HP Virtualization Smart Bundles with VMware

Simple, cost-effective virtualization solutions

**Powerful.
Intelligent.**

Are you building or expanding your virtual environment?
Virtualization can reduce costs, improve application availability, and simplify IT management. Getting started can be challenging, however. 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 predefined, tested and flexible enough for you to choose a solution meeting your application and capacity needs. And—best of all—we can uniquely deliver a high-availability solution without complex external storage and without compromising on performance.

What's included?
HP ProLiant Virtualization Bundles are configurations that include everything you need to get started with virtualization—from VMware virtualization software to HP ProLiant G6 servers, HP BladeSystem, HP Insight Software, HP LeftHand P4000 SANs, HP Virtual Connect technology and HP ProCurve Networking solutions.

The HP advantage
- **Unique capabilities.** Avoid costs and keep applications and storage online during site failures with virtual server high availability that doesn't require external storage.
- **One contact for support.** HP sells and supports all the hardware and software products, so you get one service contract and one convenient HP phone number—including VMware software (HP product).
- **Deploy with confidence.** HP has tested each configuration to verify that the solution performs as expected.

HP ProLiant: new performance enhancements and power savings
HP ProLiant G6 servers can run more than twice as many virtual machines on a single server, while reducing power and cooling costs. From January through September 2008, 44% of VMware was deployed on HP ProLiant servers, more than on any other vendor server. As the top-selling industry-standard server brand, 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 in the networking to help you reduce cables up to 94%. We added smarter power and cooling systems to save more than 30% on power versus other choices, and great management capabilities to deploy and manage virtual machines to increase server utilization, application availability and maintain high service levels to keep your business running smoothly.

Intel®: new generation of intelligent processors
Intel Next-Generation Virtualization Technology enables best-in-class virtualization performance, superb scalability, enhanced flexibility, and simplified server management. And by basing your server consolidation projects on the new Intel Xeon® processor 5500 series, you can achieve up to a 9:1 server consolidation ratio, reduce operating cost by up to 90% and achieve an estimated 8-month return on investment.[1]

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

HP LeftHand P4000 SAN Solutions
HP LeftHand P4000 SANs deliver the performance and features required to simplify storage, provide application availability, and scale your storage while it remains online. The HP LeftHand P4000 Virtual SAN Appliance (VSA) Software transforms server disk drives into shared storage, eliminating the need for external storage—reducing storage costs by up to 35%.[2]

HP ProCurve: reliable networking for a virtualized environment
HP ProCurve managed L2–L4 Ethernet switching products provide superior reliability and proven performance, and reduce complexity and total cost of ownership (TCO). HP ProCurve fixed-port LAN switches received the Miercom Certified Green distinction award for achieving up to 38% energy savings compared to the rest of the industry.[3]

HP Virtual Connect Flex-10 technology: change-ready connectivity for servers and virtual machines
To further expand your virtualization capabilities, HP Virtual Connect offers the lowest cost, most flexible way 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.

[1] "Intel Xeon Processor 5500 Series—New IH '09 Update," Intel Corporation, effective dates 2/10/09–3/20/09.

[2] Based on list price of comparable system with equivalent capacity and software features.

