

Brocade VDX Switch Portfolio

HIGHLIGHTS

- Delivers the high performance and low latency needed to support demanding virtualized data center and cloud environments
- Enables scale, agility, and operational efficiency with Brocade® IP fabrics and VCS® fabrics
- Provides highly reliable, scalable, and available switches that are designed for a wide range of environments
- Enables simple deployment and faster time to value with Zero-Touch Provisioning and scale-out
- Enables seamless integration with VMware vSphere data centers using Brocade IP fabric and VCS fabric gateways for VMware NSX
- Enables automation, cloud agility, and innovation with open interfaces

Brocade VDX Switches with IP Fabrics and VCS Fabrics Provide Automation, Resiliency, and Scalability

Industry-leading Brocade VDX® switches are the foundation for high-performance connectivity in Ethernet fabric, storage, and IP network environments. Available in fixed and modular forms, these highly reliable, scalable, and available switches are designed for a wide range of environments, enabling a low Total Cost of Ownership (TCO) and fast Return on Investment (ROI).

Brocade VDX 6740 Switch

The **Brocade VDX 6740 Switch** offers 48 10 Gigabit Ethernet (GbE) Small Form Factor Pluggable Plus (SFP+) ports and four 40 GbE Quad SFP+ (QSFP+) ports in a 1U form factor. Each 40 GbE SFP+ port can be broken out into four independent 10 GbE SFP+ ports, providing an additional 16 10 GbE SFP+ ports, which can be licensed with Ports on Demand (PoD).



The **Brocade VDX 6740T Switch** offers 48 10 GbE BASE-T (GbE-T) ports and four 40 GbE QSFP+ ports. Each 40 GbE port can be broken out into four independent 10 GbE SFP+ ports, providing an additional 16 10 GbE SFP+ ports.



The Brocade VDX 6740T-1G Switch

offers 48 1000BASE-T ports and two 40 GbE QSFP+ ports. Each 40 GbE port can be broken out into four independent 10 GbE SFP+ ports, providing an additional eight 10 GbE SFP+ ports for uplink. All 48 1000BASE-T ports can be upgraded to 48 10 GbE BASE-T ports via a Capacity on Demand software license.



Brocade VDX 6940 Switch

The **Brocade VDX 6940-36Q Switch** is a fixed Ethernet 40 GbE optimized switch in a 1RU form factor. It offers 36 40 GbE QSFP+ ports. Each 40 GbE port can be broken out into four independent 10 GbE SFP+ ports, providing a total of 144 10 GbE SFP+ ports.



The **Brocade VDX 6940-144S** Switch is 10 GbE optimized with 40 GbE or 100 GbE uplinks in a 2U form factor. It offers 96 native 1/10 GbE SFP/SFP+ ports and 12 40 GbE QSFP+ ports, or 4 100 GbE QSFP28 ports.



chassis options are available to match the switch to the needs of the organization.

Brocade VDX 8770-4: Supports up to 192 10 GbE ports, 108 40 GbE ports, and 24 100 GbE ports.



The Brocade VDX 8770 supports a variety of wire-speed line cards to offer maximum flexibility in terms of port bandwidth, as well as cable and connector technology:

1 GbE: 48 × 1 GbE line card provides up to 48 SFP/SFP-copper ports.

10 GbE: 48 × 10 GbE line card provides up to 48 SFP+ ports.

10 GbE-T: 48 × 10 GbE line card provides up to 48 RJ45 ports.

40 GbE: 12 × 40 GbE line card provides up to 12 40 GbE QSFP ports.

40 GbE: 27 × 40 GbE line card provides up to 27 40 GbE QSFP ports.

100 GbE: 6 × 100 GbE line card provides up to 6 100 GbE CFP2 ports.

Brocade VDX 8770 Switch

The Brocade VDX 8770 Switch is available in 4-slot and 8-slot versions. The 100 GbE-ready Brocade VDX 8770 dramatically increases the scale that can be achieved in Brocade data center fabrics, with 10 GbE and 40 GbE wire-speed switching, numerous line card options, and the ability to connect over 8,000 server ports in a single switching domain. Modular four-slot and eight-slot

Brocade VDX 8770-8: Supports up to 384 10 GbE ports, 216 40 GbE ports, and 48 100 GbE ports.

