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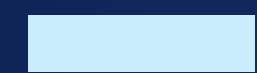# Extend your multicloud ecosystem with Microsoft Azure Stack HCI

Dell Technologies Services for
Microsoft Azure Stack HCI

Start here →

Multi-ecosystem cloud environments

Reduce the risk of rising technology costs and technical debt

Eliminate ecosystem lock-in with platform independence

Have the freedom to manage IT delivered services across any multicloud environment

In today's rapidly evolving technological landscape, a multicloud environment has become the preferred choice of modern IT organizations. For IT professionals and cloud architects, the challenge lies in maximizing their potential. One emerging strategy to achieve this is a multi-ecosystem approach to the cloud infrastructure: public, hybrid and on-premises. This eBook explores considerations for customers who want to transition to a Microsoft Azure ecosystem or add Azure to their current multicloud environment. Microsoft Azure Stack

HCI on Dell solutions can offer unparalleled flexibility, resilience, and innovation.

A multi-ecosystem approach to cloud can significantly mitigate the risk of rising technology costs by freeing organizations to leverage the most cost-effective software and services from various providers, supporting competitive pricing and optimized spending. Furthermore, by avoiding ecosystem vendor lock-in and spreading workloads across multiple ecosystems, businesses can reduce technical debt, as they retain the

flexibility to adapt and evolve their technology stack without being tied to a single provider's limitations.

Eliminating ecosystem lock-in through platform independence can be achieved by breaking down operational silos and fostering a collaborative environment across teams. By using hardware technologies that can support multiple ecosystem types, such as Dell PowerFlex and Dell APEX Cloud Platforms, processes can be streamlined, and diverse workloads consolidated.

The freedom to manage IT-delivered services across any multicloud environment is significantly enhanced by the integration of IT Service Management (ITSM) software and infrastructure-as-code (IaC) practices with Microsoft Azure Arc. This combination empowers organizations to automate service provisioning and orchestration, allowing for greater agility and consistency in managing resources, irrespective of the underlying cloud infrastructure.

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Why Microsoft Azure

Microsoft Azure offers a variety of services for building a robust cloud platform. These services run across public and private instances and integrate with other cloud environments, making Azure ideal for a multi-ecosystem approach. Teams can deploy and build applications at scale across on-premises and public clouds. Additionally, Microsoft provides tools that simplify managing infrastructure and services on Azure and other cloud platforms.

Organizations can begin with virtual machines as their core workload and adopt modern platforms like Kubernetes and other PaaS services in Azure. In addition, organizations can activate extra features in Azure, such as monitoring, governance, security, backup, and protection, providing IT with detailed control over their infrastructure. However, not all workloads can move to the public cloud. Azure Stack HCI offers many Azure benefits on-premises, addressing challenges and allowing organizations to invest in current infrastructure while bringing Azure management and services for a consisten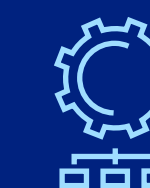t hybrid experience. Running Azure as a hybrid cloud eases IT training by using the same management tools for both on-premises and public cloud workloads.

The Azure platform offers powerful capabilities and services that can be adopted gradually, providing organizations with flexibility as their cloud maturity grows. Dell solutions are ideal for running the Azure Stack HCI on-premises. This allows organizations to extend Azure natively on-premises for various workloads providing a robust hybrid solution to leverage Azure's capabilities while maintaining on-premises infrastructure.

- Hybrid cloud benefits of Azure Stack HCI
- Consistent management experience across clouds
- Common identity system across their cloud and productivity tools

Microsoft Azure

Bring the cloud to your on-premises environment with Azure Stack HCI.

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Dell Services for Microsoft
Azure Stack HCI

Intro

Why Azure

Considerations

Diverse multicloud

Speed of transition

Summary

Strategy

Business

Technical

Financial

Containers

Apps & workloads

Migration

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Strategy

In today's fast-paced digital world, clinging to the way thing have always been can hold your business back from achieving its full potential. Transitioning to a Microsoft Azure ecosystem is not merely an upgrade — it's a strategic move to empower your workforce, enhance cloud platforms, and bolster data and application security. Dell Technologies Services will guide you through this transformation with trusted advice that's designed to drive impactful change and unlock new levels of efficiency and innovation.

### Understand the need for change

The business landscape is evolving at an unprecedented pace, making it imperative for organizations to assess and adapt their IT operations to keep up with the demands of modern business environments. By recognizing the limitations of current technologies, you can identify the opportunities for growth and improvement that come with transitioning to a multi-ecosystem cloud.

Understand the desired outcome

Your digital transformation journey should be guided by a clear vision of the desired outcomes. These include improving IT service delivery, embracing automation and ecosystem integration, enhancing security measures, and enabling your organization to respond swiftly to market changes. By envisioning a future where IT organizations are agile and responsive, your business can focus on strategic growth and innovation, ultimately leading to increased competitiveness and market relevance.

