



Monthly Technical Update *November 2021*

Abbas Kudrati

APAC Chief Cybersecurity Advisor

Abbas.Kudrati@Microsoft.Com

<https://aka.ms/abbas>

- [Microsoft Ignite Book of News](#)
- [Microsoft Envision 2022](#)
- [Microsoft Official Blog](#)



- [Microsoft Security Blog](#)
- [Microsoft Global Threat Monitor](#)
- [Partnering for Zero Trust](#)
- [Microsoft Security Response Center](#)



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



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

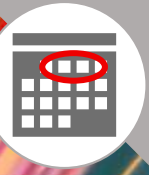


- [Azure Updates](#)
- [Industry Blogs](#)
- [Industry Cloud Announcements](#)
- [Microsoft Research Blog](#)
- [Microsoft Quantum Computing](#)



- [Products Reaching End of Support in 2021 and 2022](#)
- [Companies and Technologies Acquired Since 2018](#)

Microsoft Ignite



Ignite Book of News : November 2021



1. Azure

- ❖ Azure AI
- ❖ Azure Data
- ❖ Azure Dev & Ecosystem
- ❖ Azure Hybrid
- ❖ Azure Infra
- ❖ Azure IoT
- ❖ Azure Migration
- ❖ Azure Mixed Reality
- ❖ Azure Networking
- ❖ Azure Resilience

4. Microsoft 365 & Windows

- ❖ Microsoft Office
- ❖ Microsoft Teams
- ❖ Microsoft Viva
- ❖ Next Gen Apps
- ❖ Windows 11
- ❖ Windows 365

7. Security, Compliance, Identity, & Management

- ❖ Security
- ❖ Compliance
- ❖ Identity
- ❖ Management
- ❖ Microsoft Teams

Microsoft Ignite

2. Business Applications

- ❖ Dynamics 365

5. Microsoft Edge

- ❖ Microsoft Edge – Linux and IE mode

3. Industry Cloud

- ❖ Industry Clouds
 - ❖ Finance, Manufacturing, Healthcare, non-profit, & Sustainability

6. Power Platform

- ❖ Power Platform – Deeper Integration, Enhancements, & Solutions

Microsoft Envision

Microsoft Envision is a digital series where you'll join thought leaders from business, technology, entertainment, sports, and other segments to explore today's critical business and technology topics. Get ready to share ideas and gain fresh insights from a diverse worldwide audience.



The learnings of leadership in times of disruption: a conversation with Indra Nooyi

Disruption is exciting, uncertain, and everywhere. Explore how disruption impacts the business model, the people we hire, where we locate, and how we plan for risks. Learn why flexibility and agility are critical qualities in uncertain times, and why technology has to be human-focused.

[Register for free >](#)

The Great Reshuffle: helping organizations and employees thrive amid change

A significant portion of the workforce is changing positions, companies, and careers. Flexibility is a primary driver in the Great Reshuffle, and we discuss what this means for different groups. Learn how your organization can increase recruitment and retention with flexibility. Explore how LinkedIn Learning and other tools can also help you acquire skills for future opportunities.

[Register for free >](#)

Miss the live show? Watch it on demand.

RSVP now for Episode 2 on December 14 to watch Episode 1 and Season 1 highlights.

[Register for free](#)

[Sign in](#)



Updates of Security and Compliance

Certificate change: Azure IoT and Device Provisioning Service (DPS)

Install DigiCert Global G2 certificate to avoid disruption of connectivity



Change in Certificate chain for Azure IoT and DPS

When: **by October 2022**

Impact: **disruption of connectivity to Azure IoT and DPS if not on DigiCert Global G2 certificate**

Why: Certificate Root Chain will be migrated from Baltimore CyberTrust to DigiCert Global G2

Reason: Most Azure services are already updated to use the DigiCert Global G2 root.
Azure IoT Hub and Device Provisioning Service (DPS) remained on TLS certificates issued by the Baltimore CyberTrust Root but now need to be migrated, too.

Action: **Add the DigiCert Global root G2 to your trusted root store.**
Do not delete the Baltimore root till after transition (~Nov 2022) to prevent interruption.



How do I know I'm impacted?

If

- your devices use a connection stack other than the ones provided in an Azure IoT SDK
- your client applications, devices, or networking infrastructure (e.g. firewalls) perform any sub root validation in code



[More information and Support options](#)

Microsoft Security Blog

November 2, 2021

Protect your business with Microsoft Security's comprehensive protection

Securing an organization has never been simple. But over the past year, we've seen significant changes in the threat landscape that are having a major impact on organizations of every size in every sector.

October 27, 2021

New insights on cybersecurity in the age of hybrid work

Learn how implementing Zero Trust security can help secure your business in a time of constant change.

October 26, 2021

Protect your business from password sprays with Microsoft DART recommendations

This blog discusses DART's investigation techniques and approach to responding to password spray attacks while outlining recommendations for protecting against them.

October 28, 2021

Microsoft finds new macOS vulnerability, Shrootless, that could bypass System Integrity Protection

Microsoft found a vulnerability (CVE-2021-30892) that could allow an attacker to bypass System Integrity Protection (SIP) in macOS. We shared our findings with Apple via coordinated vulnerability disclosure, and a fix was released October 26.

Microsoft Security Response Center

October 21, 2021

How Microsoft is partnering with vendors to provide Zero Trust solutions

No two organizations are alike. But our integrations with independent software vendors (ISVs) support Zero Trust in a diverse set of environments.

November 8, 2021

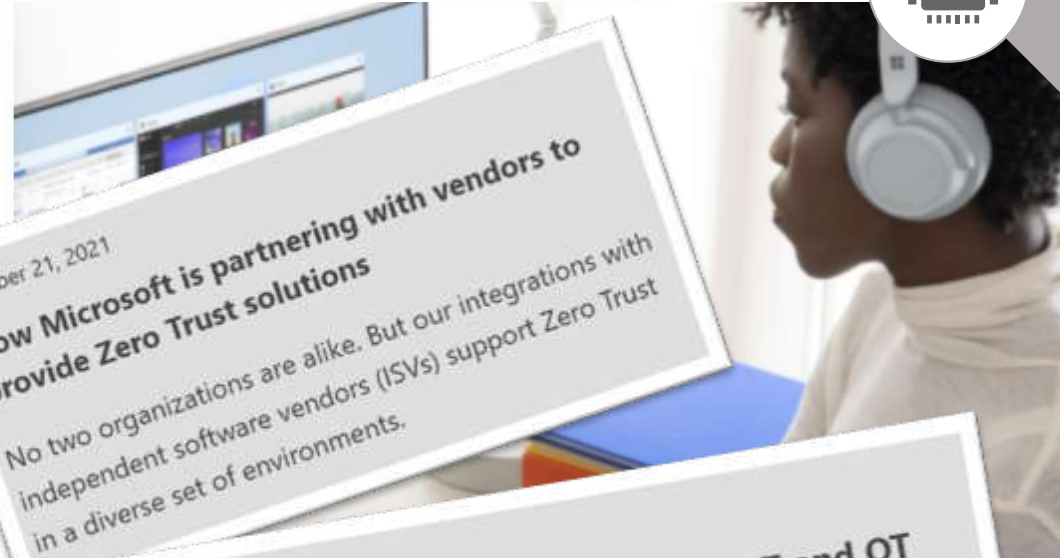
Learn how Microsoft strengthens IoT and OT security with Zero Trust

Get insights on securing your supply chain and IoT/OT devices against sophisticated new cyber threats.

