

SECURING THE SECURITIES INDUSTRY: JUNIPER NETWORKS PROTECTS GUOLIAN SECURITIES

Summary

Industry: Securities, Asset Management, Investment Banking

Challenge: Combining effective office mobility with comprehensive end-to-end security

Network Solution: Juniper Networks ISG2000 Integrated Security Gateway, Juniper Networks SSG550M Secure Services Gateway, Juniper Networks Unified Access Control with NetScreen Series Security Systems, and Juniper Networks SA Series SSL VPN Appliances

Results: Successful integration, effective remote access, protection of investments and assets, uncomplicated user interface, straightforward network management and maintenance, reduced threats from external attacks, dramatically improved overhead and management cost efficiency

Guolian Securities Co. Ltd. is a comprehensive securities company with brokerage, asset management, and investment banking services. Formerly Wuxi Securities Co. Ltd., Guolian Securities was founded in China in September 1992, became a national securities company by capital and stock increases in 2002, obtained the qualification as a normative securities firm in 2005, and was accepted as an innovative securities company in 2007. Currently, Guolian Securities' headquarters consists of one office and 14 sectors, and it has 15 securities exchanges and two securities services throughout China. Once merely a regional brokerage securities company, Guolian Securities has, with time, developed into one of only 29 innovative, influential, and competitive securities companies in the country.

Challenges

The rapid development of all scales of corporate business in China, and the increasing need to have a pervasive presence connected to other business entities, have made the network a crucial component of productivity, communication, and customer service. However, these expansions exert constantly growing pressure on infrastructure and lead to challenges in network defense.

Like other nations, China has experienced tremendous Internet usage growth, and the network has become immensely crucial for business. Likewise, the need for sufficient network security has become a key concern, especially for securities enterprises, and often represents a bottleneck for business efficiency.

In-depth analysis of Guolian Securities' original network revealed problems common to the financial services and banking industry: First, the network's intranet and servers were not isolated and protected from external attacks such as worms, viruses, trojans, and other malware. Second, the network was without any means of controlling intranet access and remote access. Uncontrolled hosts and users could infiltrate the network, and, like ticking time bombs, explode with virus transmissions that compromised information. In short, Guolian Securities' network required a comprehensive solution to mitigate the numerous threats to its data confidentiality and security.

Selection Criteria

In the face of these difficulties, Guolian Securities turned to solutions from Juniper Networks®, the leader in high-performance networking and security solutions. Guolian Securities and Juniper Networks worked hand in hand, performing security consultations and thorough diagnostics, to develop a comprehensive program plan that would integrate a number of Juniper's products and package solutions to meet Guolian Securities networking needs.

In order to deal with multiple security problems, the appropriate solution had to be multifaceted and be able to:

1. Deploy effective and reliable firewall equipment both at the extranet interface as well as at the front end of the server, and implement secure isolation of the intranet and crucial business network to effectively defend against external attacks.
2. Provide secure access control for internal staff accessing the intranet, implementing network access control based on user identity and endpoint security status.
3. Provide secure and convenient remote network access and remote access to intranet resources.
4. Offer convenience and ease-of-use for authorized users who access the network.
5. Simplify network management and maintenance.
6. Achieve seamless integration with existing network infrastructure and equipment, and implement smooth deployment in order to effectively protect Guolian Securities' existing and future network investment and digital assets.
7. Exceed current usage demands in order to allow for future development and expansion.

Solution

Since Guolian Securities' network had many weaknesses, Juniper Networks suggested a multifaceted solution, complete with the integration of Juniper Networks ISG2000 Integrated Security Gateway, SSG550M Secure Services Gateway, Unified Access Control, and SA Series SSL VPN Appliances.

With the deployment of best-in-class security gateway products such as the ISG2000 and the SSG550M at the extranet interface and the front end of the server, the team implemented a comprehensive perimeter and internal security solution to protect the network border and server from vulnerabilities and external threats.

Juniper Networks ISG Series Integrated Security Gateways are integrated high-performance security gateways designed to provide scalable network and application security for large enterprises, service providers, and data center networks. Integrated with Deep Inspection firewall, VPN, and denial of service (DoS) solutions, the ISG Series not only provides secure and reliable connection, but also delivers network- and application-level protection to important high traffic network segments. The ISG2000 is a fully integrated firewall/VPN/IPS system with multi-gigabit performance, a modular architecture, and rich virtualization capabilities, delivering up to 4 Gbps of firewall throughput and up to 2 Gbps of optional integrated intrusion prevention system (IPS) throughput. The base firewall/VPN system allows for up to four I/O modules and three security modules for IPS integration.

