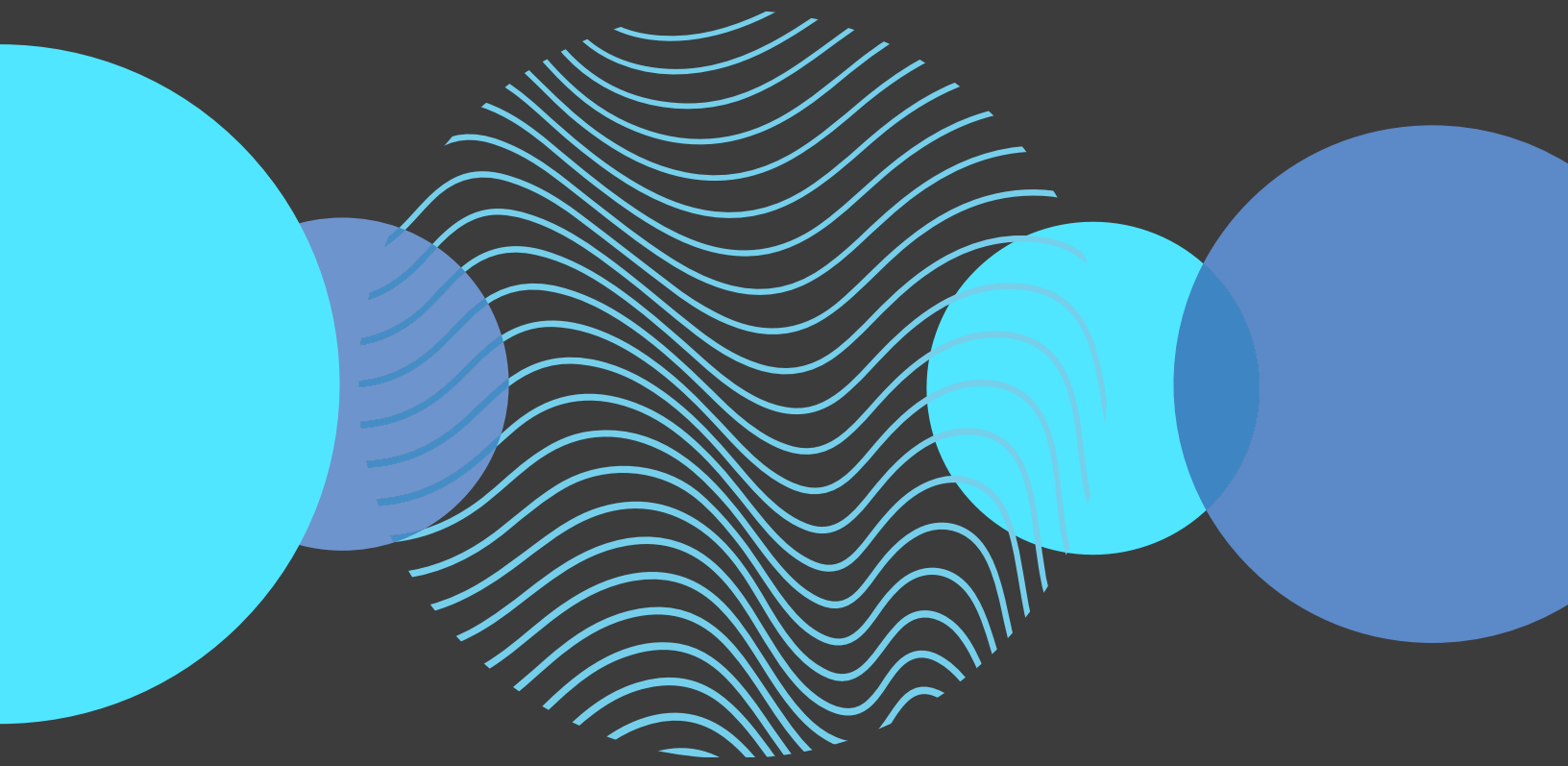
Microsoft Azure

Cloud Lessons Learned

Learn how four companies migrated their workloads to Azure



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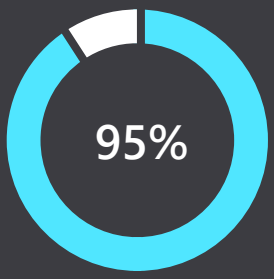

of Fortune 500 companies trust their business on Azure, the only cloud provider with 90+ compliance offerings.

Cloud computing offers solutions to real problems, including ageing hardware, barriers to innovation, capacity constraints and even regulatory requirements.

Moving workloads can be daunting, but careful planning and a review of different migration scenarios can help you find the best solution for your organisation to migrate with confidence.

Moving to Azure helps you get better performance from your investments with support and expertise from Microsoft at every step. You can learn more from your data, create better customer experiences, respond to business demands more quickly and become more resilient to changing business needs.

Many businesses, including BlackRock, ACI Worldwide, eClinicalWorks and Carlsberg Group, have already migrated their workloads to Azure. Learn how they each found the right solution for migration with Azure, what processes they used and how they've achieved cost savings and improved efficiency.

