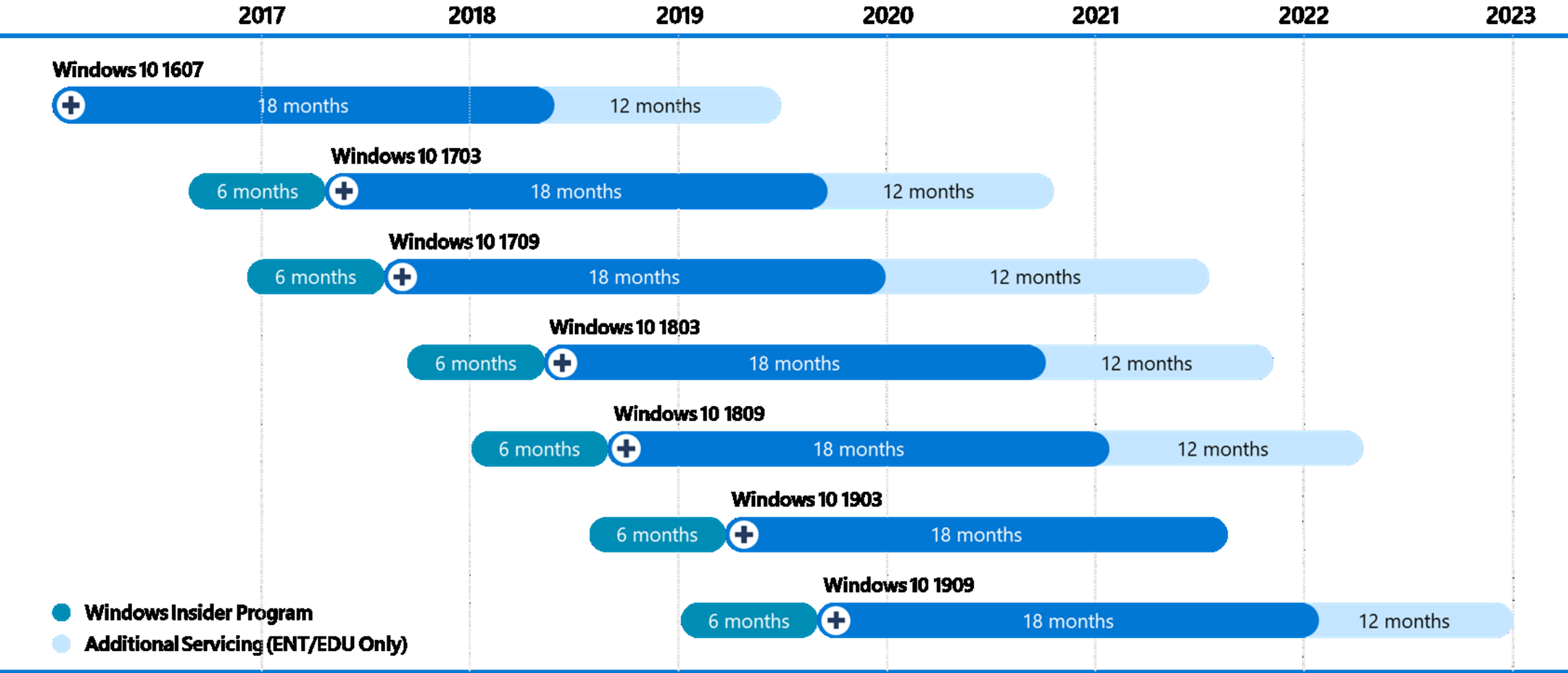


\*Conceptual illustration only

# Windows 10 Release Lifecycle



# Windows 10 Servicing Timeline



# Windows Update Advanced Options changes

← Settings

## Advanced options

### Choose when updates are installed

Choose the branch readiness level to determine when feature updates are installed. 'Semi-Annual Channel (Targeted)' means the update is ready for most people, and 'Semi-Annual Channel' means it's ready for widespread use in organizations.

