Microsoft Azure

Case Studies in Cloud Modernisation

How five businesses used the cloud to adapt and innovate

CONTENTS

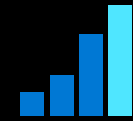# A new era of cloud adoption

Today, more than ever, organisations need to be agile and resilient to survive and even thrive in the face of unexpected challenges. The 'new normal' for business is the result of many factors: hybrid work, a growing number of devices connecting to the enterprise infrastructure, the speed of innovation required by market changes and the need to scale to meet surge demand.

In response, Microsoft solutions have helped businesses of all sizes to help them take advantage of the scalability, remote work enablement and cost efficiencies of migrating to the cloud. Companies will continue to leverage cloud investments in order to refine and reimagine their digital strategies – always with an eye toward remote productivity, sustainability and security.

2× increase
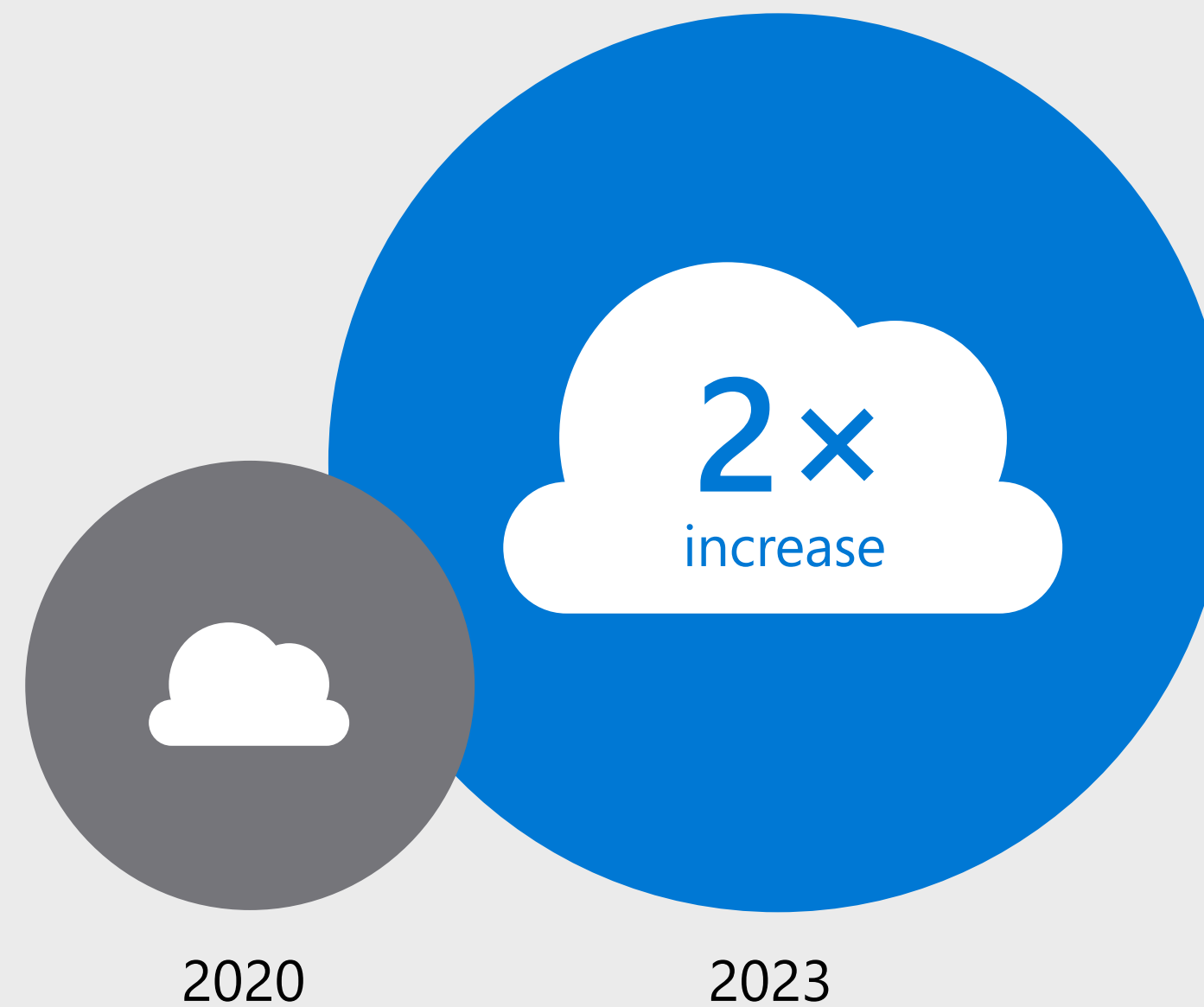
2020   2023

In fact, **40% of all enterprise workloads will be deployed in cloud infrastructure and platform services (CIPS) by 2023**, up from only 20% in 2020.[1] So today – as confidence, comfort, and trust in the cloud continue to increase across all business sectors – organisations have moved from the question of "Why migrate?" to "How fast can we migrate?"

"The pandemic validated the cloud's value proposition. The ability to use on-demand, scalable cloud models to achieve cost efficiency and business continuity is providing the impetus for organisations to rapidly accelerate their digital business transformation plans."[2]
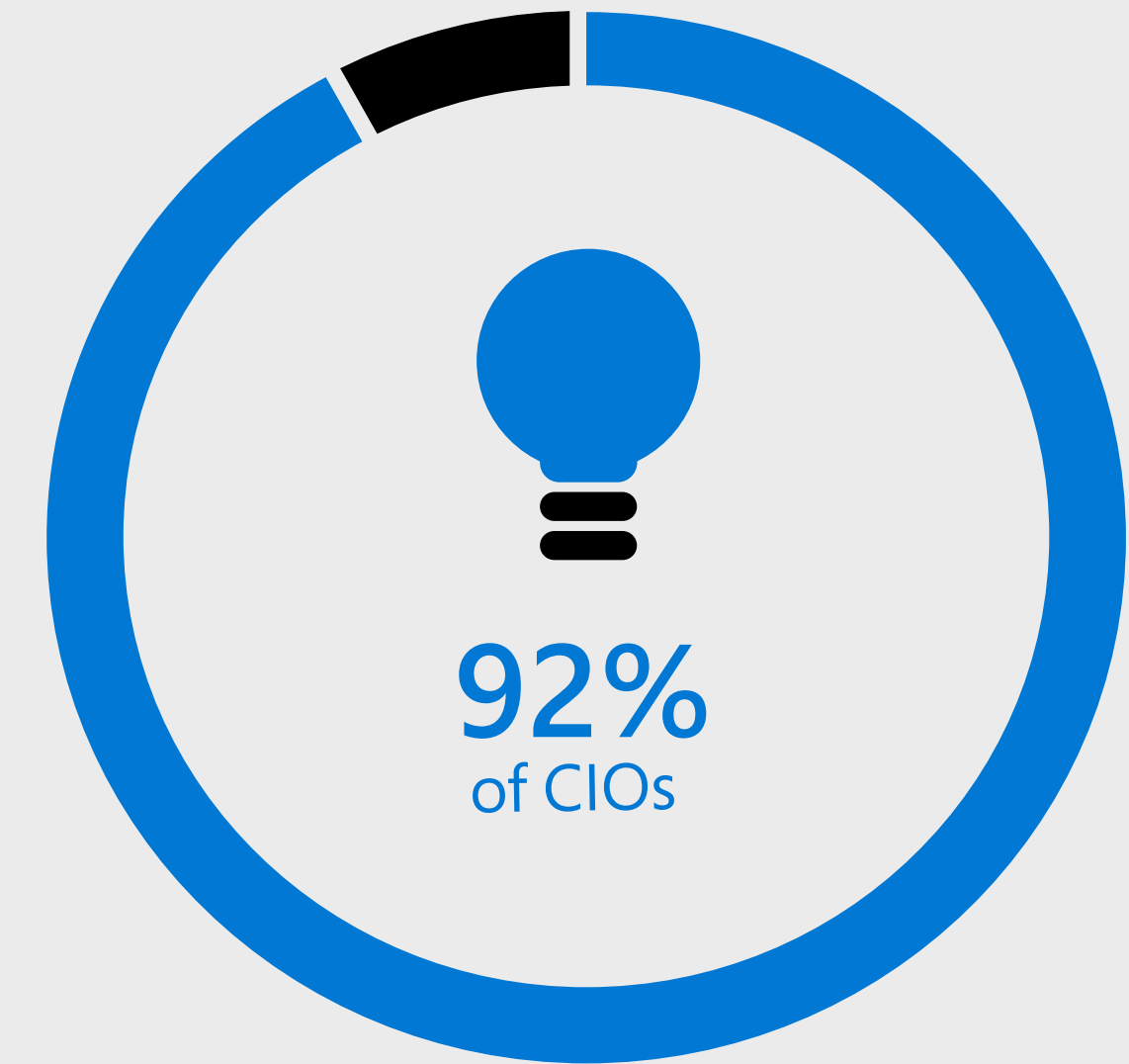
Donna Goodison, *CRN*

