



# SINARMAS SEKURITAS SAVES IT COSTS WHILE OPTIMIZING OPERATIONS AND COLLABORATION ACROSS INDONESIAN WANS WITH SILVER PEAK

## *Silver Peak Improves WAN Integrity and Reliability of Critical Applications across Distributed Branch Offices*

PT Sinarmas Sekuritas is a subsidiary of PT Sinar Mas Multiartha, the investment holding company for Sinar Mas Group and one of the largest conglomerates in Indonesia. The company is a leader in financial services that includes fund management, investment research, stock brokering, bonds, and other derivative products to retail, corporate, and institutional customers.

Sinarmas Sekuritas has more than 40 offices in cities throughout Indonesia, with 20 branch offices requiring wide area network (WAN) optimization. Most of these offices, including those in the Indonesian cities of Jakarta, Surabaya, Bandung, and Medan connect to the main office in Jakarta via multiprotocol label switching (MPLS) WAN connections through third-party Internet service providers. Many of these branch offices are in remote locations, and despite geographic constraints, each requires reliable application performance to swiftly execute customer transactions and provide the highest degree of customer satisfaction.

“The diverse set of applications we use for our critical day-to-day operations across Indonesia demands a fully-optimized wide area network,” said Hermawan Hosein, CTO at Sinarmas Sekuritas. “The reliability of our critical applications was being hindered by poor WAN quality and performance inherent

with the infrastructure in our region, and we did not have budget to upgrade our existing MPLS connections. We needed a WAN optimization solution that would help us improve the integrity of our existing WAN infrastructure and optimize our bandwidth-consuming applications.”

Sinarmas Sekuritas has a custom e-trading application that runs over TCP/IP, where the speed of the transaction is very important both for Sinarmas Sekuritas and its customers. The company also relies on POP3 and SMTP for email collaboration, and HTTP/S for general Internet and Web-based application use. The amount of weekly data traversing the Sinarmas Sekuritas WAN infrastructure was ranging from 2.5 to 3 Gigabytes (GB). This traffic was supported by a 20 megabit-per-second (Mbps) MPLS WAN connection at the headquarters in Jakarta, and up to 1 Mbps WAN connections at the smaller branch offices across Indonesia in remote locations. WAN connectivity between most branch offices would exceed 100 milliseconds (ms) of latency with 1% packet loss. This is the equivalent of achieving approximately 1 Mbps on a 20 Mbps connection.

## THE SILVER PEAK SOLUTION

In the initial phase of deployment, a Silver Peak NX-3000 appliance was implemented at the Sinarmas Sekuritas headquarters in Jakarta, while NX-1000 appliances were deployed across six branch locations. A second deployment phase will follow, which includes

Customer: SINARMAS SEKURITAS



## Business Challenges

- Low-quality Indonesian MPLS network
- 20 remote offices across Indonesia requiring WANop
- E-Trading and Collaboration apps using same WAN
- 1% packet loss degrading network quality

## Network Background

- 20 Mbps MPLS WAN to HQ in Jakarta
- 1 Mbps WAN to branch offices
- 100ms latency to most branch offices
- TCP e-trading app, POP3, SMTP, & HTTP/s
- ~3 GB of traffic a week

## Silver Peak Results

- Packet loss eliminated to improve application reliability
- 97% improvement in overall WAN performance
- Granular visibility into application WAN usage
- Productivity and customer satisfaction improved

progressively rolling out Silver Peak NX-1000 appliances to another 14 branch offices throughout Indonesia.

After the comprehensive evaluation, which included a host of other WAN optimization vendors, Sinarmas Sekuritas standardized on Silver Peak's data center class WAN optimization appliances. Silver Peak provided unmatched scalability, comprehensive application support, and unique optimization techniques that eliminated the company's network-induced latency, bandwidth limitations, and packet-loss issues across the WAN.

