



Microsoft

Monthly Technical Update
DECEMBER 2022

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- [Microsoft Ignite 2022 – October 2022](#)
- [Microsoft Research Summit – October 2022](#)
- [GitHub Universe 2022](#)
- [Microsoft Tech Community Blog depot](#)
- [Microsoft Official Blog](#)
- [TechCommunity Events](#)
- [Microsoft Technical Documentation Hub](#)



Announcements and Tips



New trends with Microsoft Technology

- [Azure Updates](#)
- [Industry Blogs](#)
- [Industry Cloud Announcements](#)
- [Microsoft Research Blog](#)
- [Microsoft Quantum Computing](#)

- [Microsoft Security Blog](#)
- [Microsoft Global Threat Monitor](#)
- [Microsoft Security Response Center](#)
- [Security, Compliance and Identity Blog](#)



Security and Compliance

- [Microsoft IT Showcase](#)
- [Technical Professional Training](#)
- [User Training and technology introductions](#)



Showcase of the month

- [Teams Updates](#)
- [Office Updates](#)
- [Power Platform and Dynamics](#)
- [Power Platform Templates](#)
- [GitHub Updates](#)
- [Developer Blogs and Showcase](#)
- [Office Developer Blog](#)



Microsoft 365 update information



Product Lifecycles



Acquisitions and Announcements

- [Products Reaching End of Support in 2022 and 2023](#)
- [Companies and Technologies Acquired Since 2018](#)

Microsoft

By the Numbers

**20 million**

Microsoft's Seeing AI app, which helps people who are blind or have low vision to better navigate the world around them, has assisted people with more than 20 million tasks.

How Seeing AI turns the visual world into an audible experience:

**1.4 billion**

There are more than 1.4 billion monthly active devices running Windows 10 or Windows 11.

100%

Since 2012, Microsoft has operated 100 percent carbon neutral around the world.

This experimental feature surveys surroundings and explains what it sees.

**200**

Microsoft runs several labs around the world that specialize in the fabrication of quantum devices. Cryogenics are used to keep certain quantum components 200 times colder than the farthest reaches of outer space.

**6.5 trillion**

Every day, Microsoft analyzes over 6.5 trillion signals in order to identify emerging threats and protect customers.

0

Beyond a small amount of drinking water, Microsoft's Silicon Valley campus consumes zero water from

3 million

Microsoft's Rural Airband Initiative invests in partnerships with telecommunications companies with the goal of bringing broadband connectivity to 3 million unserved people in rural America by 2022.

137

Microsoft has made 137 "AI for Earth" grants to individuals and organizations in 47 countries, helping them use artificial intelligence to protect the planet in the areas of agriculture, biodiversity, climate change and water.

How cold is cold?



Space



Darkside



Coldest



Hottest

Outer space

-270.45C (-454.81F). (Space is not absolute zero because of uniform background radiation from the Big Bang.)

GitHub Universe 2022: cloud, security, community, and AI



November 9 & 10, 2022

Explore

Attending Universe in-person this year? Sessions aren't the only things you have to look forward to—we're curating an immersive physical experience as well. Head over to the #AskGitHub booth to get your burning questions answered, discover our interactive installations, network as much (or as little) as you'd like, and purchase exclusive Universe swag at the Octoshop. Plus, many more surprises to come.

WHEN:

November 9 & 10

TYPE:

Live - In-Person

WHERE:

Across YBC, San Francisco

Sessions

With over 80 sessions diving into key themes across Cloud, Security, AI, and the global GitHub Community, we'll have something for everyone at this year's Universe. Hear from industry experts on how to secure your start-up's software development cycle, the future of AI, and much, much more. Stay tuned for a full line-up of sessions soon.

WHEN:

November 9 & 10

TYPE:

Live - Digital & In-Person

WHERE:

Across YBC & Streaming



Marketplace Summit

Nov 15, 2022 | Charlotte Yarkoni, President, Commerce + Ecosystems

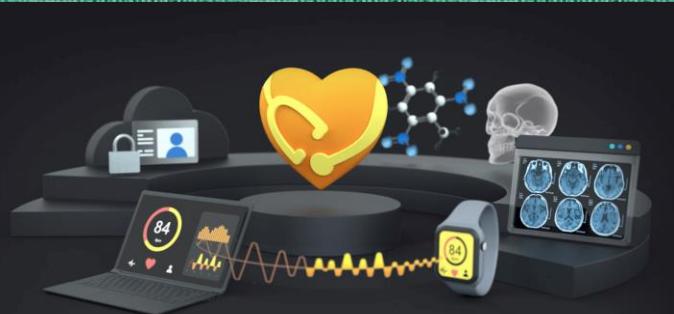
The path to marketplace success starts here >

Industry Digital Event :: Healthcare Transformation

Towards Data - Driven Healthcare

24 November 2022 | 2:00 PM - 3:30 PM | (GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague

Join us on November 24 starting 2PM CET for "Towards Data-Driven Healthcare" industry digital event and discover **how to accelerate healthcare transformation in your organization using clinical insights, operational insights, interoperability, remote monitoring and more.**



Azure Health Data Services

During this 90 minutes session attendees will get access to hands-on information from Microsoft leaders, experts and hear from the experience of Microsoft customers and partners on **how to connect people and health data from across disparate systems, creating insights to predict risk, accelerate care decisions, and help drive better health outcomes.**

Event will be conducted in English language and translated captions will be available for Polish, Czech & Hungarian languages.

Agenda:

Sessions	Speaker
Introduction: Microsoft for Healthcare	Ruthy Kaidar Director for Healthcare Microsoft Central and Eastern Europe
The Future of Healthcare	Prof. Dr. Koen Kas Healthcare visionary
Microsoft's Approach to Data in Healthcare	Tomasz Kopacz Regional Healthcare Technology Strategist Microsoft Central and Eastern Europe
Deep dive in Azure Health Data Services	Matjaz Ladava Principal Group Program Manager, Health Data Services, C+AI Microsoft
Data systems in Healthcare systems	Tomaz Gornik CEO and founder Better Ruthy Kaidar Director for Healthcare Microsoft Central and Eastern Europe
Care at home	Sean Hamill Healthcare Cloud Architect Microsoft Anukool A Chief Architect Health and Life Sciences EMEA Microsoft
Data driven Healthcare – where do we start?	Prof. Carlo Tacchetti, MD Professor of Anatomy Coordinator, International PhD Program in Molecular Medicine Coordinator, Ai in Healthcare Activities University Vita-Salute San Raffaele, Medical School Director Experimental Imaging Center, IRCCS Ospedale San Raffaele Scientific Institute
Summary & Closing	Ruthy Kaidar Director for Healthcare Microsoft Central and Eastern Europe Tomasz Kopacz Regional Healthcare Technology Strategist Microsoft Central and Eastern Europe





JAN 5-8, 2023

LAS VEGAS, NV & DIGITAL



Consumer
Technology
Association®

TOPICS ABOUT SESSIONS & EVENTS EXHIBITS LOGISTICS

2023 Schedule

Explore your options to connect, learn and be inspired at CES.

CES 2023 Exhibitor Directory

B E H I N D T H E

JAN 5-8, 2023
LAS VEGAS, NV & DIGITAL



Consumer
Technology
Association®



NRF2023
RETAIL'S BIG SHOW

January 14: Opening Party
January 15-17: Conference & Expo
Jacob K. Javits Convention Center | NYC

BREAK THROUGH

Jan. 14: Opening Party | Jan. 15-17: Conference & Expo
Jacob K. Javits Convention Center | New York City

WHERE RETAIL GOES TO GET REALLY AHEAD

Register now to get inspiration from the biggest names in retail and beyond, experience breakthrough technology firsthand, forge partnerships that break you away from the pack and make a plan for action that not only sets you up for success but sets you apart from the others.



Breakthrough discoveries

New in 2023! The Consumer Product Showcase offers retail buyers and merchandisers the chance to meet with carefully selected small business owners to learn about their businesses and explore their products. The Consumer Product Showcase is open to all attendees.

This new program is sponsored by American Express and SAP.

[LEARN MORE](#)

RETAIL'S BIG SHOW: BY THE NUMBERS

No matter what the world has thrown at us, NRF has been there to unite, guide and provide breakthrough insights to anyone and everyone in the industry. As the leading voice for retail, we're the only organization able to bring our whole community together.

3
DAYS

175+
SESSIONS

350+
SPEAKERS

800+
EXHIBITORS

**BREAK
THROUGH** **NRF2023**
RETAIL'S BIG SHOW
JANUARY 15-17 | NEW YORK CITY
Don't miss out on your big break!
[REGISTER NOW](#)

Updates of Security and Compliance



Microsoft's on-going commitment to Europe

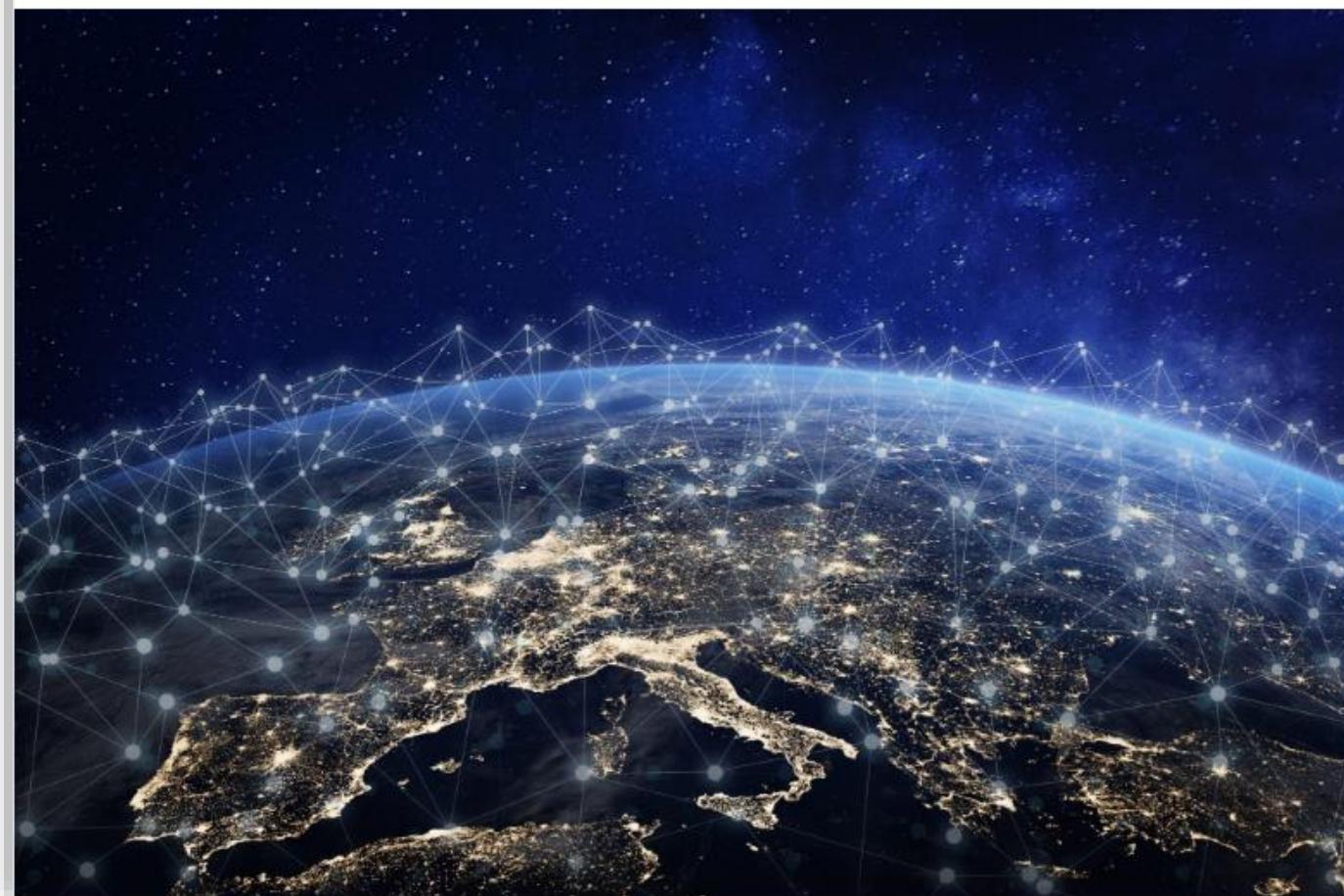
Microsoft remains deeply committed to supporting European digital needs and has adopted five [European Cloud Principles](#) that guide our cloud business across Europe. Microsoft offers data residency and proximity in more locations than any other cloud provider, enabling residency options for the entire Microsoft Cloud suite of online services, including Microsoft 365, Dynamics 365, Power Platform and Azure.

We provide Microsoft Cloud services to customers in nearly every country around the world. To support the requirements of customers across the EU and EFTA, we have opened and are constructing datacenters in more than 17 datacenter regions in Europe. Since 2020, we have announced plans to build nine new datacenter regions and during the past two years have made investments exceeding \$12 billion, making Microsoft one of the largest sources of capital investment in Europe's digital future. [Read more here....](#)

<https://blogs.microsoft.com/eupolicy/2022/12/15/eu-data-boundary-cloud-rollout/>

Microsoft announces the phased rollout of the EU Data Boundary for the Microsoft Cloud begins January 1, 2023

Dec 15, 2022 | Julie Brill, Corporate Vice President and Chief Privacy Officer, Privacy and Regulatory Affairs, and Erin Chapple, Corporate Vice President, Azure Core Product and Design



Microsoft Security Services | Incident Response Retainer (Paid Preview)

Retain Microsoft security experts to quickly and effectively respond to a cyber incident

Microsoft Detection and Response Team (DART)

"Ransomware continues to be the most common reason behind our incident response engagements"



In some instances, cybercriminals went from initial entry to ransoming the entire network in less than 45 minutes.

