Are We There Yet?

When a Cloud Journey Seems Too Slow to Produce the Results Expected

Are we there yet? It's ostensibly the question someone asks while venturing out on a journey. Families, in particular, have become all too familiar with this dreaded question. The same can be said for organizations, both large and small.

The question may be innocent, but perhaps less so when the stakes are high. In an organization, even leaders can take a wrong turn. After all, planes face headwinds. Cars can encounter detours. Trains may need to wait in queue.

Venturing on the path toward cloud adoption is no exception. While a journey to a sunny destination has a defined location, the "arrival" for cloud adoption is usually more difficult to pin down. Migration or movement to the cloud can be driven by a few different areas, with the process usually focused on reduced cost and quicker time to market.

"WHY WOULD MOVING TO THE CLOUD GET YOU 'THERE'? AND ONCE YOU'RE 'IN THE CLOUD', *ARE YOU DONE*?"

Navigating today's highly competitive, disruptive business landscape offers us a fundamental perspective into how we might be able to tackle this question; however, it's important to remember that taking on even the most significant and transformative initiatives starts by taking a first step. Quick wins are highly desired to help gain buy-in and drive motivation, bringing teams closer to anticipated outcomes.

Pioneering leaders often rely on past experiences to get people and teams on board for what most understand will be a long journey ahead. But as exciting as innovation may be for some, being at the leading edge comes with its pitfalls — sometimes offering little protection, especially when venturing into potentially uncharted territory.

We've pulled together this piece to help share our perspective of some things to consider based on our 15+ years of experience helping large private and public enterprises move to the cloud.

In this whitepaper, we start by exploring a few of the challenges we've seen companies encounter on their cloud journey and share actionable steps to equip teams to deliver on the transformative results desired, and expected, from cloud adoption.

CHALLENGES WHEN TRANSFORMING ON THE FLY

While every cloud journey is unique based on organizational requirements, many can relate to the not-so-unusual experiences of early cloud adopters:

Someone had the idea to launch a cloud migration as a "competitive differentiator," either to position the company as an early adopter or because they are already on their way.

The company hired a well-known management consulting firm to craft their cloud migration roadmap.

The project team launched a cloud working group comprised of members from different backgrounds or business units.

Next came the development of a cloud strategy paper and a campaign to promote cloud education and certification.

In many cases, the idea of cloud migration was developed under the guise of a three-year plan. The roadmap may have even been so bold to call out application modernization as part of the approach!

Finally comes the Request for Proposals (RFPs) process to solicit bids from system integrators (SIs) and/or independent software vendors (ISVs) for cloud migration and modernization to supplement limited in-house talent. After all, ongoing initiatives have likely locked up many talented employees.

THE FIRST SET OF ROADBLOCKS

The cloud initiative has launched complete with t-shirts, posters, and a kickoff party. Unfortunately, the team discovered its talent didn't have the capability to deliver. Leadership tasked with leading the organization down the path may be getting nervous at what's to come ahead. So, that meant engaging a staffing vendor with technical talent expertise.

It sounds easy, until you soon discover:

The people needed to do this work face the challenges of competitive rate requirements necessary for scale.

Securing talent with the necessary cloud certification is proving difficult.

The team has not advanced the 5R analysis (rehost, refactor, revise, rebuild, replace) on the app portfolio which dramatically underestimates the undertaking.

Lastly, the team has not fully considered the DevSecOps and automation process, including the likes of infrastructure provisioning, governance, brokerage, and so on.

Meanwhile, the project shows mostly "green" status across the organization's various aggregated status reports. It's quite a conundrum. But it gets worse: The organization is still working in its traditional operating model and does not know who "owns" key responsibilities.

Several months later, the first significant app is ready to move to the cloud; however, there are a few remaining technical issues. Fixing these issues will require costly refactoring and will invariably delay the schedule promised to business partners.

Understand cloud costs and roadmap before migrating your first workload. See if you qualify for a free Solution Assessment.

Learn More

FUELING THE UNFORSEEN

It's a competitive world out there for dollars and cents, especially when it comes to project funding. Departments are on the prowl and are keen to snap up what resourcing they can.

