CUSTOMER SUCCESS STORY

SB C&S optimizes its integrated file server for 1,900 users with Azure integration using NetApp AFF

NetApp

SB C&S

Improved productivity with a user-friendly data-sharing platform that uses NetApp all-flash arrays and a data fabric powered by NetApp

In 2014, SoftBank Commerce & Service Corp (SB C&S) took over distribution of information communications technology (ICT) products, the original business of the SoftBank Group. SB C&S is currently pursuing a growth strategy by expanding into telecommunications, manufacturing, and services. In addition to distributing more than 400,000 ICT items through its nationwide network of 10,000 sales partners, the company is achieving success in new business development, leveraging the latest technologies like AI, IoT, robotics, and public cloud.

1,900 users
17TB scale
File server
All-flash system

"This solution enables us to operate in a rational way, with frequently used data in the flash area so it can be accessed quickly, and infrequently used data protected in the public cloud to keep costs down."

Yuya Minamida
Platform Planning & Promotion Division, Information Systems Headquarters, SB C&S Corp., Service Management Department

The driving force behind SB C&S's growth is its highly motivated workforce of about 1,900 employees and their impressive team spirit. The company has steadily developed systems to facilitate communication and collaboration between departments. A companywide file server was introduced in 2016 to enable employees to share essential business data. This system was completely revamped in April 2020 using NetApp® AFF all-flash arrays. The aim was to create a user-friendly data-sharing platform to help improve employees' productivity. By seamlessly linking on-premises and public cloud storage, the company's data fabric allows data to be used in innovative ways.

A next-generation companywide file server with public cloud integration

SB C&S has continued to grow at a steady pace while expanding the scope of its business. In 2019, the year it changed its name to SB C&S, the company achieved sales of more than ¥500 billion.

In recent years, SB C&S has focused on the high-added-value storage business, with NetApp products proving particularly successful. This success is facilitated by one of the strongest sales partner support systems of any ICT distributor.

"As the scale and scope of our business expanded, we suddenly had a lot more employees," says Yuya Minamida, Information Systems Headquarters Platform Planning & Promotion Division's Service Management Department. "Our file server was introduced in 2016 as a companywide sharing platform, but after about 3 years, it started suffering from issues like chronic shortage of capacity, worsening response, and increased operational load. So in 2019 we started looking into a next-generation companywide file server that would solve these issues and also help to improve user productivity."

Minamida manages ICT infrastructure design, architecture, and operation at the company's Information Systems headquarters. He is also in charge of operation and management of the companywide file server. The existing file server environment consisted of three servers based on Windows Server 2012. Because it handled essential business data, access had to be strictly controlled, using folders and files for each division, department, and project.

"Our basic policy was to integrate the three physical environments into a single high-performance all-flash storage system, ensuring sufficient capacity and performance to meet the demands of 1,900 users," explains Minamida. "With advice from our own Storage Sales Division, we investigated how much benefit we could gain from the latest storage functions. We focused on storage functions like deduplication, data compression, snapshots, tiering, and public cloud integration, investigating how useful they could be."

After comparing several storage products, the company selected NetApp AFF A220 all-flash storage systems for their next-generation file server in late 2019.

"We decided to go with NetApp storage because as well as solving the immediate issues, it will help us achieve what we want to do in future," says Minamida. "In addition to the advanced functions provided by NetApp ONTAP® data management software, the ability to work well with the public cloud was a deciding factor."

Exceptional performance brings all kinds of benefits

SB C&S started operating NetApp AFF A220 all-flash arrays in April 2020 as a simple way to integrate the existing three physical file servers by using storage virtual machines (SVMs).

"We really felt the full power of all-flash storage," says Minamida, as the issues faced by the companywide file server were all resolved one by one. "First, it dramatically improved the user experience. Folders are accessed and transferred using local drives, so it feels almost the same. The file reading speed is up to 1.6 times faster than the old environment, and the file list display speed is up to 5 times faster. The response has improved so much that users have commented on the faster speed."

The superior performance of all-flash storage brings all kinds of benefits. On the operational side, the features that have had an immediate effect are data deduplication, compression, and NetApp Snapshot™ technology.

"We migrated over 17TB of data at once onto NetApp AFF from the existing environment," says Minamida. "Although there are differences in volume between departments, deduplication and compression have resulted in a 20% to 40% reduction in the amount of data. This has helped to keep storage capacity and costs down. NetApp AFF also lets us make Snapshot copies instantly, freeing us from time-consuming backup operations. Making copies of data blocks and utilizing the capacity created by data deduplication and compression have made it possible to back up hourly, ten times a day, which is a major step forward."

This means that users can recover data from 1 hour previous. A shorter backup cycle is also an effective measure against cyberattacks like ransomware. Data recovery requests from users were increasing, so enabling users to recover data for themselves means that Minamida no longer has to do the tedious recovery work.