November 3, 2021

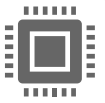
Evolving Zero Trust—Lessons learned and emerging trends

Microsoft shares its updated position on the end-to-end implementation of a Zero Trust framework.



Monitoring Global Threats: Microsoft

Microsoft Security Response Center



Germany ▾

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



Financial services and insurance

Show all industries >

Devices with encounters:

521,850 (5.64%)



Financial services and insurance ▾

Top threats:

App:HoneyMiner
Backdoor:ASP/Seasharpee.A/dha
Backdoor:MSIL/NIRat.A/MTB
Backdoor:MSIL/RevengeRat
Backdoor:PowerShell/Shaningning.C

Germany

1,732,102 devices with encounters

Top threats:

Backdoor:MSIL/Crysen!MSR
BrowserModifier:JS/CrossRider
Exploit:O97M/CVE-2017-11882.PDD!MTB
Exploit:SWF/CVE-2011-0611.C
Trojan:MSIL/AgentTesla.AUY!MTB

Show worldwide data >

November 8, 2021

Threat actor DEV-0322 exploiting ZOHO ManageEngine ADSelfService Plus

Microsoft has detected exploits being used to compromise systems running the ZOHO ManageEngine ADSelfService Plus software versions vulnerable to CVE-2021-40539 in a targeted campaign. Microsoft Threat Intelligence Center (MSTIC) attributes this campaign with high confidence to DEV-0322.

October 21, 2021

Franken-phish: TodayZoo built from other phishing kits

A phishing kit built using pieces of code copied from other kits, some available for sale through publicly accessible scam sellers or are reused and repackaged by other kit resellers, provides rich insight into the state of the economy that drives phishing and email threats today.

October 25, 2021

NOBELIUM targeting delegated administrative privileges to facilitate broader attacks

The Microsoft Threat Intelligence Center (MSTIC) has detected nation-state activity associated with the threat actor tracked as NOBELIUM, attempting to gain access to downstream customers of multiple cloud service providers (CSP), managed service providers (MSP), and other IT services organizations.

A woman with long red hair in a braid, wearing a white sweater, is sitting in an office chair and writing on a tablet with a pen. She is looking down at the tablet. The background is a bright office with large windows.

Microsoft 365 update information

Microsoft Teams Blog:



What's New in Microsoft Teams | October 2021

What's New in Microsoft Teams | October 2021

Microsoft_Teams_team on Oct 29 2021 03:00 AM

Welcome to What's New in Teams for October, which showcases all the updates we have made available in the past month. Ea...



AI-based video and screen sharing quality optimization in...

robertaichner on Nov 09 2021 10:20 AM

Previously, we've shared how Microsoft uses AI to reduce background noise and improve the encoding of audio via our Sati...



Sharing the latest Microsoft Teams security and compliance...

Microsoft_Teams_team on Nov 09 2021 08:00 AM

We hope you had the chance to join us virtually at Microsoft Ignite to learn about all the latest innovations and produc...

New for This Month

- [Microsoft Ignite Fall 2021 Teams Innovations](#)
- [All-New Whiteboard in Microsoft Teams](#)
- [Live Transcript in Unscheduled meetings](#)
- [Breakout Room managers support](#)
- [Breakout Room pre-meeting room creation and participant assignment](#)
- [Presenter mode "Standout" in PowerPoint Live](#)

Calling:

- [1:1 Calling in Safari Web Browser](#)
- [Operator Connect : Generally Available](#)
- [Teams Calling Plans Expansion – 5 new markets](#)

Devices:

- [Surface Hub update for Teams Rooms](#)
- [Jabra Evolve2 75 – New Capabilities](#)
- [Jabra PanaCast 50](#)



Chat and Collaboration:

- [Chat Supervisors can delete messages](#)
- [Suggested Replies in Chats](#)
- [Comment, share, print with Visio Viewer in Microsoft Teams](#)

Developers and Management

- [Enable Teams users to purchase Teams Apps through the Teams store](#)
- [Queue view in Microsoft Bookings App](#)
- [Team Templates maintenance – additional apps](#)
- [Admin notifications for custom app submissions](#)
- [Admins can use cloud shell from Admin Center](#)
- [Export Teams list from Teams Admin Center](#)
- [Updates: Teams Admin Center Interface](#)



Government Cloud Updates: GCC-High and DoD Clouds

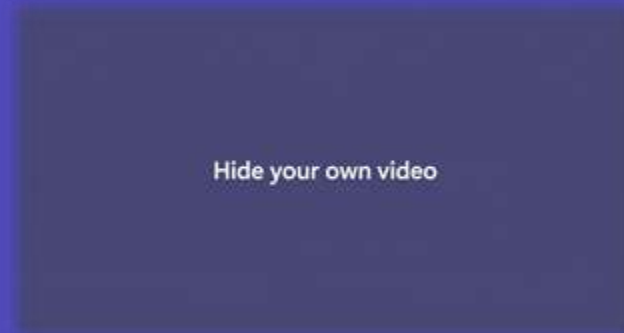
- [New assignment experience in modal windows for breakout rooms](#)
- [Presenter mode : desktop or window sharing](#)
- [Present from PowerPoint to Teams](#)
- [Prompt to set Meeting Options for Large Teams Meetings in Outlook for Windows](#)
- [Together Mode scene selection and editing](#)
- [Improved Content Sharing in Meetings](#)
- [Live Transcript in Unscheduled meetings using Meet Now and Channel meetings](#)
- [Guest Access between tenants](#)
- [Guest access support on mobile for DoD](#)
- [Guest access support on mobile for GCC-High](#)
- [Teams Device management in DoD](#)

