

DATA SHEET FOR AZURE STACK HCI RACK-SERIES

Single-AMD 4U v3

- Certified hardware for the use of Azure Stack HCI with the software defined storage technology Storage Spaces Direct (S2D)
- Certified for Windows Server 2022 & Azure Stack HCI
- High available Azure Stack HCI Clusters between 1 and 16 Nodes
- Optional preinstallation of Windows Server or Azure Stack HCI
- Optional configuration of Azure Stack HCI (S2D) with Best-Practices
- U.3 NVMe technology
- PCIe 4.0 standard



Driver & Firmware
Download

The Single-AMD 4U v3 solution:

AzSHCI Series RA1448 v3



THOMAS
KRENN[®]

AzSHCI Series RA1448 v3



Barebone

Barebone	Gigabyte S472-Z30
Units	4U
Size (LxBxH) in cm	69,7 x 48,2 x 17,5
Operatingtemperature	10 °C - ~25 °C

Mainboard

Mainboard	Gigabyte MZ32-AR1
CPU	1x AMD EPYC 7003 3rd Generation (Milan) – configurable between 8 – 64 Cores
RAM	16x DDR4 3200MHz – configurable between 64GB – 2TB
TPM	TPM 2.0 Modul
BMC/IPMI	Gigabyte Management Console

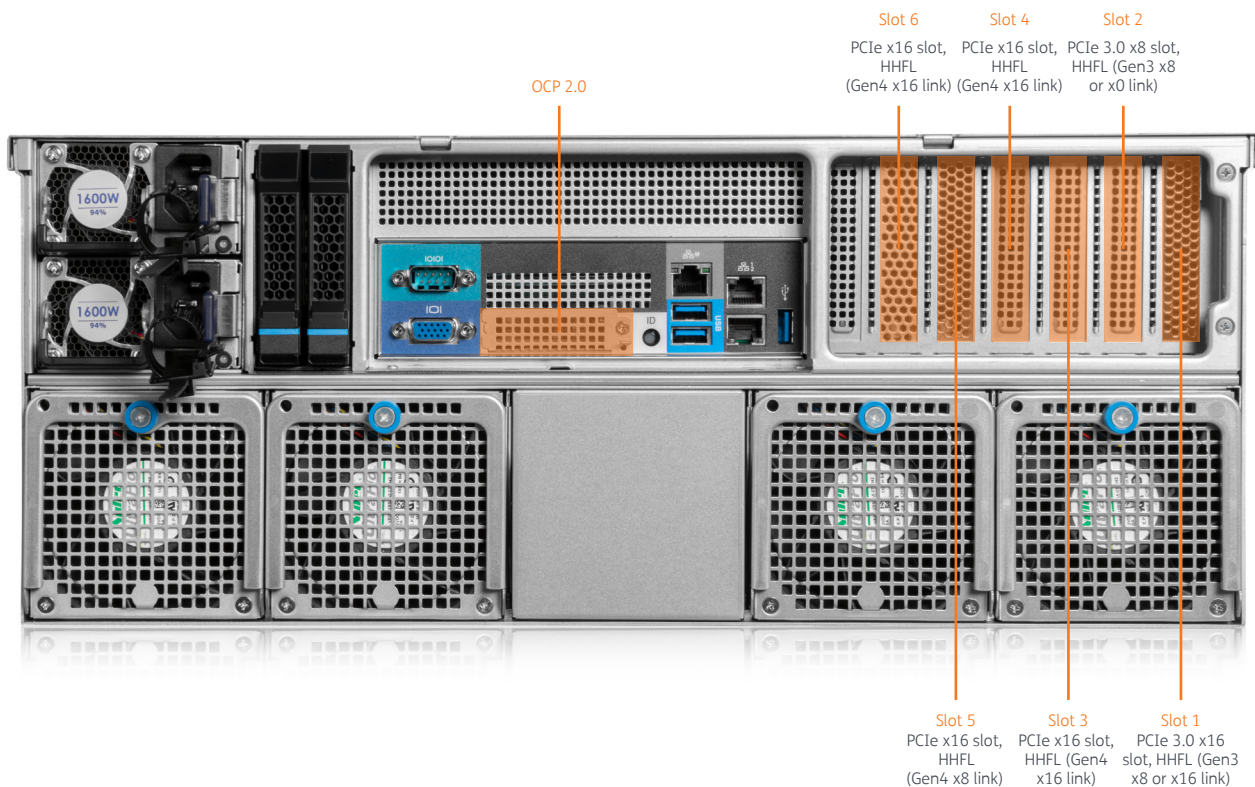
Drives

OS Disk	M.2 Drives (240GB or 480GB) – optional configured in a RAID1
U.3 NVMe Disk Slots	8x
2,5“ SATA Disk Slots	16x
3,5“ SATA Disk Slots	24x

