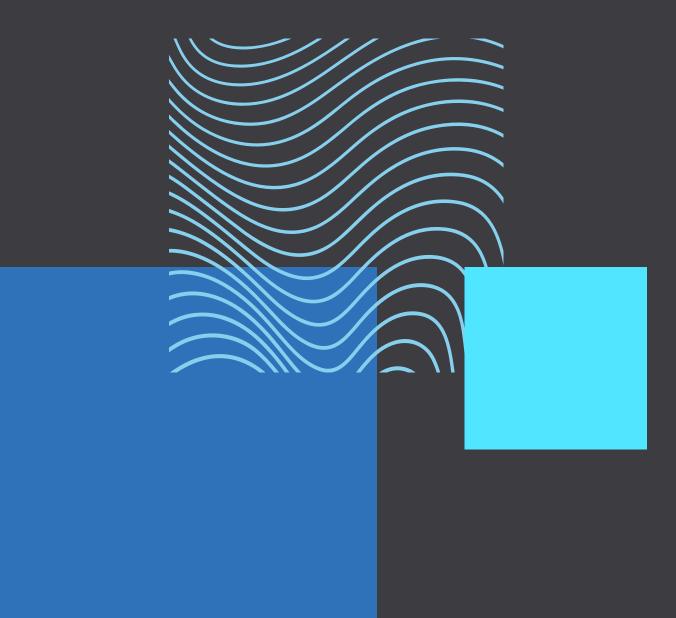


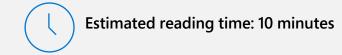
A Finance Resource Kit: Benefits of Azure Migration



This information is for

IT professionals, CFOs, procurement professionals, and business leaders who want to:

- Understand and document the financial benefits of cloud migration for their organizations.
- Educate financial leaders on the justification for investing in cloud innovation.
- Learn about cost benefits when migrating to Microsoft Azure and how to optimize savings.

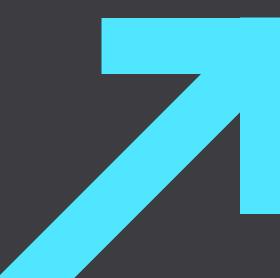


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1. Introduction

Successful cloud migration begins with aligning stakeholders across IT, finance, procurement, and more. To build full buy-in for your cloud vision, you'll need to understand and address the business benefits and financial impacts of moving your infrastructure to the cloud.

Here are some common questions customers have when planning a move to the cloud:

What is the return on investment of migrating?

What pricing models and savings options are available on Azure?

Once we migrate, how can we monitor and optimize our spending?

This resource kit is designed to help you answer these questions so you can start planning your migration with an understanding of the benefits and cost savings available on Azure. Companies experienced cost savings, increased agility, higher revenue opportunities, and fast payback periods by migrating to Azure.[†]

406%

three-year ROI

51% more efficient IT infrastructure teams

12 months to payback

87% faster deployment of IT resources

40% lower three-year cost of operations



We can now support the business better, faster, and cheaper with Microsoft. The number of tools in our toolkit right now, and the time to market that we can deploy things ... used to be a dream. Now, it's something that we can make real in a fairly quick period of time.

⁺ This page, all numbers cited from *The Business Value of Microsoft Azure for SQL Server and Windows Server Workloads*, Dave McCarthy and Matthew Marden, IDC white paper sponsored by Microsoft, September 2022.



2. Financial benefits of the cloud

Migrating on-premises infrastructure to the cloud frees up investment formerly dedicated to on-premises infrastructure and allows for more agility.

Cost savings

Azure offers significant cost savings over on-premises solutions and when compared with other cloud providers.

16%	37%	54%
average savings of	average three-year	potential total cost
direct infrastructure-	cost savings when	of ownership (TCO)
related costs with	you run equivalent	savings on Azure versus
Azure ¹	workloads on Azure ¹	running on-premises ²

Learn about flexible pricing, business value, and cost savings that help you do more with less.

Pay with less Azure AWS is up to 5x more expensive than Azure for Windows server and SQL Server³ **Save up to 85%** SQL Managed Instance compared with Amazon RDS⁴

Save up to 45% SQL Server virtual machines compared with AWS EC2⁵

Learn more about competitive pricing at <u>Azure vs. AWS</u>.

