

Data#3



Looking beyond the lift-and-shift: Unlock the true power of Azure

Six challenges to overcome when modernising workloads for the cloud, and how Data#3 helps you get there faster.



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Introduction

Cloud adoption is accelerating fast, and for good reason. Cloud has well and truly proven itself as a critical business asset to support an ever-changing business landscape.

Having realised its value, business leaders are ready and willing to move further along the path from on-premises to cloud. Question is, which cloud? And how do you get there?

According to a recent survey, 59% of business leaders said they planned to be “mostly” (43%) or “all” (16%) in the cloud in the next 18 months, up from 38% today.¹



Microsoft Azure remains the cloud of choice

Azure continues to lead the way when it comes to public cloud. It remains a leader in Gartner’s Magic Quadrant for cloud infrastructure and platform services², with proven capabilities across organisations and industry needs. Delivering cost savings, security, flexibility and scalability, Azure allows you to run applications at speed, and with more resilience. Plus, you can tap into Azure’s growing pool of advanced capabilities to ramp up your digital transformation efforts and truly innovate.

Migrating and modernising to meet demand

Having selected Azure as a preferred public cloud provider, the next step for many organisations is to move the workloads and modernise applications to meet demand. This task can raise challenges – yet it also presents huge opportunities, setting organisations up for innovation and growth.

This eBook explores:

- Why you have to think beyond lift-and-shift to modernise workloads
- The common challenges in moving workloads to Azure and how to solve them
- How, with support from Data#3’s Azure experts, you can accelerate your path to cloud to reap the many benefits that Azure has to offer.

Unlock the true power of Azure

A simple lift-and-shift of a virtual machine to Azure will not unlock the power of cloud. In fact, it may increase complexity without achieving the cost savings anticipated.

Think about it: if you take an architecture designed for a specific platform and infrastructure era, and simply move it to another, you won’t reap any of the best practice benefits of the new infrastructure. When it comes to cloud, this means you may not be able to leverage features like automation and advanced services. What’s more, if you don’t upgrade or modernise applications before migrating, the actual migration may fail – which lands you back to square one.

Migration requires strategic thinking about how to modernise critical applications and use cloud native services to unlock true business value. Often, this requires skills that in-house IT teams do not have.

“

...Companies tend to fall into the trap of confusing simply moving IT systems to the cloud with the transformational strategy needed to get the full value of the cloud. Just taking legacy applications and moving them to the cloud – ‘lift-and-shift’ – will not automatically yield the benefits that cloud infrastructure and systems can provide. In fact, in some cases, that approach can result in IT architectures that are more complex, cumbersome, and costly than before.³

– McKinsey

”

Six challenges to overcome when moving to Azure

To realise business value from your modernisation program, you'll need to solve these common challenges.

Like other digital transformation projects, migrating and modernising your workloads with Azure can be complex. While challenges arise, they are not insurmountable – and the effort of modernising your applications and workloads will quickly pay off.

Here, we explore six common challenges that organisations encounter on the path to Azure and how to solve them.

01

Delivering the business case

Challenge

The need for business agility was keenly felt by many organisations in 2020. Those that lacked the ability to quickly pivot to remote ways of working were temporarily (or in some cases, permanently) left behind.

Cloud played a key role in supporting business agility during the pandemic – and will continue to do so in years to come. Indeed, with uncertainty and economic upheaval ahead, organisations will further require the agility, flexibility and low cost of entry offered by the cloud. Those that can't rapidly respond to market shifts will find themselves at a disadvantage to those who can.

Solution

In building your business case for cloud, keep your eye on the prize. When you tap into the vast potential of automation, scalability and access to new services, you can achieve fast delivery of software, increased uptime and the ability to harness your data for growth. Real-time analytics will help your teams make insight-driven business decisions – and, considering that insight-driven businesses are expected to have taken \$1.8 trillion from their less-informed rivals by 2021⁴ – then it's clearly worth pursuing.

Additionally, organisations with cloud computing resources at their disposal can ramp up storage and compute power on demand to respond faster to market changes, meet customer expectations and realise revenue growth.

To quantify the benefits of Azure – including the savings gained by switching from a CAPEX to OPEX model – use an [Azure TCO calculator](#). Then, build the findings into your business case to help you secure stakeholder buy-in and widespread support of your Azure program.

