Migration Strategies

Azure offers the Database Migration Service which provides a guided migration process for databases including SQL Server, Oracle, DB2, PostgreSQL and MySQL, with automated assessment of pre-migration steps, and migration at scale from multiple sources to a target data volume on Azure. The following are four strategies advised by Microsoft for migrating an application to the Azure cloud.

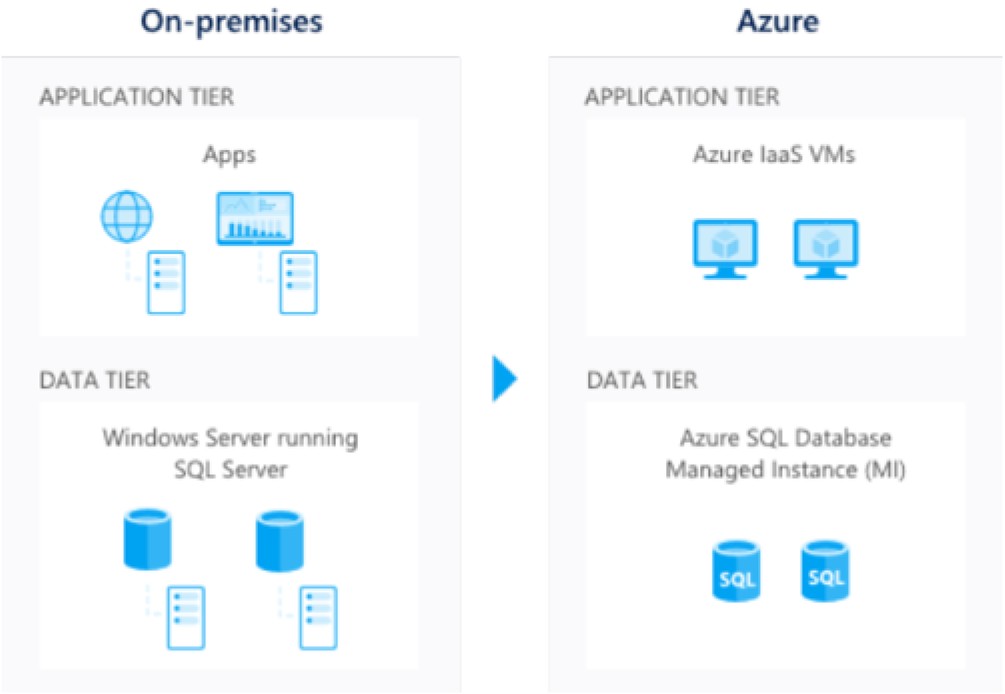
1. Rehost / Lift and Shift

Moving applications from the on-premise environment to the cloud with no

changes to the underlying application. Suitable for: Legacy migrations, teams with limited cloud or Azure skills.

Pros: Smaller risk of breaking the application, faster and easier migration.

Cons: Applications might use cloud resources less efficiently and be more difficult to scale and extend.



