



Solution brief

## Data Center Networking Solutions from HP ProCurve

### Optimize your data center resources with HP

The issues facing CIOs today are more exciting, and more challenging, than ever before. IT organizations are now viewed as strategic business enablers, not just cost centers. Success is measured in tangible business outcomes, not service-level agreements. New regulatory requirements place ever-increasing compliance demands throughout the organization. Of course, along with this growing complexity, the pressure to

reduce costs and deployment times is always present.

These forces have had a profound impact on the data center. The ability to quickly and efficiently provision new services and applications is essential, while maintaining a secure, always-on environment. At the same time, constraints on space, power, and cooling capacities dictate good design practices to achieve maximum utilization of server, storage, and networking assets. Often the existing infrastructure consists of isolated

pools of disparate servers and direct-attached storage hosting individual applications, resulting in poor hardware utilization and management difficulties.

To address these challenges, data center designers are using a variety of best practices. Consolidation of facilities provides operational efficiency, while standardization of hardware platforms yields a much more predictable, easier-to-manage environment. Increased use of automation tools allows for quicker deployment of assets in a controlled manner. And virtualization technologies allow physical server, storage, and network elements to be sub-divided and represented as multiple logical devices to provide maximum infrastructure utilization and flexibility.

## HP ProCurve solutions for the data center

As a part of HP's Adaptive Infrastructure program, HP ProCurve has developed a number of products that, along with the full range of server, storage, management, and service offerings from HP, make the data center a key enabler for better business outcomes via rapid deployment of applications, risk mitigation, and better management of costs.

HP ProCurve offers a full suite of data center switches, including core and distribution switches, and a rich set of server edge connectivity products that support both top-of-rack and end-of-row configurations. Based on the award-winning Adaptive EDGE Architecture and ProVision ASICs, these switches provide seamless core-to-edge capabilities with a common management platform and code base to simplify administration. Following best practices in data center design to reduce power and cooling costs, these switches provide outstanding performance, density, and high-availability features such as redundant, hot-swappable power supplies. This portfolio of ProCurve data center switches, along with the Virtual Connect family of virtualized network connectivity products, provides industry-leading choice and flexibility for server connectivity to the network. And all ProCurve data center switch

products are designed and manufactured with legendary HP quality and reliability, as evidenced by their Lifetime Warranty\*, which reduces both risk and operational expenses.

To help streamline server deployment and manage network connectivity, HP ProCurve has developed the Data Center Connection Manager, which provides a means for network administrators to virtualize network connectivity by creating an inventory of pre-provisioned network connections with prescribed security and access privileges. Server administrators then draw from this network connection inventory on-demand when provisioning new servers (either physical or virtual), which reduces the cycle time to deploy new applications, making the IT department more responsive to business needs. The Data Center Connection Manager can also be used in conjunction with automation software suites, such as HP Network Automation Software, to update configurations for network elements such as routing tables, firewalls, and load balancers as new servers are deployed. This level of automation enables better regulatory compliance, lowers risks due to manual configuration errors, and further reduces the overall cycle time needed to bring new applications online.

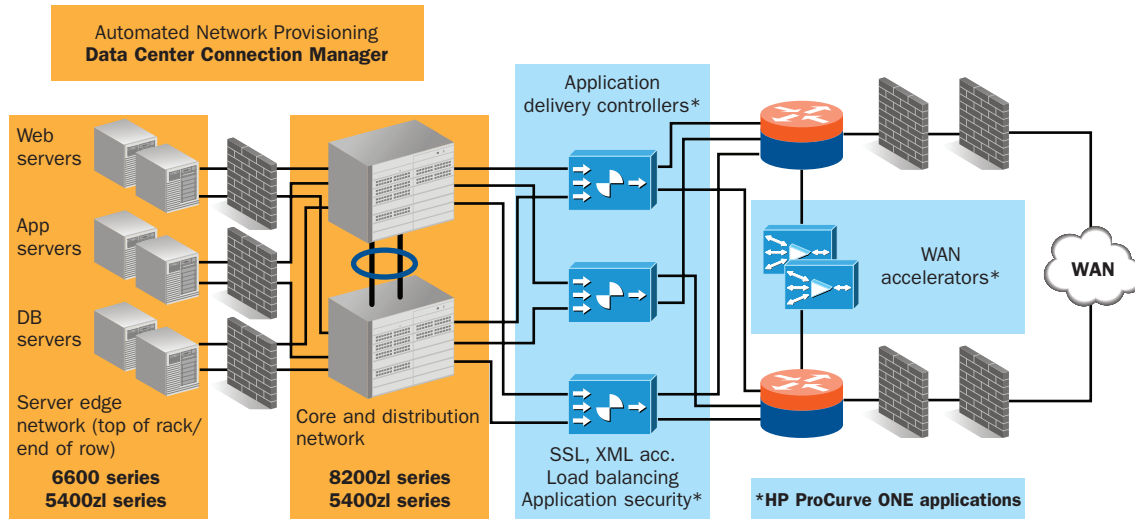
As with all data center products provided by HP, the ProCurve data center solutions are backed by HP's famed worldwide service and support that can be tailored to the individual needs of the customer. From the basic next-day hardware replacement offered by ProCurve's standard Lifetime Warranty\*, up to fully customized 24x7 support, HP ProCurve has the full range of support services to meet even the most challenging customer requirements. See [www.procurve.com/customer care](http://www.procurve.com/customer care) for more details.

