

Japan-based Daicel boosts bandwidth, consolidates security

Business needs

End-to-end quality control for mission-critical business; centralized management as part of corporate infrastructure

Networking solution

AT&T Secure Access Service Edge (SASE) combines Software-Defined Wide Area Network (SD-WAN) and Secure Service Edge (SSE) to join networking and security and deliver them through a single cloud-based service

Business value

Network efficiency and flexibility, stronger security at overseas hubs

Industry focus

Global manufacturing

Size

More than 11,000 employees in 75 offices across 14 countries, including Europe, the United States, and China. Overseas sales account for about 65% of total sales.

About Daicel Corporation

Daicel Corporation is a global materials manufacturer with head offices in Osaka and Tokyo, Japan. It was originally founded in 1919 as a chemical and plastic manufacturer that produced celluloid, the world's first industrialized plastic. Since then, Daicel has evolved as a material manufacturer for a wide range of businesses that include medical care products and safety systems such as auto air bags.

The situation

Like many companies of its size, Daicel Corporation found its post-pandemic network no longer fit the new work reality. With a growing reliance on the cloud and employees working remotely and in offices across the globe, Daicel needed a more flexible, secure, and manageable network.

Solution

Daicel worked with AT&T Japan to transform its premises-based network and security to a scalable software-defined network that features standard security policies and central management.



(From left) Masakazu Ohigashi, Senior Manager of IT Division, Daicel Digital Strategy Center; Katsuya Kuwabara, also from the same division; Hiroaki Fujii, consultant, AT&T Japan.

“By having equipment inventory in each AT&T subsidiary, we can meet customer requests for early deployment.”

Hiroaki Fujii, consultant, AT&T Japan

Strengthening a global network

For global companies with bases overseas, building a secure and seamless network between domestic and international locations is critical to success. With the expansion of telework and cloud services, corporate wide area networks (WANs) built before the Covid-19 pandemic often can't handle the increased traffic. Many companies find it challenging to address the WAN and internet bandwidth constraints that have surfaced since then.

AT&T is here to help. “With our experience building global networks for multinational companies around the world, we can provide support tailored to our clients' needs and circumstances,” said Hiroaki Fujii, Technical Solutions Consultant at AT&T Japan, our Japanese subsidiary.

Fixing bandwidth and security

Daicel Corporation, a major materials manufacturer with 75 offices in 14 countries, needed to prevent network congestion and standardize its security. For many years, it used a hub-and-spoke approach to networking—a collection of private branch office networks connected to one or more hubs. It was managed by a different telecommunications carrier. Over time, several issues became clear.

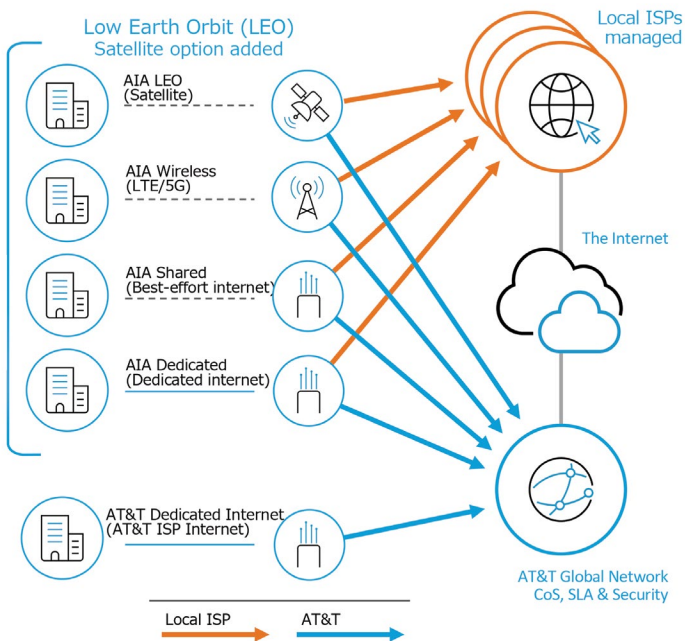
“The group-wide migration from an on-premises communication platform to cloud-based Microsoft 365 and the spread of online meetings led to increased traffic,” said Masakazu Ohigashi, Senior Manager of IT Division, Digital Strategy Center. “This resulted in chronic internet bandwidth shortages.”

