Building an Azure Cloud Strategy to Enable Digital Transformation

Continuous disruptive business innovation is the new norm in today's commerce. With the proliferation of social, mobile, and big data solutions, there's no denying that substantial change has descended on every industry and more will come. As watch manufacturers battle Apple and hotels compete with Airbnb, incumbent leaders across the globe will face the same competitive threats.

The primary reason for disruptive change and business intensity is new technologies - specifically Cloud, Analytics, Digital experience, and Security (CADS). With these solutions, upstarts and incumbents alike have new and low cost ways to reach customers, unencumbered by borders, and sophisticated techniques to analyze their buying behaviors.

Within CADS, cloud is the foundational technology and the first step in any digital transformation. To regain competitive advantage, speed time-to-market, and improve profitability, it's no longer enough to add cloud to the mix of IT solutions. Rather, it's necessary to think and act cloud first - as did Quicken Loans with its Rocket Mortgage app and NantHealth with its CLINICS healthcare provider delivery model.

Achieving a cloud first mentality, however, requires a comprehensive strategy and execution plan that spans all business units and IT organizations. Cloud must be more than an architecture or enabler of a single entity or offering. Instead, it should be an end-to-end business and technical foundation for the entire company, tied to business and IT objectives. As such, it must be created by a cross-company effort to enable innovative offerings and measurable business outcomes.

With the most data center regions worldwide, consistent hybrid offerings, and broad AI functionality, Microsoft Azure is a market leading platform and strong foundation for a cloud first strategy. Azure has comprehensive services, tools, and marketplace solutions to deploy and manage critical applications. And its security, compliance, and big data solutions help companies drive strong business advantage.

In summary, the cloud journey requires strong strategy and execution blueprints. But are you and your leaders ready to deliver these guiding documents? This Point of View paper presents Trianz' perspective on the required approach to successful cloud strategy and business transformation, and Azure's role in that endeavor.

Key Considerations of Cloud Strategy
Given the importance and breath of a cloud strategy, there are many critical considerations when formulating this document. A cloud strategy is so fundamental to business success and digital transformation that it must be executed properly the first time. Below is a list of key considerations which should be thoroughly discussed by the effort's leadership before crafting the new document.

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Every established enterprise faces a scenario of high risk, uncertainty, and time compression. Companies that embrace these changes will be surrounded by opportunity, while those protecting the status quo will struggle enormously.[1]

— IDC

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Cross-functional, companywide participation

It's difficult to underestimate this need for broad participation. Yet many IT groups have unsuccessfully built cloud solutions on Azure with the expectation that business teams will migrate their workloads when instructed. On the contrary, cloud strategy cannot be created in isolation and must include the following teams – business units, IT applications, IT infrastructure, information security, and application build and release, also known as DevOps. Defining a cloud strategy in a silo and then passing it off to the next team will not achieve success.

Best-of-breed and hybrid architectures

Cloud providers have matured over time, differentiated offerings, and developed distinct competencies. Unique value can be derived from cross-industry leaders like Microsoft Azure as well as specialized offerings like GE's Predix IOT and Shenzhen Securities' financial clouds. Furthermore, new open standards have enabled cloud interoperability and access to data. As a result, it's important to embrace an established cloud provider but still maintain flexibility to take advantage of new offerings. And importantly, some workloads are better suited to private clouds which requires a hybrid architecture for which Azure provides a strong foundation.

IT as a service broker

The emergence of sophisticated cloud providers has changed the role of IT organizations from *"merely delivering technology, to brokering services from multiple external and internal sources*[3]*," states CIO.com's Jaikumar Vijayan.* Thus, traditional IT notions should be reconsidered with more emphasis on integration and alignment of technologies instead of focusing on infrastructure. In fact, many tasks previously performed by IT can now be offloaded to cloud providers like Azure. And new tasks include review and selection of cloud APIs and micro-services.

Start now

While contrary to other considerations, it's advisable to move to the cloud immediately, if not already started. This is a journey, not a point-in-time exercise. Thus, identify opportunities for immediate value while, in parallel, formulating a longer term strategy with phased milestones. In summary, don't wait for the strategy to be fully crafted before the first move. And remain open to modifications.

CADIS

Although cloud is foundational for digital business, three other technologies enable full transformation. First, analytics of public cloud and on premise data provide invaluable insights into customer behavior that inform successful offerings. Second, digital experience solutions that embrace mobile and social environments build personalized and powerful customer intimacy. And third, strong security offers essential confidentiality and data protection to every enterprise. Together, the CADIS foursome is the clear pathway of long term competitive advantage.

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> *Too many businesses believe that their digital business strategy is actually a roadmap, or a series of IT projects. Being digital is a capability – in your business it impacts the culture, metrics, organization, skills, and finally – the technology.*[2]
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> — *Forrester*
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[2] http://blogs.forrester.com/tim_sheedy/17-01-09-in_the_digital_world_cios_need_to_help_the_business_move_faster

[3] http://www.cio.com/article/2908156/it-strategy/culture-clash-transitioning-it-into-a-service-broker-culture.html

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Governance and manageability

Access to cloud data from multiple applications, warehouses, and endpoints is vital to digitization. However, protecting data is paramount. Thus, it's critical to leverage the industry's best guidelines and techniques to govern the use of data in the cloud, and automate IT service management (ITSM) processes within an adequately staffed program office. These protocols and personnel can streamline workflows and institutionalize the cloud into business and IT operations. Azure has a strong feature set to achieve these goals.

