

Cloud Migration Strategies & Approaches

by Anil Janardhanan | September 10, 2021



Every business is unique, and hence their application portfolios will be different. Cloud migration path for applications will vary from business to business. Every cloud migration initiative should start by analyzing their priorities by asking questions like:

1. How fast can the migration be completed?
2. Should we migrate the entire enterprise applications together or migrate them individually?
3. Do we have the required talent in-house or need the help from an experienced cloud migration service partner?

Answers to these questions will help in deciding the most appropriate cloud migration strategy for the business. There are two commonly used paths to cloud migration – the accelerated path and the conventional path. The accelerated path is suited to particular situations, while the conventional path is the most common. This blog will discuss in detail the process, strategies and approaches leveraged in the conventional migration approach.

What is an accelerated cloud migration path?

Accelerated cloud migration is typically leveraged to quickly transition existing applications to the cloud, mainly to gain the benefits of the cloud faster. This path is primarily suited for mid-sized businesses, as their portfolio of applications will be relatively smaller. Employing

automation and tools will enhance success with accelerated migration and will deliver shortened time at lower costs.

The main tasks involved in an accelerated cloud migration path are:

- Identify the applications and their subsystems and group them as cohesive groups
- Create the target cloud platform with all required features such as security, resiliency, monitoring & management tools
- Build automated testing and application monitoring in the target environment
- Migrate the groups of applications to the target environment
- Tune resources allocation and consumption based on 2 to 3 months of production operation for optimization of cost.

What is a conventional cloud migration path?

This migration path is typically recommended for medium to large enterprises. A conventional migration path requires a significant investment of time and resources. The complexities involved in large enterprises are many. They could include several diverse stakeholders, applications with varying complexities and inter-dependencies, legacy versus modern applications, lack of documentation, resistance to change, etc. These complexities pose huge risks and business impacts from the migration to the cloud if not thoroughly analysed and create a comprehensive migration plan. You need an experienced cloud migration partner to help you with.

The journey towards a cloud environment has its novel challenges as well as opportunities. Gadgeon's cloud migration strategy addresses the functional and non-functional requirements to reduce future reworks and ensure higher investments value. We help you navigate through them by preparing a clear roadmap using a three-phased approach that maximizes your benefits and minimises risks.

Typical challenges

1. Lack of strategy – Every successful cloud migration requires rigorous end-to-end analysis and planning, leading to a clear cloud migration strategy. Establishing a detailed business case with buy-in from all stakeholders is a must. The business case will drive the migration strategy for the enterprise.
2. Cost management – Have a clear set of key performance indicators (KPIs) that clearly articulate what is planned to spend and the expected savings from the migration. Typically cloud environment is dynamic, and costs can change rapidly depending on the

resources consumed as applications scale. Cost management is critical in ensuring the successful completion of your cloud migration initiatives.

3. Cloud vendor lock-in – Migration of applications from one cloud platform to another is a lengthy and costly process. Enterprises start cloud services from one vendor and later find it difficult to switch providers if the current platform doesn't support their requirements. A balanced decision regarding the cloud platforms must be made considering the portfolio of applications, business case, and strategy adopted.
4. Security and compliance – One major challenge seen with cloud migration is the data security and associated compliances gaps. Typically, data security will be the enterprise's responsibility, while the cloud platform provides robust security measures for the infrastructure. An experienced migration partner can help in designing and implementing appropriate security processes along with tools.

Cloud Migration Process

Cloud migrations of large and complex applications are associated with higher risk with crucial business impact. These risks are mitigated by Gadgeon through planning and implementation of an end-to-end iterative migration process that leverages industry best practices, tools, and methodologies. A three-phase migration process with sub-steps, as described in the figure below, is what we recommend.