## Proven solutions from HP and other industry leaders

A fundamental guiding principle of HP ProCurve product development is active participation in, and adherence to, industry standards. Open standards provide the means to promote

\* For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related series modules have a one-year hardware warranty with extensions available: ProCurve Routing Switch 9300m series, ProCurve Switch 8100f series, and ProCurve Network Access Controller 800. The following hardware mobility products have a one-year hardware warranty with extensions available: HP ProCurve M111 Client Bridge, HP ProCurve MSM3xx-R Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, and HP ProCurve 1 Port Power Injector. Disk drives in the HP ProCurve ONE Services zl modules have a five year hardware warranty. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at [www.procurve.com/warranty](http://www.procurve.com/warranty).

## Solution architecture



interoperability in heterogeneous environments, allowing customers to avoid “vendor lockout” and choose the right building blocks to produce solutions that are optimized for performance and overall cost.

The HP ProCurve ONE (Open Network Ecosystem) alliance program is a natural extension of this philosophy. ProCurve has partnered with a variety of industry leaders in several application areas (examples include network security, application delivery controllers, WAN optimization, and unified communications) to develop and provide tested, proven solutions to the market.

### Solution features

- A rich variety of server edge network products (1U fixed configuration switches and chassis-based switches), as well as distribution- and core-layer switches, with a common, simplified management interface, compliance to industry standards, and ProCurve Lifetime Warranty\*
- Classes of server connectivity can be defined and stored in a virtualized inventory of pre-provisioned network connections for future consumption

- Front-to-back airflow, selective port disablement, redundant hot-swappable power supplies, SFP+ transceivers, and direct attach cables for 10 Gbps connectivity
- Proven interoperability with a wide variety of HP data center products (e.g., HP ProLiant rack-mount and blade servers, Virtual Connect, HP Network Automation, HP OpenView Network Node Manager, HP StorageWorks iSCSI storage arrays)
- Tested, trusted solutions for a variety of network applications via ProCurve ONE alliance partnerships

### Solution benefits

- The flexibility to select the network topography (top-of-rack, end-of-row, or home run connections) that best suits the requirements, with lower acquisition, operational, and maintenance expenses
- Faster server deployments (both physical and virtual) in a controlled, secure, highly automated manner that lowers risk and simplifies regulatory compliance

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- Reduced power consumption, support for hot-aisle/cold-aisle configurations, and high-availability network designs—all contributing to lower operating expenses
- Lower risk by working with an industry leader in data center solutions that has a proven track record of success and a worldwide support network
- Minimize risk associated with vendor lockout by choosing solutions from industry leaders—because choice and flexibility lead to better solutions that can be optimized for cost and/or performance
- ProCurve Data Center Connection Manager—build and maintain a virtualized inventory of network connections for server provisioning
- ProCurve ONE alliance partner solutions—complementary network components (such as application delivery controllers, WAN optimizers, firewalls, performance monitors, etc.)—for details, visit [www.procurve.com/ONE](http://www.procurve.com/ONE)

### Solution components

- ProCurve 6600 series switches for top-of-rack and end-of-row configurations:
  - 24-port 1Gb
  - 24-port 1Gb + 4-port 10Gb
  - 48-port 1Gb (available 2nd half of 2009)
  - 48-port 1Gb + 4-port 10Gb (available 2nd half of 2009)
  - 24-port 10Gb
- ProCurve 5400 series switches for distribution layer and end-of-row configurations
- ProCurve 8200 series switches for distribution and core-layer applications

### Why HP ProCurve?

Data center solutions from HP ProCurve provide customers with an extensive range of choices to fit their specific needs. These solutions are part of a comprehensive set of HP products and services tailored for data center requirements. All are backed by an industry-leading, time-tested, worldwide service and support network to provide the support necessary for an always-on infrastructure.

### For more information

If you are looking to upgrade your data center network, either as a natural evolution of your existing facility or as part of a more comprehensive transformation, you need to look at HP ProCurve. To find out more, contact your local ProCurve sales representative or reseller, or visit us online at [www.procurve.com/datacenter](http://www.procurve.com/datacenter) to learn how ProCurve can help make your data center better meet your business goals.

### For more information

To learn more about HP ProCurve Networking, please visit [ProCurve.com](http://ProCurve.com)

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4AA2-3825ENW, December 2008