

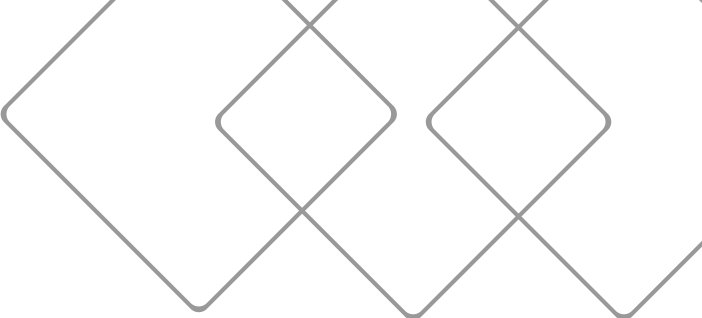


E-BOOK

DISCOVER THE POWER OF VISUAL ANALYTICS IN THE CLOUD

EASILY CONNECT, DEPLOY,
COLLABORATE, AND SCALE





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THE CLOUD ANALYTICS LANDSCAPE

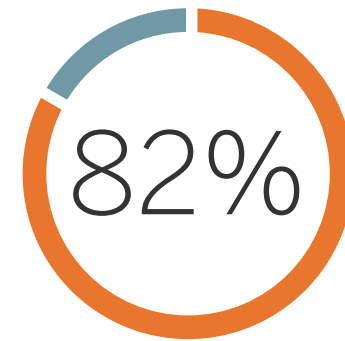
THE CLOUD ANALYTICS LANDSCAPE

Without a doubt, data and analytics are a vital part of a successful, growing company, often providing critical differentiation from the competition. The stakes are high. “The amount of data created over the next three years will be more than the data created over the past 30 years, and the world will create more than three times the data over the next five years than it did in the previous five.”¹

Asked about their strategic areas of investments for the next five years, 80 percent of CEOs identified using data in advanced decision-making models for intelligent operations.² And in their latest survey of boards of directors, Gartner points to analytics and artificial intelligence (AI) “to emerge stronger as game-changer technologies as a result of the pandemic.”³

Is your organization prepared to compete with companies who are able to make nimble business decisions thanks to a cloud-based analytics platform?

In this eBook, learn how Tableau and Amazon Web Services (AWS) offer a powerful, secure, and flexible end-to-end business intelligence (BI) solution in the cloud.



of data-driven businesses consider data a critical advantage during the pandemic.



of data-driven leaders are optimistic about the future health of their businesses.



of non-data-driven businesses are optimistic.

Source: Tableau, [Data-driven companies are more resilient and confident.](#)

1. IDC, [Global Datasphere](#), May 2020
2. IDC, [Cloud Business Intelligence and Analytics](#), April 2020
3. Gartner, [Gartner Says 69% of Boards of Directors Accelerated Their Digital Business Initiatives Following COVID-19 Disruption](#), September 30, 2020

SOLUTION OVERVIEW: TABLEAU ON AWS

With Tableau on AWS, you gain the transformative data analytics power of Tableau matched with the breadth and depth of AWS services in the cloud. Tableau natively connects to [Amazon Redshift](#), Amazon Relational Database Service (Amazon RDS), Amazon Athena, and Amazon Elastic MapReduce (Amazon EMR).