Microsoft Teams Innovations at Ignite: (Coming in 2022)



What's Coming to Teams (2022)

- New Immersive Meetings with Mesh for Teams
- New User Experiences
 - Assign roles from the Scheduling Form
 - Mute Notifications
 - Pin or Hide your own video
 - Mobile Device app revamp – New overflow menu and in-meeting system messages
- Shared Channels and Chat with Teams
 - Shared Channels across multiple organizations (Q1-2022)
 - Teams Chat outside your organization
- New Chat, People, and Presence features
 - Chat Density – customize the number of chat messages you see
 - New 3D emojis (800 new)
 - Delay delivery of messages – send at a specific time
 - Time-Zone checking from user's contact card
- Dynamics 365 + Teams Integration
- Azure Communications Services Teams Integration
- Teams + Power Platform = Collaborative Apps
- Security and Compliance enhancements and Graph API



Webinar and Broadcasting Capabilities

- Microsoft Teams Connect
- Virtual Green Room allowing Organizers and Presenters to socialize
- Manage Attendee settings and share content before the meeting from the Virtual Green Room
- Manage what attendees see – content, video, chat
- Designate Co-Organizer feature – up to 10 Co-Organizers
- New Q&A Experience
- Broadcasters can create audio mix with New Isolated Audio Feed capabilities
- Cvent is now integrated with Teams (early 2022)

Teams Rooms and Devices : Device Link

- BlueJeans and GoToMeeting will be supported in Direct Guest Join
- HP Presence Meeting Space Solution Kit work with Microsoft Teams Rooms
- Sennheiser will release an AI enabled speaker optimized for Teams Rooms
- Improved “check in” to a room from a Teams panel
- Updated system for Room Occupancy sensors
 - If no-one enters a reserved room within a specified time, the room is released back to room inventory
- Improved Home devices
- Updated peripheral devices
- Native Bluetooth Support in Teams
- SIP Gateway : Dec. 2021



Partner Collaborative Apps

- Atlassian's Jira Cloud : Available in Teams
- SAP Sales & Service Core : Available now
- Redesigned Teams App Store

What's New in Microsoft 365

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

Microsoft 365 Updates:

- [Microsoft Viva](#): Generally Available
- [PowerPoint's New Recording Studio](#)
- [Admin Center Updates](#): Ignite 2021 Announcements
- [Office, Outlook, and "New Stuff" sessions at Ignite 2021](#)
- [New Collaborative Apps for Microsoft Teams](#)
- [Microsoft Bookings for Scheduling Needs](#)
- [Modern Comments in Microsoft Word](#)
- [Context IQ powering Microsoft Editor](#)
- [Feedback for Microsoft 365 Community Experience Updated](#)
- [Servicing Profiles for Microsoft 365 Apps](#): Generally Available
- [Hub Creation with Office.Com](#)
- [Microsoft Loop](#): Powerful Canvas App for team collaboration



Meet Clipchamp —Microsoft's New Video Editing App to...

Anna_Ji on Nov 02 2021 08:06 AM

Learn more about Clipchamp - your way to create beautiful, professional looking videos in minutes!

What's new in Microsoft 365 admin management – Ignite 2021

Yana Tenikhova on Oct 29 2021 12:20 PM

Learn about new admin capabilities to simplify Microsoft 365 management for your organization!

Power Platform and Dynamics

Roadmaps and Release plans:



Meet Context IQ— A new way to collaborate in a hyperconnected business >

November 2, 2021

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

Across industries, businesses are experiencing a tectonic shift in how, when, and where people work. In today's decentralized workplace, everyone needs simple ways to connect, share ideas, and collaborate wherever they are located. Today, at Microsoft Ignite, we are announcing Context IQ, a set of capabilities for Microsoft Dynamics 365 and Microsoft 365 that integrate...[Read more](#)



Announcing new activity menu and 1:1 calling for Dynamics 365 Guides >

November 3, 2021

By [Andy Klein](#), Principal Designer, Microsoft
Mixed Reality Apps

With a growing labor shortage and access to new technologies and processes, businesses are adopting mixed reality to improve how employees learn, work, and understand the world around them. Microsoft Dynamics 365 Guides is driving workforce transformation with hands-on training and step-by-step holographic instructions that are seamless, intuitive, and embedded into everyday workflows, equipping employees...[Read more](#)



Mitigate disruptions with Dynamics 365 Supply Chain Insights—now in preview >

November 2, 2021

By [Omar Choudhry](#), Principal Group
Program Manager, Supply Chain Insights

We are excited to announce the preview launch of Dynamics 365 Supply Chain Insights to help organizations achieve a supply chain of the future—one that is resilient, sustainable, and capable of sensing, predicting, and mitigating disruptions before they occur. Recent worldwide supply chain disruptions have resulted in economic losses and missed opportunities that stretch into the billions of dollars. Since...[Read more](#)

Power BI Blog

- [Snowflake and Azure Databricks Connectivity via VNet data gateways](#)
- [Power BI app for Microsoft Teams : Generally Available](#)
- [Improved Export to Excel and Connected PivotTables](#)
- [Power BI Goals : Improved capabilities, visuals, Level Permissions and Power Automate Integration](#)
- [Power BI and Purview Integration : Generally Available](#)
- [Power BI Desktop Installer updates & WebView2 component changes](#)

PowerApps Blog: Power Automate Blog: Power Virtual Agents Blog

- [Custom Page Runtime : Generally Available](#)
- [Power Apps portals support for Microsoft Power Platform CLI : Generally Available](#)
- [Power Apps Mobile Apps Development Platform : Preview](#)
- [Power Fx : Open Source on GitHub : Generally Available](#)
- [14 new Independent Publisher Connectors](#)
- [Admins manage RPA Automations using Data Loss Prevention \(DLP\) for desktop flows: Preview](#)
- [Updated Power Automate Cloud Flows](#)
- [Process advisor Application Analytics and Automation Recommendation features : Generally Available](#)
- [The Economic Impact of Power Virtual Agents](#)
- [Bot Building Futures : Power Virtual Agents](#)
- [Co-Authoring for Power Apps Studio](#)
- [Multiple portals in Dataverse environment](#)



Send a customized email when a
new file is added

By Microsoft

Automated

447556

Developer and GitHub

GitHub ChangeLog

- [Building the next phase of GitHub, together](#)
- [GitHub Actions for security and compliance](#)
- [GitHub security update: revoking weakly-generated SSH keys](#)
- [7 unique software collaboration features in GitHub Discussions](#)
- [GitHub keeps getting better for open-source maintainers](#)
- [Everything new from Universe 2021](#)
- [GitHub Actions for security and compliance](#)
- [📅 Save the date for GitHub Game Off 2021](#)
- [Cybersecurity spotlight on bug bounty researcher @yvvdwf](#)