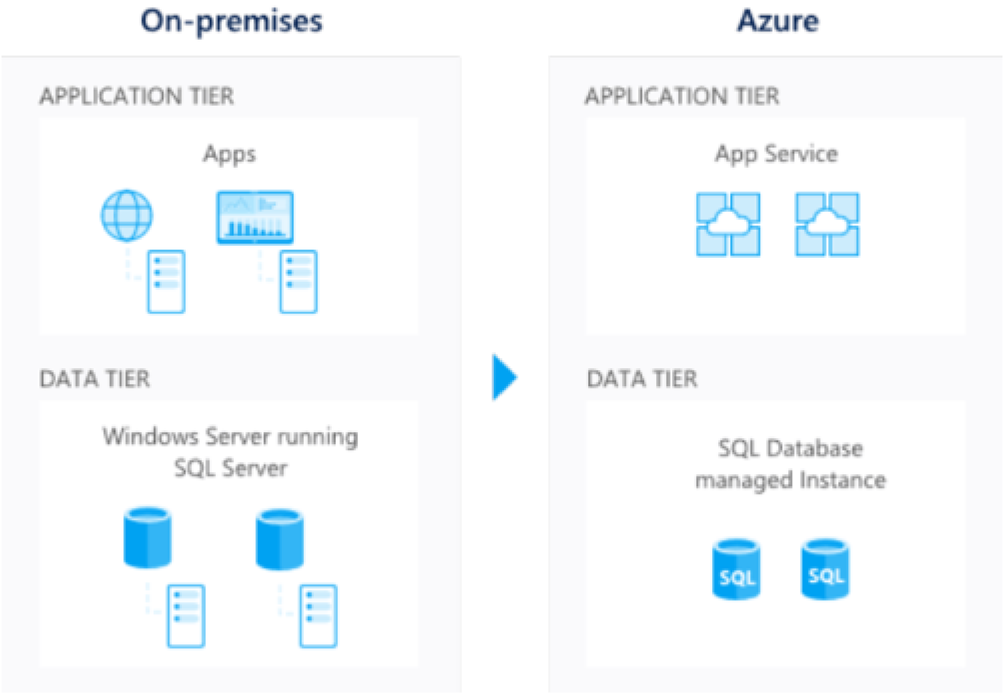
2. Refactor / Repackage

Moving an application to Azure with some code changes but not a major overhaulof the application. This allows you to leverage services like Azure SQL Database Managed Instances and Azure Container Service. You can also leverage Azure's App Service, Azure Functions and Logic Apps to help re-architect, refactor and rebuild your apps in Azure.

Suitable for: Sensitive and business-critical applications where disruption of ongoing functionality is a concern, but there is a need to modernize or improve infrastructure.

Pros: Fast and relatively easy, but lets you improve your infrastructure, for example by adding DevOps automation tools or moving to container-based deployment.

Cons: Cannot make major architectural changes—for example, splitting the application into microservices, which allows substantial efficiencies in the cloud

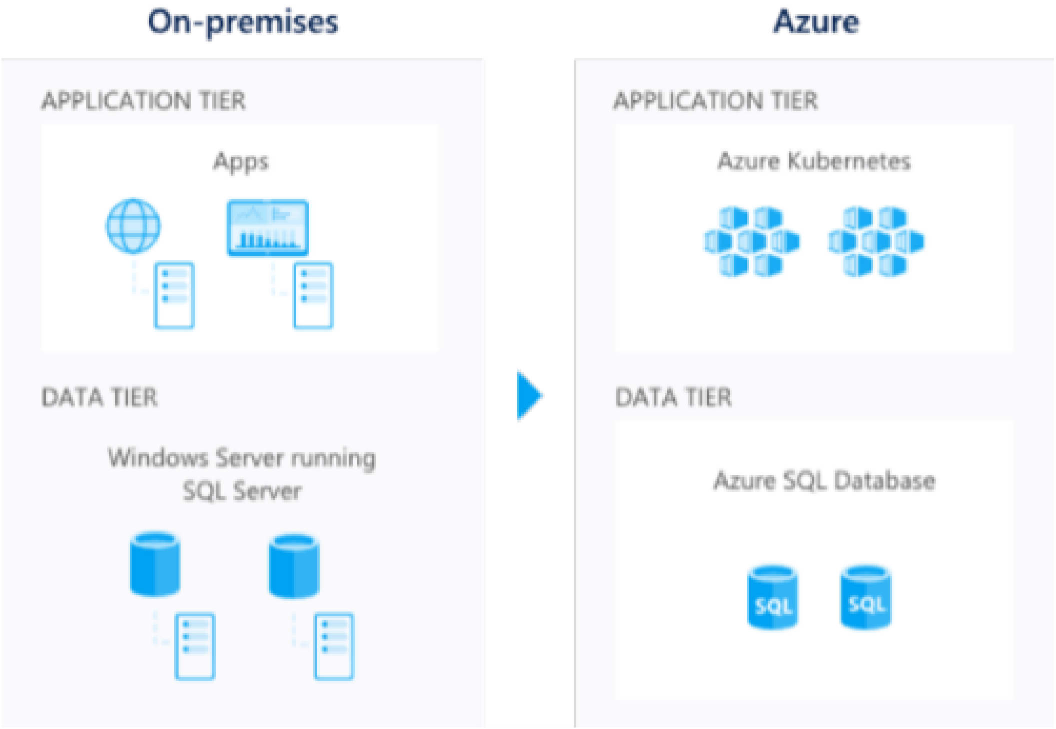


3. Rearchitect

This strategy involves revamping the codebase of the application and moving it to a cloud-native architecture.**Suitable for**: Applications that need maximum agility, scalability and flexibility in the cloud.