Execute a unified mission

Creating a successful digital transformation requires a unified approach, where all stakeholders are aligned on shared priorities and objectives. By fostering a culture of collaboration and consensus, you can direct IT investments to areas that support your overarching business goals. This alignment not only drives momentum towards your digital future but also ensures that every step taken is a step towards a more cohesive and efficient enterprise.
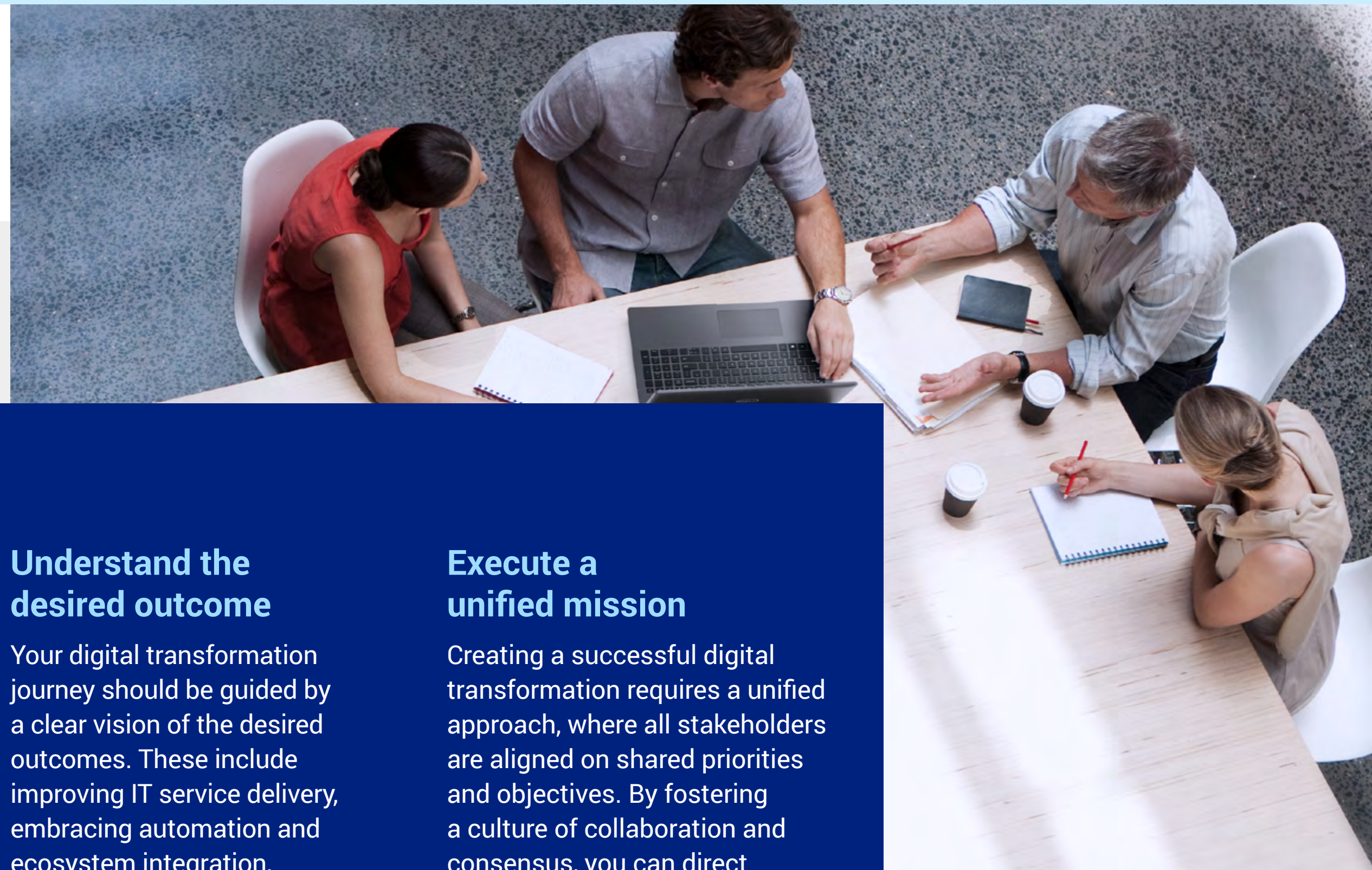
Consider Dell ProConsult Advisory Services

Business

Making sure that your IT organization is aligned with business outcomes and objectives is key to success when considering an ecosystem change to technology platforms like Microsoft Azure Stack HCI. This may include changing or updating operational procedures to embrace new cloud paradigms, defining business KPIs to help you measure success of the program, or adopting new technologies like AI or accelerating adoption of cloud native applications in order to create next generation 'born in the cloud' applications. Success in cloud requires a tight alignment between IT leaders and business stakeholders.

