



SBS Ricoh Logistics

Further SBS Ricoh Logistics expertise as a logistics company and support base expansion and business promotion by adopting SD-WAN

Business Opportunities

SBS Ricoh Logistics transferred to a new group through M&A, necessitating the overhaul of its IT infrastructure by a set deadline. Up to that point, the company, as a user of group-wide IT services, had to acquire new knowledge in networking and security, which led to the need for proactive planning and operation of the IT infrastructure.

When SBS Ricoh Logistics came under the umbrella of the SBS Group, a comprehensive logistics company, in 2018, it needed to revamp the IT infrastructure of more than 100 locations in Japan and overseas that form the lifeline of the company's logistics network. At that time, the company adopted SD-WAN and cloud-enabled equipment for the network, which helped speed up installation and operations, at the same time as reducing costs and improving security. This initiative will bolster the expansion of the Group's bases and build a foothold for digital transformation (DX) that will enable even greater business growth for the company.

Transformation

The network was revamped, which mainly involved the introduction of SD-WAN. By introducing products such as the Cisco Meraki series and Zscaler's ZIA (Zscaler Internet Access) with the support of Kyndryl, SBS Ricoh Logistics have reduced costs, improved business speed, made telework possible and improved services for employees.

Proof of Progress

- Create a network with appropriate security levels and service quality specifically for the logistics business
- Complete network infrastructure replacement within a set time at over 100 locations in Japan and overseas
- Allow the IT team to focus on DX in a streamlined environment that does not require a dedicated network team

“The infrastructure we built in this project has smoothly facilitated remote work, and I believe that we have been able to take one step forward in our DX journey.”

Kenichi Shimizu

Director of the Digital Promotion
Department

Corporate Planning Division Information
Systems Center

SBS Ricoh Logistics



M&A necessitated building SBS Ricoh Logistics own network infrastructure rapidly

SBS Ricoh Logistics came to life as a manufacturer-affiliated logistics company handling the transportation of precision equipment for Ricoh. They have continued to develop as a comprehensive 3PL business operator and are currently operating as a comprehensive global logistics company with over 100 locations in Japan and overseas. SBS Ricoh Logistics strength lies in their capacity to continue to propose the optimal means to meet the needs of customers based on “recycling-oriented logistics”. They provide “end-to-end” services from arterial logistics (packaging design, procurement, production, and sales) to “venous” logistics (collection, recycling, and processing) by leveraging the technology, know-how, IT and LT (Logistics Technology) that they have developed over many years.

When the company became a member of the SBS Group in August 2018, it chose to build its own IT infrastructure independently from the IT services provided to the Ricoh Group.

Kenichi Shimizu, Director of the Digital Promotion Department of the Information Systems Center of the company's Corporate Planning Division, explains their goal of building proprietary IT infrastructure.

“We decided to consider afresh what would be the most appropriate IT infrastructure for a logistics business, in line with the change from handling a manufacturer's logistics to becoming a business whose main business is logistics. We then started the project with three main objectives: business continuity, delivery (QCD) improvement of IT infrastructure, and increasing information security,” Shimizu explains.

The first objective was business continuity, which entailed infrastructure construction and the commencement of operations by March 2022, which was the deadline for using the Ricoh Group's IT services.

The second objective, improving the QCD of IT infrastructure, was necessary as up until recently there were some aspects of SBS Ricoh Logistics service content and structure that were not suitable for the logistics business, as they had been working solely with manufacturers.

Regarding the third objective, strengthening information security, the risk of becoming a target of cyber-attacks was increasing given the information security situation, and SBS Ricoh Logistics had to take steps to prevent incidents. In light of the continuity of services to customers and the potential impact on management, they decided that strengthening the system was a natural step for us to take.

“As a provider of network infrastructure and security, we had to become able to manage our own operations by becoming experts in the relevant technologies.”

Kenichi Shimizu

**Director of the Digital Promotion Department
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Making the best out of change, SBS Ricoh Logistics aims to create a future-proofed network

The company has incorporated the above three major objectives into 17 items at the level of concrete issues.

Of particular importance was optimizing the service level of the network. Rather than making it uniform nationwide, SBS Ricoh Logistics optimized costs by altering the level according to the size of the base. For example, at small sites, they decided to use an internet line rather than a closed network, eliminate redundancy and switch to an LTE line should a failure occur.

