

Holcim Group bets on Nutanix technology to drive its commitment to sustainability in the building sector.



INDUSTRY

Construction

CHALLENGES

- Provide innovative services to offices, factories, and dispatch centers in the EMEA region through a hyperconverged platform with unified management.
- Reduce the carbon footprint of its IT infrastructure.
- Operate a high-available environment with switches and distributed storage on servers with an additional security layer.
- Create savings in power consumption.

SOLUTION

- Nutanix Cloud Platform
- Lenovo HX2321/HX2331 servers
- Cisco Catalyst Switches
- Cisco Firepower Firewalls
- Druva Backup

The Holcim Group is a world leader in construction materials and solutions and is active in four business segments: cement, aggregates, ready-mix concrete, and solutions and products. Following its commitment to sustainability, its ambition is to lead the industry in reducing carbon emissions as a “Net Zero” company. It’s the first large cement producer to have signed the United Nations commitment to limit global warming to 1.5 °C above pre-industrial levels. The company has been working for more than 20 years, making essential efforts focused on using less polluting fuels, installing filters in factories, and making its plants more environmentally friendly.

The company is also distinguished by having the first R&D Center for New Concrete and Mortars in Spain, where designed products are developed to meet customers’ specific needs, and the first laboratory with an exclusive area for alternative fuels.

One of the key advantages is simplicity, since we manage all the clusters from a single console, and we are capable of automating critical activities such as loading security patches. Another great benefit we have experienced is scalability. In any relevant multinational company, the possibility of dynamically cope with the demand based on business needs has unquestionable value.

- Francisco Javier Mollá, I&O Global Manager of Service Delivery for EMEA at Holcim Group

Within the IT organization of the Holcim Group, operating mainly from Madrid, Global I&O EMEA is responsible for providing infrastructure and operations services to the EMEA Digital Center. Likewise, they jointly offer innovative services to more than 30,000 users in 53 countries in Europe, Africa, and the Middle East, with an installed capacity of more than 80 million tons of cement per year.

CHALLENGE

Global I&O EMEA has led the design and implementation of the design and implementation of the solution for ROBO and Edge locations for the EMEA region to provide innovative services to the Holcim Group's offices, factories, plants, and dispatch centers. Being one of the most important companies in the cement production industry, all of its factories have critical activity management and computing needs that require a solid technological infrastructure, with virtualized computing systems and centralized storage, firewall, and backup systems, which had reached their lifecycle and required modernization.

In this context, its main challenge was to move towards hyperconvergence to optimize its service capacity and improve operations around bundles under the product paradigm. This includes a set of devices typically made up of multiple highly available compute, networking and storage distributed across the servers and switches with an additional layer of security. This additional security consists of 2 highly available firewalls and a virtualization layer to manage the services provided. This approach of the solution as a product allows optimization of the infrastructure service and iterative evolution, ensuring versioning and standardization throughout the different locations where the service is offered.

"Based on this model, the company was after getting the most out of providing efficient local business solutions as a complement to the services implemented on the Amazon Web Services (AWS) public cloud platform", explains Francisco Javier Mollá, I&O Global Manager of Service Delivery for EMEA at Holcim Group. "The IT department has greatly contributed to reducing power consumption with new, more efficient, virtualizable machines and with the centralization of services in the public cloud in order to use only the resources that are needed, which translates into efficiency and reduced carbon emissions".

SOLUTION

Hyperconvergence is the cornerstone of ROBO v2 (Remote Office Branch Office), which left behind the first version of ROBO with VMware virtualization and EMC storage. 3-node Nutanix clusters were implemented as a starting point, maintaining the firewall security layer and modernizing the backup layer with a Software as a Service (SaaS) solution from Druva. With ROBO v2.1, the company embraces hyperconvergence and the ability to implement graph computing capabilities.

"The ROBO v2.1 version will host the solution of the "Plants of Tomorrow" initiative, which incorporates artificial intelligence and machine learning to factories for the optimization of manufacturing and predictive maintenance processes", reveals Francisco Javier Mollá.

ROBO v2 started to take shape just two years ago. The first contact with Nutanix occurred in September 2019, and the technology entered the production phase at the end of 2021. Currently, the Holcim Group has a hyperconverged platform with a capacity adapted to the needs of each installation, defined based on bundles with different components, dimensioned according to the needs of each location, and managed from its service center in Madrid.

To complete the implementations in each location, they collaborate with SCC España. The IT department in Madrid is in charge of defining the infrastructure solution, purchasing management, etc., while local teams take care of the physical installation following guidelines. For these professionals, installation is straightforward because the bundles come preconfigured by SCC. Besides, the partner provides the third level of support for the entire platform with the collaboration of Nutanix, simplifying the management of the operation.

“The Nutanix hyperconverged platform helps us to simplify daily activities, modernize obsolete components—especially in computing, storage and backup—and automate operations and deployments with tools such as Nutanix Prism, Ansible, or Terraform”, says Mollá.

BENEFITS

One of the main benefits of the new technological infrastructure in the Holcim Group is its contribution to sustainability. The IT department is especially proud to support the company’s values, such as power savings, efficiency, and the simplification of processes.

Hyperconvergence is one more step for the Holcim Group to be 100% operational in the cloud. Currently, 60% of applications and processes run in the cloud and by the beginning of 2023, the IT department estimates that 100% of these applications will be migrated from on-premise legacy environments to the cloud, either private or public.

“One of the key advantages is simplicity, since we manage all the bundles from a single console, and we are capable of automating critical activities such as loading security patches. Another great benefit we have experienced is scalability. In any relevant multinational company, the chance to dynamically cope with the demand based on business needs in each location has unquestionable value”, emphasizes Francisco Javier Mollá.

From a security point of view, the Holcim Group has eliminated storage as a single point of failure. With the previous infrastructure, if the storage cabinet failed, the bundle became out of service. However, with virtualized and distributed storage, that risk is now eliminated.

Regarding costs, the pay-as-you-grow model allows the company to pay for only what it needs without being subject to high licensing fees. This applies especially to the Druva backup solution, which also allows easy scaling, which was not feasible in the past.

NEXT STEPS

At a time when working with different clouds is still a far-off dream for many organizations, the present of this organization is multicloud, since it currently works with a hybrid cloud infrastructure combining AWS public cloud and Nutanix-based private cloud. The next steps are to further simplify and automate the management of both clouds with new solutions, which translates into extra time for tasks that add value to the business.



T. 855.NUTANIX (855.688.2649) | F. 408.916.4039
info@nutanix.com | www.nutanix.com | [@nutanix](https://twitter.com/nutanix)