PCIe

M.2 RAID-Controller	PCIe 3.0 x8
HBA-8i für 3,5“ HDDs	PCIe 3.0 x8
HBA-16i für 2,5“ SSDs	PCIe 4.0 x8
VMNet NIC	OCP 2.0 Slot – PCIe 3.0 x16
Storage RDMA NIC	PCIe 4.0 x16
unused PCIe Slots	1x PCIe 4.0 x16 for Single-Slot-GPU or additional NIC

PCIe Slots - AzSHCI Series RA1448 v3

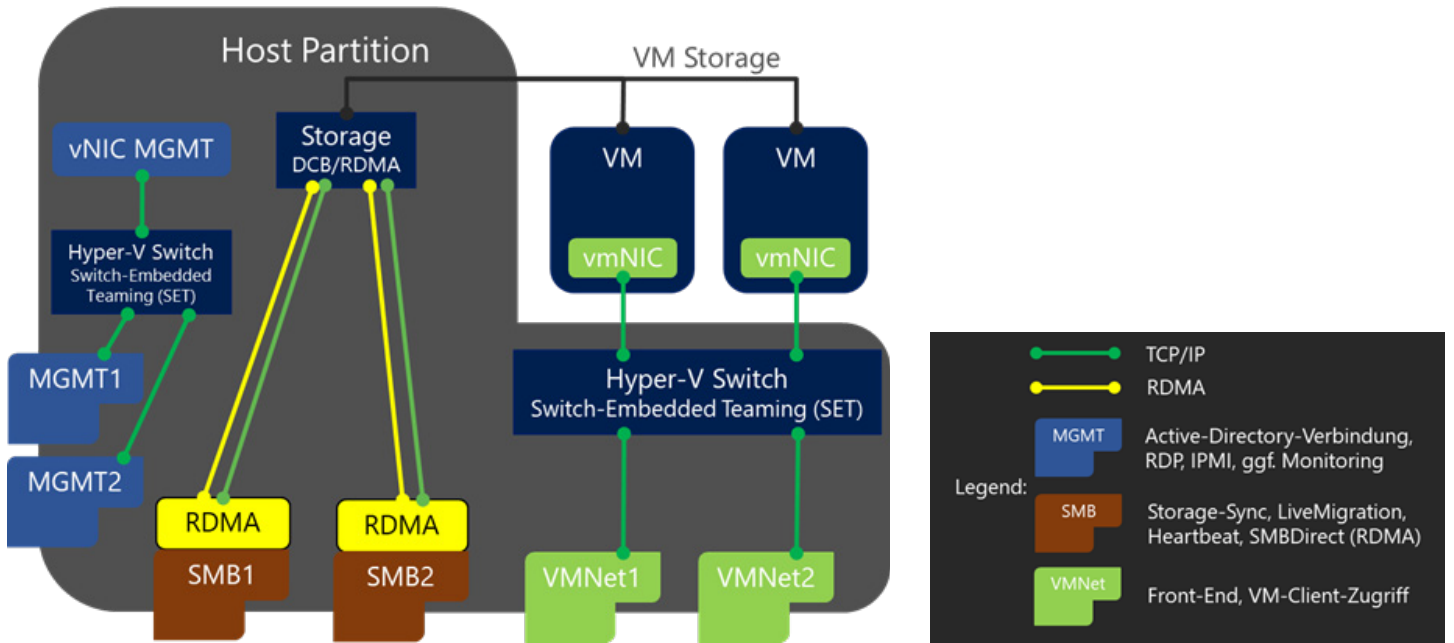


Slot	PCIe-Lanes (1)	PCIe-Lanes (2)	Device
1	3.0 X16	3.0 X8	HBA-8i for 3,5" HDDs
2	3.0 X0	3.0 X8	M.2 RAID-Card
3	X16		Storage-Network RDMA NIC
4	X16		In use for NVMe
5	X8		HBA-16i for 2,5" SSDs
6	X16		Usable for GPU or additional NIC
OCP 2.0	3.0 X16		VM-Network OCP 2.0 NIC