Extend your existing investments and skills

Make the most of your existing infrastructure investments and your teams' familiar tools and skills. Bring any infrastructure application to Azure with ultimate choice and flexibility—whether general purpose workloads such as Windows Server, SQL Server, and Linux, or purpose-built workloads like VMware, SAP, NetApp, Oracle, and Cray.

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Capex to opex

A key benefit of cloud migration is transitioning IT infrastructure from being a capital expense (capex) to an operational expense (opex). An on-premises IT infrastructure is a large capital expense—including everything from facilities to servers, networking gear, cooling systems, racks, and storage. Moving your infrastructure to the cloud allows you to free up money previously invested in capex and re-invest in innovation.



Agility

Provisioning and deploying new hardware in an on-premises environment can take weeks, if not months. When you migrate to the cloud, you can spend less time maintaining datacenters and can take advantage of the rapid scalability of cloud solutions.



Shared responsibility

With an on-premises infrastructure, your team assumes 100 percent responsibility for security, tying up human capital, hardware, and software resources that aren't core to the business. In a cloud-based IT infrastructure, the cloud provider and customer share responsibility for security.

Azure provides built-in services that enable advanced threat protection, industry-leading threat intelligence, and confidential computing to protect your data. Azure helps you strengthen the security of your cloud workloads—and stay compliant—by offering more certifications and global regions for data residency options than any other cloud provider.

Create a business case for cloud transformation >

Use the guidelines from the Cloud Adoption Framework to develop a financial model for your organization's cloud transformation. Calculate ROI, project changes in revenue and costs, estimate depreciation reduction or acceleration, and quantify operational cost and capex reductions.



3. Understanding cloud pricing and Azure cost savings

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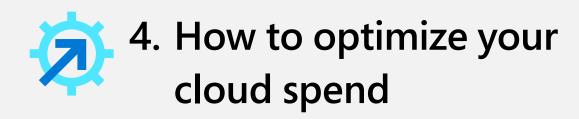
Azure offers savings and advantages for any migration scenario. Depending on your organization's existing licenses, requirements for elasticity, and usage projections, you can find a pricing model and services that fit your business.

Cloud pricing options and advantages

<u>Option</u>	Suitability
<u>Create a free</u> account	Create an account for free and start with a \$200 credit. Popular services are free for 12 months and 55+ services are always free.
<u>Pay-as-you-go</u> consumption	Pay-as-you-go pricing offers low up-front investment, but it may not be the most optimal choice, depending on your overall usage patterns, since pricing is typically higher than other options.
<u>Reserved instance</u>	Azure Reserved Virtual Machine Instances offers significant savings when you commit to a budget and forecast for one to three years.
Dedicated host	Companies with software tied to a dedicated host may benefit from existing software licensing agreements.
Managing capacity shortfalls and excess capacity	Experience flexibility in acquiring—or selling back—resources as needed, with the ability to schedule non-urgent batch jobs at off-peak times to get even lower costs.

<u>Azure Hybrid</u> <u>Benefit</u>	Azure Hybrid allows your company to optimize certain existing licenses and subscriptions to lower subscription costs when porting workloads between on-premises and cloud deployment.
<u>Azure savings plan</u> for compute	Reduce your compute costs with an easy, flexible savings plan. Get lower prices by agreeing to spend a fixed hourly amount on compute services for one or three years.
<u>Azure Cost</u> <u>Management</u>	Monitor, allocate, and optimize cloud costs with transparency, accuracy, and efficiency for clear cost governance.
<u>Development/test</u> instance	Active Visual Studio subscribers can get discounted rates on dev/test services, reducing the costs of ongoing dev/test workloads.

Learn more about <u>cloud pricing options</u> and how to get the best value at every stage of your cloud journey.



Resource cleanup, rightsizing, and optimization	When migrating to Azure, consider which workloads can be turned off and how to optimize those resources and operational hours. <u>Azure Migrate</u> offers a unified approach to help discover and assess on-premises resources. You can then track and manage your progress using a central dashboard.
Resource tagging and spend categorization	Azure allows for simplified resource tagging and cost allocation compared with on-premises. This helps increase spend accountability, while evaluating workload ROI.
Continuous cost optimization	Workloads aren't static. Once in Azure, you can use tools like Azure Cost Management + Billing and Azure Advisor to govern costs—even across clouds—and establish processes to continuously to optimize cloud costs.
Optimize Azure	Free for Azure customers, <u>Azure Cost Management</u> offers complete

and AWS costs

Free for Azure customers, <u>Azure Cost Management</u> offers complete visibility into your cloud spending—including Azure and AWS—in a single portal. Combined with <u>Azure Advisor</u>, the tool helps you optimize cloud costs by taking advantage of reservations, rightsizing, and removing idle resources.

