Hybrid IT Environment Ensures Steady Supply of Medical Equipment Even during COVID-19 Crisis

Sustaining Business Continuity Planning and VDI Environment with Cloud

COMPANY
OLBA HEALTHCARE HOLDINGS, Inc.

INDUSTRY
Healthcare

BUSINESS BENEFITS

- Significantly reduced burden of post-M&A system integration
- Insourced recovery process, making system recovery possible in only 2 hours
- Improved business continuity planning with cloud backup using Xi Leap
- Reduced wait time for database processing by half
- Automated resource allocation and memory addition with Prism Pro's X-FIT and X-Play

CHALLENGES

- Complex IT environment due to multiple M&As
- Silos and individualization of job tasks, caused by a mixture of systems and software
- Business continuity in the COVID-19 situation
- Cost for database and public cloud licensing
- Burden in management operations related to backup and maintenance
- Time and cost consuming data recovery

"As a result of strategic M&As, our concern was having servers located nationwide, but by being able to consolidate everything on Nutanix, which enables centralized management on one console regardless of whether it is a private or public cloud, we have been able to implement business continuity measures for systems across the entire group."

– Nobuharu Murata, Managing Director and General Manager, Administrative Department

SOLUTION

Nutanix Enterprise Cloud OS
- Nutanix Prism Pro
  - X-FIT
  - X-Play
- Xi Frame
- Xi Leap

"By insourcing the recovery process that was previously outsourced and took several days, we are now able to complete it in just 2 hours, while also reducing costs significantly."

– Toshinobu Aisaka, Section Chief of the Information Group, Administrative Department

APPLICATION

- Overall operations system including sales support
- Logistics system
- HR system
- Attendance system
- Asset management system
- Data analysis system
- Sales management system
- Master application system
- Active Directory

"We consolidated our infrastructure with Nutanix, simplifying work and automating operations. This has allowed us to pull out ourselves from 'reactive' operations such as system management, and to focus on 'proactive' IT strategies including improving business continuity and deploying DaaS and DBaaS solutions."

– Sho Ishii, Assistant Manager of the Information Group, Administrative Department

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CHALLENGE

OLBA HEALTHCARE HOLDINGS, Inc. is a trading company of medical equipment that celebrates the 100th year anniversary of its founding in 2021. With major sales areas in the Chugoku, Shikoku, Tohoku, and Kinki regions, the company does a Medical Business, that sells devices such as pacemakers and artificial limbs; a Supply Processing and Distribution (SPD) Business that efficiently provides medical supplies using IT including a hospital product management system; and a Home Care Business that conducts rentals of equipment such as electronic caregiving beds and wheelchairs. The company continues to expand its business through active acquisitions of healthcare related companies.

OLBA began its transition for virtualization in 2013 when it migrated about 40 physical servers to a 3-tier configuration virtual environment. However, due to budget constraints and to the fact that it is difficult to scale up in the 3 tier configuration virtual environment, system upgrading was done in stages. This got in the way of fully leveraging the virtual platform, with each system infrastructure becoming its own silo, and workload of the administration department increased. "There were limitations with maintenance and we had to work with multiple vendors, and the situation continued in which we had to deploy the server platform and system in tandem. Because of this mixed-up environment, operations management took time and effort," recalled Toshinobu Aisaka, Section Chief of the Information Group, Administrative Department. Nobuharu Murata, Managing Director and General Manager, Administrative Department also said, "From the perspective of management, it is difficult to think of M&As and IT systems together, and post-acquisition system integration has been a long-standing issue."

While facing this problem, Sho Ishii, Assistant Manager of the Information Group, Administrative Department, said, "Performance was not up to par in the 3-tier configuration environment, and because of the large burden in expanding the system, when the maintenance contract of the virtualization platform deployed in 2013 was set to expire, we began the discussion on deploying a new platform." In assessing a new environment, OLBA focused on the ability to operate on VMware vSphere, which the company had been using with its previous virtual environment. In addition, the company prioritized easy scalability; good performance without relying on storage; and painless hardware upgrades.

From a business continuity perspective, the company initially considered having the entire execution environment operated on IaaS in the cloud, however they found too many concerns over maintenance and cost in databases within mission-critical systems being migrated to the cloud. As for migrating only the application server to IaaS, there were concerns over security management and response delays caused by the database being in a remote location. As such, while keeping in mind a future migration to a public cloud, the company moved forward with the idea of a hybrid configuration in which initially only the DMZ (de-militarized zone) would be migrated to a cloud environment.

