CLOUD MIGRATION 101:
THE COMPLETE GUIDE TO MIGRATING TO THE CLOUD
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Executive Summary

New technologies can liberate, and they can also paralyze. When it comes to migrating to the cloud, you could be in a whole spectrum of places in your journey. Many businesses find themselves torn somewhere between exploring the new benefits that come with the cloud to hesitancy, knowing they’ll be committing the lion’s share of resources to migrate over in the coming year, and they get stuck in deciding whether or not to migrate.

With multiple advantages over on-prem environments including better data security, more storage options, flexibility, and scalability, the benefits of migrating to the cloud deserve to be considered. The responsiveness that becomes possible in a cloud environment can help businesses react more faster to customer demands and position you out ahead of your competitors.

Being in the cloud also gives you unique insights into your data and can help you see how your customers use your products in real-time. This can result in better recommendations for them and give you a better understanding of how to create more valuable offerings in the future.

If you’re like most IT leaders, you must respond to pressure to be “in the cloud” or at least have a good reason why you’re not yet there.
Cloud migration makes previously impossible ideas possible. Organizations can quickly spin up an environment and leverage cloud services to get a head start on a prototype. In case the plan doesn’t work out, there’s not a big commitment in hand.

Digital transformation happens when there’s flexibility to act quickly and take chances. So, it’s not surprising that cloud adoption can transform organizations. Migrating to the cloud gives you one more reason to shift your thinking from IT as a cost center to a strategic cloud investment delivering value from revenue to productivity to better experience. Across the board, the large cloud providers have economies of scale, and cloud computing radically lowers the cost of ownership, not to mention, it has a measurable impact on business from improving time to market to increasing company growth and improving efficiency.

Let’s look at how the cloud can aid your digital transformation projects:

**Scope for Innovation:**
Cloud migration makes previously impossible ideas possible. Organizations can quickly spin up an environment and leverage cloud services to get a head start on a prototype. In case the plan doesn’t work out, there’s not a big commitment in hand.

**Increased Speed to Market:**
Instead of designing, buying components, and integrating various technologies to build a solution, organizations can consume different cloud solutions as a service and start right away. This may eliminate months from the typically long IT services or product development life cycles.
Existing Application Transformation

**Improved Uptime:**
Cloud computing’s impact on application performance varies, but applications run smoother in just about every case. Creating and removing environments for new applications is a quicker process and allows the development team to use their time more efficiently.

**Better Scalability:**
Most organizations want the flexibility of the cloud. Organizations need to know they can scale up quickly to meet more significant usage needs and quickly scale down if resources are going unused. A cloud architecture makes it easier because specific applications no longer need physical servers to run.

**Better Savings:**
Migrating applications, infrastructure, or platforms to the cloud creates considerable savings in a data center. With virtualization tools, creating and then releasing extra environments is quick and efficient. A shared model means servers that were previously hosting applications can be removed or redepolyed. This can work across various environments multiplying the benefits.

Security Transformation

**Enhanced Security:**
The face of security is changing, and we need to take note. Traditional security is based upon the idea of safeguarding the inside of the location with a secure perimeter, also known as a firewall. Awareness of the limitations of the perimeter has grown slowly. The cloud doesn’t operate within this perimeter, so ‘perimeter-thinking’ doesn’t work here. But as organizations become comfortable and familiar with how to work securely in the cloud, they have learned that cloud service providers help enhance security. The shared-responsibility model of cloud security and enhanced infrastructure security in the cloud help make the cloud a safer place.
Compliance Requirements

Better Compliance Management:
Cloud changes the traditional approaches to compliance and security and saves your organization time, stress, and potential regulatory impacts for non-compliance. Through the shared responsibility model, infrastructure-as-code, templatization, and API/event-driven architectures, organizations are equipped to benefit from the enormous investments they have made, at scale, serving several customers around the world under varied compliance frameworks.
Preparing a Cloud Migration Strategy

While cloud migration comes across as a critical time-bound exercise, migrating to the cloud is not only about moving a handful of workloads. A successful cloud migration project requires careful planning and scheduling and can certainly not be achieved overnight. You must devote substantial time and energy to understand the various nuances of migration, plan for budget and resources, have the right teams in place, and ensure users are adequately trained for maximum results. If you are looking to make the most of the cloud’s enterprise-grade security, uptime, scalability, and availability capabilities, it is critical to have a cloud migration strategy in place.

