CLOUD OFFERINGS: MICROSOFT AZURE & AWS





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Executive Summary

Innovative technologies can help liberate your business, but they can also incapacitate it. Few technology decisions are more complex than considering when and what to migrate to the cloud. The volume of options, potential solutions, and variety of resources can be challenging. Rather than taking an immediate decision, businesses often find themselves all over the map, which can lead to indecisiveness and the lack of a comprehensive strategy even as the potential benefits are understood in principle.

Some of these benefits are very well known. There are more storage options, improve scalability, and less maintenance. Others might be less clear such as improvements in security, the ability to generate more insights from your data, and take advantage of a wider variety of services including Artificial Intelligence and machine learning.

In principle, the cloud offers you the opportunity to stabilize aspects of your business, reduce costs and downtime, and expand your technology footprint to better serve your customers and drive new revenue.

In practice, one of the first decisions you need to make is choosing between the two industry leaders, Microsoft Azure and Amazon Web Services. Even if you ultimately rely on services from both providers, an exploration of what's available and how it works is an excellent starting point for your cloud migration journey.





Common On-Premise Challenges

On-premise servers come with a cost in time and money. There is equipment to purchase and maintain. Staff to manage and update, some of whom need to be available 24/7. Capital expenses to refresh older equipment. Here are some key questions you should ask yourself about your current infrastructure to determine if you might be ready for a cloud migration.

1. Should I be concerned about the increased risk of data loss?

What if your systems get damaged in a natural calamity like a flood? A cloud backup will help in data recovery. On-prem, your business is susceptible to data loss. In the cloud environment, data is backed up to a secure location, seamlessly. Experts in the industry almost unanimously report that cloud data is backed up to a secure location, seamlessly. Experts in the industry almost unanimously report that cloud data is backed up to a secure location, seamlessly. Experts in the industry almost unanimously report that cloud backups are far safer and more reliable than on-premise.

By leveraging cloud-back-ups, you can store mission-critical data in sophisticated data centers managed by the leading global tech corporations like Microsoft and Azure. They have teams working round the clock for keeping your data safe Amazon .

2. Is my on-prem infrastructure limiting the company's ability to scale?

Yes, it is. If you would like to scale in the future and do not have the infrastructure in place, your business's ability to scale will be limited. Think of Flipkart's big billion days. Even a few years back grow and thrive when cloud did not foray into the market that much, Flipkart, for instance, did not assume that it would have 1 million customers. Suddenly, they planned a big billion day where the number of users go up from 1,000 to 1 million. On-prem infrastructure will limit a company's expansion and growth. With the cloud, you can auto-scale to any number of users or reduce the number of users within a couple of minutes.

3. Am I investing a huge amount of money and time in purchasing hardware?

You will be spending loads of money if you need to suddenly scale up your on-prem environment. Migrating to the cloud will help you cut back on hardware costs. Rather than buying in-house equipment, all hardware requirements are the responsibility of the vendor. For a business expanding at a fast pace, new hardware will prove heavy on its budget, as well as inconvenient. Cloud migration assuages such problems, as resources are acquired easily and quickly.

Besides hardware costs, offsite equipment will minimize internal energy costs and save office space. Huge data centers take up maximum office space generating much heat. Migrating to cloud applications/storage will help your business reduce space and considerably reduce power costs.

4. Which is the preferable way to scale applications - vertically (compute) or horizontally (globally)?

With horizontal scaling, you can keep your existing computing resources while integrating additional ones into what you have now. So horizontal scaling is preferable to vertical scaling as you do not struggle with resource shortages. When your applications are scaled horizontally, you enjoy flexibility.

This is a situation when your company scales out by including more machines in your IT infrastructure. For instance, you may include more servers or connect current servers to make them work as one.

5. I am fed up with skyrocketing maintenance costs and the increase in staff count to ensure 24/7 support.

When you're on-prem, the costs of purchasing hardware, software, and licenses will shoot up. In the cloud environment, you pay as you go. It's according to each user basis and therefore, The cost per month is based on the resources you are using and your costs are significantly lowered. There is also no need for capital expenditures because no hardware or physical devices are required for your server and infrastructure needs. Without the urgency to recruit IT staff to manage the network, you can reallocate costs for expanding your organization as well as keeping wage expenditures low. Maintenance costs are the least because you have no physical hardware/infrastructure to upkeep are also much lower.

