

THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

LOCATION:
Dallas, Texas, United States

YEAR:
2006

STATUS:
Laureate

CATEGORY:
Business and Related Services

NOMINATING COMPANY:
Juniper Networks

ORGANIZATION:

Hitachi Consulting

PROJECT NAME:

High Performance VoIP, Videoconferencing, and Web Applications

Summary

Hitachi Consulting, a subsidiary of Hitachi, Ltd., is an established consulting firm that addresses the strategy, selection, planning, design, implementation and integration needs of many enterprises and organizations around the world. For Hitachi Consulting, voice, video and Web application security and delivery needed to be improved. Existing network equipment did not route traffic properly and was not fast enough for voice across the data network. Hitachi Consulting deployed new security solutions to solve the problem, including new firewall/IPSec VPN, SSL VPN and datacenter acceleration solutions.

Introductory Overview

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.

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

Without the WAN, what makes us work as a business goes away. Being constantly on the lookout for ways to deliver better performing applications to consultants is strategic to our business. Voice, video and applications need to be secure and delivered at optimum levels of performance. Those services are our lifeline.

With an aggressive acquisition strategy that has resulted in 1,000 employees in 17 distributed offices, we do more than just keep the lights on. For our team, it means finding new ways to use IT to drive business innovation and client satisfaction. VoIP is a great example of this. We deployed VoIP enterprise-wide over four years ago, saving more than a million dollars in opera-



THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

ORGANIZATION:
Hitachi Consulting

PROJECT NAME:
*High Performance VoIP,
Videoconferencing, and
Web Applications*

LOCATION:
Dallas, Texas, United States

YEAR:
2006

STATUS:
Laureate

CATEGORY:
Business and Related Services

NOMINATING COMPANY:
Juniper Networks

tions and long-distance costs (over maintaining a legacy PBX network). Voice over the network is key because it allows us to operate strategically and because our consultants are always reachable.

Our pioneering experience with VoIP was, however, not without its challenges. Our existing network equipment vendor's configuration did not route traffic properly and it was not fast enough for voice across our data network. Voice quality went from toll quality to sub-cell phone quality when we introduced VoIP. Voicemails were garbled and people called every day complaining. We knew that bandwidth wasn't the answer, and it turned out that we needed to replace our firewall/VPN components, as they were the cause for our performance delays. The problems were real but the product attributes causing latency and jitter problems were not referencable on any vendor spec sheets. This prompted us to test solutions from other vendors.

After a two month pilot Hitachi went with a range of security solutions from Juniper Networks, including the NetScreen-500 integrated security system, NetScreen-5XT integrated firewall/VPN, Secure Access 700 SSL VPN and DX application acceleration platforms.

Benefits

Seventy percent of employees are located at clients' sites, and the ability to quickly access applications ranging from voice-over-Internet-protocol (VoIP), to customer relationship management and financial applications, to knowledge libraries drives the ability to deliver great client service. Juniper gives our network a huge advantage in making our users productive and keeping our clients happy.

As a result of the new deployment, VoIP user complaints ceased and voice quality was immediately restored. It was like someone turned on the lights. Email, document transfer and Web performance also jumped 40 percent, and videoconferencing became fully functional at 30 frames per second, rather than 1 frame per 30 seconds.

Leveraging the flexibility and granularity of the Juniper Networks Secure Access SSL VPN, we were able to allow access to applications that otherwise would not allow access. Plus, using an SSL VPN eliminated the overhead of managing IPSec client software. Reliable, secure access to applications from anywhere has enabled Hitachi to strengthen its business relationships with outsourcing partners doing development, without incurring risk.

Additionally, after performance of our enterprise software improved by 30% over the WAN after a Juniper Networks DX pilot, we rapidly moved other Web-enabled applications behind Juniper's application acceleration platform. We particularly appreciated that we could test the Juniper DX solution without modifying production systems or impacting any users until we saw measurable gains – and then roll it into production again without impacting users. Our team has since seen 75 percent data compression for its Web-enabled applications.