5. Customer success stories

Learn about the real-world experiences of companies that migrated their infrastructures to Azure.

BlackRock modernizes its infrastructure with Azure

<u>BlackRock</u>, the world's largest asset management firm, manages a portfolio of more than \$10 trillion and serves as a fiduciary to enterprises and governments around the world. When its on-premises infrastructure became too costly and time-consuming to manage, BlackRock turned to Azure to help facilitate its next chapter of growth and innovation.

The path to migration

BlackRock sought a modernized infrastructure for its investment platform Aladdin that would enable them, outside of the constraints of an on-premises infrastructure, to deliver new products faster, help people and companies in more locations, and innovate more extensively. BlackRock evaluated major cloud providers and decided to form a strategic partnership with Microsoft because of its global reach, significant local presence, and high level of security.

Using a "lift-and-shift" strategy (moving resources from on-premises to the cloud, with minimal design changes), BlackRock migrated its Aladdin platform to Azure on a client-by-client basis. In six months, the technology teams built a pipeline securely to migrate clients from on-premises to the cloud, at scale, in an automated fashion. BlackRock has since moved two-thirds of their Aladdin client instances to Azure, and they plan to move the remaining instances over the coming months. Migrations have been completed on time, according to plan, and without significant errors.

Switching to Azure has enabled BlackRock to bring innovative new solutions to market faster and sell Aladdin technology in regions where it didn't previously have local datacenter capabilities, serving entirely new client segments. Thanks to Azure's elasticity and global reach, BlackRock can spin up a new client environment in weeks rather than months.

The result: Moving Aladdin technology to Azure created new opportunities for BlackRock to innovate and build for the future, with increased efficiency and security, as well as a more widely distributed geographic IT presence.

Benefits

- Moving to Azure improved Aladdin's efficiency for provisioning and hardware administration and increased data security.
- Aladdin is now positioned for long-term innovation with the ability to bring new solutions to market faster.

We can spin up a new client environment in weeks, rather than quarters, because of the elasticity and global reach of Azure."

Joseph Chalom

Head of Strategic Ecosystem Partnerships, BlackRock

ACI Worldwide increases efficiency, accelerates innovation with Azure

<u>ACI Worldwide</u> provides scalable, highly secure real-time payments solutions for the financial services industry. The multinational sought to transform the global payments space in order to provide the greatest possible value for its banking clients. When ACI needed to deploy its solutions faster, the industry leader chose to embrace fully the automation enabled by the cloud.

The path to migration

ACI had maintained a fully on-premises environment with Linux, but found that its architecture lacked efficiency. Creating the infrastructure for a new merchant took several weeks; configuring the hardware alone took two months. Customers followed an involved process of procuring and deploying hardware, setting policies, and performing all the other tasks needed to lay the groundwork for a new system. Based on their longstanding relationship and the opportunity to use efficient open-source solutions on Azure, ACI chose to work with Microsoft on the migration.

Microsoft worked with ACI architects to reduce the time needed for every task, building restful APIs that reduced merchant account set-up from eight minutes to less than 10 seconds. The teams also optimized ACI's use of Azure and Linux, ingesting data via Azure continuous integration and continuous delivery (CI/CD) pipelines. This proved to be a powerful solution, as it reduced lengthy six-week deployment times for payment applications to just 45 minutes.

The automation, tooling, and templating capabilities offered by Azure accelerated every aspect of the adaption of the ACI platform and the onboarding of new merchants. It significantly improved speed for customers, who now can have their entire system—infrastructure, software, connectivity—configured by an ACI engineer at the touch of a button.

The result: Embracing the cloud enabled ACI to help customers modernize and develop new revenue streams, and it dramatically accelerated time to market.