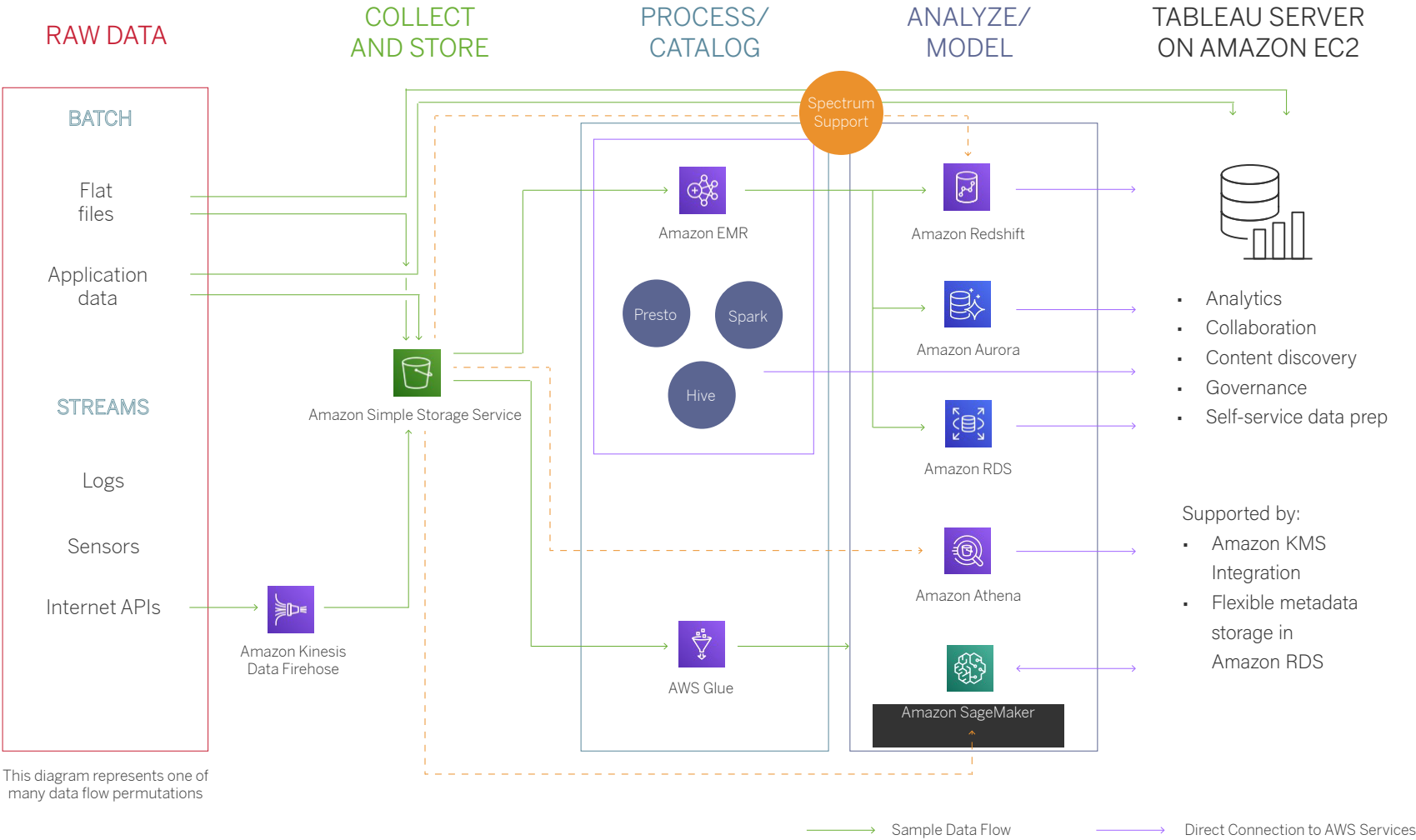
Additionally, using an easy-to-deploy Quick Start for Amazon SageMaker for Tableau, you can integrate machine learning (ML) models in Tableau's calculated fields. Amazon SageMaker lets you communicate and share ML insights through self-service analytics.

Tableau's powerful analytics platform empowers everyone across your organization with data. With Tableau on AWS, collaborate on a secure, scalable, and reliable self-service analytics platform. You can add users and connections to large, high velocity, and diverse datasets for interactive analysis.



TABLEAU ON AWS

Tableau runs on AWS with direct connections to AWS data sources.



DEPLOYMENT OPTIONS

With Tableau on AWS, you can easily self-deploy Tableau Server on an Amazon Elastic Compute Cloud (Amazon EC2).

[The Tableau Server on AWS Quick Start](#) allows you to use AWS CloudFormation templates to deploy Tableau Server. The Tableau self-deploy option provides a fully functional Tableau environment on the AWS Cloud, following best practices from AWS and Tableau Software. In [AWS Marketplace](#), use a Tableau Server (BYOL)—Bring Your Own License to deploy. And Tableau Online provides a fully hosted analytics platform built on AWS.

TABLEAU SERVER	AWS SELF-DEPLOYMENT	AWS QUICK START	AWS MARKETPLACE
PRODUCTION READY	✓	✓	✓
UPGRADABLE	✓	✓	✓
INSTALL ON LINUX	✓	✓	✓
INSTALL ON WINDOWS	✓	✓	✓
SCALE-UP	✓	✓	✓
SCALE-OUT (ADD NODES)	✓	✓	✗
ACTIVE DIRECTORY SUPPORT	✓	✗	✗
14-DAY TRIAL LICENSE	✓	✓	✓
BYOL LICENSE	✓	✓	✓
SUPPORTS LATEST VERSION OF TABLEAU	✓	✓	✓

