



# *Monthly Technical Update*

## NOVEMBER 2022



**Abbas Kudrati**  
**APAC Chief Cybersecurity Advisor**  
**Abbas.Kudrati@microsoft.com**  
**<https://aka.ms/abbas>**



- [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\*\*](#)

- [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**

- ## **Products Reaching End of Support in 2022 and 2023** **Companies and Technologies Acquired Since 2018**

# The best of what's next

Explore the latest innovations, learn from product experts and partners, level up your skillset, and create connections from around the world. Join us October 12–14 at 9:00 AM PDT to help shape the future of tech.

Register now

## Live from Seattle

Level up your skills as Microsoft, industry, and partner experts guide you through the latest technology with immersive demos and live sessions. Plus, connect and collaborate with your community both in person and digitally. Space is limited—reserve your spot by registering today.

October 12–13 | Seattle Convention Center



# Microsoft Ignite

## October 12–14, 2022

### What's to come

Explore some of the key moments of the two-day event kicking off October 12.



#### Keynotes

Join one of the biggest moments of the event as Microsoft leaders reveal the latest innovations that will shape the future of business.



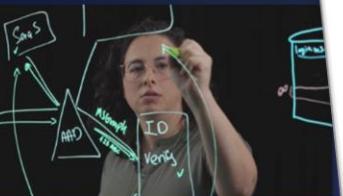
#### Core Theme sessions

Explore how all the tech and trending topics, shared in the keynotes, can accelerate what you do and how you do it.



#### Product deep dives

Learn from Microsoft engineers and experts as they share insights, demo new tech, and guide you through the next evolution of products.



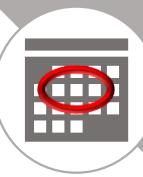
#### Strengthen your network

Collaborate with peers and connect with community leaders and Microsoft Featured Partners through live sessions, interactive chats, and more.

MICROSOFT IGNITE  
BOOK OF NEWS

October 12 - 14, 2022

# Microsoft Research Summit 2022 :: October 18-20, 2022



Register today: Microsoft Research Summit 2022

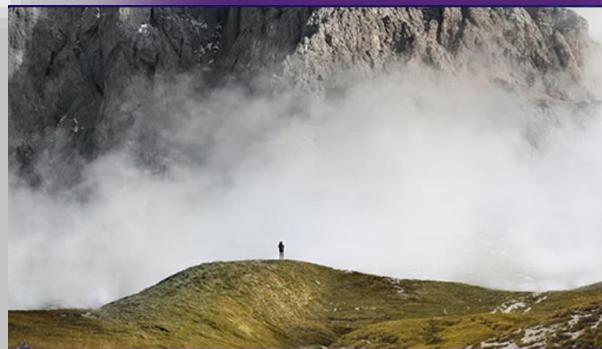
**October 18–20, 2022**

Join us as the global research community gathers to share progress and spark conversations around advances that could empower people in new ways and positively impact our world.

[Read more >](#)

**What's next for technology and humanity?**

Explore the pressing research questions driving this year's Research Summit and get a sneak peek of what the event will have in store.



## The Fifth Paradigm of Scientific Discovery

What transformational impact can deep learning have on the way we practice science?

[Learn more >](#)



## Emerging Foundations for Planet-Scale Computing

What technology breakthroughs do we need to create the cloud of the future?

[Learn more >](#)



## The Future of Human Health

How can research empower medical practitioners and reduce inequities in healthcare?

[Learn more >](#)

# 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:

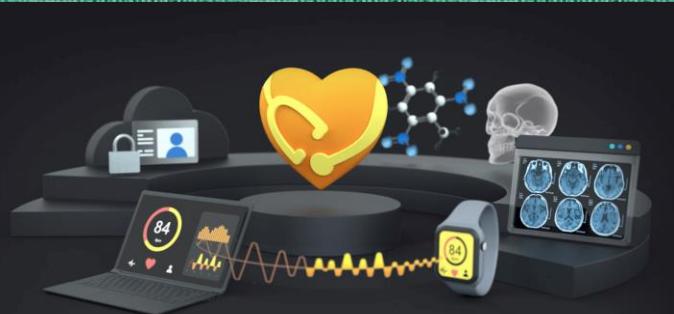
Across YBC & Streaming

# 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

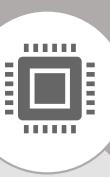


# Updates of Security and Compliance



# 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%)



November 10, 2022 • 5 min read

### Microsoft threat intelligence presented at CyberWarCon 2022

At CyberWarCon 2022, Microsoft and LinkedIn analysts presented several sessions detailing analysis across multiple sets of actors and related activity.

October 27, 2022 • 15 min read

### Raspberry Robin worm part of larger ecosystem facilitating pre-ransomware activity

Microsoft has discovered recent activity indicating that the Raspberry Robin worm is part of a complex and interconnected malware ecosystem, with links to other malware families and alternate infection methods beyond its original USB drive spread.

October 25, 2022 • 10 min read

### DEV-0832 (Vice Society) opportunistic ransomware campaigns impacting US education sector

In recent months, Microsoft has detected active ransomware and extortion campaigns impacting the global education sector, particularly in the US, by a threat actor we track as DEV-0832, also known as Vice Society.

Education ▾

#### Top threats:

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

## Worldwide

85,512,062 devices with encounters

#### Top threats:

HackTool:Win32/AutoKMS  
Trojan:Win32/Wacatac.H!ml  
HackTool:Win64/AutoKMS  
HackTool:Win32/Kvegen

Awareness and guidance related to OpenSSL 3.0 – 3.0.6 risk (CVE-2022-3786 and CVE-2202-3602)

MSRC / By msrc / November 2, 2022

## Summary

Microsoft is aware and actively addressing the impact associated with the recent OpenSSL vulnerabilities announced on October 25th 2022, fixed in version 3.0.7. As part of our standard processes, we are rolling out fixes for impacted services. Any customer action that is required will be highlighted in this blog and our associated Security Update Guides (CVE-2022-3786 Security Update Guide and CVE-2022-3602 Security Update Guide). As a best practice, customers that manage their own environments are encouraged to apply the latest security updates from OpenSSL. **Customers are strongly encouraged to view the Security Update Guide to review any actions that they may need to take.**



November 10, 2022 • 5 min read

## Simplify privacy protection with Microsoft Priva Subject Rights Requests

With an ever-changing privacy landscape, taking a proactive privacy approach is key to building privacy resilience. In this blog, learn how Microsoft Priva Subject Rights Requests and its newest update right to be forgotten can help organizations meet their regulatory requirements.

## Reflecting on Cybersecurity Awareness Month: At its Core, Cybersecurity is all about People

MSRC / By Aanchal Gupta / October 31, 2022

As Cybersecurity Awareness Month 2022 comes to a close, I'm grateful for the impact it has had in bringing cybersecurity to the forefront since it began in 2004. Though the month may be over, our work in cybersecurity is never done. Often, we think about cybersecurity as a complex technology problem, but at its core, ...

[Read More »](#)

October 26, 2022 • 7 min read

### How to prevent lateral movement attacks using Microsoft 365 Defender

Learn how Microsoft 365 Defender can enhance mitigations against lateral movement paths in your environment, stopping attackers from gaining access to privileged and sensitive accounts.



Nov 1, 2022 | Aleenah Ansari

### Microsoft CISO Bret Arsenault provides practical advice to secure your hybrid workspace

In episodes of the Security Unlocked podcast, Microsoft CISO Bret Arsenault discusses the biggest challenges in securing your hybrid workspace with industry peers from Microsoft, LinkedIn, Vodafone, and more. The episodes cover how security leaders are adjusting to the new normal of hybrid work. In each episode, Arsenault and his guest share practical tips and...

November 2, 2022 • 9 min read

### Microsoft Security tips for mitigating risk in mergers and acquisitions

Mergers and acquisitions can be challenging. Microsoft's Security Experts share what to ask before, during, and after one to secure identity, access control, and communications.

October 21, 2022 • 4 min read

### Securing IoT devices against attacks that target critical infrastructure

South Staffordshire PLC, a company that supplies water to over one million customers in the United Kingdom, notified its customers in August of being a target of a criminal cyberattack. This incident highlights the sophisticated threats that critical industries face today. According to South Staffordshire, the breach did not appear to have caused damage to...

November 3, 2022 • 6 min read

### Stopping C2 communications in human-operated ransomware through network protection

Providing advanced protection against increasingly sophisticated human-operated ransomware, Microsoft Defender for Endpoint's network protection leverages threat intelligence and machine learning to block command-and-control (C2) communications.

October 25, 2022 • 6 min read

### How businesses are gaining integrated data protection with Microsoft Purview

Learn how Rabobank, Fannie Mae, and Ernst & Young maximized their existing Microsoft 365 subscriptions to gain integrated data loss prevention and information protection.



# Microsoft 365 update information

# Microsoft Teams Blog:



What's New in Microsoft Teams | October 2022

## What's New in Microsoft Teams | October 2022

Holly Lehman on Nov 01 2022 06:00 AM

Ignite was here and gone before we could blink! The cool thing, Ignite shared so many of our incredible investments, ann...

## New for This Month:

- Assign Seats in Together Mode
- Pop out Shared Content into a Separate Window
- Live Translated Captions in Teams Premium
- Updated Companion Mode for Android Users
- Detailed Call History – Access recordings and transcripts from within Call Details
- Create Contact Groups in Calls App.
- Adobe PDF experience – new default capabilities

## Chat and Collaboration:

- Suggested Replies in Group Chat
- Video-Clip: Create short, rich video clips, view in chat
- Delete or rename files in a channel and in your OneDrive folder in Teams
- Teams Calendar now includes scheduling form pop-outs

A group of four Microsoft Mesh avatars standing together, smiling, and making hand gestures like a heart shape and a thumbs up. They are dressed in casual office attire.

