

Vyatta and IBM BladeCenter — open, highly secure, integrated firewall and router solution



Highlights

- **Twice the performance at half the price of “proprietary” network solutions**
- **Vyatta combines router / firewall / VPN capability in an integrated, reliable and commercially supported software package**
- **Scales from T1/E1 and T3/E3 all the way through Gigabit Ethernet**
- **Vyatta is available as a fully integrated appliance through Datatrend Technologies, an IBM Business Partner and Vyatta Ready Partner**

The telecommunications business can be extremely challenging. Just as you build your customer base, another service provider attempts to lure your customers away with more features. Whether you’re supporting an internal or external customer base, there is now a better way to add features, lower costs and upgrade easily — by using Commercial-Off-The-Shelf (COTS) platforms like the IBM BladeCenter family in conjunction with open source technology like Linux and Vyatta.

Adding value, lowering costs: Vyatta and IBM BladeCenter

Vyatta is a leader of open, Linux-based, networking software. Using Vyatta’s powerful software and COTS systems, customers can deploy firewall, router and VPN solutions at a fraction of the cost of “proprietary” system alternatives. When coupled with IBM BladeCenter systems, Vyatta delivers high-performance, low-cost network

and security infrastructure solutions with the reliability and availability that large enterprises and service providers demand.

Vyatta software supports most commonly used network interfaces, industry-standard routing and management protocols, and many widely used security algorithms. Unlike earlier open-source projects, Vyatta offers a full commercial product with all the features, documentation, technical support, training and professional services customers demand. To leverage skills of network managers, the Vyatta system offers a familiar command-line interface (CLI) or web-based graphical user interface (GUI) for configuration. The integrated features and functionality make Vyatta software ideal for small/medium business (SMB), branch office, enterprise and telecom service provider deployments — ranging from the simplest LAN installations to advanced WAN routing.

Vyatta comes with an array of advanced security features designed to keep the “bad” guys out and data safe. These features include:

“Vyatta is changing the networking price-performance curve. Using Vyatta, businesses create new networking solutions on standard hardware. With IBM’s BladeCenter platforms, Vyatta meets the needs of SMB, enterprise, and service provider customers for easy-to-manage systems. Running on the IBM BladeCenter T and BladeCenter HT, Vyatta provides an ideal solution for telecom central office environments and enterprises that demand the highest performance as they scale up and out.”

— *Keith Hartley*
VP Worldwide Alliances
Vyatta

- *Stateful inspection firewall*
- *Network address translation (NAT)*
- *NAT traversal*
- *RADIUS authentication*
- *Individual user accounts and passwords*
- *Full range of site-to-site IPSec VPN including:*
 - *DES (56-bit) encryption*
 - *3DES (168-bit) encryption*
 - *AES (128, 256-bit) encryption*
 - *MD5 and SHA-1 authentication*
 - *RSA, Diffie-Hellman key management*
 - *Dead-peer detection*

Linux lowers networking costs

The Gartner Group reports that businesses spent more than \$8 billion in 2006 on router, firewall, and VPN solutions. Most of this spending was for “proprietary” products — at “proprietary” prices. With Vyatta, there’s another choice: instead of paying the “proprietary tax,” you can take advantage of commercial-off-the-shelf (COTS) pricing. Combining standard hardware and Vyatta software, you get twice the performance of many of today’s popular Gigabit-speed secure routers — at less than half the cost.

Vyatta supports network routing protocols such as OSPF, RIP, and BGP; stateful firewall; high performance IPSec VPN; LAN interface cards

ranging from single and multiport 10/100 to Gigabit Ethernet; and WAN interfaces including single and multiport T1/E1 and T3/E3.

Enterprises can use Vyatta to connect branch offices. Service providers can easily add advanced connectivity and managed security services helping lower variable costs. Government entities lower their costs of meeting program goals, providing constituent access and facilitating interagency communications.

IBM BladeCenter family — for every customer need

An advanced blade system family, the IBM BladeCenter integrates servers, storage and networking into a single chassis — for a simpler, more dense, and to enable a lower TCO solution. A single family of common server blades, storage, I/O, switches and networking modules are fully supported and interchangeable across the entire family of BladeCenter chassis¹. For the first time, telecom service providers, network equipment providers, independent software vendors and system integrators can develop solutions, choosing the appropriate chassis for deployment based on the needs of the business and customers — all on the IBM BladeCenter family.

“As a provider of turnkey infrastructure appliances for leading ISVs, Datatrend Technologies relies upon the IBM BladeCenter as the preferred platform for our telecom solutions. The IBM BladeCenter T and HT in particular offer the highest levels of availability for mission-critical applications and unparalleled price-performance, scalability, manageability and flexibility — critical elements to satisfy our ISV partners and their customers”

*— Darren Waldrep
VP Strategic Alliances
Datatrend Technologies*

The IBM BladeCenter chassis delivers the ideal solution for data center deployments: the IBM BladeCenter H for high performance computing with 1.2 Tbps backplane. For telecoms, IBM offers the IBM BladeCenter T chassis, specifically designed for central offices. And the IBM BladeCenter HT, a new, telecom optimized version of the BladeCenter H, opens new market opportunities, with a new and powerful NGN platform.

The IBM BladeCenter T and BladeCenter HT include rich telecommunications features: fault-tolerance, hot-swappable redundant DC or AC power supplies and cooling, and built-in systems management resources — all in a 20” deep chassis. Both are designed to for the rigorous Network Equipment Building System (NEBS) Level 3 and European Telecommunications Standard Institute (ETSI) standards for electromagnetic compatibility, thermal robustness, fire resistance, earthquake and office vibration resistance, transportation and handling durability, acoustics and illumination, and airborne contaminant resistance — to meet the reliability, power, form factor, and environmental needs of the telecom central office.

We integrate, so you don’t have to

Vyatta has partnered with Datatrend Technologies, an IBM premier Business Partner, to provide an integrated, end-to-end solution combining the Vyatta system and the IBM System x platform as a bundled solution. This single SKU integrates software and hardware, eliminating the hassle and worry of buying separate components and integrating them at the customer site. Just unpack the system and start configuring, knowing the hardware and software are compatible and optimized. Customers can order the Vyatta system installed on a variety of BladeCenter and System x platforms designed to meet enterprise or service provider requirements.

As an IBM premier Business Partner, Datatrend is a recognized expert in IBM System x, IBM BladeCenter, and other IBM server/storage platforms. In addition to hardware integration, Datatrend also provides installation, implementation, and integration services; technology assessments; migration services; consolidation, optimization, and virtualization solutions; data center consulting; business continuity solutions; structured cabling implementations (voice, data, fiber); site surveys; network assessments; and project management services.



Vyatta and IBM: the open networking solution

As service providers seek to reduce the risk and complexity of migrating to IP-based, next-generation networks, building an infrastructure based on the IBM BladeCenter family leverages the best of the telecommunications and information technology worlds. IBM has delivered an integrated family of products which address these requirements in a single unified, open platform architecture which spans the telecom central office and enterprise data center environments.

The combination of advanced, Linux-based, open networking software and commercial-off-the-shelf systems delivers next-generation IP networks without the cost, worry or risk of “proprietary” systems.

For more information

Learn how IBM Systems can help your company achieve more revenue and reduce your costs, while helping you keep your profitable customers.

Have questions? Contact the IBM Telecommunications team today on how we can help you take advantage of our extensive industry expertise. Please visit us on the web at:

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[1] IBM BladeCenter QS20 currently requires a separate chassis from other blade servers, and is currently supported only in the original IBM BladeCenter E chassis.

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