Core Cloud Services

1   Introduction to Azure

1.1   Tour of Azure services

1.1.1   Compute

Azure Virtual Machines	Windows or Linux VMs
Azure Virtual Machine Scale Sets	Scaling for Azure VMs
Azure Kubernetes Service	Enables management of a cluster of VMs that run containerized services
Azure Service Fabric	Distributed systems platform
Azure Batch	Managed service for parallel and high performance computing applications
Azure container instances	Run containerized apps on Azure without provisioning servers or VMs
Azure Functions	An event driven, serverless compute service

1.1.2   Storage

Azure Blob storage	Storage service for very large objects, such as video files or bitmaps
Azure File storage	File shares that you can access and manage like a file server
Azure Queue storage	A data store for queueing and reliably delivering messages between applications
Azure Table storage	A NoSQL store that hosts unstructured data independent of any schema

These services all share several common characteristics:

- Durable
- Secure
- Scalable
- Managed
- Accessible

1.1.3   Networking

Azure Virtual Network	Connects VMs to incoming VPN connections
Azure Load Balancer	Balances inbound and outbound connections to apps or service endpoints
Azure Application Gateway	Optiises app server farm delivery while increasing application security
Azure VPN gateway	Access Azure Virtual Networks through VPN gateways
Azure DNS	Provides fast DNS resoponses
Azure CDN	Provides high bandwidth content to customers
Azure DDoS protection	Protects Azure applications from DDoS attacks
Azure Traffic Manager	Distributed network traffic across Azure regions worldwide
Azure ExpressRoute	Connects to Azure over high bandwidth dedicated secure connections
Azure Network Watcher	Monitors and diagnoses network issues using scenario based analysis
Azure Firewall	High security and availability Firewall with unlimited scalability
Azure Virtual WAN	Created a unified WAN connecting local and remote sites

1.1.4   Mobile

It is simple to include features such as SAP, Oracle, SQL Server and sharepoint for mobile apps. Other features of this service include:

- Offline data synchronization
- Connectivity to on-premises data
- Broadcasting push notifications
- Autoscaling to match business needs

1.1.5   Databases

Azure Cosmos DB	Globally distributed database that supports NoSQL options
Azure SQL database	Fully managed relational database
Azure database for MySQL	Fully managed and scalable MySQL relational database
Azure Database for PostgreSQL	Fully managed ans scalable PostgreSQL relational database
SQL server on VMs	Host enterprise SQL server apps in the cloud
Azure synapse analytics	Fully managed data warehouse
Azure Database Migration Service	Migrate your databases to the cloud with no application code changes
Azure Cache for Redis	Caches frequently used and static data to reduce data and application latency
Azure Database for MariaDB	Fully managed and scalable MariaDB database