**Introducing Mesh avatars for Microsoft Teams in Private...**

Avery\_Salumbides on Oct 12 2022 09:00 AM

At Microsoft, we are committed to offering innovative solutions to encourage collaboration and enhance connection, regar...

## Power Platform and Custom Development:

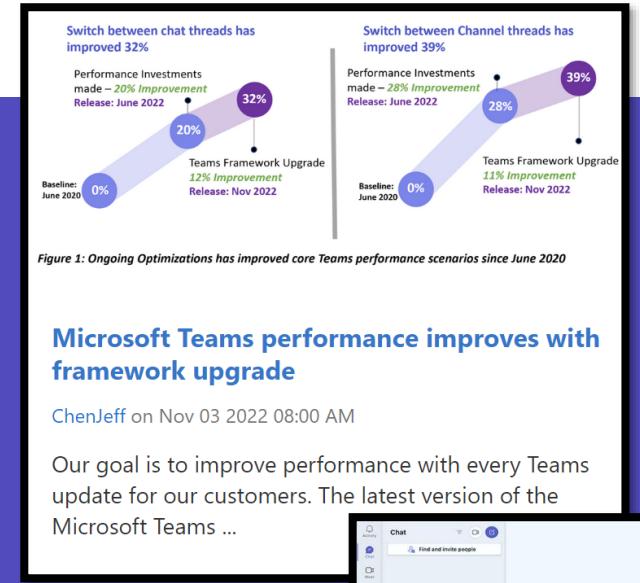
- ISV App Subscriptions instead of 3P app subscriptions in Teams Admin Center
- Simplified app update experience
- Teams Platform Apps in One-on-One VOIP Calls
- Teams Platform Apps in Group VOIP Calls
- Zero install link unfurling

## Management:

- Upgraded usage analytics for Teams Administrator and users
- Updated Graph APIs for usage data
- Admin Center Activity Reports :: Updated
- Enhancement to app usage report - support for Line of Business apps

## Government:

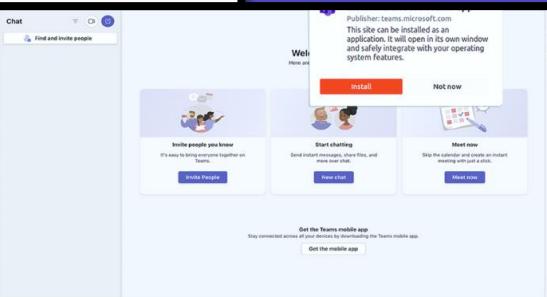
- Live Share SDK support for meeting extensions
- Text prediction for Teams mobile in GCC-High and DoD
- Updated companion mode for Android users for GCC, GCC-High and DoD



## Microsoft Teams performance improves with framework upgrade

ChenJeff on Nov 03 2022 08:00 AM

Our goal is to improve performance with every Teams update for our customers. The latest version of the Microsoft Teams ...



## Microsoft Teams progressive web app now available on Linux

Anupam\_Pattnaik on Nov 07 2022 08:00 AM

We're excited to announce the general availability of support for the Microsoft Teams progressive web app (PWA) as a fea...

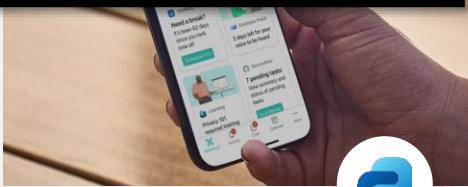
## Case Studies:

- Microsoft Teams and Rogers Business
- Microsoft Teams and Verizon Business Group
- Microsoft Team and BT – Helping Customers Transform

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



**What's new in Viva Connections**  
Ling\_Ma\_888 on Oct 12 2022 09:00 AM  
  
We're thrilled to announce five Viva Connections capabilities today! Let's jump in.



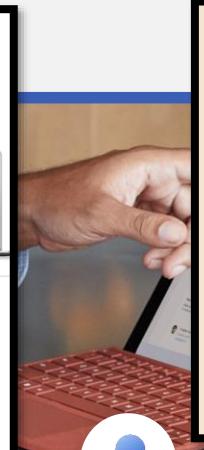
## Viva Connections

Culture & Communications

**169,000** Monthly Active Users  
**40,000** Employees using the mobile app  
**+58%** Users consuming 2+ elective learning courses per month

It's really exciting to have the learning environment as part of Teams instead of a separate website that people rarely visit. Viva Learning is helping to change learning from a last-minute sprint to complete an assignment the night before it's due to something that's a part of the average workflow! — Laura Landa, Senior Business Program Manager, Worldwide Learning

**Viva Learning announcements at Ignite 2022**  
John\_Mighell on Oct 12 2022 09:15 AM  
  
Today we're happy to announce an exciting set of capabilities, new and deepened partner integrations, and share a look i...



**Announcing the general availability of Viva Sales, an intelligent selling experience in Microsoft 365 and Teams** >

Today we're announcing the general availability of Microsoft Viva Sales on October 3, the first Viva application designed to improve the employee experience for a specific role: sellers. [Read more](#)

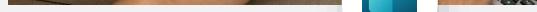
**Learn About Knowledge Sharing Through Viva Topics at...**  
Tehzeeb on Nov 08 2022 06:00 AM  
  
Connect with us at KMWorld in Washington DC November 7-10, 2022, and learn how Viva Topics can shape a knowledge sharing...



## Viva Topics

Knowledge & Expertise

**Announcing new Microsoft Viva IT Admin features**  
geeta\_ramakrishnan on Oct 12 2022 09:00 AM  
  
With our new Microsoft Viva admin experience, IT admins will be able to initiate configuration, deployment, and license ...

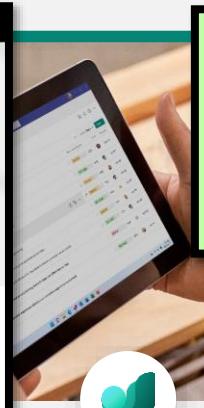


## Viva Learning

Growth & Development

**OKR Rhythm of Business**  
OKRs follow a rhythm of business over a certain time period, generally recommended to be quarterly, with the following 4 steps:  
  
Collaborate (Team members collaborate with each other to align on strategy, develop shared goals, and understand how overall objectives from senior leadership cascade to the team level.)  
Create (OKRs are planned, written, and added into the system.)  
Close (At the end of the period, users reflect on progress, close and score their OKRs, share key learnings, and prepare for the upcoming time period.)  
Check-in (Throughout the quarter, users make check-ins to track their progress. This can be done manually or automatically through data integrations.)

**How to Build OKRs into Your Business**  
lucyhitz on Nov 07 2022 12:53 PM  
  
One of the biggest questions we get here at Viva Goals is: I understand the value of OKRs—but how do I actually make the...



## Viva Goals

Purpose & Alignment

## Economic benefits of Microsoft Viva

Learn about the cost savings and business benefits of Viva in this Forrester Total Economic Impact™ study.<sup>1</sup>

[Read the Forrester study >](#)



## Viva Engage

Culture & Communications

**Economic benefits of Microsoft Viva**  
Learn about the cost savings and business benefits of Viva in this Forrester Total Economic Impact™ study.<sup>1</sup>

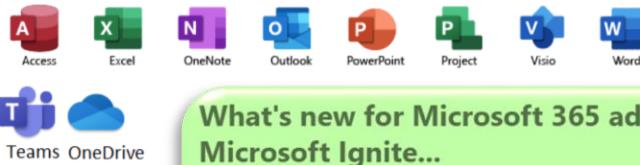
[Read the Forrester study >](#)



# 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



## What's new for Microsoft 365 admins at Microsoft Ignite...

Tiffany\_Treacy on Oct 13 2022 09:00 AM

Learn more about new innovations in the Microsoft 365 admin center announced at Microsoft Ignite 2022.

## Microsoft Loop at Ignite 2022

Matt\_Anderson on Oct 12 2022 09:30 AM

Learn more about all the Microsoft Loop announcements at Ignite 2022.



## Introducing new capabilities in Adoption Score for IT...

James\_Bell on Oct 13 2022 09:00 AM

Adoption Score helps IT admins & adoption specialists maximize investment in Microsoft 365.

## How to secure Exchange Online and ensure connectivity for...

RosssS on Oct 26 2022 09:48 AM

Learn how to secure your Exchange Online environment by upgrading to modern authentication.

## Making it easier to apply and manage security settings for...

BrianStoner on Nov 09 2022 10:00 AM

Learn how Microsoft 365 security defaults feature has made it easy to be more secure in cloud.

