

SENKO CO., LTD

RIVERBED ENABLES GLOBAL INFORMATION SHARING AND COLLABORATION BY ACCELERATING PREVIOUSLY UNUSABLE GROUPWARE

IN BRIEF

Industry

Logistics

Challenges

- Lack of sufficient network bandwidth to handle Groupware
- Network latency due to global expansion and an increasing number of overseas locations
- Inability to standardize Groupware email among overseas and domestic locations due to slow Groupware response speed

Solution

- Riverbed SteelHead EX
- Riverbed SteelHead Mobile
- Riverbed SteelCentral Controller for SteelHead Mobile

Benefits

- Average of 76% and maximum of 88% reduction in WAN traffic
- 21-38x faster response speed on Groupware email
- Standardization of Groupware for overseas and domestic locations and activation of information sharing
- Approximately 67 million yen in savings over five years compared to physically increasing network cables

CHALLENGE: LOW NETWORK BANDWIDTH BETWEEN DISTANT LOCATIONS MAKES GROUPWARE NEARLY UNUSABLE, LIMITING ADOPTION AND ROI

Senko Co., Ltd. (Senko) is a logistics company with approximately 400 domestic and 33 overseas locations. Senko provides a variety of services including building efficient logistics systems for supply chain management, outsourcing logistics to save costs, and building logistics systems that accommodate recycling-oriented societies and globalization. It always strives to be the best partner for its customers.

“We aim to be the ‘logistics information company.’ We go beyond the realm of ‘logistics’ and gather and analyze in real time information related to all aspects of logistics. By integrating this information into our sophisticated system, we will continue to evolve into a company that creates optimal logistics solutions to support the everyday life of individuals and industries,” explains Shigeyuki Tanaka, manager of the Production Management Department at Senko.

Senko began its expansion in 1996, with a joint venture in China with Dalian Tri-Enterprise Logistics Co., Ltd. Since 2002, Senko has expanded to such locations as Singapore, Hong Kong, Shanghai, and Dalian, and also beyond Asia with establishments such as Senko (USA) in 2006.

Keiji Inoue, manager of Senko Information System Co., Ltd. (Senko Information System), a subsidiary that provides IT service to all companies in the Senko group, states, “Usability of collaboration software has suffered due to the distance between locations, lack of sufficient bandwidth, and latency between the overseas and some domestic locations.”

Senko Information System’s server, which is in Yao-shi, Osaka, Japan, and overseas locations are connected via 256 Kbps IP-VPN or Internet VPN on a dedicated international line, while the Atago Nobeoka sales office in Japan is connected via 128 Kbps IP-VPN on a leased digital line.

Because of these low-bandwidth, high-latency connections, users of Groupware, which was deployed as a global information-sharing platform, complained that it was slow. The platform was not as efficient as the company had hoped, especially in overseas locations or in the sales office in Japan with narrow bandwidth. This had a negative impact on employees’ ability to share information, collaborate, and make decisions — in short, to be productive.

SOLUTION: RIVERBED ACCELERATION, VISIBILITY, AND CONTROL IMPROVE GROUPWARE MAIL RESPONSE SPEED BY 27–54X

The cost of installing more network cable was too high, so Senko decided to evaluate eight WAN optimization solutions. The seven evaluation criteria were: applicable protocol, acceleration of specific applications, cache scheme, virtualization capability, quality of service (QoS), management, mobile capability, and price.

“After eliminating those that did not meet our criteria, two products were left. When we compared the two products in detail, we decided on Riverbed® SteelHead™ based on the fact that it had a specialized application optimization solution for Groupware, virtualized mobile capability, and offered a high return on investment (ROI),” Megumi Wakamatsu, chief leader at Senko Information System, explains. The ROI calculation on deployment of SteelHead showed 67 million yen in savings over five years.