Measuring the impact



Organisations can **save up to 47%**⁵ when migrating their database from on-premises deployments to Microsoft SQL Server on Azure Virtual Machines (Infrastructure as a Service or IaaS).



You can **reduce costs** by an additional **17%** for modernised cloud-ready applications with Azure SQL Managed Instance and Azure SQL Database (Platform as a Service or PaaS) – while speeding the development and delivery of revenue-generating applications, resulting in an expected increase in revenue of \$30M.⁵

02

Calculating the cost of migration

Challenge

Controlling cloud costs is the top challenge in moving to public cloud, with 40% of organisations ranking it as their top concern.⁶

When it comes to uncontrolled costs, the 'migrate and modernise' component of the cloud journey can be a big contributor to cost blowouts. In this stage of your transition there are many moving parts to manage. There is the obvious – and often significant – cost of your infrastructure being transitioned to run in Azure (especially if workloads aren't right-sized and reservation discounts are missed). Then there are all the hidden costs, such as refactoring and reworking applications, upskilling or reskilling your IT team, infrastructure lock-in and operational expenses.

These hidden costs make it difficult to quantify the at-scale cost of moving on-premises workloads, which in turn makes it harder for IT to build the business case and secure sign-off from management.

Solution

You need a partner with a deep understanding of cloud costs, who can expose unforeseen issues that could undermine the foundations of your cloud business case (business continuity, uptime or revenue streams) – before they become a problem. You'll also want to work with a partner who understands Azure, and knows how to optimise your Azure environment to reduce overall costs. For a deep-dive into cost optimisation of Azure, [read this white paper](#).

Data#3 provides preliminary cost modelling for Azure migrations and fixed pricing for modernisation projects, so you can budget with confidence.

Think beyond lift-and-shift

To achieve true modernisation and agility, use IaaS and PaaS options that suit your use case.

IaaS



SQL Server on Azure Virtual Machines

Best for lift-and-shift and/or workloads requiring OS-level access

PaaS



Azure SQL Managed Instance

Best for modernising existing apps



Azure SQL Database

Best for supporting modern cloud apps

03

Managing technical debt

Challenge

Many infrastructure and operations (I&O) teams are under pressure to deliver new applications, new services and new code – fast. In the rush for speed, the code isn't ever 'done' and rework or patching is often required. This dichotomy – speed versus longevity – makes technical debt the greatest challenge faced by I&O leaders.⁷

Technical debt is further complicated in organisations hosting legacy, end-of-support applications. Applications like Windows Server 2012, SQL Server 2012 and others present compliance and security risks – and, while they can be moved to Azure for extended support, it's a bandaid solution that doesn't address the root cause. Instead, the application needs modernising and refactoring using native cloud services, or should be retired and replaced with a cloud-native application.

Remaining on-premises with the burden of technical debt is not a viable option in most organisations; nor is moving technical debt to a presumed cheaper cloud platform. Rather, organisations need to migrate and modernise workloads to achieve the benefits of cloud.

Solution

Retiring infrastructure from on-premises environments can reduce risk (particularly if these environments are approaching end of life). Likewise, formulating an exit strategy from a costly hosted environment and moving to cloud can pay off, too.

Data#3 can help you plan and implement a comprehensive, successful data centre exit strategy – including development of the business case, cost modelling, risk assessment, strategy alignment, requirements analysis, cloud adoption, workload transition and application refactoring. We will show you how to retire technical debt and realise business goals around transitioning from a CAPEX to an OPEX operating model. This, in turn, will help to reinforce the business case at a stakeholder level.

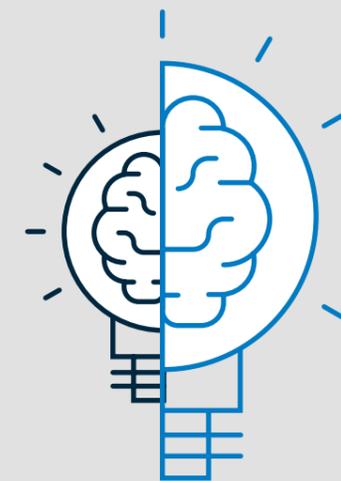
The benefits of developer velocity

[Developer velocity](#) is about creating the right environment to increase the speed of delivery and unleash developer ingenuity – which in turn responds to customer needs and grows your business.