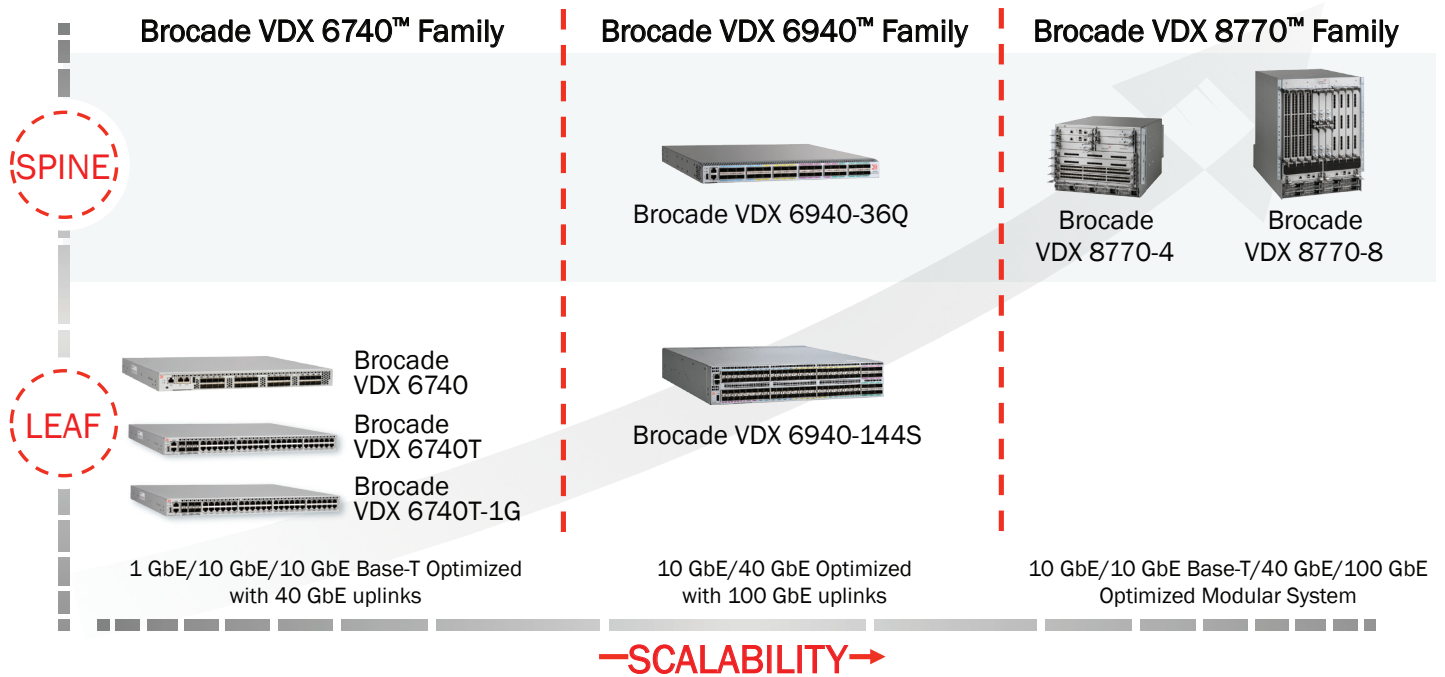


Figure 1. Brocade VDX Switch Portfolio and Performance Optimization Numbers.

Brocade Data Center Fabric Technology

All Brocade VDX switches feature evolutionary Brocade data center fabric technology. These Brocade fabric-ready switches equip next-generation data centers and cloud service providers with the automation, resiliency, and scalability required to support highly virtualized environments and optimize cloud computing. Brocade VDX switches are built by design with an advanced feature set, along with the high performance and low latency that virtualized environments demand. Together with flexible deployment options, including Brocade IP fabrics and VCS fabrics, these

switches transform data center networks by delivering cloud-based architectures that offer new levels of scale, agility, and operational efficiency. These open, highly automated, software-driven, and programmable data center fabric design solutions support a breadth of network virtualization options and scale for data center and cloud environments ranging from tens to many thousands of servers. Brocade data center fabric solutions make it easy for customers to architect, automate, and integrate with current and future data center ecosystem tools and technologies while they transition to the cloud model that addresses their needs.

About Brocade

Brocade networking solutions help organizations transition smoothly to a world where applications and information reside anywhere. Innovative Ethernet and storage networking solutions for data center, campus, and service provider networks help reduce complexity and cost while enabling virtualization and cloud computing to increase business agility. Learn more at www.brocade.com.

Table 1: Brocade VDX Switches Scalability Comparison.

	Brocade VDX Switch	Brocade VDX 6740	Brocade VDX 6940	Brocade VDX 8770
System	Port Type	1 GbE/10 GbE/10 GbE-T/ 40 GbE	10 GbE (w/ breakout)/ 40 GbE/100 GbE	10 GbE/10 GbE-T/40 GbE/ 100 GbE
	Port Density	Up to 48 × 10 GbE/ 4 × 40 GbE	Up to 144 × 10 GbE/36 × 40 GbE/4 × 100 GbE	Up to 384 × 10 GbE/ 216 × 40 GbE/48 × 100 GbE
	System HA	ISSU	ISSU	ISSU and Redundant MM
	System Buffer	24 MB	24 MB	12 GB/Module
	Latency	850 ns	800 ns	<4 microseconds
Layer 2 Fabric	Maximum VMs (MAC Table)	160 K 256 K Fabric-Wide (CML)	112 K 256 K Fabric-Wide (CML)	384 K 512 K Fabric-Wide (CML)
	Maximum L2 Segment (VLANs)	4 K/8 K (with VF)	4 K/8 K (with VF)	4 K/8 K (with VF)
Layer 3 Fabric (L3 at Spine)	Maximum VMs (ARP Table)	16 K	84 K	128 K
	Maximum L3 Network (VE)	256	1 K	1 K
	Maximum L3 Redundancy Session (VRRP-E)	256	1 K	1 K
	Tenant Separation at L3 (VRFs)	32	512	512
	IPv4 Route Table	8 K	12 K	280 K
	VF Extension/VXLAN Gateway	Yes	Yes	Yes, with Brocade 6740/6940 in fabric

ARP = Address Resolution Protocol
CML = Conversational MAC Learning
ISSU = In-Service Software Upgrade
MM = Management Module

VE = Virtual Ethernet
VF Extension = Virtual Fabric Extension
VLAN = Virtual Local Area Network
VM = Virtual Machine

VRF = Virtual Routing and Forwarding
VRRP-E = Virtual Router Redundancy
Protocol Extended
VXLAN = Virtual Extensible LAN

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