# 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
- > Microsoft Intune and Microsoft Endpoint Manager: Add DMG type app management for MacOS Preview: February 2022  
GA: December 2022
- > Microsoft Teams: Unread Toggle on Activity Feed 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: Modern meeting experience on the web Preview: February 2022  
GA: November 2022
- > Microsoft Teams: Virtual Appointment Graph API Preview: July 2022  
GA: November 2022
- > Microsoft Teams: Adobe PDF experience Preview: June 2022  
GA: November 2022
- > Microsoft Teams: Delete or rename files in a channel and in your OneDrive folder in Teams GA: November 2022
- > Microsoft Teams: Delete or rename files in a channel and in your OneDrive folder in Teams GA: November 2022
- > Outlook for the Web: Contact Deduplication GA: November 2022
- > Microsoft Teams: Support PSTN dial-in, dial-out, and call-me attendees in meetings to join Breakout Rooms GA: November 2022
- > Outlook for Windows: Signature cloud settings Preview: October 2022  
GA: October 2022
- > Excel: Track tasks with @mentions GA: October 2022
- > OneDrive: Sharing experience - Share menu dropdown GA: October 2022
- > Microsoft 365 compliance center: Microsoft Purview | Insider Risk Management - Microsoft Defender for Endpoint alerts Preview: April 2022  
GA: October 2022
- > Microsoft Viva: Quiet time settings in Teams and Outlook GA: October 2022



# Power Platform and Dynamics



Roadmaps and Release plans:



## 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](#)



## 2022 release wave 2 in action: Bringing innovation into focus across Dynamics 365 and Power Platform >

November 3, 2022 • 5 min read

By [Charles Lamanna](#), Corporate Vice President, Business Applications and Platform, Microsoft

In October, we launched the 2022 release wave 2—hundreds of new innovations across Microsoft Dynamics 365 and Microsoft Power Platform, releasing between October 2022 and March 2023. [Read more](#)



## Bring agility, connectivity, and sustainability to the forefront—at Supply Chain Reimagined >

October 27, 2022 • 4 min read

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

Start reimagining your supply chain for a more agile, resilient future. Register now for Supply Chain Reimagined on Wednesday, November 16, 2022, from 9:00 to 10:15 AM Pacific Time (UTC-8). [Read more](#)



## Live from Microsoft Ignite 2022: Introducing new AI, automation, and collaboration capabilities for Dynamics 365 >

October 12, 2022 • 5 min read

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

This year at Microsoft Ignite, we are showcasing new AI, automation, and collaborative solutions that help your business be more efficient, engage better across teams and departments, and deliver more breakthrough customer experiences. [Read more](#)

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

- [ClientCacheRefreshPolicy is now a configurable property for your Power BI Premium workspaces](#)
- [Automate using Natural Language and AI :: Power Automate](#)
- [Robotic Process Automation Deployment and User Engagement](#)
- [AI Builder : Optimize Workflows and Document Processing](#)
- [Automated Low-Code Governance and Security capabilities at scale](#)
- [Security in Microsoft Dataverse : Secure, store, manage](#)
- [Power Pages Design Studio : Enhancements and new templates](#)
- [Self-Service Data Analytics : New connectivity](#)
- [Power Apps : Fusion Development & Micro-Apps Updates](#)
- [Dataverse support for more external data sources](#)
- [Cross-Tenant Power BI Dataset Sharing :: Public Preview](#)
- [Co-Authoring in Modern App designer :: Public Preview](#)
- [Power Apps Ideas :: Generally Available](#)



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

# 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



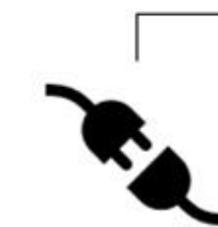
**Power Automate**  
Process automation



**Power Virtual Agents**  
Intelligent virtual agents



**Power Pages**  
External-facing websites



Data  
connectors



AI Builder



Dataverse

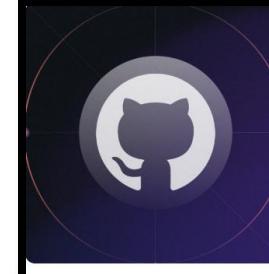
# Developer and GitHub

## GitHub Blog and Changelog

- [GitHub's supply chain security features now support Dart](#)
- [New Codespaces announcements :: GitHub Universe 2022](#)
- [GitHub Enterprise Server 3.7 :: Generally Available](#)
- [Mitigate OWASP vulnerabilities using GitHub Advanced Security](#)
- [GitHub Partners with ARM – revolutionize IoT Development](#)
- [GraphQL Legacy Global ID Deprecation Message Update](#)
- [Search-Based code navigation for Rust projects :: Generally Available](#)
- [npm CLI v9 :: Generally Available](#)
- [New Code search and Code browsing experience](#)
- [Privately Report vulnerabilities to repository maintainers :: Opt-In](#)

## Microsoft Developer Blogs:

- [Beginners' crash course to build apps for Teams using Teams Toolkit for Visual Studio Code](#)
- [Maximizing Azure SQL DB performance with a globally distributed Redis write-behind cache](#)
- [Visual Studio Rollback :: Introduction](#)
- [Arm64 Visual Studio :: Generally Available](#)
- [Get started with GitHub in Visual Studio – Learning Series](#)
- [.NET 7 :: Generally Available](#)
- [F# 7: Generally Available](#)
- [C# 11: Generally Available](#)
- [Microsoft Office team uses Remote MacOS Debugging Capability in Visual Studio](#)
- [Microsoft Graph Insights API :: Breaking Changes](#)



Enterprise

### 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

### How to mitigate OWASP vulnerabilities while staying in the flow

Explore how GitHub Advanced Security can help address several of the OWASP Top 10 vulnerabilities



Mark Paulsen November 4, 2022

### How GitHub converts previously encrypted and unencrypted columns to ActiveRecord encrypted columns

This post is the second part in a series about ActiveRecord::Encryption that shows how GitHub upgrades previously encrypted and unencrypted columns to ActiveRecord::Encryption.

Kylie Stradley November 3, 2022

### Why and how GitHub encrypts sensitive database columns using ActiveRecord::Encryption

You may know that GitHub encrypts your source code at rest, but you may not have known that we encrypt sensitive database columns as well. Read about our column encryption strategy and our decision to adopt the Rails column encryption standard.

Kylie Stradley October 26, 2022

### 3 strategies for consolidating your toolkit and boosting productivity

Explore how GitHub Enterprise can help you transform your software engineering organization and practices.

Chris Reddington & Mark Paulsen October 26, 2022

### Introducing fine-grained personal access tokens for GitHub

Fine-grained personal access tokens offer enhanced security to developers and organization owners, to reduce the risk to your data of compromised tokens.

Hirsch Singhal October 18, 2022

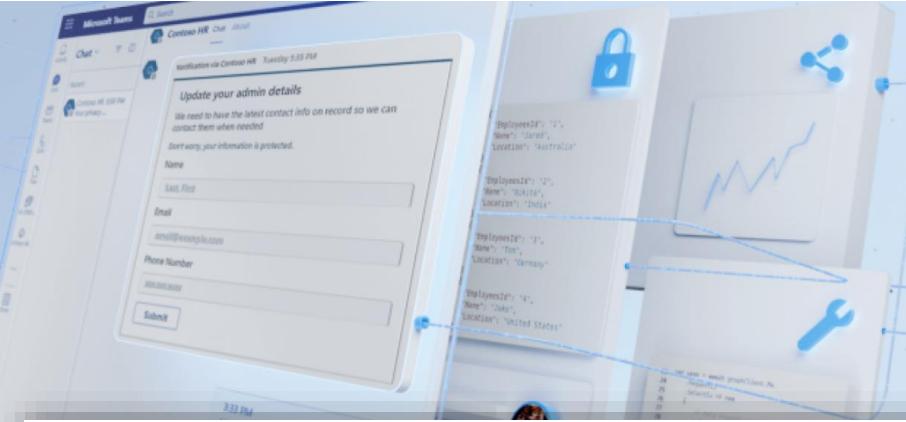
### Introducing GitHub Advanced Security SIEM integrations for security professionals

Learn about using GitHub Advanced Security (GHAS) alerts with Security Information and Events Management (SIEM) tools. Check out the integrations, and read more about getting started.

Daniel Shanahan & Chad Bentz & Alexander De Michieli & Jose Palafox & Laura Paine October 13, 2022



# Office Developer Blogs and Microsoft 365 Dev Center



## 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 >](#)

Build custom Power BI templates with Viva Insights data

[Analyze query data >](#)

Reach users in Viva Connections with Adaptive Card Extensions

[Build an extension >](#)

## 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](#)

Get started with Microsoft Graph connectors to prepare for Viva Topics

[Build a custom connector >](#)

## 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 >](#)

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

- [Ignite 2022: Highlights for Microsoft Teams app builders](#)
- [Office Add-in that supports Single-Sign-On to Office, the add-in, and Microsoft Graph](#)
- [Use a shared library to migrate your Visual Studio Tools for Office add-in to an Office web add-in](#)
- [Outlook Smart Alerts](#)
- [Use Outlook event-based activation to tag external recipients](#)
- [Using storage to share data between UI-less custom functions and the task pane](#)

# Azure



# Azure Updates



## Azure Announcements : Azure Blog

### VMs, Features, & Announcements

- [Azure Resource Manager — Migrating to TLS 1.2 with Deprecation of Outdated Security Protocols](#)
- [Scalable management of virtualized RAN with Kubernetes](#)
- [Azure Managed HSM TLS Offload Library](#): Public Preview
- [Azure Database for PostgreSQL – Flexible Server in new China regions](#) :: Generally Available
- [Multivariate Anomaly Detection](#) :: Generally Available
- [Azure NetApp Files datastores for Azure VMware Solution](#) :: Generally Available
- [Improve your energy and carbon efficiency with Azure sustainability guidance](#)
- [Azure IoT Edge for Linux on Windows \(EFLOW\) update](#) :: Generally Available
- [Azure Communication Services short code functionality for SMS](#) :: Generally Available

### Data, AI, Security, & Availability

- [Authenticate to Service Bus using managed identity](#) :: Generally Available
- [Azure Front Door integration with Managed Identities](#) :: Public Preview
- [Retryable writes in Azure Cosmos DB for MongoDB](#) :: Generally Available
- [Rotate SSH keys on existing AKS nodepools](#) :: Public Preview
- [Project Flash - Advancing Azure Virtual Machine availability monitoring](#) :: Preview
- [Block domain fronting behavior on newly created customer resources](#) :: Generally Available
- [Microsoft Azure Payment HSM Service](#) :: Generally Available
- [SAP S/4HANA events are now available on Azure Event Grid](#) :: Public Preview

### Operations & Benefits

- [Azure Gateway Load Balancer](#) :: Generally Available
- [Zero downtime migration for Azure Front Door](#) :: Preview
- [Virtual Machine software reservations](#) :: Generally Available

### Sharing the latest improvements to efficiency in Microsoft's datacenters

Wednesday, November 2, 2022

Our objective moving forward is to continue providing transparency across the entire datacenter lifecycle about how we infuse principles of reliability, sustainability, and innovation at each step of the datacenter design, construction, and operations process.