Companies with a high Developer Velocity Index (DVI)* outperform the market⁸:



4 to 5 times higher
revenue growth



55% higher
innovation

* Measured by level of adoption of new technologies and ability to innovate faster and beat competition through innovation led growth.

04



Security and governance concerns

Challenge

Data privacy, security and governance are big priorities when moving to cloud. These questions illustrate common issues encountered when deciding which workloads, applications and data to move to cloud.⁹ The average cost of an Australian data breach is \$2.13M and it takes 281 days for the average Australian business to detect and contain a breach.¹⁰

While public cloud – and Azure in particular – is inherently secure, many organisations are unsure of how to use Azure’s multi-layered, built-in security controls and unique threat intelligence to identify and protect against rapidly evolving threats. If you have an investment in existing security solutions, most can be extended into cloud. However, this also requires consideration and planning.

When it comes to cloud security, your governance and security policies must follow the workload to the cloud, but many customers don’t apply the same security principles to cloud as they do to on-premises workloads. Cloud should be considered an extension of your data centre (if you are operating a permanent hybrid) and should be treated in the same manner.

It’s also important to consider potential compliance implications. For example, are you required by law to keep data on-premises or in the country? How do you need to handle Personally Identifiable Information (PII)? These questions illustrate common issues encountered when deciding which workloads, applications and data to move to cloud.

Solution

As an organisation, it’s ultimately your job to take responsibility for security and governance – you can’t leave it all to the cloud provider.

To mitigate the risk of an attack, you need to correctly configure and protect workloads for cloud. This is possible by taking a standardised approach to delivering Azure, and deploying infrastructure as code – which reduces human error in your cloud deployment.

Data#3’s dedicated security team works together with our Azure experts to apply deep knowledge of security best practices to fortify your environment and keep your data safe. Security is always a key consideration, from the onset of any migration and modernisation project, giving you the assurance that your workloads will remain secure.

From a governance and compliance perspective, we will assess your applications, data and Azure landing zone prior to a transition, and indentify any issues, including security, cost management, business continuity, disaster resovery and bandwidth.

Azure’s proven security credentials

Azure provides a secure foundation with multi-layered security controls across hybrid environments¹¹:



\$1B+ annual investment by Microsoft



More than 3,500 security experts



Trillions of signals analysed for intelligence

Modern standards

Modern data standards (GDPR, HIPPA, PCI DSS) require appropriate security measures, including confidentiality and the safeguarding of user data. Such capabilities are often not available in older systems.

05

Lack of cloud skills

Challenge

Already complex, Azure is evolving day by day. Our [Azure Periodic Table](#) illustrates just how vast the Azure ecosystem actually is.

Given the pace of change, you need an Azure expert to stay abreast of what's new. You may not have these cloud skills in-house yet – as the skills required to manage on-premises workloads may not translate directly to cloud. For example, can your team use containers and Kubernetes to modernise legacy applications? Do you have the skills to monitor, manage and update applications in the cloud? Can they schedule resources to shutdown, or tune up or down capacity to manage cost?

Unfortunately, cloud skills are scarce. Organisations compete heavily for top talent – skilled cloud resources are in demand, difficult to acquire and expensive to retain. In fact, **IDC predicts that 30% of high-demand roles for emerging tech will go unfulfilled through to 2022.**¹²

Solution

What's the best way to keep up with the lightning fast pace of change with Azure? Call on Azure experts with Azure Expert MSP certifications to supplement your in-house resources. Look for partners with Advanced Specialisation Certifications that augment your IT team and can fill any crucial cloud gaps.

Data#3's Azure team lives and breathes cloud. We stay abreast of the very latest Azure best practices, application architectures and solutions like PaaS, serverless and containers – so you don't have to.

The highest Azure accreditations

Data#3 holds the highest level of partner accreditations across the Microsoft ecosystem. With expertise that extends from the network and the cloud, to the data centre and workplace, you can rely on our expert team to guide and advise on the best technologies to meet your demands.



Azure
Expert
MSP

06

Lack of time

Challenge

The planning and effort to implement a migration and modernisation project takes time. Yet many IT teams are already time-poor – busy dealing with user queries and business-as-usual operations.

Workloads that require refactoring to become cloud native demand a significant investment of time, which needs to be built into the business case when planning the journey. And your existing teams who provide support for business as usual (BAU) may not be equipped to support that transition.

