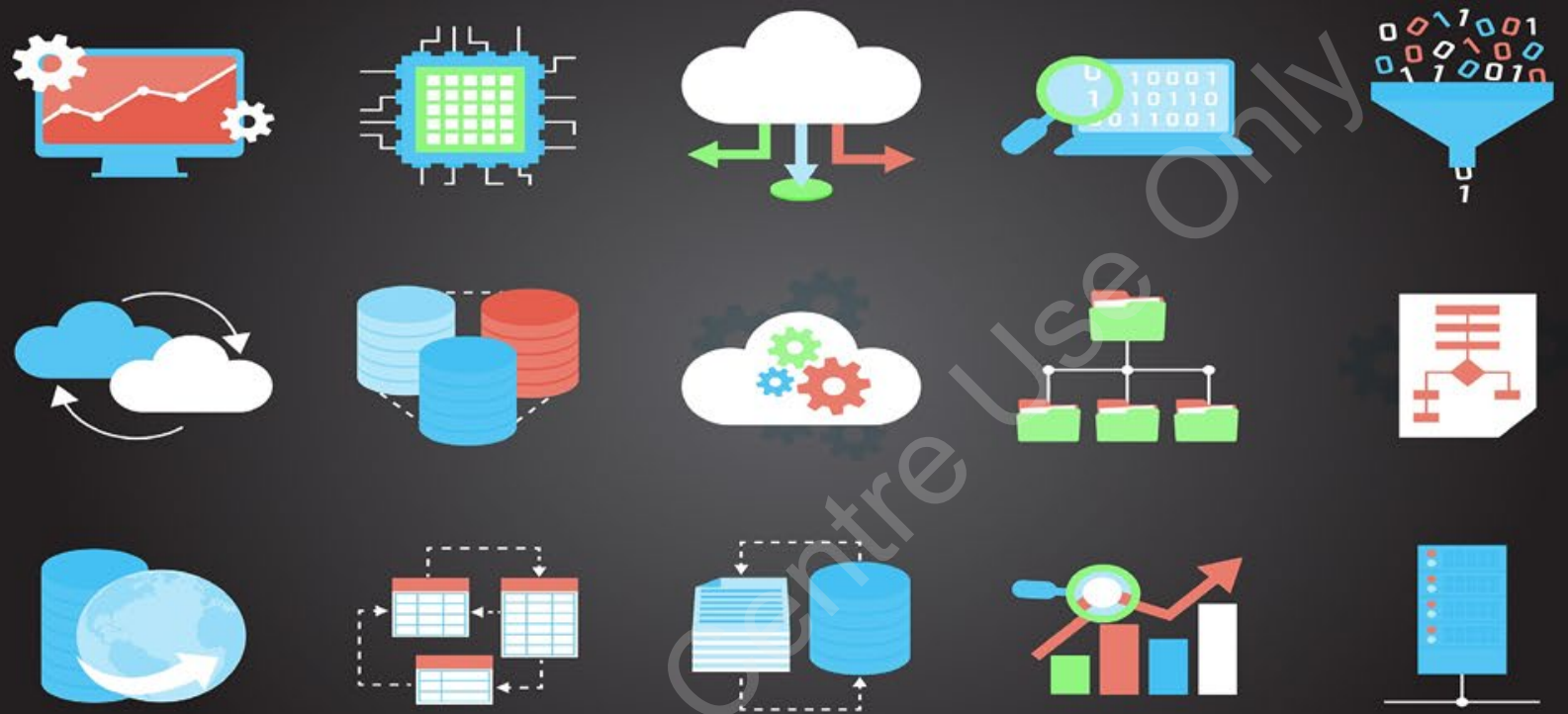
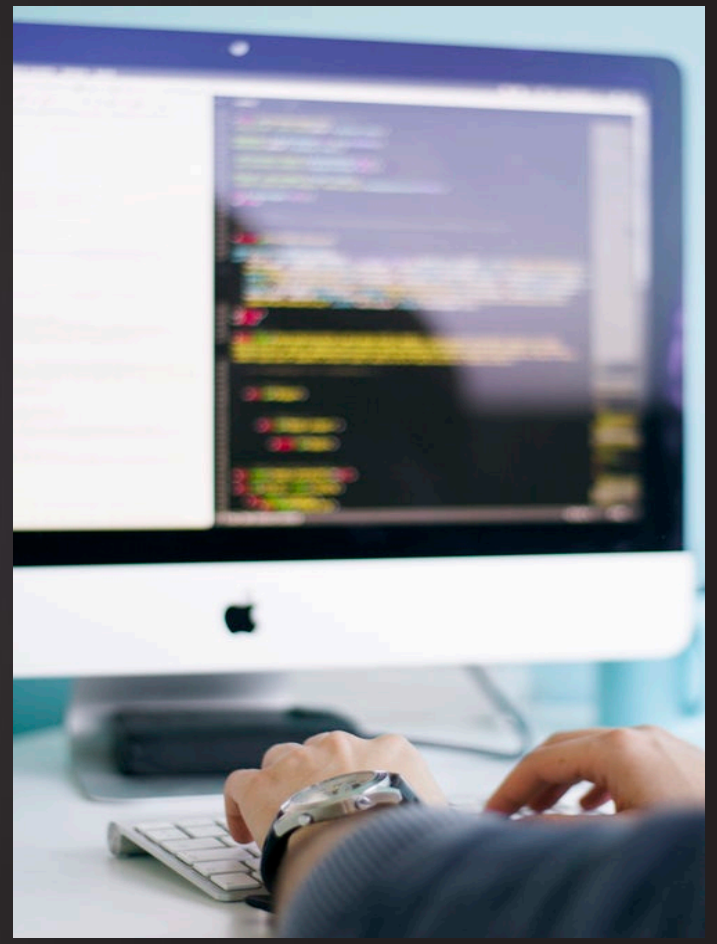