6. I don't have confidence I can recover my applications and data during a disaster!

When you're on-prem applications go wrong, you can expect to experience an adverse impact on your business stability. To overcome this problem, you should execute a business continuity plan that incorporates a high accessibility and disaster recovery solution. With cloud backup, it is easy to back up data which entails sending a copy of data across a public or private network to a remote server. The cloud makes it much easier and more reliable to implement a bullet proof plan.

7. Are my applications aligned with changing business needs?

When preparing to migrate to the cloud environment, it is imperative to identify which of the applications should be moved to the cloud. Based on your cloud approach and business goals, you can quickly move some applications to the cloud. Others may consume additional time, have multifaceted interrelationships, or completely stay in your on-premises data center.

8. Is my hardware/data center outdated?

You can rediscover your outdated data center infrastructure to reimagine your outdated evolving business services while reducing operating costs. Most business leaders are focusing on cloud migrations and edge strategies to get workloads closer to their customers. The cloud offers users best-of-breed and state of the art performance, and you never have to worry about outdated infrastructure again.

9. How do I choose the best partner to start my cloud journey?

If you believe that migration from on-prem to the cloud is your a business imperative, will probably need to pick the right cloud partner based on your business priorities and urgent needs. Korcomptenz is here to help modernize your applications and data using the cloud. You focus on your business while we #Focus on You.



🙏 Microsoft Azure

The cloud computing market is dominated by Microsoft and Amazon, ruthless competitors to offer the most reliable, secure, and advanced services in the business. Both companies hold a dominate position because of their unique blend of platform-as-a-service (Paas) and infrastructure-as-a-service (IaaS) solutions.

Microsoft Azure is a robust cloud platform that is known throughout the industry for its rigorous security, safety, and compliance tools. When contemplating your migration, it is essential to factor in the benefits and drawbacks of the major migration strategies like Refactor, Rehost, Rearchitect, and of course Rebuild. Based on which of the models you choose will depend on your migration to Azure.

laaS

When it comes to

infrastructure-as-a-service, Microsoft offers fast and scalable cloud computing from its worldwide data centers. With IaaS, businesses can swiftly scale up or down based on requirements, paying out only for what is required and running on the cloud. In this cloud model, a replication of your on-prem servers/services with leagay and modern apps will run on Azure Virtual Machines

PaaS

With Platform-as-a-service, business can avoid the time-n-money and downtimes for upgrading the operating systems and services that run your applications. Microsoft is responsible for all the upkeep of the environment, business can just take care of the application layer. Two such examples are Web Servers and Database servers.

SaaS

Software as a Service implies cloud applications residing on the web offers that businesses can access from their internet browser. An ideal example of this is Office 365 or Microsoft Dynamics 365.





Amazon Web Services

AWS is known for its extensive toolset which has grown almost exponentially over the years, and the capabilities of Amazon are unparalleled. Some find its cost structure overly complicated and confusing, However, its cost structure could be a bit puzzling. In addition, Amazon's emphasis has always been on the public cloud instead of the private or hybrid cloud. It implies that interoperating with your company's data center is not the key priority of AWS.

The AWS cloud platform comes with many benefits for businesses. The essential benefit is the ease of using and managing the IT infrastructure, optimizing the operational expenses using the pay-per-use model. AWS cloud ensures the dependability and scalability of organizational data with advanced security configuration as well as networks.

AWS Benefits for Businesses

Cloud migration is a necessity and AWS is evolving as one of the obvious winners. The AWS cloud management system has more than a million customers, generating 10 billion dollars of revenue per year. This AWS cloud platform is trusted by leading businesses like Netflix, Kellogs, Unilever, Adobe, and many other corporate giants. Here are the key benefits of AWS clouds:

Location: It is the greatest AWS benefit as businesses can access the platform in 44 diverse zones, in 66 geographic locations. Businesses can gain access to servers and features from any part of the world.

Recovery System: Disaster recovery is another advantage of this cloud platform. When it comes to custom software development businesses, they provide a solution to retrieve missing data so that your daily operations aren't hampered. Amazon cloud computing comes with a well-identified disaster recovery strategy for organizations of all types and sizes.

Scalability: Elastic Load Balancing and Auto Scaling are two of the tools making scaling simpler when delivering high-level efficiency. You may scale up or scale down depending on your organizational needs. AWS cloud has a mammoth infrastructure to offer computing resources whenever you need the same for your business. **Improved Security:** The AWS platform ensures enhanced security; the servers and data centers are protected by several layers of security. Did you know that Amazon frequently performs infrastructure assessments to do a reality check for any type of security susceptibilities? Security checking is trustworthy and quicker.