Another important issue was how to act when expanding the company's bases. As SBS Ricoh Logistics continued to build new distribution centers, the question was how quickly they could also build networks. The number of their overseas locations was expected to increase, and they needed a structure that could handle overseas operations.

"We also considered the increasing use of cloud applications. Although it was before the coronavirus pandemic, telework had begun to spread around the world due to work style reforms, and we often heard about network bandwidth issues. We therefore examined how to create a network that could withstand the increase in web conferencing in the future," says Shimizu.

Moreover, the company decided to improve the services it provided to its employees. Now that smartphones have become commonplace, SBS Ricoh Logistics decided to prepare a wireless LAN environment for people working at logistics bases. In contrast, since there are many people coming and going at distribution centers, SBS Ricoh Logistics decided to introduce a system that allows them to strictly control the devices that can be connected to the business network.

Kyndryl selected as a reliable partner for proactive operations

SBS Ricoh Logistics required one more major initiative. In the network infrastructure, they changed from the position of a "user," including the members of the Information Systems Department, to being in a position where they had to build and manage everything themselves.

"We had almost zero skills in network infrastructure and security, but we had to create a system that allowed us to independently manage our own technology after becoming able to identify the necessary technology ourselves," explains Shimizu.

When selecting a partner to build their infrastructure, SBS Ricoh Logistics needed them to offer close support. Also, as products change and IT evolves, SBS Ricoh Logistics needed to be able to switch things around easily and not have a black box situation or vendor lock-in. Furthermore, they wanted a partner well-versed in robots and AI.

Kyndryl (then IBM Infrastructure Services) was chosen as the best match for this concept. Shimizu recalls the reasons for this as follows.

"Kyndryl was able to combine an extensive lineup that was not limited to specific services and made a number of proposals. In addition, they had specialists in fields such as security and networking, and they explained each of these aspects to us in detail, which was very helpful for us, as we had little knowledge of the subject. Another key deciding factor was that we were able to set up meetings so that we could visit companies that were actually using the service. It was very helpful to be able to hear what user companies had to say."



Yumi Yamamoto, Manager of the Security Promotion Section, Digital Promotion Department, Information System Center, Corporate Planning Division, says the following.

“Kyndryl gave us product and policy proposals while taking into account our limited knowledge of security, explaining how to make security equivalent to that of the Ricoh Group at the time, and how to take into account the unique circumstances at our warehouse. Kyndryl was able to consult with us on even the tiniest details, and showed us how we would be able to operate the system in a realistic manner.”

Successfully replaced network infrastructure at around 100 locations

In October 2019, the project began to take shape. The most important consideration for building everything within the deadline was to organize project team that will work efficiently.

“Since we had to change all the infrastructure over a large area, we assigned people to each field, such as security and networking, and Kyndryl also set up an equivalent subject matter experts and clarified the roles and responsibilities, so we were able to receive appropriate support even though we had no knowledge in that area,” says Shimizu.

Ample attention was also paid to how to roll out the changes at the numerous “always-operational” locations.

“We classified the bases by size and began by expanding the small bases. After these pilot projects were implemented, we confirmed whether or not the bases could operate as desired, established a structure, including procedures, and then began full-scale development. The only times we could stop were Saturdays, Sundays, nighttime, the year-end and New Year holidays and Golden Week, but Kyndryl responded flexibly as we proceeded with the transition,” explains Shimizu.

Following Kyndryl’s proposal, SBS Ricoh Logistics selected Cisco Meraki for SD-WAN and wireless LAN at their sites, Cisco ISE for authentication, Cisco Adaptive Security Appliance (ASA) for the firewall, Cisco Firepower for VPN for remote access and Zscaler ZIA for Internet access security.

After adopting SD-WAN, the setup was completed easily by installing the equipment and funneling in the settings from the cloud. Despite there being about 100 locations, even employees with less experience were able to handle it, and this allowed them to proceed with advantages in terms of lead time and cost.

