Extending Your Azure Business Opportunity with Azure Stack

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The big opportunity: Application Innovation

Many of the competitive differentiators within organizations (e.g. supply chain, distribution model, customer data, operations, R&D, etc.) have been optimized by IT investments over many years. That organic growth pattern has led to tremendous value in the enterprise – and IT services companies thrive by providing their customers a strategic advantage over their competition through IT investment. But many of these assets sit behind a corporate firewall, may be regulated, and are very proprietary. For these assets, participation in the cloud computing revolution remains elusive. All the while, new start-ups without these assets accelerate their businesses quickly.

An IDC study of CIOs finds that 57% of CIOs are going to be “focused on delivering business innovation to increase revenues, margins, and new products” over the next three years. In turn, only 9% planned to maintain their “focus on maintenance and operations to manage costs and risks”. Companies are moving forward with a digital transformation strategy, using technology to develop new products and bring new revenue into the business. As the realization of the disruption of cloud has spread from the server room to the board room, businesses and technologists alike are looking for how cloud innovation, can be used to modernize existing investments so that they can continue to provide a strategic advantage to their company.

A well-formed innovation strategy begins with a modern application platform. The modern application platform today is being created in clouds. The cloud is setting the pace when it comes to innovation which has resulted in most organizations considering a cloud as they evaluate modernizing their application portfolio.

Azure Stack is an extension of Azure that enables partners to deliver the power of the cloud computing paradigm across their customer’s assets. With Azure Stack, partners can help their customers unlock the agility that comes from the cloud and application modernization, regardless of where that application runs, so that they can focus IT resources on delivering business value through innovation rather than simply managing costs and risks for heritage systems.

IDC forecasts that worldwide public cloud services revenue (i.e. SaaS, PaaS, and IaaS) will reach $195B USD by 2020, a 20.4% CAGR: almost six times the rate of overall IT spending growth. Large and very large companies will be the primary driver of worldwide public cloud services with spending of more than $80 billion in 2019. 40% of the total will come from companies with >500 employees. Large and very large companies are the customers who are looking to incorporate Azure Stack into their overall innovation strategy.

As cloud moves from an early, exploratory phase, to the mainstream, customer expectations of IT supplier’s capabilities are being reshaped by the ease and availability of cloud. Accordingly, the explosion of new technologies and solutions has been accompanied by a restructuring and rethinking of business models throughout the ecosystem.

Opportunity with Azure Stack

Azure Stack extends the Azure platform on-premises and introduces more optionality for innovation and more opportunity to those who embrace it. Partners can look to grow their businesses starting with what they do today, and expanding into complimentary areas. There are three key areas of opportunity, as follows:
Build applications and services to deploy to both Azure and Azure Stack

Azure provides a flexible platform that is built for builders. Whether using Microsoft or open source technologies, ISVs can build using the tools they want to. Once applications are built, they can increase adoption by making their solution available through the Azure Marketplace on Azure Stack.

As an extension of the Azure software platform, the goal with Azure Stack is to enable the customers to build applications on any Azure cloud. Many customers prefer to work directly with the ISV ecosystem when creating custom solutions. With Azure Stack, Microsoft is extending the Azure promise of profitability, innovation and market reach for ISVs.

- **Profitability**: By developing to a single platform, Azure Stack introduces operational efficiencies, lowered risks, predictable costs, and easy scalability so that ISVs can capture new business and focus on high speed to market.

- **Innovation**: By shipping a consistent application platform, ISVs can more easily adopt and incorporate the tremendous value of Azure PaaS into their design points – knowing that they can still run their applications outside of Microsoft’s datacenters when needed.

- **Market Reach**: Azure Stack is an extension of the Azure and that includes programmatic investments, such the Azure Marketplace and Azure Certified. With a consistent cloud platform, certified applications syndicated through the Azure Marketplace can be delivered to any Microsoft Enterprise customer or hosting partner running Azure Stack.

Offer managed cloud services across Azure and Azure Stack

Hybrid applications can solve problems in new ways. Imagine a single application that is distributed across clouds, but works the same way in each cloud. Azure Stack helps unlock new opportunities with customers who need a hybrid solution. For managed service providers, extending the operational context of solutions from Microsoft’s datacenters to the location that best suits a customer’s unique requirements is a critical component of attracting and retaining new customers. Azure Stack can be factored into solution designs for innovative customers. Regulatory, latency and other requirements can be refactored with Azure Stack to build new solutions or modernize existing applications, such as creating a cloud based front end for a legacy system that keeps data in a regulated environment.

Plan, customize, and operate Azure Stack in on-premises datacenters

Every Azure Stack cloud is an opportunity for planning deployment of the system, customization of the capabilities, and operational activities required for managing the lifecycle of the cloud.