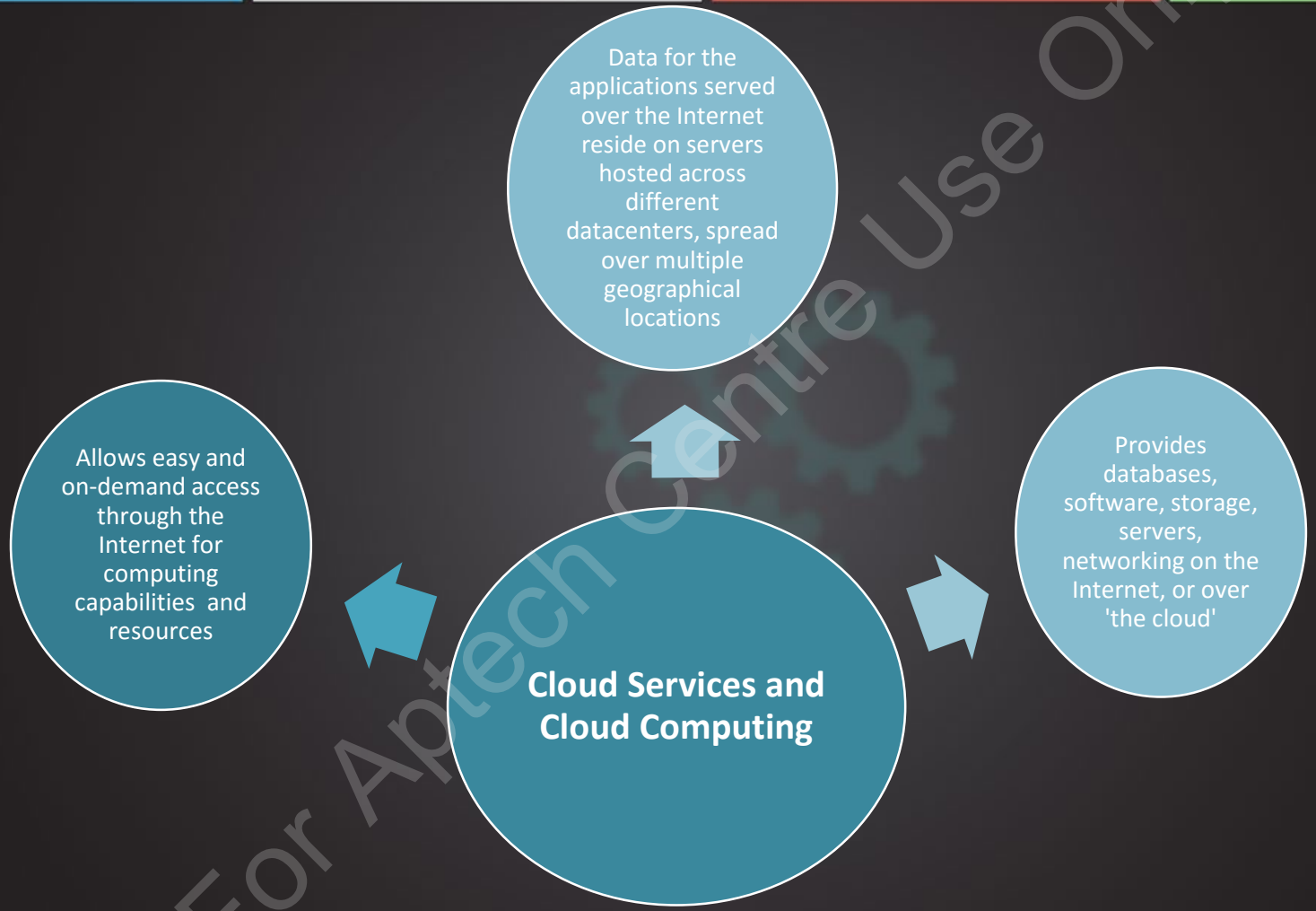
Session 01:
Introduction to Azure Cloud Computing

