VERITAS

CASE STUDY

POSCO Secures Cloud Service Availability with Veritas InfoScale

Supporting the implementation of a multi-hybrid strategy, from cost reduction to field work innovation.

Challenge

POSCO decided to move a significant number of its IT systems to the cloud. The company wanted to solidify its leadership in the market by increasing its flexibility and responsiveness to changes in the business environment. However, as the organization migrated its outdated on-premises supply chain management (SCM) system, it was unable to use its existing high-availability (HA) architecture to ensure that mission-critical applications would stay highly available.

Solution

Thus, POSCO decided to deploy Veritas InfoScale™, which can meet its service-level agreement (SLA) requirements and adjust resource allocation according to the importance of each application. Veritas provided consulting, technical support, and hands-on training.

Outcome

Veritas InfoScale was deployed in a mirrored active-standby clustering configuration that provided near-instantaneous failover of POSCO's enterprise resource planning (ERP) system. Performance equals the company's legacy on-premises active-active Oracle RAC cluster, but at a lower overall cost.

posco

INDUSTRY

Steel Manufacturing

EMPLOYEES

29,000+

HEADQUARTERS

Pohang, Korea

WEBSITE

www.posco.co.kr

> *"We expect POSCO's multi-hybrid cloud strategy to succeed because Veritas InfoScale supports a wide range of cloud services and platforms while ensuring the agility of various workloads."*
>
> **Won Jong Chang,** Digital Innovation Department IT Planning Team Manager, POSCO

272 Systems Migrate to the Cloud

South Korean steel manufacturer POSCO—one of the world's largest producers of steel—decided to migrate a significant number of its IT systems to the cloud.

"We came to the conclusion that we needed a more agile infrastructure and platform in order to expand into the global market and respond to the changes in the internal and external business environment caused by the COVID-19 pandemic," says Won Jong Chang, POSCO's Digital Innovation Department IT Planning Team Manager. "Therefore, we started a project to convert on-premises IT systems to the cloud."

At the beginning of this project, POSCO operated a total of 461 systems on-premises. Through the initiative, 272 of those systems have migrated to the cloud, including manufacturing execution systems (MESs), enterprise resource planning (ERP) systems, and supply chain management (SCM) systems. Core systems, such as MES, were moved to a private cloud, while management support systems such as ERP and SCM were selected for a public cloud.

The cloud migration has been in full swing since 2021, and many of the migrations are complete. Full transfer of all targeted systems is expected to be finished by the end of this year.

Purchasing, inspecting, installing, and testing the equipment to build necessary systems and processes took a long time in the on-premises environment. But in the cloud environment, the necessary infrastructure is ready to be used immediately. This provides POSCO with many advantages in terms of business responsiveness. POSCO's cloud project was on the fast track because the company's management team acknowledged the utility of a cloud environment and actively supported it.

POSCO is also building a disaster recovery (DR) system in the cloud. The company experienced an unprecedented situation in 2022, when the facilities of the Pohang Steel Plant were flooded due to a typhoon. Now, POSCO is putting a lot of effort into preparing a companywide business continuity plan and applying cloud-based DR so that IT systems required for corporate operations are not interrupted under any circumstances. To prepare for unexpected events, POSCO is reviewing the DR system as a whole—not only servers and storage, but also the network configuration—and checking the recovery training stage.

Maintain HA with InfoScale™

As the cloud migration progressed company-wide, POSCO encountered an unexpected obstacle to maintaining the high availability (HA) of its aging on-premises-based SCM system. "In the case of SCM, we formerly used Oracle's Real Application Cluster [RAC] to configure active-active clustering, but we couldn't use it in the new public cloud environment," Manager Chang says. "In the event of a general failover, downtime of about 10 to 30 minutes may occur, which is unacceptable for operation of our SCM system."

POSCO initially intended to maintain its existing system configurations in the cloud environment, but the company needed a different solution for ensuring high availability for the SCM system. "Ultimately, we looked at ways to maintain HA in a cloud environment from various perspectives," says Manager Chang. The decision process required careful selection because the issue of licensing costs was also intertwined. "We came to the conclusion that Veritas InfoScale was the best choice to meet our needs."

Veritas InfoScale is a service-centric storage virtualization solution that helps ensure business continuity by decoupling applications from enterprise infrastructure. InfoScale also optimizes storage performance to increase infrastructure agility. Supporting heterogeneous platforms and operating systems, InfoScale can be used for physical devices, including Unix, Linux, and Windows, as well as in virtualized and cloud environments. Its resource utilization can be tailored to application criticality, enabling InfoScale to ensure applications meet critical service level agreement (SLA) requirements without downtime or over-allocation of resources.

"There was a plan to maintain the existing on-premises environment, but there was an agreement that the cloud must be applied to promote new digital innovations, such as the metaverse, while upgrading the aging infrastructure," Manager Chang says.

POSCO deployed Veritas InfoScale with the help of Veritas consulting, technical support, and hands-on training. "As a result," Manager Chang says, "even with the mirrored active-standby clustering configuration, InfoScale is performing at a similar level to the previous active-active Oracle RAC configuration. A system conforming to POSCO's IT roadmap was established."

Maximize Cloud Utility

Cloud adoption is no easy task, and it is often compared to a journey. Simply transferring existing systems and data to the cloud is inadequate for a complete cloud migration. It is also important for companies to re-platform and architect their systems to suit cloud environments. Only then can an organization experience the true power that the cloud has to offer.

POSCO has put a lot of thought into maximizing the utility of the cloud while promoting cloud transformation for IT systems company-wide. The company introduced a public cloud to enable agile and flexible infrastructure configuration, while moving critical systems to a self-built private cloud to meet their security and efficiency needs.

The company intends to establish a multi-cloud strategy that utilizes an assortment of services, such as Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), and Oracle Cloud, to make the most of each public cloud's best features. Using various clouds has led to cost optimization challenges for POSCO. The company recently transitioned to cloud Infrastructure-as-a-Service (IaaS), and POSCO expects to reduce costs through re-platforming and re-architecting. Veritas InfoScale is expected to replace the license fee for the HA architecture in the company's existing on-premises environment, which will have a significant cost reduction effect in the long run.

"We expect POSCO's multi-hybrid cloud strategy to succeed because Veritas InfoScale supports a wide range of cloud services and platforms while ensuring the agility of various workloads," Manager Chang said. "As we continue to increase the availability of various services, we look forward to Veritas acting as a partner in POSCO's cloud journey."

For More Information

Please contact your local Veritas Sales Representative or Business Partner, or visit Veritas InfoScale

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