Alas, accounting calls and says cloud consumption costs are mounting. Rising costs signal it's time to bring in the FinOps team to look for cost optimizations. The team recommends buying one to three years' worth of reservations upfront, thereby triggering a review by the CFO team.

While this is underway, early results from the acceptance tests show the app is running slower than the on-premises equivalent, despite having the same functionality. As other application teams begin to work on their cloud migration, they find that shared automation libraries are not meeting their needs. "We were never consulted," they claim.

The first app is finally available on the cloud, but observability differs from what the ops team expects. They are worried about Mean Time to Restoration (MTTR) Service Level Agreements should there be an outage. Application design does not lend itself to simply failing over to another region automatically.
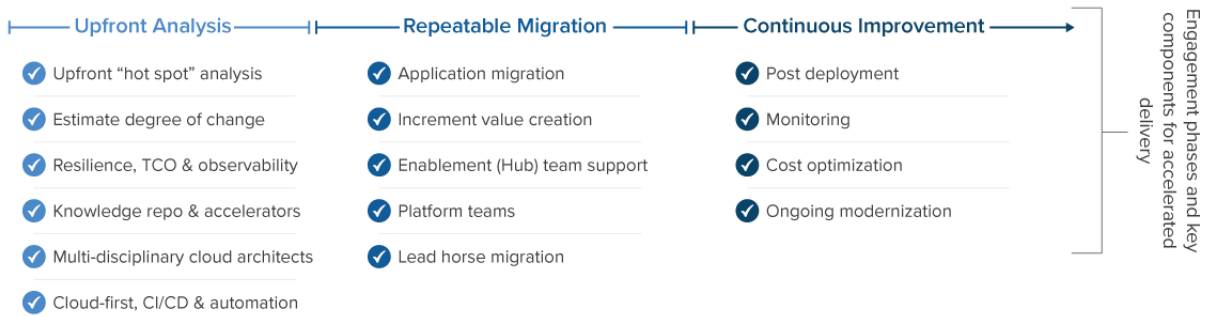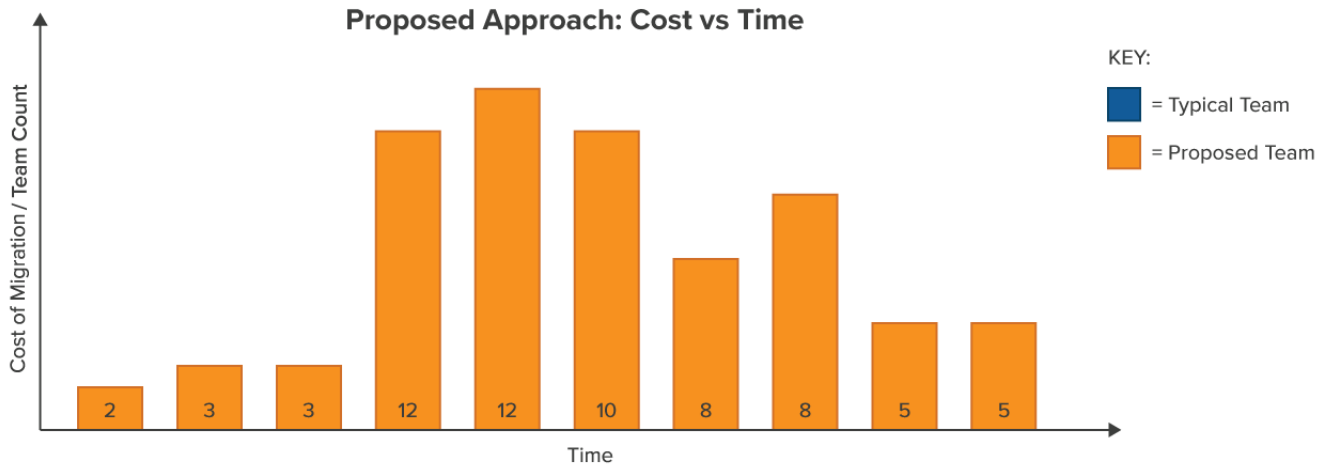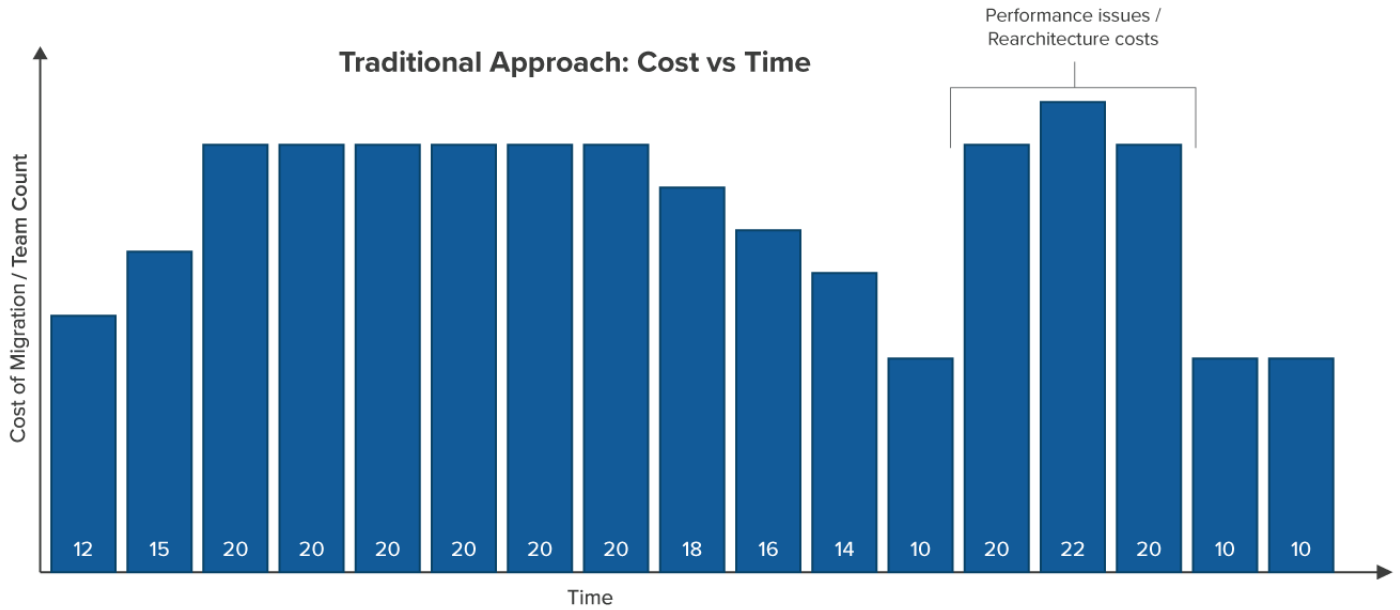
Your business team wants to add a new subsystem and functionality. Business users, however, are disappointed with the timeframes IT proposed. They are under the impression that it would be faster with the cloud attributes such as elasticity, scale, flexibility, and innovative new capabilities like low code / no code, Artificial Intelligence (AI), cognitive services, and so on.