Future innovation

Due to the transparency of open source communities and fast release cycles, the cloud technology landscape is experiencing rapid and continuous innovation. Thus, when building and refining a cloud strategy, it's imperative to choose a cloud provider that contributes to and advances technology trends including cloud based artificial intelligence and machine learning, social software, and DevOps environments such as Azure's DevTest Labs.

Measure success

Lastly, it's critical to insert measurable business outcomes and milestones into a cloud strategy and track progress against these goals. There's no doubt that cloud adoption and digital transformation is a journey accomplished in well-defined, discrete segments while keeping long-term goals in mind.

In summary, business and IT executives must understand these important considerations and cloud capabilities to create a comprehensive strategy and execution plan. By placing business needs first, an effective cloud strategy will define the technologies used, not the other way around.

Cloud Strategy and Roadmap Development

Only after analyzing these critical considerations, in the context of business and IT environments, is it time to build the cloud strategy. To do so, it's advisable that leaders adopt the following steps.

Establish strategic objectives – Defining business and technical objectives requires a discovery phase that should include cross-functional questionnaires, interviews, assessments, and workshops to establish baseline goals. The senior leaders' highest-level business goals must be included. These initial discovery rounds often identify gaps which necessitates a second round of discovery.

Of critical importance is identifying organizational divides and getting all groups on the same plan, if not physically in the same room. This often requires breaking down functional, geographical, and even cultural barriers.

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> *The Cloud is an enabler of business change and acceleration, not more - but not less. It is about getting the VP of Marketing, Sales, Service, HR, Procurement, Controlling, and and and... around a single table with IT, and having an educated discussion about what helps the enterprise and the end users best.[4]*
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> — *Forrester*

[4] http://www.zdnet.com/article/the-7-attributes-of-a-comprehensive-cloud-strategy/

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Financial planning

Creating a business case to guide a cloud migration requires measurable cost and benefit goals, each of which map to TCO and ROI estimates. Cloud migration costs can be split into private cloud infrastructure, public cloud service fees, and payroll expense including business analysts, project managers, and cloud operations teams. A TCO calculator can expedite this exercise. Thereafter, business teams' projections of improved revenue, profitability and other benefits from the cloud implementation should guide ROI calculations.

Technology roadmap

Comprehensive cloud roadmaps start with a thorough assessment of existing applications including which ones to replace, migrate, and extend. Next is a review of existing infrastructure- servers, storage and network - to determine architectural changes and consolidation. The roadmap should propose a mix of IaaS, PaaS and SaaS, such as those from Microsoft Azure, and

include a comprehensive blueprint of the proposed cloud infrastructure, applications, data, and integrations.

As stated above, some workloads are more suited to private clouds which directs a hybrid cloud architecture. According to RightScale's 2016 State of the Cloud Report, 71% of enterprises have hybrid cloud environments, and 82% have a hybrid cloud strategy.[5]

Cloud council and execution roadmap

A solid execution roadmap includes the following steps - staging, security, performance tuning, launch preparation, documentation, and launch. Each steps contain important procedures, each critical to success. Given this complexity, a program office with project management is essential before beginning the journey. And a cloud council or stakeholders across every organization should meet regularly to guide the effort and ensure adequate change management focus.

Strategic execution

Now that planning is done and blueprints are in place, it's time to implement the strategy's full breadth. While IDC defines execution as the systematic process of working towards a comprehensively defined end state[6], it's as much art as science. Diligently following crafted plans is essential, as is drawing on independent experts when tough choices arise. Ultimately, turning strategy into tangible results requires drawing on internal expertise and process as well as borrowing from others when needed.

In summary, crafting a cloud strategy document and execution plan is a challenging task. But much less so when following an established methodology and use leading cloud solutions such as Microsoft's Azure which now spans 42 global datacenter regions, more than any other provider.

Azure offers over 100 cloud services to build, deploy, and manage a breath of workloads, from simple micro-services to internet-scale applications. Common workloads include .Net applications, SQL Server databases, DevOps and DevTest environments, SharePoint collaboration, Office and Exchange productivity, and big data analytics.

Azure's integrated tools provide developer flexibility from .NET to open source. Its services support a variety of operating systems, languages, and databases, and its DevTest Labs offer rapid provisioning of development and QA environments.   It uniquely enables data-driven, intelligent applications, and supports deep learning and real-time analytics.

> " *AT&T is a legacy telco which is transforming itself by adopting virtual infrastructure and a software defined networking focus in order to compete in the market and create value for customers in the next five years and beyond.* [7]
> *— OpenStack Foundation* "

[5] http://www.networkcomputing.com/cloud-infrastructure/8-best-practices-coping-hybrid-clouds/669475234

[6] https://www.trianz.com/downloads/pdf/trianz-idc-spotlight.pdf

[7] http://superuser.openstack.org/articles/and-the-superuser-award-goes-to-2d9eca50-c820-40b4-a9e2-8e156179ddce/

Why Trianz

Trianz is a Microsoft Silver Partner and 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.

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