How will you gain alignment between organizations?

What steps would you take to document your as-is state?

Do you have an understanding of all the types of workloads on your current infrastructure?

Who would be responsible for creating the business case?

Are you prepared to act on the go forward plan with your current staff?

How will you modernize and improve processes?

What is your plan to continuously improve experiences and infrastructure performance?

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Technical

People

Teams need to understand new roles and skills required for successful cloud ecosystem change.

• Current skills gap
• Service-focused roles
• Interim workforce strategy
• Final workforce strategy

Processes

Shifting from an IT focused model to an "as a service" model requires looking at and rethinking processes of the past.

• Current processes vs. processes needed
• Automated wherever possible to drive repeatable
• Create predictable business outcomes

Workloads

Applications drive cloud consumption so understanding what you have and what needs to transition to cloud native will be critical.

• Critical workloads
• Applications to be transitioned to cloud native
• Identify dependencies
• Performance & availability requirements

Technology

Cloud is transformative and requires new technologies to deliver that next generation cloud user experience.

• Outcome driven not technology driven
• Service driven parity
• Technology enabled – right tools for the right outcomes
• What business problem are you trying to solve

Consider a Dell Accelerator Workshop

Financial

For organizations eyeing the flexibility and freedom of a multi-ecosystem cloud environment, understanding the financial nuances can unlock long-term value and efficiency. Here's a look into some financial considerations that can make or break your transition strategy. By considering these financial aspects with foresight and strategic planning, organizations can navigate the complexities of cloud transition, driving cost efficiency and unlocking greater value for the future.

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License agreements

Align transition to timing of future renewals

Speed of transition

Understand how long transitioning will take

Coexistence during transition

Replacing an ecosystem means overlap in hardware and software cost

Staff augmentation

Supporting both ecosystems during transition may require extra labor

Training / education

Management of a new ecosystem may require training new skills and roles

ROI / break-even

An important milestone for supporting business profitability

Containers

Azure Kubernetes Service (AKS) on Azure Stack HCI

Azure Kubernetes Service (AKS) enabled by Azure Arc, offers seamless integration for deploying and managing containerized applications both on-premises and in the public cloud. For Azure Stack HCI customers, the AKS integration with Azure services ensures a consistent and unified management experience, reducing complexity and operational overhead. In addition, AKS supports streamlined operations through automation and integration with DevOps tools, benefiting existing DevOps pipelines, resulting in faster deployment cycles and continuous delivery for reduced time-to-market.

Application compatibility in AKS

When transitioning applications from other container platforms to Azure Kubernetes Service (AKS), it is crucial for customers to perform thorough compatibility checks. Ensuring seamless operation within AKS involves understanding the specific dependencies and configurations that apply to Azure, to verify that the applications are optimized for Azure's environment. Identifying any potential compatibility issues early in the transition process can help prevent disruptions and ensure a smooth migration. AKS's unique features and management tools are vital to maximizing its benefits. By equipping teams with the necessary skills and knowledge, organizations can ensure a smoother transition fully capitalize on the advantages that AKS offers.
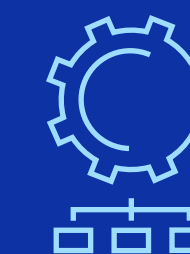
Efficiently manage workloads across diverse environments

Scale applications dynamically based on demand

Faster deployment cycles and continuous delivery

Consider Dell services for AKS

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Applications & workloads

By deploying workloads across both Azure and Azure Stack HCI, businesses can tailor their cloud strategy to specific operational requirements, balancing cost, and efficiency. This hybrid model supports a wide range of applications, from traditional workloads to modern containerized apps, and provides the agility needed to stay competitive in a dynamic market. With Azure's extensive ecosystem and Azure Stack HCI's local deployment benefits, organizations can harness the full potential of their IT investments, resulting in accelerated innovation and improved business outcomes.

Consider Dell Application Portfolio Optimization

Optimizing application and workload placement in Azure environments

When determining whether to run applications and workloads on the public cloud or on-premises, businesses should consider several key factors:

Data sensitivity: Highly sensitive data might require the enhanced control of an on-premises solution with Azure Stack HCI, offering greater security and privacy.

Compliance requirements: Certain industries have strict compliance standards that may necessitate keeping data on-premises to meet regulatory requirements and maintain data sovereignty.

Latency needs: Applications with low latency requirements may perform better on-premises or in a closer regional data center, ensuring faster response times and enhanced user experience.

Assessment: Conduct thorough assessments of your current workloads and applications to understand their specific needs.

Workload characteristics: Identify key characteristics such as performance needs, data gravity (where data is created and must be processed), and integration demands with other applications and systems.

