



Waterford Institute of Technology



CLOUD SERVICE PROVIDERS - II

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MICROSOFT AZURE

- Microsoft Azure is a cloud computing service which is used for building testing deploying and managing the application.
- This process is done in a global network of the Microsoft-managed data centre.
- It is private as well as a public cloud platform.



AZURE APPLICATION SERVICES

- Azure application services help you develop, deploy, and maintain various applications on the Azure platform. Let's look at the three most notable application services: Azure AI, Azure Bots, Azure Analytics, and Azure IoT.



AZURE APPLICATION SERVICES: AZURE AI

- Microsoft Azure enables your AI teams to have quick access to AI services and helps you engage with customers, empower your employees, and optimize business processes across the organization.
- Your developers can create interactive applications on Azure's AI Platform which offers AI capabilities like NLP, speech recognition, voice synthesis, face detection, video indexing, and text analytics.

AZURE APPLICATION SERVICES: BOTS

- Azure Bot's service could help in improving customer experience by capitalizing on the automation abilities of bots.
- The bot framework does not impose any pressure on developers as it provides everything needed to build and connect bots.
- As a result, bots could ensure interactions with users on a wide range of platforms.
- Bots are highly efficient instruments for providing customer support along with savings of time and money.



AZURE APPLICATION SERVICES: AZURE ANALYTICS

- You can process and analyze large volumes of data to make well-informed critical business decisions with Azure's analytics suite.
- It allows your analytics team to run complicated queries across huge sets of data and get actionable insights.
- The analytics solution offers an interactive real-time workspace to your data engineers, data scientists, and business analysts working on shared projects that enable them to quickly perform real-time analysis of large data sets on varied topics.

AZURE APPLICATION SERVICES: AZURE INTERNET OF THINGS (IOT)

- Azure IoT provides your organization with platform and services that can help you develop IoT solutions without reinventing the wheel.
- Azure's IoT Central (SaaS) offers pre-configured solutions while "Azure IoT solution accelerators" offer more flexibility to develop a custom solution for your organization.
- Further, Azure IoT offers numerous SDKs and integration support for connecting a range of IoT devices and gather insights from the incoming data with advanced analytics and visualization.

AZURE DATA SERVICES

- Azure data services store and manage data on cloud.
- Microsoft Azure comes with a range of data services: Azure Storage, Azure SQL Database, Azure DocumentDB, Azure StorSimple, and Azure Redis Cache.
- Let's talk about Azure Storage and Azure Backup.

AZURE DATA SERVICES: AZURE STORAGE

- Microsoft Azure's data storage service offers secure and scalable cloud storage for both, structured and unstructured data.
- Using Azure Storage, your data security experts can ensure safe integration of your on-premise data with the cloud data.
- Azure Storage supports multiple storage options such as blob, queue, file, and NoSQL. You can store any size of data, from a small size blob to a large file, as per your business requirement without affecting the production environment.

AZURE DATA SERVICES: BACKUP

- It is a cost-effective backup solution that requires nothing more than a click. You can use this service for backup of Azure Virtual machines and SQL workloads as well as on-premises VMware machines.
- The Azure central backup management portal can support the effective management of resources and activity.

AZURE DEVELOPMENT SERVICES

- Microsoft Azure offers multiple development tools and services to enhance the overall software development and deployment process.
- Here's a quick look at one of the essential services by Microsoft i.e. Azure DevOps, enabling continuous delivery to customers.



AZURE DEVELOPMENT SERVICES: DEVOPS

- The Azure DevOps services are ideal for smarter planning and better collaboration to ensure faster delivery.
- Azure DevOps services help in leveraging proven agile tools for planning, tracking, and discussion of work among different teams.
- Furthermore, users could find Azure DevOps services as ideal choices for building, testing, and deploying with CI/CD.
- Also, it ensures access to unlimited, cloud-hosted private Git repos and collaboration for building better code with advanced file management and pull requests.

AZURE COMPUTE SERVICES

- Azure compute services are the hosting services responsible for hosting and running the application workloads.
- These include Azure Virtual Machines (VMs), Azure Container Service, Azure App Services, Azure Batch, and Azure ServiceFabric.

AZURE COMPUTE SERVICES: VIRTUAL MACHINES

- This service helps in creating Linux and Windows virtual machines (VMs) in a matter of seconds. The most interesting aspect of this Azure service is the facility of VMs according to your needs.
- You can get Burstable VMs, Compute-optimized VMs, Memory-optimized VMs, and general-purpose VMs with Microsoft Azure. In addition to these VMs available at competitive prices, you can also explore the series of VMs on Azure.

AZURE NETWORK SERVICES

- Azure Network Services refer to those services that perform networking operations within Azure and between Azure and on-premise infrastructure.
- These include Azure Virtual Network, Azure ExpressRoute, Azure-provided DNS, Azure Traffic Manager and Azure Content Delivery Network (CDN).