

The Nutanix Enterprise Cloud platform provides speed, simplicity, and agility with flexibility and scalability



# Nanjing Securities Upgrades to the Nutanix Enterprise Cloud Platform

## CHALLENGE

With the rapid development of information technology, embracing the Internet has become an inevitable trend in the securities industry. As Internet finance gains momentum, Nanjing Securities Co. Ltd ("Nanjing Securities") is fully geared to the Internet-driven transformation. Although the opening of a series of online services has brought considerable benefits to Nanjing Securities, it also has posed significant challenges to its IT system.

The uncertainty of business development, the unpredictability of business scale, and the instantaneousness in application iteration all brought the IT department of Nanjing Securities unprecedented pressure and challenges. To address these challenges, Nanjing Securities decided to upgrade its existing IT infrastructure, especially its private cloud platform. The private cloud platform provides office support of cloud desktops and virtual applications for the company's branches. The platform not only supports all of Nanjing Securities businesses, it also serves as an important end-user portal. The user experience has a direct bearing on business processes and office efficiency, and is therefore of great significance for Nanjing Securities.

In order to meet the challenges of business growth, Nanjing Securities' IT team considered doubling the company's private cloud desktop capacity. A predictive estimate of the compute power needed by the cloud platform system revealed the requirement to expand the company's hardware resources from the existing 12 blade servers in one blade center and one shared storage hardware, to at least 28 blade servers in two blade centers. The shared storage also needed expansion in the same proportion, resulting in high costs for new equipment procurement, configuration, and maintenance.

Additionally, the conventional blade server and shared storage architecture of the original private cloud desktop system could not adapt to the changing computing and storage needs in the new Internet environment. "It is difficult to predict future business scale, because the expansion speeds vary from one service to another, and the IT needs often arise abruptly. If we continued to use the conventional model of separate server and storage to accommodate the desktop virtualization need, it would have been difficult to determine the total amount of equipment and hardware resources required, and would have also put a lot of pressure on the operations and maintenance of our private cloud platform," said Yang Liquan, project manager at Nanjing Securities.

## SOLUTION

After comparing several alternative solutions and conducting a POC test at Dell's laboratory in Shanghai, Nanjing Securities decided to adopt Dell EMC XC Web-scale converged appliances powered by Nutanix Acropolis and Prism in place of its existing system architecture. The Nutanix team managed to double Nanjing Securities' private cloud system desktop capacity by deploying only 10 Citrix XenApp servers for its virtual applications and 22 virtual servers for infrastructure management.

The compute and storage resources are combined into seven Dell XC730 nodes powered by the Nutanix Enterprise Cloud Platform. The network is composed of two 10-gigabit Ethernet Cisco switches and two gigabit Ethernet switches, with all equipment having redundancy and backup capacity. The VDI solution is provided by Citrix (XenDesktop 7.6).

**"The Nutanix Enterprise Cloud solution is easy to operate, enables on-demand procurement, and flexible scalability. This not only saves space and reduces personnel costs, it also provides smooth scale-out capacity for our IT architecture."**

– Jiang Niannan, Chief Engineer,  
Nanjing Securities Co., Lt

When asked why the Nutanix Enterprise Cloud Platform was chosen, Jiang Niannan, chief engineer of Nanjing Securities explained: "Firstly, the Nutanix solution nicely meets our storage requirements. Secondly, we are willing to try new technologies and products. We have been following Nutanix since adopting hyperconvergence as a trend. Nutanix's advantage is that beyond integrating computing and storage resources, it also takes into account the free migration of virtualized workloads and the open support for new technologies, e.g., containers. In addition, with the rapid growth of our business, our IT operations personnel were facing increasing pressure. The Nutanix product can save a large amount of personnel investments due to its simple configuration, simplified management, and automatic optimization functions. After considering the overall strength of the Nutanix solution in various aspects, we chose Nutanix because it perfectly meets our IT requirements."

## RESULTS

Deployment of the Nutanix solution was completed in three steps. The first step was to install and implement the hardware device. Because the Nutanix product is easy to operate, it only took a few hours to install the cloud equipment and approximately one day to debug the network, thus the entire hardware system was deployed within one day and a half. The second step was to deploy the software. Since Nutanix software is integrated into the Dell XC730 nodes, the private cloud system was deployed in approximately 20 days. The third step was the trial operation phase, which lasted one and a half months. Therefore, the entire project was completed in about two months.

Nanjing Securities' IT team was deeply impressed by the quick deployment and ease of use of the Nutanix product. With a conventional server and storage architecture, the hardware installation alone would have taken one to two weeks; the subsequent virtualization software installation and VDI system debugging would have been even more time-consuming, therefore, the deployment of the Nutanix system saved at least two to three weeks of time.

In order to further illustrate the simplicity of the Nutanix product deployment, Yang Liqun said, "At the beginning of the deployment, I created two back-ups of data. When we started to deploy the virtual machines, we found some businesses were so important that we needed to make three back-ups. However, if we made three-backups, the entire system had to be redeployed. The workload of redeploying would have been dauntingly massive under the traditional method, but it took us only two hours to redeploy the whole system with Nutanix. Thus, the fast and easy deployment of the Nutanix Enterprise Cloud platform is well-explained."

The Nutanix solution also reduces Nanjing Securities' machine cabinet space into one and a half cabinets. Nutanix's distributed storage reads/writes hot data on SSD and provides specific features for VDI, including shadow cloning, to effectively reduce the I/O pressure in case of a VDI boot storm. Moreover, Nutanix's unified monitoring interface enables visual monitoring and displays all kinds of information on its cloud platform.

## NEXT STEPS

Nanjing Securities' private cloud project is now running steadily on the Nutanix Enterprise Cloud Platform. Jiang Niannan expressed, "The Nutanix deployment provides adequate flexibility and scalability for the expansion and upgrades on our entire IT system, laying a solid IT foundation for the future business growth of Nanjing Securities." In view of the extensive advantages of the Nutanix Enterprise Cloud Platform, including high scalability and easy management, Nanjing Securities is now considering the migration of other virtualization applications to the Nutanix platform to further improve the current situation where several sets of hardware resource coexist in the virtualization environment.



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## Company

Nanjing Securities is an innovative securities company with extensive operations across China and the first professional securities firm approved by the People's Bank of China in Jiangsu Province. It has a wide business scope covering securities brokerage, securities underwriting, securities-backed asset management, securities transactions, OTC market, financial derivatives, and Internet finance.

## Industry

Financial Services

## Business Need

The conventional IT infrastructure faced great pressure to meet increasing IT needs as a result of its business expansion and Internet transformation.

## Solution

- › Dell XC Web-scale converged appliances powered by Nutanix Acropolis and Prism

## Benefits

- › Saved machine room space, effectively reduced the I/O pressure in case of VDI boot
- › Easy to operate, enabling on-demand procurement and flexible scalability
- › Provides adequate flexibility and scalability for future expansion and upgrade of the entire IT system

Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at [www.nutanix.com](http://www.nutanix.com) or follow us on [Twitter@nutanix](https://twitter.com/nutanix).

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