SOLUTION

Thinking that a hybrid cloud would be the ideal solution, OLBA considered deploying Nutanix Enterprise Cloud OS. "With a public cloud, it looked difficult to foresee costs after a few years, making it hard to give approval. But with Nutanix, we felt that it substantially met our needs, even on the cost front," explained Murata.

"It was revolutionary to us that the architecture was not only easy to scale up, but that it also could be downsized as needed. Also, while data between nodes is multiplexed, with data locality technology, data is stored in local disks, so data reads are faster. We found it very appealing that there was no need to be stressed over the slow operations of storage," said Ishii. Another aspect that led to selecting Nutanix was the fact that they could avoid situations where only specific people are able to operate the system, due to the simple management interface that anybody can operate.

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CUSTOMER OUTCOME

Since moving to a virtual environment in 2013, the company has been consolidating its servers primarily using Nutanix, and it chose Nutanix AHV as the hypervisor in its backup cluster. Beginning with its operations support system and logistics system, the company gradually migrated its sales management system, which is considered as a mission-critical system, and now all systems, except for SaaS and servers that are difficult to be virtualized, are running on Nutanix. Thanks to migrating to Nutanix, six racks of equipment in multiple data centers and in the company's server room were moved to a data center and successfully consolidated into just a single rack.

"Over the course of operating this system for about a year, I came to appreciate its high level of reliability, so we migrated mission-critical systems to a virtual environment. Operating speeds have increased palpably, and database wait times reduced to about half. I was honestly surprised," said Ishii about the changes. By switching to Nutanix, backups can now be executed within the Nutanix node, and the environment can now be quickly restored to the needed point in time with only the person in charge. "Previously, we outsourced this task by paying several million yen, and the system restore would take two days. But now that we handle this internally, we can restore the system in only about two hours," said Aisaka.

For a company like OLBA that is actively engaged in M&As, system integration among its different businesses is an important factor. It anticipates that this task of system integration will be easier with the move to Nutanix. "Because the platform can be scaled easily, system integration can also be done quickly. There are few companies in the healthcare industry that have done this kind of advanced IT spending. The fact that we are able to quickly migrate and integrate infrastructure is a big competitive advantage," said Murata glowingly.

As a new experiment, the company is visualizing abnormalities and inefficiencies in virtual machines by using X-FIT, the resource optimization capability that comes with Prism Pro. In addition, the task automation engine X-Play can not only automatically add memory in the event of a temporary memory constraint, it also proactively takes measures such as sending an alert mail if there is a high CPU load. "Because we could not shut down the system during operating hours, there were times when we had to free up resources late at night. From an operations standpoint, we really appreciate automated features," said Ishii.

Even during the period of increased remote work due to the spread of the COVID-19, as the result of having migrated to Nutanix, not once was there a need to go into the office for the purposes of system management. The company has been able to operate the system remotely without any problems.

NEXT STEPS

Currently, the company is utilizing Nutanix AHV that has been deployed in the backup cluster, and it is testing Xi Frame, which provides VDI functionality, in preparation for its full-time operation. "During the present COVID crisis, we need to set up an environment in which desktops can be accessed from anywhere. We think that Xi Frame will help us reduce the workload related to PC upgrading that occurs every few years," said Murata.

Because the backup cluster resides in the same server rack, as a means to strengthen business continuity planning, there are calls to transfer data to a remote location, so the company is preparing for full-time operation of Xi Leap, which enables backups to a remote location. "Since we provide medical supplies, if our system were to shut down, there is the possibility it could affect hospital operations. Business continuity is the most critical issue within our group, and we believe that we will be able to fully prepare ourselves by using Xi Leap," emphasized Murata.

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In terms of databases that are used internally, since man-hours increased for having to address operating system version upgrade, the company is considering the DBaaS solution Nutanix Era. In conjunction with this, the company is also considering deploying Nutanix Flow for micro segmentation as a security measure for the group's platforms, which are all consolidated within a single chassis. OLBA is also considering a future deployment of AHV to replace the currently operating VMware environment to largely save costs. "Further digital transformation is needed for our next 100 years, so we will continue to actively invest in IT including new solutions from Nutanix," said Murata.

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