Synthos Group

One of the leading European producers of synthetic rubber, the largest European producer of expandable polystyrene and a company of international concern from the chemical industry.

**AWS Case Study.
Synthos S.A.
(SAP S4/HANA)**

The activities of the Synthos Group are largely based on the sale of chemical products used as raw materials and indirect products in a wide range of industries, in particular in the automotive industry, the packaging industry, and the construction industry. The Group also derives income from auxiliary activities related to the production and distribution of thermal energy from its power plants, as well as revenues from the trading and distribution of electricity. The Synthos Group puts particular emphasis on the continuous improvement of the quality of offered products and satisfaction of the growing and clear expectations of its clients.

Challange

Synthos Group S.A. set the task of quick implementation of a comprehensive SAP S4/HANA solution. High implementation dynamics were assumed, taking into account the great flexibility in creating and scaling new systems. The application was to include the Disaster Recovery solution for the implemented systems.

The goals set by the Synthos Group S.A. in the context of the project:

1. Cost-effectiveness of implementation.

The solution had to ensure competitive costs of maintenance

2. Dynamics of implementation.

Implementation had to be performed dynamically, and changes in the project implemented immediately.

3. Scalability during implementation.

Implementation should identify the infrastructure resources necessary for the production operation. The critical factor is the proper scaling of the required resources.

4. Cost-effectiveness of the DR solution.

The DR solution must ensure the security of the systems and, at the same time, to be cost-effective.

Why Amazon Web Services?

After considering many possibilities, Synthos S.A. chose Amazon Web Services (AWS) as a platform for implementing the solution. Ultimately, after the implementation of the system and verification of the necessary resources, the production system was moved to the local server room, and the Disaster Recovery solution is maintained in AWS. The AWS platform is a leading provider of cloud solutions on the market and enables meeting expectations.

Amazon Web Services has a strong group of partners who can combine the functionality of SAP systems with modern cloud technologies. Creating their environment in the AWS cloud, Synthos S.A. trusted one of their partners, the SE16N company. Disaster Recovery systems in the AWS cloud are ready to be run on EC2 virtual machines (Amazon Elastic Compute Cloud), which provide adequate computing power, memory size and operation performance of I/O for the maintained environment. In the event of a load increase, virtual machines can be easily expanded, and the entire SAP application environment can be quickly reconfigured. Connected to virtual machines EBS (Amazon Elastic Block Store) volumes provide the right performance at a given moment and can be modified immediately to optimize performance. S3 (Amazon Simple Storage Service) is used to store backups that are used to build the Disaster Recovery environment, ensuring durability at 99.999999999% and storing backup copies in three separate locations at the same time.

Benefits

The Synthos Group has achieved all the goals that
the project assumed:

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1. Cost-effectiveness of implementation.

The flexibility provided by the AWS cloud allowed creating new systems
on-demand in the relevant project phases, without having to pay for the
unused environment. The systems were started and stopped only when
they were needed in the project.

2. Deployment Dynamics.

Systems were created on-demand as required. Any infrastructure
decision could be put into effect immediately.

3. Scalability during implementation.

Implementation in the AWS cloud allowed the scaling of the
environment to the appropriate size after implementation. Thanks to
this, the typical risk of overestimation of production resources has been
mitigated.

4. Cost-effectiveness of the DR solution.

The security of the system's operation has been enhanced thanks to the
implementation of the Disaster Recovery solution in AWS. DR systems
are dynamically created from prepared AMI (Amazon Machine Images).
Systems do not run permanently and do not generate costs. Backups
enabling the resumption of operations are regularly sent to S3. The
entire solution creates minimal maintenance costs, giving another level
of security in the operation of systems.