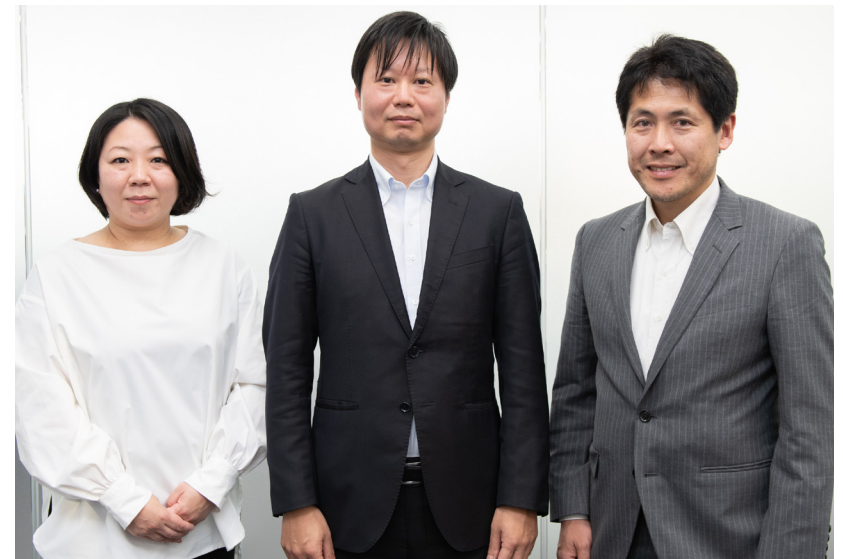
As things moved forward, SBS Ricoh Logistics faced some problems.

“Many types of handheld terminals are used at logistics bases, and some of them could not be connected to using Meraki’s access points, so we had to start switching over to dealing with handheld terminals. Remote access also had to be urgently dealt with during the coronavirus pandemic. Even if there was a problem that we couldn’t foresee in advance, Kyndryl worked with the manufacturer and specialists to smoothly find a solution,” says Yamamoto.

“We chose Kyndryl as our partner because of the broad range of products and the diverse proposals they offered, as well as their specialists in each field which were able to explain things to us in detail, which was very helpful given that we had very limited knowledge in the relevant areas.”

Kenichi Shimizu

Director of the Digital Promotion Department
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SBS Ricoh Logistics



From left: Yamamoto, Shimizu, Hashimoto (Kyndryl)

A network environment that comprehensively supports new ways of working

In this way, SBS Ricoh Logistics was able to replace the network at its domestic bases with its own, and SD-WAN was particularly valuable in the operations.

For cloud services such as Microsoft 365, a direct Internet connection was configured from the terminal via Zscaler with local breakout, so bandwidth would not be strained by increased telework, and security would be maintained. In addition, the work that would in the past have required visiting the site to connect to network equipment can now be done remotely, leveraging Meraki's cloud management capabilities.

"Meanwhile, when we started the project, we were worried about limited use cases of Zscaler. However, now we think it was the right decision because it's easy to handle, running stably, and the tool became mainstream. I believe that Kyndryl and the project we implemented were quite forward-looking. It may not be obvious to users, but changes are always taking place to enable a smooth transition to remote work while maintaining a high level of security," explains Shimizu.

There has been no backlash or negative comments from the users of the network, and this is the best proof that the IT infrastructure was replaced without any problems.

The new system structure built has also improved the mobility of human resources. They actually do not have a network representative. By creating a certain amount of procedures such as how to install Meraki, even the person in charge of apps can handle the situation when they are establishing a new base.

Proceeding with efforts toward DX

When the same infrastructure set was installed at the new site, it worked without problems despite a complex configuration with a mixture of handheld terminals and robots.

That said, SBS Ricoh Logistics still want to make further improvements. Regarding the future, Yamamoto said, "There are still some security measures that need to be improved. We will continue to strengthen them, and are already consulting with Kyndryl to that end."

Shimizu also expressed his enthusiasm for digital transformation (DX).

"The infrastructure we built in this project has been able to facilitate telework without any issues, and I believe that we have been able to move one step up the DX ladder. We are building an environment where IT can quickly follow up to achieve the aims of top management. I think that once we no longer have to contend with the network construction project, we will be able to focus more on promoting DX."

SBS Ricoh Logistics is now acting as a role model for infrastructure development at the ever-expanding SBS Group. In the future, it is expected to lead the way in the DX field as well.

"They suggested products and policies to us while taking into account the conditions at our warehouses. It was Kyndryl that saw us as being able to operate independently."

Yumi Yamamoto

Digital Promotion Department Security
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Next Steps

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