Preparing your business for
what's next

In this new normal, CIOs and IT leaders have more responsibilities, and their roles remain crucial in driving business agility and growth.

96%
of CIOs
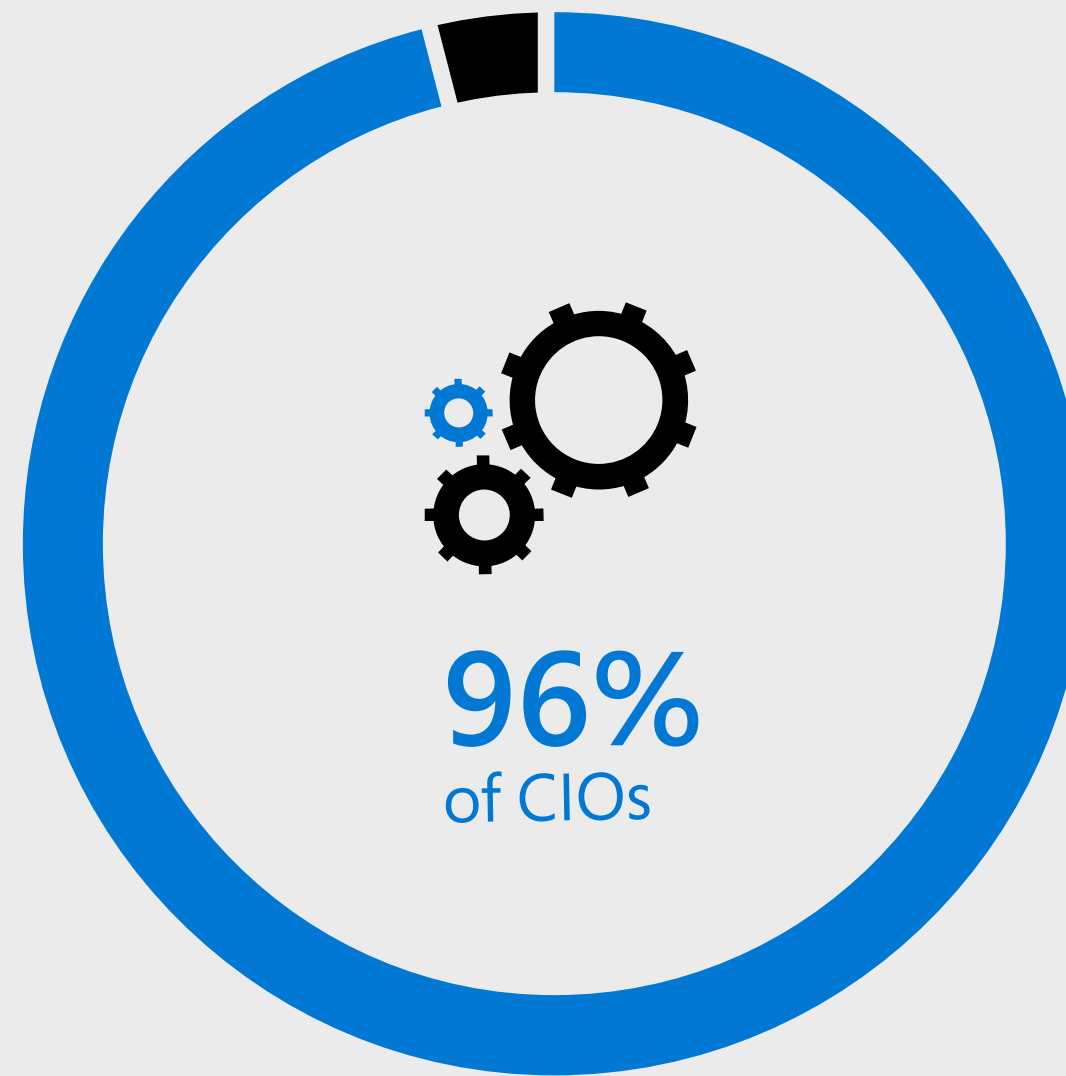
say that their role is **expanding beyond traditional IT responsibilities.**