To adopt a cloud strategy into your organization effectively, you must have a well-thought-out plan, much like any other significant project. Many organizations have successfully adopted and deployed a strategy and are reaping the benefits of cloud computing. The following sections provide the key steps to preparing your organization.

Determining Current State and Future State

First and foremost, you must understand your organization’s goals: the current state, including the people, processes, and systems in place to meet those goals. You will want to dig into each functional area and department and genuinely understand the gaps and inefficiencies of your organization’s tech strategy. With that in mind, you must envision your target state after cloud adoption. Additionally, you must plan and understand the transition required to achieve your goals. A clear transition plan is key to successfully adopting a cloud strategy.

Ensuring Stakeholder Alignment

Engaging and gaining buy-in from stakeholders is imperative to the long-term success of cloud adoption and the planning stages. Identifying all stakeholders, including, but not limited to, the Board of Directors, C-suite Executives, department heads, and functional process leaders, is an essential step of the planning process. Moreover, you will need to gain buy-in from key stakeholders and decision-makers by preparing them for questions from employees. Additionally, establishing a status quo for the project and communication is crucial to avoiding confusion throughout your organization. In summary, the greater alignment you have with your stakeholders, the smoother the transition and the better the overall efficacy of the project.

Creating a Tailored Cloud Adoption Framework

The cloud adoption framework provides an exceptional mapping of the elements and processes required to adopt the cloud. Business, People, Governance, Platform, Security, and Operations are the six key areas within this framework. A cloud adoption framework tailored to an organization’s needs is imperative to the success of the project.
Business - focuses on identifying and updating organizational processes and staff skills to ensure success in the cloud. It also ensures that technology is results-driven and aligned with business needs.

People - includes updating current hiring processes, compensation, and training programs to attract and retain staff after cloud deployment.

Governance - focuses on skills needed to align cloud adoption and IT strategy with the business’s goals.

Platform - focuses on the structure and design of cloud architecture. You can use this perspective to describe your target state.

Security - focuses on selecting and implementing security controls into your organization to meet the needs of the most security-sensitive organizations.

Operations - focuses on the alignment with operations teams and day-to-day activities. Additionally, this perspective includes how to enable, run, use, operate, and recover IT workloads.

Making an Exhaustive Cloud Migration Checklist

While you may have a solid strategy in place, an exhaustive cloud migration checklist as a part of the plan ensures you never derail from the goals. The correct checklist not only helps you successfully embark on the migration journey, it also helps in future-proofing your business, boosting team productivity, and delivering value faster. Like any trip from one place to another, you need to start by knowing where you’re coming from, what you’re bringing with you, and where you’re going. The very first thing on your checklist must be a comprehensive inventory of questions, including:

- Who are your users, and how are they grouped?
- What applications are used by which users and groups?
- What resources are required by each application to run optimally?
- What data assets must be accessed while using those applications?
- What is the value of each of those assets?
- How are you protecting and securing each data asset currently?
- How many users will access each application from a dedicated desktop computer?
- How many mobile devices are inside and outside the facility?
- How many users access each application from a shared, publicly accessible station?
- What kinds of networks are being used to access information? Which are wired? Which are wireless?
- Which network uses public wide-area wireless networks such as 4G?
- What devices are being used by each user or group? Computers, laptops, smartphones, others? What are you bringing with you?
- Should you evaluate each application to determine whether it will be moved to the cloud, modified before movement, or kept on local infrastructure?
- To which cloud resource will each application be mapped?
- Have you matched various cloud services offering different functionalities to increase cost savings and performance?
- Where will each data asset be moved? How much storage capacity will be provisioned to support each?
- How will each data asset be protected and secured while in storage at the selected cloud facility and during transit between there and elsewhere?
- What devices will each user be accessing which resources?
The Power is in Planning: Debunking the Myths that Derail You

