

DAEWOO ENGINEERING AND CONSTRUCTION DEPLOYS KOREA'S LARGEST SSL VPN WITH THE SA6000 SERIES



Industry: Construction

Challenges: To implement a secure and reliable communications solution that supports the company's global expansion plans

Selection Criteria: Reliability, performance, customer track record, strong services, and support

Network Solution: Juniper Networks SA6000 SSL VPN Appliances

Results: Smooth deployment of SSL VPN to over 3,000 users at 400 construction sites around the world. Enhancements in productivity and operational efficiency

Daewoo Engineering & Construction (Daewoo E&C) is the leading construction company in Korea. In 2006 and 2007, it topped the Ministry of Construction & Transportation's evaluation of execution capacity for construction works, ranking first among 11,530 general construction companies and 35,329 specialized construction companies in areas of performance, financial strength, and technical capability. The company's strong showing attests to its success in leveraging IT for cost savings, business efficiency, and productivity.

Beyond this, Daewoo E&C's goal is to build its presence beyond Korea and become one of the world's top 10 construction companies. To achieve this, the company had to put in place a standards-based IT infrastructure that would support its expansion plans.

Challenge

Given the nature of the construction business, secure and reliable communication is essential said Beomseok Lee, manager of the IT strategy team at Daewoo E&C.

"We have to protect customers' data as well as corporate data such as architecture drawings," Lee said. "In addition, reliable communications between the main office and satellite offices around the world is vital to our operations."

The company's existing IPSec VPN provided connectivity between its headquarters and key sites. However, as business grew, a need to integrate more networks into the IT infrastructure became apparent.

This was not easy with the IPSec VPN, which required client software tools to be installed at each site. The IT strategy team also had to grapple with compatibility problems, including the possible replacement of existing equipment.

Daewoo E&C also considered implementing the Microsoft Internet Security and Acceleration (ISA) server with VPN capabilities. However, the need to reconfigure existing systems was a major impediment to this approach.



Selection Criteria

After evaluating the technology options for network integration and expansion, Daewoo E&C decided to implement an SSL VPN for its “simplicity and security,” Lee said.

An SSL VPN leverages a Secure Sockets Layer (SSL), a common protocol supported by all standard Web browsers. This satisfies the business requirement of lowering the total cost of ownership by providing secure communications between sites without the need to develop new software, reconfigure internal servers, or provide additional maintenance or desktop support. An SSL VPN can also be centrally managed, which simplifies network operation.

“Access environment implementation is important to a construction company with projects around the world,” Lee said.

Daewoo E&C reviewed solutions from several vendors before choosing the SA6000 for enterprise-wide SSL VPN deployment.

“Reliability is one of the main reasons we chose Juniper,” Lee said. “I know that Juniper is the number one vendor in the SSL VPN market throughout the world, according to market analyst reports. It offers a proven SSL VPN solution backed up by many customer success cases.”

“The Juniper SSL VPN solution provides superior performance, enabling large SSL VPN installations of 5,000 user licenses, with support for up to 3,500 concurrent users,” he added.

“The company is also known throughout the industry for its performance and technical expertise, and we’re very pleased with the world-class services it provides.”

Juniper’s SSL VPN solution is also being deployed by Daewoo E&C’s parent company, the Kumho Asiana Group, with the SA6000 paving the way for greater synergy in communications between the two organizations.

Solution

Daewoo E&C implemented the SA6000 to create an SSL VPN environment for up to 5,000 users. The network, which can support up to 3,500 concurrent users, is the largest SSL VPN deployment in Korea.

The performance, scalability, and redundancy of the SA6000 make it an ideal SSL VPN solution for organizations with high-volume secure access and authorization requirements. The appliance features an SSL acceleration chipset that speeds up CPU-intensive encrypt/decrypt processes as well as traffic compression.

The Daewoo E&C SSL VPN connects 400 construction sites around the world. It is integrated with Microsoft Active Directory to standardize the company’s internal account management and provide enhanced security by enabling controlled access to differentiated users and groups.

The project was driven by Daewoo E&C’s sister company Asiana IDT, an IT services provider that has worked extensively with other Kumho Asiana subsidiaries on their VPN deployments. The network solution company Encoreplus provided the SSL VPN network design, building, and technical support.

Results

Despite the scale of the implementation, rollout of the SSL VPN went smoothly.

“We never had any problems, which is amazing considering the size of our system,” Lee said. “I’m also pleased with Juniper’s ability to promptly provide technical support, giving us rapid and accurate solutions even to small problems and living up to its reputation as a world-class company.”

Deployment of the SA6000 has also resulted in significant improvements in network performance, business productivity, and efficiency, Lee said.

Next Steps and Lessons Learned

Daewoo E&C is planning further enhancements to its SSL VPN and is considering the deployment of an application accelerator.

“Deploying an accelerator will allow us to directly increase operational efficiency and productivity by enhancing communications between the main office and field offices,” Lee said.

In addition, Daewoo E&C is looking to add another layer of security by enhancing the Microsoft Active Directory-based account management system. It plans to integrate the security features of the SA6000 with the company’s operational and HR systems to provide user authentication.

IT is a key factor driving innovation at Daewoo E&C, Lee said.

“With continuous investment, we are going to improve our competitiveness in the market,” he said.

About Juniper Networks

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at www.juniper.net.

Corporate And Sales Headquarters

Juniper Networks, Inc.
1194 North Mathilda Avenue
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or 408.745.2000
Fax: 408.745.2100

APAC Headquarters

Juniper Networks (Hong Kong)
26/F, Cityplaza One
1111 King's Road
Taikoo Shing, Hong Kong
Phone: 852.2332.3636
Fax: 852.2574.7803

EMEA Headquarters

Juniper Networks Ireland
Airside Business Park
Swords, County Dublin, Ireland
Phone: 35.31.8903.600
Fax: 35.31.8903.601

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