Modern Data Warehouse on AWS

Modernize your EDW capabilities with Amazon Redshift, Tableau Server, and Matillion ETL for Amazon Redshift

Tableau and Matillion are AWS Advanced technology partners with the AWS Big Data competency.

Challenges

Organizations using legacy data warehouses to manage large datasets often run into performance challenges when accessing and analyzing all their business and customer information. Typically, only a fraction of data is available for analysis, preventing them from getting a full picture inspection. Organizations often know that value lies in the data they collect, but when they are still running on legacy data warehouses, it can become too complex, slow, and expensive to identify and analyze the useful data.

About Data Warehouse Modernization

Modern data warehouses on Amazon Web Services (AWS) are designed to support the growing volumes of data within your organization, regardless of the data type, structured or unstructured. AWS offers a common architectural platform with a single, easy-to-use interface that enables you to leverage new and existing big data technologies and data warehouse methods. A full migration from a legacy data warehouse brings immediate cost savings, flexibility, and business value from data. Leveraging the Amazon Redshift managed data warehouse, you can ingest data from both your existing data warehouse and new data sources. This enables you to quickly and cost effectively generate business value by gaining better insights from your data to change processes and applications.

With a modern data warehouse on AWS you can:

- Ingest data to take advantage of relational and non-relational data.
- Federate querying to gain the ability to run a query across heterogeneous sources of data.
- Consume data easily to support numerous types of analysis, including ad-hoc exploration, predefined reporting, and predictive and advanced analytics.

Additionally, Amazon Redshift Spectrum is available to extend your Amazon Redshift analytics, with the freedom to store your data where you want, in the format you need, and have it readily available to meet your processing needs.

Matillion

Matillion provides an extract, transform, load (ETL) tool that was designed specifically for Amazon Redshift and seamlessly integrates with various other AWS services. With Matillion, you can quickly load dozens of types of data into Amazon Redshift, and transform it to an analytics-ready state. The tool enables easy onboarding with an intuitive user interface, helping you set up and deliver results at a much faster rate, compared to your on-premises ETL tool.

Tableau

Tableau empowers your organization to explore and analyze data without the limitations of pre-defined questions or charts. With its robust integration, scalability, and reliability, you can be confident that your data is protected. When leveraged on Amazon Redshift, anyone within your organization can quickly analyze, visualize, and share information.
Customer Ready Solutions

Discover scalable solutions that help you achieve your business needs through a combination of AWS services and APN Partners that have attained AWS Competency designations. Based on architectures validated by AWS to accelerate your cloud transformation, you can deploy solutions quickly with AWS Quick Starts and optional Jumpstart consulting offers provided by APN Partners. Visit here for more information.

Benefits of Data Warehouse Modernization

**Automate:** Through the power of automation, Amazon Redshift enables you to focus on your data and business, as most administrative tasks can be automated. In addition to the fast query performance and improved I/O efficiency, Amazon Redshift also includes Redshift Spectrum, a service that enables you to extend the analytic power of Amazon RedShift to query unstructured data in your data lakes.

**Secure:** AWS was built to meet the requirements of even the most security sensitive organizations. With dozens of compliance programs actively managed in its infrastructure, AWS helps you meet numerous compliance regulations.

**Optimize:** AWS offers flexible and cost-effective resources, enabling you to quickly build and scale virtually any big data application. By implementing a modern data warehouse on AWS, you gain the ability to connect to virtually any database running on AWS, in a matter of a few clicks.

**Easy, Fast, Flexible:** AWS makes it easy to load virtually any type of data from a range of sources into your data warehouse. Amazon Redshift loads your data into each compute node in parallel to maximize the rate in which you can ingest data.

**Increase Agility and Reduce Costs:** Modernizing your data warehouse on AWS eliminates concerns about provisioning and maintaining infrastructure for data storage and analysis. Data warehouse clusters on AWS can be quickly spun up or down based on demand.

AWS Quick Start with Tableau Server

AWS and Tableau have partnered together to offer a Quick Start that helps you deploy an enterprise data warehouse environment, based on Amazon Redshift. The architecture includes an Amazon Redshift data warehouse with the analytics and data visualization capabilities of Tableau Server. The Amazon Redshift data warehouse is used for its enterprise-class relational database query and management system and optimum performance. Once both Amazon Redshift and Tableau Server are deployed, a sample dataset can be uploaded to an Amazon Redshift cluster, to support the creation of aggregates. With the easy customization of AWS CloudFormation templates, you can quickly create a reference architecture to meet your organization’s specific big data requirements. Get started.