The company needed to fix this bandwidth issue and consolidate security practices. At first, each location individually managed its security measures using on-premises firewalls. But when Daicel's domestic and overseas locations began relying more heavily on teleworking and the cloud, traditional perimeter defenses were no longer effective against cyberthreats.

Daicel also used virtual private network (VPN) servers installed in Japan to cover the entire group company globally. However, “using a VPN server located in Japan from overseas caused additional latency, so we had no choice but to allow each location to install its own VPN,” said Ohigashi. “As a result, security levels were inconsistent. These factors combined to cause sporadic minor security incidents at domestic and overseas locations.”

To resolve both the bandwidth and security issues, Daicel adopted AT&T SD-WAN with VMware and Zscaler's cloud-based secure web gateway (SWG) and remote access. AT&T worked alongside Daicel to design and deploy these solutions to domestic and overseas locations.

SD-WAN intelligently routes traffic to prioritize critical applications, improve performance, and improve reliability across a business. Where traditional networks are hardware based, SD-WAN uses software-defined controls that adapt to network conditions in real time and provide better visibility.



Features of AT&T's managed internet service.

SWG protects your internal network by enforcing security policies and providing visibility into network traffic.

AT&T Business offered its Security Service Edge (SSE) solution. SSE moves key protections from hardware appliances into the cloud, allowing organizations to apply consistent policies across users, devices, and locations. This meets the needs of global companies that want to apply unified security policies to their locations around the world.

End-to-end support

AT&T Business supported the company from equipment procurement to implementation, operation, and maintenance. This resulted in more efficient network operations and improved, uniform security measures across the group. Daicel chose to collaborate with AT&T Business because of its track record of supporting many global companies. We serve nearly 2.5 million of the largest global companies, government agencies, and small businesses.

"The most important factor in our selection was how quickly and reliably we could achieve drastic bandwidth expansion with unified security," said Ohigashi. "In Europe, the United States, and China, we needed a network design that complied with each country's regulations. AT&T's unique global resources enabled us to achieve a faster launch than we expected."

Daicel's decision also hinged on our help desk, which centrally manages all network services. The help desk includes a personal follow-up system from AT&T Japan and employs Japanese and English-speaking experts with extensive knowledge of SD-WAN and security. Dedicated engineers also provide support for Japanese companies.

Katsuya Kuwabara, also part of the Digital Strategy Center, said that since implementing the managed SD-WAN service, they have received positive feedback from their domestic and overseas bases. Under the previous internet environment, he notes, staff often experienced audio skipping and screen freezing during web conferences. These complaints have now disappeared.

"We have also received feedback from the systems and operations departments that cloud access and data exchange have become smoother."

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**Masakazu Ohigashi, Senior Manager of IT Division,
Digital Strategy Center, Daicel Corporation**



Positioned for the future

Daicel is also considering implementing a managed local area network (LAN) service in cooperation with AT&T. The AT&T LAN service provides comprehensive support for design, operation, and maintenance at its overseas bases.

“If you’re considering developing a global network such as managed internet or multi-cloud support, please contact us,” AT&T’s Fujii said enthusiastically.

Daicel is reducing its operational burden by effectively using AT&T’s global internet, SD-WAN, and operational services all at once.

Fujii sees AT&T’s ability to provide managed SD-WAN and internet services in over 200 countries as its greatest strength. AT&T offers a wide range of options, including internet with bandwidth from internet service providers (ISPs), best-effort services from local ISPs, and private networks. Such flexibility means the customer can choose the best connection for their location and application needs. AT&T handles everything from equipment procurement to network design, operation,

and maintenance. This makes it easier for customers to manage their networks as they expand globally.

“By having equipment inventory in each AT&T subsidiary, we can meet customer requests for early deployment,” Fujii said.

Looking forward, Fujii is confident AT&T is set to be a valuable partner for Daicel and global companies like it.

AT&T managed internet services

- Promotes diverse internet services in more than 200 countries worldwide
- Provides high-quality, stable connections as one of the world’s largest carriers
- Using our own infrastructure as the core, we connect with local ISPs in each country via the optimal path