92%
of CIOs

view their role as being **focused more on digital and innovation.**[3]

Therefore, these leaders – with more power and bigger budgets – know they need to formulate a **cohesive cloud strategy** that allows them to:

- Recover growth trajectory and reimagine IT for the future.

- Ensure remote workforce productivity.

- Meet changing customer needs and preferences.

- Understand how the cloud can enhance IT security and help organisations adapt to an ever-changing cybersecurity landscape.

- Meet surges in demand efficiently.

- Maintain cash flows during uncertain times.

- Staff and reskill their IT teams to take advantage of newer cloud technologies.

Whether you're still getting started with cloud adoption or you're looking at modernising existing applications, you need a trusted cloud provider. In this eBook, we'll share how five different customers have been able to innovate faster with the help of Microsoft Azure.

You'll also learn how migrating and modernising in the cloud has helped these companies not only survive but uncover new capabilities that will drive their business forward over the long term.

→ **Join the Azure Migration And Modernisation Programme**
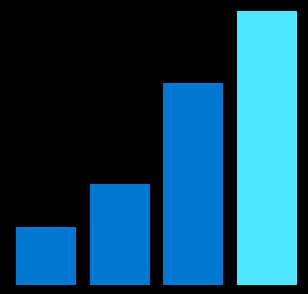
Recover growth trajectory

Provide scalable and flexible cost-savings.

Company: Boston Pizza
Industry: Consumer Goods
Size: Medium (50–999 employees)

Lowering data recovery spend

Boston Pizza, the number one casual Canadian dining company with nearly 400 restaurants across urban and rural Canada, is eager to provide the best customer experience to families, friends and teams who frequent its various locations.

"What we want to do is to serve the best food to our customers, to provide the best value for their meal, so that they can come to our restaurants and enjoy the experience with their families and friends," says Gurmail Jaswal, Boston Pizza Director, IT Solutions & Support.

But amid the pandemic, Boston Pizza needed to pivot to protect the heart of its business and continue to bring people together, safely.

As the company branch offices closed, Boston Pizza began to look for alternatives for its data recovery (DR) site, including moving to the cloud. Most importantly, the DR site needed to be safely backed up and reallocated.

THE SOLUTION

A cloud solution that cuts spending

Various options were explored, but ultimately, the decision came down to the total cost of ownership. When the company started, the total cost of ownership, in addition to all the branch offices' equipment, was quite high.

As a Microsoft Azure customer, the company quickly discovered the Microsoft-funded Azure Migration and Modernisation Programme, where companies get help from Microsoft with their move.
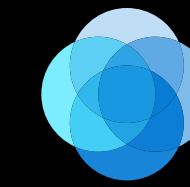
Azure
A cloud platform of more than 200 products and cloud services designed to help you bring new solutions to life

Azure Migrate
Discover, assess, right-size and migrate your on-premises virtual machines (VMs) to Azure

THE RESULT

Peace of mind with Azure

After creating a business case for moving to Azure, Boston Pizza measured the benefit. The company was looking at savings of around 30% compared to what it was spending on a yearly basis.