[Noelle Walsh](#), Corporate Vice President, Cloud Operations + Innovation

### Forrester Total Economic Impact study: Azure Arc delivers 206 percent ROI over 3 years

Thursday, October 27, 2022

Azure Arc is a bridge that extends the Azure platform so you can build applications and services with the flexibility to run across datacenters, edge, and multicloud environments.

[Omar Khan](#), General Manager, Microsoft Azure

# Azure Services Directory

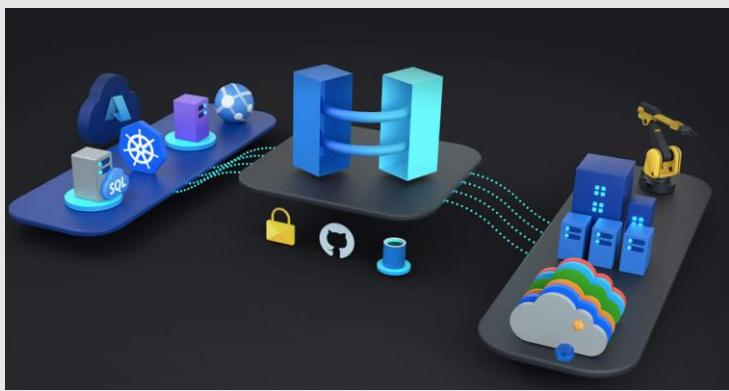


## Azure Elastic SAN PREVIEW

Elastic SAN is a Cloud-Native SAN service built on Azure providing end-to-end experience like on-premises SAN

### Azure Elastic SAN :: Preview

- ❖ Scalable, Cost-effective, high-performance SAN solution
- ❖ [Provision, manage and scale workloads with the same experience](#) for SAN-required solutions
- ❖ Use Azure Kubernetes Service (AKS), Azure VMware Solution (available at a later date), cloud-native applications, and edge appliances [through industry standard interface iSCSI protocols](#)
- ❖ Deliver millions of IOPS, double-digit Gb-per-second throughput, and single-digit millisecond latency to your mission-critical applications.
- ❖ Use ZRS for high levels of resiliency without having to set up multiple deployments of SAN arrays and a replication policy.

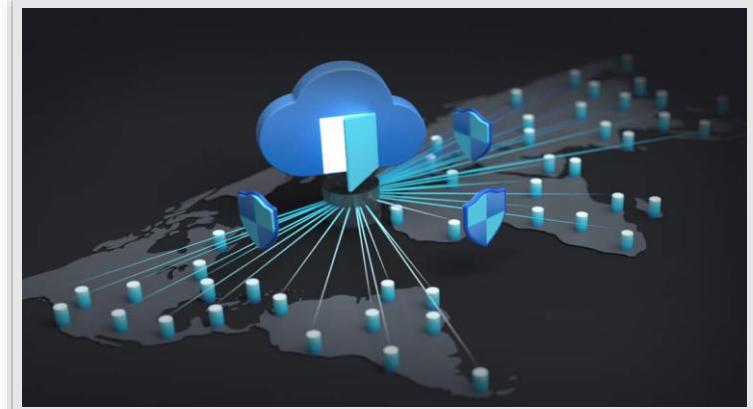


## Azure Arc

Secure, develop, and operate infrastructure, apps, and Azure services anywhere

### Azure Arc

- ❖ [View and run across datacenters, at the edge, and in multi-cloud environments](#)
- ❖ [Get up and running immediately with your existing tools](#) and practices including GitHub, Terraform, and Visual Studio.
- ❖ [Leverage Reference Architectures](#) to cross environments, datacenters, and clouds
- ❖ Use Linux and Windows virtual machines (VMs), bare-metal servers, and other clouds with the same server management experience across environments.
- ❖ Meet [governance](#) and compliance standards for apps, infrastructure, and data with [Azure Policy](#).



## Azure Front Door

[Modern cloud CDN](#) delivering optimized experiences to your users anywhere

### Azure Front Door

- ❖ [Combines modern CDN technology and intelligent threat protection](#) in a tightly integrated service that's easy to set up, deploy, and manage.
- ❖ [Delivers high performance, scalability, and secure](#) user experiences for your content and applications.
- ❖ Fully programmable and API-driven Service
- ❖ Deeply integrated with a wide array of [Azure services](#) including Azure DNS and Azure Web Apps.
- ❖ Deliver low-latency, high-throughput content at scale from the cloud or on-premises infrastructure to users anywhere

# New trends with Microsoft Technology



# Updates from Microsoft Industry Blogs



## Microsoft at ADIPEC 2022: Working towards a sustainable energy future >

October 27, 2022 • 5 min read



By [Uwa Airhiavbere](#), Chief Commercial Officer, Worldwide Energy and Resources Industry

We're excited that starting on October 31 through November 3, 2022, the Microsoft Energy team will be in Abu Dhabi to participate in ADIPEC 2022. One of the world's largest energy exhibitions, the event brings together industry leaders and policymakers to shape a secure, affordable, and sustainable energy future. [Read more](#)



## Building on what we've learned from our sustainability journey >

November 1, 2022 • 4 min read



By [Elisabeth Brinton](#), Microsoft CVP Sustainability

Our pledges to be carbon-negative, water positive, zero waste, and to protect more land than we use have driven us to pursue the best science available and find innovative new ways of doing business. [Read more](#)



## Increasing transparency for carbon credits with Environmental Credit Service >

November 3, 2022 • 8 min read



By [Shefy Manayil Kareem](#), General Manager for Microsoft Cloud for Sustainability

Find out how Environmental Credit Service delivers a common infrastructure and shared data standard to help solve today's carbon credit challenges. [Read more](#)



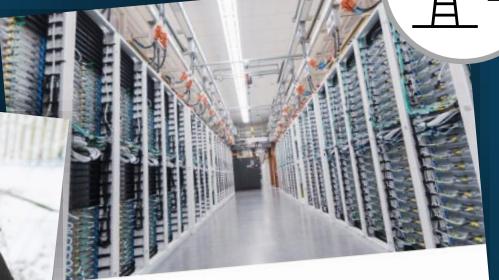
## Build resilient communities together with Microsoft >

November 9, 2022 • 4 min read



By [Angie Heise](#), CVP, Worldwide Public Sector

Through the Microsoft Cloud and together with our partners, we are helping public sector organizations do more with less and deliver inclusive and personalized solutions. [Read more](#)



## Microsoft delivers Azure Commercial offering for Criminal Justice Information >

November 3, 2022 • 3 min read



By [Richard Zak](#), Director of Data Governance & Compliance, US State & Local Government



By [Charles Schaeffer](#), Director of Public Safety & Justice Strategy, US State & Local Government

United States criminal justice agencies can work with their Microsoft account teams to assess requirements and determine the appropriate cloud platform for managing their Criminal Justice Information. [Read more](#)



# Microsoft Cloud for Sustainability

Building a clean-energy future with your business



## Microsoft sustainability guide

[Download e-book >](#)

We're building the Planetary Computer to provide insights into complex questions about air, water, and land management.

Our multi-petabyte catalog of key geospatial data sets is publicly available for use in consistent, analysis-ready formats accessible through intuitive APIs as well as directly available via Azure Storage. And partners all over the world are building applications on top of the Planetary Computer platform, providing actionable information critical to sustainability practitioners.

Check out the open-source tools that make this useful for organizations seeking public satellite images or environmental monitoring data to support sustainability decision-making.

[Learn more >](#)

Explore the Planetary Computer

Watch the video

Microsoft Sustainability Manager unifies data intelligence and enables organizations to more easily record, report, and reduce their environmental impact. The extensible solution can be integrated with virtually any business system. It breaks down data silos by automating data connections and calculations using the Microsoft Cloud for Sustainability data model.

This Microsoft Cloud for Sustainability solution enables comprehensive, integrated, and increasingly automated sustainability management for organizations at any stage of their sustainability journey. It allows organizations to gain visibility into the emissions activities of their entire enterprise and value chain, reliably report their impact and progress more efficiently, and access the intelligence required to refine and scale sustainability initiatives and transform their business, end to end.

[Learn more >](#)

## Build for the future with experienced solution providers

Microsoft provides the technology platform to support your sustainability journey end to end, and our partners bring deep industry expertise about what to analyze, how to interpret the data, and how to deliver insights in ways that will be most useful to our customers.

Together with our partners, we're exploring new ways to use advanced analytics, machine learning, and virtual models to understand your impact, test various scenarios, and create more targeted and effective sustainability strategies.

[Learn more about our sustainability partners >](#)

[Explore industry solutions >](#)

## Building on what we've learned from our sustainability journey >

November 1, 2022 • 4 min read



By [Elisabeth Brinton](#), Microsoft CVP Sustainability

Our pledges to be carbon-negative, water positive, zero waste, and to protect more land than we use have driven us to pursue the best science available and find innovative new ways of doing business.