Objectives

- Describe Azure cloud computing
- Explain distributed applications
- Explain Microsoft Azure cloud services



Overview of Cloud Services and Cloud Computing



Why Use Cloud Computing?

Three primary reasons to use cloud computing:

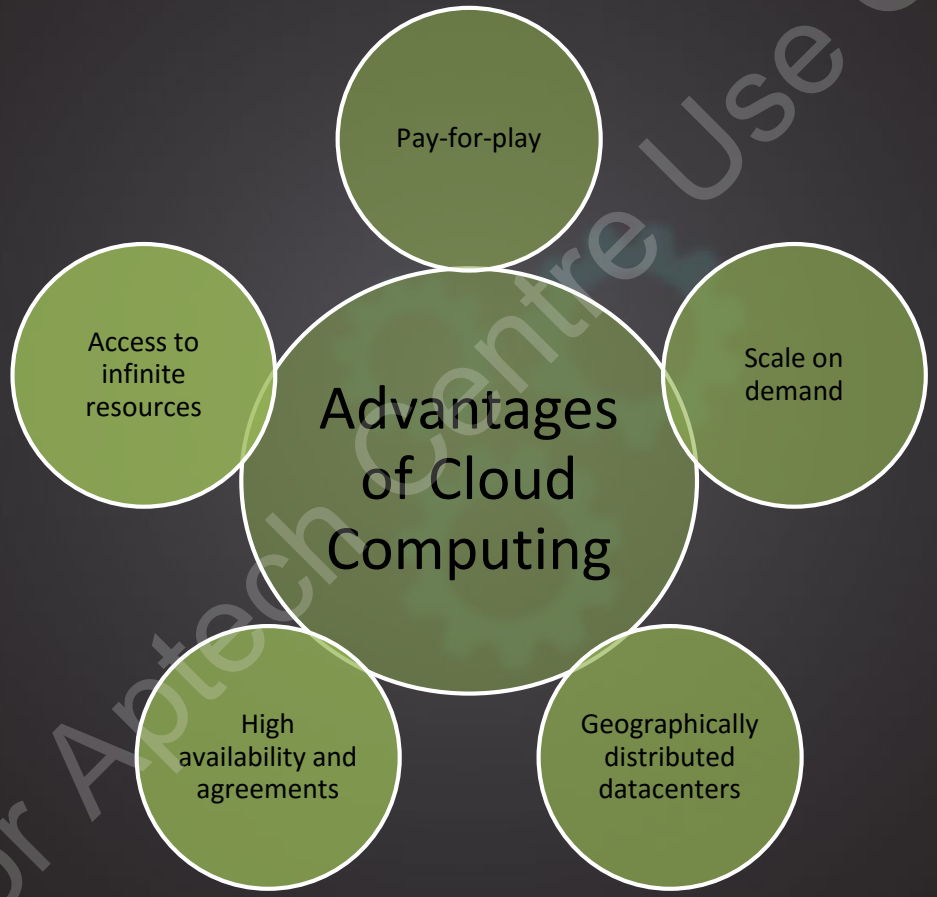
- Economical
- Scalability
- Deployment

Cloud Service Models

Cloud computing platforms can be categorized into:

- Infrastructure-as-a-Service (IaaS)
- Platform-as-a-Service (PaaS)
- Software-as-a-Service (SaaS)

Benefits of Cloud Computing



Distributed Applications

General	• General applications used on systems. Consider an application that enables a user to login at the local machine and get authenticated through the remote domain controller.
Collaboration	• Enable users to work on particular portions of an application at the same time. An example is a project management system in which each user plays a key role.
Real-time	• Applications in which real-time information exchange takes place. An example is an online chat application.
Computational	• Applications in which processing of code takes place on the server. Example is a central code repository.

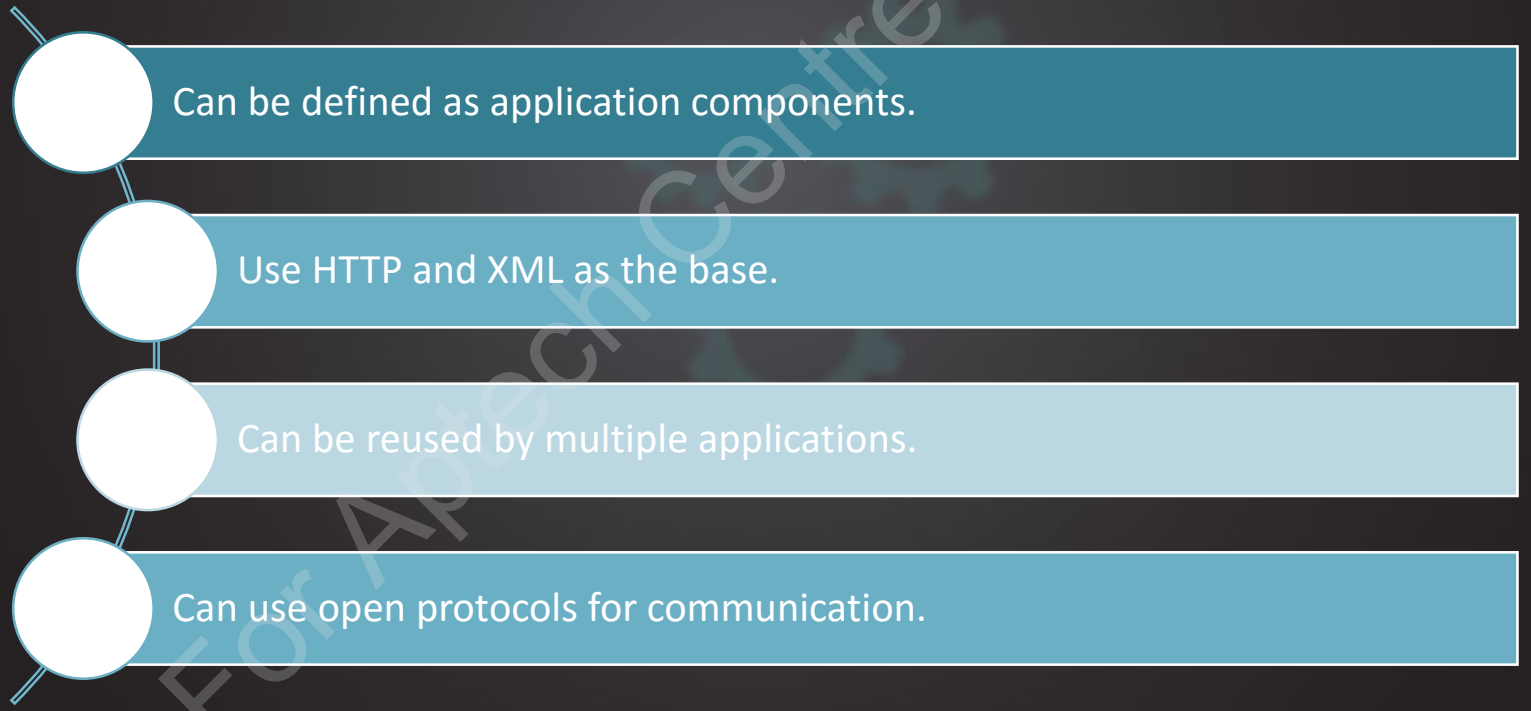
Concept of Service Oriented Architecture (SOA)

