SK Shipping Drives Digital Transformation with Nutanix

SK Shipping is making its IT infrastructure efficient and cost-effective by deploying a Nutanix hyperconverged infrastructure solution

BUSINESS BENEFITS

Founded in 1982, SK Shipping is a global shipping company specializing in the transportation of natural resources including crude oil, LNG, LPG, coal, and iron ore. Very large crude carriers (VLCCs) owned by SK Shipping transport approximately 300,000 tons of crude oil during a 45-day voyage. The company's 20 VLCCs can simultaneously supply 6,000,000 tons of crude oil worldwide, making it a global top 10 company in the crude oil transport industry.

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>
> – Brian Kwak, Team Leader of IT Planning Team at SK Shipping

INDUSTRY
Marine Transportation and Logistics

BENEFITS
- Reduced IT complexity by 70%
- Saved 67% on IT expenditure by innovating IT infrastructure
- Achieved rapid digital IT transformation within 40 days
- Enabled a single IT professional to manage entire IT infrastructure
- Maximized application performance utilizing 30% of CPU and memory compared to previous environment

SOLUTION
- Nutanix AHV
- Nutanix AOS

APPLICATIONS
- Microsoft SQL Server 2019
- Documentum Server 11.6
- In-house ERP - ClickSea, ClickBunker
- Active Directory (DNS)
- Fax Server
- Internal Control Management System
- Corporate Credit Card Server
- Antivirus Server
- DLP Server
- DRM Server
- DBSafer
- Development Server – ClickSea, ClickBunker, Vessel Information System, Framework, DBMS, EDMS

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The previous IT infrastructure of SK Shipping consisted of hardware server, VM, storage, network, and security devices in seven racks. These components were connected in a complex way to 10G switches and SAN switches, requiring numerous management points and high maintenance costs. SK Shipping reduced its IT infrastructure complexity by 70%, consolidating its devices onto a single Nutanix hyperconverged infrastructure (HCI).

By innovating its IT infrastructure, SK Shipping reduced the IT expenditure by 67%, freeing the company to redirect the budget and manpower to frontline business with higher priority. "In the highly competitive and rapidly changing digital era, the key drivers for growth and survival depend on the ability to identify the values that new leading technologies can provide to the business and then to quickly accept them," said Brian Kwak, Team Leader of IT Planning Team at SK Shipping. "It took only about 40 days to migrate to Nutanix. We swiftly transitioned our infrastructure to enterprise cloud environment with Nutanix HCI. Now we can confidently say that SK Shipping has the top-class IT infrastructure in the shipping industry."

CHALLENGES

Oversupply of ships and economic slowdown are top challenges for the shipping industry. These factors are driving increased competition in the industry and making it more urgent to secure cost competitiveness. At the same time, customers are demanding faster, more streamlined services that provide a true end-to-end and integrated logistics capability rather than simple port-to-port delivery.

To maintain its leadership as a global resource shipping company and establish a sustainable business environment in a volatile marketplace, SK Shipping had long considered an innovative digital transformation initiative. Under its existing legacy architecture, IT staff had to manage 132 separate hardware devices. This complexity made the infrastructure difficult to manage and vulnerable against failure and created high operational cost burdens.

SK Shipping sought a next-generation solution to unify its disparate IT systems innovatively. The solution would have to support intuitive monitoring, swift failover, and simple, efficient operation to meet business complexities as well as to reduce operational costs disruptively. The company wanted a solution that could not only provide the technical capabilities it required but would deliver more benefits to customers and enable IT to focus more on the business, and less on tactical tasks.

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SOLUTION

After announcing a corporate digital transformation strategy in 2018, SK Shipping adopted Nutanix HCI as its core IT infrastructure, with an emphasis on reducing IT infrastructure complexity and costs. Centered on Nutanix HCI, SK Shipping transitioned its Groupware to SaaS, adopted a Cisco Meraki UTM/SD-WAN solution for network and security, transferred its DMZ infrastructure to AWS, and established a real-time backup system through NAKIVO.

The rapid adoption of new technology enabled SK Shipping to optimize its IT infrastructure and move beyond its inefficient legacy architecture with its high operational cost. Nutanix positions the firm to achieve its ultimate objective of creating additional business value and sustainable business environment to meet the industry's higher customer expectations.

CUSTOMER OUTCOME

SK Shipping successfully integrated all its disparate legacy infrastructures and services onto a Nutanix HCI. This unified solution enables the firm to monitor, operate and manage all of its operations with a more simplified, responsive infrastructure, and deliver dramatic business outcomes.

Nutanix has helped minimize the complexity associated with its duplexing physical server. The company replaced eight Documentum Servers with one Nutanix VM. It is now running four database servers that used to operate via a duplex configuration on a single Nutanix 4VM, removing four of its storage devices. Today, the IT staff must manage just four hardware devices.

IMAGE: BEFORE AND AFTER DIGITAL TRANSFORMATION

Nutanix AHV in particular has enhanced infrastructure simplicity by enabling integrated management. The solution provided an ability to run any application by delivering virtualization for all workloads and single dashboard management. The integrated solution is also highly cost effective, enabling virtualization without additional license fee or operational costs. Since adopting Nutanix HCI, the shipping leader has reduced the operation expenditure of server and network by 96%.

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The simplicity, efficiency, stability and cost-effectiveness have enabled SK Shipping to secure a new level of IT independence. Management and upgrades that had been outsourced can now be handled by a single in-house IT professional. This improved efficiency gives SK Shipping improved resource flexibility.

"Nutanix has truly contributed to redefining not only IT infrastructure but the role of our entire staff," said Kwak. "Reducing infrastructure complexity by 70% lets us free up resources to drive future-oriented business planning. It serves a critical role in our digital transformation journey."

SK Shipping is also running all workloads from Microsoft SQL Server 2019 to its in-house ERP system on Nutanix HCI 2 Blocks and 3 Nodes environment, allocating just 30% of CPU and memory that its previous infrastructure required—without sacrificing performance.

NEXT STEPS

The ultimate goal of SK Shipping is to achieve digital transformation throughout the enterprise—not only in its IT infrastructure, but across its overall business strategy, sales, operations, ship management and corporate culture to secure cost competitiveness and increase its business values. As part of its plan, SK Shipping is considering adopting additional Nutanix solutions to optimize the IT infrastructure that supports more than 70 ships.

Embracing hybrid cloud is also part of the company's digital transformation strategy. SK Shipping is currently running Amazon Web Services (AWS) centered around Nutanix HCI, and soon plans to adopt additional cloud-native technologies.

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