[3] www.procurve.com/green/energy-savings.htm

	Entry	Entry high availability (HA)	Scalable high availability (HA)	Scalable blades high availability (HA)	Advanced high availability and multi-site high availability (HA)
Typical # of VMs*	6–12	9–15	30–45	40–60	30–70
Key benefits	• Leverage simple, cost-effective server consolidation for smaller environments and remote and branch offices	• Take advantage of cost-effective application high availability without external storage for smaller environments and remote and branch offices	• Plan for growth beyond three host servers with a scalable solution designed for small to midsized environments	• Plan for growth beyond three host servers with a scalable solution designed for small to midsized environments	• Plan for growth beyond three host servers with a scalable solution designed for small to midsized environments • Advanced VMware Fault Tolerance and Data Recovery features • Keep applications and storage connected and online during site failures
Components	• (1) HP ProLiant DL180 G6 Server OR HP ProLiant ML370 Server • (1) VMware vSphere Essentials	• (2) HP ProLiant DL180 G6 Servers • (2) HP LeftHand P4000 Virtual SAN Appliance Software • (1) HP ProCurve 2510 Switch • (1) VMware vSphere Essentials Plus • (2) HP Lights Out 100i Advanced Pack	• (2) HP ProLiant DL380 G6 Servers • (1) HP LeftHand P4300 SAS Starter SAN • (1) HP ProCurve 2910 Switch • (2) VMware vSphere Standard • (2) HP Insight Control Environment (ICE) Suite	• (3) HP ProLiant BL460c G6 Servers • (1) HP BladeSystem c3000 Enclosure • (1) HP LeftHand P4300 4.8TB SAS Starter SAN • (1) HP Virtual Connect Flex-10 Module • (3) VMware vSphere Standard	• (2)/(4) HP ProLiant DL380 G6 Servers • (1)/(2) HP LeftHand P4300 SAS Starter SAN • (1)/(2) HP ProCurve 6600 Switch • (1)/(2) VMware vSphere Advanced Acceleration Kit • (2)/(4) HP Insight Control Environment (ICE) Suite
Price	Contact your HP reseller	Contact your HP reseller	Contact your HP reseller	Contact your HP reseller	Contact your HP reseller
Upgrade options	• **Get a performance pack for best results: 2nd CPU and more RAM.** • **Add a new management server and 3-year extended support for peace of mind.**	• **Get a performance pack for best results: additional CPUs, more RAM, and a battery- backed write cache for improved throughput and reliability.** • **Add a new management server and 3-year extended support for peace of mind.**	• **Get a performance pack for best results: additional CPUs, RAM, additional ports with gigabit adapters.** • **Add a new management server and 3-year extended support for peace of mind.**	• **Get a performance/HA pack for best results: additional CPUs, RAM and a second HP Virtual Connect Flex-10 module for total of 16 ports per server and full redundancy.** • **Add a new management server and 3-year extended support for peace of mind.**	• **Get a performance pack for best results: additional CPUs, RAM, additional ports with gigabit adapters.** • **Add a new management server and 3-year extended support for peace of mind.**

*Tested with Performance Packs—available for all bundles. Results may vary.

Bundles

These configurations do not include the cost of racks or UPS/PDU. HP Virtualization Bundles are available from your authorized HP reseller.

To learn more, please visit: **www.hp.com/go/virtkit**

Entry Virtualization Bundle (Expandable Tower)
Simple, cost-effective server consolidation for smaller environments and remote and branch offices

	Quantity	Part number	Description
Entry Virtualization Bundle (Expandable Tower)	1	487791-001	HP ML370 G6 E5540 SFF Base US Svr
	3	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	2	418367-B21	HP 146GB 10K SAS 2.5 DP HDD
	4	492620-B21	HP 300GB 10K SAS 2.5 DP HDD
	1	512327-B21	HP 750W CS HE Power Supply Kit
	1	452148-B22	HP ICE Nm 1-Svr 24x7 Support
	1	436222-B21	HP ICM Software Media Kit
	1	571778-B21	VMW vSphere Essentials 1yr 9X5 Nm Lic
Optional Performance Pack	1	495936-B21	HP E5540 ML/DL370 G6 Kit
	3	500656-B21	HP 2GB 2Rx8 PC3-10600R-9 Kit
	3	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	1	462967-B21	HP 512MB P-Series BBWC Upgrade
Optional Maintenance Services	1	U4529E	HP 3y 4h 24x7 ProLiant ML370 HW Support
	1	UR663E	HP 3-year 24x7 - HP VMware vSphere 4.0 Essentials Unlimited technical support
	1	UF526E	HP 3y 24x7 IC Env ML-DL-BL SW Sup

