ACM starts journey towards Industry 4.0 with SAP on Nutanix

Penang headquartered Alliance Contract Manufacturing Sdn Bhd (ACM) runs critical SAP S/4HANA on Nutanix, lays the foundation for smarter manufacturing across the globe.

The virtualized three-tier infrastructure running ACM's business-critical SAP systems wasn't compatible with the changing needs of the company. IT couldn't move at the speed of the business because of complexity and high costs. After the company migrated its SAP applications to Nutanix and upgraded to SAP S/4HANA, ACM's IT became agile—helping the organization minimize disruption because of COVID-19. The migration is helping unlock the core value of S/4HANA, while enabling ACM to triple server instances without increasing management costs. What's more, rack space has been cut by 88 percent with power and cooling also reduced by 50 percent.

> "Nutanix provides a highly efficient way to deliver IT resources—overcoming the complexity of a virtualized three-tier infrastructure while delivering the simplified IT needed as a foundation for Industry 4.0."
>
> – Eric Looi, Head of IT, ACM

INDUSTRY
Manufacturing

BENEFITS
- Unlocks the strategic value of SAP S/4HANA data, speeds up business efficiency

- Triples SAP server instances and maximizes uptime without increasing resources

- Reduces rack space by 88% and lower power and cooling 50%

- Lowers virtualization and DR costs by 30%

SOLUTION
Nutanix Cloud Platform
- AOS Software, including built-in hypervisor AHV and Security Configuration Management Automation

- Prism management plane

Applications
- SAP ECC 6.0 applications

- SAP S/4HANA including SAP Simple Finance (sFin) S/4HANA

- Microsoft Services, Exchange Server, and SharePoint Server

- Skype for Business

CHALLENGES

Alliance Corp Manufacturing Sdn Bhd (ACM), headquartered in Penang, Malaysia, manufactures precision parts, assembly products, mechatronics modules, and other equipment for use in a wide range of industries. Besides Malaysia, it has sites in China, the Netherlands, Czech Republic, Singapore, and the UK.

At the center of ACM is SAP enterprise resource planning (ERP) software, which processes operational data and enables it to flow across the entire global organization. Traditionally, the ERP ran on a virtualized three-tier server-SAN infrastructure, but the architecture wasn't in harmony with the changing needs of the company. It was complex to manage at a time when IT needed to move at the speed of the business so that ACM could pivot easily in the face of new opportunities or challenges. Plus, the hardware footprint was large, which in turn meant high power and cooling costs.

Erik Looi, head of IT at ACM wanted to simplify the infrastructure, removing the multiple management interfaces and the need for IT specialists to manage the different tiers. He also looked for a way to put a stop to the increasing cost of the platform's virtualization software. "We saw hyperconvergence as the solution, combining all our tiers in a single system to reduce complexity and expense," he says.

SOLUTION

ACM considered different hyperconverged infrastructure (HCI) vendors before choosing Nutanix. Mr Looi says, "With Nutanix, the hypervisor is built in, making it cost-effective. But even when other vendors could match the Nutanix price, their solutions didn't cut it in terms of the functionality that Nutanix had available."

The company deployed a three-node Nutanix cluster with Nutanix AHV and moved all business systems over to the new infrastructure. These systems included Microsoft Services, Exchange Server, SharePoint Server, and Skype for Business, as well as all SAP ECC 6.0 applications. ACM then began migrating the SAP applications to SAP S/4HANA and set down plans to move the S/4HANA database to Nutanix at a later date.

To simplify administration, ACM incorporated Nutanix Prism, a single-pane management console, and, for business continuity, ACM installed a Nutanix storage node for offsite replication at its location in Singapore. Comments Mr Looi, "We have also upgraded the Malaysia cluster with two Nutanix NX-8000 series nodes, giving us a have a 5-node cluster in Malaysia, and a one-node cluster in Singapore."

CUSTOMER OUTCOMES

Unlocks the strategic value of SAP S/4HANA data, speeds up business efficiency

With Nutanix, ACM has a single platform on which to maximize the performance and scalability of its SAP systems. For instance, SAP S/4HANA on Nutanix means ACM can fully leverage the application's real-time reports on operational and financial data. For ACM, this capability has come at just the right time. Explains Mr Looi: "Our SAP system here in Malaysia, which supports all of our locations, will help us drive growth in other countries in Asia and Europe."

Triples SAP server instances and maximizes uptime without increasing resources

ACM has been able to hold down SAP-related management costs despite the size of the environment multiplying. "When we deployed Nutanix, we had two IT administrators in control of the stack. Since then,

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we have tripled the number of virtual server instances, but haven't had to add more management personnel." There have been other savings too. He continues, "I don't have the additional expense of employing people with specialist management skills or have to pay for extensive training. The HCI is so easy to manage with Nutanix Prism."

Enables rapid response to COVID-19 thanks to enhanced network security
With IT able to move at the speed of business using Nutanix, ACM could pivot quickly when COVID-19 struck. The company reconfigured the network to streamline firewall policies, making it easier to protect specific applications and databases. It gave Mr Looi had peace of mind that personnel accessing SAP remotely during the pandemic wouldn't pose a security threat. "We had the external connections to our systems under control, so we were ready for COVID-19, helping minimize disruption," he says.

Reduces rack space by 88% and lower power and cooling 50%
The company has also reduced pressure on the data center, significantly consolidating hardware and lowering related expenses. By moving to the HCI, ACM reduced rack space from 18U to 2U and has room for a fourth Nutanix node in the current set up. What's more, the company has lowered the cost of power and cooling the data center by 50 percent. Adds Mr Looi, "I can now fit my datacenter in the boot of my car."

Lowers virtualization and DR costs by 30%
With AHV for virtualization, ACM no longer has to meet the increasing costs of its previous hypervisor. Furthermore, the inbuilt replication and disaster recovery (DR) features in Nutanix have allowed the company to save on third-party dedicated DR software. "Because I know Nutanix can take virtually unlimited snapshots, I had all I needed. The snapshot capability was a big help when we moved to S/4HANA because of the testing we had to do. All told, we've reduced our costs by 30 percent with the virtualization and DR features."

NEXT STEPS

Mr Looi says the combination of SAP and Nutanix will help ACM move towards smarter manufacturing and Industry 4.0. SAP S/4HANA is helping manufacturers worldwide automate and adopt artificial intelligence-led forms of production. With Nutanix, ACM can accelerate that journey, using its HCI to ensure the availability and scalability a data-driven operation requires. "Nutanix is helping us move in the right direction," he concludes, "without the complexity."

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