ACCELERATE ADOPTION OF DELL EMC AND MICROSOFT AZURE STACK HCI

Hyper-converged infrastructure provides confidence, convenience and customer support that businesses demand

Hyper Value with Hyper-Converged

- **Solution**
  - Dell EMC Solutions for Microsoft Azure Stack HCI

- **Benefits**
  - Confidence of Dell EMC and Microsoft validated configurations
  - Convenience of fast, simplified deployments
  - Solution-level, one-call customer support provides peace of mind
  - Largest number of configurations for Microsoft Azure Stack HCI
  - Windows Server 2019-based HCI improves performance, scalability, and resiliency
  - SAN-like capabilities delivered at lower cost and with reduced risk

Demand for hyper-converged infrastructure explodes

The market for hyper-converged infrastructure (HCI) solutions is on fire. MarketsandMarkets forecasts growth of the HCI market from $4.1 billion in 2018 to $17.1 billion by 2023, at a CAGR of 32.9%. Why the excitement? Globally, enterprises are moving away from do-it-yourself hodgepodge infrastructures that often require massive staff resources, long deployment times, and navigating multiple vendors to resolve issues. Instead, enterprises are quickly switching to pre-validated HCIs integrating x86 servers, local storage, and high-speed interconnects because they provide better performance, increased efficiency, and easier deployment at a lower cost.

For Windows customers, the HCI options got a whole lot better with the latest Dell EMC Solutions for Microsoft Azure Stack HCI. These new Dell EMC Microsoft solutions mark a technological leap with Windows Server 2019 providing scalability, resiliency, single pane of glass management, and more. In addition, new Dell servers and network technologies enable significant speed and efficiency improvements.

Together, Dell EMC and Microsoft create a smooth, cost-effective pathway for enterprises to achieve hybrid on-premises environments with connections to cloud services and capture the high business value of a software-defined data center (SDDC). Plus, Dell EMC and Microsoft HCI solutions provide customers with confidence since proven configurations are fully tested and validated by Dell EMC and Microsoft. They also deliver the convenience of fast, simplified deployments; and solution-level, one-call customer support for peace of mind.

Dell EMC Storage Spaces Direct Ready Nodes power a virtually unlimited array of use cases

The beauty of the Dell EMC Microsoft Azure Stack HCI solution is the flexibility to support nearly any use case across virtualized and physical environments, such as data center consolidation, remote or branch office (ROBO), backup, disaster recovery, archiving, Microsoft SQL, VDI, edge computing, and so many others.

Running on Dell EMC's latest generation of PowerEdge servers with local storage and integrated networking, Dell EMC Storage Spaces Direct Ready Nodes offer an expanded range of capabilities:

- **Storage and compute for every use case**—Get millions of IOPS at a low price point with hybrid HDD with SSD storage in large clusters. Or go all NVMe and skyrocket to millions of IOPS. Dell EMC offers four integrated Dell EMC PowerEdge servers to meet a broad spectrum of performance and capacity requirements.

- **Simple to manage and scale**—Integrated compute, storage, and networking combined in the same cluster makes the Dell EMC Storage Spaces Direct Ready Nodes easier to deploy, manage, and scale.

- **Largest number of configurations for Microsoft Azure Stack HCI**—Dell EMC offers 16 Azure Stack HCI validated configuration choices—more than any other vendor. The configurations start as small as two nodes, which is perfect for edge needs, and grow to as large as 16 nodes in a cluster with up to four petabytes of storage.

- **Lightning-fast networking**—Another way to boost performance of your Ready Nodes is to choose the 25GbE switches. At similar price per port to 10GbE, our expanded networking options provide the east-west traffic that drives super performance, high IOPS, and low latency.

Windows Server 2019: Cloud-ready OS drives new levels of scalability, performance, and manageability for HCI customers

Dell EMC Solutions for Microsoft Azure Stack HCI now support Windows Server 2019. Together, Dell EMC Ready Solutions and Microsoft Azure Stack HCI allow you to run infrastructure as a service and a software-defined data center at a lower cost and risk compared to integrating and deploying your own three-tiered infrastructure.

Here are some of the Windows Server 2019 capabilities available to Dell EMC Solutions for Microsoft Azure Stack customers:

- **Storage Spaces Direct**—Software-defined storage abstracts your storage from locally attached flash and hard drives into one, large, easy-to-manage pool. While double- or triple mirroring continues to be available, Windows 2019 has added more efficient, higher performance resiliency options, such as mirror-accelerated parity. You also can save space with deduplication, compression, and intelligent storage tiering. Because Storage Spaces Direct is software-defined via the operating system, you're getting SAN-like capabilities at a lower price point

- **Windows Admin Center**—From a browser-based application, you can tier storage, implement resiliency, provision VMs and storage, configure networking, monitor health and performance, and install updates with a few clicks. Clicking through 10 or 15 windows is a thing of past now that Windows Admin Center functions via a single screen.

