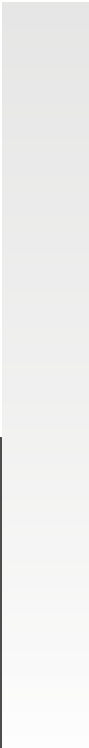
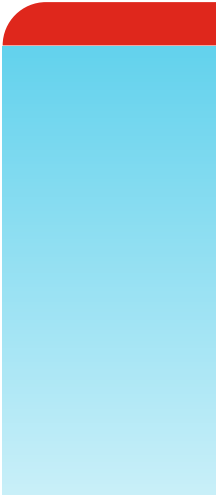


DEPLOYMENT GUIDE

Fortinet and Vyatta



Fortinet and Vyatta

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Overview

The Brocade 5600 vRouter (formerly Vyatta 5600 vRouter) provides a solution for network functions virtualization (NFV). It offers easy scalability, a broad set of capabilities, and reliability.

In addition, it utilizes Intel Data Plane Development Kit (DPDK) to deliver higher performance, and it can be installed on hypervisors and any x86-based system.

Together, Fortinet and Brocade deliver an industry-leading security and network solution. FortiGate virtual firewall products enable customers to deploy branch office services.

Customers can deploy virtual CPE (vCPE) combined with industry-leading FortiGate security.

The Brocade Vyatta Network OS with Fortinet network security appliances and subscription services provides broad, integrated, and high-performance protection against dynamic security threats while simplifying the IT security infrastructure. Fortinet offers a flexible, end-to-end solution that incorporates wireless and wired access, security, authentication, switching, and management in an easily managed system that allows systemwide policy enforcement.

Deployment Prerequisites

The Fortinet and Brocade Vyatta deployment requires the following:

1. Vyatta OS
2. Supermicro x86-Based Hardware
3. FortiGate KVM Firewall



Architecture Overview

The following diagram illustrates the various services and components that are part of the Fortinet Vyatta integration. The Brocade Vyatta Network OS for vCPE can be installed on a slim Supermicro Mini-ITX chassis with Intel Atom processor C2758 running Fortinet FortiGate next-generation firewall as a guest service. The Brocade 5600 vRouter supports foundation networking services, including routing, firewall, virtual private networking (VPN), quality of service (QoS), and network address translation (NAT) with high-performance and efficient Brocade vPlane technology. The Vyatta vPlane architecture consists of the following main components:

1. hvvol plane services such as BGP, DHCP, OSPF, RIP, and SNMP.
2. Controller daemon—provides the data plane interface to the Linux kernel and CLI, and manages the data plane.

Data Plane: Forwards traffic between ports and passes local traffic to the controller. The data plane consists of the following components:

1. Data plane daemon—provides packet forwarding, QoS, and firewall services.
2. User space I/O drivers—provide network interface.

Linux Kernel: Hosts the data plane and other user space processes.

The FortiGate firewall virtual appliance runs as virtual network functions (VNFs) to provide next-generation security protection.

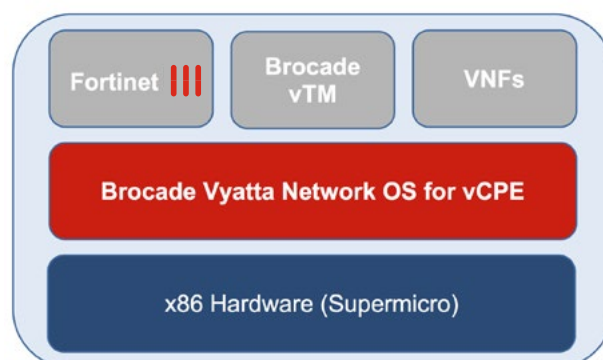


Figure 1: Topology

Partner Configuration

Hardware Installation

For the integration, Brocade provided us with their hardware, a Supermicro SYS-E300-8D Intel Xeon D-1518 mini-pc. The system is installed from Vyatta LiveCD, which is created before installation. The installation process uses LiveCD as the source image, formats the device, installs the system, and the device is rebooted after installation. Figure 2 below shows the dashboard of Vyatta OS.