Meanwhile, IT leadership continues getting a barrage of questions. The latest comes from a business user who discovered an AI-assisted technology that creates an app from Figma, which makes them wonder why the estimates provided are so high.

Example: *Consequences of Onboarding too Quickly Without Careful Hotspot Analysis Upfront*

Without careful hotspot analysis prior to migration activities, the organization starts incurring a higher cost upfront; with subsequent migration efforts producing additional spikes over time.

Traditional Approach: Cost vs Time

Performance issues /
Rearchitecture costs

Cost of Migration / Team Count

12 | 15 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 16 | 14 | 10 | 20 | 22 | 20 | 10 | 10

Time

Proposed Approach: Cost vs Time

KEY:

■ = Typical Team
■ = Proposed Team

Cost of Migration / Team Count

2 | 3 | 3 | 12 | 12 | 10 | 8 | 8 | 5 | 5

Time

|————— Upfront Analysis —————|———— Repeatable Migration ————|——— Continuous Improvement ———→|

Engagement phases and key components for accelerated delivery

✔ Upfront "hot spot" analysis
✔ Estimate degree of change
✔ Resilience, TCO & observability
✔ Knowledge repo & accelerators
✔ Multi-disciplinary cloud architects
✔ Cloud-first, CI/CD & automation

✔ Application migration
✔ Increment value creation
✔ Enablement (Hub) team support
✔ Platform teams
✔ Lead horse migration

✔ Post deployment
✔ Monitoring
✔ Cost optimization
✔ Ongoing modernization

A NEW APPROACH TO THE CLOUD JOURNEY

Instead of a three-year plan, the cloud migration is slated to be a "continuous value stream." The organization's team of fearless leaders work together to develop a path forward to help deliver value to the business iteratively; with the project's executive sponsor at the forefront.

The target platform, development stack, and building blocks are decided up front. This bold approach enables the team to have added flexibility to make necessary adjustments along the way.

The team is committed to getting a fuller sense of how they will get consumers to use the desired solution. They consider the available accelerators, toolkits, and catalogs which can help shape a consistent library.

A key tenet of their transformation journey is to "not reinvent the wheel." They do so by doing all they can to avoid building automation framework from scratch. They also avoided creating a "team" to solve the problem – knowing this approach is a short-term solution to a long-term problem.

Ultimately, the team recognizes transformations of this scale call for a cultural change; it is not necessarily a technical problem which needs to be solved.

FUSION TEAMS: ENABLING BUSINESS AND TECHNOLOGY

A key differentiator for this successful team was to rely on a "fusion team," a cross-functional group of business and IT experts whom organizations depend on to develop the strategy for an app migration.

This team seeks to help define concrete motivations for migrating an application to the cloud. Fusion teams recognize that just because an app can be migrated to the cloud doesn't mean it should be without a valid business impact justification for migration. Their experience tells them a lift-and-shift or re-host will not alleviate concerns related to functional aspects.

For example, an IT-led application portfolio assessment exercise is unlikely to uncover opportunities for retiring an app or replacing it with a slightly less flexible SaaS offering that may be acceptable to the business users while reducing the TCO. Conversely, a fusion team-led application portfolio assessment might uncover ways to only surgically refactor parts of the existing application, thereby greatly reducing cloud migration costs.

RECOMMENDED STEPS TO CHARTING THE JOURNEY AHEAD

Leadership need not look at its cloud migration journey with trepidation — we've been on the journey for nearly 15 years and are keen to share our lessons learned.

What follows are a few key actions we encourage organizations both large and small to explore when charting their path forward:

Put People Before Process and Technology — Never diminish the importance of putting a focus on people first. After all, the success of your organization's cloud transformation depends on its users. Selecting a partner that can engender a learning culture through education, collaboration, and co-development is pivotal to success. Another key factor is to grow cloud talent through a commitment to continuous improvement through education and hands-on learning.

Avoid taking on too many things on at once! Taking on too many things at once, and not addressing technical debt or security issues, can impede flow velocity. It is crucial to involve business leaders in joint planning. Consider the flow value diagram below to avoid the pitfalls of completing key migration activities without addressing the security and scanning wait time:

Figure 1: Example flow velocity diagram showing initiation through to completion. ATO = Authority to Operate.

Assess "Application Hotspots" — Before assembling the entire team of cloud engineers, task a smaller team to assess application hotspots. This team should evaluate the degree of change required to migrate applications to the cloud. Evaluation criteria should include degree of coupling, dependence on unsupported tools, insufficient test coverage, and so on. Determining which "hotspots" exist in advance of the migration can help determine material impacts to a migration approach, including barriers to desired automation capabilities.

Leverage Application Discovery – Explore which third-party application discovery and dependency tools might be a fit to help guide your migration team's approach. Applications like including Microsoft's Azure Migrate Tool are a great way of getting ahead of potential pitfalls earlier on in the migration process.

