

Hitachi Consulting Connects Employees via VoIP using Juniper's Network Security Solution

Hitachi Consulting

Customer:

Hitachi Consulting, the business and technology consulting arm of Hitachi, Ltd.

Industry:

Consulting

Challenge:

Installing an IPSec VPN/security infrastructure that would improve VoIP quality and reliability

Solution:

Juniper Networks NetScreen firewall and IPSec VPN security solutions

Benefits:

- 40 percent improvement in network performance
- Increased employee productivity
- Simplified deployment and network management

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Michael Shisko
Hitachi Consulting
Director of IT

Founded in 2000 as Experio Solutions, Hitachi Consulting (a subsidiary of Hitachi, Ltd.) has grown through a dedication to serving clients and an aggressive acquisition program. Nearly doubling in size in three years, Hitachi Consulting has expanded its geographic coverage across the United States, broadened its vertical industry expertise and significantly added to both its business offerings and client base.

Hitachi is an established consulting firm that addresses the strategy, selection, planning, design, implementation and integration needs of many enterprises and organizations around the world.

The company is well aware of the advantages of voice over IP (VoIP) and Internet telephony technologies, which allow organizations to avoid the tolls charged by ordinary telephone service. The same holds true for video conferencing over the Internet.

In early 2002, Hitachi leveraged an existing relationship with a hardware vendor, Cisco Systems, to deploy its

initial virtual private network (VPN) solution for its VoIP network, which is used for all intra-company voice traffic, voicemail and much of the company's long distance calls. However, within six months, Hitachi's IT department concluded that the solution had failed to provide the scalability, performance and management functionality needed to effectively operate its VoIP network. -

Michael Shisko, director of IT at Hitachi Consulting, said the biggest problems encountered with the Cisco VPN solution appeared to be high latency and excessive jitter - the variability in arrival time of packets, causing difficulties with Hitachi's VoIP network. “We had significant challenges getting Cisco up and running and the VoIP quality had deteriorated due to high latency. Complaints escalated to the point where the telecommunications staff was stretched to the limit,” Shisko said, adding that the lack of flexibility with the Cisco solution also presented challenges.

The Solution

With a requirement for a new network security solution that would allow for increased performance, Hitachi Consulting set out to replace its Cisco VPN. Working with Westron Communications, a trusted solution provider, Hitachi Consulting selected Juniper Networks' security solution to secure its network for both data as well as voice traffic and has deployed a Juniper Networks NetScreen-500 system and Juniper Networks NetScreen-204 and -5XT integrated firewall and IPSec VPN hardware-based, purpose-built network security appliances.

The NetScreen-500 system, a high-performance, security system offers up to 700 Mbps firewall performance and 3DES IPSec VPN performance of up to 250 Mbps, is located at Dallas corporate headquarters. NetScreen-204 appliances, which offer up to 400 Mbps of firewall performance, with support for 128,000 sessions, are located at 14 different field offices. Juniper NetScreen-5XT appliances offer up to 70 Mbps firewall and 20 Mbps of 3DES or AES IPSec VPN performance, with support for 2,000 concurrent sessions and 10 VPN tunnels, provide a cost-effective solution and round out the network for Hitachi's smaller site offices.

To manage security on all the networks, Hitachi Consulting uses Juniper NetScreen-Global PRO, which lets IT department staff centrally manage, create and modify VPN settings and policies. The platform offers pre-defined reporting templates and lets network managers create customized reports.

To configure the Juniper appliances, Hitachi Consulting turned to Westron and their extended support team from 1NService, a nationwide technology alliance that provides Juniper technical services through over 900 service points in the U.S.

Westron was tasked with the implementation of a proof of concept at two key sites in the network and the resulting improvements were better than anticipated. Both latency and jitter were significantly reduced, users saw significant increases in voice quality and the decision was made to move forward with the rest of the sites.

"Using the unique software capabilities of the Juniper network security platform, we were able to migrate the rest of the Hitachi sites in one evening," commented Dave Casey, vice president of Westron Communications. "Our 1NService technicians worked as a team to swing over all the remaining sites within a five hour window, with no customer downtime." This contrasted sharply with the weeks of implementation the Cisco roll-out required.

The Benefits

By using Juniper network security appliances to transport voice traffic over a VPN, Hitachi Consulting has seen many benefits, including secure and efficient telephone calls between offices and across the public Internet.

"Within 24 hours of the Juniper network security installation we were getting calls from employees telling us how happy they were with the voice quality. The difference was like night and day," said Mike Shisko, director of IT at Hitachi Consulting. Hitachi estimates at least a 40 percent improvement in network performance and a significant reduction in network latency – an element of deploying the Juniper network security solution.

Hitachi Consulting is also using Juniper appliances to secure its video conferencing between the Chicago and Dallas office. "Our previous Cisco solution presented difficulties when it came to video conferencing. By switching to Juniper we're now getting 30 frames per second – that's up to ten times more than our previous solution," commented Shisko.

Additionally, by using Juniper NetScreen-Global PRO, Hitachi Consulting has been able to save time because all networks are centrally managed which reduces the time spent on network deployment and maintenance.



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