Siasun Robotics Transforms EUC with Nutanix Helping Overcome Pandemic

Siasun Robotics delivers desktops in minutes after replacing its end user computing (EUC) environment with Nutanix

BUSINESS BENEFIT

Siasun Robotics has transformed its EUC with a hyperconverged infrastructure (HCI) from Nutanix. By retiring its three-tier legacy infrastructure and PC estate, the company gained a high-performance, easy-to-manage, low cost platform that delivers cloud desktops to drive the development of its pioneering technology.

After the outbreak of Covid-19, the company was able to give designers access to 3D simulation programs via cloud desktops in minutes to

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>
> – Guo Peng, Assistant Minister of Siasun Robotics and General Manager, Shenyang Funeng Software Technology Co., Ltd.

INDUSTRY
Manufacturing

BENEFITS
- Deploys virtual desktops in minutes instead of tens of days
- Completes simulation analysis in 1-2 days instead of a week and saves more than 1 million yuan ($140,000) in 2-3 years
- Simplifies operations with automated EUC configurations
- Delivers optimal performance through responsive Nutanix services

SOLUTION
- Nutanix Enterprise Cloud OS

APPLICATIONS
- Citrix and VMware VDI
- ERP System
- Database

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minimize the impact on project timelines. What's more, employees could work from home—helping keep them safe. Thanks to this capability, Siasun Robotics was able to contribute to the nation's efforts in fighting the pandemic, helping in the development of mask equipment to protect citizens.

The HCI has integrated management for servers, storage, and networking, lowering costs and improving security. In addition, the platform is easy to scale horizontally, with configurations automated to simplify administration tasks. The stability and performance of the HCI—a result of the compatibility between hardware and software—mean Siasun Robotics can continue to drive digital transformation across operations. Over the next 2-3 years, the EUC solution should deliver 1 million-plus yuan ($140,000) in savings, and already the cloud desktops are completing simulation analysis in 1-2 days instead of a week.

CHALLENGE

A leading developer of robot technology in China, Siasun Robotics offers a complete product line of robots and industry 4.0 solutions. Its national headquarters is in Shenyang, with its international headquarters in Shanghai. Besides Shenyang and Shanghai, the company also has operations in Hangzhou, Qingdao, Tianjin, and Wuxi. Its research and development (R&D) and innovation team, consisting of more than 4,000 people, covers the entire value chain, developing technologies and products for multiple industries.

As part of its digital transformation, Siasun Robotics wanted to overhaul its end-user computing (EUC) infrastructure. Tong Wenshi, technical manager of Siasun Robotics, says, "Whenever a new employee started, an application to buy a device had to be submitted before an office PC can be added. The entire delivery cycle was 20-30 days on average. In addition, our devices, which lasted about four years, consumed a lot of power and generated a lot of electronic waste."

Siasun Robotics also looked to use graphics processing unit (GPU) technology to support the latest 3D design and simulation programs. The computational intensity of the GPUs, however, made them unsuited to the legacy three-tier infrastructure, whose lack of server performance would lead to software glitches.

Siasun Robotics wanted to replace the three-tier architecture with a hyperconverged infrastructure (HCI). Not only could the HCI transform EUC, but help improve IT performance, simplify management, and improve security. Furthermore, an HCI would help the company tackle the increasing expense of powering a growing infrastructure, a cost that would be untenable within five years.

In 2018, Siasun Robotics formulated an IT five-year plan for the transition to a HCI. The plan included migrating all applications, including an enterprise resource planning (ERP) system and databases, to the HCI. It would be a complete break from the legacy infrastructure, with unified resource pools and deployment.

SOLUTION

Siasun Robotics considered several HCI solution vendors in China and abroad. The company chose Nutanix, in part because of the Nutanix team's professionalism and commitment to the HCI project. Siasun Robotics also saw Nutanix HCI as technically advanced, offering better hardware integration.

In 2019,Siasun Robotics deployed Nutanix to support a virtual desktop and future cloud-based services. It implemented Nutanix HCI-based Lenovo nodes, running both VMware and Citrix virtualization software. The result was a VDI supporting more than 500 cloud desktops for R&D and designers supporting 3D software on Nutanix, to run alongside more than 600 regular PCs for office workers.

CUSTOMER OUTCOME

Deploys virtual desktops in minutes instead of tens of days

Within a few months of the Nutanix deployment, China was struck by the COVID-19 pandemic. Siasun Robotics suddenly became part of the country's fighting force, with many orders for its robot solutions. Thanks to the VDI, employees could continue working from home, minimizing the impact on product design and management, while keeping safe. Guo Peng, assistant minister of Siasun Robotics and general manager of Shenyang Funeng Software Technology Co., Ltd, says that after COVID-19, the demand for the cloud desktops scaled quickly, exceeding initial expectations. "Nutanix enabled us to virtualize desktops and build a hyperconverged IT core. We plan to integrate our private cloud with the public cloud in the long term to enable personnel overseas to use the cloud desktop and increase efficiency for production by more than 50 percent."

Technical manager Tong adds, "The delivery cycle has been shortened from tens of days to minutes, and the employee experience has been greatly improved. IT operation and maintenance personnel can monitor the login and usage status of each desktop from the background thanks to centralized management and resource coordination."

He continues, "Software upgrades, operations, and maintenance can be performed remotely. Under normal circumstances, personnel can use the cloud desktop in the shortest time across the network, without the need for expensive computing equipment. All data is centralized in the headquarters data center for data security."

The Nutanix solution has proved to be stable, with good compatibility between hardware and software. The network attached storage (NAS) file enables separate backups—a improvement on the legacy NAS system.

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The Nutanix-based cloud desktop configuration supports a professional-grade workstation that Siasun Robotics can recycle when lying idle. The power of the desktops means the business can complete simulation analysis in 1-2 days instead of one week—improving efficiency and saving resources. Over the next 2-3 years, the savings could be at least 1 million-plus yuan.

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Simplifies operations with automated EUC configurations

The HCI has combined servers, storage, networks, and virtualization, simplifying operations and maintenance, and reducing costs while improving security. All resources, systems, and configurations can be controlled through a single interface. Horizontal scaling is also hassle free, with no complex configurations to resolve. In fact, nodes can be added easily for additional capacity in line with demands from the business

Delivers optimal performance through responsive Nutanix services

Siasun Robotics has transformed EUC, optimizing performance and cost. The compatibility of the hardware and software made it easy to maximize the efficiency of the cloud desktop solution. And whenever Siasun Robotics needed help, Nutanix technicians flew in from Hong Kong to provide assistance and troubleshoot any challenges.

NEXT STEPS

In 2021, Siasun Robotics plans to build three data centers in two locations to support the secure expansion of the Nutanix HCI for Siasun Robotics' international headquarters in Shanghai. The company plans to continue working closely with Nutanix as it advances the use of cloud and drives digital transformation

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