



## HP AllianceONE Services zl Module Series

Data sheet

### Product overview

The HP AllianceONE Services zl Module series includes platforms designed for HP networking zl chassis and allows networking applications integrated with the switch to offer optimized performance to customers. The HP AllianceONE Services zl Module series is based on x86 server modules that provide two 10-GbE network links into the switch backplane. Coupled with HP networking-certified services and applications that can take advantage of a switch-targeted application programming interface (API) for better performance, this series creates a virtual appliance within a zl switch slot to provide solutions for business needs, including network security, UC&C, mobility, infrastructure, and more.



## Features and benefits

### Application support

- **HP AllianceONE application support:** the support is compatible with AllianceONE applications; non-AllianceONE applications will not run on the services zl module, which prevents rogue applications in mission-critical network environments
- **HP AllianceONE applications preinstalled in downloadable form:** HP AllianceONE applications come with their own OS (which may vary depending on the specific application) and are already installed on the OS as part of the application download; as a result, installation of the application on the services module is a straightforward and simple process, avoiding complicated installations into the OS that are typical of other downloaded application environments
- **HP AllianceONE API assistance:** HP AllianceONE applications can get switch software and ASIC assistance through programmatic calls to the AllianceONE API; additional performance, configuration, and management assistance will be available to these applications over time

### Connectivity

- **10 GbE connections to the switch (for E-MSM765zl mobility controller):** two 10-GbE wire-speed internal connections help ensure that the network connections from application to switch backplane will not limit the performance of the application
- **USB port:** one external USB 2.0 port is available for application use (for example, external hard drives or other forms of mass storage)
- **NEW RJ-45 (10/100/1000 Ethernet) port:** provides direct connectivity from x86 application to a management LAN without going through the switch (only applies to J9483A)

### Performance

- **High-performance network bandwidth:** includes two internal wire-speed 10-GbE ports to the switch backplane

- **NEW High-performance processor system:**
  - Intel® Core™ 2 Duo Processor T7500 with 2.2 GHz, 4 MB cache provides a high-performance compute environment in a small footprint using a single switch slot (applies to J9289A)
  - Intel Core 2 Duo Processor T9400 with 2.4 GHz, 4 MB cache provides a high-performance compute environment in a small footprint using a single switch slot (applies to J9483A)
- **NEW Memory subsystem:**
  - 4 GB of DDR2-667 dual-channel memory provides for quick application performance (applies to J9289A)
  - 4 GB of DDR3-800 dual-channel memory provides for quick application performance (applies to J9483A)
- **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
- **Front panel RJ-45 management port:** provides direct access to application user interface and configuration

### Security

- **Signed/Licensed applications only:** allows only AllianceONE applications that are signed and licensed through HP and the application provider to run on the services zl module
- **Certified applications:** AllianceONE applications go through certification testing against negative switch effects through API calls or malicious behavior—providing reasonable assurance that applications are well-behaved in the switch and network environment

## 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:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)\*
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty) for details on the support provided and the period during which support is available
- **Software releases:** refer to [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty) for details on the software releases provided and the period during which software releases are available for your product(s)

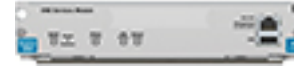
\*Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services z1 Module, HP Threat Management Services z1 Module, HP PCM+ Agent with AllianceONE Services z1 Module, and HP E-MSM765 z1 Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty).

# HP AllianceONE Services zl Module Series

## Specifications



HP AllianceONE Services zl Module (J9289A)



HP AllianceONE Advanced Services zl Module (J9483A)

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)	9.75(d) x 8.13(w) x 1.75(h) in. (24.77 x 20.65 x 4.45 cm) (1U height)
Weight	3.25 lb. (1.47 kg)	3.3 lb. (1.5 kg)
Memory and processor		
Processor	Intel Core 2 Duo T7500 @ 2200 MHz, 4 GB DDR2 SDRAM; storage: 250 GB SATA II 7200 rpm hard disk drive, 4 GB compact flash	Intel Core 2 Duo T9400 @ 2400 MHz, 4 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	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), non-condensing	15% to 90% @ 122°F (50°C), non-condensing
Non-operating/Storage temperature	14°F to 149°F (-10°C to 65°C)	14°F to 149°F (-10°C to 65°C)
Non-operating/Storage relative humidity	15% to 95% @ 149°F (65°C), non-condensing	15% to 95% @ 149°F (65°C), non-condensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Electrical characteristics		
Maximum heat dissipation	272 BTU/hr (287 kJ/hr)	140 BTU/hr (147.7 kJ/hr), 266 BTU/hr (287 kJ/hr)
Idle power		41 W
Maximum power rating	80 W	78 W
Notes	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.	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	command-line interface
Notes		
	<p>The services module can only be used with certified AllianceONE services applications. It does not support a general application environment. Chassis operating temperature specifications for the 5400zl chassis when the services module is installed:</p> <ul style="list-style-type: none"> <li>• 40°C when any services module is installed in the right side of the chassis</li> <li>• 50°C when all services modules are installed in the left side of the chassis</li> </ul> <p>Up to four services modules can be installed in a 5400zl/8200zl chassis simultaneously. Up to three services modules are supported (all installed in the left side of the chassis) in the 5406zl chassis if a 50°C temperature specification is desired.</p> <p>When the services module is installed, the maximum relative humidity for the switch drops from 95% to 90%.</p>	<p>The services module can only be used with certified AllianceONE services applications. It does not support a general application environment.</p> <p>Chassis operating temperature specifications when the services module is installed:</p> <ul style="list-style-type: none"> <li>• For the 5400zl chassis, if all modules are installed in the left side of the chassis, the temperature specification is set to 50°C for the chassis.</li> <li>• If any modules are installed on the right side of the chassis, then the temperature specification for the chassis is 45°C.</li> <li>• For the 8200zl chassis, the temperature specification is set to 45°C.</li> <li>• A maximum of 4 of these modules may be installed in any zl switch (except the 8206zl chassis, which supports a maximum of 2 of these modules).</li> <li>• If a module is installed in excess of these quantities, the module will not boot.</li> <li>• If you are running a 5406zl and want the 50°C temperature specification, then only three modules are supported in the chassis as that is all the slots there are on the left side.</li> <li>• When the services module is installed, the maximum relative humidity for the switch drops from 95% to 90%.</li> </ul>
Services		
	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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.	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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](http://www.hp.com/networking)

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