Overall increase in ransomware encounters, with notable surge to consumer and commercial encounters in late 2019, when RaaS started to grow, and early 2020 at the onset of the COVID-19 pandemic.



Retainer Options



	Silver	Gold
Pricing	Hours Included ①	150 300
	Hourly Rate	Regular Discounted
Response Times	Remote Response	4 hours 2 hours
	On-site Response ②	Custom 48 hours
Premium Services	Threat Intel Advisory	No Yes

① Hours valid for up to 1 year post contract signing

② Onsite resourcing will be provided at the customer's request

Built on Trust

Forensics
Forensic analysis and recovery services with you anytime anywhere

Recovery
Side by side remediation with your teams to quickly and securely bring you back to an operating state

Flexibility
Two tiers, designed to get the experts engaged and help triage, contain and assess

Trusted Partner
Quick response times – remote and on-site

First Line
Reactive services in the event of a compromise, and proactive services to help limit your organization's risk

Quick Response
Easily uplift hours as requirements change

Proactive
Use the prepaid hours to engage in any of the proactive security services offered in the catalog

Protect
Engage with cyber security and modernization programs that help put protections in place to prevent an attack

Microsoft Security | Incident Response Retainer (Paid Preview)

Microsoft Security Services Team offers organizations peace-of-mind in 54 countries and regions across Africa, the Americas, Asia, Europe, The Middle East, and the Pacific

Operating in all commercial and public sectors industries, including financial services, automotive, mobility & transport, healthcare, retail & consumer goods, telco & media, industrials & manufacturing, energy & resources, education, defense & intelligence, critical infrastructure & government, and professional services

Unrivaled experience, worked on some of the largest cyber attacks over the last 10 years

Delivered by a global team of experienced cybersecurity professionals who devote 100% of their time to providing investigative and recovery security services for Microsoft customers worldwide

Reactive and Proactive Services

Incident Response and Investigation	Recovery and Remediation Services	Security Modernization & Transformation
300+ hours Microsoft Security Services Team	500+ hours Microsoft Security Services Team	Customized Microsoft Security Services Team

- Complete investigative service
- Determines whether systems are under targeted exploitation via investigation for signs of advanced implants and anomalous behavior
- Containment activities during an active attack or ransomware
- Sets the groundwork for recovery process of evicting the attacker from the environment
- Forensic reporting and recommendations
- Can be delivered onsite or remotely

- Assistance in recovering and remediation of critical infrastructure from a security incident
- Assistance with the restoration and hardening of critical assets
- Tactical monitoring
- Rapid Eviction of the Threat Actor
- Provides strategic recommendations for protecting against sophisticated threat actors
- Can be delivered onsite or remotely

- Increase security posture to improve resilience to inevitable cyber intrusions.
- Secure privileged access and administrative operations via automated controls.
- Implementation of Azure security features to Azure AD protected resources for privileged users, devices, and applications
- Modernized cybersecurity strategy aligned with organization, goals, strategy, risks, risk tolerance and trends.

Additional information

Incident Response Retainer is contracted on an **annual basis**, with the initial retainer hours available for use in the contract year to **provide rapid assistance** to restore services and contain attacks.

If reactive services are not needed, the retainer hours **can also be used for proactive services**.

Hours can be **uplifted quickly and easily** based on agreed scope and outcomes

Dedicated contact – a Solution Delivery Manager (SDM) will be assigned to you to help manage your service and assist in coordinating the retainer activation and delivery processes.

Next Steps Contact your Microsoft representative, email the team SeCIR@microsoft.com or visit [/aka.ms/IRRetainer](https://aka.ms/IRRetainer) to learn how you can protect your organization with **Cybersecurity Incident Response Retainer**.

Cyber Signals: Risks to critical infrastructure on the rise

Vasu Jakkal Corporate Vice President, Security, Compliance, Identity, and Management



Security Insider > The convergence of IT and OT

Download Cyber Signals

ISSUE 3 - Cyber Signals

The convergence of IT and OT

Cyber risks to critical infrastructure on the rise

December 14, 2022

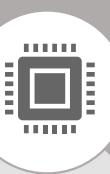
Microsoft identified unpatched, high-severity vulnerabilities in 75% of the most common industrial controllers in customer OT networks.¹



Click on the images and follow the link

Monitoring Global Threats: Microsoft

Microsoft Security Response Center



Select a region ▾

Global threat activity

Countries or regions with the most malware encounters in the last 30 days

Most affected industries

Reported enterprise malware encounters in the last 30 days

Education

Show all industries >

Devices with encounters:
7,510,330 (80.51%)

An overview of The State of Cybercrime

As cyber defenses improve and more organizations are taking a proactive approach to prevention, attackers are adapting their techniques.

Cybercriminals continue to act as sophisticated profit enterprises. Attackers are adapting and finding new ways to implement their techniques, increasing the complexity of how and where they host campaign operation infrastructure. At the same time, cybercriminals are becoming more frugal. To lower their overhead and boost the appearance of legitimacy, attackers are compromising business networks and devices to host phishing campaigns, malware, or even use their computing power to mine cryptocurrency.

Cybercrime continues to rise as the industrialization of the cybercrime economy lowers the skill barrier to entry by providing greater access to tools and infrastructure.

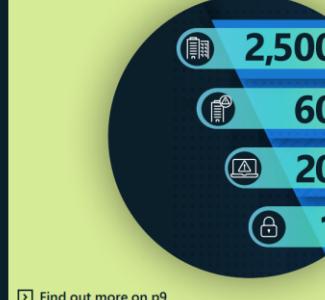
The threat of ransomware and extortion is becoming more audacious with attacks targeting governments, businesses, and critical infrastructure.



Attackers increasingly threaten to disclose sensitive data to encourage ransom payments.

[Find out more on p10](#)

Human operated ransomware is most prevalent, as one-third of targets are successfully compromised by criminals using these attacks and 5% of those are ransomed.



The most effective defense against ransomware includes multifactor authentication, frequent security patches, and Zero Trust principles across network architecture.

[Find out more on p13](#)

Top threats:

Adware:Win32/DealPly!MSR
Backdoor:PHP/Webshell.S
Backdoor:Win32/Xtrat
Exploit:O97M/CVE-2017-11882.
Exploit:PHP/AdminisPassShell

November 17, 2022 • 7 min read

DEV-0569 finds new ways to deliver Royal ransomware, various payloads

DEV-0569's recent activity shows their reliance on malvertising and phishing in delivering malicious payloads. The group's changes and updates in delivery and payload led to distribution of info stealers and Royal ransomware.

December 6, 2022 • 17 min read

DEV-0139 launches targeted attacks against the cryptocurrency industry

Microsoft security researchers investigate an attack where the threat actor, tracked DEV-0139, used chat groups to target specific cryptocurrency investment companies and run a backdoor within their network.

HackTool-Win

November 22, 2022 • 6 min read

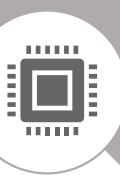
Vulnerable SDK components lead to supply chain risks in IoT and OT environments

As vulnerabilities in network components, architecture files, and developer tools have become an increasingly popular attack vector to leverage access into secure networks and devices, Microsoft identified such a vulnerable component and found evidence of a supply chain risk that might affect millions of organizations and devices.

November 16, 2022 • 9 min read

Token tactics: How to prevent, detect, and respond to cloud token theft

As organizations increase their coverage of multifactor authentication (MFA), threat actors have begun to move to more sophisticated techniques to allow them to compromise corporate resources without needing to satisfy MFA. Recently, the Microsoft Detection and Response Team (DART) has seen an increase in attackers utilizing token theft for this purpose.



Microsoft Digital Defense Report 2022

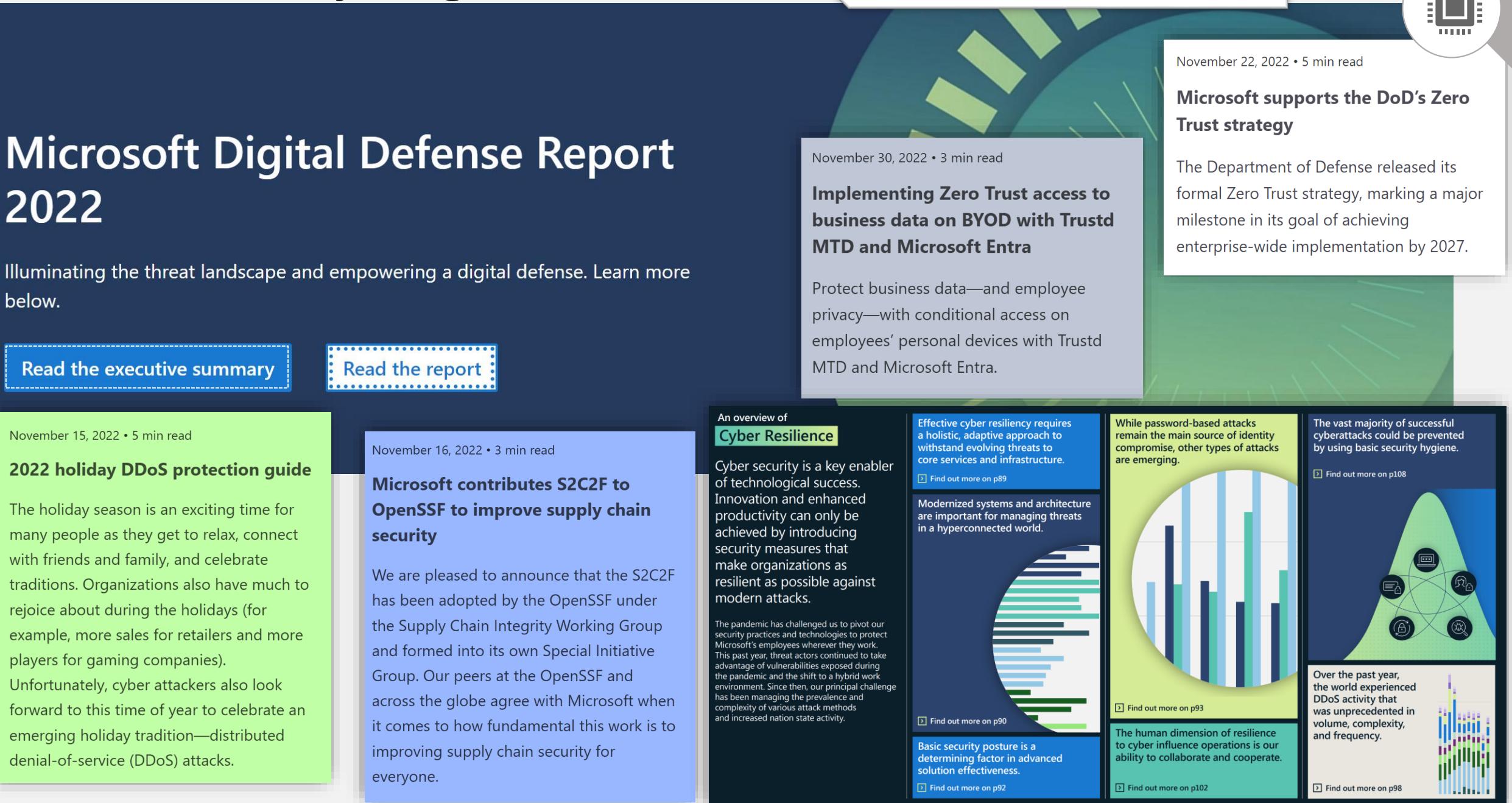
Illuminating the threat landscape and empowering a digital defense. Learn more below.

[Read the executive summary](#)[Read the report](#)

November 15, 2022 • 5 min read

2022 holiday DDoS protection guide

The holiday season is an exciting time for many people as they get to relax, connect with friends and family, and celebrate traditions. Organizations also have much to rejoice about during the holidays (for example, more sales for retailers and more players for gaming companies). Unfortunately, cyber attackers also look forward to this time of year to celebrate an emerging holiday tradition—distributed denial-of-service (DDoS) attacks.



A photograph of a young woman with long blonde hair in a braid, wearing a white ribbed sweater. She is sitting at a desk, looking down at a tablet device she is holding with both hands. A stylus pen is in her right hand. On the desk in front of her is a laptop and a notebook. The background shows large windows with a view of a city skyline.

Microsoft 365 update information

Microsoft Teams Blog:



What's New in Microsoft Teams | November 2022

What's New in Microsoft Teams | November 2022

Holly Lehman on Nov 30 2022 06:00 AM

From meetings to devices, from large meetings to 1:1 chats, we keep finding ways to innovate in a fashion that you can c...

New for This Month:

- Teams Shared Devices license on Teams displays will now offer the hotdesking experience
- Use a 1-click Instant Poll for a quick check-in during Teams meetings
- Support PSTN dial-in, dial-out, and call-me attendees in meetings to join Breakout Rooms
- Automatically view up to 49 videos (7x7) in Teams meeting
- Screen pop for incoming PSTN calls
- Transcription for calls on Microsoft Teams for Android
- Common Area Phone (CAP) license has been rebranded to the Teams Shared Devices license

Chat and Collaboration:

- Teams users can now accept or block a group chat invitation from an unmanaged user
- Schedule Send - schedule when sending a message without disrupting their work-off hours.
- Click on search message results to view the entire chat conversation history
- Unread Toggle - turn on the unread toggle button in the activity feed pane



Introducing the Microsoft Teams Shared Device License

sirigudur on Nov 16 2022 08:00 AM

As organizations shift towards hybrid working models, the way we utilize the office has transformed. Many employees no l...