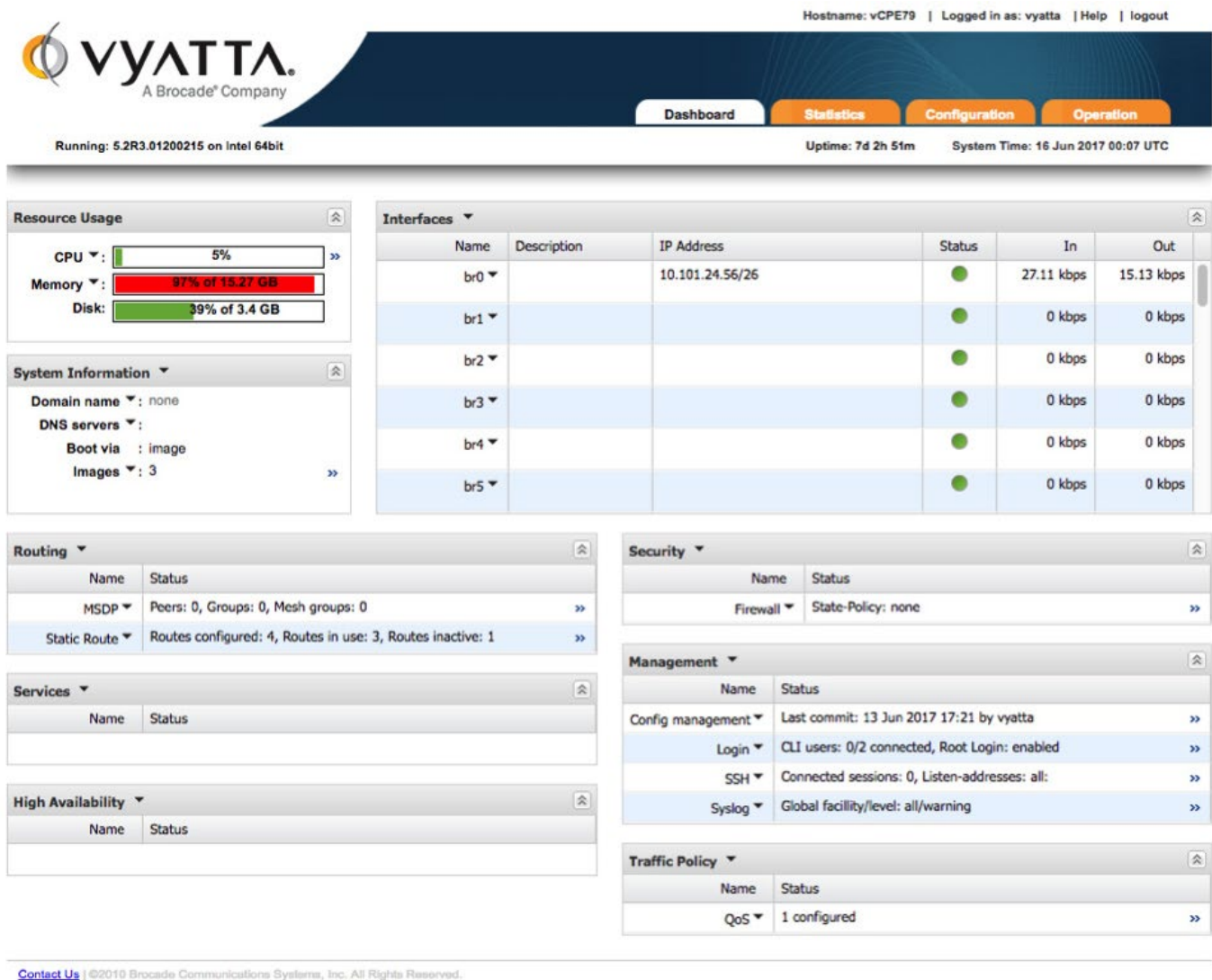


Figure 2: Vyatta Dashboard

To integrate FortiGate, we create a virtualization instance under the virtualization tab. Configure remote access to the console using VNC and assign a port number, then install the FortiGate KVM image using the console.

