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Azure

Considerations & Business Case for Application Migration to Azure



Today's rapid digitization of products, operations, and buyer experience is generating unprecedented change in business ecosystems across every industry and geography. At the foundation of this digital transformation, embraced by thriving upstarts, are flexible and scalable cloud platforms that foster disruptive innovation and customer intimacy.

To compete with "born digital" upstarts, such as Airbnb, Stripe, and Zenefits, many industry leaders are embracing digitization. Flexible cloud platforms, such as Microsoft Azure, and their compute models provide an opportunity to speed the digitalization journey and better respond to customer needs in a secure and scalable environment. Critical to this strategy is migration of existing applications from legacy platforms to public, private and hybrid cloud environments.

To realize the broad benefits of a cloud and application migration to Azure, it's critical for business and IT leaders to understand the possible gains as well as critically analyze the factors of success. It's vital to then present a comprehensive business case to the C-suite that justifies the investment.

With the most data center regions worldwide, consistent hybrid offerings, and broad AI functionality, Microsoft Azure is a market leading platform for application migration. Azure has comprehensive services, tools, and marketplace solutions to deploy and manage critical applications. Furthermore, Azure's security, compliance, and big data solutions, such as cognitive APIs and machine learning, help companies drive strong business advantage.

This Point of View paper presents Trianz' perspective on evaluating critical migration factors and justifying why and how to migrate applications to the Microsoft Azure cloud platform.

Considerations Of Application Migration To Azure

Before embarking on the transition of applications from legacy platforms to Azure, it's important to thoroughly assess the following considerations to determine migration benefits and costs for each workload. After this evaluation, business and IT leaders should have a prioritized list of applications to move, possibly broken into stages, and likely some that should stay on

premise. The considerations that form this list can be separated into two parts – application level and enterprise level.

Application Level Considerations

The following factors must be considered for each application under review for migration to Azure. And a score should be applied which leads to a ranked list.

Architecture, Data Migration, & Integrations

Monolithic applications are harder to migrate to Azure versus those with a service or modular orientation. Further, applications with significant data governance requirements or tight enterprise integrations likely require unique cloud storage solutions and replacement of APIs or customized code. Thus, it's prudent to understand architecture considerations and start with applications that have a loosely coupled design.

Performance & Availability

Azure provides strong performance and availability, but there are cases when it's not enough or too expensive to achieve such as with high-speed trading, video encoding, and some Power BI workloads with large and frequent data transfers. Furthermore, new configurations, system architecture, and network design may require additional and sizable application optimizations.

Security & Privacy

In unique cases, moving applications and data to the cloud may add security risk and disrupt governance strategies - often a top business concern. Thus, it's critical to compare the security, governance, risk, and compliance needs of each application, including data residency, to the capabilities of the Azure cloud platform.

Application Lifecycle

Applications that are in critical need of upgrades may be attractive ones to migrate to Azure as new investment is required regardless of its succeeding platform. On the contrary, new or end of life applications may not be good candidates.

Migration Cost

The analysis of the above four items, in addition to compute and storage needs, will provide a good measure of the financial investment for a specific application migration. Those with a large need for redesign, data migration, integrations, and security will cost more. However, strong benefits may offset this cost.

Business Considerations

It's critical to understand the business value gains from migration to Azure for each application including agility, innovation, customer reach, and time-to-market. Based on business analysis, some will gain more from cloud-enabled digitization and analytics. In this evaluation, close cooperation between IT and business leaders is essential.

Enterprise Level Considerations

In addition to evaluating each application and ranking Azure migration benefits and costs, there are three enterprise considerations that determine overall readiness.



New or end of life applications may not be good candidates for application migration to the cloud.



Enterprise & Cloud Strategies

It's important to have a set of guiding principles that provide direction to application and infrastructure owners and support teams when addressing architecture, cloud models, and business problems. Prioritization and selection of the right platforms must be done in alignment with overall business strategies of for delivering the highest ROI or a quick proof of concept.

Enterprise Security & Control

Equally critical are enterprise security requirements and guidelines including governance methods and procedures, breach response, failover, and disaster recovery. Within these areas, it's vital to understand the remaining control over hardware, software, security, and data residency following a move to the Azure cloud platform.

Vendor & Provider Lock-in

When considering a migration to Azure, it's essential to evaluate the ability to switch between cloud providers, if necessary. Those embracing open standards, APIs, and management tools are less likely to foster dependency and inability to substitute.

Post-migration Hybrid Cloud Operations

Developing a clear view of the end-state, i.e. smooth and efficient operations post migration is the smart way of approaching Cloud deployments. Furthermore, enterprises will more likely than not have a hybrid footprint for several years to come. This means that IT infrastructure groups have to visualize their operations combining cloud and on-prem assets such that service levels are unaffected and users as well as leadership get a unified view of assets and processes.



In summary, it's important to thoroughly analyze the many application and enterprise level considerations in order to prioritize workloads and understand overall migration readiness. And to optimize technical benefits and business outcomes, it's prudent to consult with professionals that have significant and successful application migration experience and Microsoft Azure expertise.

Azure Business Case and Migration Plan

Once the benefits and cost have been considered and there are clear advantages to application migration, it's time to build an Azure business case and transition plan. This critical step involves compiling specific metrics, goals, and timelines that can be presented to management to justify the investment.