A screenshot of a Microsoft Teams meeting interface. At the top, there is a grid of participant profiles. Below the grid, two participants are shown in video feeds: a man in a purple shirt and a woman in a black t-shirt. A caption below the video feeds reads "Reta T.: Could you please send the options we're sharing with the client tomorrow?". On the right side of the screen, there is a transcript of the meeting with several messages from different users. The transcript includes messages from Holly Taylor, Diane Rother, Babak Shamsai, Jasmine Simmons, Eric McBride, and others. The messages are in English, and some users are using sign language interpretation.

Introducing Sign Language View for Teams Meetings

csano on Nov 17 2022 09:00 AM

Today we are pleased to announce sign language view, a new meeting experience in Microsoft Teams that helps signers – pe...

A screenshot of a comparison chart titled "FEATURE COMPARISON Manage PDFs in Microsoft Teams with Adobe Acrobat". The chart compares three methods: "Teams built-in PDF reader", "New Acrobat for Teams account, without user sign-in", and "Acrobat for Teams". It lists various features such as "Enable Acrobat to edit PDF reader", "Sign in to Acrobat", "View PDFs", "Add comments", "Export PDFs", "Organize PDFs", "Compress PDFs", and "Protect PDFs". The "Acrobat for Teams" method is shown to have the most extensive feature set, marked with a checkmark in every category.

Adobe Acrobat streamlines the PDF experience in Microsoft...

evanw on Dec 05 2022 07:35 AM

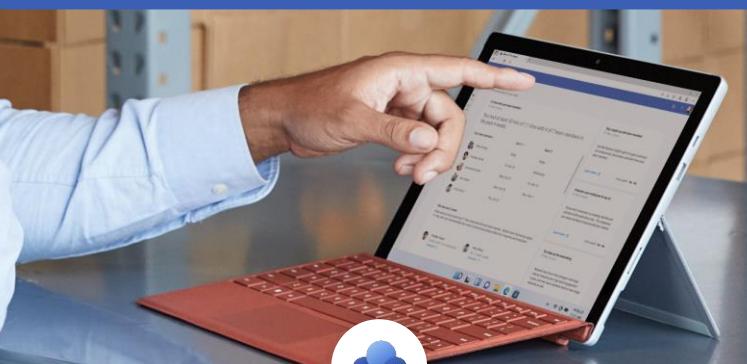
Apps designed for collaboration can help keep employees in the flow of work by bringing the apps, data, and workflows to...

Microsoft Viva: & Viva Blog: The employee experience platform for the new world of work



Viva Connections

Culture & Communications



Viva Insights

Productivity & Wellbeing



Viva Topics

Knowledge & Expertise



Viva Learning

Growth & Development

The Future of Employee Learning
In an evolving work landscape, employee learning is overdue for an update. Find out how to leverage new trends to improve employee retention and satisfaction.

8 in 10	76%	55%
employees say they need additional skills to do their day-to-day work*	of employees say they'd stay at their company longer if they had more learning and development support*	of employees say the best way to develop their skills is to change companies*

Employees don't feel that their learning and development is being prioritized. Nearly half of employees (48%) say their manager or supervisor leads by example, yet only 40% prioritize learning and development at work.* Companies must prioritize learning in the workplace or risk challenges like skill gaps, poor company culture, and employee turnover.

Drive a modern learning culture with Microsoft Viva Learning
Weave learning into the work platforms your employees are already using, like Microsoft Teams, with built-in social capabilities to realize benefits like:

- 50% reduction in time to full productivity via accelerated onboarding*
- 20% reduction in employee attrition*
- 58% increase in the number of employees who have taken 2+ elective learning courses in a month at Microsoft since deploying*

*We wanted to create a different experience with peer-to-peer and social learning, and we wanted to put employees at the center of their learning.
—Nir Dagan, Senior Product Manager, Microsoft



Viva Goals

Purpose & Alignment



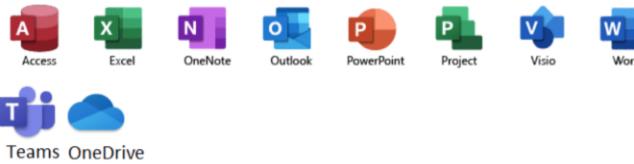
Viva Engage

Culture & Communications

What's New in Microsoft 365

[M365 Blogs](#), and [Administrative Blogs](#) covering Office 365, Enterprise Mobility + Security and Windows ::

What's new in your favorite Microsoft 365 app



Using AI and machine learning to deliver the help you need

BrianStoner on Dec 01 2022 10:00 AM

Learn how Microsoft Supportability teams use AI & machine learning to deliver help to customers



What's new for Microsoft Whiteboard - November 2022

sophiapeng on Nov 15 2022 09:30 AM

With new innovations in Whiteboard, you can feel empowered to create effective collaboration.

Transfer Files will be retired from Office Mobile

rohangulati on Nov 14 2022 09:30 AM

The Transfer Files feature will be retired from the Office (Microsoft 365) app.



Microsoft 365 roadmap

Get the latest updates on our best-in-class productivity apps and intelligent cloud services. Rethink productivity, streamline business processes, and protect your business with Microsoft 365.

[Using this roadmap](#)

[Roadmap improvements](#)

- > Microsoft Viva: Meeting category insights coming to the Digest email GA: March 2023
- > Microsoft Stream: IT admin-led migration tool to move videos from Microsoft Stream (classic) to new Stream (on SharePoint) Preview: August 2022
GA: February 2023
- > Outlook: Updated notifications experience in Mobile GA: January 2023
- > Outlook: Notifications pane in Outlook for Windows GA: January 2023
- > Microsoft Teams: Start a Teams Chat with Distribution Groups, Mail-enabled Security Groups, and O365 Groups GA: December 2022
- > Microsoft Teams: Sign Language View and always-on captions in meetings GA: December 2022
- > Microsoft Teams: Call Merge for Teams on VDI GA: December 2022
- > Microsoft Teams: 2x2 video in Gallery view for web meetings in Firefox GA: December 2022
- > Excel: Insert in-cell pictures with the new IMAGE function GA: December 2022
- > Microsoft Teams: View attendance report on Microsoft Teams for Android and iOS for Government clouds GA: December 2022
- > Microsoft Teams: View meeting transcripts on Microsoft Teams on Android and iOS for Government clouds GA: December 2022
- > Microsoft Teams: Language Interpretation for GCC-High and DoD GA: December 2022
- > Microsoft Viva: Support for types of topics GA: November 2022
- > Microsoft Teams: RTMP-In for Teams Live Events Preview: October 2022
GA: November 2022
- > Microsoft Teams: Delay delivery of chat messages GA: November 2022
- > Microsoft Teams: Unread Toggle on Activity Feed GA: November 2022
- > Microsoft Stream: Record a new video on the Stream Start page in Office for Government clouds GA: November 2022
- > Outlook: Automatic file name replacement and permission management when sharing a file as a link GA: November 2022
- > Microsoft 365 admin center: Net Promoter Score (NPS) Sentiment Insights per topic available to IT Administrators Preview: October 2022
GA: November 2022
- > Microsoft Teams: Additional filters added to the approvals list GA: November 2022



Power Platform and Dynamics



Roadmaps and Release plans:

5 steps for transforming customer experience with Dynamics 365 Marketing and Customer Insights updates >

November 29, 2022 • 6 min read

By [Jim Nakashima](#), Partner Head of Product, Microsoft

Hyper-personalized, self-driven, seamless interaction across any channel at any time is no longer a nice-to-have but a must-have as customers want to engage on their own terms and expect businesses to deliver even better experiences. [Read more](#)

Essential ways Dynamics 365 and Power Platform help you do more with less >

December 5, 2022 • 6 min read

By [Emily He](#), Corporate Vice President, Business Applications Marketing

As companies across industries navigate a period of uncertainty, every investment in people and technology must be strategic and decisive to help people do more with less—less time, less cost, and less complexity. [Read more](#)



Introducing Microsoft Supply Chain Platform—an open, flexible, collaborative, and secure platform >

November 16, 2022 • 8 min read

By [Ray Smith](#), Vice President, Supply Chain

Earlier this week, we announced the Microsoft Supply Chain Platform. At the core of the Supply Chain Platform is the Microsoft Supply Chain Center, which introduces a ready-made command center for users to manage disparate supply chain data. [Read more](#)



Automate more, waste less: ESG initiatives with Dynamics 365 Finance >

November 7, 2022 • 3 min read

By [Andrew Haller](#), Senior Product Marketing Manager

It has become clear that ESG (environmental and social governance) initiatives are becoming a top business priority for many organizations. The opportunity facing business leaders is to find ways to utilize technology to drive a positive impact on business performance and the well-being of society and the environment. [Read more](#)

- ❖ [Power BI Blog](#)
- ❖ [PowerApps Blog](#)
- ❖ [Power Automate Blog](#)
- ❖ [Power Virtual Agents Blog](#)

- [Power Virtual Agents' new Advanced Authoring Canvas :: Public Preview](#)
- [New Process Advisor template – enable deeper insights into bot conversation flows](#)
- [Process Mining capabilities in Power Automate :: Preview](#)
- [Protecting data with Dataverse](#)
- [Rabobank streamlines complex process from three weeks to three minutes using Microsoft Power Platform](#)
- [VITAS Healthcare processes 2 million patient visits to date with Power Platform](#)
- [Security in Microsoft Dataverse](#)
- [What's new: Power Apps November 2022 Feature Update](#)
- [Support for paginated reports in Power BI Pro](#)
- [Power BI Mobile Updates](#)



Send a customized email when a new SharePoint list item is added

By Microsoft

Automated
621513



Get a push notification when you receive an email from your boss

By Microsoft

Automated

529681



Save Office 365 email attachments to OneDrive for Business

By Microsoft

Automated
952283

Announcing : Microsoft Supply Chain Platform



Today we are announcing the [Microsoft Supply Chain Platform](#), which helps organizations maximize their existing supply chain investments with an open approach, bringing the best of Microsoft AI, collaboration, low code, security, and Software as a Service (SaaS) applications to a composable platform. As part of the new Microsoft Supply Chain Platform, we are also announcing the preview of [Microsoft Supply Chain Center](#). The Supply Chain Center empowers customers to get started quickly with a ready-made "command center" that natively works with existing supply chain data and applications.



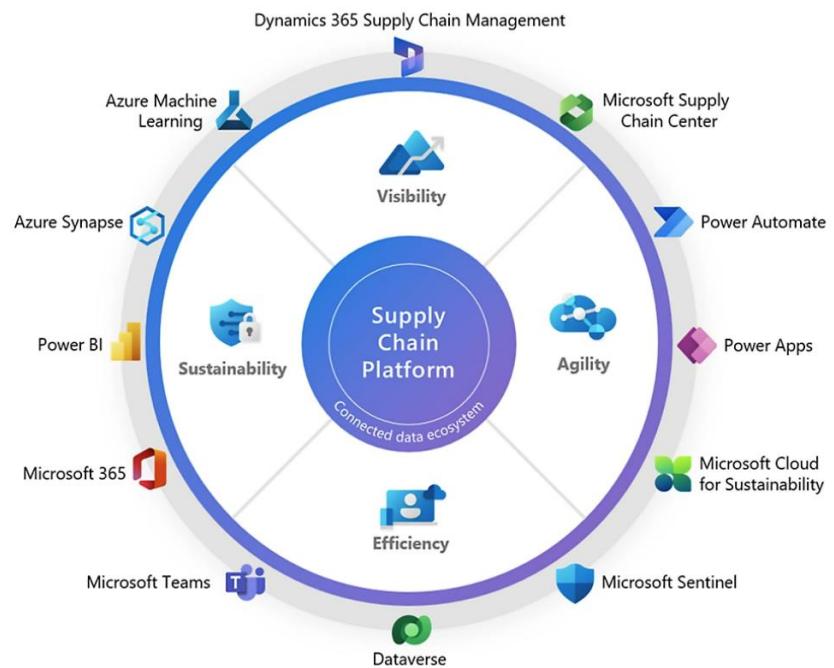
Nov 14, 2022 | Charles Lamanna, Corporate Vice President, Business Applications & Platform

Introducing the Microsoft Supply Chain Platform, a new approach to designing supply chains for agility, automation and sustainability >

We're excited to announce [Daimler Trucks North America](#), [iFit](#) and [Kraft-Heinz](#) as some of our Supply Chain Center preview customers:

- "We have hundreds of thousands of parts that we are sourcing from suppliers globally. Our customers, dealers and partners expect excellence in all we do, which also means looking closely at all aspects of our supply chain. The Microsoft Supply Chain Platform and Supply Chain Center will enable us to make processes more efficient end-to-end." – **Lutz Beck, CIO, Daimler Truck North America**
- "We are optimizing transportation costs by leveraging AI-powered capabilities within the Microsoft Supply Chain Platform and Supply Chain Center to recommend inventory allocation. The actionable insights from the Supply Chain Platform trigger freight planning and execution to support order fulfillment for our customers." – **Robert Critchley, VP Transportation and Warehousing, iFit**
- "Our collaboration with Microsoft is a critical piece of our supply chain transformation. The platform gives our team the ability to be more agile – assessing risk and opportunities faster than ever before. Simply put, it provides the end-to-end visibility we need to keep our products on people's tables across North America, and there's nothing more important." – **Mitch Arends, Senior Vice President, Head of Operations, Kraft Heinz North America**

Microsoft Supply Chain Platform



Unified supply chain platform

Create seamless supply chain processes from design through delivery with a unified supply chain platform that connects all data sources.



Connect your ecosystem

Get more value from your data across new and existing solutions with a platform that connects your entire supply chain.



Better navigate disruption

Predict supply chain disruptions before they happen and proactively address risks through intelligent orchestration.



Be ready for anything

Keep goods flowing with the agility to rapidly adjust to changing markets and meet evolving customer demands.