Benefits

- ACI unlocked the full potential of an open-source solution while maintaining cost savings.
- Embracing the cloud reduced system deployment and configuration time from two months to one day, while increasing efficiency and time to market.

Configuring the hardware alone takes about two months on average. With Azure as our cloud and Linux on Azure, we not only deploy the entire system, but configure it for high availability in less than a day. Azure is a great accelerator."

> Andy Shearman, Architect, ACI Worldwide

eClinicalWorks migrates to the cloud on its terms

<u>eClinicalWorks</u> is a national innovation leader with cloud-based solutions for electronic health records (EHR), practice management, patient engagement, and population health management. Rapid growth prompted eClinicalWorks to seek a new solution with the appropriate capacity to manage the influx of data and network traffic.

The path to migration

Under its traditional colocation hosting model, as it introduced new customers, eClinicalWorks needed to buy more servers, hardware, and data storage. In addition to driving up costs, this process slowed growth and required IT teams increasingly to dedicate time to managing new hardware installations and customer migrations. The company sought a public cloud solution to meet its requirements for scalability, security, and storage, and to provide compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

eClinicalWorks was drawn to Azure for its straightforward setup, ease of use, and dedicated support from Microsoft experts. The company worked closely with an Azure development team to migrate massive amounts of eClinicalWorks-hosted data to the cloud, including millions of small but unstructured data files, such as faxed or scanned medical documents. eClinicalWorks has since moved its EHR platform to Azure in a seamless migration to Azure Virtual Machines and Azure Disk Storage.

After moving customer clusters from its legacy hosting environment to Azure every weekend, the migration of eClinicalWorks' EHR platform to Azure is now 99 percent complete. The company is also in the process of moving the rest of its EHR components over, including up to 70 component services, with several already moved and running smoothly. With the flexibility of Azure and its ability to support rapid innovation, eClinicalWorks is deploying innovative features into its customer offerings faster than it was able to deliver new capabilities in the past—often in weeks versus months or even years. In addition to optimizing its operating speed, eClinicalWorks has accelerated time to market for new physical hardware from three months, in its previous colocation model, to a maximum of two weeks with Azure—including security and compliance checks.

The result: Thanks to Azure's flexibility and agility, eClinicalWorks has added new customers and deployed new applications faster than previously possible.

Benefits

- After migrating to Azure, eClinicalWorks saw improved platform agility, resilience, and uptime.
- eClinicalWorks accelerated their time to market for new physical hardware from three months to two weeks.
- Azure increased eClinicalWorks' operating speeds and reduced operating costs.

As we get out of the infrastructure management business, Azure has given us platform agility, resilience, and uptime. We're able to build those benefits into our deployments and ensure that we have high availability so we can handle potential failures without issue."

Bharat Satyanarayan

Vice President of Technology and Quality Assurance, eClinicalWorks



Ready to get started?

- Explore <u>Azure Migrate and Modernize</u> for offers, support, and resources to start migrating.
- Start assessing and planning your migration with Azure Migrate.
- Get in touch with a sales expert to explore the best solution for your organization.
- Start using Azure with a free account and \$200 credit.

When it comes to cloud migration, you'll want to bring in finance partners and key stakeholders from the beginning and include them in appropriate decisionmaking and progress-review forums. Once you've developed your cloud migration plan and business case, here are resources you can use to help guide your discussion with key lines of business stakeholders.

Cost planning tools and resources

Azure TCO Calculator

This tool helps you estimate the cost savings you can realize by migrating workloads to Azure.

Azure pricing calculator

Configure and estimate the costs for Azure products with this tool.

Azure Cost Management

ACM is a tool that helps you get more value out of the cloud and implement financial governance in your organization.

Azure Advisor

Available at no additional cost, Azure Advisor analyzes your configurations and usage telemetry and offers personalized, actionable recommendations to help optimize your Azure resources.

Azure cloud economics

This resource collection will help you get greater return on your cloud investment with financial and technical guidance.

Migration tools and resources

Azure Migrate

This is the central hub of Azure cloud migration services and tools.

Azure Migrate and Modernize

Azure Migrate and Modernize provides migration assistance to help customers bring workloads to Azure with confidence.

Azure Hybrid Benefit

AHB provides information on the cost savings benefit of bringing Windows Server and SQL Server on-premises licenses with Software Assurance to Azure.

