HP Virtualization Smart Bundles with VMware

Simple, cost-effective virtualization solutions

Data sheet

HP Virtualization Smart Bundles include everything you need to get started with virtualization—from VMware vSphere virtualization software to the next generation of HP ProLiant servers, HP BladeSystem, HP Insight software, HP SANs, HP Virtual Connect technology, and HP Networking solutions.

How to get started with virtualization for your business

Virtualization can help reduce costs, improve application availability, and simplify IT management. Getting started can be challenging. You need to find the appropriate software, network, server, and storage configurations, but some marketplace solutions billed as "simple" may actually reduce availability and limit scalability—leaving you to figure out how to put it all together. With HP, virtualization is better than ever. We can help you jump-start your project with simplified virtualization solutions that are pre-defined and validated, yet flexible enough for you to choose a solution that meets your application availability and capacity needs. And, even better, we can deliver a high-availability solution without complex external storage that does not compromise on performance.

Features and benefits

VMware vSphere: With significant feature and throughput enhancements, VMware vSphere is the next major version of VMware software and the industry's first virtual data center operating system. With enhanced features, vSphere increases consolidation ratios and improves application availability, helping your customers significantly reduce costs while enabling business continuity.

HP ProLiant: With new ProLiant servers, you get up to 27x improvement in performance per watt, which means you can get the same work done with up to 97 percent less power.[1] Intel® Next-Generation Virtualization Technology enables superior virtualization performance, superb scalability, enhanced flexibility, and simplified server management. You can achieve up to a 20:1 consolidation ratio, compared to G4 technology, which means up to a 95 percent reduction in the software licenses and physical servers to buy and manage.[2] As one of the top-selling industry-standard server brands, new generation HP ProLiant servers let you deploy virtual machines with confidence.

HP BladeSystem: A smarter way to build an infrastructure to support vital applications. In an all-in-one design, you have the essentials to build and maintain your infrastructure from start to finish. We built the networking to help you reduce cables up to 94 percent.[3] We added smarter power and cooling systems to save more than 33 percent on power versus other choices.[4] Our extensive management capabilities help you deploy and manage virtual machines to increase server utilization, application availability, and maintain high service levels to keep your business running smoothly.

[1, 2] Based on HP internal testing comparing hardware from DL380 G4 to DL380 G7.

[3, 4] Based on HP internal testing of HP ProLiant BL490c G6. G6 launch data based on HP Engineering estimates using the HP blades power calculator.

HP P2000 G3 SAS: Affordable, direct attach, external shared storage solution that provides a more efficient balance of scalability, reliability, and cost efficiency for small to midsize environments. It is designed to be easy-to-deploy, and secure, along with low management costs while driving rapid return on investment (ROI) through efficient storage consolidation. All P2000 G3 SAS arrays ship standard with 64 Snapshots and Volume Copy enabled for increased data protection.

HP P4000 G2 SAN Solutions: Clustered storage architecture gives you the performance needed to support the highly concurrent and rapidly changing workloads that virtualized servers impose on storage. As your virtualized infrastructure grows, your SAN grows with it, scaling capacity and performance without disruption. You can defer 25-50 percent of your capital expenditure for storage and can experience up to $50,000 USD annual costs savings due to increased availability and reduced data recovery times.[5] The HP P4000 Virtual SAN Appliance Software (VSA) transforms server disk drives into shared storage, removing the need for external storage—reducing storage costs by up to 40 percent.[6] HP P4000 VSA is the only Storage Virtual Appliance certified by VMware.[7]

HP Networking: Reliable networking for a virtualized environment. HP Networking managed L2–L4 Ethernet switches provide superior reliability and proven performance, reduce complexity, and total cost of ownership (TCO), and feature an industry-leading lifetime warranty—changing the rules of networking.

HP Virtual Connect Flex-10 technology: Change-ready connectivity for servers and virtual machines. To further expand your virtualization capabilities, HP Virtual Connect offers cost-effective and flexible ways to connect virtual machines to your network. HP Virtual Connect Flex-10 technology is the world's first technology to fine-tune network bandwidth and quadruple network interface card (NIC) capacity at the server. Each FlexNIC can be adjusted from 100 Mbps to 10 Gbps—assigning higher bandwidth for more critical applications and lower bandwidth for others.

When business results count, count on HP

You can benefit from the HP advantage in the following areas:

- **Unique capabilities:** Reduce costs and keep applications and storage online, even during site failures, with virtual server high availability that does not require external storage.

- **One contact for support:** HP sells and supports all the hardware and software products, so your authorized HP reseller can deploy and support the entire solution.

- **Deploy with confidence:** Get the benefit of our carefully-crafted and validated configurations so that your solution performs as expected.

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[5] Enterprise Strategy Group White Paper "Business and Operational Benefits Achieved with HP P4000 SANs" http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA2-7788ENW.pdf

[6] Based on list price comparison between a 4 TB dual-controller Dell EqualLogic PS6000 and HP P4000 VSA Software plus 24 250 GB HDDs used to create the virtual iSCSI SAN in a VMware deployment.