Accelerate sustainability

Meet your sustainability goals, improve brand perceptions, and minimize the carbon impact of your organization.

Microsoft Power Platform



Microsoft Power Platform

The low code platform that spans Microsoft 365, Azure, Dynamics 365, and standalone apps.



Power BI
Business analytics



Power Apps
App development



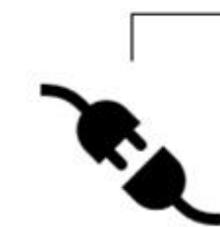
Power Automate
Process automation



Power Virtual Agents
Intelligent virtual agents



Power Pages
External-facing
websites



**Data
connectors**



AI Builder



Dataverse

Developer and GitHub

GitHub Blog and Changelog

- REST API and API versioning updates
- New npm features for secure publishing and safe consumption
- Enterprise account coming to all Enterprise customers
- Octoverse 2022 – Building on 10 years of tracking open source
- Exciting new GitHub features powering machine learning
- Limit scope of npm tokens with the new granular access tokens
- GitHub Actions workflow notifications in Slack and Microsoft Teams
- Organization-level security risk and coverage pages replace overview page
- Code scanning organization-level REST API is available for public repositories
- Dependabot now supports security updates for Dart and Flutter apps that use Pub packages

Microsoft Developer Blogs:

- Beginners' crash course to build apps for Teams using Teams Toolkit for Visual Studio Code
- Audit log improvements for Dependabot alerts
- PyTorch with DirectML:: Generally Available
- Azure DevOps Server 2022 RTW :: Generally Available
- What's new in Visual Studio productivity
- PowerShell Extension for Visual Studio Code - Oct. 2022 Updates
- Java on Azure Tooling Update – November 2022 Updates
- Principles for monetizing selected Microsoft 365 APIs
- Removing out-of-support components from your Visual Studio installations
- Enable Group Policy Settings with Visual Studio Administrative Templates (ADMX)
- What's New for C++ Developers in Visual Studio 2022 17.4

To infinity and beyond: enabling the future of GitHub's REST API with API versioning

We're introducing calendar-based versioning for our REST API, so we can keep evolving our API, whilst still giving integrators a smooth migration path and plenty of time to update their integrations.

Tim Rogers November 28, 2022

Exciting new GitHub features powering machine learning

Discover the exciting enhancements in GitHub that empower Machine Learning practitioners to do more.

Seth Juarez November 22, 2022

How empowering developers helps teams ship secure software faster

AppSec expert Niroshan Rajadurai says putting developers at the center of everything will enable you to meet your security goals.

Gwen Davis December 1, 2022

Introducing GitHub Actions Importer

GitHub Actions Importer helps you forecast, plan, and facilitate migrations from your current CI/CD tool to GitHub Actions.

Ethan Dennis November 10, 2022

The power of GitHub in the palm of your hand

GitHub Mobile helps keep work going while you're going. Untether yourself from your office.

Candy Ho November 15, 2022

What's new with Codespaces from GitHub Universe 2022

We're giving GitHub users 60 free hours each month on Codespaces. Learn what else we shipped for Codespaces at Universe this year.

Nik Molnar November 10, 2022

What's new in Visual Studio productivity

December 6, 2022

Dante Gagne

We often hear feedback from users like you that request smaller quality-of-life improvements in Visual Studio. While we can't address every piece of feedback right away, we appreciate the time you spend providing it and hope you continue to share your thoughts on how to make Visual Studio even better. In today's blog post, we'd like to ...

Principles for monetizing selected Microsoft 365 APIs

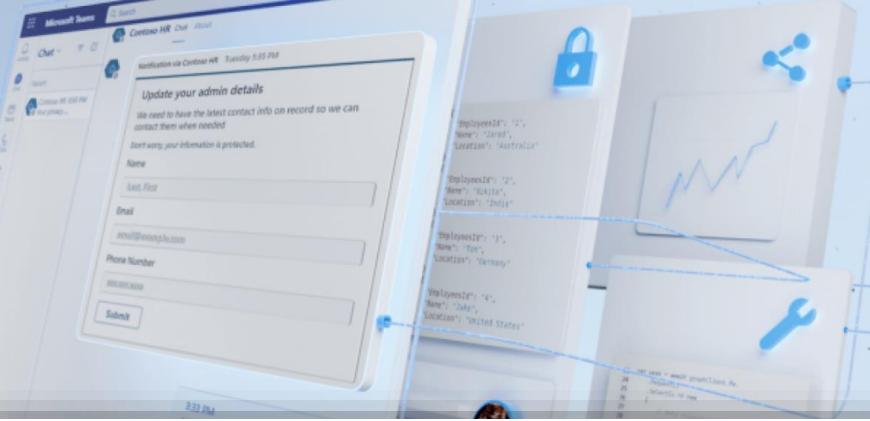
December 2, 2022

 Microsoft Graph team

In this blog, we share some thoughts and principles about how we are approaching new metered services, with a pay-as-you-go model.



Office Developer Blogs and Microsoft 365 Dev Center



Innovate with collaborative apps

Build collaborative apps for Microsoft 365 and Microsoft Teams that connect people, data, and processes to help users thrive in the hybrid workplace.

[Read blog](#)

Building ISV offering for Microsoft Viva with SPFx ACEs and multi-tenant AP...

[View video >](#)

Build apps for Microsoft Viva

Starting with the Viva Connections toolkit (available now) and APIs for Viva Topics, Viva Insights and Viva Learning (coming soon), grow your customer reach with an open and extensible platform.

[Learn more about Viva Connections](#)[View infographic >](#)

Explore Microsoft 365 Platform Learning Paths

Learn new skills to develop on the Microsoft 365 platform. Explore our learning paths.

[Get started ->](#)

Join the Microsoft 365 Developer Program today!

Get a free sandbox, tools, and other resources you need to build solutions for the Microsoft 365 platform.

[Join now ->](#)

Connect with our community

Don't reinvent the wheel. Learn, share and contribute with others on how to build apps for the Microsoft 365 and Teams platform.

[Connect today >](#)

Global Developer Updates and Bootcamps :: M365 Developer Blog :: Office Developer :: DevBlog

- [App Compliance Automation Tool for Microsoft 365 :: Public Preview](#)
- [Microsoft Graph Developer Proxy :: Community Preview](#)
- [Microsoft Graph Python SDK :: Public Preview](#)
- [Outlook REST API v2.0 and beta deprecation updates](#)
- [Security, governance and privacy built into Microsoft Graph Data Connect](#)
- [SharePoint Framework 1.16 – Enabling SPFx across Microsoft 365 platform :: Generally Available](#)

Office Scripts

Easily automate your day-to-day tasks with **Office Scripts in Excel on the web**. Get started automating today!

[Learn more >](#)[Try sample scripts >](#)

Azure



Azure Updates



Azure Announcements : Azure Blog

VMs, Features, & Announcements

- [Arm-based VMs now available in four additional Azure regions](#) :: Generally Available
- [3 key cloud adoption trends in migrating and modernizing workloads](#) :: Analysis
- [Marketplace Summit – Empowering ISVs to build and sell with the Microsoft Cloud](#)
- [Azure Blob CSI driver support in AKS](#) :: Generally Available
- [Durable Functions support for .NET 7.0 isolated model](#) :: Public Preview
- [GitHub action to build and deploy to Azure Container Apps](#) :: Public Preview
- [Azure HX series and HBv4 series virtual machines](#) :: Public Preview
- [Use Azure Quota Rest APIs to manage service limits \(quotas\)](#) :: Public Preview
- [Add an Azure Cosmos DB custom endpoint in IoT Hub](#) :: Public Preview

Data, AI, Security, & Availability

- [Enhanced metrics for Azure Database for PostgreSQL – Flexible Server](#) :: Public Preview
- [Azure's Defense-in-Depth approach](#) :: Review
- [Cross-region read replicas for Azure Cosmos DB for PostgreSQL](#) :: Generally Available
- [Azure Blob Storage integration with Azure Cosmos DB for PostgreSQL](#) :: Generally Available
- [Inbound IP restrictions support in Azure Container Apps](#) :: Public Preview
- [Azure Monitor Logs, custom log API and ingestion-time transformations](#) :: Generally Available
- [Cross Zonal Restore of Azure Virtual Machines from Azure Backup](#) :: Generally Available

Operations & Benefits

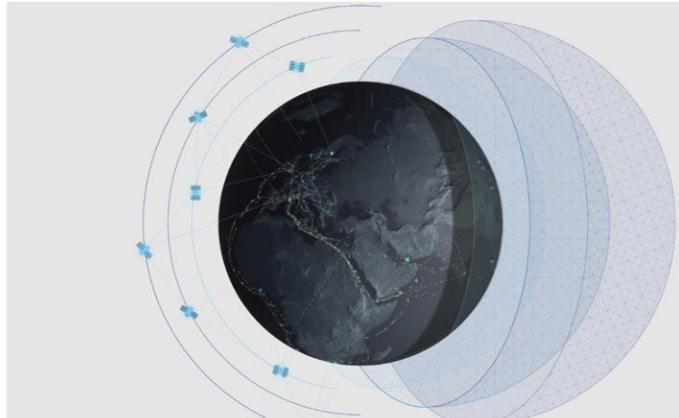
- [Azure Gateway Load Balancer](#) :: Generally Available
- [Build and deploy to Azure Container Apps without a Dockerfile from the Azure CLI](#) :: Public Preview
- [Cross Subscription Restore for Azure Virtual Machines](#) :: Public Preview

Any developer can be a space developer with the new Azure Orbital Space SDK

Thursday, November 17, 2022

Today, we are announcing a crucial step towards democratizing access to space development, with the private preview release of Azure Orbital Space Software Development Kit(SDK)—a secure hosting platform and application kit designed to enable developers to create in the cloud and deploy and operate applications on-orbit.

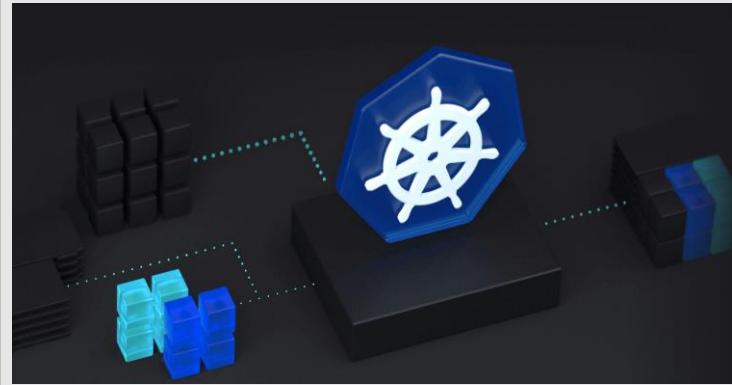
[Stephen Kitay](#), Senior Director, Microsoft Azure Space



Nov 2, 2022 | [Jason Zander - Executive Vice President, Strategic Missions and Technologies at Microsoft](#)

Azure Space helps bring ubiquitous connectivity and rapid insights from space for national security missions >

Azure Services Directory



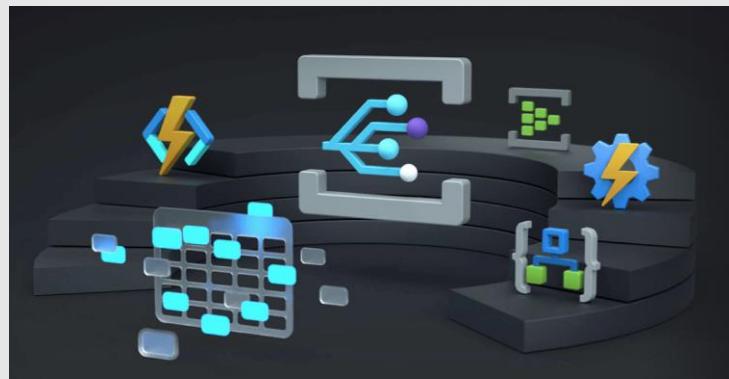
Azure Kubernetes Fleet Manager PREVIEW

Seamlessly manage Kubernetes clusters at scale

Easily handle multi-cluster scenarios for Azure Kubernetes Service (AKS) clusters

Azure Kubernetes Fleet Manager :: Preview

- ❖ [Group and Organize all your AKS Clusters](#)
- ❖ [Managed hub cluster to store configurations](#) for policy and multi-cluster networking
- ❖ [Propagate Kubernetes configurations across clusters](#)
- ❖ Orchestrate multi-cluster networking
- ❖ [Manage multi-cluster layer 4 load balancing](#) across Azure Kubernetes Fleet Manager member clusters : Preview



Microsoft Energy Data Services PREVIEW

Accelerate your journey to Energy Data Modernization and Digital Transformation

Microsoft Energy Data Services : Preview

- ❖ [Microsoft Energy Data Services](#) helps energy companies gain actionable insights, improve operational efficiency, and accelerate time to market
- ❖ [Integration with virtually any energy dataset, application or cloud service](#) – built-in tools
- ❖ [Compliance with OSDU Technical Standard](#) for Open-Source innovation
- ❖ Rapid Data Ingestion for Analytics on global-scale compute-intensive workloads
- ❖ Security with [Private Data Links](#) and [Customer Managed Encryption Keys \(CMEK\)](#)



Azure Confidential Computing

Tamperproof, unstructured data store hosted in Trusted Execution Environments (TEE) and backed by cryptographically verifiable evidence

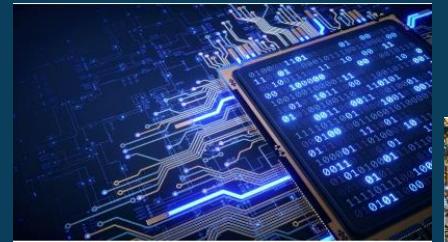
Azure Confidential Computing

- ❖ [Solutions to enable the isolation your sensitive data](#)
- ❖ [Confidential VMs with Application Enclaves](#) + [Confidential VMs](#) + [Confidential Containers](#)
- ❖ [Azure Confidential Ledger](#) : Tamper-proof register for storing sensitive data for record keeping and auditing or for data transparency in multi-party scenarios. It offers Write-Once-Read-Many guarantees, which make data non-erasable and non-modifiable. The service is built on Microsoft Research's [Confidential Consortium Framework](#).
- ❖ [Microsoft Azure Attestation](#) : a remote attestation service for validating the trustworthiness of multiple Trusted Execution Environments (TEEs) and verifying integrity of the binaries running inside the TEEs.

