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IDC CUSTOMER SPOTLIGHT

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EXMAR has created a more cost-effective, agile, and resilient IT infrastructure foundation for its disparate business operations with Cisco HyperFlex hyperconverged solutions.

EXMAR Benefits from Having a Cost-Effective and Agile Infrastructure with Cisco HyperFlex

August 2020

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Introduction

EXMAR has transformed from its roots as a shipping company to a leading energy supply chain provider. Its current mission statement includes three business focus areas:

- Providing floating solutions for the operation, transportation, and transformation of gas through innovations in the field of offshore extraction, transformation, production, storage, and transportation of liquified natural gases, petrochemical gases, and liquid hydrocarbons
- Creating economically viable and sustainable energy value chains through partnerships
- Designing, building, owning, leasing, and operating specialized, floating maritime infrastructure

EXMAR operates from its headquarters in Belgium. The company has around 2,000 employees who are located in 10 worldwide offices and working from its 30+ seafaring vessels. Its shipping and infrastructure businesses constitute most of its revenue, although it also has a significant offshore services business focused on providing engineering and design services as well as asset leasing and operating and management services.

SOLUTION SNAPSHOT

ORGANIZATION:
EXMAR NV

ORGANIZATIONAL CHALLENGE:
Design and deploy a cost-effective, agile, and high-performing infrastructure foundation for disparate business activities and operations

SOLUTION:
Cisco HyperFlex hyperconverged infrastructure solutions

PROJECT DURATION:
Deployed over four weeks in 2017, supporting most business applications since deployment

BENEFITS:

- 40% lower infrastructure costs than alternatives
- 70% IT infrastructure team efficiencies
- 90%+ faster to deploy new compute and storage resources

Several years ago, EXMAR began an infrastructure refresh from an on-premises server environment that included both distributed and converged server infrastructure. According to an ICT project manager at EXMAR, his company chose to replace this environment with Cisco HyperFlex hyperconverged solutions. This decision was made based on the conclusion that Cisco HyperFlex offered ease of use, high performance, and financial benefits from a cost of operations perspective. The project manager also cited the single Cisco stack of solutions as a differentiator, noting that "*the network backbone is very important for a hyperconverged platform, and having that from the same vendor with Cisco was very important for us.*"

The interviewed project manager noted that EXMAR has achieved important benefits with Cisco HyperFlex since its deployment in 2017. He explained that from the IT side, Cisco HyperFlex is more cost effective than his company's legacy infrastructure in terms of hardware investment costs, operational costs, and staff time required for deployment, management, and support. He also cited IT agility gained with Cisco HyperFlex as one of the most important benefits, especially in terms of being able to more easily and readily provide compute, storage, and networking resources to support business operations with flexibility.

From the perspective of business operations, the project manager referenced benefits related to agility in delivering new services and functionalities to employees and customers as well as improved application performance with much-increased flash storage capacity and greater resiliency through the ability to provide more robust disaster recovery operations. He acknowledged that business users might not perceive the benefits provided by Cisco HyperFlex on a day-to-day basis, but he explained that Cisco HyperFlex allows for delivery of IT services that meet the standards required by EXMAR's business operations.

Implementation

EXMAR deployed Cisco HyperFlex in 2017 to replace a mix of distributed and converged on-premises server infrastructure. According to the interviewed project manager, the servers were due for a refresh and several options were considered in addition to Cisco HyperFlex, including traditional distributed servers, other converged and hyperconverged infrastructure solutions, and public cloud solutions. According to the project manager, the overall value proposition of Cisco HyperFlex — including cost advantages, infrastructure agility benefits, and higher performance — won over the EXMAR team. Specifically, the project manager noted:

- **Traditional three-tiered infrastructure.** The project manager cited the ease of managing and maintaining a hyperconverged environment as a significant differentiator compared with a more distributed server environment.
- **Other converged and/or hyperconverged solutions.** The project manager explained that having a single vendor's stack of solutions with Cisco differentiated HyperFlex from other potential solutions.
- **Public cloud.** The project manager explained that the nature of the applications that EXMAR runs on Cisco HyperFlex made it a far more cost-effective option than the public cloud. He cited his team's cost analysis: "*Everything that we run is 24 x 7, so we cannot shut anything down. Because of this, we could buy a new HyperFlex cluster almost every year for the additional price of public cloud.*"

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EXMAR's deployment and migration of applications to eight Cisco HyperFlex machines took approximately four weeks and required the time of several staff members. Cisco HyperFlex now runs all of EXMAR's applications and services, with only two other servers still running. The interviewed project manager noted significant virtualization on the Cisco HyperFlex infrastructure, with a virtualization density of nearly 30 virtual machines (VMs) per HyperFlex node. He also stressed that having an all-flash storage environment with HyperFlex is especially beneficial in terms of application performance compared with his company's legacy environment.

Benefits

EXMAR has leveraged its use of Cisco HyperFlex to make its IT infrastructure significantly more cost-effective and efficient to run, even as it benefits from greater agility, higher resiliency, and much-improved application performance.