2
Modernise your infrastructure

BlackRock: Lift and shift from on-premises to Azure-delivered scalability and security

BlackRock, the world's largest asset management firm, manages a portfolio of more than USD 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

For its investment platform, Aladdin, BlackRock sought a modernised infrastructure that would enable them to deliver new products faster, help people and companies in more locations and innovate more extensively. Facing increasing demands for in-country and in-region data centres to address client preferences, system latency goals and regulatory requirements around data sovereignty, BlackRock needed to expand its innovation potential beyond the constraints of an on-premises environment. 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 to migrate clients securely 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 with a plan to move the remaining instances in phases. 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 data centre 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

- BlackRock has improved efficiency for provisioning and hardware administration.
- Azure increased BlackRock's data security.
- BlackRock 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

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Increase efficiency, accelerate innovation

ACI Worldwide: Migrating from Linux on-premises to Linux on Azure unlocks efficiency and cost savings

ACI Worldwide 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.

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 adaptation 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 modernise and develop new revenue streams, dramatically accelerating time to market.

Benefits

- ACI unlocked the full potential of an open-source solution while maintaining cost savings.
- ACI increased efficiency and accelerated their time to market.
- Their system deployment and configuration time was reduced from two months to one day.

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

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Migrate with flexibility

eClinicalWorks: From colocation hosting to agility and resilience on Azure

eClinicalWorks 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 set-up, 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% 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 optimising 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.

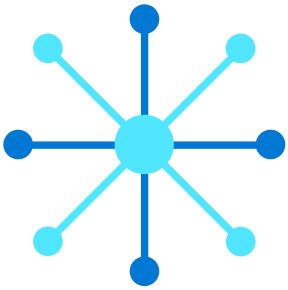
The result: Thanks to Azure's flexibility and agility, eClinicalWorks has added new customers and deployed new applications faster than previously possible.

Benefits

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



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Unify complex systems

Carlsberg Group: From a multiplatform, on-premises data centre to an Azure unified solution

Carlsberg Group is a Denmark-based brewery that manages more than 140 master beer brands in a global market. When the company found itself with 12 months remaining on its data centre lease, Carlsberg Group knew it was time to embrace all the cloud has to offer.

The path to migration

Carlsberg wanted to migrate everything to the cloud. Their complex infrastructure included systems across 1,070 servers in the on-premises data centre that ran AIX, Windows and Linux, along with data stored in IBM DB2 databases and SAP HANA databases for BW on SUSE Linux nodes. They also needed to modernise several legacy SAP environments in Western Europe, including one used by HR, and an ERP set-up in Italy.

Because of the company's existing experience and familiarity with Microsoft, their team chose Azure, which provided the scale and support to match the scope of the Carlsberg cloud vision.

The company wanted to transform its SAP landscape by migrating the outdated systems based on UNIX and an old version of DB2 to a new platform based on Windows Server 2016 and Microsoft SQL Server 2016. Carlsberg's IBM DB2 databases were replaced with SQL Server on Azure.

The team chose SQL Server for its proven stability and operational power. Two SQL Server VMs were deployed to the back-end subnet and joined to the Active Directory domain. The new data tier uses the native SQL Server Always On availability groups to improve database uptime and enable improved resource use. Always On provides synchronous high availability replication and, for disaster recovery, asynchronous replication to a secondary Azure region.

The second phase of the migration will be to create a data lake. The team wants to take advantage of the structured data in SQL Server and other heterogenous data to support the future Carlsberg Analytics Platform, which serves as the pivotal back end for Carlsberg business systems.

From planning through execution, the project team completed the data centre and SAP migration in less than six months. To ensure a speedy data transfer, the team supersized the initial Azure infrastructure. Afterward, Carlsberg began to scale back the resources to operational levels.

The team also planned for contingencies by implementing data-consistency checks and potential reruns of failed transfers. Most of all, they rehearsed. The team carefully prepared and rehearsed for migration with data-consistency checks and potential reruns of failed transfers. For each step of the migration, the team had rollout and rollback plans to minimise any risks.

The result: No significant downtime was incurred during the migration, and that stability continues. As the Azure estate has matured, there hasn't been a single high-priority incident.

Carlsberg is now finding new ways to use its data to improve the quality of its products. A new beer dispenser will preserve freshness and monitor beverage data, enabling the company to keep an eye on quality at the tap. Thanks to its scalability, Azure can keep pace with this innovation as potentially thousands of these machines go into service.

Benefits

- Moving to Azure allowed Carlsberg's data centre and SAP migration to be completed in less than six months.
- Carlsberg saw a reduction in their data centre footprint and related costs.
- Azure improved Carlsberg's customer experience.
- Azure's cloud computing capabilities provided agility and scalability for product innovation.

We wanted to get really scalable, efficient, secure, lower cost IT to come up with a digital solution to market at a much faster scale. Within six months, we migrated all of our infrastructure."

Mark Dajani
Chief Information Officer,
Carlsberg Group

Moving forward

While BlackRock, ACI Worldwide, eClinicalWorks and Carlsberg Group had different IT goals and challenges, they all found that their migration to Azure helped them improve cost and operational efficiencies. Azure also helped pave the way for further innovation.

Organisations of all sizes can take advantage of streamlined migration tools, high performance, centralised control and seamless hybrid capabilities found on Azure. Azure lets you adopt the cloud on your terms with comprehensive hybrid, multicloud and edge solutions. Try Azure Migrate, a unified interface that helps you assess your on-premises resources and plan your move with insights. Learn how you can realise the benefits of migration for your organisation's unique requirements.

Explore the Azure Migration and Modernisation Programme for proven approaches, expert help and cost-effective offers.

Learn about the programme

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