**What's new and planned for Microsoft Cloud for Sustainability**



# 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.

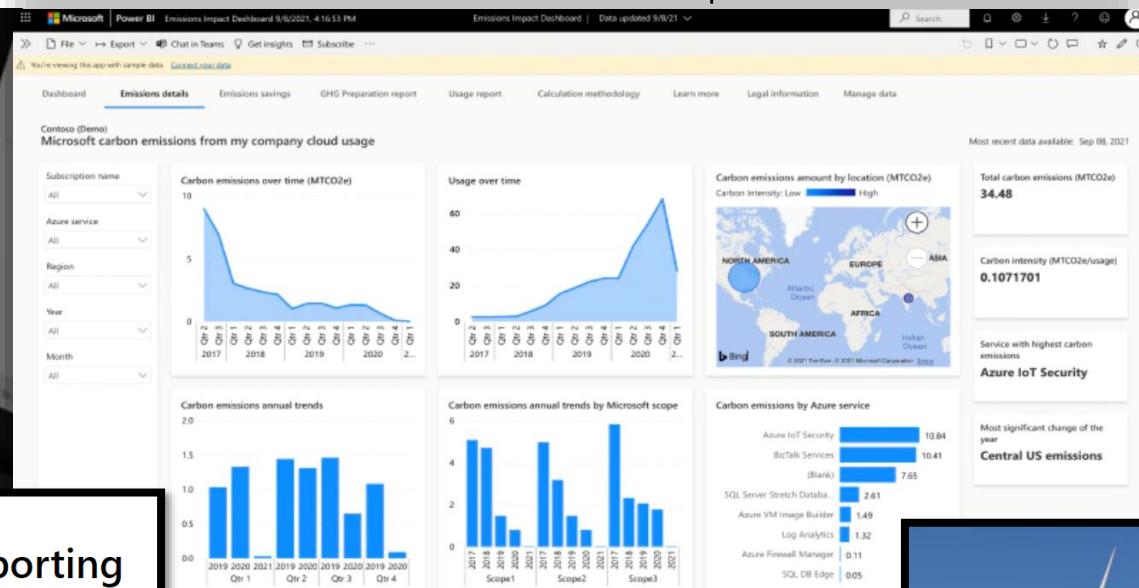
[Get started >](#)

## 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



## Research Focus: Week of November 7, 2022 >

November 8, 2022

Welcome to Research Focus, a new series of blog posts that highlights notable publications, events, code/datasets, new hires and other milestones from...

### Making the most of text semantics to improve biomedical vision-language processing

Benedikt Boecking, Naoto Usuyama, Shruthi Bannur, Daniel Coelho de Castro, Anton Schwaighofer, Stephanie Hyland, Maria Teodora Wetscherek, Tristan Naumann, Aditya Nori, Javier Alvarez-Valle, Hoifung Poon, Ozan Oktay

Multi-modal data abounds in biomedicine, such as radiology images and reports. Interpreting this data at scale is essential for improving clinical care workflows and accelerating clinical research. With its complex semantics, biomedical text poses additional challenges in vision-language modelling, and previous work has used insufficiently adapted models that lack domain-specific language understanding. In this study, we show that principled textual semantic modelling can substantially improve contrastive learning in biomedical vision-language processing (VLP). We release a language model ([CXR-BERT](#)) that achieves state-of-the-art results in radiology natural language inference through its improved vocabulary and novel language pretraining objective. Furthermore, we propose a self-supervised joint VLP approach ([BioViL](#)) with a focus on better text modelling. It establishes new state-of-the-art results on a wide range of publicly available benchmarks, in part by leveraging our novel domain-specific language model. As part of this study, a new dataset ([MS-CXR](#)) is released to facilitate the study of complex semantic modelling in biomedical VLP, which includes locally aligned phrase grounding annotations by radiologists. A broad evaluation, including on this new dataset, shows that our contrastive learning approach outperforms prior methods in segmentation tasks, despite only using a global-alignment objective.

**MICROSOFT RESEARCH**  
RESEARCH FOCUS 03 | WEEK OF NOVEMBER 7, 2022

In this issue:

**T-ULRv6 tops both XTREME and GLUE leaderboards**

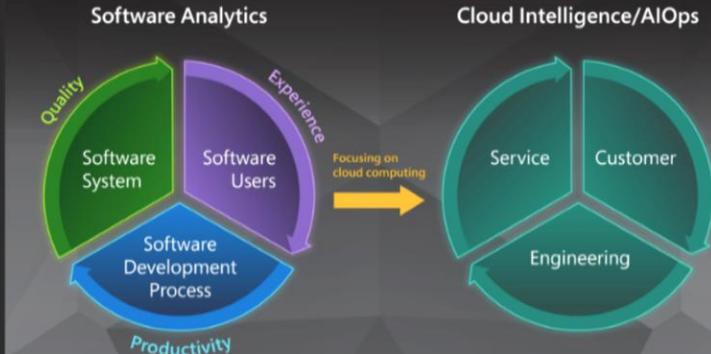
**3D face reconstruction**

**Benchmarking localization and mapping for AR**

### ECCV 2022 highlights: Advancing the foundations of mixed reality >

October 24, 2022

Computer vision is one of the most remarkable developments to emerge from the field of computer science. It's among the most rapidly growing areas in the technology landscape and has the potential to significantly impact the way people live and work. Advances at the intersection...



### Cloud Intelligence/AIOps – Infusing AI into Cloud Computing Systems >

November 10, 2022

When legendary computer scientist Jim Gray accepted the Turing Award in 1999, he laid out a dozen long-range information technology research goals. One of those goals called for the creation of trouble-free server systems or, in Gray's words, to "build a system used by millions..."

# Microsoft Quantum Blog



# rigetti

## Azure Quantum Now Offers Rigetti's QCS™ and Superconducting QPUs >

October 27, 2022 • 3 min read



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

Rigetti's Quantum Cloud Services (QCS™), a platform to explore hybrid quantum-classical workflows on superconducting quantum processors, is now available on demand through Azure Quantum.

[Read more](#)



## Azure Quantum Credits Program propels quantum innovation and exploration for researchers, educators, and students >

October 20, 2022 • 2 min read



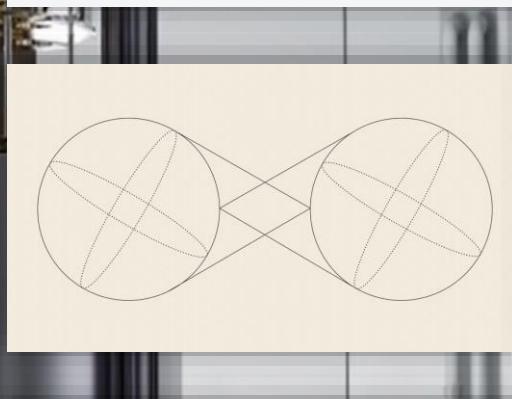
By [Linda Lauw](#), Sr. Director, Planning & Partnerships, Azure Quantum

Since it was introduced in February, the Azure Quantum Credits program has attracted applicants ranging from enterprise innovators and solution partners to academic researchers and student explorers. It has been exciting to see the diversity of proposals submitted – featuring the use of quantum hardware accessible through Azure Quantum to investigate novel use cases, experiment [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



# 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.

Oct 27, 2022 | Josh Krenz

### Why Microsoft uses a playbook to guard against ransomware

When Microsoft's Digital Security and Resilience (DSR) division set out to defend the company against human-operated ransomware, it faced several formidable challenges. In this form of ransomware, highly organized and sophisticated attacks by cybercriminals put major businesses, healthcare organizations, universities, and governments in their crosshairs for their visibility and potential payout. Human operated ransomware's targeted...



Nov 3, 2022 | Jason Kellington

### Fostering a culture of learning at Microsoft with Viva Learning

We're using Microsoft Viva Learning to foster a learning culture, empower our learners, and fuel innovation and growth at Microsoft. Our Microsoft learning teams can enable learning in the flow of work and make it easy for our employees to find the type of learning content that they need. We can centralize and enhance the...

Oct 27, 2022 | Inside Track staff

### Optimizing the workplace: How Microsoft Azure Machine Learning transformed our approach to space planning

Work is changing, and our requirements within the workplace are changing, too. More than ever, we must understand how we use office space and resources, make changes to keep everyone safe, and allocate those resources in the best way to reduce waste. Inside of Microsoft, our Real Estate & Security (RE&S) team has worked to...

Nov 7, 2022 | Dodd Willingham

### Making content more accessible and searches more efficient at Microsoft

Microsoft has more than 220,000 employees working around the globe. Collectively, they conduct 1 billion searches annually across many petabytes of content. Helping our employees find that information quickly and accurately can be a challenge, but our team is improving the employee knowledge-finding experience through Microsoft Search, Microsoft's modern enterprise search experience. Our employee base...

# 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

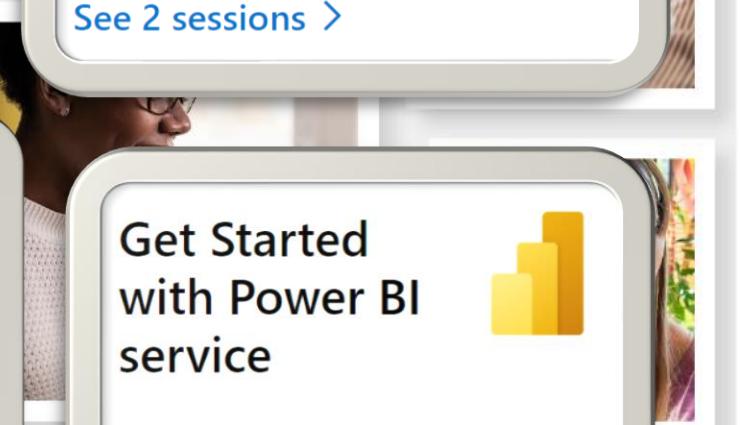


[See all 5 sessions >](#)

Get started with  
Microsoft Power  
Automate



[See all 7 sessions >](#)



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

October 12–14, 2022

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 >](#)

#### 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 Power Platform Virtual Training Day: Fundamentals

11/24/2022 1:00 PM (EST)

[Register Now >](#)

#### 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 Azure Virtual Training Day: Linux OSS Database Migration

12/1/2022 1:00 PM (EST)

[Register Now >](#)

#### Microsoft Tech Briefings: Kick-start Deep Learning on the Cloud

11/30/2022 | 07:00 - 08:00 (CST)

Digital

Briefing

Adoption of AI and machine learning is growing rapidly in every industry. More and more machine learning...