Cloud migration is a big undertaking; therefore, even the slightest doubt can make organizations lose out on all the benefits the cloud offers. Objections concerning the cost, time and security of the cloud are widespread. What’s important is to understand what these objections are (and the truth behind them), so you can be confident about moving your critical data and workloads. Let’s dive right into three of the most common cloud migration myths and why you should set them aside right away before you start on your journey to the cloud.

The Cloud is Extremely Expensive

One of the biggest myths about cloud computing is how expensive it is. But that’s not entirely true. Yes, the initial investment can seem sizeable so that you can move your workloads and applications; however, once your business is operating in the cloud, the capital expenditure is almost nil, while the operational cost is nominal. Since you only pay for what you use, your investment doesn’t get locked in expensive on-premises servers and data centers; it also helps you do away with massive data center costs – including space, electricity, cooling, and maintenance. Your cloud applications can be optimized to scale up and down based on demand – giving you far greater control over your IT costs.

All Legacy Applications must be Debunked

Several organizations, especially the small ones, have apprehensions about the cloud because of legacy applications. Since they depend on a host of business apps to carry out day-to-day tasks, they fear that they will have to get rid of all of them – before they move to the cloud – that can lead to a complete shutdown. Although legacy apps indeed stifle growth and innovation – due to their rigid and siloed nature, you don’t necessarily have to rip them out while they’re still working – unless you want to. There are ways in which you can modernize and integrate them with the cloud – lift-and-shift, refactor, rebuild, and more – and you can always move them to the cloud in a phased manner – as and when deemed necessary.

Cloud Compromises Data Security

With the constant slew of data breaches being reported worldwide, concerns about the security of the cloud are rife. However, the truth is, the cloud is far more secure than most enterprise data centers. Since all the data and critical workloads are stored in virtual environments, the impact of single adversity is greatly minimized through robust disaster recovery and business continuity strategies. As the regulations around cloud security get more intense, today’s cloud providers have a broad set of policies, technologies, and controls that ensure a high level of security of data, applications, and associated infrastructure. When moving workloads to the cloud, make sure to discuss any concern related to security that you may have, and get complete clarification from your cloud vendor on how the risks will be mitigated. Understand what security measures will be put in place, how data will be encrypted, and what access control measures will be provided to ensure only authorized personnel access business-critical data.
Your Relationship with Cloud Depends on the Vendor You Choose...

This white paper has given you a high-level overview on how to accelerate your cloud adoption and strategize your cloud migration journey. However, another critical step to consider as you take more significant advantage of cloud computing is the partner you choose on your cloud journey to guide you. An objective, platform-agnostic partner assures that every choice you are offered is a choice that benefits you most. Their continuing relationship with you should depend upon their ability to keep you very satisfied with the cloud services you use to support your business every day. When choosing cloud-based solutions to solve your biggest information management and operational challenges, don’t let the size be your guide or myths surrounding cloud and security derail you. Choose a proven partner with a long track record, extensive professional resources, multiple quality data centers, and the kind of relationship builders you know you can trust to keep your best interests at the forefront of the conversation.

Here’s a 10-points checklist you can refer to while choosing a cloud partner.

About Synoptek

Synoptek is a global systems integrator and managed IT services provider, offering comprehensive IT management and consultancy services to organizations worldwide. The company works in partnership with clients of all sizes – from mid-market to Fortune 100, and for over two decades, its focus has been to provide maximum business value to its clients, by enabling them to grow their businesses, manage risk and compliance, and increase their competitive position. Synoptek is committed to delivering improved business results and unmatched service to every client, every time.