Semi-Annual Channel (Targeted)

Semi-Annual Channel

A feature update includes new capabilities and improvements. It can be deferred for this many days:

0

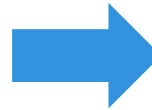
A quality update includes security improvements. It can be deferred for this many days:

0

[Delivery Optimization](#)

[Privacy settings](#)

Note: Windows Update might update itself automatically first when checking for other updates.



← Settings

## Advanced options

### Choose when updates are installed

A feature update includes new capabilities and improvements. It can be deferred for this many days:

0

A quality update includes security improvements. It can be deferred for this many days:

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[Delivery Optimization](#)

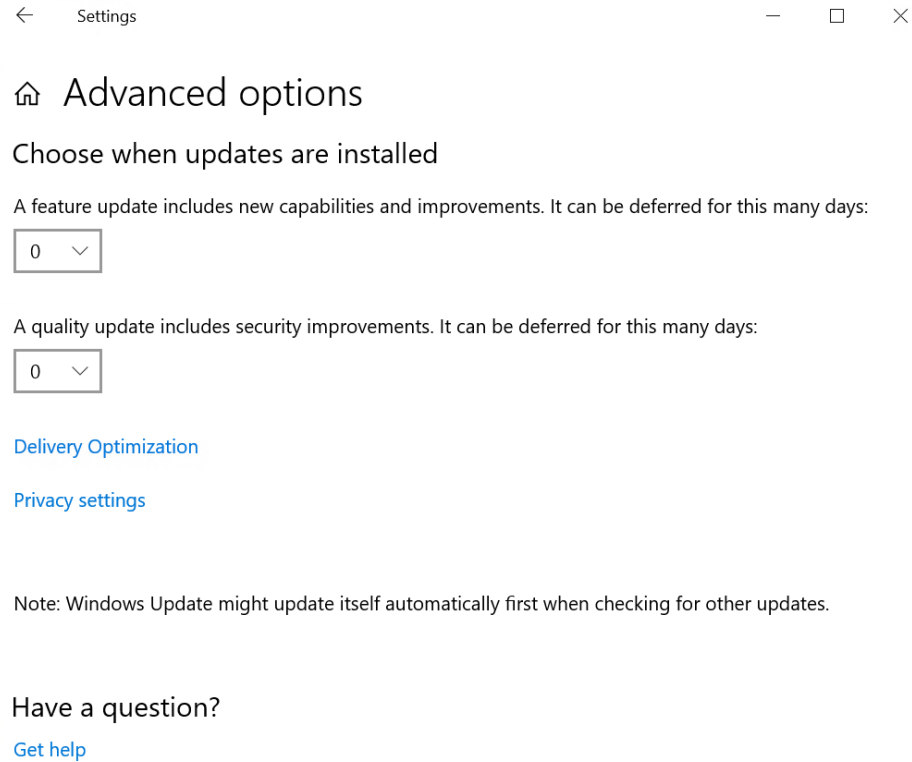
[Privacy settings](#)

Note: Windows Update might update itself automatically first when checking for other updates.

### Have a question?

[Get help](#)

# Defer or pause an update



## Defer

## Maximum deferral

---

Feature updates

365 days

---

Quality updates

30 days

## Pause an update

---

35 days maximum

# Windows lifecycle fact sheet

Edition	March* feature updates	September* feature updates
<b>Windows 10 Enterprise</b>	Serviced for 18 months from release date	Serviced for 30 months from release date (formerly 18 months)
<b>Windows 10 Education</b>		
<b>Windows 10 Pro</b>	Serviced for 18 months from release date. However, based on your settings, the latest feature update may be automatically installed when available.	
<b>Windows 10 Pro Education</b>		
<b>Windows 10 Pro for Workstations</b>		
<b>Windows 10 Home</b>		

\* Feature updates will be released twice annual with a target of March and September