Juniper Networks SSG Series Secure Services Gateways deliver a complete set of unified threat management (UTM) security features including stateful firewall, IPsec VPN, IPS, antivirus, anti-spam, and Web filtering. The SSG550M is a purpose-built, modular security platform that delivers 1+ Gbps of firewall traffic and 500 Mbps of IPsec VPN for large branch offices, regional offices, and enterprises. In addition, it supports a redundant power supply and is compatible with Network Equipment Building System (NEBS). The SSG Series platforms are a perfect blend of performance, security, and LAN/WAN connectivity that reduces costs, protects investments, and allows for future growth.

Juniper Networks Unified Access Control ensures effective control of local user network access and enhanced protection of data resources with its flexible and robust authentication, endpoint security inspection, and resource access control. UAC is a standards-based, scalable solution for adaptive, identity- and role-based access control that reduces threat exposure and mitigates risks. It leverages and protects your network, guarding mission critical applications and sensitive data, and providing comprehensive control, visibility, and monitoring. This approach to adaptive access control reduces the cost and complexity of delivering and deploying granular network access control from the branch through to the corporate data center. UAC also handles typical, day-to-day network and access control challenges such as insider threats, guest access, and outsourcing and offshoring, as well as effectively addressing regulatory compliance.

When combined with any of Juniper's firewall platforms, including the NetScreen Series Security Systems, ISG Series, and SSG Series, UAC provides network access control and corresponding access permission control for intranet users without the need to install a client. In addition, Juniper Networks IC Series Unified Access Control Appliances, the policy management servers at the heart of Juniper's high-performance UAC, can perform Layer 2 user access authentication and network admission control with any 802.1X-compliant wireless access point or switch deployed in the network—including Juniper Networks EX Series Ethernet Switches—when deployed in conjunction with UAC's built-in 802.1X client software (or 802.1X client software standard with Microsoft Windows Vista or XP Service Pack 3). This leverages existing network infrastructure to ensure that only those users with authentic permissions, authorizations, and the ability to meet and maintain a baseline security state can access the internal network. Finally, SA Series SSL VPN Appliances give Goulian easy-to-use secure remote access for their users that are based on the user's individual role and need within the network. Now, each remote user's authorization and access can be monitored and verified prior to login so that each user has access only to permitted corporate resources, and unauthorized users have no access at all.

Compared with traditional VPN access, SA Series SSL VPN Appliances have exceptional advantages. With their rich authentication and robust mandatory endpoint inspection mechanism, Juniper's technology ensures effective end-to-end security. In addition, there is no need to install a software VPN client in each remote user's device, because Juniper's technology allows direct access through any standard Web browser—this means the technology integrates seamlessly with existing systems, is more convenient to use, and ultimately reduces overhead and management costs.

Results

With Juniper Networks' expert advice, high-performance products, and innovative solutions, Guolian Securities network upgrade has been a complete success. Now, remote access to the network is easier for Guolian staff, and the company no longer has to worry about outside threats from unauthorized users. This alone means it can spend less time and money on inefficient remote access methods and efforts to recover from security breaches. Even more importantly, the new Juniper solution allows Guolian's network capacity to grow while maintaining comprehensive security.

Successful deployment of the new products allows different employees to meet their needs remotely according to different authorizations, accessing necessary resources and complying with security policies while connected to the corporate network.

The new products integrated easily with Guolian Securities' existing equipment, ensuring that its investments and assets were protected throughout the installation. In addition, the project has not only fulfilled Guolian Securities demands for comprehensive network protection, but has also greatly improved the overall performance of the network, and significantly reduced the cost of future hardware expansion and recovery from external attacks.

Next Steps and Lessons Learned

With its network upgrades, Guolian Securities has maximized its network security, minimized delays and costs associated with external attacks, and optimized remote access. It plans to continue to provide China with comprehensive brokering, asset management, and investment banking services while remaining on the cutting edge of technology in order to expand business, remain competitive, and offer the highest quality customer service.

The difficulty of securing Guolian Securities' network set the stage for Juniper Networks to once again prove its technical strength, excellent product performance, and value. More importantly, Juniper has proven that package solutions with full integration and consolidation of several security solutions can be the most efficient and cost effective. The entire securities industry faces problems similar to those at Guolian Securities, and Juniper's innovative solution provides a secure path to address these challenges across China.

For More Information

To find out more about Juniper Networks SSG Series Secure Services Gateways and ISG Series Integrated Security Gateways, please visit:

www.juniper.net/us/en/products-services/security/ssg-series/

www.juniper.net/us/en/products-services/security/isg-series/

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
www.juniper.net

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
EMEA Sales: 00800.4586.4737
Fax: 35.31.8903.601

To purchase Juniper Networks solutions, please contact your Juniper Networks representative at 1-866-298-6428 or authorized reseller.

Copyright 2010 Juniper Networks, Inc. All rights reserved. Juniper Networks, the Juniper Networks logo, Junos, NetScreen, and ScreenOS are registered trademarks of Juniper Networks, Inc. in the United States and other countries. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners. Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.