New trends with Microsoft Technology



Updates from Microsoft Industry Blogs



Build a digital sustainable mine of the future with Microsoft >

December 1, 2022 • 5 min read

By [Joseph Starwood](#), Director, Industry Digital Strategy for Mining, Microsoft

Mining industry leaders are working with Microsoft to digitize and transition to clean in a secure, sustainable, and resilient way. With technology, innovation, and collaboration, together we can accelerate this transformative journey toward the digital, sustainable mine of the future. [Read more](#)



'Tis the season for exceptional customer experiences >

December 1, 2022 • 5 min read

By [Mike Edmonds](#), Sr. Director, Worldwide Retail and Consumer Goods Strategy, Microsoft

By [Chandra Stevens](#), Principal Product Manager, Customer Experience Solutions, Microsoft

Microsoft's solutions empower the retail industry to connect your customers, your people, and your data. Connected, these applications unlock unique opportunities to create individualized experiences that meet customers' expectations whether it be the holiday season or all year round. [Read more](#)



The metaverse: An evolution in transportation, travel, and hospitality >

November 29, 2022 • 6 min read

By [David Catzel](#), Senior Industry Digital Strategist – Automotive, Mobility & Transportation

We have only begun to scratch the surface of possibilities with the metaverse. It will continue to be an evolving platform that will dramatically change the way we interact with the world around us. [Read more](#)



Microsoft showcasing approach for Gaming, Exercising, Modeling, and Simulation (GEMS) at I/ITSEC >

November 30, 2022 • 3 min read

By [Arthur Thomas \(A.T.\) Ball](#), Senior Business Program Manager, Worldwide Defense & Intelligence, Microsoft

Join Microsoft and our partners at I/ITSEC, the world's largest modeling, simulation, and training event. I/ITSEC emphasizes themes related to defense and security, and this solution area is a focus of Microsoft for Defense and Intelligence teams around the world. [Read more](#)



Building the future of medical imaging at RSNA 2022 >

November 22, 2022 • 3 min read

By [Steven Borg](#), Senior Director, Health Data & AI, Microsoft Health & Life Sciences

By [Matthew Lungren](#), Chief Medical Information Officer, Nuance

This year at RSNA 2022, Microsoft and Nuance are excited to engage in conversations around how cloud technology and AI and machine learning will change the future of the medical imaging industry. [Read more](#)



Microsoft brings new AR and VR tools to advance national security >

November 29, 2022 • 4 min read

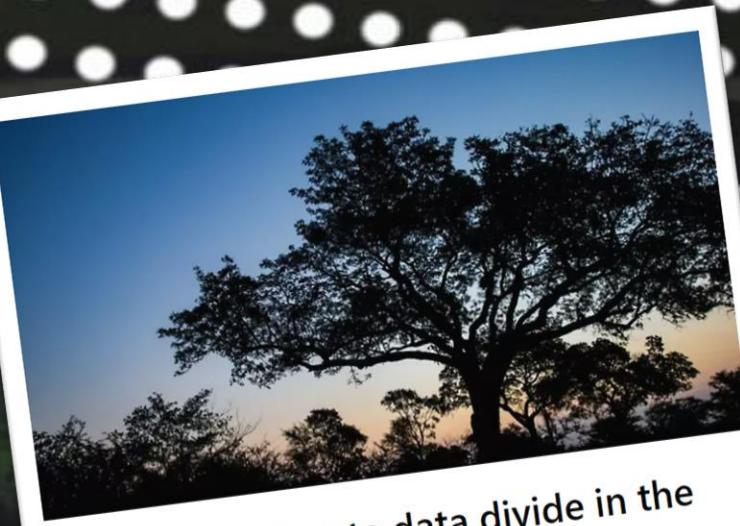
By [Wes Anderson](#), Vice President for Defense, Microsoft Federal

We are thrilled once again to be back at the Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC) this year in Orlando, Florida, to share how we are supporting our armed forces, by bringing the best in gaming, exercising, modeling, and simulation (GEMS) capabilities to help them analyze, experiment, and train more safely and effectively than [Read more](#)



Microsoft Cloud for Sustainability

Building a clean-energy future with your business



Closing the climate data divide in the global south

We're tapping the power of data and artificial intelligence (AI) in an expansion of our AI for Good Research Lab into Egypt and Kenya. The work of these labs will be informed by a new Africa AI Innovation Council that includes members of leading African development and climate organizations. We're also expanding our collaboration with Planet Labs, merging high-quality satellite imagery of Africa with AI to accelerate climate adaptation solutions.

[Read the blog >](#)



Environmental Credit Service aims to redefine carbon credits

Today's carbon offset credits suffer from inconsistent standards for measuring, reporting, and verifying progress, and from siloed credit creation. Environmental Credit Service (Preview) addresses these pain points by delivering a common infrastructure and shared data standard, lending transparency for all participants in the credit lifecycle and helping to fuel trust and momentum in the global marketplaces.

[Read the blog >](#)



New report highlights a critical sustainability skills gap

Many of the 3,500+ companies that have issued climate pledges lack a workforce with the necessary skills to fulfill those commitments. In this blog post by Microsoft President and Vice Chair Brad Smith, find out how Microsoft is leading the call to develop a new level of sustainability skills and fluency in the global workforce in the next five years.

[Read the blog >](#)

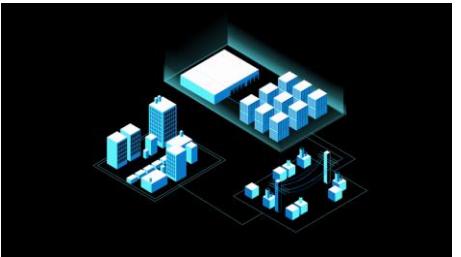


Microsoft Cloud for Sustainability

Record, report, and reduce your organization's environmental impact.

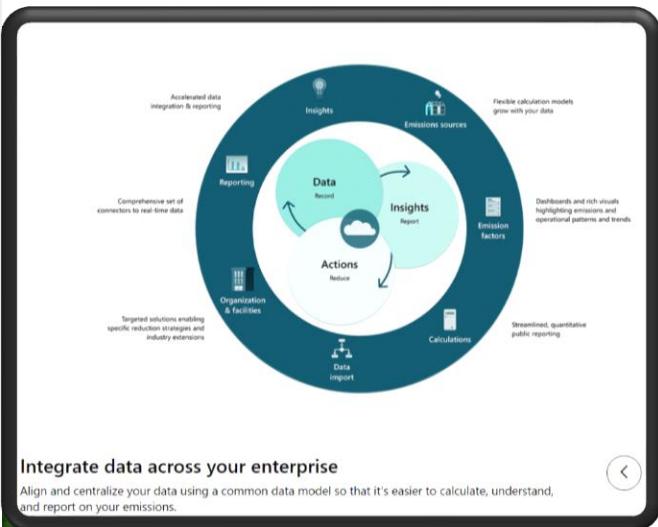
Accelerate your sustainability journey

Microsoft Cloud for Sustainability is an extensible software-as-a-service solution that helps you record, report, and reduce your organization's environmental impact through automated data connections and actionable insights.



Record

Connect data to more accurately represent the emissions footprint of your operation and value chain.



Report

Visualize and report your environmental impact and sustainability progress in near real time.

SCOPE: Scope 1, 2, 3 Greenhouse Gas Emissions (GHG) measurement

KEY CAPABILITIES

- Data ingestion**
 - Sustainability Common Data Model support for Scopes 1, 2, and 3 emissions
 - Automate the capture of operational data using customer or pre-built connectors (facilities, assets, sales, procurement, logistics, manufacturing, etc.)
- Calculation & Reporting**
 - GHG emissions calculations for Scopes 1, 2, and 3 (Categories 1, 2, & 6)
 - Preparation reports to support statutory requirements
 - Operational and executive dashboards
 - Analytical insights
- Insights & Recommendations**
 - Data driven scorecards and goal tracking
- Extensibility**
 - Key ISVs or industry extensions



Reduce

Learn how to advance your efforts to reduce emissions, gain efficiencies, and make lasting changes.

Dashboard

Emissions

Reports

Calculations

Settings

Visualize emissions trends and opportunities



Microsoft Cloud for Sustainability

Record, report, and reduce your organization's environmental impact.

Emissions Impact Dashboard

Estimate your carbon emissions related to using Microsoft cloud services—including Azure and Microsoft 365—and make more data-driven decisions about cloud usage.

Emissions Impact Dashboard

Understand and help reduce your organization's environmental impact with the Emissions Impact Dashboard.

[Explore the dashboard >](#)

GHG emissions reporting training

Explore learning modules to measure and report greenhouse gas (GHG) emissions.

[Get started >](#)

Energy efficiency training

Learn how increasing efficiencies and using less energy can help reduce your carbon emissions.

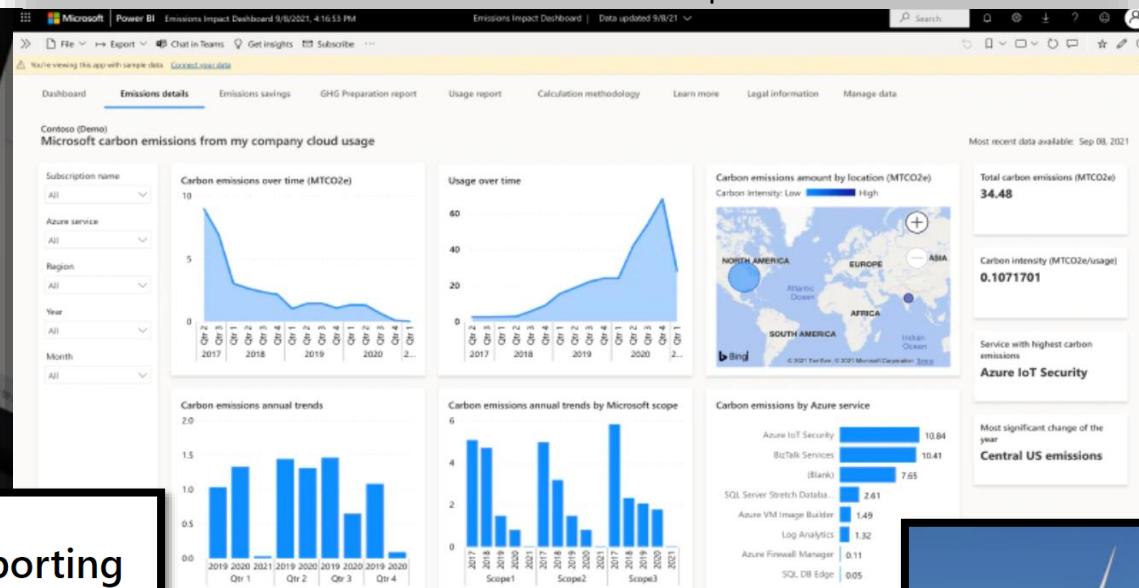
[Get started >](#)

Cloud carbon tracking for your path to net zero

Using Power BI template apps and consistent, third party-validated carbon accounting, the Emissions Impact Dashboard for Azure and the Emissions Impact Dashboard for Microsoft 365 (now in preview) help you measure your Microsoft Cloud-based emissions and carbon savings potential.

[App for Azure >](#)

[App for Microsoft 365 >](#)



Renewable energy procurement training

Find out how to build a roadmap to support your shift to renewable energy.

[Get started >](#)

Microsoft Research Blog



IOM and Microsoft release first-ever differentially private synthetic dataset to counter human trafficking

>

December 8, 2022

Microsoft is home to a diverse team of researchers focused on supporting a healthy global society, including finding ways...



Portmeirion

Project Portmeirion aims to explore hardware-software co-design for security in the Azure general-purpose compute stack. We are working with major CPU vendors and academic collaborators to design new security features at both the architectural and microarchitectural level.



MICROSOFT RESEARCH

RESEARCH FOCUS 06 | WEEK OF DECEMBER 5, 2022

In this issue:

NeurIPS Special Edition: Week 2

Research Focus: Week of December 5, 2022 >

December 7, 2022

This special edition of Research Focus highlights some of the 100+ papers from Microsoft Research that were accepted for publication at NeurIPS 2022 – the thirty-sixth annual Conference on Neural Information Processing Systems. In this issue, we continue to feature some of our 100+ papers accepted...



Microsoft at NeurIPS 2022

NeurIPS 2022: Seven Microsoft Research Papers Selected for Oral Presentations >

December 5, 2022

Microsoft is proud to be a platinum sponsor of the 36th annual conference on Neural Information Processing Systems (NeurIPS), which is widely regarded as the world's most prestigious research conference on artificial intelligence and machine learning. Microsoft has a strong presence at NeurIPS again this year,...

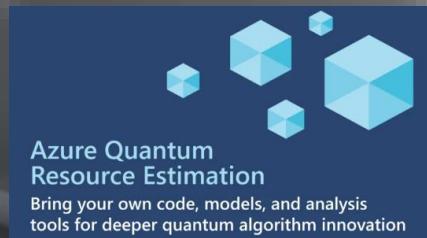


Research trends in privacy, security and cryptography >

November 17, 2022

Trust is essential for people and organizations to use technology with confidence. At Microsoft, we strive to earn the trust of our customers, employees, communities, and partners by committing to privacy, security, the responsible use of AI, and transparency. At Microsoft Research, we take on...