# Windows lifecycle fact sheet

Windows 10 version history	Date of availability	End of service for Home, Pro, and Pro for Workstation editions	End of service for Enterprise and Education editions
Windows 10, version 1909	November 12, 2019	May 11, 2021	May 10, 2022**
Windows 10, version 1903	May 21, 2019	December 8, 2020	December 8, 2020
Windows 10, version 1809	November 13, 2018	May 12, 2020	May 11, 2021**
Windows 10, version 1803	April 30, 2018	November 12, 2019	November 10, 2020
Windows 10, version 1709	October 17, 2017	April 9, 2019	<b>October 13, 2020</b>
Windows 10, version 1703	April 5, 2017	October 9, 2018	October 8, 2019
Windows 10, version 1607	August 2, 2016	April 10, 2018	April 9, 2019
Windows 10, version 1511	November 10, 2015	October 10, 2017	October 10, 2017
Windows 10, version 1507	July 29, 2015	May 9, 2017	May 9, 2017

\*\* Serviced for 30 months from release date

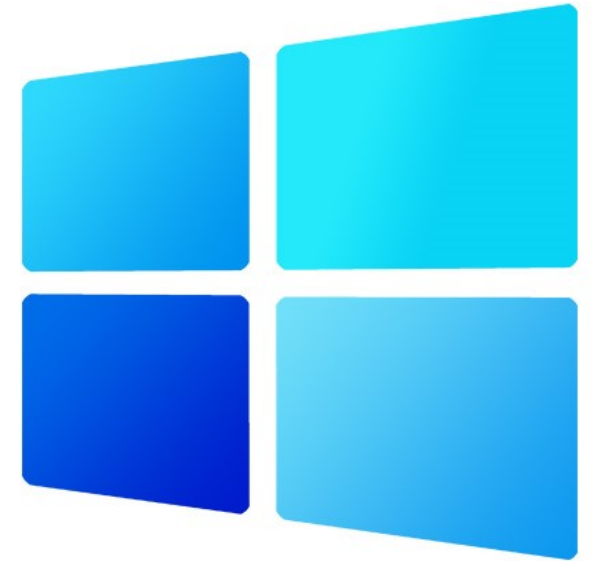


# Windows lifecycle fact sheet

<b>Windows 10 version history</b>	<b>Date of availability</b>	<b>Mainstream support end date</b>	<b>Extended support end date</b>
<b>Windows 10 Enterprise LTSC 2019</b> <b>Windows 10 IoT Enterprise LTSC 2019</b>	November 13, 2018	January 9, 2024	January 9, 2029
<b>Windows 10 Enterprise 2016 LTSC</b> <b>Windows 10 IoT Enterprise 2016 LTSC</b>	August 2, 2016	October 12, 2021	October 13, 2026
<b>Windows 10 Enterprise 2015 LTSC</b> <b>Windows 10 IoT Enterprise 2015 LTSC</b>	July 29, 2015	October 13, 2020	October 14, 2025

