Kansai Electric Power Group Adopts Nutanix for VDI Infrastructure to Support Digital Workstyle

Realizes high-performance VDI environment capable of accommodating up to 34,000 users

BENEFITS

- Build a high-performance VDI infrastructure for up to 34,000 users with a simple device configuration
- Provide users with a comfortable user experience through superior VDI performance
- Improve communication and productivity on a company-wide level through the innovation and promotion of a digital workstyle
- Easily establish a foundation for creating new business value
- Replicating VMs now takes a few seconds instead of up to 20 minutes

"We now have an environment where we can communicate and collaborate smoothly no matter where we are, be it in the office, on the road, or at home. We feel that we have been able to steadily improve both productivity as well as user convenience. I think the most significant achievement is that the high-performance VDI environment has allowed us to work in a flexible way, something almost impossible to imagine before."

– Akinori Kawai, Information and Communications Engineering Group, Office of IT Strategy, The Kansai Electric Power Co., Inc.

CHALLENGES

The Kansai Electric Power (KEPCO) Group is promoting innovation and digitalization of its businesses while providing a variety of social infrastructure services, with energy, power transmission and distribution, information and telecommunications, and lifestyle and business solutions as its core businesses. The company has taken a major step toward digital transformation, and together with the KEPCO Group's Optage Inc., has begun operating one of the world's largest VDI environments, which can be used by up to 34,000 group employees from KEPCO and Kansai Transmission and Distribution, Inc.

"The IT Strategy Office aims to create an environment where digital technology can be fully utilized to increase productivity, facilitate communication between departments, and enhance business competitiveness on a company-wide level.

INDUSTRY
Energy

CHALLENGES
- Hierarchical decision-making processes, a characteristic of centralized large organizations
- Inefficient operations such as travel time associated with business trips and attendance at meetings
- Speed up decision-making and business operations to improve productivity
- Company-wide promotion of work style reform and remote work

SOLUTION
Nutanix Cloud Infrastructure (NCI)
- AOS Storage
- AHV Hypervisor

Nutanix Unified Storage (NUS)
- Files Storage

Nutanix Consulting Service
NVIDIA M10 GPU
NVIDIA vGPU (virtual GPU)

Applications
- Citrix Virtual Apps and Desktops
- Microsoft 365
- Microsoft Teams
- Box
- ThinkBridge Browser Redirect

NUTANIX

Kazuki Ando

Electric Power IT Infrastructure Team 1,
Electric Power IT Infrastructure Dept.,
ICT Solution Sector,
Solution Business Promotion Div.,
Optage Inc.

Mayu Nobutani

Electric Power IT Infrastructure Team 1,
Electric Power IT Infrastructure Deprt.,
ICT Solution Sector,
Solution Business Promotion Div.,
Optage Inc.

To this end, we have set priority themes, including the realization of a 'digital work style,' and we are promoting the development of an IT environment which will support our DX initiatives," said Akinori Kawai of the Office of IT Strategy at KEPCO.

Kawai and his team first focused on inefficiencies such as the hierarchical decision-making process which is a usual characteristic of a large-scale organizations, and the time spent on traveling and attending meetings. "We felt that eliminating various inefficiencies and increasing the speed of operations would directly lead to increased productivity. To achieve this, we reviewed our information communication and sharing system and started to create a system that would allow us to work and participate in meetings regardless of time or location," said Kawai.

At the end of 2019, the IT Strategy Office has established a policy to develop a new VDI environment and provide Microsoft 365 and Box to KEPCO, Kansai Transmission and Distribution employees. The challenge here is in creating a very large scale VDI environment that can accommodate up to 34,000 users.

SOLUTION

KEPCO needed to build an infrastructure that supports a high-performance VDI environment in order to drive user productivity. After careful consideration, Nutanix Cloud Platform was selected. "In addition to performance, reliability, and availability, we wanted a system product that was simple and easy to operate, and that could be expanded and updated without interruption. Nutanix met all of our requirements, and its excellent cost-savings was another key factor in our decision," said Kazuki Ando of the Electric Power IT Infrastructure Dept., ICT Solution Sector, Solution Business Div., Optage.

Ando said, "The VDI infrastructure, which can accommodate up to 34,000 users, has more than 600 physical nodes, even when configured with HCI products that do not require external storage. During our evaluation, we realized that Nutanix Cloud Platform's greatest merit is its ability to operate such a large-scale environment stably and securely. In particular, the ability to update the system automatically without manual intervention is an important point not only in terms of ensuring stable operation."

KEPCO's VDI infrastructure consists of a cluster of 20 units, which can be flexibly expanded as a basic unit (Pod). The Nutanix cluster can continue to provide services even in the event of a disk or node failure. Should there be more serious issues, business impacts can still be kept to a minimum.

CUSTOMER OUTCOMES

The mission of the IT Strategy Office is to improve the IT environment, supporting the digital workstyle, to accelerate DX at the company-wide level, increase business speed and competitiveness, and contribute to the realization of KEPCO's mid-term management plan. Kawai said, "working styles are changing, especially in the departments currently using VDI. As online meetings have progressed, flexible information-sharing and decision-making has become possible regardless of location or time. I believe that the speed of business operations has definitely been enhanced. Employees who have chosen flexible work styles and shifted to remote work or telecommuting due to the coronavirus disaster have improved their productivity significantly."

"The automatic update function has greatly improved our operability. In an environment with hundreds of servers, this feature has led to a substantial reduction in operational effort and man-hours," said Mayu Nobutani of the Electric Power IT Infrastructure Dept., ICT Solution Sector, Solution Business Div., Optage.

Nobutani said, "The disk processing is fast, and when replicating virtual machines, it takes only a few seconds with Nutanix, whereas it took 10 to 20 minutes per machine with vCenter previously. I think the ease of use of snapshots is also a big advantage. vCenter has a lot of trouble with snapshots, such as the increase in virtual disk files and the risk of corruption, but since it is a copy at the storage level, snapshots can be easily taken as backup data."

NEXT STEPS

"In the early stages of the project, Nutanix's consulting services provided us with the right technical support, which helped us to design and build the system smoothly. We have a social mission to provide a sustainable and stable supply of electricity, and in the event of a large-scale disaster, we need to be able to recover quickly. The newly constructed VDI system must play a role in supporting our operations under such circumstances. In the next stage, we would like to consider using the cloud as a DR countermeasure," Kawai concluded.

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info@nutanix.com | www.nutanix.com

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