Backups in Multiple Regions: The Amazon cloud management system lets you backup all your essential data in numerous regions. The AWS system is decentralized. The cloud platform provides EBS and AMIs snapshots method of backup. It means when your main operational environment is offline, the backup will not be affected. You also have the liberty to schedule backups over various regions.

Flexibility: AWS cloud is also preferred by businesses due to its flexibility. It helps businesses to choose their programming language, OS, database, web application platform, and related services you might require. In other words, it helps in easing the data migration method.

Pricing Model: One of Amazon's top perks is its pricing model, working on the pay-as-you-go standard. You will not need to shell out expensive subscriptions for those resources you do not utilize. AWS's flexible pricing model radically enhances your bottom line, thus ensuring cost-effective cloud computing for your business.



The Cloud Migration Strategies

Whether you choose to migrate to AWS or Azure, the cloud journey is unique for each company. You will find no simple formula that fits every cloud migration strategy. Each application, infrastructure, and data to be moved is related to various price, compute, security, complication, and efficiency needs.

The intricacy of moving such legacy applications depends based on current architecture, existing licensing, vendor locking, or investments made on-prem. To overcome the challenges of cloud migration, here are six migration strategies popularly called the 6Rs.

The 6Rs are the major ways to manage your cloud adoption strategy, be it Azure or AWS:

The Famous Rs for Cloud Migration



Rehost - Lift and Shift

Move as-is to cloud

Rehosting is also known as a "lift and shift" process. It is one of the easiest and quickest migration strategies where an application and data are moved to the selected cloud provider without change in code and architecture.

Refactor/Re-architect - On-premises to serverless:

Refactoring or Rearchitecting is reimagining how the application is architected and developed typically using cloud-native features. In this, we mostly rewrite applications from scratch to make their cloud-native applications. (For example, microservices architecture, containers, Kubernetes, etc.). These refactored applications are scalable, agile, and efficient. When an existing application is not compatible with cloud services, we use refactoring.

Retain - Do nothing (for now)

Keep Them as it is

Retain applications due to heavy investment made/ regulatory/security fears/ latency/compliance/ not many benefits of migrating/ application need refactoring before moving to cloud (Upgrade on-prem tools to latest versions to make them compatible for cloud migration).

Replatform - Lift, tinker and shift

In Replatform, we might make a few cloud optimizations to achieve some tangible benefit without any changes to application architecture. It makes optimizations to the application during the migration phase.

Example: Move On-prem SQL to Azure SQL/ AWS RDS to reduce the amount of time in managing the database instances.

Repurchase - Drop and Shop-Replace

On-prem to SaaS with the same capabilities

Repurchase means dropping the existing application and moving to a different product with similar capabilities.

Example: Moving CRM application to Salesforce.com

Retire - Get rid of

Get rid of unwanted or no longer useful applications for cost and effort savings. When you know that these applications aren't needed anymore, simply retire them or eliminate them.

(Source:https://www.korcomptenz.com/blog/cloud-migration-strategies/)



The Top 2 Cloud Services Provider

There is no doubt that AWS cloud is the market leader, then businesses need to decide which platform they would migrate to - AWS or Azure. Both Azure and AWS come with their specializations and benefits, however, businesses should decide based on their requirements when making an ultimate decision. To make things simpler, here is a pictorial depiction of AWS and Azure services:

Product	aws	Microsoft Azure
Virtual Servers	Instances	VMs
Platform-as-a-Service	Elastic Beanstalk	Cloud Services
Serverless Computing	Lambda	azure Functions
Docker Management	ECS	Container Service
Kubernetes Management	EKS	Kubernetes Service
Object Storage	S3	Block Blob
Archive Storage	Glacier	Archive Storage
File Storage	EFS	Azure Files
Global Content Delivery	Cloud Front	Delivery Network
Managed Data Warehouse	Redshift	SQL Warehouse

AWS and Azure - Choose the One that Best Suits Your Needs

The Use Cases of Azure and AWS

Industries

Microsoft Azure	AWS
Technology	Social networking companies
Transportation	Transportation
Manufacturing	Retail
Healthcare	Technology
Financial services	Agriculture



Why Choose Azure?

Microsoft Azure offers additional features, properties, and configurations. It is also between 4% and 12% less expensive than AWS on average.

Hybrid cloud:

Get an integrated platform allowing for easy migration when it comes to on-prem as well as public cloud environments. Build hybrid apps making use of resources in local data centers and Azure itself.

Integrated environment:

Microsoft Azure comes with an integrated environment for developing, testing, as well as deploying cloud applications to the combination. This way, businesses can pick from a range of frameworks.