In addition, the equipment at the company's data centre was outdated and needed to be replaced. Rather than investing money in a new data centre, Boston Pizza decided to migrate to Azure for flexibility, scalability and cost savings.

In the end, the company chose to move three branch offices and the company data centre to Azure. As a result, the total cost of ownership has met the 30% spend decrease expectation, and the DR time has reduced from 30 days to just a few hours.
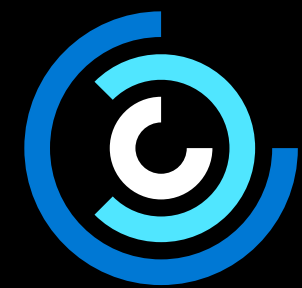
→ **Top pizza chain slices through data recovery spend with Azure**

"

It gives me better peace of mind to have everything in Azure.

_____

Gurmail Jaswal,
IT Solutions & Support at Boston Pizza

Reimagine IT for the future

Maximise security while lowering operating costs.

Company: Avianca
Industry: Travel and Transportation
Size: Corporate (10,000+ employees)

Managing a complex landscape in a challenging space

Avianca is a leading South American carrier and part of the international Star Alliance of airlines, boasting a fleet of Boeing 767 aircraft, Bell helicopters and other aircraft, offering more than 6,000 weekly connecting flights.

An extensive IT landscape supports the company's public presence. When Avianca IT took to the cloud, it turned to Microsoft Azure VMware Solution, migrating more than 200 servers in less than four months and lifting security for its landscape.

Like other airlines, Avianca faces a complex range of challenges: the industry is held to a high compliance standard, and airlines are subject to varying regulations in all the countries where they fly.

"As a company in the airline industry, we face a complex regulatory landscape," says Claudia Marcela Novoa Hidalgo, IT Architecture Manager at Avianca. "That means we constantly need to adjust our applications to comply with changing regulations, and that complicates our efforts to keep up with the latest technologies. In our competitive industry, we must be agile. Every minute – every second – counts."

THE SOLUTION

# Resilient, 'cloud agnostic' technologies

The company runs its SAP enterprise resource planning (ERP) system on Azure, and it uses a wide range of Azure services, including the Azure Resource Optimisation (ARO) toolkit – an open, extensible container platform for Kubernetes and Docker containers – Azure Virtual Machines, Azure Red Hat OpenShift and Azure API Management. Avianca also relies on several other Azure services, including Azure Firewall and Azure AI.

"Microsoft is our best option, not only because of the broad range of solutions it offers – the superior cloud ROI with Azure, for example – but also because of the capabilities within Azure itself, and the trust we've developed over a long relationship," says Sanchez Gandur. "We're cloud-agnostic. We've explored other clouds, but we always come back to Azure. It offers superior ROI."
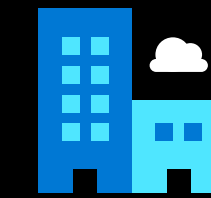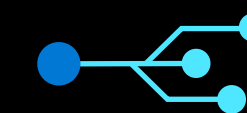
Azure VMware Solution
Move or extend on-premises VMware environments to Azure
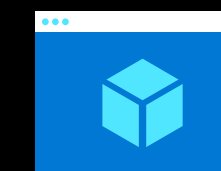
Azure Virtual Machines
Create Linux and Windows virtual machines in seconds and reduce costs

Azure API Management
A hybrid, multicloud management platform for APIs across all environments

THE RESULT

On-premises solutions, reduced costs and compelling migration speed

Using Azure VMware Solution to run its VMware estate on top of Azure infrastructure, Avianca gains improved security for Avianca in several ways. For example, Avianca chose Azure VMware Solution partly for the parity it offers with the VMware NSX zero-trust security feature that protects data on virtual machines.

VMware's new cloud-based version, NSX-T, runs under Azure VMware Solution on Azure, so Avianca IT uses familiar Azure security features to monitor and protect the applications running on VMware virtual machines. The role-based access control and regular upgrades to Azure VMware Solution amplifies security and stability of those migrated applications.

