



SUCCESS STORY

Finance

NOMURA

Nomura owns many critical systems, including the investment system for front-end fund managers to set orders and the back-office accounting system for customer fund redemption. A fast, convenient and stable data center is essential to retain all of these relevant data. After rigorous evaluation, they chose to deploy NetApp AFF storage in their SAN architecture.

Nomura Uses NetApp All Flash Storage to Rebuild a More Efficient, Convenient and Stable Data Center

Founded in 1998, Nomura Asset Management Taiwan Ltd. (hereinafter referred to as "Nomura") is a joint venture between Japan-based Nomura Asset Management and Hong Kong-based Allshores Group. Not only is Nomura the primary agent for offshore funds such as NN (L), Investec, Robeco, and Nomura (Ireland), it also issues onshore funds. Its localized investment team is composed of international investment experts. It offers diverse investment products and services to investors. According to the Vice President of Nomura's Information Technology Department, Pat Hu, the company has an investment system for managers and an accounting system for customer fund redemption, as well as a number of mission-critical applications including the product marketing system and online trading platform. Because these systems generate a huge amount of data, a fast and convenient storage equipment is essential to ensuring that these systems operate efficiently and create outstanding operational performance for the company.

Database batch processing
and backup

3

times quicker

Highly efficiency rate

43:1

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 **NetApp®**

“Facing the digital revolution, we need to establish a data-driven platform with better scalability and connectivity to public clouds, so that IT can support our continuous innovations of the business. I sincerely recommend NetApp because it can achieve our vision.”

Pat Hu, Vice President of Information Technology, Dept. Nomura

The benefits of NetApp adoption

1. Execution time including batch processing and data backup is three times faster than previously.
2. NetApp AFF's built-in data deduplication and compression features enable a highly efficient 43:1 data compression rate and large savings in storage space.
3. The latency of data access is reduced from previous 10ms to less than 1ms.

Deploy All Flash to Build a Nondisruptive Data Center

Unfortunately, the specifications of Nomura's existing storage equipments were out-of-date, meaning that the costs of part replacement and maintenance were increasing over years, while performance and capacity were no longer sufficient to meet their demands. It was obvious that the old storage equipments became less capable of providing the fast, convenient and stable storage system required by Nomura. As a result, Nomura decided to replace its storage equipments last year (2018). At the same time, considering the continued future innovation of information technology and rapid changes in industry trends, Nomura needed to rapidly increase its agility in order to respond quickly to unpredictable market demands. Therefore its procurement target was limited to all flash options. Nomura firmly believes that only all flash system can connect to public clouds in the future for wider and deeper use of applications such as AI and big data, while also ensuring the non-interruption of data center.

Because Nomura itself is a professional investment company, it has always been diligent in its conduct. Therefore, its

process of selecting a storage system was also extremely rigorous. Nomura not only required vendors to occupy a leading position in terms of market share and technological innovation capability, but also to have extensive experience in building systems for the financial industry. And more importantly, they need to make commitment to and have track records of providing local support.

An event occurred during the evaluation process that moved Pat Hu to make her consider NetApp as the best choice to meet these criteria. A Taiwanese company made a request to lend storage equipments for their urgent needs. NetApp Taiwan immediately called headquarter to request for support and got approval within one day. Pat Hu thought this story has twofold significances. First, it showed that NetApp and Nomura both adhere to the same customer-centric principle. Second, it showed that NetApp has flat and highly efficient communication and decision-making process between different levels, inside and outside the company. This anecdote gave Pat Hu greater confidence in the collaboration, so she ultimately decided to introduce NetApp AFF A220.

In December 2018, Nomura and NetApp completed contract signing, and within two weeks the AFF A220s were in place. Nomura then installed the equipments in its primary server room in Taipei and the backup room in Taichung. In the following two months, they carried out system integration testing (SIT) and user acceptance testing (UAT). In any case, these two tests must be passed to confirm there are no issues before deployment in the production environment. Pat Hu reiterated that Nomura has a vast amount of data. Regardless of whether the data relates to customers, accounts, funds or investments, each piece of data is critical and must be completely secure. In addition, Nomura has a vigilant corporate culture. It is not only rigorous in selecting vendors, but even more rigorous in testing. All hardware and software systems must pass SIT and UAT tests prior to operating in production. Furthermore, the systems are only considered successful with post-production verification.

Selected NetApp Products

NetApp AFF A220

NetApp and SYSCOM Collaborate for Perfect System Transition

In Q1 2019, the system transition started immediately after the successful SIT and UAT tests of NetApp AFF. The entire process was completed in one month, four weekends according to plan. Because this transition involved all of Nomura's key internal systems, all IT staff approached it with apprehension. Fortunately, with the full support of original manufacturer NetApp and project partner SYSCOM who were willing to provide onsite guidance and support on the weekends, the IT staff were reassured about their mission.

Pat Hu emphasized that, before executing the system transition, the IT Department had to draw up a comprehensive deployment plan. In case of failure during transition, they even need to implement an immediate recovery plan to restore everything to the initial state. The most important requirement was no impact of the business when doors open on the following Mondays. No exception is allowed. After four weekends of hard work, the system transition was fully completed. However, the IT staff did not slack off and came to office early on Monday morning, be on duty to ensure that all status lights were staying green, meaning that other employees could work normally after 9 am. Only then were their minds put at ease. Pat Hu described it as the best system transition she had ever seen in many years of working in IT. In particular, everything went smoothly and

no exception occurred in the last month of transition. This was quite rare and appreciated experience.

NetApp Delivers Outstanding Performance to Support More of Nomura's Innovative Applications

It is worth mentioning that many people have the impression that NetApp devices are better to use in NAS environments. However in this case, Nomura deployed NetApp AFF in SAN. Since NetApp AFF went live, it's already delivered many substantial benefits to Nomura in just few months. For example, DB batch processing and backup are now three times quicker. In terms of storage space, NetApp AFF's online deduplication and compression functions enabled a highly efficient 43:1 compression rate. Additionally, the latency of the old storage device was constantly around 10ms and the IOPS was often insufficient. In contrast, after the deployment of NetApp AFF, the latency fell to less than 1ms and the used IOPS less than 10% of the maximum. These were very noticeable improvements.

Looking to the future, Nomura will rely on NetApp systems to launch more innovative products and services, and continuously improve the operation efficiency of the company. They also want to use it as the foundation for more applications by leveraging newer technologies such as AI, big data and public clouds.

<https://www.netapp.com/us/products/storage-systems/all-flash-array/aff-a-series.aspx>



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