

9-step CLOUD MIGRATION checklist

Maximize your chances of a successful cloud migration process



1

Establish the Migration Architect role:

Assign a dedicated migration architect to oversee the entire migration process. This individual will be responsible for technical decisions, planning, and execution. The migration architect ensures that all aspects of the migration align with business objectives and coordinates with different teams to address issues promptly.



2

Define the suitable level of cloud integration:

Determine the level of integration that suits your needs. A shallow "lift and shift" approach involves minimal changes to the existing architecture, making it faster and less risky but potentially missing out on cloud-native benefits. A deeper integration requires more extensive modifications to leverage cloud capabilities such as auto-scaling, serverless computing, and cloud-specific data stores. While this approach is more complex and costly initially, it can provide better performance and cost efficiency in the long run.



3

Choose between a single cloud provider and multi-Cloud:

Decide whether to use a single cloud provider or adopt a multi-cloud strategy. A single-provider approach simplifies optimization and management but risks vendor lock-in, making future migrations challenging. A multi-cloud strategy offers flexibility and avoids dependency on a single provider but adds complexity in managing different environments and ensuring seamless interoperability. Evaluate your long-term goals and resource capabilities to make an informed decision.



4

Establish cloud KPIs and their baselines:

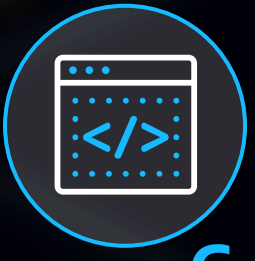
Define key performance indicators (KPIs) specific to cloud environments to monitor migration success and identify potential issues early. Cloud KPIs should focus on aspects such as user experience, application performance, uptime, and cost efficiency. Establish baselines for these metrics before migration to set clear performance targets and help diagnose problems post-migration. This will enable you to track progress and make data-driven adjustments as needed.



5

Prioritize components to be migrated:

Develop a strategic plan for migrating application components. You can choose to migrate components sequentially or all at once, depending on your resources and deadlines. Prioritizing components based on their business impact ensures that critical services are migrated first, minimizing disruptions. Start with external services that interact directly with end-users, or begin with internal services that are less likely to affect user experience. This approach helps in managing risks and maintaining operational continuity.



6

Refactor your application:

Refactor your application to optimize it for the cloud environment. This may involve restructuring code, breaking monolithic applications into microservices, and utilizing cloud-native services such as serverless computing and cloud-specific databases. Refactoring enhances the application's scalability, performance, and flexibility, leading to long-term cost savings and better resource allocation. This step is crucial for maximizing the benefits of cloud migration.



7

Develop a data migration plan:

Create a comprehensive data migration plan to ensure data integrity, security, and minimal downtime during the transition. You can choose a bidirectional synchronization approach to keep data consistent between on-premises and cloud databases or switch databases when appropriate. Ensure that all data access methods are compatible with the cloud environment to avoid performance issues. A well-defined data migration plan minimizes risks and ensures a smooth transition of data to the cloud.



8

Switch over the production system:

Plan the transition of your production system to the cloud carefully. Depending on the complexity of your application, you can either switch all traffic to the cloud at once after transferring and validating the entire application or start with a small group of users to test the new environment. This phased approach allows you to identify and resolve any issues before a full-scale migration, ensuring a smoother transition and minimal disruption to end-users.



9

Review Application Resource Allocation:

Regularly review and adjust application resource allocation to maintain cost-effectiveness and handle demand efficiently. Cloud environments offer dynamic resource allocation, allowing you to scale resources up or down based on real-time needs. Monitoring usage patterns, predicting future demand, and leveraging automation tools for resource management ensure optimal performance and cost savings. This continuous review process helps in adapting to changing requirements and maintaining efficient operations.