HPE SOLUTIONS FOR AZURE STACK HCI

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WHAT IS AZURE STACK HCI?

Storage Spaces Direct – Sized right, done right
WHAT IS STORAGE SPACES DIRECT (S2D)?
Software-Defined Storage in Windows Server 2019

The Basics
- A role in Windows Server 2019 Datacenter
- Storage for Hyper-V based hyper-converged infrastructure (HCI)
- Locally attached storage, virtualized across cluster nodes
- All flash or hybrid storage drive mix
- Automatic tiering of cache and capacity drives: Fastest drives used for caching
- Highly resilient data protection:
  - Mirroring (2-way/3-way)
  - Parity (incl. dual-parity)
  - Mirror-accelerated parity (WS2019)
Evolution of Storage Spaces Direct
S2D Improvements in Windows Server 2019 Datacenter

General improvements
- Deduplication and compression on ReFS volumes
- Mirror-accelerated parity
  - Mirrored cache with dual-parity capacity layer

Expansion to Entry Level / SMB
- Enabling 2-node HCI clusters in Edge / ROBO scenarios
  - NAS or USB key (plugged into WiFi router) as low cost witness
  - SMB 2.0+ / min 5MB free space / local account or Active Directory
- Switchless “back-to-back” connectivity between nodes
  - Ethernet cross-over cable or Thunderbolt
- Nested resilience (see illustration)
  - Nested 2-way mirror
  - Nested mirror-accelerated parity
MANAGE SIMPLY - WINDOWS ADMIN CENTER

Ease of Use Stretching from Azure Stack HCI to Azure Cloud
COMPLEX MADE SIMPLE – LOCAL OR IN THE CLOUD

Under Construction
WHERE DO THEY STAND?

HPE Solutions for Microsoft Azure Stack HCI
Portfolio Positioning
### HPE HCI SOLUTIONS PORTFOLIO - POSITIONING

#### Private Cloud / Azure on premises:
- Metered / Pay-as-you-use
- IaaS / PaaS Azure cloud-consistent
- Managed using Azure Resource Manager (ARM) – same as in Azure
- ‘Invisible’ infrastructure management

#### Integrated hyper-converged appliance:
- Simplified operation
- Highly optimized with hardware (opt. SW) accelerated deduplication and compression
- Hypervisor integration and automation

#### Pre-qualified hyper-converged infrastructure:
- Virtualized applications / ‘traditional’ VMs
- Flexible choice of validated key components
- Active/Admin-involved infrastructure management

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**HPE ProLiant for Microsoft Azure Stack**

**HPE SimpliVity**

**HPE Solutions for Microsoft Azure Stack HCI**

**HPE VMware vSAN ReadyNodes**
THE LINEUP

HPE Solutions for Microsoft Azure Stack HCI
**HPE AZURE STACK HCI SOLUTIONS – BASED ON WS2019 DATACENTER + S2D**

Note: This is a rolling roadmap and subject to change without notice. Some solutions shown are not yet published on the MSFT or HPE Azure Stack HCI web sites.


<table>
<thead>
<tr>
<th>Model</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL380 Gen10</td>
<td>2* - 16 node All Flash</td>
</tr>
<tr>
<td></td>
<td>2* - 16 node Hybrid</td>
</tr>
<tr>
<td></td>
<td>2* - 16 node Hybrid w/ Intel Optane DC PMEM</td>
</tr>
<tr>
<td>D3610/D3710 JBOD</td>
<td>Supported for use on DL380/385/360 Apollo 4200 - SAS only</td>
</tr>
<tr>
<td>SYNERGY 480 Gen10</td>
<td>2* - 16 node Hybrid</td>
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<tr>
<td></td>
<td>2* - 16 node All Flash</td>
</tr>
<tr>
<td>Apollo 4200 Gen10</td>
<td>2* - 16 node Hybrid</td>
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<tr>
<td></td>
<td>2* - 16 node All Flash</td>
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<td>ML350 Gen10</td>
<td>2* - 4 node Hybrid</td>
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<tr>
<td></td>
<td>2* - 4 node All Flash</td>
</tr>
<tr>
<td>DL325 Gen10</td>
<td>2* - 4 node All Flash</td>
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<tr>
<td></td>
<td>2* - 4 node Hybrid</td>
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<tr>
<td>DL385 Gen10</td>
<td>2* - 16 node All Flash</td>
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<td></td>
<td>2* - 16 node Hybrid</td>
</tr>
<tr>
<td>EdgeLine EL8000</td>
<td>Converged Edge System</td>
</tr>
<tr>
<td></td>
<td>2* - 4 nodes All Flash</td>
</tr>
</tbody>
</table>

*Fewer than three nodes require a separate file share or Azure Cloud Witness. This is a rolling roadmap and subject to change without notice.
RESOURCES

HPE Azure Stack HCI
Landing Page:

Microsoft Azure Stack HCI Catalog:

HPE Storage Spaces Direct Whitepaper:
THANK YOU

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