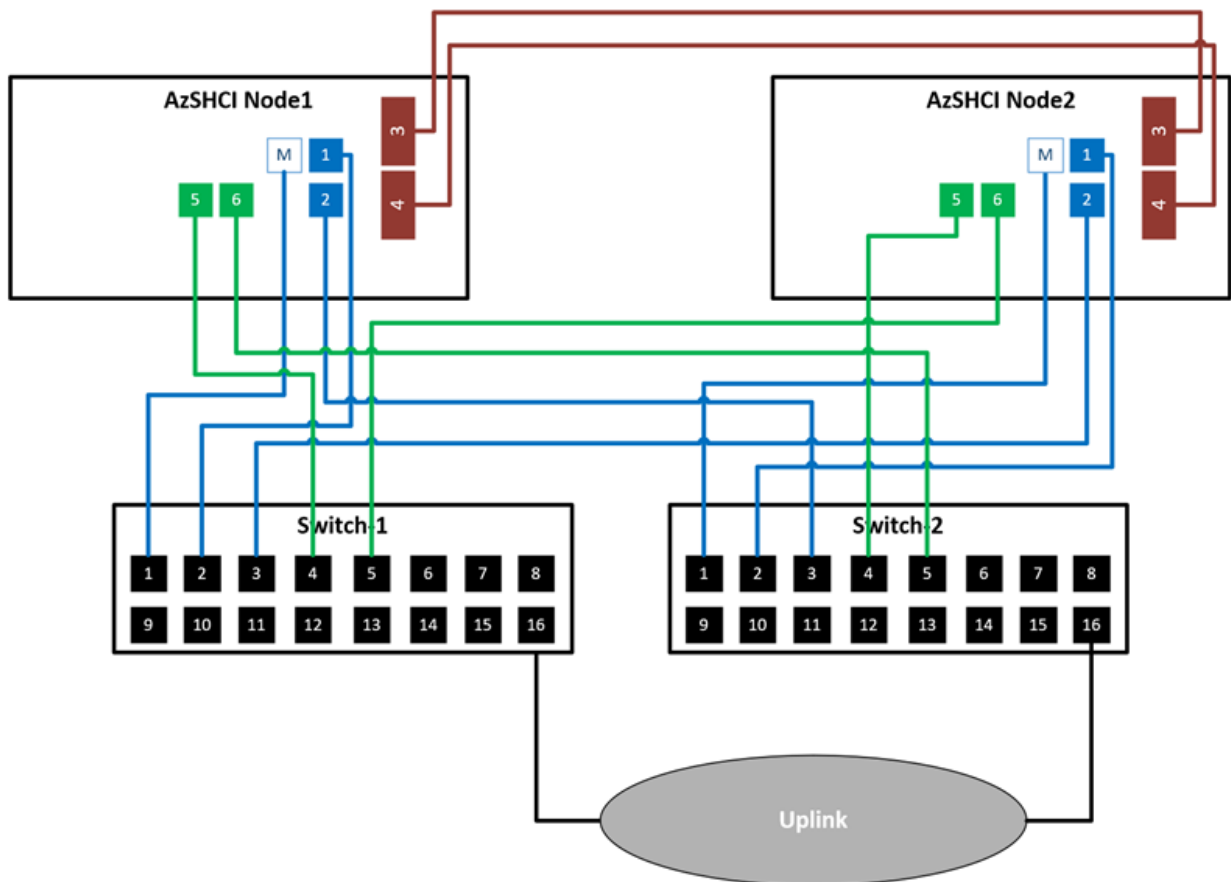
PCIe-Lanes (1) or PCIe-Lanes (2) possible (they are alternates)

Network recommendation

Thomas-Krenn.AG recommends the following Network setup



Default setup of the networking components in the Azure Stack HCI rack solution.



Example cabling plan of a 2-Node Azure Stack HCI cluster with redundant management switches and direct-attached connection between the storage NICs.

Selectable networking components

connection	count	speed	connector
MGMT			
Onboard	2	10 GbE	RJ45
SMB (RDMA - RoCEv2)			
PCIe 4.0 x16	2	25 GbE	SFP28
PCIe 4.0 x16	2	100 GbE	QSFP56
SMB (RDMA - iWarp)			
PCIe 4.0 x16	2	25 GbE	SFP28
PCIe 4.0 x16	2	100 GbE	QSFP56
VMNet			
OCP 2.0 - PCIe 3.0 x16	2	10 GbE	RJ45
OCP 2.0 - PCIe 3.0 x16	2	10/25 GbE	SFP28

Selectable components

Processors

- 1x AMD EPYC 7003 3rd Generation (Milan)
- 8 - 64 Cores

RAM

- 16x DDR4 3200MHz
- 64 GB RAM (4x 16 GB)
 - 128 GB RAM (8x 16 GB)
 - 256 GB RAM (8x 32 GB)
 - 512 GB RAM (8x 64 GB)
 - 1 TB RAM (8x 128 GB)
 - 2 TB RAM (16x 128 GB)

OS-Drives

- 240 GB or 480 GB M.2 as Single-Disk
- 2x 240 GB or 2x 480 GB SSD in a RAID1

U.3 NVMe-Drives

- Capacity: 800 GB, 1,6 TB, 3,2 TB, 6,4 TB or 12,8 TB

SATA SSD- Drives

- Capacity: 960 GB, 1,92 TB or 3,84 TB

SATA HDD-Drives

- Capacity: 4TB, 6 TB, 8 TB, 10 TB, 12 TB, 14 TB, 16 TB or 18 TB

Datacenter GPUs

- Single-Slot GPU: NVIDIA A2