Microsoft Cloud Adoption Framework for Azure

Define your strategy, make a plan, ready your organization, adopt the cloud, govern and manage your digital estate.

Training and documentation

Cloud Adoption Framework guidance

The framework is a collection of documentation, implementation guidance, best practices, and tools to accelerate your cloud adoption journey.

Microsoft Learn: Economics of cloud computing

Here you'll get introductory training on financial and security aspects of the cloud.

Microsoft Learn: Plan and manage your Azure costs

Here you'll find training on cost savings best practices, including how to use the Azure Pricing Calculator and Azure Advisor.

E-book: Choosing Your Database Migration Path to Azure

Boost security and cut costs by migrating your SQL Server workloads to the cloud with Azure.

Supporting research

The Business Value of Microsoft Azure for SQL Server and Windows Server This IDC white paper demonstrates how eight global enterprises from diverse industries realized significant financial and efficiency benefits by migrating their SQL Server and Windows Server workloads to Azure.

The Business Value of Migrating and Modernizing to Microsoft Azure

Learn how seven global enterprise companies from diverse industries all grew revenue, lowered their IT infrastructure costs, and boosted security and productivity while migrating and modernizing in the cloud.

Total Economic Impact[™] of Azure VMware Solution

Learn about the cost savings and business benefits enabled by Azure VMware Solution.

Gartner Magic Quadrant for Cloud Infrastructure and Platform Services Use this Gartner research to make strategic cloud provider selections.





<u>Get expert assistance from Azure Migrate and</u> <u>Modernize</u> >

Start your migration with an Azure free account >

Connect with an <u>Azure sales specialist</u> >

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Sources

¹ IDC Business Value Executive Summary, sponsored by Microsoft Azure, The Business Value of Migrating and Modernizing to Microsoft Azure, IDC #US49665122, September 2022

² Costs and Benefits of .NET Application Migration to the Cloud, GigaOm, 2022

- ³ Calculations based on scenarios running 744 hours/month for 12 months at 3-year Reserved Instances or Reserved Capacity. Prices as of October 24, 2018, subject to change. Azure Windows VM calculations based on two D2V3 Azure VMs in US West 2 region at the SUSE Linux Enterprise Basic rate. AWS calculations based on two m5.Large VMs in US West (Oregon) using Windows Server pay-as-you-go rate for Reserved Instances under Standard 3-year term, all upfront payment. SQL Server calculations based on 8 vCore Azure SQL Database Managed Instance Business Critical in US West 2 running at Azure Hybrid Benefit rate. AWS calculations based on RDS for SQL EE for db.r4.2xlarge on US West (Oregon) in a multi AZ deployment for Reserved Instances under Standard 3-year term, all upfront payment. Extended Security Updates cost used for AWS is based on Windows Server Standard open NL ERP pricing in USD. Actual savings may vary based on region, instance size, and performance tier. Savings exclude Software Assurance costs, which may vary based on Volume Licensing agreement. Contact your sales representative for details.
- ⁴ Calculations based on scenarios running 744 hours/month for 12 months at 3-year Reserved Instances. Prices as of October 24, 2018, subject to change. Savings calculations based on two D2V3 Azure VMs in US West 2 region, reduced compute rate at SUSE Linux Enterprise Basic rate with Azure Hybrid Benefit. AWS calculations based on two m5.Large VMs in US West (Oregon) using Windows Server pay-as-yougo rate for Reserved Instances under Standard 3-year term, all upfront payment. Actual savings may vary based on region, instance size, and performance tier. Savings exclude Software Assurance costs, which may vary based on Volume Licensing agreement.
- ⁵ Calculations based on scenarios running 744 hours/month for 12 months at 3-year Reserved Capacity. Prices as of October 24, 2018, subject to change. Savings based on eight vCore Azure SQL Database Managed Instance Business Critical in US West 2 running at Azure Hybrid Benefit rate. AWS calculations based on RDS for SQL EE for db.r4.2xlarge on US West (Oregon) in a multi AZ deployment for Reserved Instances under Standard 3-year term, all upfront payment. Actual regional pricing and program discounts may apply. Actual savings may vary based on region, instance size, and performance tier. Savings exclude Software Assurance costs, which may vary based on Volume Licensing agreement.