



# HPE Small Business Solutions for High Availability Storage

Simple, secure, and affordable software-defined storage solutions designed just for SMB use cases

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## HPE point of view

### High availability storage is at the heart of digital transformation

In the digital age, data is the most valuable asset of any company. But small and midsize businesses (SMBs) face unique challenges when it comes to data protection and disaster recovery. That’s because reliable storage with adequate capacity can be complex and expensive, putting it out of reach. But speeding time to value with the new generation of applications requires a software-defined storage (SDS) infrastructure that enables data high availability (HA). HPE Small Business Solutions for High Availability Storage free you from the cost and complexity of traditional storage arrays with low-cost, scalable SDS that’s simple to deploy, manage, and support.

### HPE Small Business Solutions for High Availability Storage

HPE Small Business Solutions are based on HPE ProLiant servers, powered by Intel® Xeon® Scalable processors, and preconfigured for foundational SMB use cases. They are tested, optimized, and validated for Microsoft® Storage Spaces Direct (available through Windows Server® 2019 Datacenter edition) and VMware vSAN™. They are designed to be a one-stop shop for packaged solutions including hardware, software, services, and top-selling HPE ProLiant options, ready-to-go for HA SDS.

With HPE Small Business Solutions running on-premises or co-located in a Partner data center, you can easily adopt a software-defined storage (SDS) infrastructure.

### Building a solution using iQuote

iQuote is an online sales enablement program that simplifies the process of configuring, quoting, and purchasing HPE products and solutions from a single location. You can access the universal version via [iquote.hpe.com](http://iquote.hpe.com) or contact your preferred HPE Authorized Partner or Distributor for live pricing.

HPE Small Business Solutions will be available in iQuote in Q3 2019. A set of custom filters enables you to quickly find the HPE SMB Solution Offer that best meets your needs. HPE Small Business Solutions can easily be customized in iQuote by adding options and HPE value-added services for an optimal experience.

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HPE Small Business Solution offers are regionally released as “Smart Buy Express Offers” in the U.S. and Canada, “Top Value Offers” in Europe, and “Intelligent Buy Offers” in Asia Pacific and Japan.

HPE Small Business Solution Elements are regionally released as “Smart Buy Express Offer Elements” in the U.S. and Canada, “Top Value Offer Elements” in Europe, and “Intelligent Buy Offer Elements” in Asia Pacific and Japan.

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## Build your solution

### Step 1: Size your solution

HPE Small Business Solutions for High Availability Storage is sized by the number of VMs. The following table shows the available configurations, with guidance on which base configuration to select based on the number of VMs you need to support.

#### HPE Small Business Solutions for High Availability Storage portfolio sizing matrix

Server used for base configuration	VMs supported
HPE ProLiant ML350 Gen10*	6 VMs per node
HPE ProLiant DL380 Gen10**	8 VMs per node
HPE ProLiant DL385 Gen10**	8 VMs per node

\* Validated for Microsoft Storage Spaces Direct

\*\* Validated for Microsoft Storage Spaces Direct and VMware vSAN



## Step 2: Choose the right configuration and recommended options

### Select the solution offer and elements for your business outcome and sizing needs

HPE Small Business Solutions consist of a base system plus offer elements. These combinations are the foundation for special pricing and are the starting point for building your solution configuration. After selecting the appropriate Small Business Solution configuration for your business outcome and sizing requirements, you may also wish to expand its capabilities by adding recommended options.

The configurations for HPE Small Business Solutions were designed for cost-effectiveness and structured as building blocks for easy expandability. All HA solutions are equipped with redundant power supplies for additional availability protection. SSDs are combined with SAS HDDs on each node to create a storage pool that is shared among the nodes in the solution for high availability. When a node fails, the other node(s) will take over the load from the failed node. This can be performed manually; but can be automated with additional software.

- The above configurations are structured to support a 2-node cluster; and the VMs created serve as a starting point. Each node can scale up by adding more drives and memory or scale out by adding more nodes to support more demanding workloads or to increase the number of VMs supported. The maximum number of nodes are dependent on the software defined storage solution—64 nodes for vSAN and 16 nodes for Storage Spaces Direct. Also note that a 2-node cluster requires a witness. For Microsoft Storage Spaces Direct this can be a USB-based witness or a host-based witness (see [Microsoft website](#) for details). VMware vSAN must be configured with a separate witness host.

## HPE Small Business Solutions for High Availability Storage

HPE Small Business Solutions for High Availability Storage are equipped with sufficient CPU, memory, and storage to provide SDS resources up to the stated solution capacity. Memory and drives can be expanded as needed for increased workloads.

### Operating system and storage considerations

The boot volume for Windows Server or VMware ESXi™ is intended to be installed on the dual M.2 SSDs, which should be configured as a RAID 1 array from within the operating system to protect against the failure of one disk. Each of the remaining HDDs and SSDs are to be configured as pass-through on the P408i-a Smart Array Controller. The storage controller must be dedicated to the storage pool. More storage can be added to expand capacity as your needs grow.