PaaS abilities:

Microsoft Azure is a significant aspect when it comes to cloud infrastructure with its PaaS abilities, more robust and faster. You can deal with the majority of infrastructure management in the background with Azure PaaS. It will help businesses concentrate completely on innovation and growth when they leverage Azure PaaS.

Save more with current licenses:

When businesses move to Azure, they can leverage their existing Windows and SQL server licenses along with software assurance, paying a reduced price.

The Enterprise Agreement Benefit:

Companies that leverage Azure are eligible for the 'Enterprise Agreement'. The tech giant makes it simpler for you to reuse the permits bought based on the Enterprise Agreement to cut back on Azure's cost. Therefore, adopting Azure will help your company by receiving additional discounts.

Enhanced security and compliance:

Azure offers additional certifications compared to other cloud providers, ESUs/SQL managed instance, and integral multifaceted security controls.

Are You Ready to Migrate?

Once you have defined your business goals, evaluated your environment, and determined your cloud migration strategy, you can move to AWS or Azure. You might have multiple resources, tools, and best practices to migrate, however, without the right expertise in AWS or Azure, the migration could be risky.

This is where Korcomptenz, a Microsoft and AWS Cloud partner can add value. Call or visit our website for a complimentary consultation and one of our AWS or Azure specialists will connect with you to help you better identify your business problems, environment, and company goals.

Korcomptenz -Value Proposition

We help our clients achieve more and remain competitive with a connected, secured, and scalable environment that has minimum complexities, zero security compromises, is disaster proof, high availability, and low downtime. Korcomptenz's enterprise cloud adoption consultancy and advisory services specialize in building, running, and managing your current inelastic infrastructure, software, and applications in a hybrid environment that includes multiple clouds, on-premises, and the edge.

We have empowered our clients to attain a multi-layered grasp of their day-to-day operations turning your IT cost-center into a powerful tool to accelerate business model change, optimize ROI and lower TCO by 40%.







Why Choose AWS?

Cloud service providers are in a fierce battle to meet the increasing needs of businesses all around the globe. The leading names in cloud computing are AWS and Azure, however, Amazon Cloud wins in some of the most critical areas:

Innovative:

As one of the market leaders, AWS offers newer and newer technologies, e.g., AWS Lambda, AWS built Amazon SageMaker, which offer more and agile and faster solutions.

Flexibility:

Their global infrastructure offers the flexibility of choosing how you use your network, control plane, and AWS services.

Multiple functionalities:

With a wide range of service models with innovative features, you can leverage modern technologies including machine learning, and Internet of Things.

Extensive global infrastructure:

It comes with 84 Availability Zones across 26 geographic regions with a high availability zone model. This ensures lesser waiting time and optimal results.

Security: AWS comes with outstanding security tools as well as knowledge resources for all its customers. It uses the most critical security functionalities such as API activity monitoring, event triggers, vulnerability evaluation, threat intel, and WAF.

Oldest Player:

Amazon Cloud is the oldest player with many years of experience in the industry. With its inception in 2006, AWS started providing Elastic Computer Cloud (EC2), Simple Storage Services (Amazon S3), etc. In 2009, AWS started offering more including Amazon CloudFront, Content Delivery Network, as well as Elastic Block Store.

Trustworthiness:

AWS is the clear winner here with consistent and uninterrupted operation with no outage for over 4 years. Azure did experience an outage in May 2019. AWS experienced last in February 2017. Based on Gartner's findings, AWS's reliability is unparalleled.

Features and Services:

Being the industry leader, AWS cloud has improved its offerings to integrate additional services, most beneficial when it comes to functionality-richness. AWS offers more than 200 services while Azure offers more than 100.

Top Companies using AWS

AWS caters to a wide range of industries spanning automotive, entertainment, media, healthcare, legal, and manufacturing industries. Their prominent customers include:





Top Companies using Azure

Almost 95% of the Fortune companies have been using Azure services, their wide portfolio spanning across various industries including



Why Korcomptenz?

We #FocusOnYou and help you achieve more and remain competitive with a connected, secured, and scalable environment that has minimum complexities, high availability, zero security compromises, low downtime and is disaster-proof. We are a certified Microsoft Gold Partner for Azure and AWS partner for AWS services.

KOR-enterprise cloud adoption consultancy and advisory specializes in building, running, and managing your current inelastic infrastructure, software, and applications in a hybrid environment that includes multiple clouds, on-premises, and the edge, while ensuring you get your expected ROI. We have empowered our clients to attain a multi-layered grasp of their day-to-day operations turning your IT cost-center into a powerful tool to accelerate business model change, optimize ROI, and lower TCO.



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