AZURE STACK HCI: VIRTUAL DESKTOP INFRASTRUCTURE

Leverage your Azure Stack HCI investment to deploy Virtual desktop infrastructure (VDI), deliver centralized, highly available, simplified, and secure management for your organization end-user computing. Enable scenarios like bring-your-own-device (BYOD), while providing customers consistent and reliable experience to business-critical applications without sacrificing security to your organization's infrastructure.

Below, you will find a how-to guide for building and deploying your VDI environment on Azure Stack HCI.

Overview of Virtual desktop infrastructure (VDI)

Virtual Desktop Infrastructure, or VDI, uses server hardware to run desktop operating systems and software programs on a virtual machine. For as long as operating system virtualization existed, VDI offered the flexibility of running traditional desktop workloads, on centralized servers. There is a wide range of advantages to leveraging VDI in a business setting, including keeping sensitive company applications and data in a secure datacenter, accommodating a bring-your-own-device policy without worrying about personal data getting mixed with corporate assets, reducing liability when corporate assets are lost - covering both data loss prevention, as well as exposure of sensitive data to potential corporate espionage and/or hackers. In addition, VDI has become the de-facto standard for supporting remote and branch workers, as well as providing contractor and partner access.

Azure Stack HCI offers the optimal platform for VDI. Leveraging a validated HCI solution, and Microsoft's mature Remote Desktop Services, customers achieve a highly available, and highly scalable architecture.

In addition, Azure Stack HCI VDI solutions provide unique cloud-based capabilities for protecting VDI workloads and clients:
- Centrally manage updates using Azure Update Management
- Unified security management and advanced threat protection for VDI clients

DataON Integrated Systems for Azure Stack HCI

DataON Integrated Systems for Azure Stack HCI are designed for remote office/branch offices, edge, and IoT deployments. These deployments can present a challenge for IT departments because of constrained budgets, space and power footprints, and limited IT resources.

Integrated Systems provide a fully integrated appliance-like hybrid cloud experience, delivering the fastest time-to-value through the convenience of pre-installed software, integrated drivers, and firmware updates. Simple to deploy and procure, they're ideal for customers who require turnkey solutions with little deployment effort from IT staff.

DataON Integrated Systems can be optimized for high performance with all-NVMe storage or balanced capacity and storage with flexible hybrid NVMe cache and SSD/HDD storage. With Azure Stack HCI, customers can get great resiliency with nested two-way mirroring.

DataON is an exclusive Microsoft partner, with over 100 Integrated Systems and validated nodes in the Microsoft Azure Stack HCI Catalog, as well as over 1000 HCI clusters and 150PB of storage deployed. DataON is a Microsoft Gold Partner, Microsoft Cloud Service Provider (CSP). and an Intel Strategic OEM Partner.

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DataON MUST and MUST Pro for Windows Admin Center

DataON MUST and MUST Pro are included with DataON Integrated Systems. DataON MUST provides real-time monitoring & alerts for Azure Stack HCI. It features a centralized dashboard, historic data reporting, enhanced disk mapping, email alerts, and call home services. MUST Pro integrates with Microsoft's cluster aware updating (CAU) functionality to simplify deployment and updates to Azure Stack HCI, with minimal disruptions to your infrastructure. It checks and ensures that servers have the same OS version, drivers, firmware, BIOS, and BMC. It also checks the drivers and firmware for network cards, host bust adapters, and SSD and HDD drives. With a single click, your entire cluster can be updated, helping to you secure against the latest server exploits.

How to deploy VDI on Azure Stack HCI

1/ Hardware and OS configuration for VDI

DataON AZS-216 Integrated Systems for Azure Stack HCI are optimized for IOPS & performance, with 2nd Generation Intel® Xeon® Scalable processors and all-NVMe flash storage.


DataON AZS-6112	DataON AZS-6212	DataON AZS-6224		DataON AZS-108	DataON AZS-212	DataON AZS-216
Optimized for size & performance	Optimized for IOPS & capacity	Optimized for IOPS & performance		Optimized for size & performance	Optimized for IOPS & capacity	Optimized for IOPS & performance
2 to 16 Nodes				2 to 16 Nodes		
All-NVMe flash storage	Hybrid storage	All-NVMe flash storage		All-NVMe flash storage	Hybrid storage	All-NVMe flash storage
1U / 1-Node Rack 12x 2.5" Bays	2U / 1-Node Rack 2x 2.5"/3.5" NVMe + 10x 3.5" SAS/SATA	2U / 1-Node Rack 24x 2.5" Bays		1U / 1-Node Rack 8x 2.5" Bays	2U / 1-Node Rack 12x 3.5" Bays	2U / 1-Node Rack 16x 2.5" Bays
3rd Generation Intel® Xeon® Scalable processors				**2nd Generation** Intel® Xeon® Scalable processors		
Up to 12TB DDR4				128GB to 1.5TB DDR4		
Intel® NVMe SSDs				Intel® NVMe SSDs		
25GbE RDMA networking				25GbE RDMA networking		

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2/ **Step by Step guide** to deploy Azure Stack HCI. Also install Windows Admin Center (WAC) for managing Azure Stack HCI.

From Windows Admin Center (WAC), set up **Azure Update Management** can quickly assess the status of available updates, schedule installation of required updates, and review deployment results to verify updates that apply successfully.
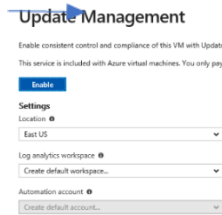
- Additionally, you can set up additional ⚠ Azure hybrid services such as Backup, File Sync, Site Recovery, Point-to-Site VPN, Update Management, and Security Center in WAC.

3/ Enable VDI support

Once your Azure Stack HCI deployment is complete and registered in Azure, follow the steps below to deploy Remote Desktop Services:

- Deploy the Remote Desktop Services infrastructure
- Create a session collection to hold the apps and resources you want to share
- License your RDS deployment
- Have your users install a Remote Desktop client so they can access the apps and resources.
- Enable high availability by adding additional Connection Brokers and Session Hosts:
  - Scale out an existing RDS collection with an RD Session Host farm
  - Add high availability to the RD Connection Broker infrastructure
  - Add high availability to the RD Web and RD Gateway web front
  - Deploy a two-node Storage Spaces Direct file system for UPD storage

Summary

With the completion of a VDI deployment using Azure Stack HCI, you now have a secure and resilient platform for running VDI end-user workloads, built to scale with your customer needs.

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