Hewlett Packard Enterprise

HPE SMALL BUSINESS SOLUTIONS FOR SMALL OFFICE DEPLOYMENT

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BUILD YOUR SOLUTION

Step 1: Size your solution

HPE Small Business Solutions for Small Office Deployment are sized by the number of users and/or devices they will support. The following table shows the available configurations, with guidance on which base configuration to select, based on the number of users/devices you need to support.

TABLE 1. HPE Small Business Solutions for Small Office Deployment

Users/devices supported	Server used for base configuration	Switches and access points
Up to 25 users (two devices per user)	HPE ProLiant ML30 Gen10	1 x OfficeConnect 1920S port (12 PoE) switch 2 x Aruba Instant On AP12 Wireless Access Points
Up to 100 users (two devices per user)	HPE ProLiant DL20 Gen10 with HPE StoreEasy 1460	2 x Aruba 2530 48 port (24 PoE) switches 1 x Aruba Instant On AP15 Wireless Access Points 4 x Aruba Instant On AP12 Wireless Access Points

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 HPE 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. They are equipped with redundant HPE enterprise or midline drives for boot and data volume protection against disk failure. SAS drives provide faster data transfers for better performance and low latency and can be used for storage when database deployment on a guest virtual machine (VM) is expected. SATA drives provide economical storage capacity. HPE recommends combining multiple drives in hardware or software RAID for increased availability and data protection. And HPE Small Business Solutions using the HPE ProLiant DL20 Gen10 Server are equipped with redundant power supplies for additional availability protection.

Step 3: Configure HPE Small Business Solutions for Small Office Deployment

The HPE Small Office Deployment server is equipped with sufficient CPU, memory and storage resources to provide services up to the stated solution capacity.

Operating system and storage considerations

The Windows Server operating system (OS) is intended to be installed on a RAID-protected volume. The DL20 Small Office Deployment server should be configured with the two 240 GB SSDs in a RAID 1 configuration for the OS volume and the two 2.4 TB SAS drives in a RAID 1 array for data storage. Additionally, the DL20 Small Office Deployment solution is also available with an expanded storage configuration which includes an HPE StoreEasy 1460 network storage appliance with 8 TB of fast, redundant storage incorporating advanced file management features like deduplication and complete Windows Server infrastructure integration typically unavailable in low-cost appliances.

HPE RDX Removable Disk Backup System is a recommended option for the ProLiant ML30 configuration. It provides reliable disk-based backup and recovery with unmatched portability, fast recovery and easy integration.[1] The HPE RDX Removable Disk Backup System is a simple, cost-effective way to back up and protect critical data. Complement local backups with a cloud backup strategy so you can recover quickly, even if you lose your entire site or local backup copies.

The ML30 Small Office Deployment server should be configured using the two 300 GB SAS drives in RAID 1 for the OS volume and the four 1.2 TB SAS drives in a RAID 1 volume for data storage.

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[1] HPE RDX is supported only on solution configurations with Windows Server. RDX is not supported in ClearOS.

TABLE 2. Base system plus offer elements

	ML30 Gen10	DL20 Gen10
Solution capacity	Up to 25 users (two devices per user)	Up to 100 users (two devices per user)
System	4U tower 8 x SFF hot plug bays	1U rack 4 x SFF hot plug bays
Processor	1 x Intel® Xeon® E-2224 (4 core)	1 x Intel Xeon E-2234 (4 core)
Memory	2 x 16 GB PC4-2666	2 x 16 GB PC4-2666
HDDs	4 x 1.2 TB 12G 10K SAS 2 x 300 GB 12G 10K SAS	2 x 2.4 TB 12G 10K SAS 2 x 240 GB Read Intensive 6G SATA SSDs
Disk controller	HPE Smart Array P408i-p Gen10	HPE Smart Array E208i-a Gen10
Network	2 x ports at 1GbE	2 x ports at 1GbE
Power supply	2 x 500W	2 x 500W
Expanded storage	N/A	HPE StoreEasy 1460 8 TB SATA
Archival and disaster recovery storage	HPE RDX 2 TB Removable Disk Backup System (external, USB 3.0 connectivity)	HPE RDX 4 TB Removable Disk Backup System (external, USB 3.0 connectivity)
Switch	HPE OfficeConnect 1920S 24G 2SFP PoE+ 185 W	2 x Aruba 2530 48G Power over Ethernet (PoE)+
Access point	2 x Aruba Instant On AP12 (US) 3x3 11ac Wave2 Indoor	1 x Aruba Instant On AP15 (US) 4x4 11ac Wave2 Indoor 4 x Aruba Instant On AP12 (US) 3x3 11ac Wave2 Indoor
Software*	Aruba Central network management	
	Windows Server 2019 Standard—16 core licence (Client access licences are sold separately). ClearOS™ Silver subscription, ClearOS Marketplace apps (can be used in a Microsoft Hyper-V instance as a gateway appliance).	
	HPE iLO Advanced	

NOTE
These configurations represent the solution offers and recommended options.