Microsoft Developer Blogs:

- [Design Kit 2.1](#)
- [Visual Studio 2022 for Mac Preview 3, and Upcoming Native M1 Processor Support](#)
- [Visual Studio 2022 now available](#)
- [.NET Framework November 2021 Cumulative Update](#)
- [C# 10 : Generally Available](#)
- [F# 6 : Generally Available](#)
- [.NET MAUI : Preview 10](#)
- [Microsoft C++ Code Analysis with GitHub Actions](#)
- [What's New in Xamarin and Visual Studio 2022](#)
- [OneAPI/L0, OpenVINO and OpenCL coming to the Windows Subsystem for Linux for Intel GPUs](#)



November 9, 2021 — Community

Three rules of bug fixing for better OSS security



November 2, 2021 — Community

Blue-teaming for Exiv2: creating a security advisory process



October 14, 2021 — Education

Student developer resources you won't find in the classroom



November 9, 2021 — Enterprise

GitHub Enterprise Server 3.3 enhances CI/CD and adds a new security manager role



Office Developer Blogs and Microsoft 365 Dev Center

Build apps for Microsoft Teams

Extend and customize Teams to create and connect apps and workflows.

[Visit Dev Center >](#)

Global Developer Updates and Bootcamps :: M365 Developer Blog

- [Azure Fluid Relay Service](#) : Public Preview
- [Instant Sandbox with Teams sample data pack](#)
- [Office Add-Ins](#) : Ignite 2021
- [Attendance report in Microsoft Graph](#)
- [OnlineMeeting API](#) : In beta
- [Building Collaboration Apps in a Hybrid World](#)
- [Microsoft Graph Updates](#) : Ignite 2021
- [OData property changes to Microsoft 365 usage reports API in Microsoft Graph](#)
- [Developing real-time collaborative apps with Azure, Microsoft 365, Power Platform, and GitHub](#)



Script Lab

Use the Office JavaScript API tool to create Office Add-ins for Excel, Word, or PowerPoint.

[Explore >](#)



Teams UI Kit

Get core components, scenario-based templates, and best practices for designing Teams apps.

[Explore >](#)



Breaking changes to the settings endpoint in the Microsoft Graph eDisc...

Today, we're announcing some upcoming breaking changes for developers using the Microsoft Graph eDiscovery API.

[View blog >](#)



Multi-tenant architecture for SaaS apps

Learn how to convert a simple single tenant JavaScript application into a multi-tenant app that can run across different tenants to bring da...

[View blog >](#)

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 >](#)



Adaptive Cards

Create and share rich, interactive UI content in a consistent way.

[Explore >](#)



Graph Explorer

Try Microsoft Graph API requests and see sample responses.

[Explore >](#)



Azure

Azure Updates



Azure Announcements : Azure Blog

- [Citrix supports Virtual Apps and Desktop Service on Azure VMware Solution](#) : Generally Available
- [ExpressRoute now supports Azure Virtual Desktop Shortpath RDP over Private Peering](#) : Generally Available
- [Azure Site Recovery now supports failover of multiple IP configurations](#) : Generally Available
- [Azure OpenAI Service combines access to powerful GPT-3 language models with Azure's enterprise capabilities](#) : Private Preview
- [Run IBM WebSphere Liberty and Open Liberty on ARO and AKS](#) : Generally Available
- [Run Oracle WebLogic Server on Azure Kubernetes Service](#) : Generally Available

Data, AI, Security, & Availability

- [Discover what's new to Microsoft database services—recap from Microsoft Ignite](#)
- [Protect workloads with inline DDoS protection from Gateway Load Balancer partners](#)
- [Azure Security Center – October 2021 Updates](#) : Generally Available
- [Azure Cosmos DB: Names indexes for Cassandra API](#) : Generally Available
- [Azure Sphere expands SoC portfolio with NXP i.MX 93-CS family](#) : Public Preview
- [New Azure Data Explorer output plugin for Telegraf](#) : Generally Available
- [Azure trusted launch for Virtual Machines](#) : Generally Available
- [Automatic VM guest patching](#) : Generally Available

Operations & Benefits

- [Azure Archive rehydration priority update](#) : Generally Available
- [Azure Bastion IP based connection](#) : Public Preview
- [Azure Virtual Network Manager](#) : Public Preview
- [ExpressRoute private peering support for BGP communities](#) : Generally Available
- [GraphQL passthrough support in Azure API Management](#) : Public Preview

Microsoft Ignite

Azure

- ❖ Azure AI
- ❖ Azure Data
- ❖ Azure Dev & Ecosystem
- ❖ Azure Hybrid
- ❖ Azure Infra
- ❖ Azure IoT
- ❖ Azure Migration
- ❖ Azure Mixed Reality
- ❖ Azure Networking
- ❖ Azure Resilience

Ignite Book of News : November 2021

The background is a complex digital-themed collage. On the left, there's a vertical strip of red and purple light. The central area features a dark blue background with a grid of glowing binary digits (0s and 1s) in red and blue. Overlaid on this is a network diagram with various colored nodes (red, green, blue, white) connected by thin red lines. Several horizontal bands of bright blue and white light streak across the middle. On the right side, there are more glowing circles and a faint, larger-scale network structure. The overall aesthetic is futuristic and high-tech.

New trends with Microsoft Technology

Updates from Microsoft Industry Blogs



Microsoft Cloud for Sustainability: Tackling net zero with data >

November 3, 2021



By [Brandon Porter](#), Head of Product, Microsoft Cloud for Sustainability

This year's Microsoft Ignite arrives just months after NOAA reported the hottest global surface temperatures and highest ever ocean CO2 levels on record.¹ The world faces an extraordinary challenge—to stabilize our climate by building a net-zero carbon economy. At Microsoft, we're optimistic. We believe that it's not too late to meet the net-zero challenge, but the time...[Read more](#)



Build a hyperconnected business >

November 2, 2021



By [Alysa Taylor](#), Corporate Vice President, Industry, Apps, and Data Marketing

As the world has changed over the past 18 months, we've seen three trends emerge. Hybrid work is here to stay, customer demands have fundamentally shifted, and there's no simple roadmap for what's ahead. At the same time, we've seen an explosion of data, generated by every business process, every connected device, and every individual...[Read more](#)



