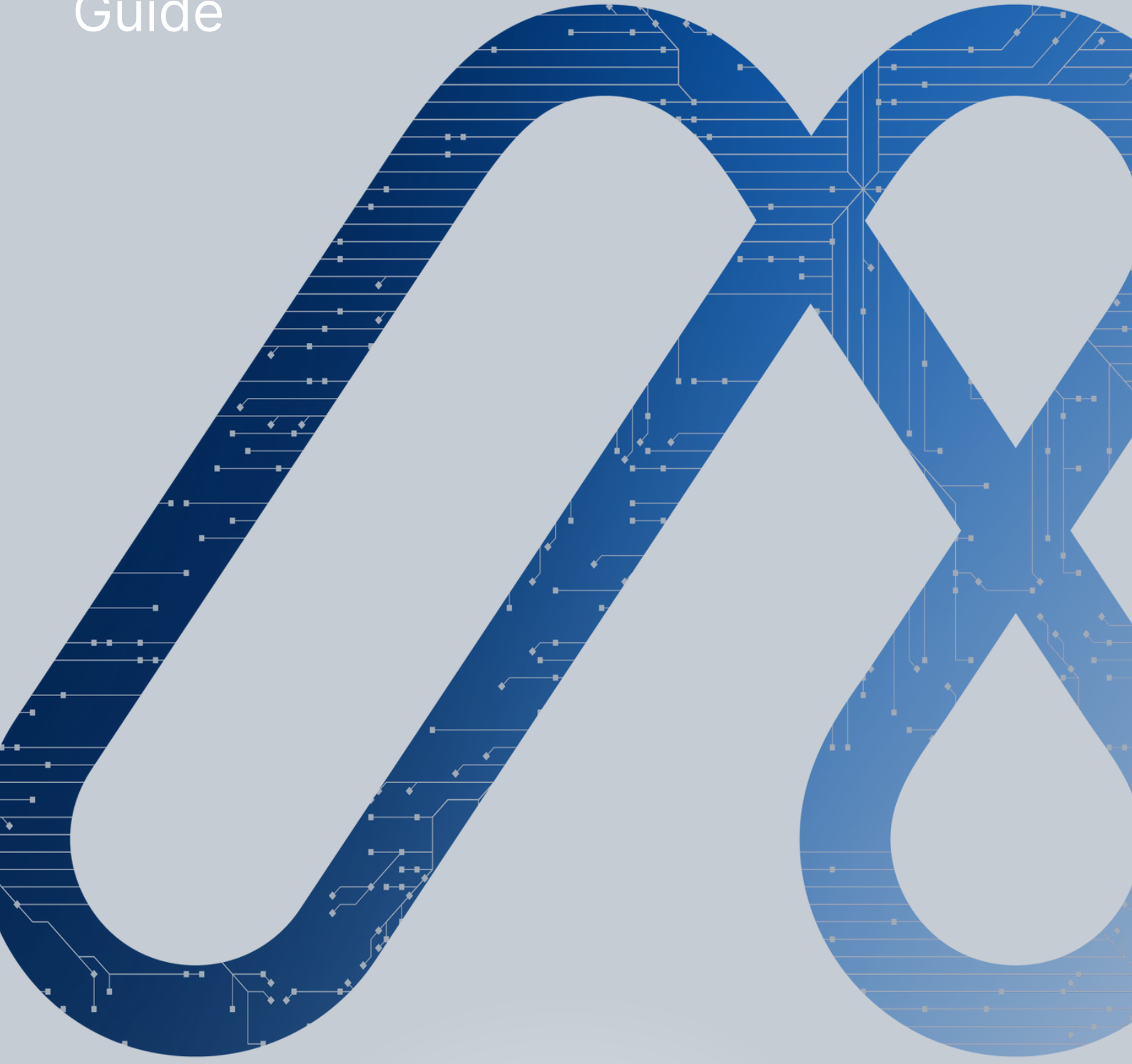
Cloud Migration Strategy

Guide



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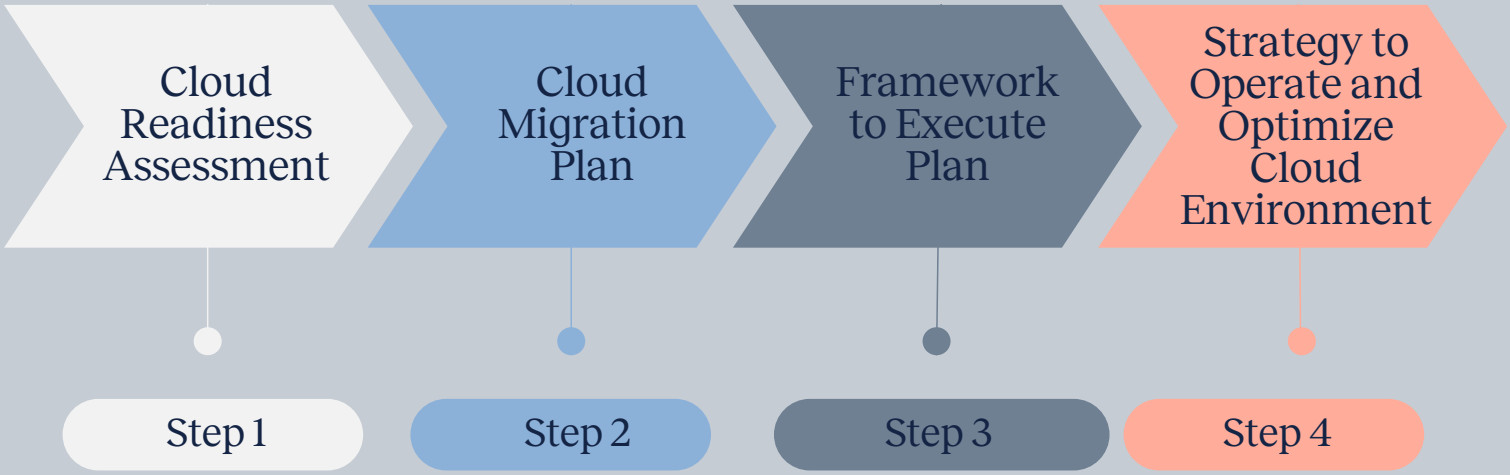
This guide provides a step-by-step approach to creating a cloud migration strategy that will guide a smooth move to the cloud with minimal disruptions to your business operations:



It also covers key factors to consider so that you can optimize existing cloud environments to reduce costs, increase performance, and address technical debt.

1 Cloud Readiness Assessment

Before moving to the cloud, review your current environment, data, regulatory and security concerns, existing on-premises and cloud infrastructure, applications, and dependencies.

The steps of a cloud readiness assessment should include:

- One-on-one information gathering: Collaborate with essential IT and business stakeholders to establish a shared vision and understanding of the implications and objectives of a cloud migration project.
- Identify goals and opportunities: Document what you hope to achieve with the cloud migration. Calculate the ROI to help prioritize the objectives with the greatest potential business benefit.
- Determine cultural readiness: Ensure key stakeholders are prepared — they know what to expect — from the timing to how the migration impacts their work processes and what kind of training and support is required.
- Determine what will be migrated: Ensure key workloads are successfully moved and avoid issues related to licensing, networking, and data volumes by determining which applications, processes, and infrastructure will be migrated to the cloud.
- Calculate current TCO: Consider the total cost, including physical data center property, cooling, electricity, physical security, disaster recovery, hardware and licensing, and data center staff.

2 Cloud Migration Plan

The cloud migration plan should make it clear where you're coming from, where you're going, and who's going to support you along the way. Include the following elements:

- Workload Assessment and Prioritization: Determine what can be migrated and decide what mechanism you will use for the data ingestion. Consider things like embedded analytics or other integrations, as well as your authentication mechanism.