Cold data is automatically moved to Azure Blob Storage

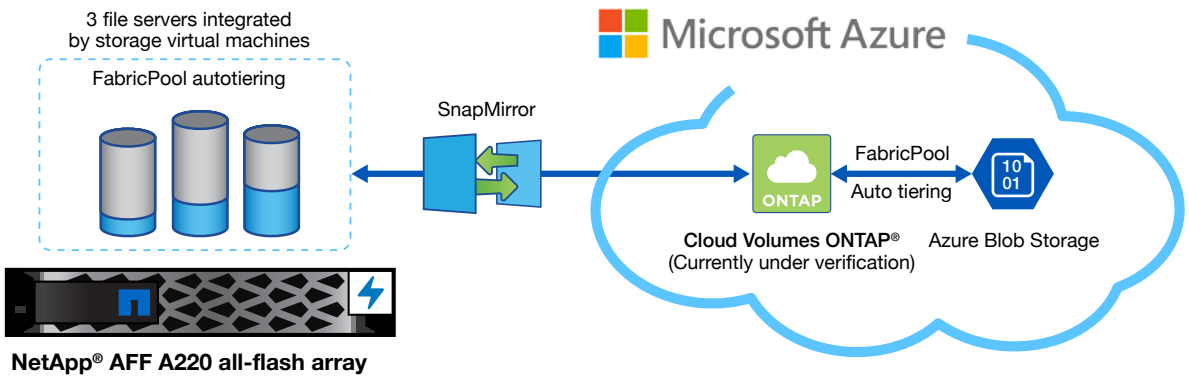
The all-flash system has helped to resolve various issues with the companywide file server environment, but public cloud integration is bringing further benefits to SB C&S. According to Minamida, "We currently store 30 days' worth of backup data, which is automatically moved to object storage on the public cloud using a tiering function. This solution enables us to operate in a rational way, with frequently used data stored in the flash area so it can be accessed quickly, and infrequently used data protected in the public cloud to keep costs down."

Data managed by NetApp AFF is tiered by the ONTAP FabricPool feature, and infrequently used data is automatically copied to Azure Blob Storage. As part of its cloud business promotion, SB C&S actively promotes the in-house use of Microsoft Azure, so protecting data with Azure Blob Storage is in line with this policy.

"We are also testing using Cloud Volumes ONTAP on Azure and duplicating active data with SnapMirror," says Minamida. "We're looking at using FabricPool with Cloud Volumes ONTAP on Azure and tiering with low-cost Azure Blob Storage."

Cloud Volumes ONTAP is a high-quality storage service that can be used with public cloud services like Microsoft Azure. It achieves the same level of data management and data access as on-premises ONTAP storage, and provides ONTAP functions like Snapshot copies, deduplication, compression, and FabricPool.

The data fabric concept that SB C&S is aiming for



"Our companywide file server is used to share essential data within departments and projects," adds Minamida. "Creating an environment that enables data protection and BCP/DR measures with public cloud integration for this business-critical environment is one of the things we want to do in future."

Creating new value across on premises and public cloud

The data on the companywide file server includes a lot of large files like videos and images. In the past it was operated without restrictions to make it easier to use. "With the old environment, we had to ask everyone to delete files on a monthly basis," recalls Minamida. This is no longer necessary with the new system, and user satisfaction has improved.

Transforming a file server with 1,900 users to an all-flash system must be one of the most advanced transitions in the world. But Minamida insists that "the introduction cost was less than expected, and the return on investment was more than we hoped for." In fact, the price per capacity of flash devices has come down significantly, making it easier to introduce this solution.

"Like many people, I had a preconception that all-flash storage would be expensive, but once we actually started using it, the benefits have far outweighed the cost," says Minamida. "Thanks to the improved response speed and users being able to recover data for themselves, we get many fewer queries from users. Backups have been automated using Snapshot copies, and over the past year we have hardly been bothered by Windows updates, error messages, or warnings about insufficient space. Issues with insufficient capacity or performance tend to appear after a few years, but I think we'll be able to control this by offloading data to the public cloud."

NetApp products

- NetApp AFF
- Cloud Volumes ONTAP
- FabricPool
- ONTAP
- SnapMirror
- Snapshot

Protocols

- NFS
- CIFS

Minamida is also keen to introduce NetApp Cloud Insights to visualize on-premises and cloud environments together to facilitate monitoring.

"To run our companywide file server in a hybrid environment, optimizing resources using a tool like Cloud Insights should bring significant benefits," says Minamida. "In future, we want to get closer to a totally hybrid environment where data can be used freely without users having to think about where it's stored."

An environment offering seamless access to data, whether it's stored on premises or in a public cloud, is what NetApp refers to as a data fabric. NetApp offers a whole range of products and services to make the data fabric a reality.

According to Minamida, "Going forward, as well as protecting data in the public cloud, we want to create new value across on premises and public cloud, and actively create an environment that enables data to be used in this way. The biggest benefit we have gained from introducing NetApp products is that we can move data to the public cloud whenever we want to. I hope NetApp will support the growth of our business with technologies that integrate on-premises and public cloud solutions."

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About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. To learn more, visit www.netapp.com