Leveraging the flexibility and granularity of the Juniper Networks Secure Access SSL VPN, we were able to allow access to applications that otherwise would not allow access. Plus, using an SSL VPN eliminated the overhead of managing IPSec client software. Reliable, secure access to applications from anywhere has enabled Hitachi to strengthen its business relationships with outsourcing partners doing development, without incurring risk.

Additionally, after performance of our enterprise software improved by 30% over the WAN



THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

ORGANIZATION:
Hitachi Consulting

PROJECT NAME:
*High Performance VoIP,
Videoconferencing, and
Web Applications*

LOCATION:
Dallas, Texas, United States

YEAR:
2006

STATUS:
Laureate

CATEGORY:
Business and Related Services

NOMINATING COMPANY:
Juniper Networks

after a Juniper Networks DX pilot, we rapidly moved other Web-enabled applications behind Juniper's application acceleration platform. We particularly appreciated that we could test the Juniper DX solution without modifying production systems or impacting any users until we saw measurable gains – and then roll it into production again without impacting users. Our team has since seen 75 percent data compression for its Web-enabled applications.

The Importance of Technology

Any hardware can connect two offices, but if you can't count on a connection to get great performance, it limits your ability to support the business. After a two month pilot Hitachi went with a range of security solutions from Juniper Networks, including the Juniper NetScreen-500 integrated security system, NetScreen-5XT integrated firewall and IPSec VPN, and NetScreen-204 appliances in the branch offices. The NetScreen-500 in the Dallas headquarters delivers up to 700 Mbps of firewall performance. The

NetScreen-204 appliances deliver up to 70 Mbps firewall performance and 2,000 concurrent sessions.

The Juniper Networks Secure Access 700 Series SSL VPN fundamentally changed how we could make applications available to users. Juniper gives our network a huge advantage in making our users productive and keeping our clients happy. Because of the Juniper SSL VPN's flexibility and granularity, we customize the SSL VPN to allow access to applications that otherwise would not allow access. Plus, using an SSL VPN eliminated the overhead of managing IPSec client software.

The Juniper Networks DX application acceleration platform improved the performance of our enterprise software over the WAN by 30%. After rolling out the technology to address other Web-enabled applications, our team has since seen 75 percent data compression for our Web-enabled applications.

Originality

As a vendor, Juniper gave us the ability to fundamentally change how we deliver voice and data applications to users by helping us to address some of the most complex challenges we faced, from multi-site VoIP, to secure access and application acceleration.

Application performance issues could be misinterpreted by some as a need to purchase additional bandwidth. However, we knew that bandwidth wasn't the answer; it turned out that we needed to replace our firewall/VPN components, as they were causing performance delays. Our existing network equipment vendor's configuration didn't route traffic properly and it wasn't fast enough for voice across our data network. Voice quality went from toll quality to sub-cell phone quality when we introduced VoIP.

Rather than make expensive bandwidth purchases, we upgraded our security infrastructure with a range of security solutions from Juniper Networks, including the Juniper NetScreen-500 integrated security system, NetScreen-5XT integrated firewall and IPSec VPN, and NetScreen-204 appliances in the branch offices. As a result, User complaints ceased. Voice quality was immediately restored. Email, document transfer and Web performance also jumped 40 percent.



THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

ORGANIZATION:
Hitachi Consulting

PROJECT NAME:
*High Performance VoIP,
Videoconferencing, and
Web Applications*

LOCATION:
Dallas, Texas, United States

YEAR:
2006

STATUS:
Laureate

CATEGORY:
Business and Related Services

NOMINATING COMPANY:
Juniper Networks

Videoconferencing was fully functional at 30 frames per second, rather than 1 frame per 30 seconds.

Success

This project benefits more than 1,000 employees across 17 distributed locations.

Our targeted audience of users has embraced our innovation almost immediately.

Difficulty

Before Juniper, we had headaches trying to make IPSec VPNs work reliably with clients' firewalls. Our team was charged with building stronger relationships with clients and partners, including network access, but IPSec meant opening up the entire network. After doing our homework, we found the solution. The Juniper SSL VPN fundamentally changed how we could make applications available to users.