Microsoft to present smart-city solutions at Smart City Expo >

November 11, 2021



By [José A. Ondiviela](#), Western Europe Public Sector Government Industry Executive, Microsoft

Here at Microsoft, we've made a big commitment to help cities and governments become "smart." What does that mean? It means we believe there is a huge opportunity for technology to help cities become more responsive to their residents, reduce the environmental impact of transportation and utilities, improve public safety, enhance communication and citizen engagement...[Read more](#)



Reimagine a new era of healthcare at Microsoft Ignite 2021 and beyond >

November 2, 2021



By [Tom McGuinness](#), Corporate Vice President, Worldwide Health, Microsoft

In this dynamic healthcare era, there's no more "business as usual." The way healthcare organizations will work, engage with patients and support community health will never be the same, and it may feel like there's no roadmap for what's ahead. Reimagining the next healthcare era, will take continued agility to respond rapidly and predict what's...[Read more](#)



The future of critical infrastructure is in the cloud >

October 25, 2021



By [Jeremy M. Goldberg](#), WWPS Director of Critical Infrastructure

Among the challenges public sector agencies face, solving critical infrastructure problems are one of the most urgent. With cyberattacks, demands from citizens, and regulatory requirements growing in complexity, there is increasing pressure to deliver government services more effectively. In response to such pressure, countries across the globe are investing trillions of dollars to rebuild physical...[Read more](#)



Turing Bletchley: A Universal Image Language Representation model by Microsoft >

November 1, 2021 by [Saurabh Tiwary](#)

Today, the Microsoft Turing team is thrilled to introduce Turing Bletchley, a 2.5-billion parameter Universal Image Language Representation model (T-UILR) that can perform image-language tasks in 94 languages. T-Bletchley has an image encoder and a universal language encoder that vectorize input image and text respectively so that semantically similar...



First ever Microsoft Research Summit explores science and technology aimed at big challenges >

For 30 years, Microsoft Research has brought together great minds from around the world to take on the biggest research challenges facing society. As we enter our fourth decade, the need for collaborative research—and the opportunities it presents—have never been greater. That's why we're so...

October 18, 2021 by [Ashley Llorens](#)

Privacy Preserving Machine Learning: A holistic approach to protecting privacy >



Privacy Preserving Machine Learning: Maintaining confidentiality and preserving trust >

Machine learning (ML) offers tremendous opportunities to increase productivity. However, ML systems are only as good as the quality of the data that informs the training of ML models. And training ML models requires a significant amount of data, more than a single individual or...

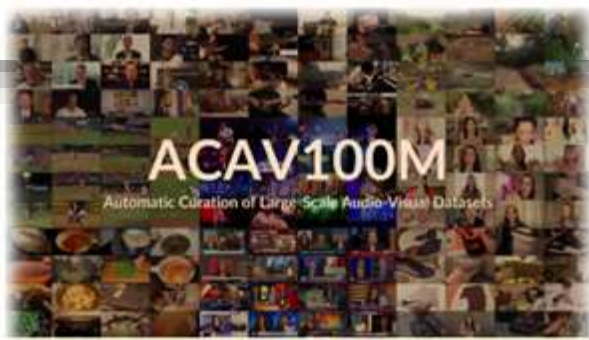
November 9, 2021



Announcing the ORBIT dataset: Advancing real-world few-shot learning using teachable object recognition >

Object recognition systems have made spectacular advances in recent years, but they rely on training datasets with thousands of high-quality, labelled examples per object category. Learning new objects from only a few examples could open the door to many new applications. For example, robotics manufacturing...

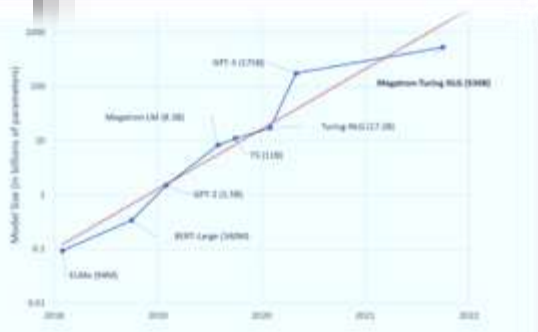
October 19, 2021 by [Daniela Massiceti](#), [Cecily Morrison](#), [Katja Hofmann](#), and [Ed Cutrell](#)



ACAV100M: Scaling up self-supervised audio-visual learning with automatically curated internet videos >

The natural association between visual observations and their corresponding sounds has exhibited powerful self-supervision signals for learning video representations, which makes the ever-growing amount of online video an attractive data source for self-supervised learning. However, online videos often provide imperfectly aligned audio-visual signals because of...

October 28, 2021 by [Yale Song](#)



Using DeepSpeed and Megatron to Train Megatron-Turing NLG 530B, the World's Largest and Most Powerful Generative Language Model >

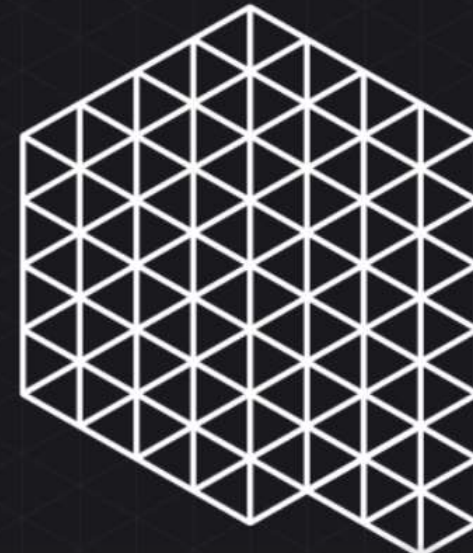
We are excited to introduce the DeepSpeed- and Megatron-powered Megatron-Turing Natural Language Generation model (MT-NLG), the largest and the most powerful monolithic transformer language model trained to date, with 530 billion parameters. It is the result of a research collaboration between Microsoft and NVIDIA to...

