NEXT GENERATION BUSINESS INTELLIGENCE

WITH SNOWFLAKE AND SAP IN THE UTILITIES INDUSTRY

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snowflake® initions part of mindcurv

UTILITIES – A COMMODITY WITH REAL-TIME EXPECTATIONS

INDUSTRY PRESSURE FOR UTILITIES

From business pressures to technical challenges:

Utility companies are in a permanent state of conflict between the provision of electricity, gas and water and the persistent cost pressure related to this, as well as fluctuating customer satisfaction. Rarely has it been so simple and easy as an end consumer to change their utility company in order to achieve a price advantage.

- Tough competitive pressure
- Complicated and time-consuming preparation of decision-making bases
- Through it: Only reacting instead of acting to market developments

At the same time, energy service providers have to meet extensive government requirements in terms of the energy transition and still survive the hard competition in the market.

The IT and infrastructure is only able to meet these challenges to a limited degree. An outdated architecture no longer meets the requirements for flexibility, autonomy and performance. In order to be able to survive in the highly competitive market of utilities in the future, or even better, to gain advantages over the competition, the Next Generation Business Intelligence must be achieved.

Previously data silos and new data sources, which also provide semi-formatted and unformatted data, must be harmonized and available across the company. In the future, the managing divisions must be put in a position to prepare new analyses and reports quickly and mostly autonomously. In addition to the validity of the data, speed in the implementation of new requirements as well as in the delivery of data have special priority. Above all, a modern and adequate price model must put effort and benefit in a suitable ratio.

DATA IS THE NEW GOLD

The conflicting priorities of climate change and the energy transition, dwindling customer loyalty and increasing pressure on cost management are giving rise to new roles and functions in the use of data. Data Engineers and Data Scientists are trying to meet these new challenging requirements with further insights and the resulting solutions.

Previous limits and barriers in data availability must and will be ignored in the process. In the future, it must no longer matter where the relevant data is stored. It must be possible to integrate all data sources quickly and with low effort in order to leverage fully extensive analyses.

HOW DO I GET ACCESS TO MY SAP DATA GOLD?

SAP source systems have been an important source of data for energy operators in the past and will continue to be so in the future in order to be able to operate holistic analytics. Even if many different tools are used in the grown architectures on the user side, SAP is very much a cross-Industry standard-technology, for example to manage finance and accounting or sales and distribution.

A modern cloud data platform only earns this title if it is able to integrate all relevant data and make it available to its piers. A very important added value is the integration of SAP source systems with other available data sources in the corporate cosmos. Transactional information from the SAP-supported areas of finance and accounting, controlling, sales and marketing, for example, was relevant yesterday and will of course also be relevant tomorrow. In the future, an Intelligent Cloud will connect this information with price developments and forecasts from the connected utility exchanges or market research data on new consumer trends and developments. This creates new and more extensive insights that generate significant added value.

At the same time, a solution approach must stay scalable in the future in order to deal with the constantly growing volume of data in the data warehouse and analytics context. Digitization on the end consumer side (keyword: smart home) and in energy service processes is causing the volume of data to increase significantly now and in the future. However, projects must also be able to be expanded quickly and easily in the future to cover new use cases and integrate additional users. Moreover, the sensitive SAP licensing framework must not be jeopardized.

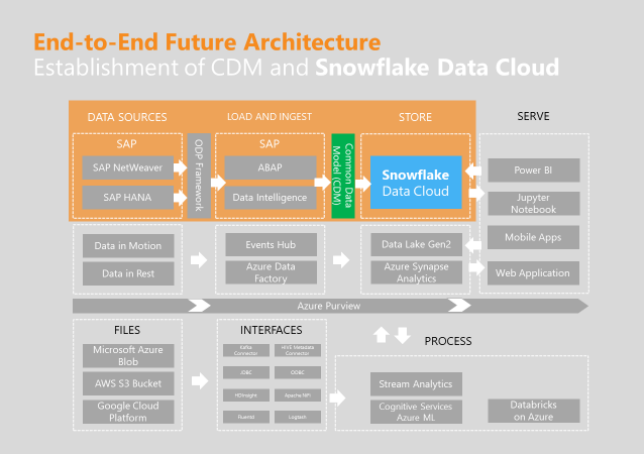
The solution does not have to be to buy another powerful tool at great expense. Maybe it is enough to connect already existing concepts in a meaningful way.

SOLUTION: NEXT GENERATION BI ON SNOWFLAKE AND SAP

initions proposes a Next-Generation BI solution that marries the best of the Snowflake and SAP worlds. Adhering to a usually already existing large SAP licensing framework, internal SAP services are utilized, integrating the SAP ERP seamlessly with Snowflake as the target data platform.

The solution approach provides for the use of often already existing SAP tools, such as the BusinessObjects Data Services (BODS). This is not only a powerful, multifunctional data transfer tool that is used for data integration between the different SAP instances. Rather, this engine can also be used to extract data from the SAP source system into an external data lake. In this case, the SAP internal ODP framework is addressed, which has the advantage that an object-oriented data extraction is possible and thus an extremely fast and, in this case, near-real-time data supply is guaranteed.

SAP Integration Interfaces with BODS



The SAP Landscape Transformation Server (SLT) opens access to the affected SAP source tables, using the ODP framework and the SAP standard tool BusinessObjects Data Services (BODS) offers lean connection options on the SAP source system side for extract data from an SAP ERP (R/3) or S/4HANA system or also from an SAP BW/4HANA system.