Microsoft Quantum Blog



Azure Quantum Resource Estimation

Bring your own code, models, and analysis tools for deeper quantum algorithm innovation

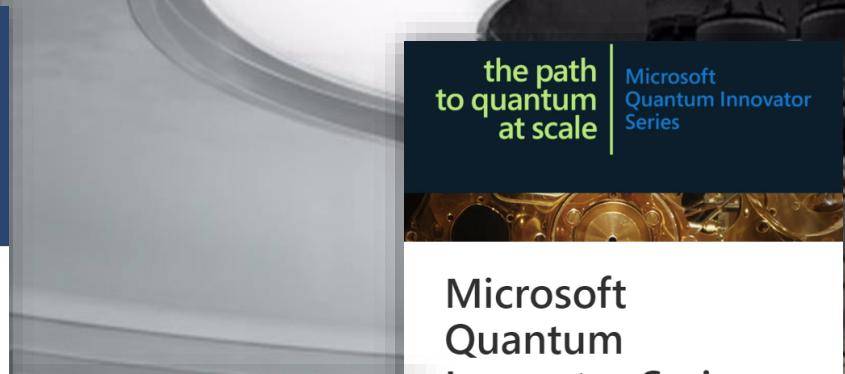
Available Today:
Azure Quantum Resource Estimator empowers you to create algorithms for quantum at scale >

November 14, 2022 • 6 min read



By [Fabrice Frachon](#), Principal PM Manager, Azure Quantum

Microsoft Azure Quantum Resource Estimator enables quantum innovators to develop and refine algorithms to run on tomorrow's scaled quantum computers. [Read more](#)



the path to quantum at scale | Microsoft Quantum Innovator Series

Microsoft Quantum Innovator Series: The path to quantum at scale >

December 5, 2022 • 5 min read



By [Microsoft Azure Quantum Team](#)

Get the inside, first-hand account of Microsoft's strategy to scaled quantum computing in a new webinar series where you'll hear directly from Microsoft Azure Quantum scientists and leaders about the path to quantum at scale and how to get involved today.

[Read more](#)



Microsoft's quantum machine: New data available today >

November 17, 2022 • 4 min read



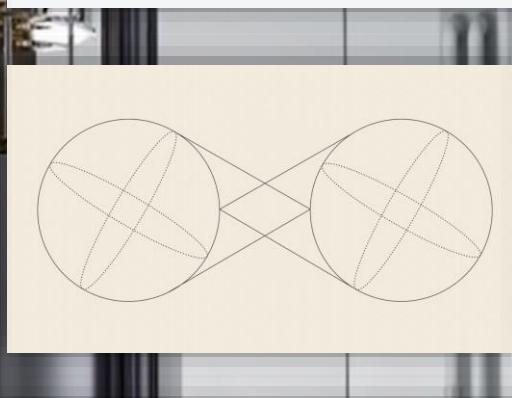
By [Chetan Nayak](#), Distinguished Engineer and VP of Quantum Hardware at Microsoft

Today, Microsoft is making available a new, extensive set of experimental data and simulations of our quantum devices. [Read more](#)

Resource Estimation Tool

Azure Quantum's Resource Estimation tool is a unique developer tool that provides estimates for the number of logical and physical qubits as well as runtime required to execute quantum applications on post-NISQ, fault tolerant quantum computers. Understanding the number of qubits required for a quantum solution and the differences between qubit technologies allows innovators to prepare and refine their quantum solutions to run on future scaled quantum machines and ultimately accelerate their quantum impact.

[Learn More >](#)



Superposition

In superposition, quantum particles are a combination of all possible states. They fluctuate until they're observed and measured. One way to picture the difference between binary position and superposition is to imagine a coin. Classical bits are measured by "flipping the coin" and getting heads or tails. However, if you were able to look at a coin and see both heads and tails at the same time, as well as every state in between, the coin would be in superposition.

Entanglement

Entanglement is the ability of quantum particles to correlate their measurement results with each other. When qubits are entangled, they form a single system and influence each other. We can use the measurements from one qubit to draw conclusions about the others. By adding and entangling more qubits in a system, quantum computers can calculate exponentially more information and solve more complicated problems.



Showcase of the Month



IT Showcase

Discover the inside story of how Microsoft does IT.
IT Showcase shares the blueprint of Microsoft reinvention, helping you learn from our experience and accelerate your transformation.



Microsoft Showcase Series



Inside Track

Discover the inside story of how Microsoft Digital is powering, protecting and transforming Microsoft, helping you learn from our experiences and accelerate your own transformation.

Nov 30, 2022 | Bonnie Darves

[Protecting Microsoft's SAP workload with Microsoft Sentinel](#)

For any large enterprise like Microsoft, monitoring threats to infrastructure and applications developing and maintaining an always-on Security Information and Event Management (SIEM) solution like Microsoft Sentinel that's equipped to ward off threats isn't only a weighty task but also a truly challenging undertaking. The threat landscape is constantly evolving, and data breaches—originating from outside...

Dec 1, 2022 | Lukas Velush

[Deploying Microsoft Teams across Microsoft hinged on good governance](#)

[Editor's note: This content was written to highlight a particular event or moment in time. Although that moment has passed, we're republishing it here so you can see what our thinking and experience was like at the time.] When Microsoft moved to Microsoft Teams for all communications, it needed a good plan. More than 250,000...

Nov 10, 2022 | Inside Track staff

[Powering Microsoft's operations transformation with Microsoft Azure](#)

In any digital transformation, technology and culture changes go together, and our ongoing operations transformation here at Microsoft is no different. As a company, we have evolved from using a process-centered, rigid, manual operations model with a disconnected customer experience. We moved to a Microsoft Azure-based model that uses modern engineering principles such as scalability,...

Nov 11, 2022 | Inside Track staff

[Transforming Microsoft's enterprise network with next-generation connectivity](#)

Next-generation connectivity is enabling us to transform our internal enterprise network here at Microsoft. Deploying a more agile, secure, and effective network environment across Microsoft is empowering our employees to thrive in our new hybrid world. This article describes how we're implementing this new network strategy, including goals, action areas, expected results, and a brief...

Microsoft Learning and Training : New Sessions



Virtual workshops and training

Our interactive virtual workshops and training sessions are taught live by Microsoft Store associates for an in-person experience—wherever you are.

Get started with
Microsoft Power
Virtual Agents

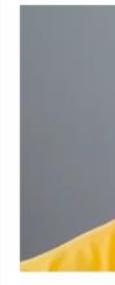


[See all 5 sessions >](#)

Get started with
Microsoft Power
Automate



[See all 7 sessions >](#)



Learn to be
cyber smart
with Microsoft
security foundations



[See 2 sessions >](#)

Device management
with Microsoft Intune



[See all 18 sessions >](#)

Get Started
with Power BI
service



[See all 5 sessions >](#)

Microsoft Virtual Training Days

Microsoft Events and Training: Updates



Microsoft Virtual Training Days

Events Catalog

Microsoft Ignite

The live show has ended, but preparations for the next Microsoft Ignite event have just begun. Mark your calendars for November 15–16, 2023, and sign up for registration notifications so you can secure your spot early.

[Get notified >](#)

TRAINING

Discover your path

Whether you're just starting or an experienced professional, our hands-on approach helps you arrive at your goals faster, with more confidence and at your own pace.

[Browse the full catalog](#)

[Customize my path](#)

Windows Server Summit

December 6, 2022 | 9:00 AM-10:30 AM Pacific Time

Explore ways to modernize your on-premises, hybrid, and cloud workloads—on your own timeline—at the Windows Server Summit on December 6.

[Register now >](#)

Microsoft Virtual Briefing - Sustainability

02/16/2023 | 11:00 - 13:00 (CST)

Digital

Briefing

Microsoft Virtual Briefings are exclusive events that bring the cloud community together to...
[Show more](#)

Learn Live: Manage end-to-end deployment scenarios by using Bicep...

18 January, 2023 | 12:00 PM

Create a unified workflow to deploy your entire environment. You'll add build jobs to your workflow...

[Register](#)

FastTrack Live: Azure DevOps/IaC for Migrations

15 December, 2022 | 12:00 PM

In this session, we will be discussing an alternative method for those looking to migrate to Azure via...

[Register](#)

Microsoft Power Platform Virtual Training Day: Fundamentals

01/10/2023 | 17:00 - 20:25 (CST)

Digital

Training

Microsoft Security Virtual Training Day: Defend Against Threats and Secure Cloud Environments

01/22/2023 | 17:00 (CST) - 01/23/2023 | 18:55 (CST)

Digital

Training

Microsoft Enterprise Skills Initiative (ESI)

self-paced learning, virtual training, instructor-led training, certifications



Enterprise Skills Initiative (ESI) continues*

- We have increased capacity and number of offerings.
- ESI covers training and certification for Azure technology.
- New: now also covers Security technology for eligible customers.
- ESI has options for different learning styles and stages:
 - Training is available as self-paced, instructor-led, Event.
 - Other training formats (e.g. Open Hack, GitHub, Cloud Skills Challenge) planned. ETA to be announced later.
 - Free exam vouchers available for eligible customers.
 - Free practice tests available for eligible customers.

*Eligibility required; trainings and free offers are limited in numbers/availability.

Try it: <https://esi.microsoft.com>

1. Microsoft enables your organization for the Customer Experience Portal (CxP)
2. Login with your work account
 - *Authentication is federated, meaning you may see Multi-Factor Authentication from your organization if this has been configured by your administrator.*
3. Create your learning profile
4. Start your skilling

Discover & Explore

Uncover the latest technologies and imagine new ways to create solutions



Learn skills

Choose the way you want to learn and grow your expertise



Prove skills

Demonstrate your knowledge and abilities



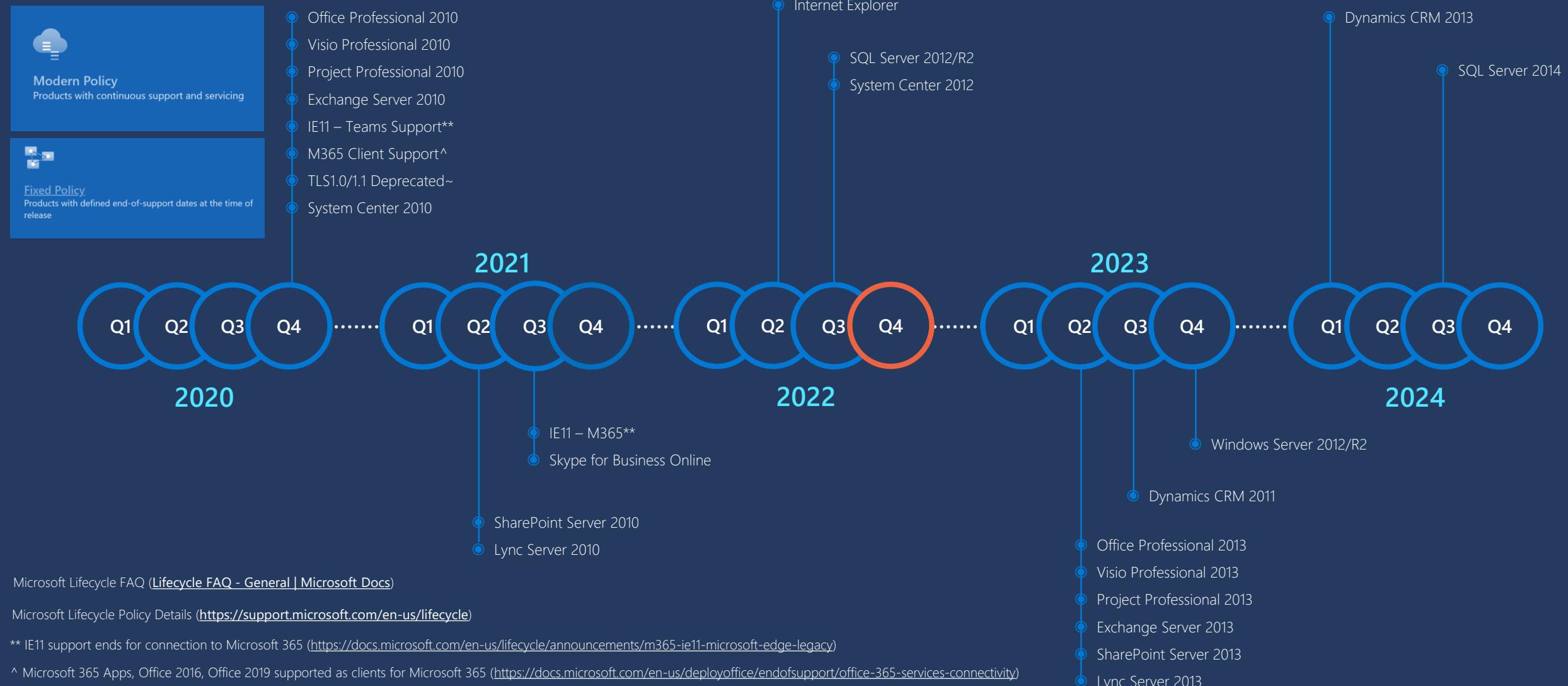
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Product Lifecycles





End of Service Roadmap to 2024



Microsoft Product Lifecycle: Modern Policy Products that will Retire



Products under Modern Policy that will Retire in 2022

Products that will Retire in 2022 (Modern Policy)	End of Support Date
Dynamics 365 for Talent	February 2, 2022
Azure Scheduler	February 15, 2022
Visual Studio 2019 for Mac	May 23, 2022
Dynamics 365 Field Service (on-premises)	June 30, 2022
Microsoft Machine Learning Server (Microsoft R Server)	July 1, 2022
Windows Server	August 9, 2022