# Road to 20H1

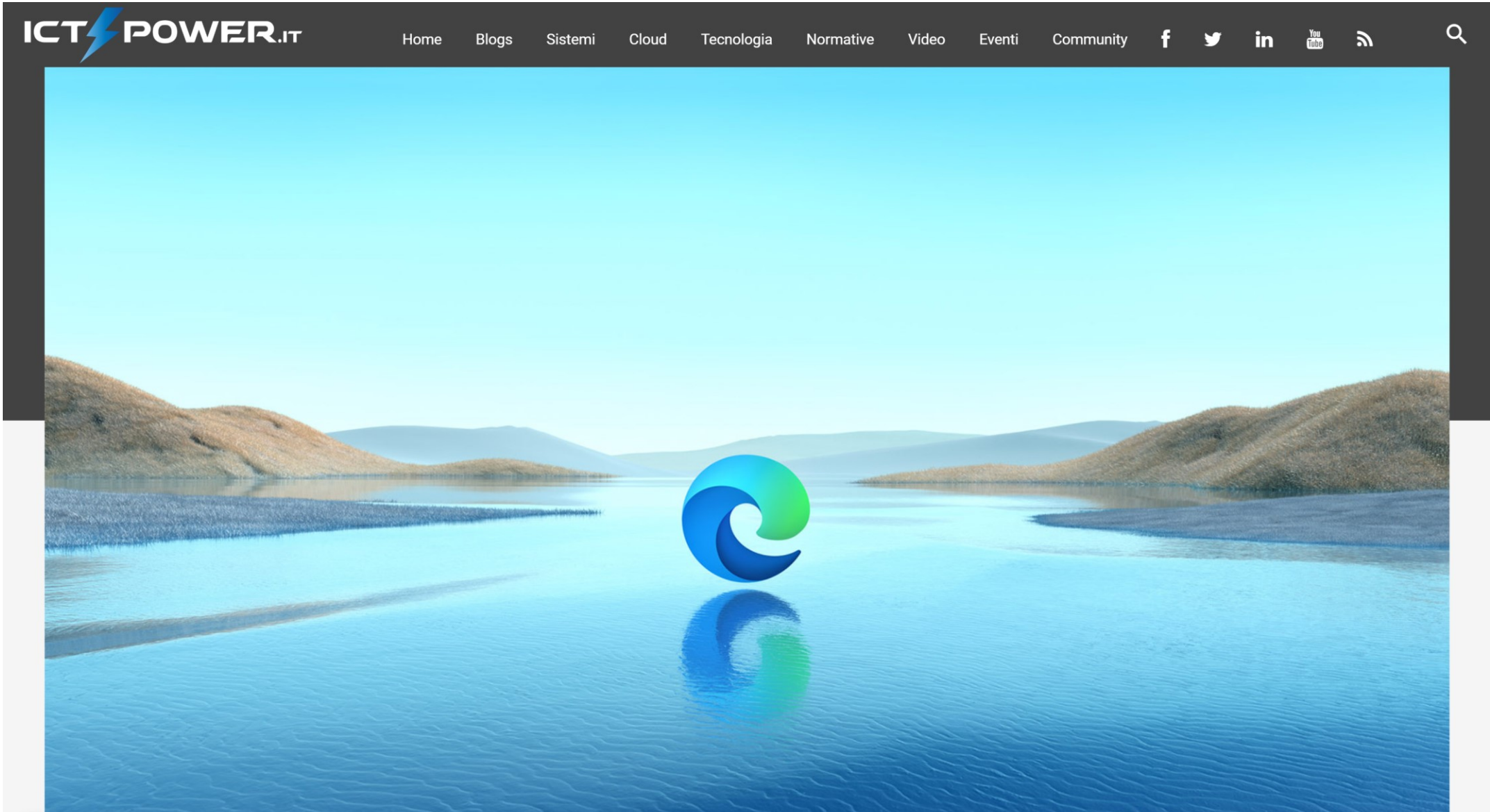
20H1 PILLS



# New Microsoft Edge



# More details?

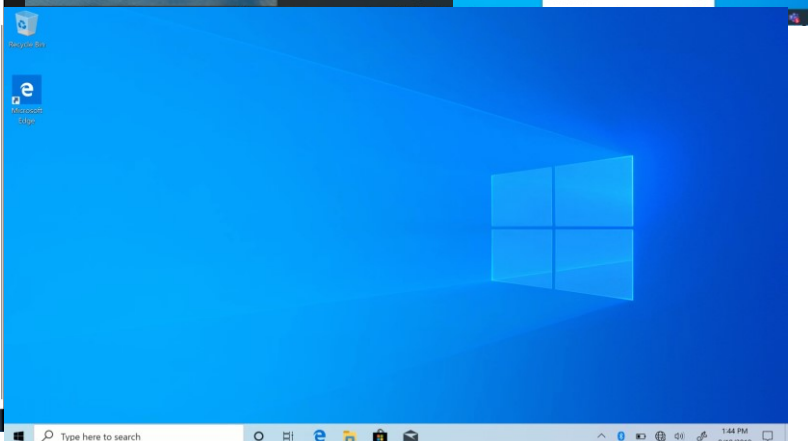
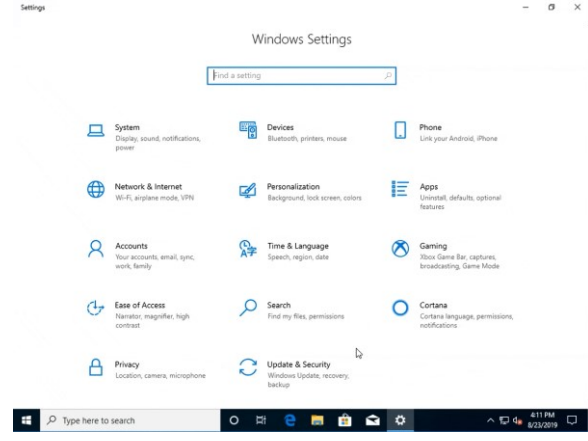
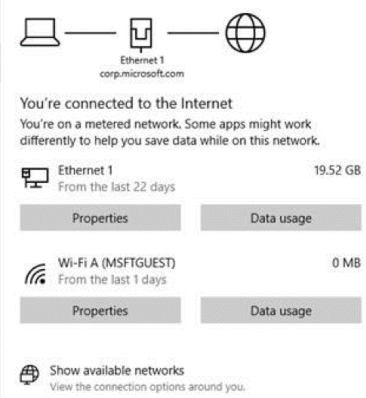
