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

How to deploy VDI on Azure Stack HCI

1. Thomas-Krenn.AG Azure Stack HCI Systems
    - **Azure Stack HCI Rack-Series Variants**
    - **Azure Stack HCI Micro-Cluster Variants**

2. Plan your Azure Stack HCI environment with **Azure Stack HCI Solutions from Thomas-Krenn.AG**
    - Maximum flexibility and scalability
    - 1x AMD embedded CPU each Node
    - Up to 256 GB RAM each Node
    - Up to 2x 25 GbE Network each Node
    - Individual calculated Storage-Capacity available [1]
        - SSD-Storage
        - HDD-Storage

    (1) Nested two-way Mirror is highly recommended for 2-Node-Azure-Stack-HCI-Clusters

    Please consider backup and restore times for large-capacity configurations. Most data protection solutions are not able to ingest and restore at speeds businesses expect.

3. Network and Switch Connectivity
    - RoCE/RDMA or iWarp/RDMA technology for Storage Spaces Direct Storage Traffic is not available within the Micro-Cluster AMD Solutions in the 2nd Generation.

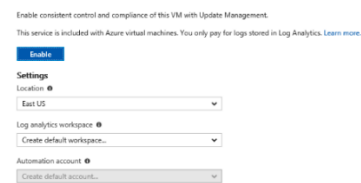# AZURE STACK HCI: VIRTUAL DESKTOP INFRASTRUCTURE

- Available as switch-connected or direct-attached solution [2]
  - One single/standalone switch
  - Two redundant/stacked switches

(2) Thomas-Krenn.AG recommends a switched configuration. The switch helps the cluster determine whether loss of node connectivity is due to node or network failure, ensuring more predictable failover behavior.

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.

Update Management

Enable consistent control and compliance of this VM with Update Management.
This service is included with Azure virtual machines. You only pay for logs stored in Log Analytics. Learn more.

Enable

Settings
Location ⓘ
East US
Log analytics workspace ⓘ
Create default workspace...
Automation account ⓘ
Create default account...

- 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.

1. Enable VDI support

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

https://docs.microsoft.com/en-us/windows-server/remote/remote-desktop-services/rds-build-and-deploy

- 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.