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Isuzu Hicom drives towards Industry 4.0 with Nutanix

Commercial vehicle maker Isuzu Hicom clears the path for the adoption of hybrid cloud and Industry 4.0 for greater efficiency with Nutanix HCI.

Today, Isuzu Hicom has taken a leap forward in delivering Industry 4.0 capabilities, ensuring data is delivered reliably and fast wherever it's needed using Nutanix. Not only does Nutanix remove complexity and allow the seamless flow of data to applications, the solution also meets the quality and cost-effectiveness criteria of stakeholders in Japan and Malaysia.

The performance of the ERP system has risen 50-60 percent, enabling better decision-making, with reports generated in 15 minutes instead of overnight. Operational costs are down 30-35 percent, downtime is a thing of the past, and data loss is virtually nil with a recovery point objective of 15 minutes maximum.

> "With Nutanix, we have modernized our data center—removing complexity while increasing visibility—creating a foundation for hybrid or multicloud initiatives and Industry 4.0."
>
> – Wan Yaacob, senior IT manager, Isuzu Hicom

INDUSTRY
Automotive

BENEFITS
- Improves ERP performance by 50-60% with reports ready in 15 minutes
- Eliminates downtime on applications
- Shrinks RPO from 4 hours down to 15 minutes
- Reduces operational costs by 30-35%

SOLUTION
Nutanix Enterprise Cloud Platform
- Acropolis Software, including built-in hypervisor, AHV and Security Configuration Management Automation
- Prism Pro management plane
- Flow software-defined networking

Applications
- Enterprise resource planning (ERP)
- Product monitoring system (PMS)
- Microsoft SQL Server databases
- Email server

NUTANIX

CHALLENGES

Isuzu Hicom is a commercial vehicle maker and a joint venture between Japan-based Isuzu Motors and Hicom Holdings in Malaysia. Isuzu Hicom manufactures parts and assembles finished vehicles at its 14 hectare plant in Pahang for shipment across Malaysia. The company's legacy three-tier infrastructure lacked performance, which meant personnel had to wait overnight for key reports to be generated. Productivity was impacted by IT downtime and operational costs were high. What's more, there was a risk of data loss as a result of the backup infrastructure having a recovery point objective (RPO) of four hours.

The company wanted to fix these challenges and build a foundation for Industry 4.0 initiatives and hybrid cloud at the same time. Says Mr Wan Yaacob, senior IT manager, "We believed a HCI (hyperconverged infrastructure) could meet our IT and business needs, but we had to be sure. At Isuzu Hicom, each IT investment is measured in terms of reliability, quality, delivery, and cost-effectiveness. If we are satisfied, then we share our ideas with stakeholders in Japan, and here in Malaysia."

SOLUTION

Nutanix scored highest for each IT measure among the HCI vendors. Says assistant IT manager, Mr Md. Khairul Firdaus Zainudin, "We saw that a Nutanix HCI cloud platform could improve efficiency, availability and productivity, while enabling us to move closer to Industry 4.0." In less than two months, Isuzu Hicom had built a three-node cluster and started migrating applications across with the support of the Nutanix team. In turn, Isuzu Hicom added three more nodes and migrated 90 percent of its applications to the HCI. These included the business-critical Baan enterprise resource planning (ERP) and product monitoring system (PMS), plus Microsoft SQL Server databases and email server.

To further improve IT operations, Isuzu Hicom also implemented Nutanix Prism Pro. Powered by machine learning and task automation, Prism Pro gave Isuzu Hicom a level of visibility into its IT never seen before. What's more, the company installed Nutanix Flow to remove the complexity of system protection. Mr Firdaus says, "It was very difficult to segregate VMs (virtual machines) individually in the past and tailor security policies. Now we have granular control over traffic assessing specific VMs or groups of VMs using Nutanix Flow via the Prism Pro console."

CUSTOMER OUTCOMES

Enabling the move towards Industry 4.0

With Nutanix, Isuzu Hicom has taken a crucial step in its Industry 4.0 journey, modernizing its data center with HCI to support hybrid platforms. The manufacturer can make greater use of its data, ensuring its availability to all applications in one seamless flow. Comments Mr Yaacob, "Today we have the IT stability and performance to develop our cloud strategy and improve manufacturing efficiency."

Improves ERP performance by 50-60% with reports ready in 15 minutes

Already the business is experiencing the benefits of a modernized data center operation with greater visibility on the manufacturing process. According to Mr Yaacob, the ERP and PMS systems are performing 50-60 percent better than before. The ERP, for instance, provides more accurate up-to-the-minute information in areas such as accounting, inventory management, manufacturing, and human resources. "Through more precise data, we can plan more effectively and make better decisions to ensure we hit our production targets," says Mr Yaacob.

In addition, reports that were produced overnight can now be delivered in under one hour. This capability is particularly powerful because it enables the organization to be much more agile. Comments Mr Yaacob, "Overnight reports can be delivered in 15 minutes, and we can generate them ad hoc. We no longer have to avoid running reports during working hours because it may consume too many resources and impact other systems."

Eliminates downtime on applications

The risk of downtime has been eliminated, helping Isuzu Hicom ensure it meets daily production targets. "It makes a major difference," highlights Mr Yaacob, "because we can do more effective production planning knowing that our systems are reliable." He adds that employees are also feeling better supported. "They can depend on their applications and check data that's being updated in real-time. Our IT runs a lot more smoothly."

Shrinks RPO from 4 hours down to 15 minutes

With the high availability and data protection built into the Nutanix Acropolis Software underpinning the HCI, Isuzu Hicom has significantly improved disaster recovery. In the past, data could be lost with a recovery point that could be as long as four hours before an event. As such, a disaster could seriously impact the daily production schedule. Thankfully, that's changed as Mr Yaacob explains, "Our RPO [recovery point objective] is 15 minutes maximum, meaning there is virtually zero data loss and we can keep hitting our targets."

Reduces operational costs by 30-35%

Because the Nutanix HCI is largely automated, it continuously self optimizes, helping Isuzu Hicom reduce running costs. For example, there is no over-provisioning of servers or storage as can happen in three-tiered infrastructures, plus the IT team can re-route its focus to strategic tasks because Nutanix has removed much of the management burden. The combination of these factors as well as switching from VMware to the Nutanix AHV hypervisor has had a significant impact. Says Mr Yaacob, "It's helped us reduce our operational costs by at least 30-35 percent."

NEXT STEPS

With the second Nutanix cluster in place, Isuzu Hicom has a solid foundation on which to develop a hybrid and possibly a multi-cloud strategy down the line. "We're considering different cloud options," says Mr Yaacob, "but making a decision will be easier because we have Nutanix in place."

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