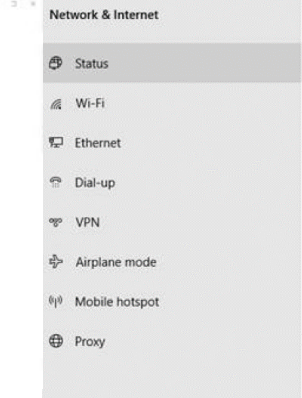
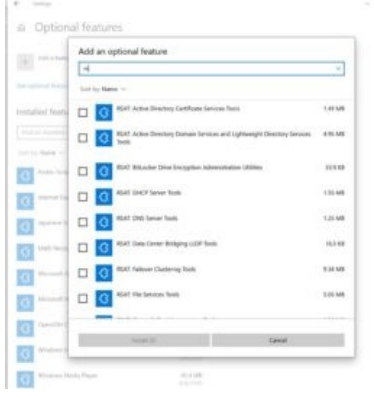
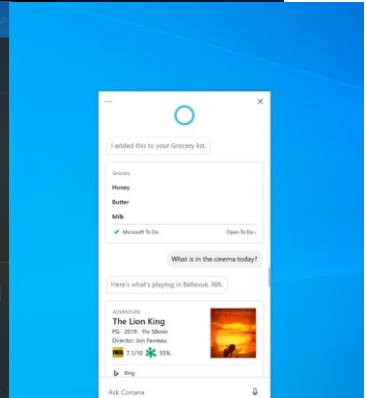
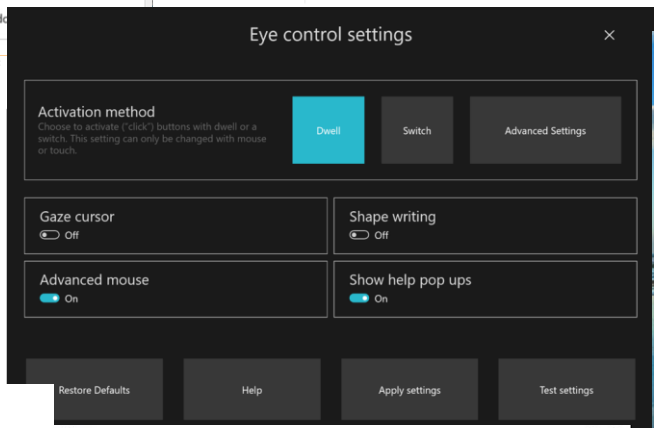
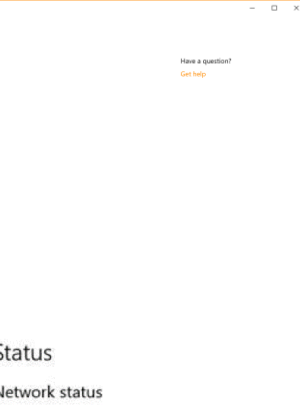