- Platform Selection: Decide on the appropriate platform — SaaS for ease, PaaS for control, and IaaS for versatility. It's not uncommon to leverage all three options in a comprehensive cloud-based modern data architecture.
- Macro Execution Plan: Think about your approach — big bang is fast but riskier, phased is slower but safer, and a hybrid approach deploys architecture to the cloud in phases.
- Micro Execution Plan: Consider the 6R cloud migration strategy (Rehost, Re-platform, Replace, Re-architect, Retire, and Retain), and assess each tool or workload to determine the best, starting with what to retire and retain.
- Foundational Architecture: Infrastructure, systems, and processes must be in place before a cloud migration. Top considerations include networking, identity and access management, security, data protection framework, and automation.

3 Framework to Execute Plan

Once you have a cloud migration plan, you need a framework to execute it. Consider these best practices:

- Establish foundational framework: Set up cloud provider, identity access management, networking, security, tagging, cost management, and automation.
- Migrate data: Choose phased or all-at-once approach for database migration.
- Migrate applications: Verify connectivity, configuration, and scheduled jobs.
- Validate and document: Verify accuracy and reliability and document the process.
- Optimize and adapt: Make minor adjustments for cloud adaptation.
- Cutover: Occurs multiple times in a phased migration.

4 Strategy to Operate and Optimize Your Cloud Environment

Once you have migrated to the cloud, you need a strategy to operate and optimize your cloud environment. Consider these best practices:

- Cost Optimization: Rightsizing enables flexible growth without multi-year plans and reserved/spot capacity can reduce infrastructure costs by 20-50%.
- Process Automation: Automate patching, test backups and disaster recovery, and use autoscaling to manage seasonal demand and save up to 70% on resource shutdowns.
- Improve Operational Efficiency: Proactively monitor hardware, optimize data transfer, and keep up with new platform features.

Talk to an expert about your cloud migration strategy.

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