According to Gartner, "CIOs who have a rounded view of the financial impact of cloud are more likely to have progressive discussions with their finance business partners about when and how to deploy cloud services."⁵

Business Case for Application Migration to Azure

A strong Azure migration business case should clearly demonstrate the meaningful technical

and business advantages by framing the current state and showing the end-state benefits and timeline. Furthermore, it's important to show the gains versus cost items listed above in the "Application Level Considerations" section of this document.

Framing the Problem

A strong business plan for application migration to Azure starts with the current state, including business and technical challenges, and the high-level strategy to address these challenges. This section should roughly define the security and performance needs for an application environment.

Showing the Benefits

The next section should contain quantified metrics of the expected technical and business gains covering - cost, speed, flexibility, and scalability. This includes estimating the expected impact to new and existing business process in the form of increased revenue, faster time-to-market, higher customer satisfaction, or similar measurements. And both technical and business gains should be specific, quantified, and tie back to the current problem state.

Cloud Platform Performance

This section should first define the Azure platform parameters to which your applications will migrate including the location, architecture, and ownership of each level of the stack. This is the place to define and specify which applications will go to public, private, or hybrid cloud environments. Also specified should be the specific performance and security levels expected in each new cloud location, and confirmation of their required levels.

Time Line

Finally, a timeline should be presented of phased application migration to Azure, that justifies the

priorities based on previous analysis. This is a good place to show some immediate benefits expected in the first phase of the migration. Often a good place to start is with DevTest and DevOps platforms.

Migration Plan for Application Transition to Azure

Coupled with a solid business case, a strong migration plan should drill down into the technical details of the transition from the existing to Azure platform. This includes the new cloud architecture (s), integrations, migration tools, skills development training, and systems monitoring and management.



This section will include the technical approach and transition timeline including design, pilot, testing, and production.

In summary, a strong Azure business case and migration plan, jointly constructed by technical and business teams, are critical to justifying the application migration investment and achieving success. As the cost of missteps can easily offset potential gains, these documents will help realize the desired returns.

However, resources are often too constrained or not prepared to conduct this analysis. Thus, you may need a strong partner to help build your Azure business case and migration plan. One that understands your corporate goals and technology and has strong Azure credentials. And one that has deep application migration experience including frameworks, perspectives, and methodologies.

The Microsoft Azure Advantage

Azure offers more than 100 cloud services to build, deploy, and manage a breath of workloads, from simple micro-services to internet-scale applications. Adding 120,000 subscriptions per month, Azure now spans 42 global datacenter regions, more than any other cloud provider.

Azure drives productivity and speeds time-to-market. Integrated tools provide developer flexibility from .Net to open source. It supports a variety of operating systems, languages, and databases, and its DevTest Labs offer rapid provisioning of development and QA environments.

Common Azure workloads include .NET applications, SQL Server databases, DevOps and DevTest environments, SharePoint collaboration, Office and Exchange productivity, and big data analytics.

Azure uniquely enables data-driven, intelligent applications, from image recognition to bot

services. Azure's artificial intelligence services support deep learning and real-time analytics. And its market leading security includes 50 compliance offerings, exceeding all other providers.

For these reasons, Azure is recognized as a trusted cloud platform for U.S. government institutions. And 90 percent of the Fortune 500 companies run their business on the Microsoft cloud.

How Trianz Can Help

Trianz is a Microsoft Managed Services Provider for Azure. Our experienced professionals maintain numerous Azure Certifications across all critical aspects of Microsoft cloud services.

As a strategic managed services partner, Trianz offers a customized Azure migration roadmap to achieve service-oriented infrastructure and service catalogs.

Our Certified consultants use proprietary tools and templates to discover, assess, analyze, and recommend execution plans for the cloud journey. Our experts enable reference architectures for Azure IaaS, PaaS, and SaaS platforms with a focus on execution success.

We deploy Azure-based hybrid environments by incorporating automation at every possible opportunity and seamless orchestration of workloads across on premise and cloud platforms. Trianz collaborates with clients to monitor Azure performance and align infrastructure to meet ongoing business needs.

A key Azure advantage is agility and innovation. Trianz helps open the possibility for business leaders to test new ideas on Azure, accessing the secure infrastructure without the need for large upfront capital investment.



Based on Trianz' research and experience with Azure, the following expert guidance helps clients better manage their migration to Azure.

- **Define governance framework**
enables oversight of adopted cloud systems and ensures highest post-migration value.
- **Migrate well-suited workloads**
avoids unnecessary complexity of apps with poor Azure compatibility.

- **Automate testing and bug fix**

Saves cost and time to complete Integration evaluation.

- **IP and solution driven approach**

Adopt Trianz' proven domain templates, tools, and capabilities that help clients smoothly migrate to Azure services.

ABOUT TRIANZ

Trianz simplifies digital evolutions through effective strategies and excellence in execution. Collaborating with business and technology leaders, we help formulate and execute operational strategies to achieve intended outcomes by bringing the best of consulting, technology experiences, and execution models. Powered by knowledge, research and perspectives, we serve Fortune 1000 and emerging organizations across industries and geographies to transform their business ecosystems and achieve superior performance by leveraging Cloud, Analytics, Digital, Infrastructure and Security paradigms.