

Cloud Migration Success

4 critical steps to realizing the value of the cloud



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Cloud migration is quickly becoming status quo for virtually every business trying to grow in the digital era. Reduce costs, increase agility, and boost innovation: who doesn't want those things? However, like any business technology, results are not guaranteed. In order to achieve a successful return on your cloud investments, it's critical to focus not only on what business applications and processes you are migrating, but why, when, and how. And with ever evolving customer expectations and continuous technical innovation, the journey to the cloud doesn't have a clear and defined end. Received wisdom from migration initiatives and innovations that made sense five years ago may no longer give you the best results today.

At Valorem Reply, we've worked with a wide range of cloud-bound customers, from traditional companies taking their first tentative steps to those who were born digital from day one. In this e-book, we outline a four step blueprint for successful cloud optimization, distilled from that experience and honed expertise. We hope it helps you get more from your modernization journey with less risk and greater ROI.

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CLOUD STRATEGY

Map your cloud journey

It's understandable to feel a sense of urgency around cloud modernization. Cloud-native companies are transforming business models across industries. Customer expectations evolve rapidly. A modern digital estate is critical to achieve competitive levels of innovation and efficiency.

> However, even when you're facing a businesscritical event driving migration, it's important to start with a strategy. The apparent simplicity of some migrations leads many to rush the process. They suffer the consequences of wasted time, money, and energy, as well as unnecessary downtime and user impact.

Furthermore, if you don't have metrics for success, it's hard to tell when you've arrived. With many approaches to migration, focusing your efforts requires grounding them in your organization's true motivations.

The Microsoft Cloud Adoption Framework provides a useful simplification here, dividing migration motivations into three categories: critical business events, migration, and innovation.

Critical Business Events

- Datacenter exit
- Mergers, acquisition, or divestiture
- Reductions in capital expenses
- End of support for mission-critical technologies

Migration Motivations

- Cost savings
- Reduction in vendor or technical complexity
- Optimization of internal operations
- Increase business agilitytechnologies

Innovation Motivations

- Improve customer experiences and engagements
- Transform products or services
- Disrupt the market with new products or services

The list is not exhaustive, but it provides a useful thought starter for looking at your company's own motivations. The category best representing your migration goals can help optimize your emphasis on strategy, implementation, and optimization.

Business-critical events typically require early and rapid implementation due to time, budget, and business constraints. Strategy and planning remain critical but may be focused on a more limited range of activities. They run in parallel with the implementation itself until the event is dealt with. Organizations succeed best here when they take an iterative, agile approach where learning can be incorporated on the fly.

Migration motivations allow more time for strategy and planning in the beginning. A relatively small, low-risk workload is often implemented in parallel to give the team a real-world context for decision making.

Innovation motivations require greater investment and deeper strategy—taking a broad view of the technologies and techniques available and choosing the best ones for long-term returns.

As you consider your motivations for moving to cloud, keep in mind that all are valid. It's about deciding what's best for your business and targeting your strategy appropriately. In any case, it's important to consider your strategy all the way through—not just what you'll migrate first and how, but how you will ultimately operate it. Your motivations will also guide how you measure success.



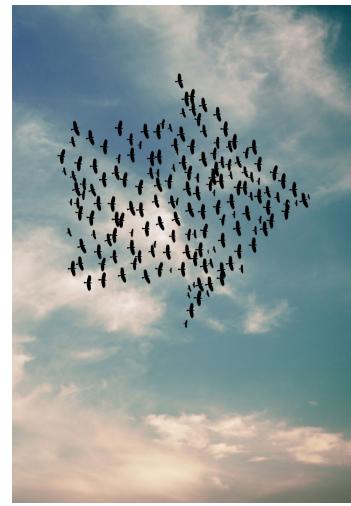
CLOUD ADOPTION

Decide how to approach each app

With a clear grasp of your strategy and motivations, you can move on to evaluating your adoption approach for each workload. Analyzing your app ecosystem in depth early gives you a clear picture of how much "technical debt" you're dealing with—in other words, what it will take to get each workload to the cloud in line with your goals. At Valorem, when we look at this step, our goal is to maximize both velocity and care. That means moving to the cloud as quickly as is practical without breaking the app or the solutions and processes that depend on it.

One commonly used framework for this decisionmaking process is the "five Rs." In order of the degree of change to the app, they are rehost, refactor, rearchitect, re-platform, and replace (or retire).

> When public cloud was still a relatively new idea, organizations often tried to perform the smallest amount of change to the application. This meant starting with rehosting—in other words, "lifting and shifting" the application to cloud infrastructure with the fewest possible changes.



With the increasing maturity of cloud services, this is no longer the best way to get value in most cases. Duplicating on-premises IT infrastructure in the cloud can increase costs and lead to more brittle and complex applications—the opposite of what most companies are seeking with migration.

