

YEDANG ONLINE SECURES ONLINE GAMING ENVIRONMENT WITH FIREWALL/VPN SOLUTIONS

Summary

Industry: Gaming

Challenges: To secure the online gaming environment against attacks and ensure stability when handling a large number of concurrent users

Selection Criteria: Reliability and stability

Network Solution: Juniper Networks ISG1000 Integrated Security Gateway, Juniper Networks ISG2000 Integrated Security Gateway, Juniper Networks SA4000 SSL VPN Appliance

Results: Effective protection against hacking activities and prevention of information leakage

Yedang Online is Korea's top online game company with annual revenues of about 40 billion won. The company entered the market in 2001 with the launch of Priston Tale, a 3-D online game. The award-winning title is currently being hosted in seven other countries.

Yedang Online has also built up a strong reputation as a game publisher and is ranked as one of the top 10 game companies worldwide in terms of the number of concurrent users. Its first published title, Audition, set a record of 700,000 concurrent players in China. It also has 110,000 players in Vietnam; 50,000 in Taiwan; and 50,000 in Thailand. Audition is also being launched in Japan, the U.S. and Brazil.

Going forward, Yedang Online has a solid pipeline of titles including Priston Tale 2, Ace Online and Noir Online. It also plans to go beyond online games to develop next-generation One Source Multi-Use (OSMU) content that can be presented in multiple formats such as television and the cinema.

Challenge

While Yedang Online already had a well-established infrastructure, the company was wary of a spate of hacking incidents that affected other players in the online gaming industry, said Park Phil-hwan, manager of technical support.

There were cases of hackers initiating Distributed Denial of Service (DDoS) attacks to bring down online gaming sites, and then demanding money from the operators. In another security incident, intruders hacked into the servers of a domestic online gaming company to steal game money and other online items. "It is critical that online game companies deploy more solid network defenses to prevent unique gaming items from being stolen and information from being leaked," said Park.

Another key challenge for Park's team was to ensure network stability, which has a great impact on the gaming service. As Park explained, Priston Tale is a Massively Multiplayer Online Role-Playing Game (MMORPG) that involves many concurrent sessions. This could potentially overload the firewall and bring down the system. Stability is also important because items that are won, bought or sold by the players online can potentially be copied if a network disruption occurs at the point in time when a player gains the item.

To address these concerns, Yedang Online deployed a firewall/VPN solution to enhance the performance and stability of the system to strengthen security.

Selection Criteria

After evaluating several solutions from domestic as well as international vendors, Yedang Online chose Juniper Networks® ISG1000 and ISG2000 Integrated Security Gateways, and the SA4000 SSL VPN Appliance.

One of the key factors in the company's decision was the reliability of Juniper's solutions. The competitors' products were also easy to use, but there were weaknesses that could potentially lead to downtime, said Park. Yedang Online also chose to go with a global vendor because there were compatibility issues with products from local vendors.

Another reason Yedang Online selected Juniper's portfolio of solutions was its excellent stability, especially in session processing, said Park. When there are multiple sessions, the burden on the firewall is increased, potentially leading to downtime. Park found that with Juniper's solutions, sessions were well managed. "Given that sessions are important in online gaming, Juniper had the advantage of providing the best table settings for sessions," said Park.

"Since the Juniper Networks firewall/VPN solutions were installed, we have not found any traces of hacking activities."

Park Phil-hwan
Manager of Technical Support, Yedang Online

Solution

Yedang Online's service is hosted on over 200 servers located at the Hanaro Internet Data Center in Seocho-dong. The network is divided into an in-house development game zone and a publishing game zone, with the database server and billing server placed between the two. To boost performance, Yedang Online enhanced server connectivity from 100 to 200 Mbps to 1 Gbps for the main server and 2 Gbps for the backup server. The network switch was also upgraded.

However, security remained a major issue. To address this, Yedang Online deployed Juniper Networks ISG1000 and ISG2000, which provided firewall and VPN capabilities at multi-gigabit throughput. The ISG1000 was deployed in the two game zones while the ISG2000 was deployed in the database server and billing server,

replacing the in-house developed firewalls that were experiencing frequent failures. The ISG Series, as with all other Juniper firewall/VPN products, is managed by a centralized management server.

Yedang Online also deployed the SA4000 SSL VPN. The SA4000 appliance was used with the one-time password (OTP) server to prevent unauthorized remote access from public networks. Games developers were required to use the SSL VPN to upload and modify the development source code.

Results

The deployment process was smooth, with only a few PCs requiring individual handling. In fact, with the SA4000's multi-language support and intuitive GUI, and the fact that IT

personnel were able to help users solve any setup problems anytime, anywhere, as long as the user was connected to the Internet, the rollout was completed very quickly.

"Juniper Networks SA4000 SSL VPN Appliances have saved us money, manpower—by eliminating the need to send personnel to the construction sites—and time, while gaining us recognition and appreciation from the management as well as trust and support for future IT budgets," said Hsu.

Next Steps and Lessons Learned

As it releases new games, Yedang Online plans to extend server capacity and bandwidth to support the growing number of concurrent users. The company will continue to monitor its network environment and should the need arise, it will look to upgrade the ISG2000 to Juniper Networks NetScreen-5400, said Park.

About Juniper Networks

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