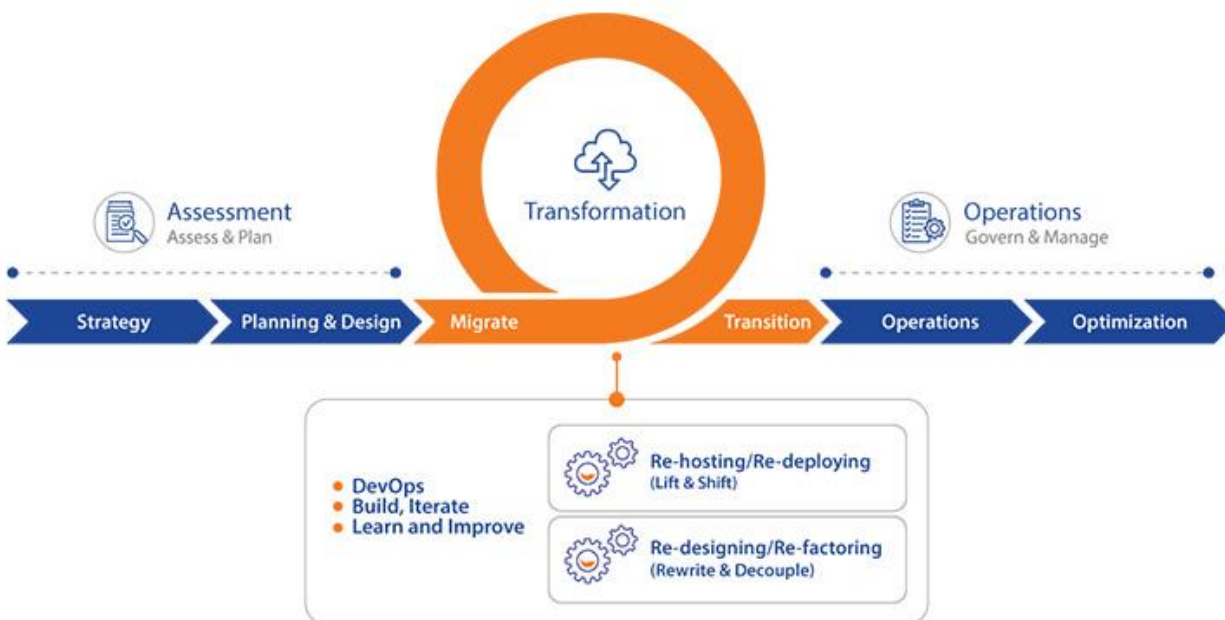


Figure 1 - Gadgeon's Cloud Migration Process

Cloud Migration Strategies or Approaches

There are different strategies when it comes to the migration of applications to the cloud. Multiple factors influence the strategy, and it could vary from the portfolio of applications to individual ones. Enterprises should examine all the factors for their application while picking up the most suitable strategy. Brief descriptions of effective migration strategies are as follows:

Seq. No	Strategy	Description
1	Re-hosting	<ul style="list-style-type: none"> • Also known as "Lift and shift". • Redeploy your existing data and applications on the cloud server as is. • It is most suited for companies new to the cloud and cases where modifying the application code is complex. • This help companies to reduce their on-premise infrastructure expenses immediately
2	Re-platform	<ul style="list-style-type: none"> • Also known as "Lift, Modify, and Shift". • With this strategy, the application will be tweaked and optimised for the cloud. • The core architecture of the application will remain intact; however, adjustments will be made to enable leveraging of cloud-based tools. • This approach is most suited for companies who have a conservative approach to the cloud and want to achieve benefits of cloud-like improved system performance.
3	Revise	<ul style="list-style-type: none"> • It is very similar to the previous platform strategy. However, it is called revising when more changes are required to the architecture and the codebase while moving to the cloud.
4	Rebuild	<ul style="list-style-type: none"> • The rebuilding strategy takes the revised strategy further by discarding the existing code base and replace with a new set of code. • This strategy will require more time and cost. It is considered when the existing applications do not meet their current business needs.
5	Replace	<ul style="list-style-type: none"> • Replacing with another solution will address the challenges associated with the rebuild approach. • Replacing involves migration to a third-party, pre-built application. • Here, migration activities mainly restrict data migration from the current environment, and everything else will be new. • This is driven by businesses need to leverage cloud capabilities that are not available now.
6	Retire	<ul style="list-style-type: none"> • While assessing the application's readiness to move to the

		cloud, applications could no longer be helpful to the business. In this case, retire those applications by simply turning them off.
7	Retain	<ul style="list-style-type: none">• There could be applications due to various factors not get prioritised for moving to the cloud.• The application may have gone through an upgrade recently etc.• In this case, retain the application as-is and can revisit for cloud migration later.



