BROCADE VYATTA 5400 vROUTER

NETWORK FUNCTIONS VIRTUALIZATION

Flexible, Affordable Software Routing and Security

HIGHLIGHTS

- Delivers advanced routing and security services for physical, virtual, and cloud networking environments

- Features dynamic routing, Policy-Based Routing (PBR), stateful firewall, VPN support, and traffic management in a solution optimized for virtualized environments

- Delivers a robust, Linux-based, and extensible OS

- Supports all commonly used hypervisors and can be installed on any standard x86-based system

- Includes world-class, 24×7 support to help maximize performance

The Brocade® Vyatta® 5400 vRouter delivers advanced routing for physical, virtual, and cloud networking environments. It includes dynamic routing, Policy-Based Routing (PBR), stateful firewall, VPN support, and traffic management in a solution optimized for virtualized environments. All features can be configured through a familiar, network-centric Command Line Interface (CLI), a Web-based GUI, or external management systems using the Brocade Vyatta Remote Access API.

The Brocade Vyatta 5400 vRouter supports all commonly used hypervisors and can be installed on any standard x86-based system. Advancements in x86 processing power have proved that readily available multi-core systems can easily handle small packet processing and deep packet inspection up to 10 Gbps.

All Brocade Vyatta 5400 vRouter subscription customers receive Brocade world-class software along with Essential Support. Brocade Essential Support provides 24×7 (including holidays) access

to the Brocade Technical Assistance Center (TAC) (available through phone, e-mail, and Web), software updates, technical documentation, online training and certification, and around-the-clock access to MyBrocade® (online self-service portal).

NETWORK CONNECTIVITY

At the core of the system is a routing engine with full support of IPv4 and IPv6 dynamic routing protocols (BGP Multipath, OSPF, RIP, Multicast) and PBR. This includes support for 802.11 wireless, serial WAN interfaces, and a wide variety of 10/100 Mbps through 10 Gbps Ethernet NICs.

FIREWALL PROTECTION

The Brocade Vyatta vRouter firewall features IPv4/IPv6 stateful packet inspection to intercept and inspect network activity and protect critical data. Advanced firewall capabilities include zone- and time-based firewalling and P2P filtering.

BROCADE

SECURE CONNECTIVITY

Organizations can establish secure site-to-site VPN tunnels with standards-based IPsec VPN between two or more Brocade Vyatta vRouters or any IPsec VPN device. Or they can provide secure network access to remote users via Brocade SSL-based OpenVPN functionality. Dynamic Multipoint VPN (DMVPN) is now available.

TRAFFIC MANAGEMENT

The Brocade Vyatta vRouter provides a variety of QoS queuing mechanisms that can be applied to inbound and outbound traffic for identifying and prioritizing applications and traffic flows.

HIGH AVAILABILITY

Mission-critical networks can deploy Brocade Vyatta vRouters with the confidence that high availability and system redundancy can be achieved through industry-standard failover and synchronization mechanisms.

IPv6 COMPATIBILITY

The Brocade Vyatta vRouter is the only software-based routing and security solution with proven IPv6 functionality and interoperability, ensuring a smart investment in a solution that offers a simplified migration path from IPv4 to IPv6.

ADMINISTRATION AND AUTHENTICATION

Brocade Vyatta vRouters can be managed through a familiar network-centric CLI, a Web-based GUI, or external management systems using the Brocade Vyatta Remote Access API. All network management sessions can be securely managed using SSHv2, RADIUS, or TACACS+.

MONITORING AND REPORTING

Brocade Vyatta vRouters present complete logging and diagnostics information that can be monitored using industry-standard tools such as SNMP, Netflow, sFlow, and Syslog Wireshark.

Features and Support	Brocade Vyatta vRouter Subscription Edition
Routing, OSPF, BGP	•
Firewall, NAT, VPN	•
API, Common Data Model (CDM)	•
RESTful API	•
24×7 technical support	•
Stable, QA-tested image	•
Web GUI, dashboard	•
Multicast support	•
Dynamic Multipoint VPN (DMVPN)	•

Table. 1
Brocade Vyatta vRouter Subscription Edition.