- **Hyper-V**—Instead of buying a separate hypervisor license for your VMs, your Windows Server data center license includes Hyper-V. With Hyper-V, you can create unlimited VMs, achieve high availability clustering, and secure your tenants or applications with shielded VMs.

- **Software-Defined Networking**—Software-define your network for utmost agility, efficiency and security. Prevent security vulnerabilities with micro-segmentation, access-control lists, and encrypted networks. Increase performance with remote direct memory access and a high-speed data plane.

Making hyper-converged infrastructure easy: Dell EMC

As every IT person knows, enterprise technology, no matter how great, is only part of the equation. By choosing Dell EMC Solutions for Microsoft Azure Stack HCI, you get confidence that everything will work well, the convenience of fast, pain-free deployments, and peace of mind with solution-level, single call support. We call it the three Cs:

- **Confidence**— Dell EMC Solutions for Microsoft Azure Stack HCI are based on Dell EMC- and Microsoft-validated configurations and best practices for streamlined deployment and steady-state operations. Components have been fully tested for compatibility and follow approved firmware and BIOS versions. Our customers are fully confident that the Dell EMC Microsoft solution will work whether it's two-node or 16-node or something in between.

- **Convenience**—Dell EMC Solutions for Microsoft Azure Stack HCI are convenient and fast to implement without lengthy design and build time. Dell EMC provides customers and partners with deployment guides, order guides, hardware compatibility lists, reference architectures, and engineering white papers to streamline deployment even more. Dell EMC also offers quick start

- configurations for four-node HCI deployments that automatically size storage drive selections, servers, capacity, and networking connectivity.

- **Customer support**—Dell EMC provides solution-level support, unlike other HCI vendors, which may only provide single-server support. By delivering multi-node, cluster-aware support to validated configurations, Dell EMC can more quickly identify and resolve issues and understand the entire scope of the solution whether the issues are software- or hardware-driven. That gives you more time to focus on getting your most pressing work completed.

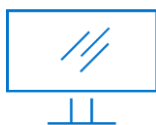## Get to hyperconverged even quicker with Dell EMC Services

Dell EMC offers a range of professional and consulting services to assist customers with deployments of Microsoft Azure Stack HCI. With Dell EMC Services, certified deployment engineers can help speed deployments, ensure success, reduce risk and downtime, and free IT staff to focus on high-value projects.

- **Deployment services**—Dell EMC offers the options of ProDeploy or ProDeploy Plus with an add-on for Microsoft Storage Spaces Direct. Customers often choose assistance when the deployment is the first step toward a software-defined data center. After working with Dell EMC for one or two clusters, customers may choose to deploy on their own.

- **Support**—Dell EMC offers solution-level, contextual support right from first call. All customer support calls get routed to experts who are trained on Azure Stack HCI, regardless of whether it's a hardware or software issue.

- **Consulting**—We offer consulting services for customers that want to better understand how HCI and software-defined data centers can best add value to their environment and use cases, as well as how these initiatives fit into their overall IT strategy.

- **Windows Server 2016 to 2019 upgrade service**—Dell EMC Services has introduced an offering to assist customers who are considering upgrading an existing HCI solution from Windows Server 2016 to Windows Server 2019. This fully tested and supported end-to-end upgrade service is an industry first and only available from Dell EMC. The development and availability of this service further underscores Dell EMC's deep commitment and investment to maintaining leadership in the Microsoft Azure Stack HCI program. For details, go to: upgrade best practice guidance

Jumpstart your software-defined data center today

It's never been easier and more cost-effective to transition to the cloud and software-defined data centers with the new Dell EMC Solutions for Microsoft Azure Stack HCI. By offering our trademark customer experience of confidence, convenience, and customer support, we make configurations, sizing, and deployment painless while providing multi-node, cluster-aware support. With Dell EMC, you get tremendous peace of mind, single-call solution support, and reduced risk for less cost while providing your enterprise with competitive advantage and business agility.

Ready to get started? Learn more at Dell EMC Cloud for Microsoft Azure Stack and contact a Dell EMC expert.

Learn More about
Dell EMC Solutions for
Microsoft Azure Stack
HCI

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1. Hyper-Converged Infrastructure Market worth $17.1 billion by 2023