Announcements

- ⌚ UPDATED: Support extended for Visio Services in SharePoint Online (aka Visio Web Access)
- ⌚ Windows 10, version 21H1 end of servicing
- ⌚ Deprecation of Basic Authentication (Basic Auth) in Exchange Online
- ⌚ Kaizala to be retired August 31, 2023
- ⌚ UPDATED: Windows Analytics retirement on January 31, 2020
- ⌚ Windows 8.1 end of support on January 10, 2023

Products under Modern Policy that will Retire in 2023

Products that will Retire in 2023 (Modern Policy)	End of Support Date
Visio Services in SharePoint (in Microsoft 365)	February 10, 2023
Microsoft Azure Virtual Machine (classic)	March 1, 2023
Kaizala	August 31, 2023
Scheduler for Microsoft 365	September 1, 2023

Lifecycle data export

Export all products

Export lifecycle data for all products by clicking below:

[Export All Products](#)

- ⌚ System Center 2012/2012 R2 end of support on July 12, 2022
- ⌚ SQL Server 2012 and Windows Server 2012/2012 R2 end of support
- ⌚ Internet Explorer 11 desktop app support ended for certain versions of Windows 10
- ⌚ Windows Server Semi-Annual Channel retiring on August 9, 2022
- ⌚ Office 2013 ends support in one year

[See more >](#)

Microsoft Product Lifecycle: Modern Policy Reaching End of Servicing



Products Release End of Servicing for 2022

Products Moving to End of Servicing (Modern Policy)	End of Servicing Date
Microsoft Endpoint Configuration Manager, Version 2006	February 11, 2022
Dynamics 365 Business Central on-premises (Modern Policy), 2020 release wave 1, version 16.x Dynamics 365 Business Central on-premises (Modern Policy), 2020 release wave 2, version 17.x	April 12, 2022
PowerShell, PowerShell 7.1	May 8, 2022
.NET 5.0 Windows 10 Enterprise and Education, Version 1909 Windows 10 Home and Pro, Version 20H2 Windows 10 IoT Enterprise, Version 1909	May 10, 2022
Visual Studio for Mac, Visual Studio 2019 for Mac	May 23, 2022
Microsoft Endpoint Configuration Manager, Version 2010	May 30, 2022
Azure IoT Edge, Version 1.2	June 27, 2022
Azure IoT Edge, Version 1.3	August 29, 2022
Azure Active Directory (AD) Connect, Version 1.x	August 31, 2022
Microsoft Endpoint Configuration Manager, Version 2103	October 5, 2022
Dynamics 365 Business Central on-premises (Modern Policy), 2021 release wave 1, version 18.x	October 11, 2022
PowerShell, PowerShell 7.0 (LTS)	December 3, 2022
Azure IoT Edge, Version 1.1 (LTS) .NET Core 3.1 (LTS) Windows 10 Enterprise and Education, Version 21H1 Windows 10 Home and Pro, Version 21H1 Windows 10 IoT Enterprise, Version 21H1	December 13, 2022

Products Release End of Servicing for 2023

Products Moving to End of Servicing (Modern Policy)	End of Servicing Date
Microsoft Endpoint Configuration Manager, Version 2107	February 2, 2023
Dynamics 365 Business Central on-premises (Modern Policy), 2021 release wave 2, version 19.x	April 12, 2023
Windows 10 Enterprise and Education, Version 20H2 Windows 10 IoT Enterprise, Version 20H2	May 9, 2023
Microsoft Endpoint Configuration Manager, Version 2111	June 1, 2023
Windows 10 Home and Pro, Version 21H2	June 13, 2023
Microsoft Endpoint Configuration Manager, Version 2203	October 6, 2023
Dynamics 365 Business Central on-premises (Modern Policy), 2022 release wave 1, version 20.x Windows 11 Home and Pro, Version 21H2	October 10, 2023

Microsoft Product Lifecycle: Fixed Policy Reaching End of Support 2022



Products Reaching End of Support for 2022

Products Moving to End of Support (Modern Policy)	End of Servicing Date	Products Moving to End of Support (Modern Policy)	End of Servicing Date
Visual Studio LightSwitch 2011 Windows 7, Extended Security Update Year 2* Windows Server 2008, Extended Security Update Year 2 Windows Server 2008 R2, Extended Security Update Year 2	January 11, 2022	Microsoft Forefront Identity Manager 2010 Microsoft Forefront Identity Manager 2010 R2 SQL Server 2016, Service Pack 2 Visual Studio 2019, Version 16.9 Windows Embedded POSReady 7, Extended Security Update Year 1* Windows Embedded Standard 7, Extended Security Update Year 2*	October 11, 2022
AppFabric 1.1 for Windows Server Dynamics AX 2009 Dynamics AX 2012 Dynamics AX 2012 R2 Visual Studio 2019, Version 16.7	April 12, 2022	Azure StorSimple 1200 Series Azure StorSimple 8000 Series StorSimple Data Manager	December 31, 2022
Microsoft .NET Framework, .NET Framework 4.5.2 Microsoft .NET Framework, .NET Framework 4.6 Microsoft .NET Framework, .NET Framework 4.6.1	April 26, 2022		
Internet Explorer 11 on Windows 10	June 14, 2022		
Cloud Platform System Microsoft Report Viewer Redistributable 2012 Microsoft SQL Server 2008, Extended Security Update Year 3 Microsoft SQL Server 2008 R2, Extended Security Update Year 3 Microsoft SQL Server 2012 Microsoft System Center 2012 App Controller Microsoft System Center 2012 Configuration Manager Microsoft System Center 2012 Data Protection Manager Microsoft System Center 2012 Endpoint Protection Microsoft System Center 2012 Operations Manager Microsoft System Center 2012 Orchestrator Microsoft System Center 2012 R2 App Controller Microsoft System Center 2012 R2 Configuration Manager Microsoft System Center 2012 R2 Data Protection Manager Microsoft System Center 2012 R2 Endpoint Protection Microsoft System Center 2012 R2 Operations Manager Microsoft System Center 2012 R2 Orchestrator Microsoft System Center 2012 R2 Service Manager Microsoft System Center 2012 R2 Virtual Machine Manager Microsoft System Center 2012 Service Manager Microsoft System Center 2012 Virtual Machine Manager Windows Azure Pack (on Windows Server 2012 R2)	July 12, 2022		

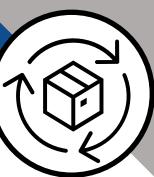
Microsoft Product Lifecycle: Fixed Policy Reaching End of Support 2023



Products Reaching End of Support for 2023

Products Moving to End of Support (Modern Policy)	End of Servicing Date	Products Moving to End of Support (Modern Policy)	End of Servicing Date
Dynamics AX 2012 R3 Dynamics NAV 2013 Dynamics NAV 2013 R2 Internet Information Services (IIS), IIS 8.5 on Windows 8.1 Microsoft Diagnostics and Recovery Toolset 8.0 Microsoft Report Viewer 2012 Runtime Microsoft Report Viewer Redistributable 2012 Service Bus for Windows Server User Experience Virtualization (UE-V) 1.0 Visual Studio 2012 Visual Studio Team Foundation Server 2012 Windows 7, Extended Security Update Year 3* Windows 8.1 Windows Defender For Windows 8 and 8.1 Windows Embedded 8.1 Pro Windows RT Windows Server 2008, Extended Security Update Year 3 Windows Server 2008 R2, Extended Security Update Year 3 Workflow Manager 1.0	January 10, 2023	BizTalk Server 2013 BizTalk Server 2013 R2 Dynamics 365 for Customer Engagement Apps, version 9 (on-premises update), Original Release (ver 9.0) Microsoft BitLocker Administration and Monitoring 2.0 Microsoft SQL Server 2008, Extended Security Update Year 4 (Azure only) Microsoft SQL Server 2008 R2, Extended Security Update Year 4 (Azure only) Microsoft SQL Server 2012, Extended Security Update Year 1 Visual Studio 2022 , Version 17.0 (LTSC channel) Windows Embedded 8 Standard Windows Embedded 8.1 Industry	July 11, 2023
Access 2013 Dynamics GP 2013 Dynamics GP 2013 R2 Excel 2013 Exchange Server 2013 HPC Pack 2012 HPC Pack 2012 R2 Lync 2013 Microsoft Lync Phone Edition Microsoft Lync Server 2013 Microsoft Office 2013 Microsoft OneNote 2013 Outlook 2013 PowerPoint 2013 Project 2013 Project Server 2013 Publisher 2013 SharePoint Foundation 2013 SharePoint Server 2013 Skype for Business 2015 Visio 2013 Word 2013	April 11, 2023	Excel 2019 for Mac Hyper-V Server 2012 Hyper-V Server 2012 R2 Internet Explorer 7 Internet Information Services (IIS), IIS 8 on Windows Server 2012 Internet Information Services (IIS), IIS 8.5 on Windows Server 2012 R2 Microsoft Office 2019 for Mac Microsoft Office Audit and Control Management Server 2013 Outlook 2019 for Mac PowerPoint 2019 for Mac Windows Embedded Compact 2013 Windows Embedded POSReady 7, Extended Security Update Year 2* Windows Embedded Standard 7, Extended Security Update Year 3* Windows MultiPoint Server 2012 Windows Server 2012 Windows Server 2012 R2 Windows Server Update Services for Windows Server 2012 Windows Server Update Services for Windows Server 2012 R2 Windows Storage Server 2012 Windows Storage Server 2012 R2 Word 2019 for Mac	October 10, 2023

Microsoft Product Lifecycle: Products moving to Extended Support



Products Moving to Extended Support for 2022

Products Moving to Extended Support (Fixed Policy)	End of Support Date
BizTalk Server 2016	January 11, 2022
Dynamics NAV 2017	
HPC Pack 2016	
Hyper-V Server 2016	
Microsoft Host Integration Server 2016	
System Center 2016 Data Protection	
System Center 2016 Operations Manager	
System Center 2016 Orchestrator	
System Center 2016 Service Manager	
System Center 2016 Virtual Machine Manager	
Visual Studio Team Foundation Server 2017	
Windows Azure Pack (on Windows Server 2016)	
Windows Server 2016	
Windows Storage Server 2016	
Visual Studio 2017	April 12, 2022
SQL Server 2017	October 11, 2022

Products Moving to Extended Support for 2023

Products Moving to Extended Support (Fixed Policy)	End of Support Date
Dynamics GP 2018	January 10, 2023
Dynamics GP 2018 R2	
Dynamics NAV 2018	
Visual Studio Team Foundation Server 2018	
Access 2019	October 10, 2023
Dynamics 365 Business Central on-premises (Fixed Policy)	
Excel 2019	
Microsoft Office 2019	
OneNote 2016	
Outlook 2019	
PowerPoint 2019	
Project 2019	
Publisher 2019	
Visio 2019	
Word 2019	



Acquisitions and Announcements

Microsoft Acquisitions - 2022



Company	Date	Description
Miburo	06-14-2022	Miburo will enhance Microsoft's Cybersecurity and Threat Analysis capabilities. The addition of Miburo will enable Microsoft to expand its threat detection and analysis capabilities to address new cyber-attacks and shed light on the ways in which foreign actors use information operations in conjunction with other cyber-attacks to achieve their objectives. Miburo is a leading expert in the identification of foreign information operations . Miburo's research teams detect and attribute malign and extremist influence campaigns across 16 languages . The combination of Microsoft and Miburo will help to stop foreign adversaries from threatening public and private sector customers and, in fact, the very foundations of our democracy.
Minit	03-31-2022	Minit currently enables businesses to transform the way they analyze, monitor and optimize their processes . Minit's solutions have helped businesses gain deep insights into how processes run , uncover root causes of operational challenges and help mitigate undesired process outcomes. This acquisition will further empower Microsoft to help our customers digitally transform and drive operational excellence by creating a complete picture of their business processes, enabling every process to be easily and automatically analyzed and improved. Customers will be able to better understand their process data, uncover what operations look like in reality and drive process standardization and improvement across the entire organization to ensure compliance at every step .
Oribi	02-28-2022	Microsoft's LinkedIn will acquire Oribi , an Israel based marketing analytics company , to further help customers, from marketers to recruiters, gain actionable insights, make smarter decisions and drive business results . The integration of LinkedIn and Oribi will accelerate Microsoft's marketing attribution and codeless analytics capabilities .
Activision Blizzard	01-18-2022	Microsoft announced plans to acquire Activision Blizzard Inc. (Nasdaq: ATVI), a leader in game development and interactive entertainment content publisher. This acquisition will accelerate the growth in Microsoft's gaming business across mobile, PC, console and cloud and will provide building blocks for the metaverse . "The combination of Activision Blizzard's world-class talent and extraordinary franchises with Microsoft's technology, distribution, access to talent, ambitious vision and shared commitment to gaming and inclusion will help ensure our continued success in an increasingly competitive industry."