Entry Virtualization Bundle

Simple, cost-effective server consolidation for smaller environments and remote and branch offices

	Quantity	Part number	Description
Entry Virtualization Bundle (Rack)	1	487508-001	HP DL180 G6 E5520 3x2GB 12LFF Svr
	3	500670-B21	HP 2GB 2Rx8 PC3-10600E-9 Kit
	1	515826-B21	HP DL180G6 Rear DVD Cage Kit
	1	481041-B21	HP Slim 12.7mm SATA DVD Optical Kit
	2	384854-B21	HP 146GB 15K SAS 3.5 DP HDD
	4	416127-B21	HP 300GB 3G SAS 15K 3.5" DP ENT HDD
	1	512327-B21	HP 750W CS HE Power Supply Kit
	1	571778-B21	VMW vSphere Essentials 1yr 9X5 Nm Lic
Optional Performance Pack	1	508342-B21	HP E5520 DL180 G6 Kit
	6	500670-B21	HP 2GB 2Rx8 PC3-10600E-9 Kit
Optional Maintenance Services	1	UH272E	HP 3y 4h 24x7 ProLiant DL18x HW Support
	1	UR663E	HP 3-year 24x7 - HP VMware vSphere 4.0 Essentials Unlimited technical support

Entry HA Virtualization Bundle

Cost-effective application high availability without external storage for smaller environments and remote and branch offices
(Receive a Trial Version of the HP P4000 Virtual SAN Appliance Software by visiting: **www.hp.com/go/tryvsa**)

	Quantity	Part number	Description
Entry HA Virtualization Bundle	2	487508-001	HP DL180 G6 E5520 3x2GB 12LFF Svr
	6	500670-B21	HP 2GB 2Rx8 PC3-10600E-9 Kit
	2	515826-B21	HP DL180G6 Rear DVD Cage Kit
	2	481041-B21	HP Slim 12.7mm SATA DVD Optical Kit
	4	384854-B21	HP 146GB 15K SAS 3.5 DP HDD
	8	416127-B21	HP 300GB 3G SAS 15K 3.5" DP ENT HDD
	2	512327-B21	HP 750W CS HE Power Supply Kit
	2	435508-B21	HP NC364T PCIe 4Pt Gigabit Server Adptr
	2	530521-B21	HP LO100i ADV 1-SRV Incl 1YR TS&U SW
	2	516006-B21	HP Dedicated Mgmt Port Kit
	2	TA688AA	HP P4000 VSA SW for VMware ESX Svr LTU
	1	571779-B21	VMware vSphere Ess Plus 1yr 9x5 Nm Lic
	1	J9279A	HP ProCurve Switch 2510G-24
Optional Performance Pack	2	508342-B21	HP E5520 DL180 G6 Kit
	12	500670-B21	HP 2GB 2Rx8 PC3-10600E-9 Kit
Optional Maintenance Services	2	UH272E	HP 3y 4h 24x7 ProLiant DL18x HW Support
	1	UR670E	HP 3-year 24x7 - HP VMware vSphere 4.0 Essentials Plus Unlimited technical support
	2	UQ092E	HP 3y SupPlus24 LH VSA VMware SVC
	1	U4835E	HP ProCurve Care Pack 3-year, 4-hour onsite, 24x7 coverage for hardware
	2	UM748E	HP 3y 24x7 LO100i Adv Pack SW Support

Scalable HA Virtualization Bundle

A scalable solution at an affordable price, designed for small to midsized environments planning for growth beyond three host servers