October 11, 2021 by [Ali Alvi](#) and [Paresh Kharya](#)



Microsoft Quantum

Get to know the world's first full-stack, open cloud quantum computing ecosystem



Azure Quantum PREVIEW

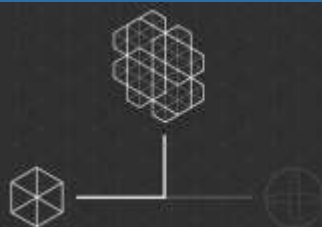
The most innovative quantum computing and optimization solutions converge in a single marketplace quantum service



```
/// # Summary
/// This operation applies Grover's algorithm
/// Inputs to an operation to find a particular
operation SearchForMarkedInput (nQubits : INT) :
    using {qubits = qubit [nQubits]} {
        // Initialize a uniform superposition over
        PrepareUniform(qubits);
        // The search itself consists of repeatedly
        // marked state and our start state, which
        // as a for loop.
        for {idxIteration in 0..NIterations (nQub
            ReflectAboutMarked(qubits);
            ReflectAboutUniform(qubits);
        }
        // Measure and return the answer.
        return ForEach(ResetZ, qubits);
    }
```

Q#: Quantum Programming Language Updates

- Q# is a high-level quantum-focused programming language offering an intuitive and modern approach to quantum program development.
- Q# allows you to focus your work at the algorithm and application level to create quantum programs.



Optimization

Optimization solvers that run on classical hardware.

Visual Studio Code
VS Code
Jupyter Notebooks
Python IDE

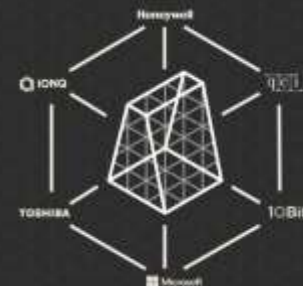
Optimization solvers
CPU, FPGA, GPU

Optimization

Solve optimization problems on classical hardware faster and better using algorithms inspired by physical processes.

Building a scalable quantum system

Learn how Microsoft is leading the way to scalable, accessible quantum computing with worldwide research teams and partnerships.



Unified development interface

With Azure Quantum and its [quantum development kit](#), what could be a heterogeneous hardware and software set of solutions is unified. Your development investments are protected in a rapidly evolving technological landscape.

Microsoft and its Partners ensure hardware and software innovations are brought to you with minimal to no change to your code base.

Microsoft Quantum Network

The Microsoft Quantum Network is a community of pioneering individuals and organizations working together to develop practical solutions, grow talent through education, and build a worldwide quantum partner ecosystem.



Grow your quantum skills

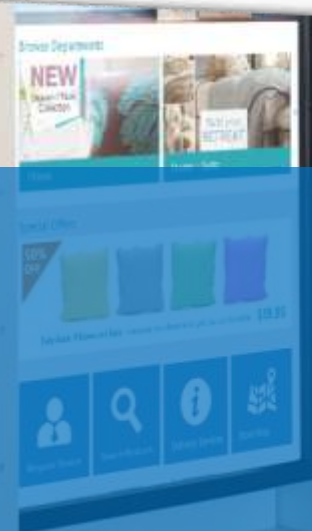
Join the growing global community of experts, enthusiasts, and quantum computing companies by learning the fundamentals of quantum computing concepts, operations, and Q# programming. Get started with a wide variety of learning resources for developers, researchers, and students, including free, self-paced Microsoft Learn courses and open-source GitHub katas.

Start learning



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.



Showcase of the Month

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.

Microsoft moves IT infrastructure management to the cloud with Azure

October 15, 2021

[PRINT AS PDF >](#)

As our **IT infrastructure has evolved** from traditional datacenters to hybrid cloud infrastructure, so have our tools for managing IT infrastructure. With Azure as the primary platform for infrastructure, **we are adopting Azure management tools for monitoring, updating, backup, and security.** We envision further decentralized IT and self-service IT management offerings for business groups that **give them control over their own business environments and the ability to adapt IT services to suit their needs.**

Microsoft's cloud-centric architecture transformation

November 05, 2021

[PRINT AS PDF >](#)

A modern cloud-centric architecture is foundational to our digital transformation, we're building integrated, reliable systems, instrumented for telemetry, to **gather data and enable experimentation..**

Transforming the enterprise network with next-generation connectivity

November 04, 2021

Using shielded virtual machines to help protect high-value assets

November 08, 2021

[PRINT AS PDF >](#)

To protect our most critical corporate assets, **Microsoft Digital creates secure, isolated environments for business groups that manage highly confidential, regulated, or restricted data.** We're taking advantage of services in Windows Server 2019—including **shielded virtual machines and Host Guardian Services**—to isolate host, storage, computing, and network services, and to separate component administration within each environment.



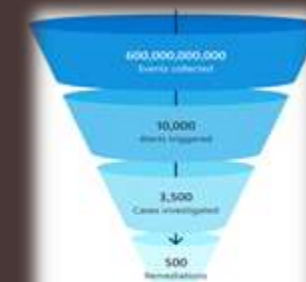
Oct 28, 2021 | Kristin Burke



How Microsoft narrows the threat funnel on over 600 billion monthly security events

At Microsoft, we typically see around 600 billion security events each month. Security events are innocuous actions that happen all the time, ranging from adding a user to a Microsoft SharePoint site, to creating a file, to deleting a folder, to opening an email. On their own, events are typically not notable, but in conjunction...

Instead of sending our Security Operations Center (SOC) analysts on a wild hunt after every event in the SIEM, **we use our own tools and solutions to funnel that big 12-digit number down to a more reasonable number.** This focuses our efforts on the events that matter and how they were created—**this narrows us in on the ones that pose a real threat.**



Monitoring solutions like machine learning and automation along with human expertise allows Microsoft to focus on the security events that require...

Microsoft Events and Training: Updates



Microsoft Virtual Training Days

Events Catalog

Further your goals with Microsoft events

Whether you're a developer, IT professional, partner, educator, or business professional, we have plenty of Microsoft events specifically created with your growth in mind. Explore special events and learning opportunities created to help you expand your expertise, learn new skills, and build community.

Microsoft 365 Virtual Training Days:
Building Microsoft Teams
Integrations and Workflows

11/29/2021 10:00 AM (PST)

[Register Now >](#)

Microsoft Power Platform Virtual
Training Day: App Maker

12/15/2021 10:00 AM (PST)

[Register Now >](#)

Microsoft Security Virtual Training
Day: Protect Sensitive Information
and Manage Data Risk

12/13/2021 10:00 AM (EST)

[Register Now >](#)

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.