Solution

While allocating your existing support teams to work on cloud transition may seem logical, you may be setting them up to fail. Unless *“BAU staff have prior experience in working under discrete, project time, cost and delivery pressure whilst managing senior stakeholders; they will likely lack the capability, empathy and resilience to work in a project environment.”*¹³

Working with technology partners can help to accelerate migrations and reduce the pressure on time-poor IT teams, by drawing upon resources who are skilled in project disciplines and engagement with key stakeholders. This gives you the time to re-skill your team and evolve your change management processes to cloud.

Saving time and money

Azure SQL customer told ESG that they were able to realise significant operational savings by migrating from on-premises infrastructure and eliminating tasks like planning, deploying, maintaining, troubleshooting and optimising their on-premises infrastructure, customers have saved both time and money with Azure SQL.¹⁴



Operational savings of 40-60%



Data#3 Azure Migration and Modernisation Service

Securely and swiftly transition and transform your applications from on-premises to cloud.

Simply doing a lift-and-shift of virtual machines to Azure won't unlock the power of cloud. To realise true value, you need to strategically modernise critical applications and start using [cloud native services](#).

Data#3 has unparalleled experience in helping organisations to migrate and modernise. We will show you how to mitigate risks like app dependency, cost blow-outs and security; and get you to where you need to be with Azure faster.

The specific path we take for your Azure migration and modernisation journey will depend on your existing infrastructure and workloads. We will show you how to get where you need to be, quickly and cost-effectively. For example, some workloads will benefit from the Azure Modernisation Factory (see diagram) and its transparent framework; while others may need a more bespoke approach.

Often, Data#3 customers use a mix of migration and modernisation strategies for different workloads and applications.

What you get with Data#3's Migration and Modernisation Service

No matter which path you take, our service includes:

- **Assessment**
 - Application & Azure Landing Zone assessment prior to transition, including security, cost management, business continuity and disaster recover and bandwidth
- **Rollback planning**
- **Preliminary cost modelling**
- **Application transition**
 - Workload transition and modernisation to Azure based on the agreed application treatment strategy
- **Post-deployment support**
 - Ongoing support for your customer operations team after application transition

What is the Azure Modernisation Factory?

This proven, repeatable process for Azure modernisation provides a low-risk route to Azure. Data#3 is the only Australian Azure Expert Managed Services Provider that is certified to offer this service.



Workload migration



Re-architecture and re-platforming



Fixed pricing



Clarity over total cost of ownership

Our five stage pathway to cloud success

Migration and modernisation is just one part of a bigger picture.

Whether you are new to Azure or looking for advanced Azure services to take your business to the next level, Data#3 can help with its [five stage pathway to cloud](#).

As Microsoft's only Australian partner that is both an Azure Expert Managed Services Provider and an Azure Modernisation Factory Partner, we have the deep expertise your business needs to maximise its investment in Azure.

Next steps after migration and modernisation

Having discussed migration and modernisation above, you may be ready to start thinking about the next stage in your journey.