	Quantity	Part number	Description
Scalable HA Virtualization Bundle	2	491325-001	HP DL380 G6 E5520 Base US Svr
	6	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	2	481041-B21	HP Slim 12.7mm SATA DVD Optical Kit
	4	418367-B21	HP 146GB 10K SAS 2.5 DP HDD
	2	503296-B21	HP 460W HE 12V Hotplg AC Pwr Supply Kit
	2	435508-B21	HP NC364T PCIe 4Pt Gigabit Server Adptr
	2	452148-B22	HP ICE Nm 1-Svr 24x7 Support
	1	436222-B21	HP ICM Software Media Kit
	1	AT017A	HP P4300 4.8TB SAS Starter SAN Solution
	2	571772-B21	VMW vSphere Std 1P 1yr 9x5 Nm Lic
	1	576261-B21	VMware vCntr Fnd for vSphere 1yr Nm Lic
	1	J9145A	HP ProCurve 2910al-24G Switch
Optional Performance Pack	2	492239-B21	HP E5520 DL380 G6 Kit
	6	500656-B21	HP 2GB 2Rx8 PC3-10600R-9 Kit
	6	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	2	435508-B21	HP NC364T PCIe 4Pt Gigabit Server Adptr
	2	571772-B21	VMW vSphere Std 1P 1yr 9x5 Nm Lic
Optional Maintenance Services	2	U4545E	HP 3y 4h 24x7 ProLiant DL38x HW Support
	2 or 4	UR642E	HP 3-year 24x7 - VMware vSphere 4.0 Standard 1P Unlimited technical support
	1	UQ029E	HP 3-year LeftHand onsite 4-hour 24x7 upgrade
	1	U2856E	HP ProCurve Care Pack 3-year, 4-hour onsite, 24x7 coverage for hardware
	2	UF526E	HP 3y 24x7 IC Env ML-DL-BL SW Sup
	1	US127E	HP 3y 24x7 VMW vCenter Foundation Sup

Scalable Blades HA Virtualization Bundle*

Includes advanced high-availability features for sophisticated virtualization users that delivers more uptime with upgraded software features

	Quantity	Part number	Description
Scalable Blades HA Bundle	1	508664-B21	HP BLc3000 4 AC-6 Fan Full ICE
	3	507782-B21	HP BL460c G6 E5520 6G 1P Svr
	9	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	6	418367-B21	HP 146GB 3G SAS 10K 2.5in DP ENT HDD
	3	571772-B21	VMware vSphere STD 1P 1yr9x5 Nm Lic
	1	576261-B21	VMware vCntr FND for vSphere 1yr Nm Lic
	1	455880-B21	HP BLc VC Flex-10 Enet Module Opt
	2	453154-B21	HP BLc VC 1Gb RJ-45 SFP Opt Kit
	1	AT017A	HP P4300 4.8TB SAS Starter SAN Solution
Optional Performance & HA Pack	3	507799-B21	HP E5520 BL460c G6 Kit
	9	500656-B21	HP 2GB 2Rx8 PC3-10600R-9 Kit
	9	500658-B21	HP 4GB 2Rx4 PC3-10600R-9 Kit
	3	435508-B21	HP NC532m NIC Adapter Opt Kit
	1	455880-B21	HP BLc VC Flex-10 Enet Module Opt
	2	453154-B21	HP BLc VC 1Gb RJ-45 SFP Opt Kit
	3	571772-B21	VMware vSphere STD 1P 1yr9x5 Nm Lic
Optional Maintenance Services	3	UK066E	HP 3y 4h 24x7 BL4xxc Svr Bld HW Support
	1	UH311E	HP 3y 4h 24x7 c3000 Enclosure HW Supp
	1	UQ029E	HP 3 year LeftHand onsite 4-hour 24x7 upgrade
	3 or 6	UR642E	HP 3-year 24x7 - VMware vSphere 4.0 Standard 1P Unlimited technical support
	1	US127E	HP 3y 24x7 VMW vCenter Foundation Sup

Receive a trial version of the HP P4000 Virtual SAN Appliance Software by visiting: **www.hp.com/go/tryvsa**

Technology for better business outcomes

To learn more, visit www.hp.com/go/virtkit/vmware
To try out HP LeftHand P4000 SAN Solution software,
visit www.hp.com/go/tryvsa

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