[7] For VMware Compatibility Guide (certified in Fall 2009 and still the only certified product as of 2/24/10) visit: http://www.vmware.com/resources/compatibility/search.php?action=search&deviceCategory=san&isSVA=1

Technical specifications

Standalone Smart Bundles

Simple, cost effective solutions for running multiple applications on a single server.

Entry Tower Smart Bundle

Move your existing servers, such as Microsoft® Small Business Server, a file server, an email server, or even all of them, onto one machine—all without reinstalling any applications. You can save space, simplify data backup and server management, and lower your electricity bill at the same time.

		Part Number	Quantity	Description	Solution Specs
	Base bundle hardware	656764-S01	1	HP ML350 G6 E5645 2P 16 GB RPS Server/S-Buy	**HP ProLiant ML350 G6 tower server** • (2) Intel® Xeon® six-core 5600 Series processors • 16 GB Registered DDR3 RAM • HP Smart Array P410i Controller with 512 MB FBWC • (6) 300 GB 6G SAS LFF drives • (4) Gigabit server network adapters • Redundant power supplies • HP Insight Control **VMware vSphere Essentials**
		507127-S21	6	HP 300 GB 6G SAS 10k 2.5 in. DP ENT HDD S-Buy	
		412648-B21	1	HP NC360T PCIe Dp Gigabit Server Adapter	
	Software	TD449A	1	VMware vSphere Ess 3-year 9x5 Nm license	
	Recommended Support Services	UE902E	1	HP S-Buy 3-year 4-hour 24x7 ProLiant ML350 HW support	
		UF526E	1	HP 3-year 24x7 IC Env ML-DL-BL SW support	
		US449E	1	HP 3-year 24x7 VMware vSphere Ess 3-year 9x5 license support	

HP Virtualization Smart Bundles are available from your authorized HP reseller. Specifications and availability may vary by region.

High availability Smart Bundles

When your business can't afford for your applications to be offline, a high-availability (HA) virtualization Smart Bundle gives you peace of mind. With shared storage and automatic failover, your applications remain available in the event of a server failure, or even failure of an entire site.

Entry Rack HA Smart Bundle

For high availability on a tight budget, save money by using the server's internal drives to create a highly available shared storage solution using the HP P4000 Virtual SAN Appliance.
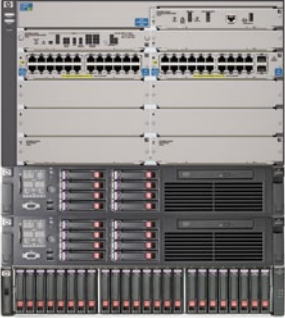
	Part Number	Quantity	Description	Solution Specs
Base bundle hardware	656765-S01	2	HP DL380 G7 X5660 2P 24 GB RPS Server/S-Buy	**(2) HP ProLiant DL380 G7 rack servers, each with:**
	507127-S21	12	HP 300 GB 6G SAS 10k 2.5 in. DP ENT HDD S-Buy	• (2) Intel Xeon six-core 5600 Series processors
	TA688SB	1	HP P4000 Virtual SAN Appliance 2 SB LTU	• 24 GB Registered DDR3 RAM
Software	TD450A	1	VMware vSphere Ess Plus 3-year 9x5 Nm license	• HP Smart Array P410i Controller with 1 GB FBWC
Recommended Support Services	UE894E	2	HP S-Buy 3-year 4-hour 24x7 ProLiant DL38x HW support	• (6) 300 GB 6G SAS SFF drives
	UF526E	2	HP 3-year 24x7 IC Env ML-DL-BL SW support	• (4) Gigabit server network adapters
	UQ092E	2	HP 3-year SupPlus24 LH VSA SVC	• Redundant power supplies
	US454E	1	HP 3-year 24x7 VMware vSphere Ess Plus 3y9X5 license support	• HP Insight Control
Recommended Startup Services	U4555E	2	HP Startup ProLiant DL38x Service	**(2) HP P4000 Virtual SAN Appliance**
Recommended Networking	J9145A	2	HP E2910-24G al Switch	**VMware vSphere Essentials Plus**
Recommended Networking Support	U2856E	2	HP 3-year 4-hour 24x7 Networks Stack 24 HW support	

Receive a trial version of the HP P4000 Virtual SAN Appliance Software by visiting **www.hp.com/go/TryVSA**.
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Midrange Rack HA Smart Bundle

Combine the latest generation of the proven, industry-standard server, the HP ProLiant DL380 G7, with the affordable HP P2000 G3 MSA Array System and you get a high availability solution that keeps your applications online.