The Silver Peak appliances eliminated packet loss (0%) and significantly improved the reliability of the Sinarmas Sekuritas WAN infrastructure and critical e-trading application. Silver Peak's real-time Forward Error Correction (FEC), TCP acceleration, and Network Memory capabilities with advanced de-duplication and compression combined to optimize all of the company's applications and collaboration tools.

"Silver Peak does not care how files are named, when files are updated, or how they are transferred across the WAN—they optimize it all," said Hosein. "By eliminating packet loss and preventing unnecessary data round-trips for entire files or datasets across our existing WAN, we have saved IT costs by avoiding any new investment in WAN infrastructure. Silver Peak is also helping us improve customer satisfaction and allowing us to serve more customers without having to add more bandwidth."

All Silver Peak appliances are based on the Silver Peak Virtual Acceleration Open Architecture (VXOA), which includes Network Acceleration capabilities to overcome WAN latency, Network Integrity features

to correct packet delivery issues and intelligently allocate WAN resources, and Network Memory™ to maximize WAN bandwidth utilization across Sinarmas Sekuritas' branch offices.

#### SILVER PEAK AUTOSUPPORT

Silver Peak's WAN optimization appliances installed quickly and easily, and unique AutoSupport capabilities further benefit Sinarmas Sekuritas by removing the need for human interaction for maintenance and support of the WAN optimization appliances. Silver Peak AutoSupport helps speed problem-resolution, helps avoid errors, and improves overall satisfaction with the products, especially for distributed organizations like Sinarmas Sekuritas where branch offices are in remote locations.

AutoSupport tied to the Silver Peak WAN optimization appliances rapidly detects and isolates problems, and makes proactive recommendations for ongoing maintenance. This minimizes any downtime of the WAN optimization appliances, and helps further reduce IT support costs by eliminating the need for hands-on maintenance.

#### THE RESULTS

Sinarmas Sekuritas relies heavily on the WAN infrastructure for its daily operations and e-trading application. When it came to investing in WAN optimization, the company was focused on achieving the highest value and comprehensive application support with the best possible performance for its WAN. With Silver Peak in place, Sinarmas Sekuritas is yielding the cost and efficiency benefits of a sound choice.

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Silver Peak has dramatically reduced the amount of excessive and unnecessary data, with up to 8x bandwidth reduction for many of the applications traversing the WAN. This has resulted in a 97% improvement in overall bandwidth. The bandwidth reduction combined with eliminating packet loss has improved the performance of the network and applications, ultimately provided branch office users faster response times and more reliable access to business-critical applications.

For network administrators, Silver Peak now provides comprehensive graphical visibility into the specific applications consuming WAN resources and the total amount of data reduction transmitted for each application. This provides Sinarmas Sekuritas with new levels of insight into resource availability and application usage across the WAN.

Silver Peak has also improved WAN performance by reducing the amount of overhead data transmitted between offices. This “network chatter” was caused by applications such as email, Internet use, and custom Web applications transmitting redundant data over the long-distance connections. Rather than sending all of the traffic across the WAN each time, Silver Peak’s Network Memory capabilities compare real-time traffic streams

to patterns stored on the appliance. If a match exists, a short reference pointer is sent to the remote Silver Peak appliance, instructing it to deliver the traffic pattern from its local instance. Repetitive data is never sent across the WAN, saving bandwidth and enabling LAN-like application performance.

#### THE BEST SOLUTION FOR TODAY'S DISTRIBUTED ORGANIZATIONS

Sinarmas Sekuritas chose Silver Peak’s WAN optimization to improve application performance and optimize communications between the headquarters in Jakarta and their many branch offices spread throughout Indonesia. Silver Peak allowed the company to overcome latency, packet loss, and bandwidth constraints on the WAN, reducing bandwidth consumption, improving application delivery, and accelerating file transfers. Headquarter and branch office personnel have been freed from the distractions and frustration of network delays and reliability issues, the IT department has saved money that would have otherwise been spent on additional bandwidth, and employees are more productive—optimizing business operations.

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