### Base system plus offer elements

	2 x ML350 Gen10*	2 x DL380 Gen10*	2 x DL385 Gen10*
<b>Solution capacity</b>	6 VMs per node	8 VMs per node	8 VMs per node
<b>System</b>	4U tower 8 x SFF hot-plug bays	2U rack 8 x SFF hot-plug bays	2U rack 8 x SFF hot-plug bays
<b>Processor</b>	1 x Intel Xeon Silver 4214 (12 core)	2 x Intel® Gold 5218 (16 core)	2 x AMD EPYC 7351 (16 core)
<b>Memory</b>	2 x 32 GB PC4-2933	4 x 32 GB PC4-2666	8 x 16 GB PC4-2666
<b>HDDs</b>	4 x 1.2 TB 12G 10K SAS	4 x 2.4 TB 12G 10K SAS	4 x 2.4 TB 12G 10K SAS
<b>SSDs</b>	2 x 240 GB Mixed Use M.2 SSDs 2 x 480 GB Mixed Use SATA	2 x 240 GB Mixed Use M.2 SSDs 2 x 480 GB Mixed Use SATA	2 x 240 GB Mixed Use M.2 SSDs 2 x 480 GB Mixed Use SATA
<b>Disk controller</b>	HPE Smart Array P408i-a Gen10	HPE Smart Array P408i-a Gen10	HPE Smart Array P408i-a Gen10
<b>Network</b>	10/25GbE 2 port SFP+ 4 x 1GbE	10/25GbE 2 port SFP+ 4 x 1GbE	10/25GbE 2 port SFP+ 4 x 1GbE
<b>Power supply</b>	2 x 800W	2 x 800W	1 x 800W
<b>Software**</b>	Microsoft Windows Server 2019 Datacenter—16-Core License (plus one MS Windows Server Datacenter—16 Additional Cores License for ProLiant DL380/DL385 and ML350) Or VMware vSphere® ESXi—3-year subscription (per socket) VMware vSAN—3-year subscription (per socket) VMware vCenter® Standard—3-year subscription (only one instance per site) iLO Advanced—3-year subscription (per node) HPE Pointnext Foundation Care hardware support—3-year 24x7 HPE Pointnext 24x7 technical support services are included with HPE OEM VMware® 1-, 3-, and 5-year licenses		



**Notes**

- These configurations represent the solution offers and recommended options.
  - The 10GbE NIC is dedicated to internode storage networking; the 1GbE integrated ports are for normal network traffic between the HA storage solution and the rest of the network.
  - 2 x 240 GB M.2 SSDs are for the boot volume; 2 x 480 GB SSDs and 4 x 1.2 TB or 2.4 TB together form the storage pool.
- \* A two-node HA cluster consists of one active server, one passive server, and a witness which decides which server will be the active server in case of a node failure or communication disruption. The witness can be run on any physical machine that is no part of the HA Solutions and that supports the witness host, avoiding the costs of deploying a third server. Alternatively, the solution witness can be configured on a USB or file share if using Windows Server 2019. See [Windows Server 2019 documentation](#) for details.
- \*\* ProLiant ML350 is only validated for Microsoft Storage Spaces Direct.

**Step 3: Don't forget services****HPE Pointnext Services**

A services partner built for your business today and tomorrow, HPE Pointnext Services enable you to meet availability commitments with a variety of coverage levels and response times, and easily connect to HPE for faster problem resolution. HPE Pointnext offers comprehensive hardware and software services to help increase the availability of IT infrastructure and extend in-house IT staff with HPE expertise. You can do more with less by leveraging service tools with built-in simplification, and remote management tools.

Service offerings include:

- HPE Foundation Care
- HPE Proactive Care
- HPE Proactive Care Advanced
- HPE Installation and Deployment Services

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**Note**

HPE recommends Foundation Care 24x7 as the minimum recommended service level for HPE Small Business Solutions.

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**Step 4: Consider a quote for a flexible monthly payment option****HPE Financial Services**

Purchasing new IT and keeping it current can be financially daunting. HPE is offering a better way for you to acquire and pay for the IT infrastructure you need.

**HPE Subscription Services** allows SMBs to select a complete solution from predefined options that include best-in-class compute, storage, and networking hardware; software; accessories; and worry-free support services for a predictable monthly subscription fee. No large, up-front purchase to make—just subscribe, use, return, and renew. No worries about what to do with old equipment. Need to expand? Simply add more hardware or services. HPE Channel Partners can offer hardware, software, and support services in a single solution and deliver it in one simplified subscription contract.

**HPE's Technology Refresh program** replaces ownership with predictable monthly or quarterly payments and provides for a shorter, routine refresh cycle every 24 to 48 months. SMBs don't have to be locked into holding onto aging IT equipment and delaying upgrades. With HPE Technology Refresh, SMBs can have the IT they need to meet business goals and pay overtime to conserve cash, saving 10% to 15% over three or four years.

**Simple, secure, affordable**

HPE Small Business Solutions lower the cost of accessing easy-to-use, on-premises and hybrid cloud solutions without sacrificing security. To learn more about HPE Small Business Solutions, visit the resources included in this document, or contact your HPE or authorized Partner representative.

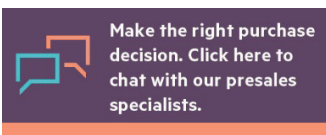


### Resources

- Solution brief:
  - [HPE Small Business Solutions for High Availability Storage](#)
- [ProLiant Server QuickSpecs](#)
- [ProLiant Server Options](#)
- [IT Support Services](#)
- [Get connected](#)
- [iQuote](#)

Learn more at  
[hpe.com/info/smb](http://hpe.com/info/smb)

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