	Part Number	Quantity	Description	Solution Specs
Base bundle hardware	656765-S01	2	HP DL380 G7 X5660 2P 24 GB RPS Server/S-Buy	**(2) HP ProLiant DL380 G7 rack servers, each with:**
	512547-S21	4	HP 146 GB 6G SAS 15k 2.5 in. DP ENT HDD S-Buy	• (2) Intel Xeon six-core 5600 Series processors
	614988-B21	4	HP SC08e 6 Gb SAS HBA	• 24 GB Registered DDR3 RAM
	BV917A	1	HP P2000 G3 SAS 12x300 GB SAS SFF Bundle	• HP Smart Array P410i Controller with 1 GB FBWC
	407339-B21	4	HP Ext Mini SAS 2m Cable	• (2) 146 GB 6G SAS SFF drives
Software	TD451A	4	VMware vSphere Standard 1P 3-year 9x5 Nm license	• (4) Gigabit server network adapters
	TD457A	1	VMware vCenter Server Foundation 3-year 9x5 Nm license	• (2) SC08e 6G SAS HBAs
Recommended Support Services	UE894E	2	HP S-Buy 3-year 4-hour 24x7 ProLiant DL38x HW support	• Redundant power supplies
	UF526E	2	HP 3-year 24x7 IC Env ML-DL-BL SW support	• HP Insight Control
	UV046E	1	HP 3-year Supp Plus24 MSA2K S64 VolCpy SVC	**HP P2000 G3 SAS Dual Controller MSA (3.6 TB Solution)**
	US459E	4	HP 33-year 24x7 VMware vSphere Standard 1P 3-year 9x5 license support	**(4) VMware vSphere Standard 1P license**
	UT538E	1	HP 3-year 24x7 VMware vCenter Foundation vSphere 3-year 9x5 license support	**VMware vCenter Foundation**
Recommended Startup Services	U4555E	2	HP Startup ProLiant DL38x Service	
	UA868E	1	HP Startup MSA SVC	
Recommended Networking	J9638A	1	HP E8206-44G-PoE+/2XG-SFP+ v2 zl Switch with premium software	
Recommended Networking Support	UW443E	1	HP 3-year 4-hour 24x7 E8206 xl Switch Bundle HW support	

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Scalable Blades HA Smart Bundle

When HP BladeSystem and Virtual Connect technology are combined with P4000 G2 SANs, you truly realize the benefits of HP Converged Infrastructure—cutting-edge design, integration, and manageability that come together in a single, powerful virtualized solution.

	Part Number	Quantity	Description	Solution Specs
Base bundle hardware	507015-B21	1	HP BLc 7000 1PH 6PS 10 Fan FL ROHS ICE	**HP c7000 BladeSystem Enclosure**
	630442-S01	3	HP BL460c G7 X5650 2P 16 GB-R US Server/S-Buy	**(2) HP Virtual Connect Flex-10 10GbE Modules**
	500662-S21	6	HP S-Buy 8 GB 2Rx4 PC3-10600R-9 Intel Kit	**(3) HP ProLiant BL460c G7 blade servers, each with:**
	512547-S21	6	HP 146 GB 6G SAS 15k 2.5 in. DP ENT HDD S-Buy	• (2) Intel Xeon six-core 5600 Series processors
	455880-B21	2	HP BLc VC Flex-10 Ethernet Module Opt	• 32 GB Registered DDR3 RAM
	453154-B21	4	HP BLc VC 1 Gb RJ-45 SFP Opt Kit	• HP Smart Array P410i Controller
	BV891SB	1	HP P4300 G2 7.2 TB SAS SAN Bundle/S-Buy	• (2) 146 GB 6G SAS SFF drives
Software	TD454A	6	VMware vSphere Ent Plus 1P 3-year 9x5 Nm license	• (2) Flex-10 10GbE Adapters
	TD456A	1	VMware vCenter Server Standard 3-year 9x5 Nm license	• Fully redundant power
Recommended Support Services	UE479E	1	HP 3-year 4-hour 24x7 c7000 Enclosure HW support	• HP Insight Control
	UH960E	3	HP S-Buy 3-year 4-hour 24x7 BL460c Server Blade HW support	**HP P4300 G2 7.2 TB SAS Starter SAN Solution**
	UF526E	3	HP 3-year 24x7 IC Env ML-DL-BL SW support	**(6) VMware vSphere Enterprise Plus 1P license**
	UT426E	1	HP 3-year Support Plus 24 P4300 G2 SAN Solution SVC	**VMware vCenter Standard**
	UT518E	6	HP 3-year 24x7 VMware vSphere Enterprise Plus 1P 3-year 9x5 license support	
	UT533E	1	HP 3-year 24x7 VMware vCenter Standard vSphere 3-year 9x5	
Recommended Startup Services	UE602E	1	HP Startup BladeSystem c7000 Infrastr SVC	
	UE603E	1	HP Startup BladeSystem c7000 Enhanced Network SVC	
Recommended Networking	J9264A	2	HP E6600-24G-4XG Switch	
	J9283B	2	HP X242 SFP+ SFP+ 3m Direct Attach Cable	
Recommended Networking Support	U2856E	2	HP 3-year 4-hour 24x7 Networks Stack HW support	

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To discover more about how HP Virtualization Smart bundles can help you get started with virtualization, visit **www.hp.com/go/virtkit**.

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