Work less, do more with Microsoft Power Automate



[See all 3 sessions >](#)



Get Started with Power BI service



[See all 5 sessions >](#)

Introduction to breakout rooms in Microsoft Teams



[See all 3 sessions >](#)

Learn to be cyber smart with Microsoft security foundations



[See 2 sessions >](#)

Microsoft Virtual Training Days

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

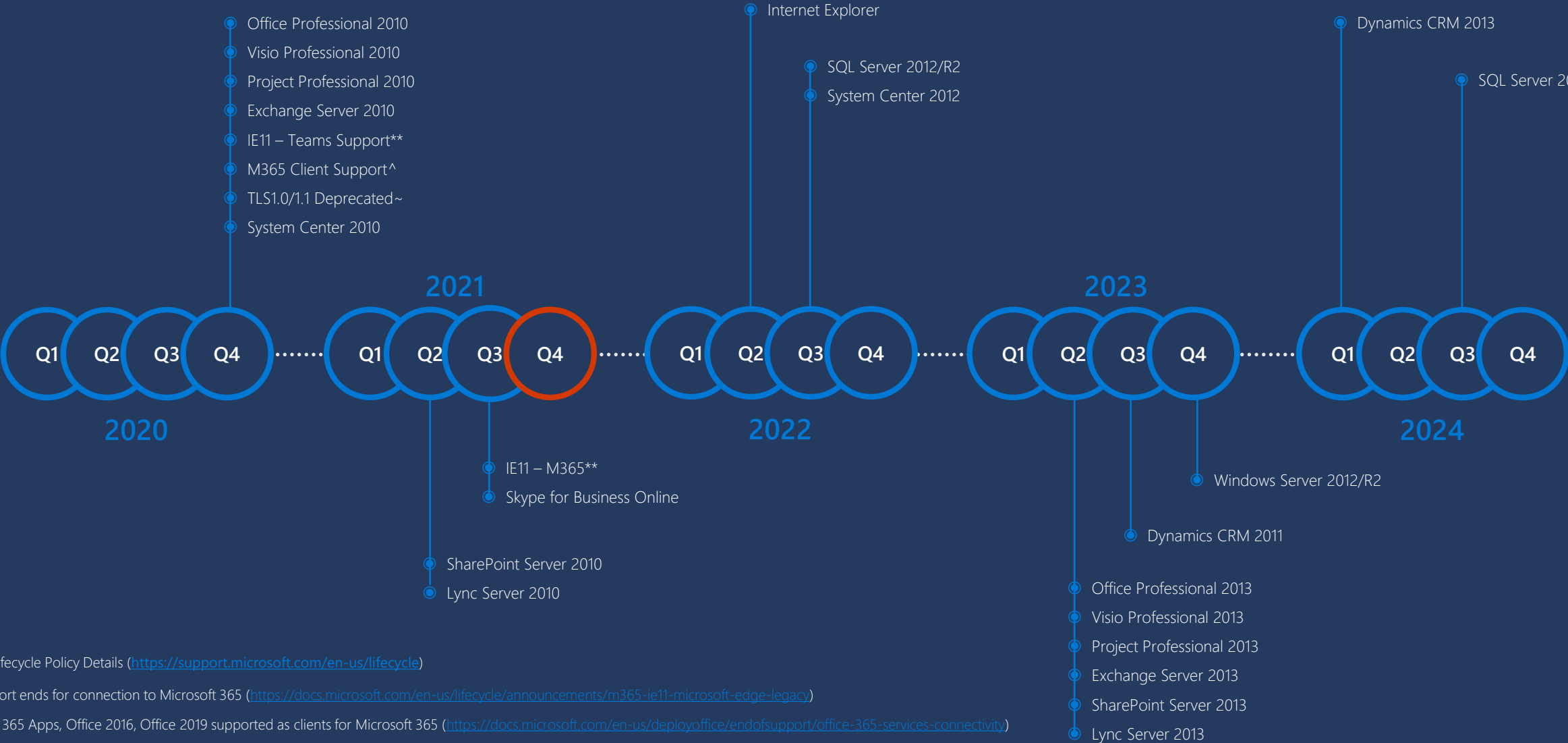
Demonstrate your knowledge and abilities



Login not working? Your organization may need to be onboarded to ESI. Please talk to your Microsoft Account Team.

Product Lifecycles

End of Service Roadmap to 2024



Microsoft Lifecycle Policy Details (<https://support.microsoft.com/en-us/lifecycle>)

** IE11 support ends for connection to Microsoft 365 (<https://docs.microsoft.com/en-us/lifecycle/announcements/m365-ie11-microsoft-edge-legacy>)

^ Microsoft 365 Apps, Office 2016, Office 2019 supported as clients for Microsoft 365 (<https://docs.microsoft.com/en-us/deployoffice/endofsupport/office-365-services-connectivity>)

~ TLS 1.0/1.1 Deprecated ((<https://docs.microsoft.com/en-us/microsoft-365/compliance/tls-1.0-and-1.1-deprecation-for-office-365?view=o365-worldwide>))

Microsoft Product Lifecycle: Modern Policy Products that will Retire



Products under Modern Policy that will Retire 2021

Products that will retire in 2021: (Modern Policy)	End of Support Date
Microsoft Endpoint Configuration Manager , version 1906	January 26, 2021
Azure Information Protection Client	March 31, 2021
Dynamics 365 Business Central on-premises, 2019 release wave 2, version 15.x	April 13, 2021
Windows 10, version 1803 (Enterprise, Education, IoT Enterprise) Windows 10, version 1809 (Enterprise, Education, IoT Enterprise) Windows 10, version 1909 (Home, Pro, Pro Education, Pro for Workstations) Windows Server, version 1909 (Datacenter, Standard)	May 11, 2021
Microsoft Endpoint Configuration Manager , version 1910	May 29, 2021
Skype for Business Online	July 31, 2021
Microsoft .NET Core , version 2.1 (LTS)	August 21, 2021
Visio Services in SharePoint Online (in Microsoft 365)	September 30, 2021
Microsoft Endpoint Configuration Manager , version 2002	October 1, 2021
Dynamics 365 Business Central on-premises, 2020 release wave 1, version 16.x	October 12, 2021
Windows 10, version 2004 (Enterprise, Education, IoT Enterprise, Home, Pro, Pro Education, Pro for Workstations) Windows Server, version 2004 (Datacenter, Standard)	December 14, 2021
Dynamics 365 Layout	December 31, 2021

Products under Modern Policy that will Retire in 2022

Products that will Retire in 2022 (Modern Policy)	End of Support Date
Dynamics 365 Talent – Attract and Onboard apps	February 2, 2022
Dynamics 365 Business Central on-premises, 2020 release wave 2, version 17.x	April 12, 2022
Windows 10, version 1909 (Enterprise, Education, IoT Enterprise) Windows 10, version 20H2 (Home, Pro, Pro Education, Pro for Workstations) Windows Server, 20H2 (Datacenter, Standard)	May 10, 2022
.NET Core 3.1 (LTS) PowerShell 7.x	December 3, 2022