Cost analysis: Perform a comprehensive cost analysis that compares the total cost of ownership for public cloud vs. on-premises solutions.

Strategic alignment: Ensure that workload placement aligns with your overall business goals and IT strategy. This strategic alignment guarantees that the cloud landing zone supports your organization's long-term objectives, whether it's enhancing agility, reducing costs, or improving service delivery.

Migration

Migration — a term that seems straightforward at first glance — encompasses many complexities hidden beneath this simple word. Much like painting a room, where preparation is the most important step, migration demands careful planning.

Before any migration to an Azure ecosystem begins, one must consider what is being moved. Is it a database, applications, or workloads? Each type may require a different strategy and level of attention and planning. Interdependencies must be identified in order to bundle applications, define move groups, set migration schedules and plan the migration to the most detailed level possible to eliminate the risk of error. There must also be real-time visibility into the data holistically, so the collaborative team can make migration planning decisions in real time.

Beyond the basic act of transferring data, migration presents an opportunity to modernize, upgrade, or even replatform to take advantage of cloud benefits. It's a chance to assess what might be improved during the transition. It's about more than just moving — it's about transforming and optimizing for what lies ahead.

Lift and shift data
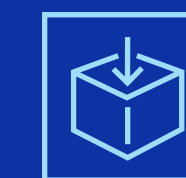
Identify infrastructure and application dependencies to package

Full data center migration methodology

Consider Dell Migration Services

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Managing a diverse multicloud environment

Managing a diverse multicloud environment presents unique challenges, as organizations often juggle various platforms to optimize performance, costs, and compliance. Leveraging Azure Arc as a common control plane provides a powerful solution for unified management across different cloud platforms. Azure Arc makes it possible to run Azure data services on-premises, at the edge, and in public clouds using Kubernetes and the Infrastructure of your choice. It also extends Azure's

management capabilities to any workloads on non-Azure infrastructure, allowing businesses to maintain a consistent operational model and governance. This unified approach not only simplifies oversight but also enhances security and compliance, ensuring that each component of the multicloud architecture adheres to centralized policies and standards.

The role of Infrastructure as Code (IaC) is pivotal in this context, as it ensures consistent and repeatable deployments across the multicloud landscape. By

defining and managing infrastructure through code, organizations can automate deployments, reduce human error, and accelerate the delivery of services. Azure Arc seamlessly integrates with IaC tools, allowing teams to deploy applications and infrastructure consistently, regardless of the underlying platform.

Integrating ServiceNow into this ecosystem further streamlines operations by providing a structured framework for IT service management. ServiceNow offers comprehensive

workflow automation, incident management, and service request handling, enhancing the efficiency and responsiveness of IT operations across all environments. By combining Azure Arc's unified management capabilities with ServiceNow's robust service management features, organizations can create a cohesive and efficient operations model.

This strategic approach will help organizations harness the full potential of their multicloud investments while minimizing complexity and risk.

Consider Dell services for Azure Arc, IaC and ServiceNow

Speed of transition

Transitioning to a Microsoft Azure ecosystem can be approached through several strategies, each with its benefits and challenges. The "move now" approach is ideal for organizations who might need to quickly move their data, often due to urgent business requirements or cost-saving measures. This method involves transferring data swiftly between cloud platforms and is most appropriate for companies with a relatively straightforward cloud architecture or those prioritizing speed over customization.

The "incremental change" strategy focuses on transitioning specific technologies, to gradually adapt to the new ecosystem. This method allows businesses to test new components in a controlled manner, minimizing risks and enabling more precise management of resources. It's particularly beneficial for organizations seeking to modernize their infrastructure without overwhelming their IT teams.

Lastly, a "full transition" involves a comprehensive overhaul of the entire technology stack, executed at a measured pace that aligns with strategic business goals. While this approach offers the advantage of a customized and future-proof cloud environment, it requires significant planning and investment. It is best suited for large enterprises with complex infrastructures that aim to achieve long-term agility and scalability, resulting in a robust and flexible multicloud ecosystem.

Each strategy serves different needs, and the choice largely depends on the organization's priorities and existing technical landscape.

Move now

Incremental change

Full transition

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Summary

Regardless of which Dell solution for Microsoft Azure Stack HCI you choose, Dell Technologies Services can help you extend your multicloud environment with Microsoft Azure Stack, to build the cloud by design you need.

Request a sales call back from Dell Technologies →

Learn more about Dell Technologies Services →

First Microsoft Premier Solution
Dell APEX Cloud Platform for Microsoft Azure

Collaboratively engineered and continuously validated for simplified deployment, automated operations, and seamless LCM.

Dell Integrated System for Microsoft Azure Stack HCI

Tightly integrated, HCI that's certified and backed by Dell engineering.

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