

White paper

Top 6 Microsoft Azure trends and developments for 2022



Introduction

Modern technology is growing and diversifying at breakneck speed. Technological innovation is rapidly changing the world around us. Often resulting in breakthroughs that make our lives easier and more comfortable, but also creating solutions for challenging societal, economic or environmental problems.

Microsoft's cloud platform, Azure, is a powerful and highly modern IT hub that facilitates technological innovation on many levels. It does this by handling the most demanding network loads and harnessing the latest AI, ML and IoT solutions. Azure provides a range of cloud services, including compute, analytics, storage and networking. These services are offered on an on-demand basis and are charged per usage. Once you subscribe to Azure, your organisation has access to all of the services included in the Azure portal.

Users can pick and choose from these services to develop and scale new applications, but they also have the opportunity to run existing applications in the public cloud. Azure supports every type of industry and is compatible with many open-source technologies. The platform supports four different forms of cloud computing: IaaS, PaaS, SaaS and serverless. Azure is also the current market leader in the field of hybrid cloud models. The platform is often used for running virtual machines or containers **in the cloud**. But it is also used for hosting applications, infrastructure service components and Windows Server services.

Azure is also a platform that keeps evolving. New trends constantly shape the range and diversity of services that Azure offers and supports. In this white paper, we will take a closer look at the six most important Azure trends and developments for 2022.

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Top 6 Microsoft Azure trends and developments for 2022

1. Intelligent cloud and edge

One of the chief Azure trends for 2022 is the growing popularity of intelligent cloud and edge. The intelligent cloud is a computing service that combines the accessibility of the public cloud with the power of advanced AI. It allows you to work with a wide range of intelligent apps and services, and provides end-users with real-time experiences.

Specialised and technologically advanced Azure services and tools, such as Azure SQL Edge, HoloLens 2 and IoT Plug and Play, allow you to create even smarter experiences using mixed-reality solutions. They also make it possible to connect IoT and edge technologies. A couple of examples to illustrate the scope of intelligent cloud and edge technology:

- Providing tailor-made design and shopping experiences to consumers.
- Inventory management, logistics and product tracking in working stations.
- Enhancing the power of robotics. This allows you to automate repetitive tasks and processes and relieve employees from time-consuming and mind-numbing tasks.
- Creating remote assistants for factories and laboratories.

Azure technology enables you to get the best out of intelligent cloud-edge applications in an accessible fashion. It has created simplified governing mechanisms on top of the intelligent cloud-edge solution to monitor, back-up and update your intelligent cloud landscape.

2. Artificial intelligence

Artificial intelligence (AI) is becoming more and more important in the real world. It helps companies streamline business processes, facilitates data alignment across multiple services, platforms, databases and applications, and optimises online revenue. Microsoft knows this, given the company has gradually expanded and perfected Azure AI.

This portfolio of AI services, designed for developers and data scientists, takes advantage of decades of breakthrough research and responsible practices. Azure AI Services allows you to access high-quality speech, vision and decision-making AI models through simple API calls. You can also create your very own, personalised machine learning models with tools such as Jupyter Notebooks, Visual Studio Code and open-source frameworks like TensorFlow and PyTorch.

3. Cognitive services

Ever more advanced cognitive services are also rapidly gaining widespread attention. Azure Cognitive Services allow you to build cognitive intelligence into your applications. You can add cognitive functions to your applications without the need for knowledge of artificial intelligence (AI) or data science. The Cognitive Services package includes several AI services that help you build cognitive solutions that can see, hear, speak, understand, and even make decisions.

4. Machine learning

Machine learning has been spearheading important changes in the IT industry for quite a while now. The technology helps companies speed up the pace at which they can bring new models, products and services to the market. Azure Machine Learning is a cloud service for accelerating and managing the machine learning project lifecycle. Machine learning professionals, data scientists and engineers can use it in their day-to-day workflows. They can train and deploy models, but also manage MLOps.

You can create a model in Azure Machine Learning or use a model built from an open-source platform, such as Pytorch, TensorFlow or scikit-learn. Azure Machine Learning is ideally suited for and increasingly popular amongst individuals and teams implementing MLOps within their organisation. Why? Because it allows them to bring machine learning models into production in a secure and auditable production environment.

5. Internet of Things (IoT)

IoT is growing at a rapid pace all around the world. The global IoT market is expected to reach a value of USD 1,386.06 billion by 2026. And if you're wondering how many IoT devices are in operation at present: the number is around 31 billion. No wonder the IoT trend is also catching on in the Azure environment. Azure IoT represents the collection of Azure services and other capabilities that help meet customer demands on any desired or needed location.

The great thing about Azure IoT is that the trending service takes care of all the necessary features and functionalities to build, deploy and manage IoT apps in a safe and efficient manner. This includes security, device OS, data analytics and endpoint management. Additionally, Azure supports various services specially catered to IoT. The most popular ones are Azure IoT Edge and Azure Sphere.

6. Security

Security is a major concern for any organisation that wants to make the transition to the cloud or is already heavily reliant on a cloud computing environment. Data is no longer stored on your on-premises storage setups, but kept safe in your cloud providers' arrangements. Since IT is the backbone of modern businesses, cyberattacks affect all people and can significantly disrupt business processes and damage the reputation of a company.

So it is quite understandable that a strong emphasis on security is an important Azure trend for 2022. Built-in controls and services in Azure across identity, data, networking and apps build a strong cloud security framework. Deeper insights from Microsoft Defender for Cloud deliver continuous protection. Azure also allows you to extend protections to hybrid environments and easily integrate partner solutions. Real-time global cybersecurity intelligence provides your organisation with actionable insights that allow you to identify and remediate threats faster than ever.

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How Global Knowledge helps

Global Knowledge can help you get the best out of the important cybersecurity trends of 2022 by offering training courses that cover all the essential technologies and ins and outs of Microsoft Azure. For example, the course “**Microsoft Azure AI Fundamentals**” introduces you to the fundamental concepts related to artificial intelligence. The course “Microsoft Identity and Access Administrator” focuses on a broad range of security issues, such as access and identity management in Azure.

Global Knowledge supports all different aspects of the Microsoft Azure cloud. If it is the Platform, the Data you put on it and the Security you need to wrap around, Global Knowledge provides the best learning solution for it. A few examples you might be interested in are: M-AZ104, Microsoft Azure Administrator (AZ-104), M-DP300, Administering Relational Databases on Microsoft Azure (DP-300), M-SC400, Microsoft Information Protection Administrator (SC-400). For a large part of your organization Global Knowledge is able to provide a Fundamentals training on Azure, Data or Security in a way it supports your business.

More information

Would you like to know more about the most important Azure trends and our Azure training courses? Then don't hesitate to **contact** us. We are happy to make your acquaintance!

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