[Show more](#)

[Registration and details](#)



# 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



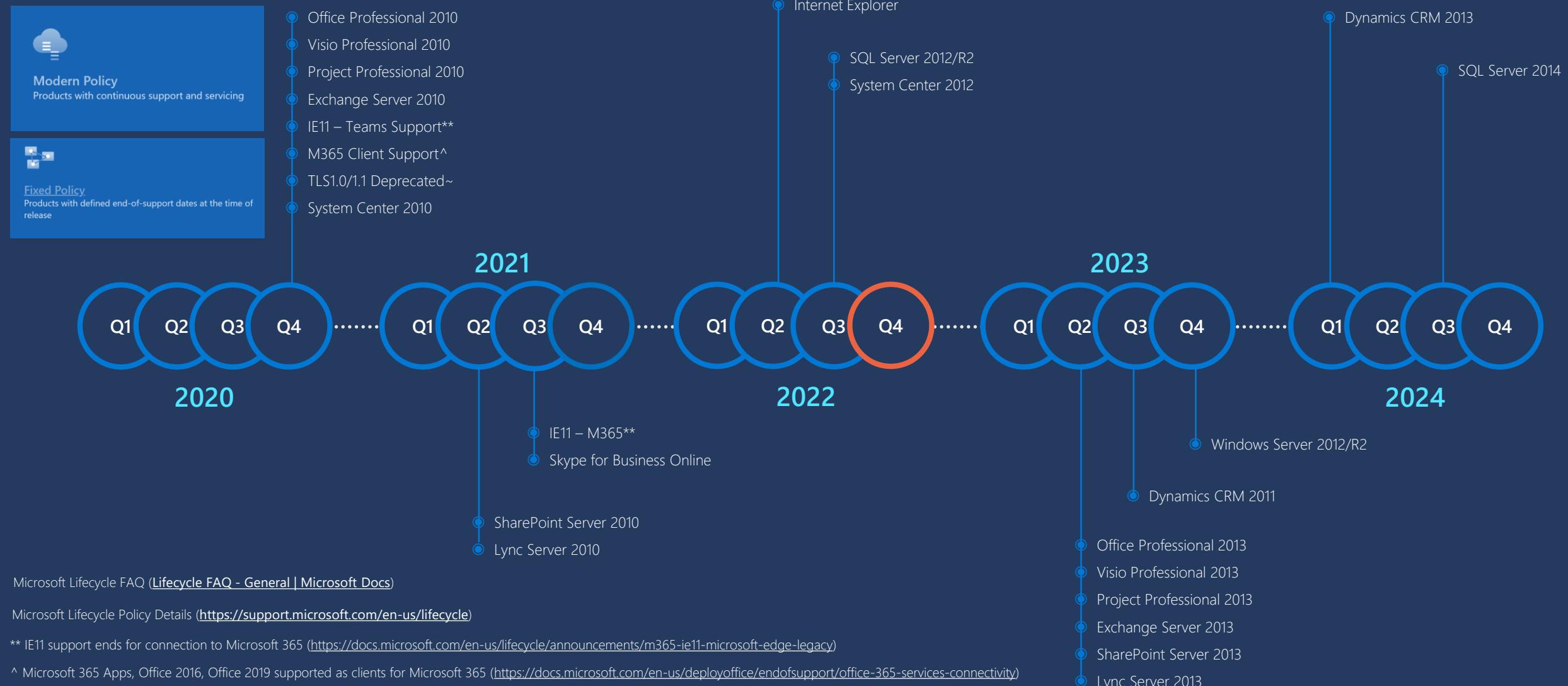
Login not working? Your organization may need to be onboarded to ESI. Please talk to your Microsoft Account Team.

# Product Lifecycles

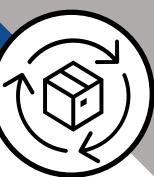




# End of Service Roadmap to 2024



# Microsoft Product Lifecycle: Modern Policy Products that will Retire



## Products under Modern Policy that will Retire in 2022

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

## Products under Modern Policy that will Retire in 2023

<b>Products that will Retire in 2023 (Modern Policy)</b>	<b>End of Support Date</b>
<a href="#">Microsoft Azure Virtual Machine (classic)</a>	March 1, 2023
<a href="#">Kaizala</a>	August 31, 2023
<a href="#">Scheduler for Microsoft 365</a>	September 1, 2023

## Lifecycle data export Export all products

Export lifecycle data for all products by clicking below:

[Export All Products](#)

## Announcements

- 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
- 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
- Support extended for Dynamics 365 for Customer Engagement Apps, v9 (on-premises)

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

## Products Release End of Servicing for 2023

Products Moving to End of Servicing (Modern Policy)	End of Servicing Date
<a href="#">Microsoft Endpoint Configuration Manager, Version 2107</a>	February 2, 2023
<a href="#">Dynamics 365 Business Central on-premises (Modern Policy), 2021 release wave 2, version 19.x</a>	April 12, 2023
<a href="#">Windows 10 Enterprise and Education, Version 20H2</a> <a href="#">Windows 10 IoT Enterprise, Version 20H2</a>	May 9, 2023
<a href="#">Microsoft Endpoint Configuration Manager, Version 2111</a>	June 1, 2023
<a href="#">Windows 10 Home and Pro, Version 21H2</a>	June 13, 2023
<a href="#">Microsoft Endpoint Configuration Manager, Version 2203</a>	October 6, 2023
<a href="#">Dynamics 365 Business Central on-premises (Modern Policy), 2022 release wave 1, version 20.x</a> <a href="#">Windows 11 Home and Pro, Version 21H2</a>	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
<a href="#">Visual Studio LightSwitch 2011</a> <a href="#">Windows 7, Extended Security Update Year 2*</a> <a href="#">Windows Server 2008, Extended Security Update Year 2</a> <a href="#">Windows Server 2008 R2, Extended Security Update Year 2</a>	January 11, 2022	<a href="#">Microsoft Forefront Identity Manager 2010</a> <a href="#">Microsoft Forefront Identity Manager 2010 R2</a> <a href="#">SQL Server 2016, Service Pack 2</a> <a href="#">Visual Studio 2019, Version 16.9</a> <a href="#">Windows Embedded POSReady 7, Extended Security Update Year 1*</a> <a href="#">Windows Embedded Standard 7, Extended Security Update Year 2*</a>	October 11, 2022
<a href="#">AppFabric 1.1 for Windows Server</a> <a href="#">Dynamics AX 2009</a> <a href="#">Dynamics AX 2012</a> <a href="#">Dynamics AX 2012 R2</a> <a href="#">Visual Studio 2019, Version 16.7</a>	April 12, 2022	<a href="#">Azure StorSimple 1200 Series</a> <a href="#">Azure StorSimple 8000 Series</a> <a href="#">StorSimple Data Manager</a>	December 31, 2022
<a href="#">Microsoft .NET Framework, .NET Framework 4.5.2</a> <a href="#">Microsoft .NET Framework, .NET Framework 4.6</a> <a href="#">Microsoft .NET Framework, .NET Framework 4.6.1</a>	April 26, 2022		
<a href="#">Internet Explorer 11 on Windows 10</a>	June 14, 2022		
<a href="#">Cloud Platform System</a> <a href="#">Microsoft Report Viewer Redistributable 2012</a> <a href="#">Microsoft SQL Server 2008, Extended Security Update Year 3</a> <a href="#">Microsoft SQL Server 2008 R2, Extended Security Update Year 3</a> <a href="#">Microsoft SQL Server 2012</a> <a href="#">Microsoft System Center 2012 App Controller</a> <a href="#">Microsoft System Center 2012 Configuration Manager</a> <a href="#">Microsoft System Center 2012 Data Protection Manager</a> <a href="#">Microsoft System Center 2012 Endpoint Protection</a> <a href="#">Microsoft System Center 2012 Operations Manager</a> <a href="#">Microsoft System Center 2012 Orchestrator</a> <a href="#">Microsoft System Center 2012 R2 App Controller</a> <a href="#">Microsoft System Center 2012 R2 Configuration Manager</a> <a href="#">Microsoft System Center 2012 R2 Data Protection Manager</a> <a href="#">Microsoft System Center 2012 R2 Endpoint Protection</a> <a href="#">Microsoft System Center 2012 R2 Operations Manager</a> <a href="#">Microsoft System Center 2012 R2 Orchestrator</a> <a href="#">Microsoft System Center 2012 R2 Service Manager</a> <a href="#">Microsoft System Center 2012 R2 Virtual Machine Manager</a> <a href="#">Microsoft System Center 2012 Service Manager</a> <a href="#">Microsoft System Center 2012 Virtual Machine Manager</a> <a href="#">Windows Azure Pack (on Windows Server 2012 R2)</a>	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
<a href="#">Dynamics AX 2012 R3</a> <a href="#">Dynamics NAV 2013</a> <a href="#">Dynamics NAV 2013 R2</a> <a href="#">Internet Information Services (IIS), IIS 8.5 on Windows 8.1</a> <a href="#">Microsoft Diagnostics and Recovery Toolset 8.0</a> <a href="#">Microsoft Report Viewer 2012 Runtime</a> <a href="#">Microsoft Report Viewer Redistributable 2012</a> <a href="#">Service Bus for Windows Server</a> <a href="#">User Experience Virtualization (UE-V) 1.0</a> <a href="#">Visual Studio 2012</a> <a href="#">Visual Studio Team Foundation Server 2012</a> <a href="#">Windows 7, Extended Security Update Year 3*</a> <a href="#">Windows 8.1</a> <a href="#">Windows Defender For Windows 8 and 8.1</a> <a href="#">Windows Embedded 8.1 Pro</a> <a href="#">Windows RT</a> <a href="#">Windows Server 2008, Extended Security Update Year 3</a> <a href="#">Windows Server 2008 R2, Extended Security Update Year 3</a> <a href="#">Workflow Manager 1.0</a>	January 10, 2023	<a href="#">BizTalk Server 2013</a> <a href="#">BizTalk Server 2013 R2</a> <a href="#">Dynamics 365 for Customer Engagement Apps, version 9 (on-premises update), Original Release (ver 9.0)</a> <a href="#">Microsoft BitLocker Administration and Monitoring 2.0</a> <a href="#">Microsoft SQL Server 2008, Extended Security Update Year 4 (Azure only)</a> <a href="#">Microsoft SQL Server 2008 R2, Extended Security Update Year 4 (Azure only)</a> <a href="#">Microsoft SQL Server 2012, Extended Security Update Year 1</a> <a href="#">Visual Studio 2022 , Version 17.0 (LTSC channel)</a> <a href="#">Windows Embedded 8 Standard</a> <a href="#">Windows Embedded 8.1 Industry</a>	July 11, 2023
<a href="#">Access 2013</a> <a href="#">Dynamics GP 2013</a> <a href="#">Dynamics GP 2013 R2</a> <a href="#">Excel 2013</a> <a href="#">Exchange Server 2013</a> <a href="#">HPC Pack 2012</a> <a href="#">HPC Pack 2012 R2</a> <a href="#">Lync 2013</a> <a href="#">Microsoft Lync Phone Edition</a> <a href="#">Microsoft Lync Server 2013</a> <a href="#">Microsoft Office 2013</a> <a href="#">Microsoft OneNote 2013</a> <a href="#">Outlook 2013</a> <a href="#">PowerPoint 2013</a> <a href="#">Project 2013</a> <a href="#">Project Server 2013</a> <a href="#">Publisher 2013</a> <a href="#">SharePoint Foundation 2013</a> <a href="#">SharePoint Server 2013</a> <a href="#">Skype for Business 2015</a> <a href="#">Visio 2013</a> <a href="#">Word 2013</a>	April 11, 2023	<a href="#">Excel 2019 for Mac</a> <a href="#">Hyper-V Server 2012</a> <a href="#">Hyper-V Server 2012 R2</a> <a href="#">Internet Explorer 7</a> <a href="#">Internet Information Services (IIS), IIS 8 on Windows Server 2012</a> <a href="#">Internet Information Services (IIS), IIS 8.5 on Windows Server 2012 R2</a> <a href="#">Microsoft Office 2019 for Mac</a> <a href="#">Microsoft Office Audit and Control Management Server 2013</a> <a href="#">Outlook 2019 for Mac</a> <a href="#">PowerPoint 2019 for Mac</a> <a href="#">Windows Embedded Compact 2013</a> <a href="#">Windows Embedded POSReady 7, Extended Security Update Year 2*</a> <a href="#">Windows Embedded Standard 7, Extended Security Update Year 3*</a> <a href="#">Windows MultiPoint Server 2012</a> <a href="#">Windows Server 2012</a> <a href="#">Windows Server 2012 R2</a> <a href="#">Windows Server Update Services for Windows Server 2012</a> <a href="#">Windows Server Update Services for Windows Server 2012 R2</a> <a href="#">Windows Storage Server 2012</a> <a href="#">Windows Storage Server 2012 R2</a> <a href="#">Word 2019 for Mac</a>	October 10, 2023