SteelHead Mobile deployment began in the summer of 2012, and took about five months for all global locations including domestic sales offices. “It took some time since the time difference made it difficult to coordinate the installation schedule with the overseas locations. Once people heard that we were going to initiate testing, some locations were hesitant to move forward because of their perception of it being slow. It took some time to convince them otherwise,” Inoue explains.

The coordination was difficult, but the installation was completed swiftly because the benefits of SteelHead Mobile were quickly realized. Response speed improved by about 21x in Tsingtao, China and 38x in Atago Nobeoka, Japan (Table 1). There was a high reduction in WAN traffic, with an average reduction of 76% and a maximum reduction of 88% (Table 2).

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BENEFIT: BETTER INFORMATION SHARING AND COLLABORATION ACROSS LOCATIONS, CLEARING THE WAY FOR FURTHER GLOBAL EXPANSION

With the magnitude of improvements in speed, the Groupware platform that had previously been unpopular began to be adopted by employees, enabling efficient communication and information sharing on a common platform.

There were also additional benefits that were only discovered after deployment. Wakamatsu praised the technology. “The control screen for the mobile controller is user friendly. We can see the benefits SteelHead Mobile at the individual client PC level and also view asset information. We can predict network issues ahead of time, so we are now able to take preventative measures,” Wakamatsu said.

There were also savings on electricity and server space since the Riverbed® SteelCentral™ Controller for SteelHead Mobile was able to run virtually in the SteelHead VMware environment, which only requires one server.

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LOOKING AHEAD: POSSIBILITIES OF ACCELERATED GLOBALIZATION AND HIGH VALUE-ADD PROPOSITIONS

Expansion at overseas locations requires a low-cost network connection and the deployment of SteelHead EX and SteelHead Mobile met this requirement. This gave momentum to Senko’s globalization strategy, one of the key pillars of its management strategy.

Regarding the future outlook, Tanaka added, “Now we have a better idea about connecting the server in Yao to customers’ overseas locations or locations without a fast network. This will give customers many more opportunities to leverage Senko’s system. This will allow us to offer even higher value-added propositions to our customers.”

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Table 1. Results of Test: Opening a File (2.83MB) Attached to Email

Site	Test No.	Without WAN Acceleration (sec.)	With WAN Acceleration (sec.)	Without WAN Acceleration (average)	With WAN Acceleration (average)	Performance Improvement (-fold)
Qingdao, China 256KBps	1	120	10	110.3	5.3	20.7
	2	105	3			
	3	106	3			
Nobeoka 128KBps	1	210	9	203.3	5.3	38.1
	2	205	5			
	3	195	2			

Table 2. WAN Traffic Reduced by an Average of 76% and a Maximum of 88% WAN Acceleration Statistics from SteelCentral Controller for SteelHead Mobile Deployment

Site Group	Dates Reduction (%)	LAN Data	WAN Data	Line Speed
1	81%	41MB	7.6MB	128K
2	65%	29.3MB	10.2MB	10M
2	32%	120.2MB	80.8MB	30M
2	71%	197.8MB	55.8MB	-
2	87%	7.2MB	907.8KB	-
2	71%	33.8MB	9.7MB	20M
2	82%	34.2MB	6.1MB	20M
3	87%	25.7MB	3.3MB	128K
3	88%	13.3MB	1.5MB	128K
3	88%	75.3MB	8.3MB	128K
3	83%	17.7MB	2.9MB	128K
Average	76%			

ABOUT RIVERBED

Riverbed Technology, Inc., at more than \$1 billion in annual revenue, is the leader in Application Performance Infrastructure, delivering the most complete platform for location-independent computing. Location-independent computing turns location and distance into a competitive advantage by allowing IT to have the flexibility to host applications and data in the most optimal locations while ensuring applications perform as expected, data is always available when needed, and performance issues are detected and fixed before end users notice. Riverbed's 25,000+ customers include 97% of the *Fortune* 100 and 96% of the *Forbes* Global 100. Learn more at www.riverbed.com.