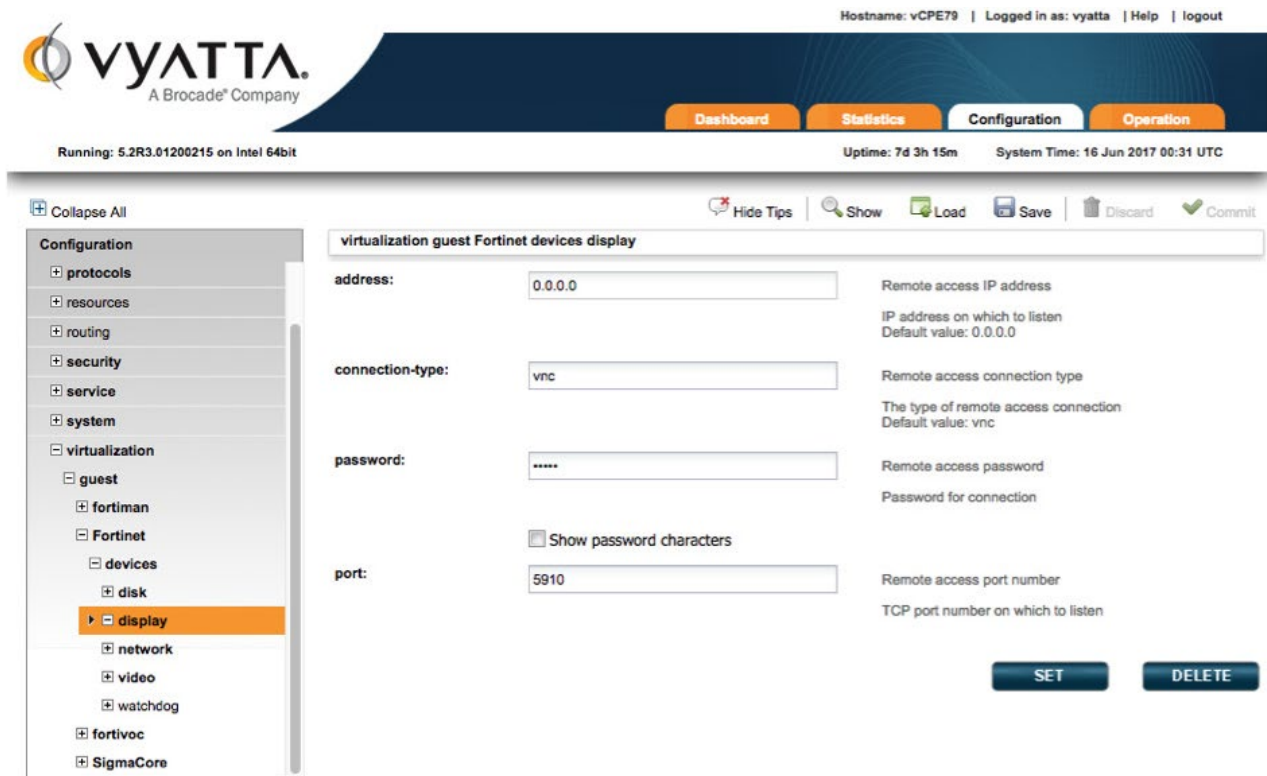


Figure 3: Vyatta Virtualization

You can VNC to access the console.

Fortinet Configuration

Log in to the console using the VNC viewer, and you should be able to install and log in to the FortiGate console, as shown below in Figure 4:

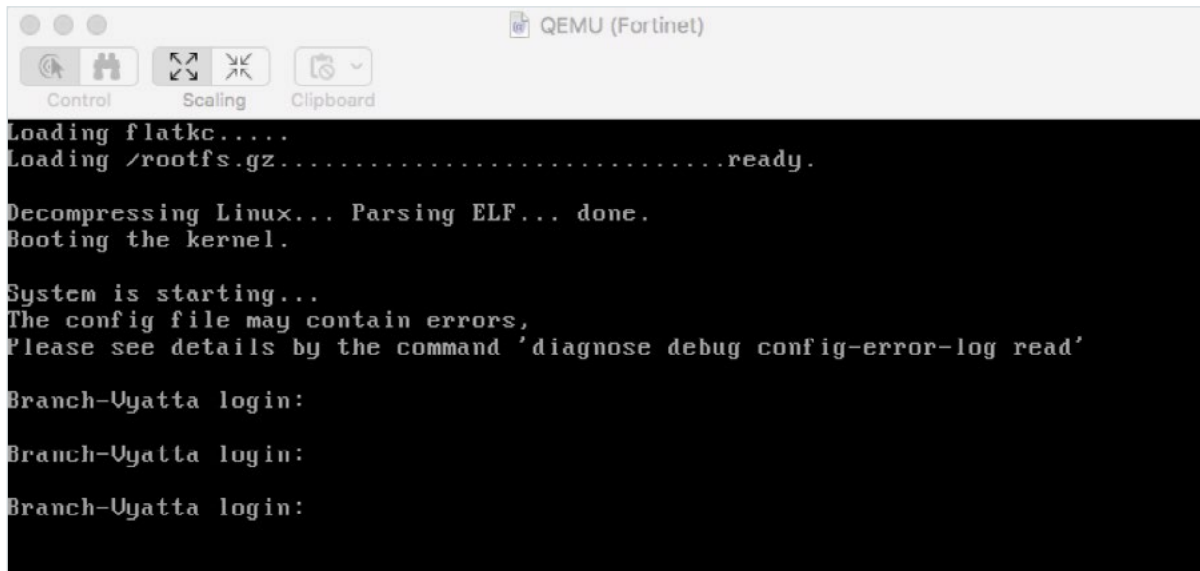
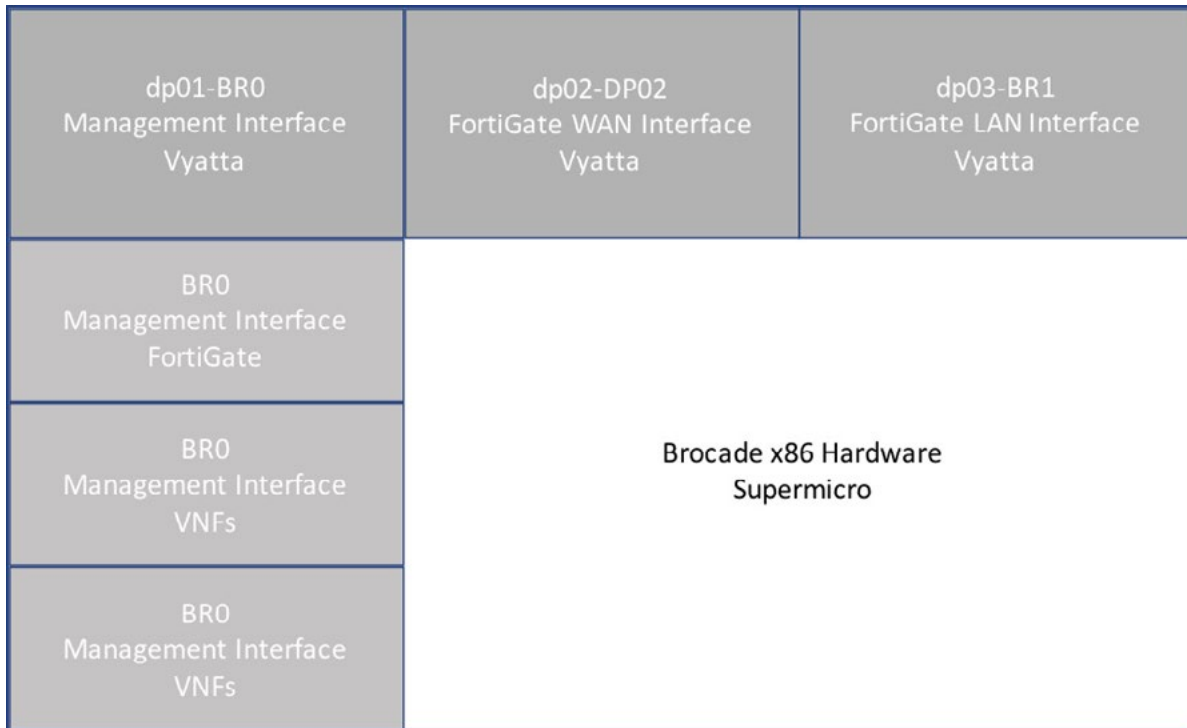


Figure 4: Vyatta Virtualization Console Access

The Vyatta hardware topology is shown below. Physical interface dp01 is connected to the management interface, dp02 is connected to the WAN link, and interface dp03 is the LAN interface. Configure the IP address on the FortiGate and connect the ports to the network. Refer to the FortiGate Administration Guide.



Summary

Access to Vyatta Demo

This demo is part of the EntLab portal. Contact the Technical Marketing Group to access the setup.

How To Get Help

Fortinet:

This demo is part of the EntLab portal. Contact the Technical Marketing Group to access the setup.

- <http://docs.fortinet.com/d/fortiweb-5.6-administration-guide>
- <https://fuse.fortinet.com/p/do/sd/sid=2298&fid=3538&req=direct>
- tmg@fortinet.com

Brocade:

- <http://www.brocade.com/en/products-services/software-networking/network-functions-virtualization/5600-vrouter.html>
- <http://www.brocade.com/en/products-services/software-networking/network-functions-virtualization/vrouter.html>



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