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* ClearOS is downloaded from ClearCentre™, and ClearOS Marketplace apps are optional and may either be free or be fee-based. Refer to the ClearOS Marketplace for details. ClearOS subscriptions can be purchased from either ClearCentre or HPE; all ClearOS software support is delivered by ClearCentre. Microsoft Windows Server is installed from your media or media purchased from HPE.

Network installation considerations

The HPE Small Business Solution for Small Office Deployment includes a wired Ethernet switch with PoE and two or more wireless access points. The access points require power that can be supplied via the Ethernet cable connected to one of the PoE ports on the Small Office Deployment switch, or via optional external power supply (ordered separately).

A simple deployment of the HPE Small Office Deployment network components would be to connect the switch to the customer's internet router, the Small Office Deployment server, the Small Office Deployment wireless access points and all the PCs and other network devices.

A more secure—but complex—deployment is also possible. The HPE Small Office Deployment switch can support multiple network segments, called virtual LANs (VLANs). In this mode, the internet router is connected to the VLAN designated for unsecure external network traffic, while the PCs and other network devices to be protected, are connected to the VLAN, designated for secure internal network traffic. The Small Office Deployment server would be configured to host a ClearOS VM running a secure gateway application that acts as a firewall between the secure VLAN segment and the unsecure VLAN segment.

Server configuration considerations
The HPE Small Business Solution for Small Office Deployment is intended to be deployed as a single server that provides all of the services typically used by a small office, which could include the following:

- Network infrastructure services such as Active Directory, domain name services (DNS) and dynamic host configuration protocol (DHCP) services

- Network file and print services

- Line of business (LoB) application hosting

- Remote desktop services (RDS) (Note: requires additional licensing)

- Disaster recovery and network security

Each of these services can impact, or be dependent on, the other services, and can be configured in a variety of ways to meet the needs of the business environment. One possible strategy would be to deploy some of these services in one or more Microsoft Hyper-V VMs. For example, the HPE Small Office Deployment server running Windows Server Standard would host:

- Either on the bare-metal Windows OS, or in a Hyper-V VM:
  - Network infrastructure services (Active Directory, DNS, and DHCP)
  - File and print services
  - LoB application or database (Note: Some apps or databases may not be able to run in a VM)
- Windows Hyper-V to host the following VMs:
  - Gateway application (ClearOS)
  - Windows RDS (running RDS in a VM helps prevent main system crash if a remote user happens to crash their RDS instance)
  - LoB application or database (Note: Some apps or databases may not be able to run in a VM)

NOTE
Windows Server Standard allows for up to two VMs. If more VMs are required to meet a complex deployment need, additional Windows licensing is required. For every two VMs needed above the initial two, you must purchase Windows "Additional Cores" licensing equivalent to the number of all cores in the system. However, the HPE Small Office Deployment servers should not be configured with more than four VMs as this will likely result in poor performance depending on the VM workloads. Consider an HPE Small Business Solution for Virtualisation if more than four VMs are needed. The additional Small Office Deployment networking and storage components are building blocks and can be added to a virtualisation solution just as easily.

Storage considerations
HPE StoreEasy 1460 models come with Microsoft Windows Storage Server 2016 Standard Edition preinstalled from the factory on the four internal large form factor (LFF) drives. The HPE StoreEasy 1460 is built on an HPE ProLiant DL360 Gen10 Server and includes a rail kit.

HPE RDX integrates easily into HPE Small Business Solutions for Small Office Deployment. Compatibility across various operating systems and virtualisation platforms makes RDX simple to adapt into any small business environment. You can also use Fixed Disk mode for automated backups via the native Windows Server OS.

Hybrid cloud considerations
The HPE Small Office Deployment solution can be easily extended to a hybrid cloud with cloud services from Microsoft Azure or a managed service provider.

Step 4: Don't forget services
HPE Pointnext Services
A services partner built for your business today and tomorrow, HPE Pointnext Services enables 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 Services 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

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

Step 5: Choose your 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.

The HPE Technology Refresh programme 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 on to aging IT equipment and delaying upgrades. With HPE Technology Refresh, SMBs can have the IT they need to meet business goals and pay over time to conserve cash, saving 10% to 15% over three or four years.

GET READY TO CONNECT MORE

HPE Small Business Solutions lowers the cost of accessing easy-to-use solutions without sacrificing security. To learn more about HPE Small Business Solutions, visit the resources included in this document, or contact your HPE or authorised Partner representative.

RESOURCES

- Small Office Deployment Living Lab Demo

- ProLiant Server QuickSpecs

- ProLiant Server Options

- IT Support Services

- HPE Operational Support Services

- iQuote

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