Cost Efficiencies

The interviewed EXMAR project manager explained that Cisco HyperFlex was the most cost-effective infrastructure solution considered. He estimated that overall, his company paid roughly 40% less with Cisco HyperFlex than it would have with other potential on-premises solutions to achieve the same levels of capacity and performance. Further, as noted, the always-on nature of EXMAR's business meant that public cloud was not a cost-effective alternative for the shipping and energy company.

The interviewed project manager cited cost efficiencies with Cisco HyperFlex in the following areas:

- **Storage performance.** EXMAR would have needed to invest in flash storage on top of refreshing its server environment to achieve levels of performance comparable to those achieved with HyperFlex. The project manager commented: "*Storagewise, performance would have been less with a refresh because HyperFlex is all flash. So we would have needed to add flash, which would have cost somewhere around an additional 40%.*"
- **Licensing.** EXMAR would have needed an additional hypervisor license with a server refresh that it has avoided with HyperFlex because it can run equivalent virtual workloads with fewer hypervisors. The interviewed project manager also linked application licensing cost savings to having a more consolidated CPU environment with HyperFlex.
- **Networking and bandwidth.** EXMAR did not attribute cost savings to Cisco HyperFlex but noted that it has increased its bandwidth from 1Gbps to 40Gbps connectivity, thereby improving its overall IT performance in a cost-effective manner.
- **Disaster recovery.** EXMAR would have needed to also nearly double its server count for its disaster recovery environment without Cisco HyperFlex, which would have further increased its infrastructure costs.

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IT Staff Efficiencies

EXMAR's IT infrastructure team has benefited from running its business on a more consolidated infrastructure environment with Cisco HyperFlex hyperconverged solutions. In particular, the project manager cited time savings associated with more streamlined networking and disaster recovery environments. Overall, EXMAR must now devote around 10% of two team members' time to managing its Cisco HyperFlex environment, which compares with around 35% for those two team members without Cisco HyperFlex. This represents around a 70% efficiency for its IT infrastructure team — time that can be repurposed to support other activities.

Improved IT Agility, Resiliency, and Performance

The interviewed project manager cited increased agility, resiliency, and performance in EXMAR's infrastructure as a core benefit of Cisco HyperFlex that enables the company's broader business operations.

In terms of agility, having access to a common pool of Cisco compute, storage, and networking resources has enabled faster deployment as required to meet business demand. For example, the interviewed project manager reported reducing the typical time required to deploy new compute resources from hours to less than 10 minutes (92% faster) and new storage resources from over an hour to several minutes (97% faster). The speed with which EXMAR can now deploy these resources has enabled its development activities: "*Cisco HyperFlex has changed the speed with which we can deploy compute and other IT resources and assist our developers in giving them new environments and changing their environments.*" EXMAR's development team has leveraged this agility to better serve its business. The interviewed project manager estimated that developers now release approximately two times more new features per year with Cisco HyperFlex.

The project manager also described how EXMAR has leveraged Cisco HyperFlex to establish a more resilient and high-performing infrastructure foundation. In particular, the company has established robust redundancy across its operations through increased virtualization and the ability to cost effectively provide a disaster recovery environment. While EXMAR did not suffer significant losses because of unplanned downtime before deploying Cisco HyperFlex, it benefits from automatic switchover of applications when problems or outages do occur, which ensures that there is no user or business impact. The project manager also noted the positive impact Cisco HyperFlex has had on application and database performance levels, which helps ensure that his company's employees have access to high-performing applications to do their jobs.

Methodology

This IDC Customer Spotlight is based on an interview with an ICT project manager at EXMAR. The interview focused on understanding the quantitative and qualitative impact of running various business applications on the Cisco HyperFlex hyperconverged infrastructure platform.

About the Analysts

Eric Sheppard, Research Vice President, Enterprise Infrastructure

Eric Sheppard is a Research Vice President within IDC's Enterprise Infrastructure Practice, covering research on Enterprise Storage Systems, Enterprise Storage Software, Converged Systems, and Hyperconverged Infrastructure. Eric manages IDC's Worldwide Quarterly Disk Storage Systems Tracker, IDC's Worldwide Storage Software QView, and IDC's Worldwide Quarterly Converged Systems Tracker. This broad storage coverage coupled with his extensive international storage market experiences gives him a unique understanding of the many market forces affecting the storage software market. In addition to these responsibilities, Eric frequently contributes to primary research and custom storage projects and regularly presents market trends at industry events.

Prior to his current role, Eric spent seven years working at IDC's London, England office where he managed IDC's European storage hardware research programs. His research responsibilities during that time spanned 16 Western European countries and included disk storage systems, tape libraries, SAN infrastructure, and hard disk drive markets. Eric's broad understanding of Europe's multifaceted storage market made him a sought-after analyst within the market, and he was a regular presenter at many EMEA storage events.

Matthew Marden, Research Director, Business Value Strategy Practice

Matthew Marden is a Research Director in the IDC Business Value Strategy team. He is responsible for carrying out custom business value research engagements and consulting projects for clients in a number of technology areas with a focus on determining the return on investment (ROI) of their use of enterprise technologies. Matthew's research often analyzes how organizations are leveraging investment in digital technology solutions and initiatives to create value through efficiencies and business enablement.

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