- **Planning**: Prior to any deployment of Azure Stack, there is opportunity to perform feasibility studies, evaluate if Azure Stack is a right fit for customers as part of the customers overall objectives. Based on the workloads that are going to be run, determining the right size and configuration of the Azure Stack integrated system(s) that will be required. Prior to fulfillment by an Azure Stack hardware partner, customers will need help preparing the environment (e.g. networking configuration) or even acting as the overall project manager for the deployment.

- **Integration and Customization**: Once an Azure Stack is deployed by a hardware partner, Azure Stack has several key customization and integration activities that will need to be engaged in a traditional project manor. Based on the workloads to be run, additional Azure Services, such as App Service can
be added to Azure Stack. Additionally, populating the Azure Marketplace on Azure Stack will need to happen. As a new system, Azure Stack will need to be integrated into Dev/Ops processes and tools (such as VSTS) as well as existing IT systems (such as monitoring and chargeback).

- **Operations**: Once Azure Stack is up and running, a more annuity based opportunity for managing the live-site for workloads and day-to-day operations (such as backup and tenant management). Additionally, operational partners can work to manage support on behalf of customers with Microsoft and the hardware partner providing the integrated system.

**What Azure Stack means for existing partner businesses**

Azure already has been leading the way in helping partners transform their businesses as cloud continues to mature. In the context of Azure Stack, another key evolution moment is introduced for partners.

**Independent Software Vendors (ISVs)**

Cloud services have changed the way that developers think about how they build their applications and how they take them to market. Azure enables several different business models for companies with a software development focus. At a high level, ISVs can use the Azure Marketplace to reach customers of their software. Azure Stack extends this reach to hosters and enterprise datacenters. Additionally, many ISVs are transitioning to a SaaS model for their business. For customers that have unique requirements, an ISV can invest in their SaaS architecture on Azure, knowing they can distribute it to Azure Stack deployments, where it could be run by the ISV, an SI/MSP, or the customer themselves.

**Managed Service Providers (MSPs)**

Many hosters already provide tools, apps and services to make customers productive but fundamentally, their willingness to assume the burden of the capital expenditure on hardware, and facilities is their first line of value presented to customers. With the emergence of cloud, and the continuing commoditization of hardware, hosters are transforming to MSPs to take the expertise that ran hardware and facilities into the front line of value – building and managing Azure solutions. Azure Stack enables Azure solutions to be run in existing facilities. For example, a MSP in a regulated geography can provide a complete solution to a customer with a requirement to keep some data in that geography when needed and some in Azure when appropriate. In this way, a MSP can unify their skillset being developed for creating and running Azure solutions with the continued investment in their existing facilities.

**System Integrators (SIs)**

Like hosters, many Sis are transitioning to a MSP model – building solutions for customers in Azure. That said, they also have a long history of delivering value to their customers by deploying and troubleshooting key infrastructure pieces in on-premises datacenters.

In the world of hybrid cloud with Azure Stack, a key additional opportunity for SIs can be summarized by: plan, customize and operate Azure Stack (as described in previous section). Every Azure Stack cloud is an opportunity for an SI to lead and influence deployment of the system, customization of the capabilities, and operational activities for the customer. For SIs willing to also be CSP, they can be involved in software transaction and be better placed for help planning Azure Stack services for their customer.
Azure Stack is a co-engineered, integrated system from select hardware partners. The Azure Stack software and hardware deployment is done by hardware partners when the system is delivered. As described in the previous section under "planning", SIs can still participate at the infrastructure layer, but it requires collaboration with the hardware partners. With Azure Stack, the SI community's biggest business opportunities reside at a higher altitude than hardware infrastructure integration.
Illustrating the ecosystem opportunities

There are several key use cases for Azure Stack that present opportunities for many different partner types and business models. One use case is the edge and disconnected scenario which is discussed below. In the rest of the section, we provide an example of the key areas of partner engagement for this use case.

**Edge and disconnected overview**

Organizations can address latency and connectivity requirements by processing data locally in Azure Stack and then aggregating in Azure for further analytics, with common application logic across both. We’ve seen great customer enthusiasm across different contexts, including factory floor, cruise ships, and race car tracks.

In this high-level use case, data, generated in edge locations, such as a cruise ship, is required for local processing at the edge on Azure Stack. In aggregate, the data from all the vessels in the fleet can be sent to Azure and processed for consumption by other applications that maintain the operations of the fleet of vessels. In this way, a single application model can be adopted across all components of the solution. This scenario brings together the best of edge computing and cloud computing to unlock new business value that just hasn’t been possible before.
**Solution Design and Architecture**

The first opportunity is to design the entire system on behalf of the customer. First, there is domain expertise that is required for each unique situation. Some edge and disconnected scenarios could be built around safety and environmental impact while others could be designed around predictive maintenance of large scale factory operations. Building a practice around Solution Design and Architecture will require deep understanding of the customer problem, application development, Azure services, regulatory requirements, and Azure Stack operations. This is the opportunity to show expertise on how best to use Azure and Azure Stack together as part of a portfolio assessment for the customer.

By designing and developing “solution templates” and automations, investments can be customized and repeated for many customers.