Leverage Migration Patterns – Don't reinvent the wheel! Avoid the temptation of assembling a bespoke team of cloud engineers who cannot lean on a repository of cloud knowledge. It's why we recommend determining whether your cloud partner brings a repository of migration patterns to the discussion can help accellerate the resolution of application hotspots.

Bolster Domain-Driven Design – Does your cloud partner have experience breaking through the monolith with expertise in Domain-Driven Design (DDD) and Event Storming? If not, you could be missing out on an excellent opportunity to bring together business and technical stakeholders to map out the key functionalities and dependencies of your applications.

Exercise Post-Deployment Planning – The goal of migration to the cloud is not complete with the app's deployment to production. Post-deployment planning is critical and should form part of application migration planning. Planning should consider continuous improvements in instrumentation, life cycle management, cost optimization, and automation.

Leverage Team Topologies – Team topologies has emerged as an influential model for structuring your teams for the cloud to match the agility and adaptability needed to achieve success. The methodology introduces a team interaction model based on cognitive load theory, whereby cloud providers regularly release approximately three thousand new capabilities each year. Team topologies introduce four fundamental topologies:

Image Source: Key Concepts - Team Topologies

The stream-aligned team is aligned to a flow of work from (usually) a segment of the business domain. Enabling teams help a stream-aligned team overcome obstacles and learn new capabilities. Consider evaluating whether your partner offers an enabling team(s) to help the stream-aligned team stay on track.

WHAT'S NEXT?

Believe it or not, 2027 will mark the second decade of the cloud. While cloud adoption continues to grow, companies that can successfully leverage the cloud as a business disruptor versus merely an IT solution will gain the most value and competitive differentiation from the cloud era. Companies that invest in building the maturity of their fusion teams, continuously optimize their "team topologies," and have a keen eye toward the latest innovations in cloud-native services will be in the best position to harness the power and promise of the cloud.

Teams must look to incorporate these innovations into their planning process. After all, these leaders will want to avoid getting caught flat-footed when the next cloud disruption arrives.

Finally, organizations should approach vendor selection with careful consideration of the provider's qualifications within their cloud of choice. Effective partners will help get ahead of organizations "accidentally" becoming multi-cloud because of acquisitions and mergers. After all, most organizations have not been able to realize the benefits of multi-cloud in a time when we are still struggling to effectively count laptops.

> *"Companies that try to be everything to everybody, try to be good at everything, end up usually being mediocre at everything."*
>
> *- Andy Jassy, CEO at Amazon*

IMPROVING RELIEF FOR MILITARY FAMILIES IN THE CLOUD

A Large Disaster Relief Organization wanted to improve the uptime and resilience of a critical application used to support U.S. military families. In a matter of weeks, AIS migrated the application to Microsoft Azure using a rehosting approach and implemented disaster recovery technologies to ensure uninterrupted availability. With the move to Azure, the organization improved the availability of this much-used application, ensuring that military families are never left waiting in their time of need.

LEARN MORE

A TRUSTED PARTNER TO CO-PILOT YOUR CLOUD TRAJECTORY

As there are many benefits to modernization, there are many risks to face without the right partner. AIS has many years of experience in migration strategies, allowing us to modernize mainframes in the most effective way possible.

AIS is a leading Microsoft cloud partner with proven capabilities and a track record of success, holding 7 Advanced Specializations, 15 competencies, and Solutions Partner Designations for Infrastructure, Digital & App Innovation, Data & AI, Security, and Modern Work.

AIS has pioneered many Azure firsts, from DevSecOps and Azure Blueprints to building our own Service Catalog and Delivery Framework for better automation, speed, and quality of delivery.

Our innovative approaches and technical depth have earned us the privilege of experience in designing, implementing, and modernizing some of the most complex and highly regulated cloud environments. On top of this, we have global 24/7/365 cloud operations and maintenance support services, managed security, and governance solutions to make your transition to the cloud seamless.

We aren't just cloud vendors – our approach to enabling cloud transformation earns us the role of a trusted and strategic partner for our clients. Take your next step into the cloud with confidence and reach out to AIS today.

Learn More at www.ais.com

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