
Certificate in Cloud Transformation Management

Cloud Migration Strategies

Application Dependency Mapping: A process used in cloud migration to identify and document the relationships and dependencies between different applications and their components. This helps ensure a smooth migration by identifying potential issues that may arise due to these dependencies.

CapEx vs. OpEx: CapEx (Capital Expenditure) refers to the upfront costs associated with purchasing and setting up hardware, software, and other IT infrastructure. OpEx (Operational Expenditure) refers to the ongoing costs of operating and maintaining the IT infrastructure, such as maintenance, support, and upgrades. In cloud migration, shifting from CapEx to OpEx can provide greater flexibility and scalability.

Cloud Adoption Framework: A set of best practices, tools, and resources to help organizations plan, implement, and optimize their cloud migration. The framework provides a structured approach to cloud migration, including assessment, migration, and optimization phases.

Cloud Bursting: A cloud migration strategy that involves using a public cloud to handle peaks in demand, while keeping the majority of workloads in a private cloud. This allows organizations to scale their IT resources up and down as needed, while keeping costs under control.

Cloud Migration Readiness Assessment: A process used to evaluate an organization's readiness for cloud migration. This includes assessing the organization's current IT infrastructure, applications, and data, as well as identifying any potential barriers to migration.

Cloud Orchestration: The process of automating and coordinating the deployment, management, and scaling of cloud resources. This includes provisioning virtual machines, networks, and storage, as well as configuring and managing applications and services.

Cloud Portability: The ability to move applications and data between different cloud environments without modification or loss of functionality. This is important for organizations that want to avoid vendor lock-in and maintain flexibility in their cloud migration strategy.

Cloud Security Posture Management: A set of tools and practices used to ensure the security of cloud environments. This includes monitoring for vulnerabilities, configuring security controls, and implementing access controls and authentication.

Containerization: A technology used to package and deploy applications in a lightweight, portable manner. Containers provide a consistent environment for applications to run in, making it easier to migrate them between different cloud environments.

Data Migration: The process of moving data from one system or environment to another. In cloud migration, this may involve migrating data from on-premises systems to a cloud environment, or from one cloud environment to another.

Disaster Recovery as a Service (DRaaS): A cloud-based service that provides disaster recovery capabilities to organizations. DRaaS allows organizations to replicate their IT infrastructure and data to a cloud environment, providing a cost-effective and scalable disaster recovery solution.

Hybrid Cloud: A cloud computing environment that combines private and public cloud resources. Hybrid cloud environments allow organizations to take advantage of the benefits of both private and public clouds, such as security and scalability.

Infrastructure as Code (IaC): A practice of managing and provisioning cloud infrastructure through code and configuration files, rather than through manual processes. IaC allows for greater automation, consistency, and scalability in cloud infrastructure management.

Landing Zone: A pre-configured cloud environment that provides a foundation for cloud migration. Landing zones include pre-configured security controls, networking, and other infrastructure components, making it easier to migrate applications and data to the cloud.

Legacy Modernization: The process of updating and modernizing legacy systems to take advantage of newer technologies and cloud computing. This may involve re-hosting, re-platforming, or re-architecting legacy systems.

Multi-cloud: A cloud computing environment that uses multiple cloud providers. Multi-cloud environments provide greater flexibility and scalability, but can also introduce complexity in management and integration.

Re-hosting: A cloud migration strategy that involves lifting and shifting applications and data from on-premises systems to a cloud environment without modification. Re-hosting is a quick and cost-effective way to migrate to the cloud, but may not take full advantage of cloud capabilities.

Re-platforming: A cloud migration strategy that involves modifying applications and data to take advantage of cloud capabilities, while still using the same basic architecture. Re-platforming provides a balance between the speed and cost of re-hosting and the flexibility and scalability of re-architecting.

Re-architecting: A cloud migration strategy that involves completely redesigning applications and data to take full advantage of cloud capabilities. Re-architecting provides the greatest flexibility and scalability, but can also be the most complex and time-consuming approach.

Serverless Computing: A cloud computing model that allows applications to run without the need for managing servers. Serverless computing provides greater scalability and cost efficiency, as resources are automatically allocated and released based on demand.

SaaS: Software as a Service is a cloud computing model that provides access to software applications over the internet. SaaS eliminates the need for organizations to manage and maintain their own software, providing greater flexibility and scalability.

Security as a Service: A cloud-based security solution that provides organizations with access to security tools and expertise over the internet. Security as a Service provides greater flexibility and scalability, as resources can be easily scaled up or down as needed.

Storage as a Service: A cloud-based storage solution that provides organizations with access to storage resources over the internet. Storage as a Service provides greater flexibility and scalability, as resources can be easily scaled up or down as needed.

Vendor Lock-in: The dependence on a specific cloud provider's services and technologies, making it difficult to move to a different provider. Vendor lock-in can lead to higher costs and limited flexibility, making it important to consider cloud portability in cloud migration strategies.

Virtual Private Cloud (VPC): A private cloud environment that is provisioned within a public cloud. VPCs provide greater security and control over cloud resources, while still providing the benefits of public cloud computing.

Workload Analysis: The process of identifying and evaluating the workloads that will be migrated to the cloud. Workload analysis includes assessing the size, complexity, and dependencies of workloads, as well as identifying any potential barriers to migration.