"Microsoft solutions are driving our digital transformation," concludes Sanchez Gandur. "Maximising security and lowering operating costs for existing applications is a critical part of the journey, and with Azure VMware Solution we were able to migrate these to Azure cost-effectively, easily and quickly."
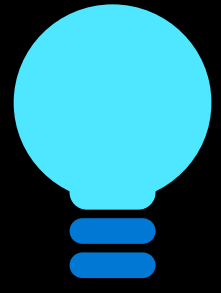
→ **Avianca's cloud journey takes wing with Microsoft Azure VMware Solution**

"

Security is what sets Avianca apart. With Azure VMware Solution, we protect even our oldest applications with Azure security policies, panic buttons and other security features.

Juan Pablo Sanchez Gandur,
Cloud Platform Manager at Avianca

Innovate faster

Optimise operations by putting the power of the cloud to work.

Company: John Deere
Industry: Manufacturing
Size: Corporate (10,000+ employees)

Acres of data at an agricultural giant

John Deere's modernisation strategy makes the most of its assets while cultivating a path for the future. An Azure hybrid cloud solution helps connect the dots across all these environments and puts the power of the cloud to work in the company's existing infrastructure.

The company began exploring new strategies to support its digital goals and started an internal initiative to modernise IT.

"To create these digital solutions, we have to manage and process terabytes and terabytes of data," notes Pinkal Patel, a Solution Architect in John Deere's Infrastructure and Architecture organisation. "Putting so much data into a data centre is a challenge to scale and manage since those databases are dispersed across our worldwide locations. As we looked ahead, we were thinking, 'How are we going to scale this?'"

Patel led a cross-functional team of John Deere subject matter experts. "We were looking at using the cloud to provide modernisation, but we also wanted to do that with our on-premises tech, as well," he explains.

THE SOLUTION

Cloud modernisation inspires on-premises aspirations

The team included Group Engineering Manager Murali Subramanian, who manages mainframe infrastructure services and on-premises databases for John Deere. The extensive SQL Server environment is his team's domain. As he recalls, "We wanted a solution that would allow us to manage resources that are on-premises and also in the cloud through a single control plane."

Patel, Subramanian and their colleagues found the solution with these capabilities when Microsoft announced Azure Arc, a set of technologies that unify on-premises, hybrid and cross-cloud infrastructures, pushing the benefits of cloud Platform-as-a-Service (PaaS) – such as data services – to local data centres. Azure Arc-enabled data services provide elastic scale, built-in business continuity features like high availability and disaster recovery and unified management for data workloads with or without direct Azure connection.
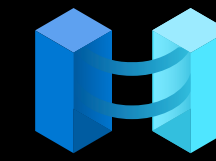
Azure Arc
Accelerate innovation across hybrid and multicloud environments

Azure Arc-enabled Kubernetes
Extend cloud data management for data workloads anywhere

Azure Arc-enabled SQL Managed Instance
Modernise your SQL Server applications to the cloud with ease and at your own pace

THE RESULT

Unified management across environments

According to Patel, "We were looking for a solution to provide a cloud-like experience for on-prem resources when the private preview of Azure Arc-enabled data services was announced. We realised that it could help support our modernisation journey. We were one of the early adopters."

The team's advice for other companies? Shift to cloud-first thinking and infrastructure as code. "There was a learning curve for our infrastructure teams in moving to the mindset of the cloud," Patel remembers, "but we overcame that. The teams now know the value of infrastructure as code and managing the environment effectively."

→ **John Deere brings modern cloud benefits on-premises and at the edge with hybrid data services enabled by Azure Arc**

> "
>
> **Azure Arc-enabled data services give us modularity and help us modernise. Our development teams can start using containers, and we can deploy everything via infrastructure as code much as we can in the cloud.**
>
> ———
>
> **Jason Wallin,**
> Principal Architect at John Deere

Enhance your security

Protect your business from growing cyberthreats with trusted cloud security.