Microsoft Acquisitions - 2021



Company	Date	Description
Xandr	12-21-2021	Microsoft will acquire Xandr from AT&T . Xandr provides a data-enabled technology platform with tools that help power a diverse ecosystem connecting marketers and media owners through first-party, data-led advertising solutions across its network. With Xandr, Microsoft can accelerate the delivery of digital advertising solutions for the open web by combining Microsoft's audience understanding, technology and global advertising customer base with Xandr's large-scale, data-driven platforms for advertising.
Two Hat	10-29-2021	Two Hat , a leading content moderation solution provider offering protection measures for online communities. Two Hat's technology has helped to make global communities in Xbox, Minecraft and MSN safer for users.
Clear Software	10-22-2021	Clear Software provides iPaaS and business process solutions with strong connectivity into SAP and Oracle . Clear Software's API access and system knowledge will strengthen Microsoft Power Platform's integration with outside systems and accelerate how customers leverage data and processes that reside beyond Microsoft first-party services.
Ally.IO	10-07-2021	Ally.io , a leading OKR (objectives and key results) company, will join the Microsoft Viva family as part of our employee experience platform (EXP) designed to help companies embrace the new digital work life. Ally.io will power a new Microsoft Viva module . Viva is an employee experience platform that brings together communications, knowledge, learning, resources and insights – from anywhere you work. Powered by Microsoft 365 and Microsoft Teams , Viva helps organizations foster a culture of human connection, growth, well-being and success.
TakeLessons	09-08-2021	We're so excited to announce that TakeLessons has been acquired by Microsoft . We believe this will further support TakeLessons' mission: to empower people to learn, connect, grow, and live more meaningful lives through education .
Clipchamp	09-07-2021	Clipchamp is a natural fit to extend the cloud-powered productivity experiences in Microsoft 365 for individuals, families, schools, and businesses. It's also a great fit for Microsoft Windows, which is a platform for boundless creativity. Clipchamp's template-driven, task-focused user experience gives everyone the confidence that they can create. Its rich library of filters, styles, transitions, and stock media combined with the power of a multi-track audio and video compositing editor gives everyone the fine control they need, and artistic help if they need it, to create exactly what they want, quickly and with confidence .
Peer5	08-10-2021	Peer5 expands Microsoft's ability for delivering secure, high-quality, large-scale live video streaming with optimized network performance in Teams . Peer5 offers a WebRTC-based eCDN solution that runs in-browser to optimize bandwidth usage helping mitigate impacts to network and line of business (LOB) applications. Its mesh networks are self-balancing and automatically scale as the number of viewers increase.

Microsoft Acquisitions - 2021



Company	Date	Description
Suplari	07-28-2021	Suplari , a leading provider of supplier spend insights . Suplari enables companies to proactively manage supplier spend by transforming data from multiple sources , such as contracts, purchase orders, invoices, expenses, and supplier risk, into valuable insight. By bringing Suplari's spend intelligence insights together with the existing Microsoft Dynamics 365 capabilities, Microsoft is further helping organizations become insight-driven and enabling business leaders to take strategic action.
CloudKnox	07-21-2021	Enhanced Zero-Trust controls. The acquisition of CloudKnox further enables Microsoft Azure Active Directory customers with granular visibility, continuous monitoring and automated remediation for hybrid and multi-cloud permissions . Microsoft is committed to providing our customers with unified privileged access management, identity governance and entitlement management. With this Cloudknox, Microsoft is uniquely positioned to empower and defend the future of hybrid work and multi-cloud environments, providing essential visibility, control and monitoring Zero Trust demands .
RiskIQ	07-12-2021	A leader in global threat intelligence and attack surface management , to help our shared customers build a more comprehensive view of the global threats to their businesses, better understand vulnerable internet-facing assets, and build world-class threat intelligence. RiskIQ offers global threat intelligence collected from across the internet, crowd-sourced through its PassiveTotal community of security researchers and analyzed using machine learning . The combination of RiskIQ's attack surface management and threat intelligence empowers security teams to assemble, graph, and identify connections between their digital attack surface and attacker infrastructure and activities, to help provide increased protection and faster response .
ReFirm Labs	06-02-2021	ReFirm Labs is joining Microsoft to enrich our firmware analysis and security capabilities across devices that form the intelligent edge, from servers to IoT . This acquisition marks the next step in our journey and ability to help secure customers from the chip to the cloud , backed by more than 3,500 defenders at Microsoft and the >8 trillion security signals we process every day. ReFirm are the authors of the well-respected Binwalk open-source software , which has been used to analyze thousands of device types for firmware security issues , uncovering unpatched common vulnerabilities and exposures (CVEs), insecure secrets, and a multitude of other security problems in plugin IoT devices and embedded firmware. Microsoft acquires ReFirm Labs to enhance IoT security - Microsoft Security
Kinvolk	04-29-2021	Kinvolk has a rich, innovative history in open source cloud-native distributed computing, including Kubernetes, eBPF, community building, and container-optimized Linux . Kinvolk will be key contributors to the engineering development of Azure Kubernetes Service (AKS) , Azure Arc , and future projects that will expand Azure's hybrid container platform capabilities and increase Microsoft's upstream open source contributions in the Kubernetes and container space.
Nuance	04-12-2021	Nuance is a cloud software pioneer and a leading provider of conversational AI and ambient clinical intelligence. Nuance provides AI expertise and intelligent customer engagement across Interactive Voice Response (IVR), virtual assistants, and digital and biometric solutions to some of the largest organizations in the world. Nuance's global customer and partner base spans nearly every industry, and together we are well-positioned to advance our AI capabilities with high-value solutions and a platform to support our customers' and partners' future innovation .
The Marsden Group	03-16-2021	The Marsden Group is a leader in industrial technology innovation and rapid prototyping. The Marsden Group has earned a unique reputation as a powerful and trusted partner among industry leaders who seek to quickly identify business needs, ideate technology solutions and build high-quality prototypes tailored to individual customer needs . The Marsden Group has helped its enterprise customers rapidly envision, prototype and implement solutions that drive meaningful value to their businesses, employees and customers .



Microsoft Acquisitions - 2020

Company	Date	Description
<u>ZeniMax Media</u>	09-21-2020	ZeniMax Media, the parent company of Bethesda Softworks , one of the largest privately held game developers and publishers in the world . Creators of critically acclaimed and best-selling gaming franchises including The Elder Scrolls, Fallout and many others , Bethesda brings an impressive portfolio of games, technology and talent — as well as a track record of blockbuster commercial success — to Xbox.
<u>Orions Systems</u>	07-07-2020	Orions Systems, a pioneer in the development of large-scale, hybrid, smart vision systems focused on “human-in-the-loop” machine teaching combined with services that can adapt to running on a single device or scale to address large scale edge-to-cloud network topologies . The Power Platform and Orions Systems is enabling intelligent retail spaces by leveraging observational data to unlock the full potential of customers, employees, and assets.
<u>CyberX</u>	06-22-2020	CyberX will complement the existing <u>Azure IoT security</u> capabilities and extends to existing devices including those used in industrial IoT, Operational Technology and infrastructure scenarios . With CyberX, customers can discover their existing IoT assets, and both manage and improve the security posture of those devices . CyberX, customers can see a digital map of thousands of devices across a factory floor or within a building and gather information about their asset profile and vulnerabilities,
<u>ADRM Software</u>	06-18-2020	ADRM Software is a leading provider of large-scale industry data models , which are used by large companies worldwide as information blueprints. ADRM's robust industry data models have been built and refined over decades for business-critical analytics. Together with Microsoft Azure, these capabilities will be delivered at scale , enabling our customers to accelerate digital progress, and reduce risk in a variety of major initiatives.
<u>Softomotive</u>	05-19-2020	<u>Softomotive</u> currently helps more than 9,000 global customers seamlessly automate business processes across legacy and modern desktop applications . Together with Power Automate, WinAutomation will provide customers additional options for RPA desktop authoring so anyone can build a bot and automate Windows-based tasks.
<u>Metaswitch Networks</u>	05-14-2020	<u>Metaswitch Networks</u> , a leading provider of virtualized network software and voice, data and communications solutions for 5G operators .
<u>Corp.Com</u>	04-07-2020	"To help in keeping systems protected we encourage customers to practice safe security habits when planning for internal domain and network names. We released a security advisory in June of 2009 and a security update that helps keep customers safe. In our ongoing commitment to customer security, we also acquired the Corp.com domain."
<u>Affirmed Networks</u>	03-26-2020	Affirmed Networks with its leadership in virtualized 5G mobile networks . Affirmed Networks and Microsoft will play an important role in helping advance 5G and deliver new network solutions that offer step-change advancements in speed, cost and security. This combination of technology leaders will enable a host of new opportunities for businesses and society, including autonomous vehicles, smart cities, virtual reality and a range of other smart industry use cases and services .

Microsoft Acquisitions - 2019



Company	Date	Description
Movere	10-21-2019	Movere accelerates cloud migrations. It increases business intelligence by accurately presenting entire IT environments within a single day , providing enterprises with the confidence they need to have visibility and control of their environments regardless of platform, application or geography as organizations grow, change and digitally optimize .
Semmle	09-18-2019	Semmle's revolutionary semantic code analysis engine allows developers to write queries that identify code patterns in large codebases and search for vulnerabilities and their variants . Semmle is trusted by security teams at Uber, NASA, Microsoft, Google , and has helped find thousands of vulnerabilities in some of the largest codebases in the world , as well as over 100 CVEs in open source projects to date.
JClarity	08-19-2019	The leading contributor to the AdoptOpenJDK project , to support their continued contributions to open source while driving increased performance for Java workloads on Azure . The team, formed by Java champions and data scientists with proven expertise in data driven Java Virtual Machine (JVM) optimizations , will help teams at Microsoft to leverage advancements in the Java platform.
PromotelQ	08-05-2019	The leading provider of vendor marketing technology to online retailers and brands . PromotelQ has pioneered the private marketplace approach to digital vendor marketing. PromotelQ's technology strategically complements Microsoft's current retail advertising offerings, and can enable retailers with a portfolio of technology solutions to modernize their e-commerce platforms and maximize their monetization opportunity. Retailers such as Kroger, Kohl's and Overstock.com — will continue to benefit from the PromotelQ platform and team.
BlueTalon	07-29-2019	A leading provider of Unified Data Access Control solutions for modern data platforms . BlueTalon works with leading Fortune 100 companies to eliminate data security blind spots and gain visibility and control of data. BlueTalon provides a customer-proven, data-centric solution for data access management and auditing across the diverse systems resident in modern data estates.
PullPanda^	06-17-2019	PullPanda^ helps teams create more efficient and effective code review workflows on GitHub . Better code reviews mean better code for software teams of all sizes, whether you work in open source or on a Fortune 500 team. PullPanda^ gives teams a better way to manage reviews, reduce turnaround times, and ship code faster .
Double Fine Productions	06-09-2019	Double Fine is a beacon of creativity and spirit in game development for almost 20 years with classic games like Psychonauts, Brütal Legend and Broken Age . At the root of every game is an emphasis on creating crazy worlds with originality, story and fun. That commitment to creating a unique, player-centric experience is what drew us to the studio, and I'm looking forward to seeing what we create together.
Drawbridge Solutions	05-28-2019	LinkedIn will integrate Drawbridge's technology into our marketing solutions portfolio to help our customers better reach and understand their professional audiences and measure the ROI of their campaigns.
Dependabot	05-23-2019	Dependabot is integrated directly into GitHub and will monitor your dependencies for known security vulnerabilities and automatically open pull requests to update them to the minimum required version. We are rolling out automated pull requests to all accounts with security alerts enabled along with other enhancements in the coming months.



Microsoft Acquisitions – 2019 & late 2018

Company	Date	Description
Express Logic	04-18-2019	a leader in real time operating systems (RTOS) for IoT and edge devices powered by microcontroller units (MCUs) . Express Logic's ThreadX RTOS has over 6.2 billion deployments, making it one of the most deployed RTOS in the world per VDC Research . This widespread popularity is driven by demand for technology to support resource constrained environments, especially those that require safety and security.
DataSense	02-04-2019	The integration of DataSense into Microsoft's suite of products, we will help educational institutions – and school and district IT leaders in particular – better collect, manage and explicitly control access to their data within Azure to help drive the best possible learning outcomes for their students. Read more at https://educationblog.microsoft.com/en-us/2019/02/introducing-datasense-to-microsoft-educations-family-of-products/#E6CKQEBUjS35TOH4.99
Citus Data	01-24-2019	a leader in the PostgreSQL community. Citus is an innovative open source extension to PostgreSQL that transforms PostgreSQL into a distributed database, dramatically increasing performance and scale for application developers . Because Citus is an extension to open source PostgreSQL, it gives enterprises the performance advantages of a horizontally scalable database while staying current with all the latest innovations in PostgreSQL . Citus is available as a fully-managed database as a service, as enterprise software, and as a free open source download.
FSLogix	11-19-2018	FSLogix is a next-generation app-provisioning platform that reduces the resources, time and labor required to support virtualization . From small businesses to very large global enterprises across numerous industries, FSLogix solutions enhance customer experience and productivity, while reducing support requirements for IT departments.
XOXCO	11-14-2018	A software product design and development studio known for its conversational AI and bot development capabilities . The company has been paving the way in conversational AI since 2013 and was responsible for the creation of Howdy , the first commercially available bot for Slack that helps schedule meetings, and Botkit, which provides the development tools used by hundreds of thousands of developers on GitHub . Over the years, we have partnered with XOXCO and have been inspired by this work.
Obsidian	11-10-2018	The studio quickly made a name for itself with the Xbox exclusive Star Wars: Knights of the Old Republic II: The Sith Lords . Over the last fifteen years, they have delivered genre-defining RPGs to players on both console and PC through titles including <i>Fallout: New Vegas</i> , <i>South Park: The Stick of Truth</i> , and <i>Pillars of Eternity</i> . Read more at https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99
InXile	11-10-2018	Like Obsidian, InXile excels at creating vast worlds for players to explore with titles such as Wasteland 2, Torment: Tides of Numenera, Bard's Tale IV and the upcoming Wasteland 3 . Read more at https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99
Lobe	09-13-2018	Lobe makes deep learning simple, understandable and accessible to everyone. Lobe's simple visual interface empowers anyone to develop and apply deep learning and AI models quickly, without writing code .

THANK YOU

Charlie Ciso

