

Overview

Model

HP Advanced Services zl Module with VMware vSphere Platform

J9748A

Key features

- High-performance compute platform
- Virtual environment for one or multiple apps
- Two 10-GbE connections to the switch backplan
- Industry-leading warranty

Product overview

The HP Advanced Services zl Module with VMware vSphere is an industry-standard open architecture platform that is capable of hosting one or multiple applications within a networking infrastructure. The solution has its own processor, storage, network interfaces, and memory—all of which are interconnected with a network switch ASIC on a single platform that hosts a virtualized environment. This helps the platform to deliver outstanding switching and multiapplication performance while reducing physical footprint, lowering power consumption, and consolidating management. The HP Advanced Services zl Module virtualized platform is installed into a HP 5400 zl or 8200 zl series switch. Using virtualization management tools, applications and services can be installed and configured remotely. With this high degree of flexibility, IT organizations can quickly deploy extended application monitoring to virtually any branch office location.

Features and benefits

Application support

- **Preinstalled hypervisor:** Essentials edition of VMware vSphere comes preinstalled on the module, which allows installation of one or more virtual machines on the module and can be activated with key from VMware or upgraded to higher editions
- **VMware vSphere License:** 60 day trial license and a license key that can be redeemed from VMware and installed on the system. The license is also upgradeable through VMware.
- **VMware Subscription and Service Bundle 1-year 24x7:** VMware subscription and support for 1 year 24x7 is pre-bundled with the solution. Additional VMware service packs are available for purchase through HP.
- **Application installation support:** virtual machine installation and configuration are supported through standard VMware vCenter management tools

Connectivity

- **10 GbE connections to the switch:** two 10-GbE wire-speed internal connections help ensure that network connections from applications to the switch backplane will not limit application performance
- **USB port:** one external USB 2.0 port is available for application use (for example, external hard drives or other forms of mass storage)
- **RJ-45 (10/100/1000 Ethernet) port:** provides direct connectivity from x86 application to a management LAN without going through the switch

Performance

- **High-performance network bandwidth:** includes two internal wire-speed 10-GbE ports to the switch backplane
- **High-performance processor system:** Intel® Core™ 2 Duo Processor T9400 with 2.53 GHz and 4 MB cache provides a high-performance compute environment in a small footprint using a single switch slot
- **Memory subsystem:** 8 GB of DDR3-800 dual-channel memory provides for quick application performance



Overview

- **Disk drive:** 250 GB SATA II 7200 rpm hard disk drive (210 GB application space plus 40 GB diagnostic/maintenance space) allows quick data reads/writes to speed applications along Resiliency and high availability
- **Redundant power supplies:** services module has the same level of power supply redundancy as the switch in which it is installed
- **Redundant network connections:** two internal 10-GbE connections are provided between the switch and the services module; applications can take advantage of both links to provide a redundant network connection to the switch backplane

Manageability

- **Console port:** application console is available as a pass-through to the switch console function
- **Virtual machine management:** VMware vSphere virtual machine installation and configuration are supported through standard VMware vCenter management tools

Security

- **Virtual machine security:** each virtual machine is completely isolated from other virtual machines and is decoupled from the underlying host by a thin layer of software known as a hypervisor; this allows each virtual machine to run different operating systems and applications

Ease of use

- **Locator LED (module):** allows users to set the locator LED on a specific module to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a specific module among other identical or similar modules

Warranty and support

- **Lifetime warranty:** with the exception of the hard disk (which has a 5-year warranty), for as long as you own the product, with next-business-day advance replacement (available in most countries)†
- **HP support included with purchase price:** technical assistance via email and telephone, as well as electronic case submission, are available during HP local business hours for product-specific questions about product features, specifications, product installation, general hardware configuration, basic troubleshooting, and usage
- **Hypervisor support included in purchase price:** 1-year hypervisor support is available through HP and includes maintenance releases and major upgrades; support after the first year is available for purchase from VMware or HP

†Hardware warranties replacement for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP Alliance One Advanced Services and Services zl Modules, HP Threat Management Services zl Module, HP AllianceOne Ext zl Mod w/Rvrbd Stlhd, HP E-MSM765zl Mobility Controller and HP Surv Brch Com zl Mod pwrby Msft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at www.hp.com/networking/warranty.



Technical Specifications

HP Advanced Services zl Module with VMware vSphere Platform (J9748A)	Physical characteristics	Dimensions	9.75(d) x 8.13(w) x 1.75(h) in. (24.77 x 20.65 x 4.45 cm) (1U height)
	Memory and processor	Weight	3.3 lb. (1.5 kg)
		Intel Core 2 Duo T9400 @ 2400 MHz, 8 GB DDR3 DIMM; storage: 250 GB SATA II 7200 rpm hard disk drive, 4 GB compact flash	
	Environment	Operating temperature	32°F to 122°F (0°C to 50°C); Important: See note for 50°C temperature spec rules
		Operating relative humidity	15% to 90% @ 122°F (50°C), noncondensing
		Nonoperating/Storage temperature	14°F to 149°F (-10°C to 65°C)
	Electrical characteristics	Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing
		Altitude	up to 10,000 ft. (3 km)
		Maximum heat dissipation	140 BTU/hr (147.7 kJ/hr), 266 BTU/hr (287 kJ/hr)
		Idle power	41 W
Maximum power rating		78 W	
Notes		Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
Notes	The services module can only be used with certified HP AllianceONE services applications. It does not support a general application environment. When the services module is installed, the chassis operating temperature specifications are as follows: <ul style="list-style-type: none">• For the 5400 zl chassis, if all modules are installed in the left side of the chassis, the temperature specification is set to 122°F (50°C).• If any modules are installed in the right side of the chassis, the temperature specification for the chassis is 113°F (45°C).• For the 8200 zl chassis, if any modules are installed in the right side of the chassis, the temperature specification is set to 113°F (45°C).• A maximum of four of these modules can be installed in any zl switch (except for the 8206 zl chassis, which supports a maximum of two modules).• If a module is installed in excess of these quantities, the module will not boot.• If you are running a 5406 zl and want the 122°F (50°C) temperature specification, then only three modules can be supported in the chassis because there are only three slots on the left side.• When the services module is installed, the maximum relative humidity for the switch drops from 95% to 90%.		
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		



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