Company: Drax Group
Industry: Energy
Size: 3,000+ employees

Ensure threat protection

Drax Group generates and supplies energy to the United Kingdom as part of the nation's critical infrastructure. The company's main power station in North Yorkshire is the country's largest, generating nearly 15 terawatt-hours of power each year from sustainably sourced biomass. An environmentally responsible company, Drax has pledged to become carbon-negative by 2030 – meaning that it will be removing more carbon dioxide emissions from the atmosphere than it produces throughout its global direct business operations.

As critical national infrastructure, Drax is a significant target for would-be attackers. Martin Sloan, Security Director at Drax Group, takes the resilience of his operations very seriously. "We face the same challenges any major organisation might," says Sloan. "As security professionals, we're all staring into the same storm of potential threats, and I take solace in the idea that we're collectively working to solve the same issues."

THE SOLUTION

Adopt a holistic security ecosystem

Instead of assembling its security solution from multiple vendors' products and services, Drax began adopting a holistic security ecosystem based on Microsoft integrated threat protection, including the synergistic rollout of Azure Active Directory, Azure Security Centre, Azure Sentinel, Microsoft Defender for Endpoint, Microsoft Defender for Identity, Microsoft 365 Defender, Azure Defender and many more.

"As we brought our Microsoft security infrastructure online, we began looking for a solution to create a single pane of glass capable of showing us in real time the attacks we were detecting and preventing while also increasing the visibility and control we have over our server data, log aggregation and endpoints," says Sloan. "For us, that unifying solution was Microsoft's cloud-native SIEM, Azure Sentinel and the integrated XDR capabilities of the Microsoft threat protection suite."

Able to work seamlessly with Azure Sentinel, Microsoft 365 Defender uses its inherent extended detection and response (XDR) capabilities to protect end-user environments like email, documents, identities, apps and endpoints. Azure Defender provides similar XDR capabilities for infrastructure and cloud platforms, including virtual machines, databases and containers.

Azure Defender
Provides extended detection and response (XDR) capabilities for Drax Group's infrastructure and cloud platforms, including virtual machines and databases

Azure Security Centre
A hub offering security posture management and threat detection

Azure Sentinel
Provide security analytics to help employees access full log data in order to make sense of threat reports more easily, so they can stop threats before they cause harm

THE RESULT

A more secure business at lower cost

Sloan believes that Drax, through its adoption of and standardisation on Microsoft security solutions, is better prepared to face tomorrow's threats than ever before.

"In just the last year, we've seen Microsoft surpass itself in terms of eDiscovery and Endpoint Data Loss Prevention," says Sloan. "The reason Microsoft provides such a powerful security solution is that it seeks to meet your needs holistically. Each security layer talks to everything else, including those data sources you might be using that are external to Microsoft."

→ **Drax Group adopts a holistic security stance with Microsoft integrated threat protection**
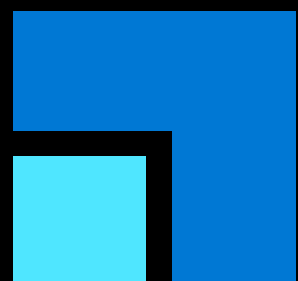
"

Microsoft consistently delivers superior solutions for identifying threats, protecting us from harm, detecting irregularities, responding rapidly to issues and helping us recover from potential breaches.

———

Martin Sloan
Security Director at Drax Group

Support scalability

Gain near-limitless scale to enable your team to be more agile and deliver more value to customers.

Company: Schneider Electric
Industry: Energy
Size: 70,000+ employees

Simplify application infrastructure

At Schneider Electric, the mission is to do more than keep the lights on – it's to empower its customers to make the most of their energy and resources, driving toward smarter buildings and a more sustainable, efficient future.

One of the company's key offerings is EcoStruxure Power Advisor, a proactive, analytics-based service that delivers optimised performance and reliability for electrical systems that power large facilities. Customers use it to understand the potential risks and issues in power distribution across connected devices, identify gaps or issues in power systems and assess power management data.

Hosted on Amazon Web Services, Power Advisor was a virtual machine (VM)-based monolith with separate databases that were hosted within each VM. But as the solution's architecture grew, it became burdensome – and costly – for Schneider Electric to scale and control.