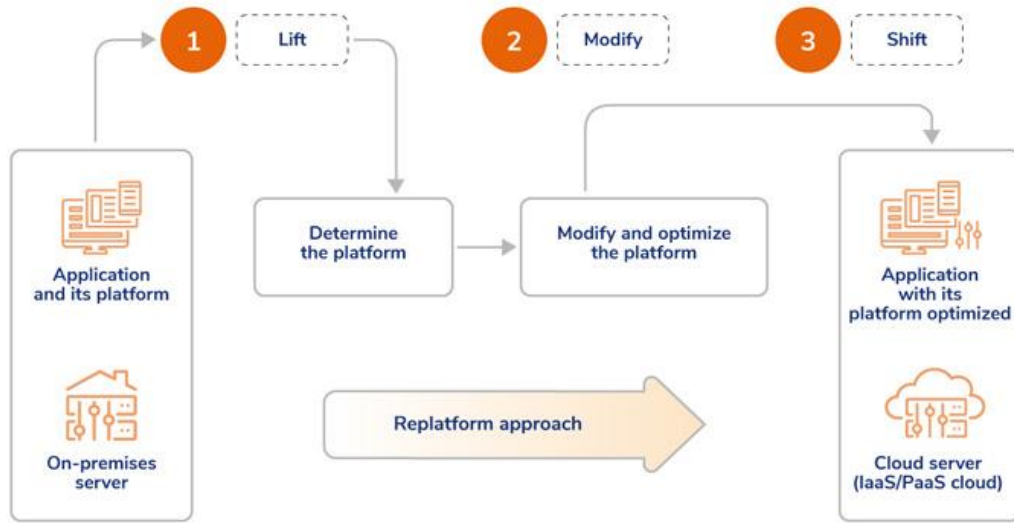


Figure 2 - Replatform Approach

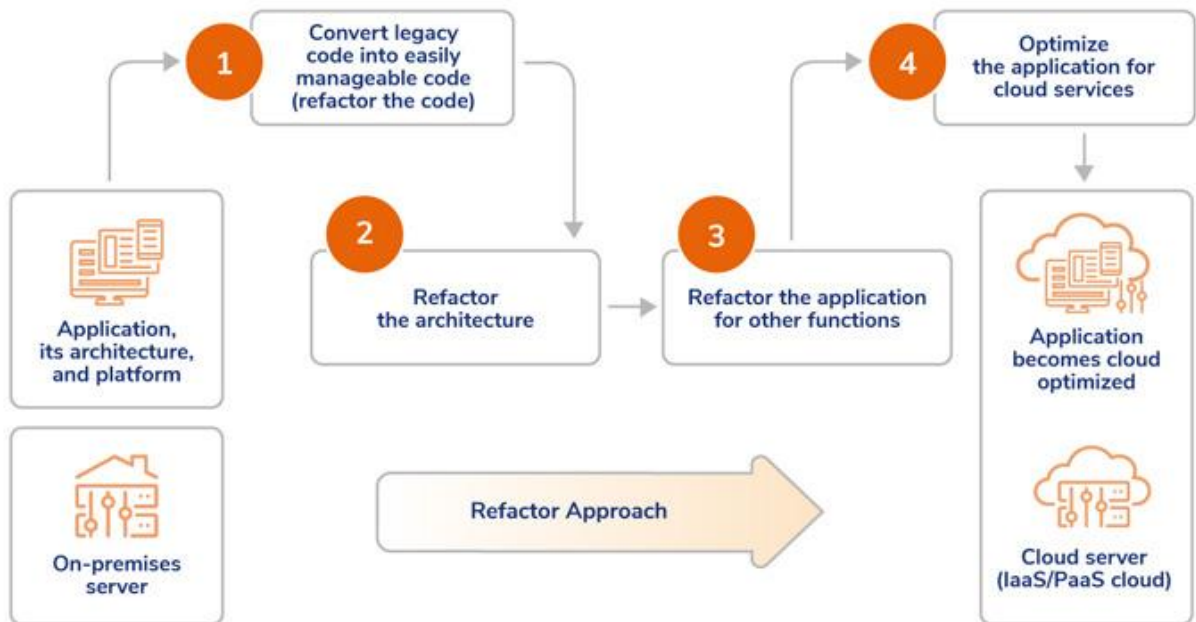


Figure 3 - Refactor Approach

As we have seen here, there is no single approach that fits all cloud migration requirements. There are many factors involved and should be considered while choosing a method for a particular application or a group of applications. Enterprises need to realise that cloud migration is a time-consuming initiative. They should engage an experienced and flexible partner like [Gadgeon](#) for their application migration initiatives to learn the business and operational benefits expected.