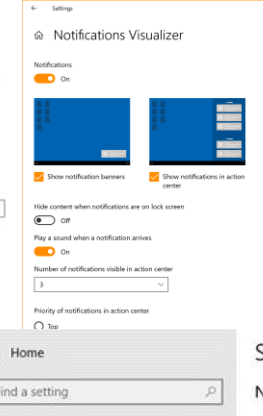
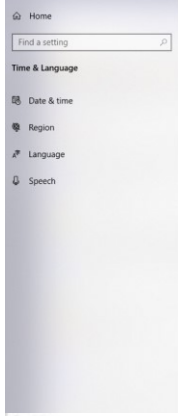
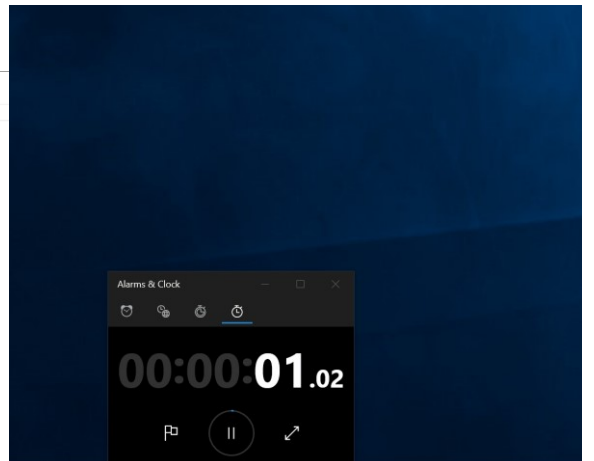
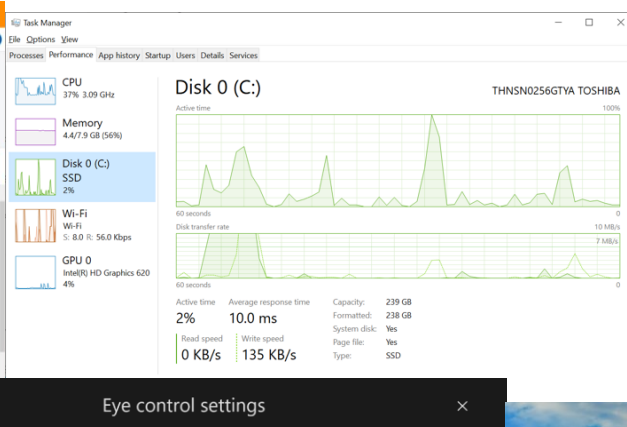
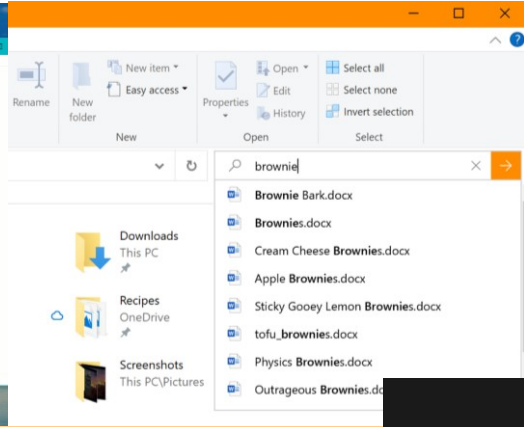
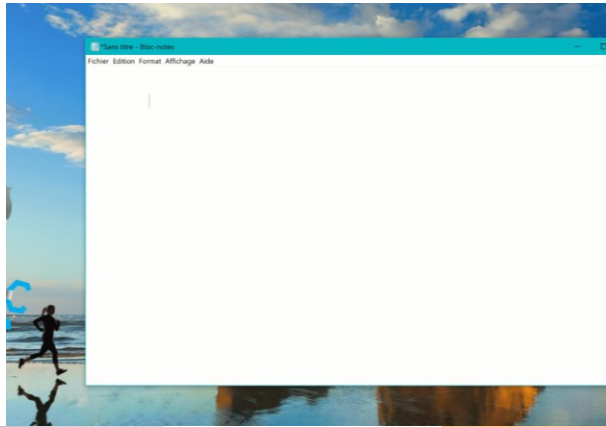