# Microsoft Product Lifecycle: Products moving to Extended Support



## Products Moving to Extended Support for 2022

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

## Products Moving to Extended Support for 2023

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



# Acquisitions and Announcements

# Microsoft Acquisitions - 2022



Company	Date	Description
<a href="#">Miburo</a>	06-14-2022	<a href="#">Miburo</a> will enhance Microsoft's Cybersecurity and Threat Analysis capabilities. The addition of Miburo will <b>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</b> operations in conjunction with other cyber-attacks to achieve their objectives. Miburo is a leading <b>expert in the identification of foreign information operations</b> . Miburo's research teams <b>detect and attribute malign and extremist influence campaigns across 16 languages</b> . 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.
<a href="#">Minit</a>	03-31-2022	<a href="#">Minit</a> currently <b>enables businesses to transform the way they analyze, monitor and optimize their processes</b> . Minit's solutions have helped businesses gain <b>deep insights into how processes run</b> , uncover root causes of operational challenges and help mitigate undesired process outcomes. This acquisition <b>will further empower Microsoft to help our customers digitally transform and drive operational excellence</b> 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 <b>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</b> .
<a href="#">Oribi</a>	02-28-2022	Microsoft's LinkedIn will acquire <a href="#">Oribi</a> , an Israel based <b>marketing analytics company</b> , to further help customers, from marketers to recruiters, <b>gain actionable insights, make smarter decisions and drive business results</b> . The integration of LinkedIn and Oribi will <b>accelerate Microsoft's marketing attribution and codeless analytics capabilities</b> .
<a href="#">Activision Blizzard</a>	01-18-2022	Microsoft announced <b>plans to acquire Activision Blizzard Inc.</b> (Nasdaq: ATVI), a leader in game development and interactive entertainment content publisher. This <b>acquisition will accelerate the growth in Microsoft's gaming</b> business across mobile, PC, console and cloud and <b>will provide building blocks for the metaverse</b> . "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
<a href="#">Xandr</a>	12-21-2021	Microsoft will <b>acquire Xandr from AT&amp;T</b> . Xandr provides a <b>data-enabled technology platform with tools</b> that help power a diverse ecosystem <b>connecting marketers and media owners through first-party, data-led advertising solutions</b> across its network. With Xandr, <b>Microsoft can accelerate the delivery of digital advertising solutions for the open web</b> by combining Microsoft's audience understanding, technology and global advertising customer base with Xandr's large-scale, data-driven platforms for advertising.
<a href="#">Two Hat</a>	10-29-2021	<b>Two Hat</b> , 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.
<a href="#">Clear Software</a>	10-22-2021	<b>Clear Software</b> provides iPaaS and business process solutions with <b>strong connectivity into SAP and Oracle</b> . <b>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</b> that reside beyond Microsoft first-party services.
<a href="#">Ally.IO</a>	10-07-2021	<b>Ally.io</b> , a leading OKR (objectives and key results) company, will <b>join the Microsoft Viva family as part of our employee experience platform (EXP)</b> designed to help companies embrace the new digital work life. <b>Ally.io will power a new Microsoft Viva module</b> . Viva is an employee experience platform that brings together communications, knowledge, learning, resources and insights – from anywhere you work. <b>Powered by Microsoft 365 and Microsoft Teams</b> , Viva helps organizations foster a culture of human connection, growth, well-being and success.
<a href="#">TakeLessons</a>	09-08-2021	We're so excited to announce that <b>TakeLessons has been acquired by Microsoft</b> . We believe this will further support TakeLessons' mission: <b>to empower people to learn, connect, grow, and live more meaningful lives through education</b> .
<a href="#">Clipchamp</a>	09-07-2021	<b>Clipchamp</b> is a natural fit to extend the cloud-powered productivity experiences in <b>Microsoft 365</b> for individuals, families, schools, and businesses. It's also a great fit for Microsoft Windows, which is a platform for boundless creativity. <b>Clipchamp's template-driven, task-focused user experience</b> gives everyone the confidence that they can create. Its <b>rich library of filters, styles, transitions, and stock media combined with the power of a multi-track audio and video compositing editor</b> gives everyone the fine control they need, and artistic help if they need it, to <b>create exactly what they want, quickly and with confidence</b> .
<a href="#">Peer5</a>	08-10-2021	<b>Peer5</b> expands Microsoft's ability for delivering <b>secure, high-quality, large-scale live video streaming with optimized network performance in Teams</b> . 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 <b>mesh networks are self-balancing and automatically scale</b> as the number of viewers increase.

# Microsoft Acquisitions - 2021



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



## Microsoft Acquisitions - 2020

Company	Date	Description
<a href="#">ZeniMax Media</a>	09-21-2020	<b>ZeniMax Media, the parent company of Bethesda Softworks</b> , one of the <b>largest privately held game developers and publishers in the world</b> . Creators of critically acclaimed and <b>best-selling gaming franchises including The Elder Scrolls, Fallout and many others</b> , Bethesda brings an <b>impressive portfolio of games, technology and talent</b> — as well as a track record of blockbuster commercial success — to Xbox.
<a href="#">Orions Systems</a>	07-07-2020	Orions Systems, a pioneer in the development <b>of large-scale, hybrid, smart vision systems focused on “human-in-the-loop” machine teaching</b> combined with <b>services that can adapt to running on a single device or scale to address large scale edge-to-cloud network topologies</b> . 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.
<a href="#">CyberX</a>	06-22-2020	CyberX will complement the existing <a href="#">Azure IoT security</a> capabilities and <b>extends to existing devices including those used in industrial IoT, Operational Technology and infrastructure scenarios</b> . With CyberX, customers can <b>discover their existing IoT assets, and both manage and improve the security posture of those devices</b> . 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,
<a href="#">ADRM Software</a>	06-18-2020	ADRM Software is a <b>leading provider of large-scale industry data models</b> , 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. <b>Together with Microsoft Azure, these capabilities will be delivered at scale</b> , enabling our customers to accelerate digital progress, and reduce risk in a variety of major initiatives.
<a href="#">Softomotive</a>	05-19-2020	<a href="#">Softomotive</a> currently helps more than 9,000 global customers seamlessly <b>automate business processes across legacy and modern desktop applications</b> . Together <b>with Power Automate, WinAutomation will provide customers additional options for RPA desktop authoring</b> so anyone can build a bot and automate Windows-based tasks.
<a href="#">Metaswitch Networks</a>	05-14-2020	<a href="#">Metaswitch Networks</a> , a leading provider of <b>virtualized network software and voice, data and communications solutions for 5G operators</b> .
<a href="#">Corp.Com</a>	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."
<a href="#">Affirmed Networks</a>	03-26-2020	<b>Affirmed Networks with its leadership in virtualized 5G mobile networks</b> . 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, <b>including autonomous vehicles, smart cities, virtual reality and a range of other smart industry use cases and services</b> .