The analytics platform in which this SAP data lands in is made up of the Snowflake Data Cloud which runs on any of the three public cloud vendors AWS, Microsoft Azure or GCP. It can be used as the landing zone for all following transformations (e.g. as the centralized data platform) or enhance an existing data lake from one of the cloud vendors as the analytical engine.

Of course, other target systems can also be addressed via this interface, such as other SAP systems (Business Suite, BW, HANA), cloud storages (AWS, Azure, GCP), relational databases (MSSQL, Oracle) or customized web services. Once the architecture has been set up, it can be easily reused and expanded.

WHY SNOWFLAKE AND INITIONS

initions has specialized in Business Intelligence (BI) and Data Warehousing (DWH) for 20 years. As a leading Snowflake Elite partner in Europe and SAP Silver Partner, initions has extensive expertise in the migration and modernization of on-premises Data Warehouse systems. It combines deep technical skills in Snowflake, SAP and cloud technologies, process understanding, data warehouse expertise, and a broad practical experience cross industry, and especially in the Energy & Utilities space.

Snowflake delivers the Data Cloud — a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads.

In the combination of Snowflake and initions, the customer benefits from a state-of-the-art cloud solution that is implemented and customized to the customer's individual needs by technically skilled and highly experienced consultants and architects.

CASE STUDY

Vattenfall is a Swedish energy company and one of the leading electricity producers in Europe. Vattenfall is fully owned by the Swedish state. In Germany, Vattenfall is active through its subsidiary Vattenfall GmbH and is the fourth largest energy supplier (after E.ON, RWE and EnBW).

Extensive, independent BI architectures have grown out of numerous companies and divisions over the years. A consolidated analysis was hardly possible, if at all. Above all, 360° views could not be mapped in this way.

New business initiatives were characterized by long runtimes and immense effort. As a result, new business processes could not be set up and one had to accept disadvantages compared to the competition.

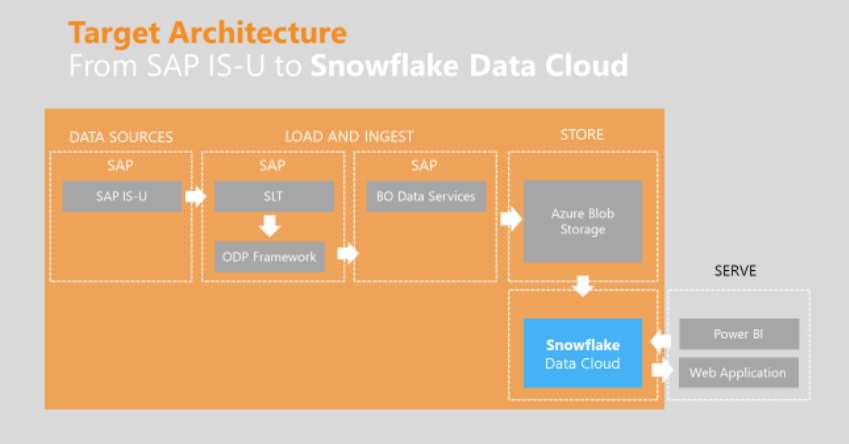
To compete effectively real-time data products were demanded, Vattenfall required a state-of-the-art analytics platform that would integrate seamlessly with the extensive SAP landscape (several ERP systems, ISU, CRM and BW), allow for near-real-time data replication from these SAP data sources, comply and make most use of existing licensing agreements, and support Vattenfall's future enterprise architecture.

NEXT GENERATION BI WITH CLOUD DATA WAREHOUSE

- Investment protection
- Scalability and flexibility
- Data integrity

initions introduced Snowflake as the new data platform, replacing an on-premise Oracle data warehouse. By using SAP SLT and BO Data Services, Vattenfall was able to systematically integrate data from the SAP source systems into the new data platform for the first time and thus make it available for further analyses.

In this way, Vattenfall was able to increase the data replication frequency, while simultaneously reduce the load on the data source and BI target systems on the serving/presentation layer. The established interface technology is also future-proof and ensures operations even after a later HANA migration.



#1 Establish Data Sharing

By building a new data sharing platform based on Snowflake, Vattenfall was again able to set a much shorter time-to-market span from new project initiatives to final implementation. More comprehensive and in-depth 360° analyses allow the establishment of new processes and thus create significant competitive advantages.

#2 Speed up, costs down

Shift SAP data from batch to (near-)real-time processing to accelerate business. As a result, the user company gains agility and can develop significant competitive advantages here. Noticeable cost reduction through efficient scaling of DWH capacities. These cost savings create financial flexibility for new profitable investments, which in turn can be used to create advantages over market competitors.

#3 Investment protection and license security

Better acceptance in the in-house IT: By using BODS/Data Hub, familiar technologies can be used, thus also ensuring investment protection. The use of state-of-the-art interfaces standardizes the relevant SAP source systems and yet you do not risk your existing SAP licensing.

INTERESTED TO KNOW MORE?

Interested in learning more about how Snowflake and initions can help make data from your SAP source systems available and integrate it into a state-of-the-art cloud data warehouse architecture?

Contact snowflake@initions.com to schedule a demo.