# 20H1

March 2020

2004

May 2020

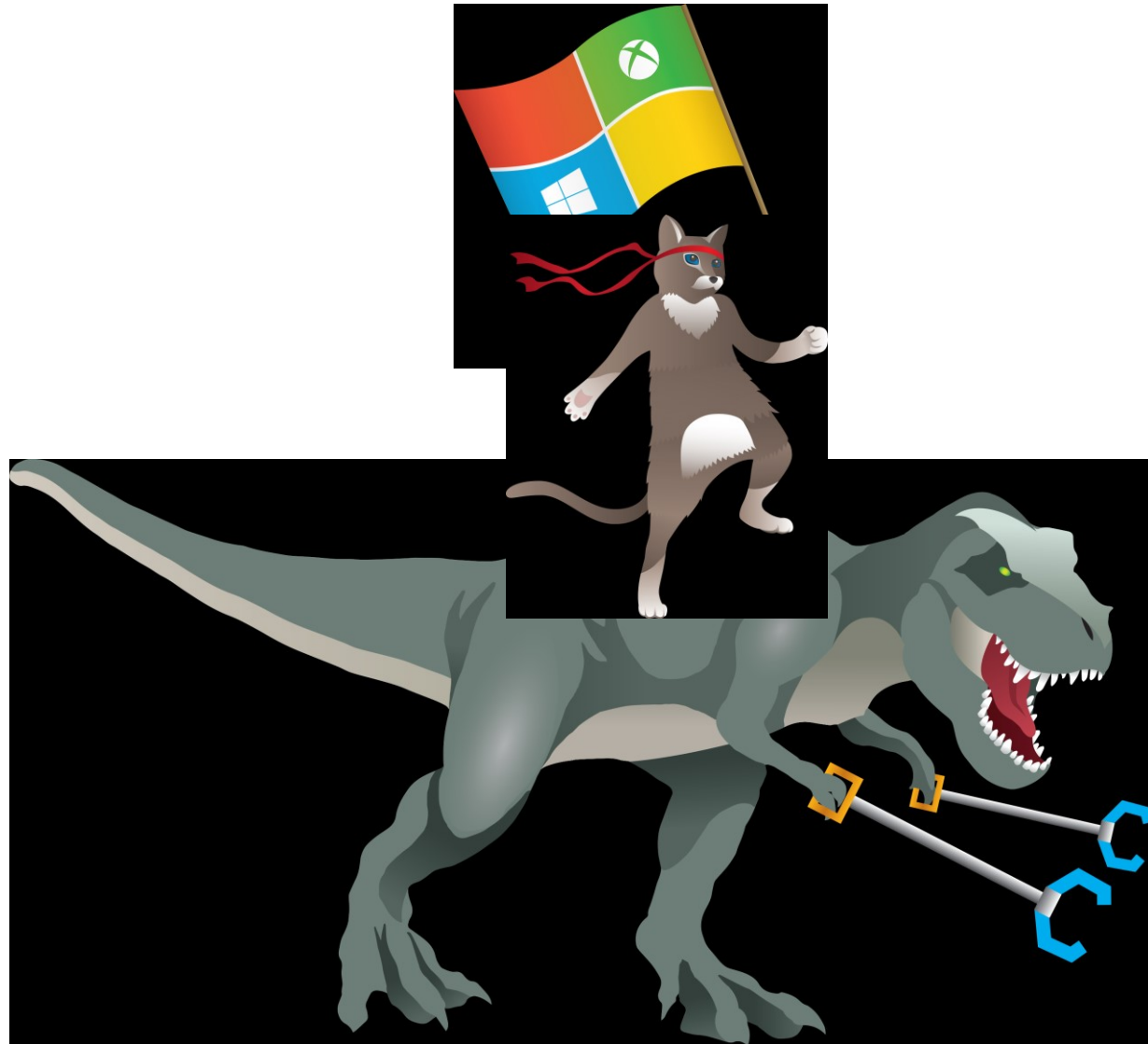


# vNext?

Insider Time



# The Fast ring going forward



➔ Active Development Branch

New features and OS improvements done in this branch will show up in future Windows 10 releases when they are ready.

# Grazie

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