meritz 메리츠증권

Meritz Securities speeds time to market in days

South Korea's Meritz Securities laid the foundation with Nutanix Cloud towards a future of hybrid cloud, enabled faster product releases to meet growing market demands

Both volume and size of retail trading orders have seen unprecedented growth in the past couple of years, positively affecting brokerage firms. More than ever, a wider group of consumers is taking an interest in their personal investing and overall financial education. Globally, brokerage and securities firms are quickly working on packaging products that are retail-friendly for these consumers to meet the changing demands of the new equities-culture. As such, Korea's Meritz Securities needed to manage the increasing amount of data and workloads more efficiently and enable faster development cycles for new products and services to maintain competitiveness in the market.

> "Nutanix is a cost-efficient, flexible infrastructure that supports our business growth. With Nutanix, our core operating businesses like customer service and internal tasks were sped up for all stakeholders. We plan to transition into a hybrid cloud environment to accelerate business-critical processes.
>
> – Seunghoon Lee, Meritz Securities Co., LTD

INDUSTRY
Financial Service

BENEFITS
- Laid the cornerstone towards a hybrid cloud roadmap
- Sped up time to market from months to just days
- Reaped operational efficiencies and gained flexibility to scale according to business growth
- Over 9x improvements in hardware resource utilization rate
- Substantial savings in maintenance costs and software license fees

SOLUTION
- Nutanix Cloud Platform
- Nutanix Prism

Applications
- Windows Server
- Microsoft SQL Server
- Linux Server
- Oracle WAS
- Unix Server

NUTANIX.

To achieve this, Meritz Securities transformed the existing complex traditional infrastructure-based system into the Nutanix-based virtualized environment. This enabled them to improve the stability of customer-facing channels as well as build infrastructure for their new business systems approximately 30 times faster. Additionally, through Nutanix, the hardware resource utilization rate improved, so the amount of hardware for the IT environment and total maintenance cost were reduced. All virtual servers and networks could be managed and expanded from a single console, allowing IT management personnel to increase work productivity and focus on more strategic tasks.

CHALLENGES

Meritz Securities was designated as a comprehensive financial investment business entity (Large IB) in November 2017. Since then, Meritz Securities has been diversifying its profit by strengthening the retail finance business while maintaining its competitiveness in the corporate finance business.

To improve the cost efficiency in tandem with trends in financial IT infrastructure, Meritz Securities migrated from the existing Unix Systems to Linux systems in 2012, establishing stable IT infrastructures for long-term growth. As their business expanded, Meritz Securities deployed many high-performance servers to deal with increased data and workload requirements. However, that led to high IT maintenance and expensive software license fees, as well as low utilization rate of hardware resources, which had to be eliminated. At the same time, Meritz Securities aimed to build an IT system that can be scaled out rapidly and flexibly in line with future growth of the business, operation demands and customer service offerings.

SOLUTION

Due to strict legal and regulatory requirements, financial institutions in South Korea had to pay a high cost to adopt a cloud system. Thus, Meritz Securities decided to establish a cost-efficient virtualization-based on-prem approach. After comparing two options, traditional server virtualization and hyperconverged infrastructure (HCI), Meritz Securities chose to introduce Nutanix HCI, "because Nutanix is leading the industry with its proven performance and stability, we chose Nutanix as our transformation partner," said Seunghoon Lee of Meritz Securities.

"Meritz Securities is planning to adopt the hybrid cloud in preparation for an increase in the number of customers in future. An HCI-based virtualization environment supports a seamless link to the cloud experience. When building a new public and private cloud service, Nutanix nodes can be quickly configured, deployed, and managed. With our cloud built on Nutanix, we can speed up to accommodate high fluctuations in our core business and workloads instantly," Lee explained.

Meritz Securities started operating the Nutanix Cloud Platform after four months of migrating and testing 85 existing Unix, Linux, and Windows servers on Nutanix. The Nutanix environment consists of external and internal networks split into the datacenter and disaster recovery center and duplicated based on a total of 13 nodes. Through Nutanix's Prism, Meritz Securities not only reduced the time to build and provide infrastructures through resource allocation and VM replication, but also secured the service continuity through virtual disk-based high availability, replication, and disaster recovery functions.

CUSTOMER OUTCOMES

Sped up time to market from months to just days

Recently, Meritz Securities entered new business sectors such as the ETN (Exchange Traded Note) market, and the CFD (Contract For Difference) market. As Millennials and Gen Z generations start taking a significant interest in the stock market, Meritz Securities is looking to expand and strengthen its retail finance business to meet their needs too.

"After introducing Nutanix, we were able to put together the development environment required for new business systems in just 1-2 days instead of the previous 1-2 months delivery timeline which we were used to," said Lee. This effectively sped up time to market for new business offerings by at least 30 times.

"The quick data replication function within the Nutanix platform made it easy to implement a duplicate environment for many remote data centers, which improved customer service reliability." Seunghoon Lee also added.

Reaped operational efficiencies and gained flexibility to scale according to business growth

After consolidating all the heterogeneous Linux, Windows, Unix servers and migrating them onto the Nutanix Cloud Platform, Meritz Securities has successfully established a virtual work environment for the business. Workloads such as channel system for external access, internal management tasks and data, a homepage, home trading system (HTS), mobile trading system (MTS), relay service for the customer verification, and development and operation tasks are operating on the Nutanix platform.

The Meritz Securities IT team now enjoys substantial man-hour savings after the consolidation, with Nutanix Prism bringing simplicity in the daily administration and operations for its datacenter. Flexibility and agility in scaling is easily achieved, an almost impossible task for its previous legacy infrastructures.

"With Nutanix, we have a flexible foundation that can scale easily and quickly to support the company's future growth, customer support systems, and other new business offerings such as retail finance," said Lee.

Over 9x improvements in hardware resource utilization rate

Prior to Nutanix, Meritz Securities' answer for increased workload requirements was to build more servers. That created problems in low server utilization rate and a significant increase in license fees for software such as Linux, Windows, Microsoft SQL Server, and Oracle.

With Nutanix, configuring six x86 logical servers into one physical server brought many benefits to Meritz Securities. The IT team was able to increase the utilization rate of server resources by allocating CPU cores to closely match business workload requirements. Meritz Securities was thus able to operate on minimum software licenses by establishing a hardware resource pool based on the entire nodes and only allocating necessary hardware resources to VMs.

In fact, CPU resource utilization rate increased about 6 times, while the number of hardware resources decreased, leading to reduced maintenance cost and software license fees.

"We are operating a total of 120 VM servers to maximum efficiency through the hardware resource pool based on 13 nodes that the Nutanix platform offers. Previously, if we had to support our work with 120 physical servers, Nutanix could provide the same amount of performance with just 13 nodes, improving hardware resource utilization rate by about 9.2 times," explained Seunghoon Lee.

NUTANIX™

NEXT STEPS

Meritz Security plans to introduce hybrid cloud to enhance their digital strategy in accordance with changing markets and customer needs. In Meritz Security's journey to hybrid cloud, Nutanix Cloud Platform would act like a flexible infrastructure that can easily connect private and public cloud environments. Meritz Security also plans to accelerate business-critical IPOs and trading workloads in the Nutanix hybrid cloud environment.

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