SOA is an architecture used to build or extend modular systems in a flexible and reusable manner. SOA defines three service roles mainly:

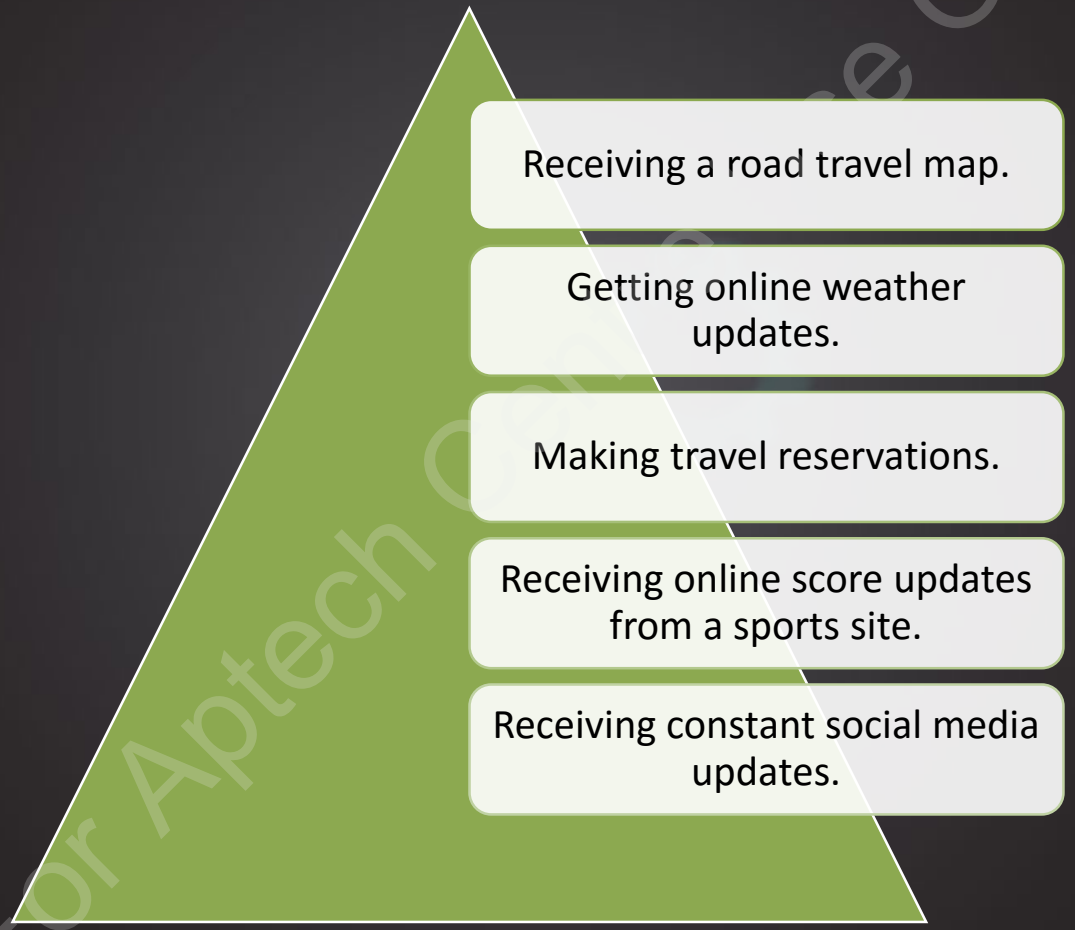
- Service provider (server)
- Service consumer (client)
- Service broker (middleware)

