

5 Best Practices for Building an Agile Multi-Cloud Model



Taking the time to plan your journey before you begin, and prioritizing the steps along the way, help ensure you achieve your multi-cloud objectives faster and more easily. These 5 best practices will give you a big head-start and smooth your path to multi-cloud advantages.

- 1 Identify Barriers
- 2 Strategy & Operating Model
- 3 Workload Modernization
- 4 Workload Placement
- 5 Continuous Improvement



1 Identify and resolve potential barriers up-front to mitigate execution risks

Anticipating and resolving potential barriers is a critical first step. It's important to avoid issues that can derail your journey, such as lack of visibility, inconsistent security models, user policies, and diverse management tools—any of which can jeopardize your multi-cloud objectives. Including the right stakeholders and setting expectations early will accelerate your multi-cloud journey and reduce costs and headaches over the long run.

- Operational visibility**
Utilize telemetry and other data sources for insights into where apps are deployed, data is stored, and resources are used.
- Governance policies**
Develop policies for how resources are accessed and utilized, and where data is stored, whether in the data center, public cloud, or at the edge.
- Organizational culture and maturity**
Prepare the organization and nurture the talent pool for new ways of working.

Learn more by reviewing [the Flexera 2023 State of the Cloud Report](#). It's a great resource for understanding the current trends and objectives around cloud adoption.

2 Create or refine your cloud strategy and operating model

Define your cloud business objectives and initiatives, which will help you prioritize areas of investment to achieve your goals. Determine how you will measure success; create a detailed plan for how you will deploy and how you will manage and govern your multi-cloud infrastructure during ongoing operations.

- Cloud strategy**
Use a structured approach to identify and evolve goals for using the cloud, benefits expected, priorities, and measures of success.
- Cloud operating model**
Develop the tactical plan for deployment, ongoing management, and governance.

Learn more about [understanding cloud operating models](#).

3 Assess portfolio of applications and workloads

A key decision when moving to multi-cloud is what to modernize and when. You'll want to prioritize applications that will have the most positive impact on your business once they're modernized, as well as the amount of effort required to modify each application. Modernizing in stages will make your multi-cloud journey easier and much less daunting than worrying about the modernization effort required for everything at the same time.

- Assessment**
Assess your application portfolio, including dependencies, data accessed, connectivity requirements, and current platform support.
- Modernization objectives**
Prioritize applications that benefit most from modernization, evaluating options, cost, and complexity.
- Engage experts for guidance**
Collaborate with technology providers and service providers for guidance on the best paths.

As AI capabilities are being increasingly integrated into many existing applications and workloads, modernization may be required to take advantage of those capabilities. Intel® Xeon® Scalable processors, with Intel® Advanced Matrix Extensions (Intel® AMX), are an especially good choice for those applications because of their built-in AI acceleration.

Migrating to the cloud can be flexible, whether you prefer to move all applications to a new environment or keep some as they are. The "5 Rs" refers to the common cloud migration strategy options.

Rehosting	Also known as "lift and shift," this involves moving data as is to a new environment. With rehosting, there are minimal changes to underlying applications, which could be beneficial for a quick move to the cloud. This strategy is common for Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) offerings.
Replatforming	Also known as "lift, tinker, and shift," Replatforming is an application migration strategy for transitioning an existing app from a legacy platform to a modern cloud platform such as containers. Replatforming helps enterprises strike a balance between simple rehosting and complex refactoring.
Refactoring	Refactoring rewrites one or more components and reengineers applications for cloud services to improve their design or performance while retaining their core functionality. This strategy can use IaaS, PaaS, and SaaS offerings.
Replacing / Retiring	Usually deployed as Software as a Service (SaaS), Replacing switches legacy applications to newer, yet similar, applications in the cloud. Replacing essentially exchanges a workload to a fully cloud-hosted application that is mostly managed by a vendor and may be combined with Retiring the existing application if outdated, limited-use, or expensive.
Retaining	This migration strategy keeps applications as they are. It's useful when applications are too critical to move or need considerable planning. It can also help businesses maximize their utilization of legacy infrastructure.

How Intel can help:

- The [Intel® Migration Advisor by CloudGenera](#) can help guide you to the right decisions to meet your performance, security, and governance requirements.
- Learn more about [the benefits of choosing Intel-powered clouds](#).

4 Evaluate workload placement factors

Workload requirements determine the infrastructure required, which will point to the best placement of that workload to meet the workload and business needs. The Intel® Migration Advisor can help guide you to the right decisions to meet your performance, security, and governance requirements.

- Cloud operation requirements**
What mix of clouds—on-premises, private, public, and edge—will best meet my organization's objectives?
- Workload requirements**
What are the deployment requirements for each workload in terms of access, performance, security, infrastructure? Where is the data being generated or ingested?
- Infrastructure consistency**
How can we ensure consistency between underlying infrastructure for workload placement flexibility?
- Sustainability**
Identify ways to reduce power consumption to meet your sustainability objectives while still fulfilling workload requirements.

You'll want to ensure that any applications you're migrating to the cloud run with the same predictable responsiveness as they did in your data center. Examine and evaluate the infrastructure underlying each instance type. Each instance offers different capabilities, and different generations of technologies, and security levels. Ensure the instances chosen can meet workload requirements for performance and security.

How Intel can help:

- [Intel® Cloud Optimizer by Densify](#).
- Learn how to defeat cloud security threats with [Intel silicon-enhanced security technologies](#), including confidential computing.
- Learn more about [Intel® Xeon® Scalable processors](#).

5 Embrace an agile approach to continuous improvement

There is always room for improvement and optimization as you face and resolve new challenges and discover better methods for simplifying both ongoing operations and future deployments.

- Learn and adapt**
Continuously monitor and manage against objectives and success metrics, fine-tuning as needed.
- Scale**
Scale the most successful approaches as you continue to modernize subsequent workloads.
- Optimize**
Plan to adjust the operating model based on actual outcomes and evolving business needs.

How Intel can help:

- [Granulate](#), an Intel company, improves application performance and reduces costs by up to 45% through continuous, automated workload optimization to enhance responsiveness for users and slash TCO for your cloud spend. And you can realize those results without any code changes.
- [Scale AI](#) everywhere. Intel's approach is to build AI into all our platforms and to keep it open — driving software optimizations upstream into AI/ML frameworks to promote programmability, portability, and ecosystem adoption.

Learn more about how to get the most out of your multi-cloud initiatives by visiting us on the web:

<https://intel.com/cloud>

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