Schneider Electric wanted to simplify its application infrastructure, reduce application costs, streamline scaling to customer demand and help customers optimise energy performance.

THE SOLUTION

Migrate key offering to Azure and reconfigure for multitenancy

Schneider Electric adopted an on-demand Azure Platform-as-a-Service offering to support workloads like metering diagnostics, full power and electrical system analyses and advanced algorithms. And it modernised Power Advisor into an easy-to-manage solution that could work more efficiently and at a lower cost, both for itself and for its customers.

One of the biggest opportunities Schneider Electric seized with Azure services was using Azure SQL Database to manage time series data. With SQL Database, Schneider Electric can store its relational data and its time series data in the same database.

By doing so, the company can unify datasets and use advanced analytics across them to improve data visibility, generate insights that drive corrective service actions and optimise system performance and reliability.
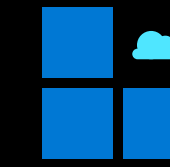
Azure App Service
Reduces some of the application's administrative burden by using Azure App Service to move applications from Amazon Web Services to an Azure-managed container

Azure Security Centre
Helps facilitate planning, streamline migration and support continuous delivery practices, as well as offering security posture management and threat detection

Azure SQL Database
Stores the company's relational data and its time series data in the same database, so it can improve data visibility, generate insights that drive corrective service actions and optimise system performance and reliability

THE RESULT

Simplified scaling, enhanced velocity and lower costs

For Schneider Electric, migrating the Power Advisor application has accomplished what the organisation hoped it would. Since the solution launched in November 2019, Schneider Electric has consolidated its 1,500 VMs into a centralised, multitenant platform, giving the company a much simpler, more powerful solution.

Schneider Electric will reduce costs, drive more profits and build innovative, competitive features faster. And because it gained almost limitless scale with Azure, Schneider Electric doesn't have to worry about costs as its data estate grows. It can provide better scalability and support for customers, all at a lower cost.

In fact, the SQL Database Hyperscale migration has helped Schneider Electric reduce database administration requirements to the point that its internal team does not require a dedicated database resource.
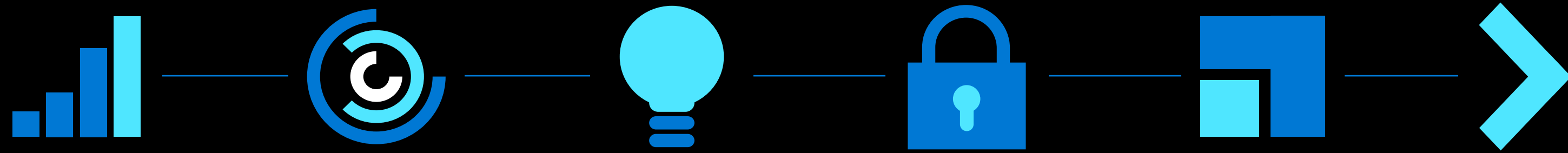
→ **Schneider Electric powers up a sustainable energy future with Azure**

"

With Azure, we didn't have to reinvent everything. We could manage the database, its scale, backups and redundancy right out of the box.

_____

Paul Hill
Principal Cloud Architect at Schneider Electric

Get the support you need at every stage of your cloud adoption journey

Perhaps you're experiencing some of the same challenges and needs as the organisations featured here, and you're ready to see what you could accomplish with Azure. Whether you're just migrating your first workload, or well on the way to modernising your IT infrastructure, Microsoft is ready to support you as you take the next steps.
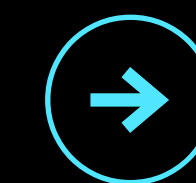
→ **Learn how the Azure Migration and Modernisation Programme can help**

→ **Sign up for a free Azure account and start building in the cloud today**

Sources

[1] Katie Costello, _Gartner Predicts the Future of Cloud and Edge Infrastructure_, Smarter with Gartner®, February 8, 2021.

[2] Donna Goodison, '_10 Future Cloud Computing Trends to Watch in 2021_', _CRN_, November 20, 2020.

[3] _2021 State of the CIO Executive Summary_, IDG, January 28, 2021.