

Case Study: New Mexico Courts



New Mexico Courts

Challenge

Find an all-in-one branch-office router and firewall

Solution

Vyatta 514 and 2501 Appliances

Benefits

Flexibility to meet current and future requirements
High reliability
Support beyond expectations

"The number one reason we went with Vyatta was the flexibility and the peace of mind knowing that if we came up with an issue, we'd have lots of avenues to address it from."

Vyatta Delivers Flexibility and Reliability to Statewide Court System Network

New Mexico's statewide court system is comprised of the State Supreme Court, Court of Appeals, District Courts, Magistrate Courts, and Probate Courts. Approximately 300 judges preside in courtrooms located throughout the state. A statewide communications network connects all sites.

Locations in larger cities such as Santa Fe and Albuquerque are supported by ATM T1 or larger circuits. Because of a patchwork of small, independent telcos, however, many remote sites were previously limited to Frame Relay 56k DDS. In addition to being very costly—\$500 to \$1500 per month—these 56k circuits also lacked the bandwidth and reliability that would be needed when the State deployed a new, centralized court Case Management system in Santa Fe. "Every location needed good connectivity for that application to work," says Sam Noble, senior network administrator for New Mexico Courts.

Challenge

After some research, Noble found that consumer-grade ADSL was supported at nearly all of the Court's remote locations, delivering the higher bandwidth needed. But what type of equipment would provide the routing and security required at each site?

One choice was to use the modem supplied by the ISP, but that would not provide the ability to remotely monitor the local link status. "We wanted our own equipment at each location," says Noble.

Another option was to re-use the Cisco 2600s that had supported the legacy Frame Relay circuits. While the addition of an ADSL card would have given Noble the visibility into the individual links, the aging routers lacked the horsepower required to perform firewall functionality. "We would have needed a separate firewall device at each location and we weren't excited about that." As end-of-life products, the 2600 Series routers also posed a long-term supportability concern.

A third alternative was to install a Netscreen SSG20 with an ADSL option. "We tested a few boxes, and it met our core needs," says Noble, "but none of the nice-to-haves we wanted, like full-featured command lines and unlimited tunnel interfaces."

Solution

Around the time Noble was evaluating the Netscreen option, he learned of Vyatta open networking appliances. Vyatta solutions combine enterprise-class routing and security with the performance and economics of open systems, giving network administrators the ability to innovate, scale, and grow in ways that were previously unavailable.

Noble downloaded a copy of Vyatta software on a laptop and evaluated it prior to the availability of ADSL. Encouraged by what he saw, he then set up

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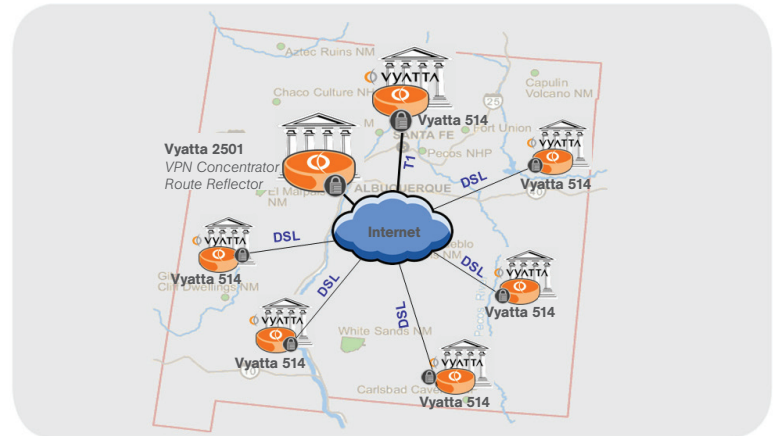
a test site in Santa Fe once Vyatta delivered the ADSL capability. Initial concern over needing large Dell 1U servers at every location vanished when Vyatta came up with the 514 appliance, which was comparable in size to the small Netscreen routers he had used. "Vyatta gave us what we needed," says Noble.

Vyatta provided functionality that would have been unavailable or very costly to add to Cisco or Netscreen equipment, including Border Gateway Protocol (BGP), VPN Concentrator, URL filtering, and packet capture. "With the Vyatta solution 100 percent of the available features are unlocked in every install," says Noble.

Vyatta seemed to meet all the requirements until Noble realized that Vyatta did not support Websense, which the Courts were using to control user access to inappropriate web sites. "Suddenly we thought this could be a show stopper," recalls Noble. "That was the biggest testament to the flexibility of the Vyatta stack. Vyatta helped us integrate Websense into the Vyatta appliance by adding Squid, a proxy server, and a Websense plug-in for Squid."

The first site using Vyatta went live in April 2008. An average of two new sites are being deployed each month until all 40 to 50 sites are converted. "I spend some time making sure each site works, but once they're in, I don't have to touch them. It's been great," says Noble.

Further demonstrating the flexibility of Vyatta, Noble recently began routing traffic through a Generic Routing Encapsulation (GRE) tunnel combined with IPsec, rather than a pure IPsec tunnel. Running Border Gateway Protocol (BGP) through those tunnels provides routes for all the remote sites, enabling automatic failover to an Internet-based connection should the ADSL circuit go down. Users could continue to access applications such as email.



Benefits

While Vyatta offers New Mexico Courts functionality and cost advantages, Noble points to three other key benefits the solution delivers. "I think a lot of people come to Vyatta for cost. We came to Vyatta for flexibility, support, and reliability."

The New Mexico Courts network presented a challenging and rapidly changing environment with many remote sites and service providers. "The number one reason we went with Vyatta was the flexibility and the peace of mind knowing that if we came up with an issue, we'd have lots of avenues to address it from," says Noble.

Given the complexities of the network, New Mexico Courts needed a supplier, a true partner that was willing to go the distance to work through issues and lend a hand when required. "The quality of support from Vyatta has been amazing. It's been wonderful to have the level of support that we've had."

Dependable, uninterrupted access to information is critical to the operation of the New Mexico Courts. Vyatta has delivered a highly reliable solution. "The Vyatta equipment never locks up. We've never had a lockup that I know of since we started."

About Vyatta

Vyatta builds commercially supported, open-source networking solutions that provide an alternative to over-priced, inflexible products from proprietary vendors. Vyatta customers know that Vyatta's Linux-based router, firewall and VPN software gives them a level of control unavailable from proprietary solutions. Vyatta customers are thought leaders who recognize the benefits of flexible deployment options—x86 hardware, blade servers, virtualization—of freedom to integrate applications of their choice, and of the economic and performance advantages of commodity hardware and components. For more info, visit <http://www.vyatta.com>.