Instead of looking to do the initial migration as quickly and cheaply as possible, it makes more sense to match the transformation approach to your strategic goals and the technology embodied in the application. Here are a few best practices we have found to apply across many scenarios—keeping in mind that every situation is different and worth individual evaluation: **Rehosting** is appropriate for very simple applications, especially those that are already cloud ready and have minimal business value.

Refactoring works well with three-tier web apps consisting of a front end, application server, and database. Adopting cloud database and web services is usually relatively simple in these cases. Azure Application Service is a good choice for refactoring, providing a fully managed platform for web apps on the most popular frameworks. Refactoring will provide scalability and portability well beyond a rehosted scenario.

Rearchitecting usually indicates the use of containers to enable truly seamless portability of applications, as well as the use of auto scaling to handle demand spikes without manual intervention. This typically requires more extensive changes to the application and is appropriate for distributed or "n-tier" apps with greater complexity than a three-tiered web app.

Re-platforming refers to apps that require extensive new code. These are usually large, complex or legacy apps, with no simple path to a modern architecture. It can also mean pushing the innovation envelope when moving to the cloud, such as decomposing an app into microservices or adopting a serverless architecture. This can require significant investment, raising the bar for the business case to justify ROI.

Retiring or replacing works when the investment required to do any of the above is not worth it. Choosing from the large and increasing number of highly capable software as a service applications is often the best choice for functionality that is not a competitive differentiator. Sometimes, the app simply proves to be unnecessary and is a legacy from an outdated business process.

A business-critical event will typically dictate that you choose the quickest path to results. A migration agenda will give you some flexibility depending on whether you're focused on costs, scalability, or other concerns. With an innovation mindset, you'll be looking at how to take best advantage of services that support DevOps, continuous integration, and microservices. Let your goals be your guide.



CLOUD MODERNIZATION

Determine the order of migration

Assuming you're not being forced to move a specific workload within a given time period based on external requirements, the next step is to look at your application ecosystem as a whole and set your priorities. When we partner with clients on their cloud migration journeys, we often think in terms of tiers. This allows acceleration and efficiency of the migration process while allowing enough time for analysis and due diligence on more complicated or higher priority applications. As you can see, Tier 1 workloads can basically be migrated at any time, with little advance planning, making them excellent test cases for the overall cloud capability of the organization. This provides more time for strategy around higher-tier apps, and to build capacity and skills for successful ongoing cloud operations. The journey itself will provide significant knowledge that, ideally, feeds back to the organization in a process of continuous improvement. As new cloud services become part of the IT estate, organizations find it easier to increase their ambitions from migration to innovation.

While business justification can adjust specific priorities, it often looks something like the following: This highlights why Valorem rarely approaches cloud migration as a transactional job, instead viewing it as an ongoing partnership. In today's environment, the overall journey is as important as the individual workloads you are migrating.

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- Non-production
- Basic architecture
- Cloud-supported
 OS
- Well-documented
- Few dependencies
- Scheduled outages acceptable
- No database

- Non-production
- Basic architecture
- May need replatforming or

凹 02

- OS upgrade Minimal
- documentation Basic database

Production
 workload

₿ 03

- Basic architecture
 - Basic database
- Moderate business impact
- Outage acceptable with notification
- Basic integrations
- Production workload

凹 04

- Three-tier architecture
- Highly available database
- Acceptable downtime limited
- High business impact
 - Moderate level of integration

Critical production workload

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- N-tier architecture
- Highly available database
- Acceptable downtime limited or none
- High-touch, indepth migration planning and execution
- Highly integrated

CLOUD OPTIMIZATION

Adopt an evergreen operating model

Maximizing ROI is an ongoing, enterprise-wide endeavor. It's not a project as much as a process. In part, this is because cloud applications are continuously changing. This is generally a good thing: it means new features and better security. However, you need to plan for testing and incorporating updates on a more regular basis than with traditional applications.

> Cloud brings new opportunities for increasing the visibility, resilience, availability of your applications. Taking advantage of them requires adapting how you operate. Luckily, with cloud, you can learn as you go. Make sure to build that learning into your plans with mechanisms for capturing best practices and making them real.

Finally, cloud services open new possibilities you may not have anticipated when you began your migration. Reevaluating your strategy periodically and remaining flexible enable you to become a cloud-first organization faster. Goals can evolve if the business case remains clear, enabling you to evaluate new opportunities as they come up.



The right partner for every stage

Getting full value from the cloud requires a strategic, phased approach. At Valorem, we have the experience and breadth of skills to assist you wherever you are on the journey. Our relentless focus on business value drives our technology approach—never the other way around. Regardless of the technology you choose, we know that what ultimately matters is the impact on your customers, your employees, and the value you bring to the world.

Ready to start the journey to modern IT? Contact Valorem Reply today.



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