Announcements

- **UPDATED:** Support extended for Visio Services in SharePoint Online (aka Visio Web Access)
- Windows 10, version 2004 end of servicing (all editions)
- Windows Server, version 2004 end of servicing (Datacenter, Standard)
- Microsoft Store for Business and Education retiring in early 2022
- New options for SQL Server 2012 and Windows Server 2012 End of Support
- Microsoft Machine Learning Server (R Server) retirement on July 1, 2022

- Internet Explorer 11 desktop application ending support for certain operating systems
- UPDATE: Transport Layer Security 1.0 and 1.1 disablement
- UPDATE: Adobe Flash Player end of support on December 31, 2020
- UPDATE: SHA-1 signed content to be retired
- UPDATE: Exchange Online deprecating Basic Auth

See more >

Microsoft Product Lifecycle: Fixed Policy Reaching End of Support



Products Reaching End of Support for 2021

Products Moving to End of Support (Fixed Policy)	End of Support Date
BizTalk Server 2010 (all editions) Host Integration Server 2010 Microsoft Sync Framework 2.1 Windows 7 , ESU Year 1 (all editions) Visual Studio 2019, version 16.0 (all editions)	January 12, 2021
Lync 2010 (all editions) Lync Server 2010 (all editions) Microsoft Enterprise Desktop Virtualization 2.0 Windows Embedded Compact 7 PerformancePoint Services in SharePoint Server 2010 Project Server 2010 SharePoint Server 2010 SharePoint 2010 (for Internet Sites) SharePoint Foundation 2010	April 13, 2021
Dynamics Retail Management System 2.0 (all editions) Dynamics CRM 2011 Dynamics SL 2011 Microsoft SQL Server Compact 4.0 Windows MultiPoint Server 2011 (all editions)	July 13, 2021
BitLocker Administration and Monitoring 1.0	September 14, 2021
Microsoft Diagnostics and Recovery Toolset 7.0 Silverlight 5 Windows Embedded POSReady 7 Windows Thin PC Windows Embedded Standard 7 , ESU Year 1 (all editions) Visual Studio 2019, version 16.4 (all editions)	October 12, 2021
Visual Studio 2019, version 16.0	January 12, 2021

Products Reaching End of Support for 2022

Products Moving to End of Support (Fixed Policy)	End of Support Date
Visual Studio LightSwitch 2011 Windows 7, ESU Year 2 (all editions)	January 11, 2022
Microsoft AppFabric 1.1 for Windows Server Dynamics AX 2009 Dynamics AX 2012 Dynamics AX 2012 R2	April 12, 2022
Cloud Platform System Microsoft Report Viewer Redistributable 2012 Microsoft Report Viewer 2012 Runtime Microsoft SQL Server 2012 Enterprise Core Microsoft SQL Server 2012 (all editions) System Center 2012 App Controller System Center 2012 Configuration Manager System Center 2012 Data Protection Manager System Center 2012 Endpoint Protection for Mac System Center 2012 Operations Manager System Center 2012 Orchestrator System Center 2012 Service Manager System Center 2012 Virtual Machine Manager System Center 2012 R2 App Controller System Center 2012 R2 Configuration Manager System Center 2012 R2 Data Protection Manager System Center 2012 R2 Endpoint Protection System Center 2012 R2 Operations Manager System Center 2012 R2 Orchestrator System Center 2012 R2 Service Manager System Center 2012 R2 Virtual Machine Manager Windows Azure Pack (on Windows Server 2012 R2) Windows Azure Pack V2 Web Sites	July 12, 2022
Windows Embedded POSReady 7, ESU Year 1	October 8, 2022
Forefront Identity Manager 2010 Forefront Identity Manager 2010 R2 Windows Embedded Standard 7, ESU Year 2	October 11, 2022
Azure StorSimple 8000 Series Azure StorSimple 1200 Series StorSimple Data Manager	December 31, 2022

Microsoft Product Lifecycle: Products moving to Extended Support



Products Moving to Extended Support for 2021

Products Moving to End of Support (Fixed Policy)	End of Support Date
Advanced Threat Analytics 1.X Dynamics 365 (CRM 2016) Microsoft Identity Manager 2016*	January 12, 2021
Dynamics C5 2016 Dynamics NAV 2016 Microsoft Diagnostics and Recovery Toolset 10	April 13, 2021
Dynamics GP 2016 Dynamics GP 2016 R2 InfoPath 2013 Project Server 2016 SharePoint Designer 2013 SharePoint Server 2016 SQL Server 2016	July 13, 2021
Windows 10 Enterprise 2016 LTSCB (Enterprise, IoT Enterprise)	October 12, 2021

Products Moving to Extended Support for 2022

Products Moving to End of Support (Fixed Policy)	End of Support Date
Windows Azure Pack (on Windows Server 2016) BizTalk Server 2016 (all editions) Dynamics NAV 2017 Host Integration Server 2016 HPC Pack 2016 Hyper-V Server 2016 Microsoft Internet Information Services 10.0 System Center 2016 Data Protection Manager 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 Defender for Windows Server 2016 Windows Server 2016 (all editions) Windows Server Update Services for Windows Server 2016 Windows Storage Server 2016	January 11, 2022
Visual Studio 2017	April 12, 2022
SQL Server 2017 on Linux (all editions) SQL Server 2017 on Windows (all editions)	October 11, 2022



Acquisitions and Announcements



Microsoft Acquisitions - 2021

Company	Date	Description
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
ZeniMax Media	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.
Orions Systems	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.
CyberX	06-22-2020	CyberX will complement the existing Azure IoT security 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,
ADRM Software	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.
Softomotive	05-19-2020	Softomotive 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.
Metaswitch Networks	05-14-2020	Metaswitch Networks , a leading provider of virtualized network software and voice, data and communications solutions for 5G operators .
Corp.Com	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.”
Affirmed Networks	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 .
Semmlle	09-18-2019	Semmlle'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 . Semmlle 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.
PromoteIQ	08-05-2019	The leading provider of vendor marketing technology to online retailers and brands . PromoteIQ has pioneered the private marketplace approach to digital vendor marketing . PromoteIQ'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 PromoteIQ 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.

<https://www.microsoft.com/en-us/Investor/acquisition-history.aspx>



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 XOXC and have been inspired by this work.
Obsidian	11-10-2018	The studio quickly made a name for itself with the Xbox exclusive <i>Star Wars: Knights of the Old Republic II: The Sith Lords</i> . 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 <i>Wasteland 2</i>, <i>Torment: Tides of Numenera</i>, <i>Bard's Tale IV</i> and the upcoming <i>Wasteland 3</i> . 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!