Pros: Allows you to create a highly scalable, resilient, easily deployable application that can leverage the full power of the Azure cloud.

Cons: Complex, expensive migration with a high risk of faults and service disruption in the early deployment stages.



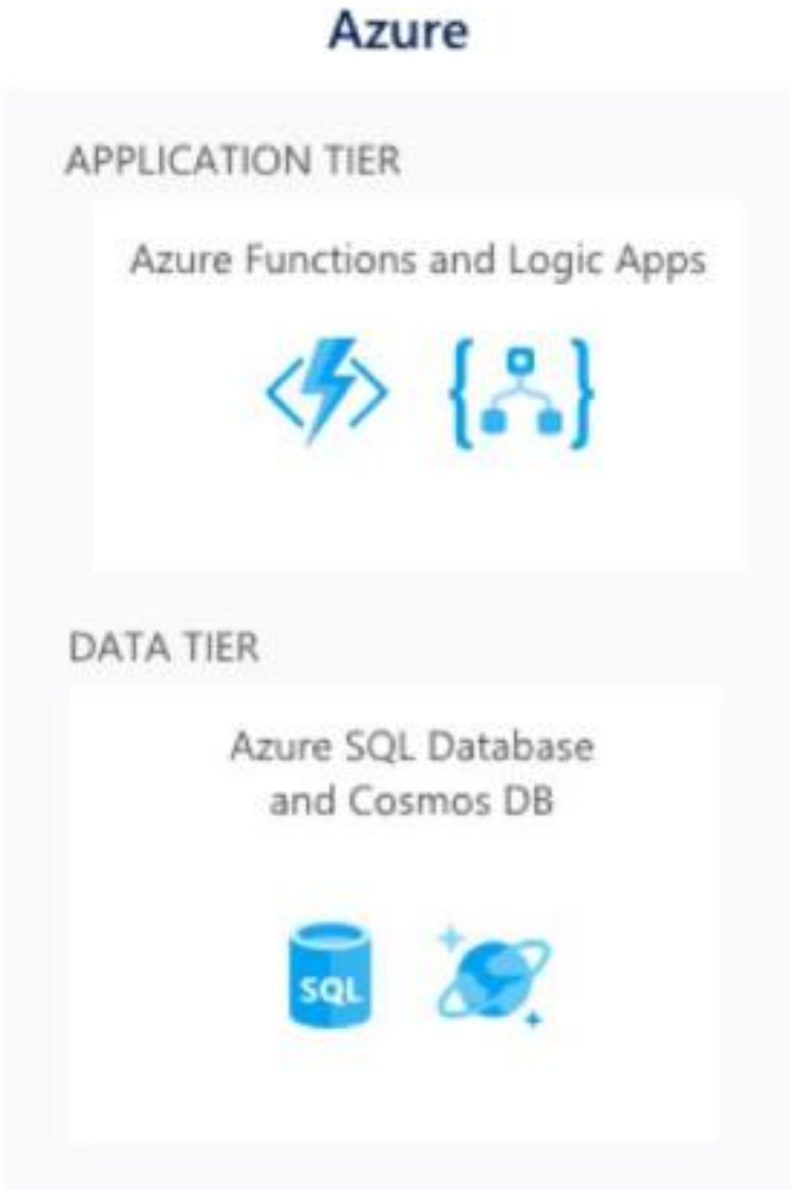
4. Rebuild

The rebuild strategy involves putting aside the old application and building the same functionality from scratch using the Azure Platform as a Service (PaaS) capabilities. Leverage services like Azure Functions and Logic Apps to build the application tier, and use Azure SQL Database or other hosted Azure data services for the data layer.

Suitable for: Applications with relatively low complexity and few dependencies on other business processes.

Pros: Inexpensive, avoids the complexity of software licenses. No dependency on middleware or existing infrastructure.

Cons: You will typically not get the same level of functionality as in a custom-built app. Evaluate in advance which parts of the app can be successfully rebuilt in the Azure environment and which cannot


Azure
APPLICATION TIER
Azure Functions and Logic Apps
DATA TIER
Azure SQL Database and Cosmos DB
SQL