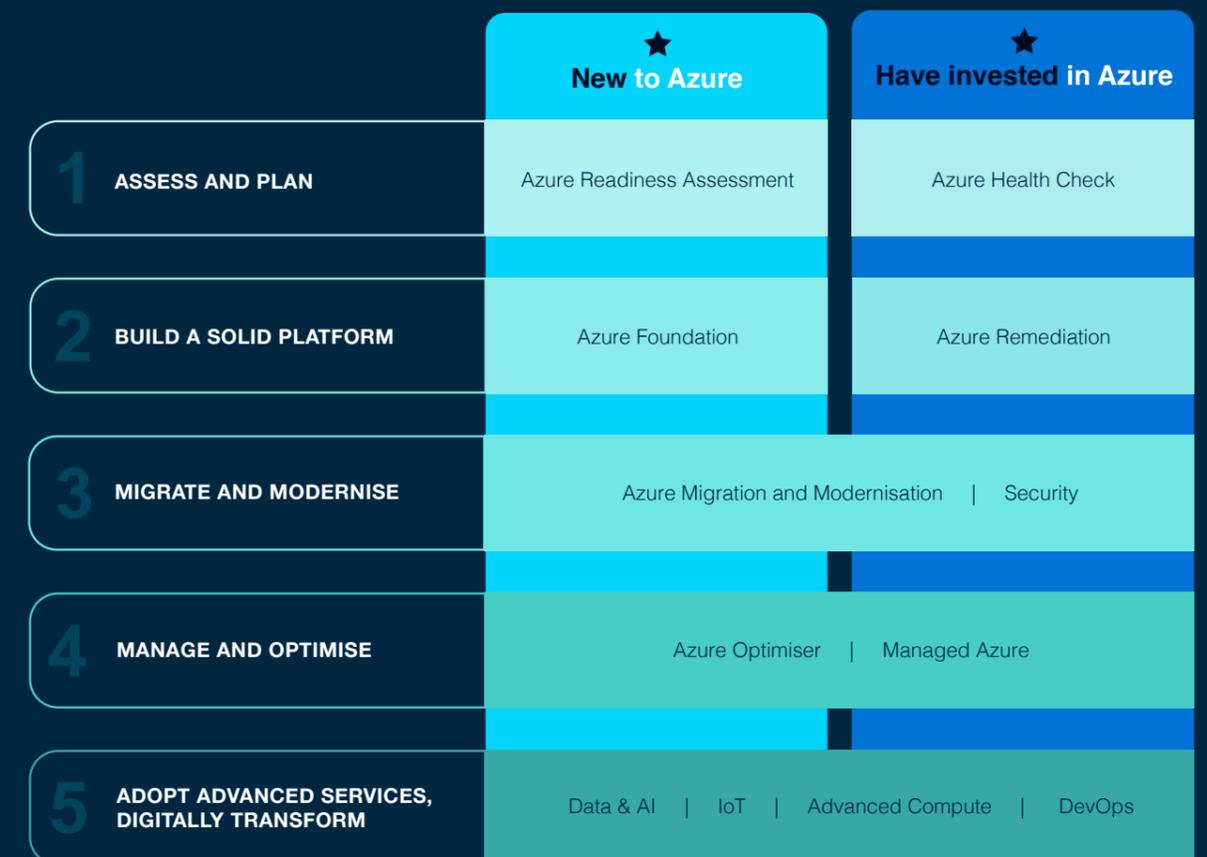
Azure Optimiser

Azure Optimiser is a comprehensive toolset that covers off on the critical aspects of cloud management, from visibility and cost optimisation, to security and governance.

Managed Azure

Engaging Data#3 to look after your Azure environment will deliver cost savings, 24/7 incident report, disaster recovery and more.

The Five Stage Pathway to Cloud Success



To learn more about the other stages in the journey, get in touch with an Azure expert today.

Tackle end of life technologies in your migration plan

Your options for Microsoft SQL 2008, SQL Server 2008 R2 and Windows Server.

The cost of doing nothing with end of life technologies is a dangerous gamble. Bad actors know exactly when these workloads are unsupported, and they have become a key attack vector for corporate customers. These end of life workloads also have a negative impact on IT performance, which translates to poor customer service, wasted time or lack of agility.

If your business relies on outdated SQL Server and Windows Server technologies, now is the time to move towards Azure cloud. In doing so, you will benefit from always-on updates and a secure, modern data estate.

Data*3 experts can help you make an informed business case. Our Data Estate Modernisation Assessment will help you plot a roadmap from your existing technology to Azure. Funding may be available from Microsoft to subsidise this engagement.

