



Using Vyatta to Deliver Secure, Cost-Effective Remote Access to Central Resources



Challenge

Find cost-effective, scalable VPN and routing solution to simplify communications with remote sites

Solution

Vyatta Open Networking Software

Benefits

- Cost-Effective
- Leverages standard x86 hardware
- Scalable
- Responsive support

A comprehensive, national graduate research university, Florida State University (FSU) offers an impressive breadth of leading graduate, professional and undergraduate programs, and enjoys an international reputation in the sciences and humanities. Many programs consistently rank among the nation's top twenty-five public universities. The university is home to the National Science Foundation's National High Magnetic Field Laboratory, as well as the Center for Advanced Power Systems, supported by the U.S. Departments of Defense and Energy.

Managing the physical plant for all these programs is the Facilities department, with 200 central desktop systems and 50 remote workstations. The Facilities department is also responsible for campus-wide construction and maintenance projects of all kinds that often require providing network services to a number of remote sites. Like any public university, FSU needs to spend the taxpayers' money carefully.

Securing Remote Access with Vyatta VPN

Recently, the Facilities department decided it needed to provide VPN access for its users at remote sites, the FSU Facilities team started thinking about equipment. According to network administrator Nic Kassis, the goal was to provide a VPN tunnel to support 40-50 remote users. Kassis says, "The university is so large that it's hard to manage systems out there at the remote sites. We wanted to have management closer."

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*-Nicholas Kassis
Network Administrator, Facilities
Florida State University*

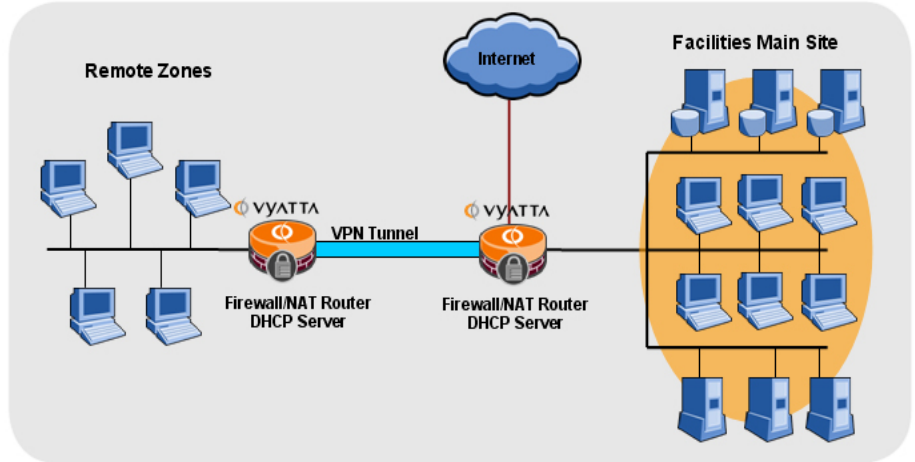
Florida State University Requirements		
Features	Cisco ASA	Vyatta
Firewall	Yes	Yes
VPN	Yes	Yes
Routing	Limited	Full
NAT	Yes	Yes
DHCP	Yes	Yes
Runs on x86 hardware	No	Yes
Off-the-shelf component upgrades	No	Yes
Value pricing	No	Yes

Florida State first considered the Cisco ASA 5520 and 5505s, but decided against them. Instead, Kassis tried an experiment with Vyatta, and once he had it up and running, there was little need for the Cisco hardware. Facilities initially tested Vyatta's community edition, but decided to purchase commercial subscriptions including updates, security patches, and support. FSU Facilities is a

Vyatta Case Study: Florida State University

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mixed technology environment and was quite comfortable deploying open source, just as it had for mail and web servers previously.

Facilities was particularly pleased that Vyatta runs on standard x86 hardware rather than expensive, proprietary hardware, providing them a lot of flexibility and allowing them to save a substantial amount of money on the project. In fact, Kassis found that Vyatta ran just fine on some standard servers that had already been purchased but were presently unused. Kassis estimates that by using Vyatta, FSU was able to save more than \$15,000 on this first project.

FSU Facilities, currently uses Vyatta running firewall, NAT, and VPN functions to secure the network, save on allocated IP addresses, and create secure tunnels to remote sites. Kassis bought Vyatta both for its features and because they liked the subscription model. Kassis notes, "I feel that my department is getting a lot more value from purchasing Vyatta subscriptions and installing on standard x86 servers than purchasing proprietary hardware, upgrades and support from Cisco."

Although the Florida State University network environment includes lots of

proprietary switching equipment, Kassis sees a larger role for Vyatta as well; "We'd like to make Vyatta the main NAT router, to put all Florida State Facilities workstations behind Vyatta for NAT routing and firewall functionality. That way, we can keep individual organizations' zones separate and keep an eye on what goes through, limit which ports are accessible, inspect traffic, protect workstations, and monitor bandwidth." Current plans call for extending Vyatta to six additional remote zones, with more to come.

About Vyatta

Vyatta has reintroduced innovation to the networking industry by leveraging open source technologies and the performance increases of x86-based processors. This innovation has allowed Vyatta to create routing and security appliances that scale from the branch office to the service provider edge, use standard x86-based Intel/AMD hardware and components, run in VMWare, Xen and Hyper-V virtual environments and allow users to customize networks. Oh, and all of that can be done for a fraction of the cost of proprietary systems. For more info, visit <http://www.vyatta.com>



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