



HP Advanced Services zl Module with Microsoft Windows Server 2008 R2 Standard Edition

Data sheet

Product overview

The HP Advanced Services zl Module with Microsoft® Windows® Server 2008 R2 Standard Edition improves business productivity by providing Microsoft network services to the branch office user. In addition to network services, this solution delivers reliable network connectivity, network security, and local hosting of Microsoft Windows Server compatible applications—all seamlessly integrated into a module contained in the switching infrastructure. When joined to the Microsoft Active Directory domain, these capabilities are provided locally within the switch, delivering better WAN utilization and superior response time for users in the branch. Should the WAN link fail, local users and devices can authenticate and securely join the network to access local services and business-critical applications hosted on the module. This "solution in a switch" reduces power consumption at the branch, eliminates points of failure, and condenses the hardware footprint to a single device.

Key features

- Preinstalled Windows Server 2008 R2 Standard
- Survivable branch office network services
- Integrated application server in switch chassis
- Highly energy efficient, small physical footprint



Features and benefits

Application highlights

- **Improve network availability:** offers reliable local network services, including Domain Name System (DNS) server, Dynamic Host Configuration Protocol (DHCP) server, Microsoft Active Directory (AD) Domain Services, and Print Service in the branch office; local hosting of these services improves application responsiveness and maintains user productivity in the event that communication is interrupted between the data center and a branch office
- **Application integration:**
 - **x86 modular architecture:** provides an open platform for hosting Microsoft Windows Server 2008 R2 compatible applications; the module CPU and memory resources are dedicated to the operating system and installed applications; additional modules may be installed in the switch chassis to provide a scalable and integrated server operating environment
 - **Microsoft Windows Server 2008 R2 Standard Edition:** preinstalled to simplify initial software provisioning
- **Switch integration:**
 - **An internal wire-speed 10 GbE port:** provides a direct interface between the module and the switch chassis backplane, eliminating onsite hardware, cabling, or power provisioning; simply install the HP Advanced Services zl Module in an available slot of the switch chassis
 - **Remote configuration:** requires no onsite configuration or expertise at the branch; both hardware and application configuration are accomplished by secure, remote access to the switch

Connectivity

- **10 GbE connections to the switch:** provides a wire-speed internal connection to help speed the network connection from the application to the switch backplane, delivering high-performance network bandwidth to the application
- **RJ-45 (10/100/1000 Ethernet) port:** provides direct connectivity from an x86 application to a management LAN without going through the switch
- **USB port:** one external USB 2.0 port provides an interface for a USB flash drive

Performance

- **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:** 4 GB of DDR3-800 dual-channel memory provides for quick application performance
- **Disk drive:** 250 GB SATA II 7200 rpm hard disk drive

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

Manageability

- **Console port:** application console is available as a pass-through to the switch console function
- **Front panel RJ-45 management port:** provides direct access to the application user interface and configuration

Ease of use

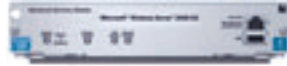
- **Locator LED (module):** allows users to set the locator LED on a specific module to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a specific module among other identical or similar modules

Warranty and support

- **Warranty:** lifetime warranty for as long as you own the product with next-business-day advance replacement (available in most countries), with the exception of the hard disk, which has a 5-year warranty
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available

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Specifications



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Physical characteristics

Dimensions	9.75(d) x 8.13(w) x 1.75(h) in. (24.77 x 20.65 x 4.45 cm)
Weight	3.3 lb. (1.5 kg)

Environment

Operating temperature	32°F to 122°F (0°C to 50°C); important: see note for 50°C temperature specification
Operating relative humidity	15% to 90% @ 122°F (50°C), noncondensing
Nonoperating/Storage temperature	14°F to 149°F (-10°C to 65°C)
Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)

Electrical characteristics

Maximum heat dissipation	140/266 BTU/hr (147.7/280.63 kJ/hr), connected
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.

Management	command-line interface
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Notes	Chassis module support and operating temperature specifications: <ul style="list-style-type: none">• The E5400 zl and E8200 zl switch series can support up to four Advanced Services zl Modules, except for the E8206 zl switch, which can support up to two services modules.• Switch operating temperature specifications of the E5400 zl switch series when the Advanced Services zl Module is installed: 45°C when any services module is installed in the right side of the switch; 50°C when all services modules are installed in the left side of the switch. Up to three services modules are supported (all installed in the left side of the switch) in the E5406 zl switch if a 50°C temperature specification is chosen.• The 45°C limit always applies to the E8200 zl series switches no matter where the Advanced Services zl Modules are installed.
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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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To learn more, visit www.hp.com/networking

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