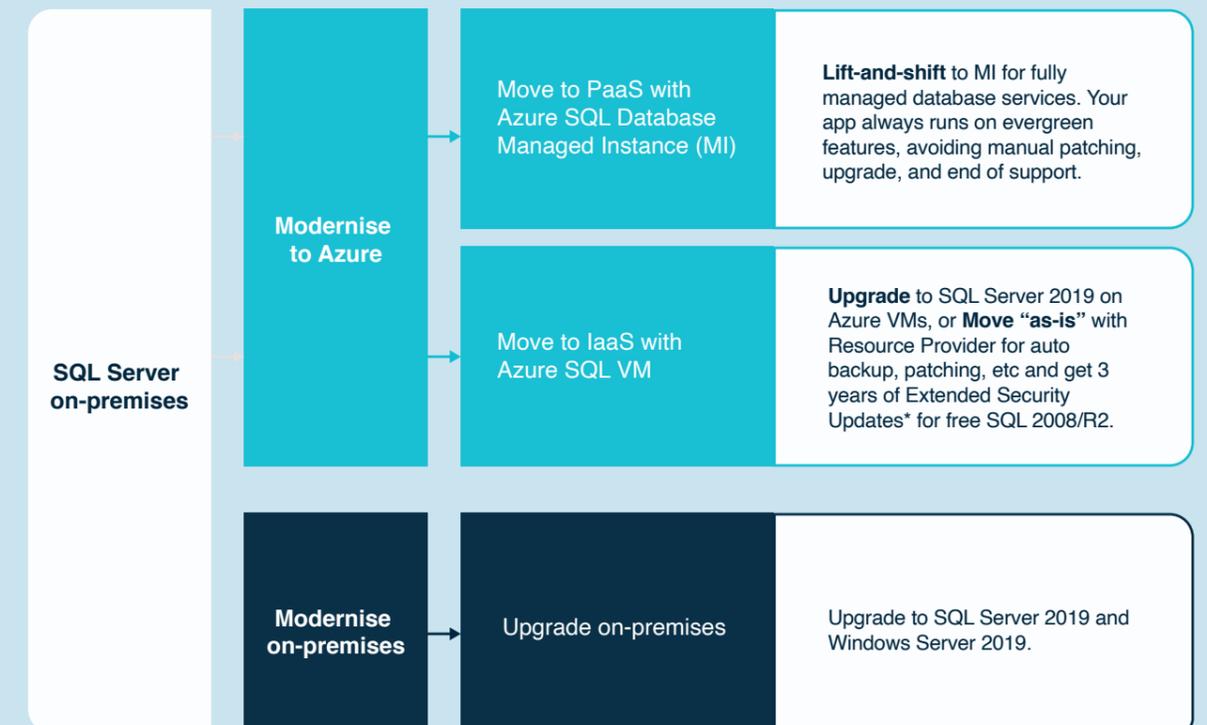
Why act now?

Microsoft SQL 2008, SQL Server 2008 R2, Windows Server 2008 and 2008 R2 are beyond extended support. [Check lifecycle dates](#) for when you can no longer access:

- Free security updates on-premises
- Non-security updates
- Free support options
- Online technical content updates

What are your options?

It can depend on your modernisation priorities and budget. Three common strategies include:



*ESU worth 75% of license every year for the next three years after EOS

Need help?

Get in touch for a Data Estate Modernisation Assessment.

Why Data#3?

Data#3 is your trusted partner for all things Azure.



With digital transformation and cloud adoption picking up pace every year, any organisation that does not embrace digital change risks getting left behind.

To help you tap into the vast opportunities that public cloud platforms like Azure offer, you need an IT provider you can trust to truly transform your business. Data#3 has over 40 years of experience in the IT industry, and has unparalleled experience in Azure.

As Microsoft's only Australian partner that is both an Azure Expert Managed Services Provider and an Azure Modernisation Factory Partner, every one of our Azure experts has undergone rigorous training and stays up-to-date in the latest Azure best practice.

Data#3's Azure centre of excellence is in Australia. We were audited for Azure Expert MSP status in Australia, with onshore Managed Services using Australian customer references. It means that every time you engage with Data#3 Azure experts, you get our Azure 'A' team.

Customer-centric



Our customer-first approach ensures our people understand your business challenges and opportunities.

You work closely with our local Azure consultants, support team and engineers, reaping the benefit of deep customer relationships.

Value focused



We guide you to become more data-driven, to speed up innovation and enable better decision making.

With our end-to-end Managed Azure solutions guiding you along your cloud journey, you get the right solution, every step of the way.

Unparalleled experience



Our Azure team possesses extensive, in-depth knowledge about specific industries and the cloud technologies that drive success.

We hold Azure Expert MSP status, and our teams hold the highest certifications, backed up by on-the-job experience.

Getting started with Data#3

To help you get to cloud faster, you may qualify for funding and assistance from Microsoft – which can be used to engage Data#3. Together, Microsoft and Data#3 deliver a range of programs to suit different migration scenarios:

- Windows Server migration
- SQL Server migration
- App modernisation
- Data analytics
- Windows Virtual Desktop

Transformation services

We can help you build a business case and perform risk assessments, change management and cost modelling to ensure transformational success.

To learn more about a specific program or to check your eligibility for Microsoft funding and assistance, please speak to your Data 3 Account Manager or [get in touch with us today](#). We're here to help you get the most from Azure.

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Data#3

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MSP

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