**Writing applications**

Modern applications run on cloud services – either the dynamically provisioned elastic infrastructure as a service or platform-as-a-service and serverless computing.

In this example, applications to run both the local processing for ship maintenance as well as fleet management needed to be developed. Those applications could be built directly against Azure Services, or as pre-packaged applications delivered through the Azure Marketplace. Custom point solutions can be syndicated from Azure to every Azure Stack. By writing for the Azure platform, custom applications that are focused on the customer problem can be designed in a way to be modular and highly repeatable from customer to customer.
Managed Services

Azure Stack brings the cloud economic model on-premises, with pay-as-you-use pricing. As with Azure, there are no upfront licensing fees for using Azure services in Azure Stack and customers only pay when they use the services. Cloud services are transacted in the same way as they are in Azure, with the same invoices and subscriptions. Services will be typically metered on the same units as Azure, but prices will be lower, since customers operate their own hardware and facilities. The Cloud Solution Provider (CSP) program puts partners in the middle of the relationship with the customer, delivering on solution success, and managing the business relationship. The uniform nature lets partners do what’s right for the customer’s requirements without having to worry about business model or support relationships.

Modern Development Practice Consulting and DevOps

DevOps results in a transition from project based development to product based development. When building and running innovative applications in the cloud, getting the innovation to market and continuously improving becomes an important skillset. For a custom fleet management application, for example, continuous feature delivery could be the best way to solve the customer problem. Many customers do not have the skillset in-house to adopt the latest processes for application development and are looking to partners to teach their people and design the processes with them. A standardized DevOps platform between Azure and Azure Stack means that investments in people and processes transfer between clouds.
**Azure Stack Planning, Customization, and Integration**

In a complex, custom environment such as a cargo ship, a robust planning, customization, and integration requirement for outfitting the ship and its personnel will be required. Scoping the networking requirements and integration with a satellite service will dictate the success of the solution. The overall solution uses Azure Functions on Azure Stack, so that will need to be added to the deployment and made available to the application developers. Accordingly, the DevOps toolchain and process flow used to continuously deploy functionality to the App will need to have Azure Stack incorporated. Each instance of Azure Stack will need to be integrated into existing management solutions (such as System Center Operations Manager). With the move to cloud based management concepts, integrating the application usage information into a chargeback system helps to ensure that the operational costs are managed back to the correct departments.

**Azure Stack Operations**

Once the solution is built, each Azure Stack will need ongoing patching and updating, the day to day stuff of operating IT systems. As each shipping vessel comes to port, maintenance of the Azure Stack patch and update process can be performed as part of normal ship maintenance procedures. New functionality required for system updates, such as new Marketplace content from ISVs, can be implemented and added to the Azure Stack deployment.

**Where to grow next**

Paradigm shifts in technology, such as cloud computing, present a tremendous amount of opportunity for all those interested in identifying and taking advantage of the changing landscape. Cloud adoption requires a shift in strategy for the partner eco-system to keep thriving.
With Azure Stack, leadership vision and a focused evolution of a traditional skill are the baseline for developing or continuing to maintain the role of trusted advisor and a key operator for customers.

Many partners are meeting customers where they are by growing, changing, and evolving the value their business takes to market by building on skill sets adjacent and growing into new business models to meet their customers’ expectations. Evolving for the cloud means building on a core competency through custom engagements with customers and then transforming those engagements into IP that serves as the basis for repeatable lines of business providing managed services.

Stewarding a company’s assets across people, processes and technologies through their digital transformation can be accelerated by adding Azure Stack to their portfolio.

**The Power of Partnerships**

Not every company can, or even wants to deliver value in every opportunity. That said, many companies will find tremendous value in focusing on engaging with complimentary partners. For example, a hoster has a tremendous proficiency operating the physical plant and infrastructure for a datacenter workload. They might not, however, have the deep, vertical expertise to create a custom LOB application.

A solid alliance could create a custom LOB application that has infrastructure, managed both in Azure and in an enterprise datacenter, and application components continually improved by experts at every layer of the engagement.

Sound partner-to-partner activity is an effective model of providing customers with whole-solutions.

As partners reflect on the IT investments made by their customers over the last thirty years, they can see that over the course of time technology has become inextricably interwoven into the very foundations of businesses. Almost every asset, from brick and mortar, to supply chains, to distribution networks, all the way through personnel and processes, have organically grown – often with partner help. As these assets are evaluated and re-envisioned for the future, customers are looking to trusted advisors who can help them with the technology and business transition for the next thirty years.

**For more information:**

Microsoft Azure Stack

- **Overview**
- **How to buy**
- **Azure Stack integrated systems**

Build applications and services to deploy to both Azure and Azure Stack

- **Azure Marketplace**

Offer managed cloud services across Azure and Azure Stack

- **Become a Microsoft CSP**

Plan, customize, and operate Azure Stack in on-premises datacenters

- **Get ready with the Azure Stack practice accelerator**