Insurance case study

Swiss Re Moves to Microsoft Azure Public Cloud as Platform for IT Modernization

Migration of SAP S/4HANA applications to Microsoft Azure is one of the insurance industry's largest projects to date.

The Swiss Re Group is one of the world's leading providers of reinsurance, insurance and other forms of insurance-based risk transfer, working to make the world more resilient. It operates through a network of around 80 offices globally. As such, it requires a modern IT platform with advanced capabilities.

Roughly five years ago, Swiss Re had embarked on an eight-year plan to migrate its legacy systems to SAP S/4HANA, which runs in a hosted private cloud environment. But, there were regulatory constraints at the time that prohibited a move to public cloud. Initially, Swiss Re targeted 2020 as the year it would no longer run its own data center—cloud was the plan moving forward.

During late 2018, Swiss Re was looking for an end-to-end solution to manage its critical financial systems on a scalable, agile and flexible platform as an operating expense. The company decided to fully embrace hyperscale public cloud by migrating to Microsoft Azure; as a long-time Swiss Re partner, we functioned as the systems integrator.

At a glance

As part of an IT modernization initiative, Swiss Re, one of the world's largest reinsurers, targeted 2020 to stop operating its own data centers.

After moving to private cloud, the time was right in 2018 to move its SAP S/4HANA system to the public cloud based on Microsoft Azure. The benefits include:

Outcomes

• The migration helped the companyboost efficiency, improve theavailability of core SAP applications, minimize operating costs and optimizecapital investment

• The program increased agility todevelop prototypes and to evaluatenew enterprise application features

March 2022

The Swiss Re team's goals for the migration were to enable the company to realize higher levels of efficiency, improve the availability of core SAP applications through failover clustering, minimize operating costs and optimize capital investment with consumption-based IT infrastructure spend. The program was also expected to provide greater agility to develop prototypes, as well as evaluate and test new features in Swiss Re's enterprise applications.

Beginning in December 2018, our team migrated the distributed Swiss Re's SAP applications to Microsoft Azure with precise planning, modernizing the application platform with a high availability (HA) architecture based on SAP HANA, ensuring no disruptions to the existing application interfaces and no interruption to the business. The first phase of the project went live successfully in November 2019. During the course of the project, we built numerous automations on top of SAP S/4HANA, including:

One-click SAP disaster recovery. As part of the transition to the public cloud, we leveraged DevOps to create an industry-first one-click SAP disaster recovery (DR) solution, aimed at improving resiliency, reducing manual errors and speeding recovery time. The Swiss Re IT team can monitor the entire DR process from a central portal that was built for this solution. The solution simplified the execution of a DR plan and overcame manual complexities through end-to-end automation.

Wider automation of IT processes. Achieving a high degree of process automation was a priority throughout this engagement. IT operations need to deploy infrastructure in a consistent, repeatable, faster and more reliable manner. This can only be fully achieved with automation. So, 95 percent of the infrastructure build was automated. Altogether, 29 automation use cases were implemented, including scheduled start/stop, SAP Auto scaling, virtual machine (VM) hardening and patch automation and Azure monitoring.

"Cognizant has drawn on its expertise in SAP and cloud technologies to design, build and migrate our SAP applications to Microsoft Azure. Cognizant also deployed a one-click disaster recovery solution for the migrated systems,which will improve resiliency of our financial applications, be more cost-efficient, provide greater choice, and increase self-service."

Alexander Türk, IT Foundation Lead, Swiss Re

Zero-impact transition of SAP applications with a high-availability architecture. One of the biggest technical challenges in the project was that existing SAP applications in private cloud were not built with high availability (HA), leading to reduced infrastructure resiliency and a greater number of application component failures. In addition, the existing application programming interfaces (APIs) were pointing to the individual application server of the SAP application rather than the load-balancing component. Implementing a standard high availability (HA) solution would have forced Swiss Re to spend significant effort in modifying the end-points of more than 300 undocumented interfaces.

We partnered with SUSE, a multinational, open-source and enterprise software developer, in designing a clustering architecture based on the company's SUSE Linux Enterprise HA Extensions. The redesigned architecture included SAP single point of failure (SPOF) components for central services and an end-queue replication server, as well as an efficiently sized application server within the same cluster. This ensured the external APIs continued to work without any modifications to the service end points after migration.

The SAP applications that were migrated under the project include SAP S/4HANA, SAP Fiori Front-End Server, SAP Process Orchestration and SAP BusinessObjects. The SAP applications were hosted on a private cloud and migrated to VMs in an efficiently designed and secured architecture on Microsoft Azure cloud.

The 11-month migration has entered a managed services phase in which we support the new environment. The total number of virtual servers migrated from a private cloud was 170, along with 35 SAP instances.

This modernized IT infrastructure and enterprise financial systems enabled Swiss Re to fulfill its long-term growth strategy. And the strength of Cognizant's partnership with Swiss Re, SUSE and Microsoft drove the project's results.

"Digital transformation technologies like SAP S/4HANA have great potential when operated on hyper-scale platforms like Microsoft Azure. Cognizant is a trusted technology partner and advisor, with strong credentials in designing managed platform-as-a-service (PaaS) for SAP on Microsoft Azure," says Alexander Türk, IT Foundation Lead, Swiss Re.

"Strengthened by strong partnerships with Microsoft, SUSE and SAP, Cognizant has drawn on its expertise in SAP and cloud technologies to design, build and migrate our SAP applications to Microsoft Azure. Cognizant also deployed a one-click disaster recovery solution for the migrated systems, which will improve resiliency of our financial applications, be more cost efficient and agile, provide greater choice, and increase self-service and transparency," adds Türk.

The Microsoft partnership was another important factor in the success of the project. "Microsoft's SAP S/4HANA certified VMs on Azure and additional Azure services were designed to enable seamless migration and rapid deployment of SAP systems on demand," says Harald Bolbach, Head of SAP on Azure-DACH Region, Microsoft.

"Cognizant has again shown its expertise in high availability and disaster recovery solutions, in this case providing maximum system availability and business continuity to Swiss Re via the SUSE Linux Enterprise High Availability Extension," says Brent Schroeder, Global CTO, SUSE.

"Vital to this solution is SUSE's support for public cloud, helping Swiss Re maintain and deliver the services that are critical to their own customers' success."

cognizant®

World Headquarters

300 Frank W. Burr Blvd.
Suite 36, 6th Floor
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060

APAC Headquarters

1 Changi Business Park Crescent
Plaza 8@CBP # 07-04/05/06
Tower A, Singapore 486025
Phone: + 65 6812 4051
Fax: + 65 6324 4051

Codex 5537