Introduction to Web Services

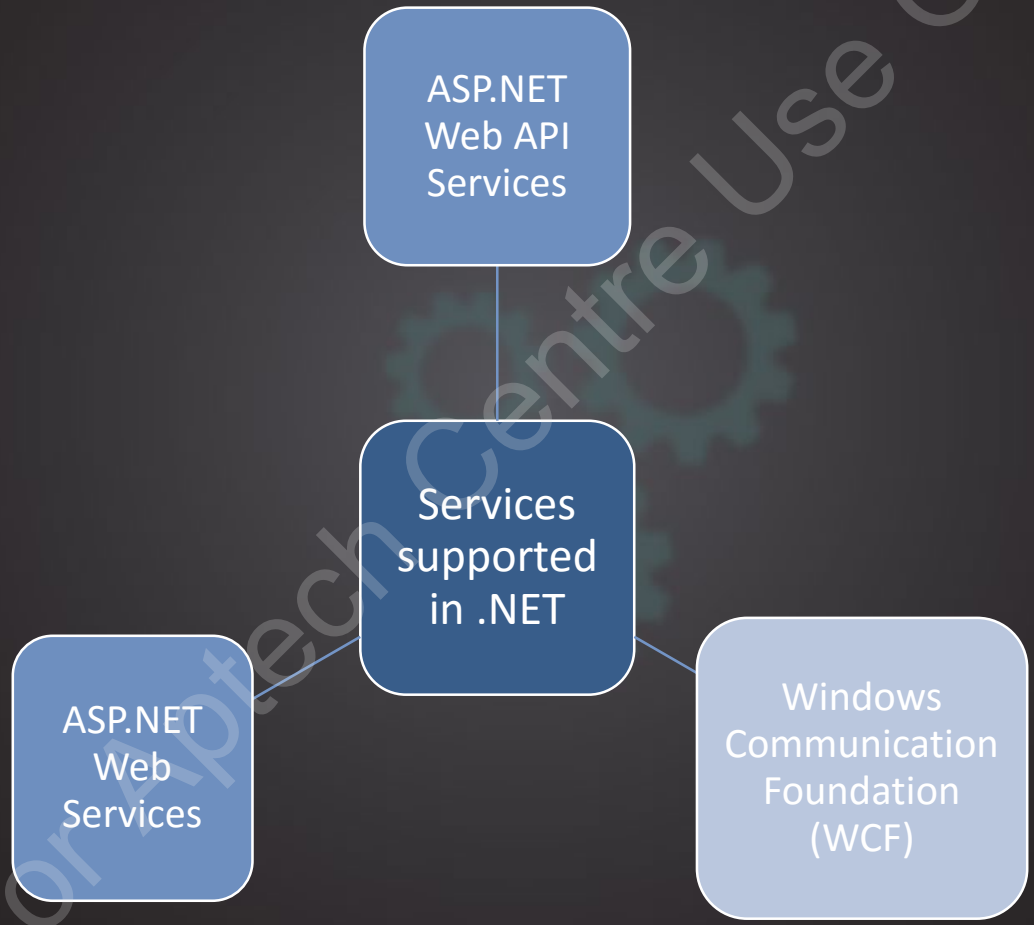
Web services facilitate most flexible infrastructure for the development of distributed cloud applications. Following are the features of Web services:



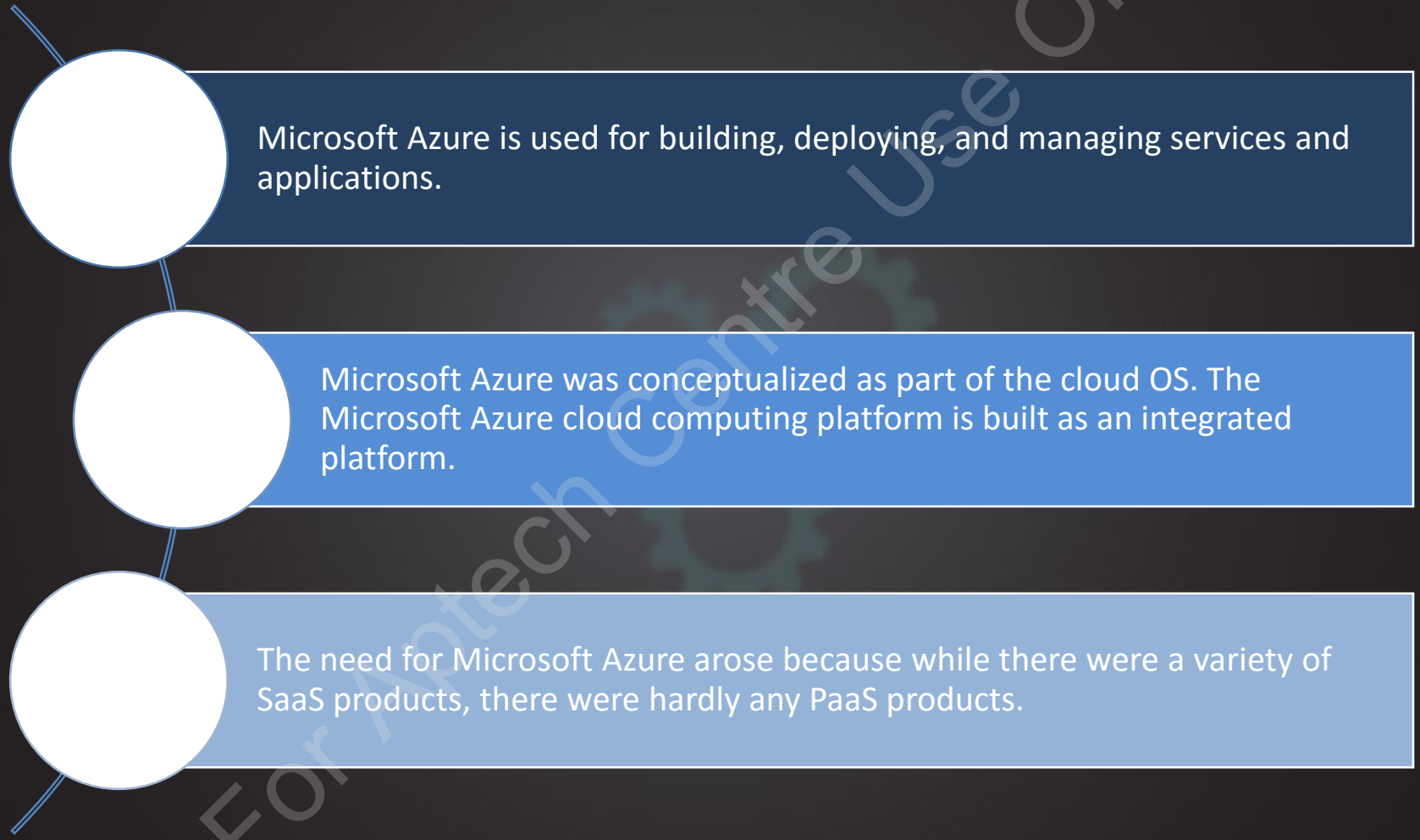
Application of Web Services



Web Services in .NET

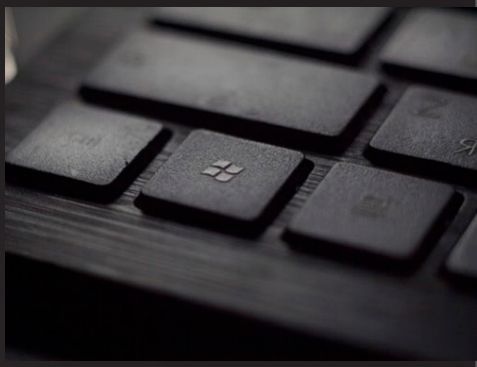


Microsoft Azure Cloud Services



Different Features of Azure

Feature	Description
Service Hosting	Enables creation of own server-side applications.
Service Management	Enables using the Microsoft Azure in-built fabric controller that helps in dealing with application monitoring and management.
Storage	Enables storing data through Azure's three services, namely semi-structured tables, Binary Large Object (BLOB) storage (for storing raw data), and a queue service.
Windows Server	Enables using the same code in Microsoft Azure that has been used in Windows Server.
Development Tools	Enables using many of its in-built development tools.



Summary

- Cloud computing is an approach that enables convenient and on-demand access through the Internet to computing capabilities and resources.
- Cloud computing platforms provide different kinds of services, depending on the delivery model that they deploy, such as IaaS, PaaS, and SaaS.
- Microsoft Azure is a cloud computing platform created by Microsoft and is used for building, deploying, and managing services and applications, and protocols.
- Microsoft Azure works as an integral part of the Azure Services Platform that covers different and separate application, storage, desktop environment, security, and so on.
- Microsoft Azure platform also supports Microsoft standards, programming languages, platforms, and protocols.