



Migration to Microsoft Azure: Transforming the Datacenter

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Introduction

The ROI of modernizing apps

Organizations can benefit from new app patterns and technologies. A first step is containerizing applications, enabling them to run on virtual machines. By containerizing apps and/or transforming them into microservices, migration to the cloud becomes much easier. A microservices architecture takes a monolithic application and breaks it into a collection of modular services, each of which operates independently, enabling them to be deployed and managed more easily.

Containerize the app

- **10X** OpEx time savings
- **5 min** average new time to scale apps

Use modern infrastructure

- **50%** infrastructure consolidation
- **99%** deployment time savings

Operating in the cloud has moved quickly from being an interesting and novel concept just a few years ago, to becoming a core part of any organization's technology strategy. Cloud adoption is on the rise. Today, more than 62 percent of organizations are using the cloud as a platform for modernizing their IT environments, and 87 percent plan to integrate their on-premises datacenter with the public cloud. What's driving this change? With 80 percent of global IT budgets dedicated to maintenance, and nearly a third of IT time spent on administrative tasks, organizations are finding the business efficiencies and cost savings of operating in the cloud increasingly attractive. As summarized in the Enterprise Cloud Strategy ebook available from Microsoft, "The macroeconomics of the cloud mean cloud vendors can achieve economies of scale that no single enterprise can, and there are many opportunities [that the cloud offers] for cost savings."¹

Economics of the cloud

While the inherent economies of scale in the cloud offer significant savings, there are several other dimensions to the cost equation.

- **CapEx to OpEx.** The cloud transforms an organization's IT cost model. Unlike on-premises hardware and infrastructure, which must be depreciated over time as a capital expenditure, the cloud is accountable as a predictable operating expense, accounted for differently than a capital expense. Cloud computing works on a pay-as-you-go model, like your electric bill—you only pay for what you use. That alone can translate into significant savings, as you no longer need to plan for and deploy infrastructure based on peak usage periods, with excess capacity going unused the rest of the time.
- **Datacenter modernization.** Many organizations have significant investments in datacenters and equipment already in place. As these investments are depreciated, the need to update and modernize can represent additional significant expenditures. Making the choice to shift infrastructure to a pay-as-you-go model in the cloud provides opportunity for significant savings.
- **Increasing security risks.** The need to protect against modern and ever-changing threats, meet and exceed regulatory requirements, and plan for business continuity in the event of a catastrophic event all add complexity and cost to supporting an on-premises IT environment. Shifting to the cloud enables you to take advantage of robust security and compliance built into the core platform, while using the integrated security services that it provides.

¹ *Enterprise Cloud Strategy, 2nd Edition*, Briggs and Kassner, <https://azure.microsoft.com/en-us/resources/enterprise-cloud-strategy/en-us/>

Moving to the cloud

Discover and Assess

- Automated workload and data discovery
- TCO and ROI analysis
- Recommendation reports

Migrate

- Effortless app, virtual machine, and workload migration to Azure
- Convert existing .NET applications to containers
- Your choice of Azure database destination

Optimize

- Continual health, performance, and cost management
- Access to advanced features in data services
- Application analysis for optimal PaaS migration

How to get started? Migration to the cloud is a process, with several important milestones along the way. Without a strong plan, risks can include complex and time-consuming activities compounded by a lack of relevant skills, loss of control by moving computer resources off-premises, bandwidth issues, and unexpected costs.

There is a simpler approach. Identifying applications and workloads that can be easily shifted to a cloud environment can provide immediate cost savings and efficiency, and these applications can be optimized and modernized over time to take full advantage of all that a cloud environment enables. Some workloads, like SAP, require more planning, but running them in the cloud also provides significant advantages to continuing to maintain them in an on-premises data center.

The first step in planning the journey is the discovery. Microsoft and its vast network of partners provide a wide range of tools and services to help a customer get its arms around its existing environment, and identify opportunities for quick, low-touch migrations that will provide instant cost savings with minimal change to the applications. Using the Azure Migrate tool—part of an end-to-end migration solution from Microsoft—you can easily identify and score workloads and applications to reflect readiness for migration. The service maps existing physical servers in a company's datacenter to optimal Azure virtual machines, forecasts the predicted return on investment, and total cost of ownership for the migration. In many cases, customers that have purchased Software Assurance on Windows Server can use offers like the Azure Hybrid Benefit for Windows Server to reduce their total cost of ownership.

Once discovery is complete, and initial targets are identified, Azure migration services replicate the virtual machines, applications, and even data to Azure.

With the targeted virtual machines, applications, and data on Azure, the organization's IT skills can be repurposed to optimizing and modernizing those apps and data, and innovating with the capabilities of the cloud. Cloudyn, a recent addition to Microsoft's portfolio, provides granular, real-time visibility into cloud consumption, cost, and performance, and can show at a glance which resources are under- or over-utilized, enabling fast optimization to the changing needs of businesses in real time. Far beyond routine operational maintenance, this gives highly skilled professionals the opportunity to move IT from a source of cost to a source of business agility and innovation.

Next steps

While the very word “migration” can conjure up images of a long drawn-out, complex, and unrewarding process, the reality is that moving apps, workloads, and data to the cloud on Microsoft Azure can provide quick and significant cost savings. Organizations can also simplify operations, take advantage of the scale of the services offered in Microsoft Azure, and ensure greater security and compliance for their most sensitive information. Microsoft and its partners offer a proven suite of tools and services to smooth your transition to the cloud, and speed your time to realizing the benefits of shifting your computing environment to the cloud.

For a deeper understanding of migrating to Azure, and other topics related to developing and implementing a cloud strategy for your organization, download the e-book *Enterprise Cloud Strategy, 2nd Edition*, on Microsoft’s [Azure web page](#).

Learn more about Microsoft services that support migration to Azure at www.azuremigrationcenter.com. To begin a proof-of-concept migration, contact your Microsoft representative.