# Microsoft Acquisitions - 2019



Company	Date	Description
Movere	10-21-2019	Movere accelerates cloud migrations. It increases business intelligence by accurately <b>presenting entire IT environments within a single day</b> , providing enterprises with the confidence they need to have <b>visibility and control of their environments regardless of platform, application or geography as organizations grow, change and digitally optimize</b> .
Semmle	09-18-2019	Semmle's revolutionary <b>semantic code analysis engine allows developers to write queries that identify code patterns in large codebases and search for vulnerabilities and their variants</b> . Semmle is <b>trusted by security teams at Uber, NASA, Microsoft, Google</b> , and has <b>helped find thousands of vulnerabilities in some of the largest codebases in the world</b> , as well as over 100 CVEs in open source projects to date.
JClarity	08-19-2019	The <b>leading contributor to the AdoptOpenJDK project</b> , to support their continued contributions to open source while <b>driving increased performance for Java workloads on Azure</b> . The team, formed by Java champions and data scientists with proven <b>expertise in data driven Java Virtual Machine (JVM) optimizations</b> , will help teams at Microsoft to leverage advancements in the Java platform.
PromotelQ	08-05-2019	The <b>leading provider of vendor marketing technology to online retailers and brands</b> . 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 <b>Unified Data Access Control solutions for modern data platforms</b> . 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^ <b>helps teams create more efficient and effective code review workflows on GitHub</b> . 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^ <b>gives teams a better way to manage reviews, reduce turnaround times, and ship code faster</b> .
Double Fine Productions	06-09-2019	Double Fine is <b>a beacon of creativity and spirit in game development for almost 20 years with classic games like Psychonauts, Brütal Legend and Broken Age</b> . 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 <b>real time operating systems (RTOS) for IoT and edge devices powered by microcontroller units (MCUs)</b> . Express Logic's ThreadX RTOS has over 6.2 billion deployments, making it one of the most deployed RTOS in the world per <a href="#">VDC Research</a> . 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 <b>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</b> within Azure to help drive the best possible learning outcomes for their students. Read more at <a href="https://educationblog.microsoft.com/en-us/2019/02/introducing-datasense-to-microsoft-educations-family-of-products/#E6CKQEBUjS35TOH4.99">https://educationblog.microsoft.com/en-us/2019/02/introducing-datasense-to-microsoft-educations-family-of-products/#E6CKQEBUjS35TOH4.99</a>
Citus Data	01-24-2019	a leader in the PostgreSQL community. Citus is an <b>innovative open source extension to PostgreSQL that transforms PostgreSQL into a distributed database, dramatically increasing performance and scale for application developers</b> . Because Citus is an extension to open source PostgreSQL, it <b>gives enterprises the performance advantages of a horizontally scalable database while staying current with all the latest innovations in PostgreSQL</b> . 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 <b>next-generation app-provisioning platform that reduces the resources, time and labor required to support virtualization</b> . 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 <b>software product design and development studio known for its conversational AI and bot development capabilities</b> . The company has been paving the way in conversational AI since 2013 and was responsible for the creation of <a href="#">Howdy</a> , the first commercially available bot for Slack that <b>helps schedule meetings, and Botkit, which provides the development tools used by hundreds of thousands of developers on GitHub</b> . Over the years, we have partnered with XOXCO and have been inspired by this work.
Obsidian	11-10-2018	<b>The studio quickly made a name for itself with the Xbox exclusive Star Wars: Knights of the Old Republic II: The Sith Lords</b> . 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 <a href="https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99">https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99</a>
InXile	11-10-2018	<b>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</b> . Read more at <a href="https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99">https://news.xbox.com/en-us/2018/11/10/obsidian-inxile-join-microsoft-studios/#P4ARqRq505qOpmfU.99</a>
Lobe	09-13-2018	Lobe makes deep learning simple, understandable and accessible to everyone. Lobe's <b>simple visual interface empowers anyone to develop and apply deep learning and AI models quickly, without writing code</b> .

# About me

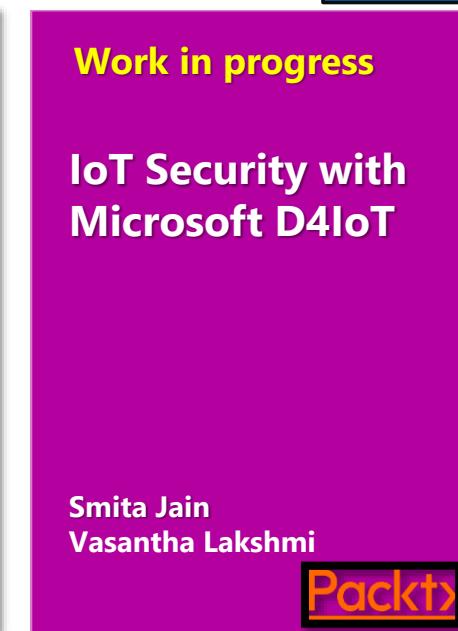
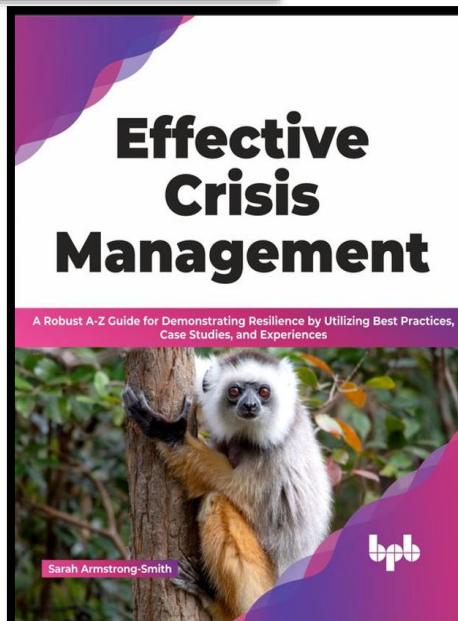
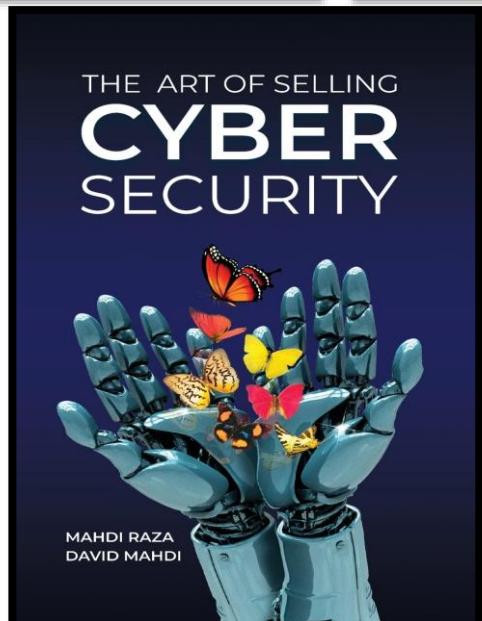
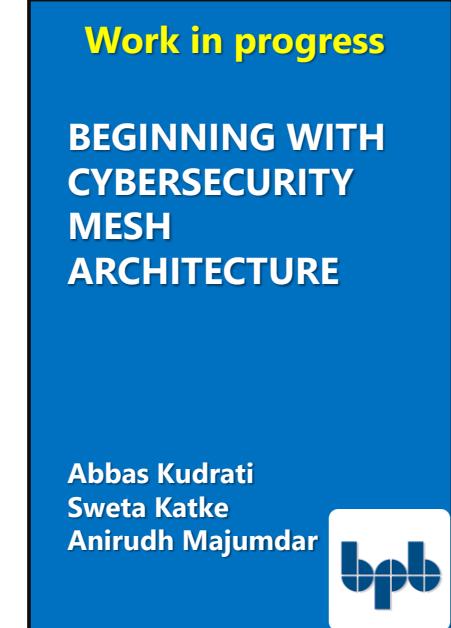
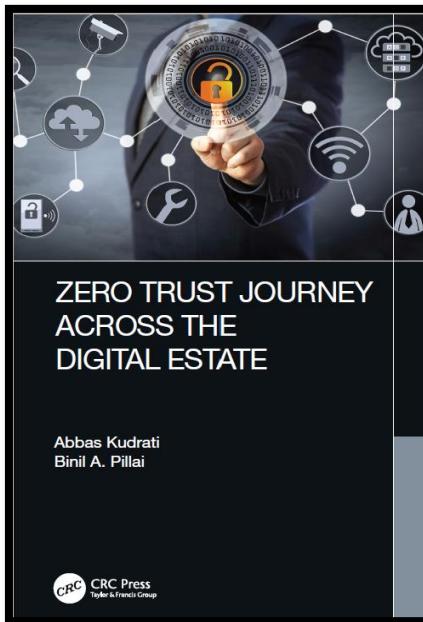
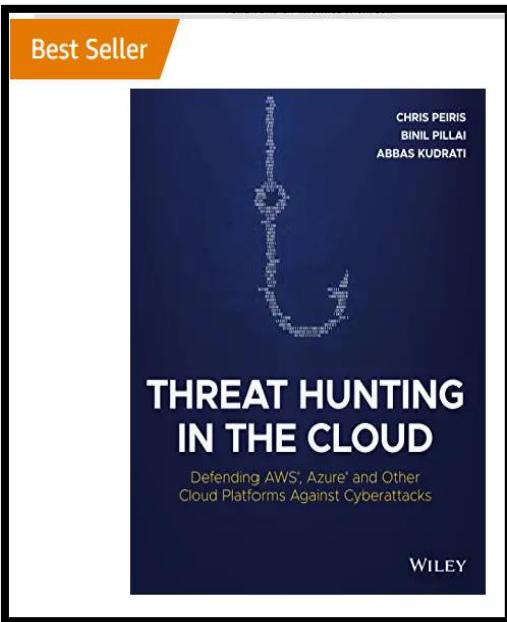
"You join Microsoft, not to be cool  
but to make others cool"

Satya Nadella

- **Cybersecurity practitioner and CISO with 25 years of experience in Information / Cybersecurity.**
- **Part time Cybersecurity Professor with Deakin and LaTrobe University in Melbourne, Australia.**
- **Expertise in Zero Trust, Cybersecurity Strategy, Security Operations, Risk, Compliance, Cloud Security and Architecture.**



# My Publications (Author, Contributor & Tech Editor)



# THANK YOU