THE BROCADE ADVANTAGE

Brocade networking solutions offer organizations several advantages, including:

- **Scalability:** By offering a software-only option, Brocade gives organizations the unique freedom to right-size their networks as needed using readily available, off-the-shelf components and systems to drive as little or as much performance as their network requires today.
- **Performance:** The performance scale available from x86 hardware is continuously expanding. Today's multicore servers can deliver up to 10 Gbps routing throughput, and faster processors are on the horizon.
- **Price:** By leveraging open standards in software and hardware, Brocade delivers a feature-competitive routing and security solution for enterprise, government, education, and service provider networks at a fraction of the cost of common proprietary hardware-based vendor systems.

BROCADE VYATTA 5400 vROUTER 6.6 SPECIFICATIONS

IPv4 / IPv6 Routing

- BGPv4, BGPv6
- OSPFv2
- OPSFv3
- BGP Multipath
- RIPv2
- Static Routes
- Policy-Based Routing (PBR)
- IPv6 Policy
- IPv6 SLAAC
- Multicast

IP Address Management

- Static
- DHCP Server
- DHCP Client
- DHCP Relay
- Dynamic DNS
- DNS Forwarding
- IPv6 DNS Resolver
- IDHCPv6 Server, Client
- DHCPv6 Relay

Encapsulations

- Ethernet
- 802.1Q VLANs
- PPP
- PPPoE
- IP in IP
- Frame Relay
- MLPPP
- HDLC
- GRE

Firewall

- Stateful Inspection Firewall
- Zone-based Firewall
- P2P Filtering
- IPv6 Firewalling
- Time-based Firewall Rules
- Rate Limiting
- ICMP Type Filtering
- Stateful Failover

Tunneling / VPN

- SSL-based OpenVPN
- Site to Site VPN (IPsec)
- Remote VPN (PPTP, L2TP, IPsec)
- OpenVPN Client Auto-Configuration
- Layer 2 Bridging over GRE
- Layer 2 Bridging over OpenVPN
- OpenVPN Dynamic Client
- Dynamic Multipoint VPN

Additional Security

- Network Address Translation
- 3DES, AES Encryption
- MD5 and SHA-1 Authentication
- RSA, Diffie Helman Key Management
- NAT Traversal
- Role-Based Access Control (RBAC)

WAN / LAN Device Drivers

- WAN Device Drivers - T1/E1
- Intel 10/100 Mbps - 10 Gbps
- Broadcom 10/100 Mbps - 10 Gbps
- IEEE 802.11 wireless
- Drivers in 3.3.8 Linux Kernel
- Synchronous Serial - V.35, X.21, RS-422, EIA530

Performance Optimization

- WAN Link Load Balancing
- Ethernet Link Bonding
- Web Caching
- MLPPP
- ECMP
- Bandwidth Management

QoS Policies

- Priority Queuing
- Network Emulator
- Round Robin
- Random / Weighted Random
- Classful Queuing
- Ethernet Header Matching
- VLAN Tag
- IPv6 Address
- Port Mirroring

High Availability

- Stateful Firewall / NAT Failover
- VRRP
- HA Clustering
- Configuration Replication
- RAID 1
- IPsec VPN Clustering
- Protocol Fault Isolation

Administration and Authentication

- Integrated CLI
- Web GUI
- Brocade Vyatta Remote Access API
- Telnet
- SSHv2 / SSH Public Key
- Binary Image Install
- Image Cloning
- RADIUS
- TACACS+
- X.509 digital certificate auth.
- Single Configuration File

Diagnostics and Logging

- tcpdump
- Wireshark Packet Capture
- BGP MD5 Support
- Serial Loopback Commands
- Netflow / sFlow
- LLDP
- Syslog
- SNMPv2c
- SNMP for IPv6

BROCADE GLOBAL SERVICES

Brocade Global Services has the expertise to help organizations build scalable, efficient cloud infrastructures. Leveraging 15 years of expertise in storage, networking, and virtualization, Brocade Global Services delivers world-class professional services, technical support, network monitoring services, and education, enabling organizations to maximize their Brocade investments, accelerate new technology deployments, and optimize the performance of networking infrastructures.

MAXIMIZING INVESTMENTS

To help optimize technology investments, Brocade and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Brocade sales partner or visit www.brocade.com.

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