DATA WAREHOUSE MODERNIZATION

Data warehouses have traditionally resided in on-premises data centers. Their architecture and infrastructure are not designed to support all the new forms of data efficiently or cost-effectively. Their infrastructure is rigid, and the long-running ETL processes they require affect compute and performance. A modern cloud data warehouse running on AWS offers the following features and capabilities that address the flaws inherent in their traditional predecessors:



AGILITY

A modern data warehouse on AWS implements techniques such as columnar storage to reduce I/O operations, data compression, and zone maps to deliver data at scale more efficiently. A massively parallel processing (MPP) architecture parallelizes and distributes SQL operations to take advantage of all available resources. Machine learning delivers high throughput, irrespective of workloads or concurrent usage.



SECURITY

The security of a modern data warehouse on AWS includes SOC1, SOC2, SOC3 and PCI DSS Level 1 eligible compliance and end-to-end data encryption for data in motion and data at rest. Plus, the modern data warehouse also offers protection against accidental or malicious data loss. If new data security threats emerge, you can quickly design and implement new countermeasures.



LOWER COSTS

A modern data warehouse on AWS is a fraction of the cost of their on-premises counterparts. Local attached storage and a high-bandwidth mesh network maximize throughput. With machine learning predictions of incoming query run times assign queries to the optimal queue for the fastest processing. Result caching delivers response times that are under a second for repeat queries. These capabilities eliminate wait-time, resource, and downtime costs.



SCALABILITY

A modern data warehouse on AWS can scale up or down as your needs change. With managed storage, capacity is added automatically to support workloads. The warehouse queries across thousands of parallelized nodes to deliver fast results, regardless of the complexity of the query or the amount of data.

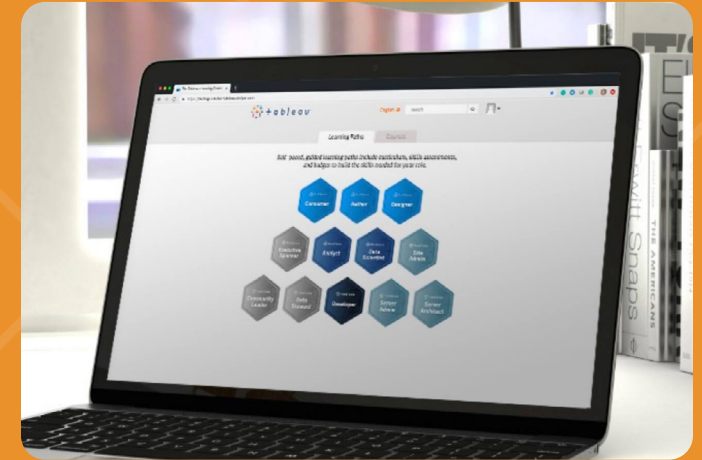


EASY SETUP, MANAGEMENT, AND DEPLOYMENT

Amazon Redshift is easy to set up and manage—and can be deployed in minutes. Amazon Redshift also automatically handles time-consuming and labor-intensive management tasks, so you can focus more on your data and analytics.

GET A POWERFUL, MODERN ANALYTICS TOOLKIT WITH TABLEAU AND AMAZON REDSHIFT

Tableau is an AWS Data and Analytics Competency Partner. Processing the volume and variety of data that today's organizations produce can be challenging and costly, especially with a legacy data warehouse. The combination of Amazon Redshift and Tableau can help you overcome the scalability, cost, and analytics challenges of legacy data warehouses. The result is a scalable and flexible analytics platform on the cloud that enables users to analyze data on AWS and share new insights throughout your organization. Users of all skill levels can analyze datasets, running into the billions of rows, with speed and agility.



Offering robust integration, scalability, and reliability, Tableau empowers you to explore and analyze data without the limitations of pre-defined questions or charts. When Tableau's analytics platform is natively connected to Amazon Redshift, you can use it to analyze, visualize, and share information quickly. This environment empowers all users with self-service analytics, enabling them to connect to, discover, profile, integrate, and visualize data.

How does it work? Disparate data from disparate sources is ingested into Amazon Redshift, which can be queried by Tableau and can also extend queries to a data lake and real-time data sources. Users can run ad hoc queries on massive amounts of data in seconds, rather than hours. They can also visualize operational insights and monitor results to improve internal processes.

The result? Effective and efficient data tiers from raw to curated sources of truth are accessible from a modernized data warehouse that enables all users to traverse data based on their needs.

CUSTOMER STORIES



SCALING CLOUD ANALYTICS: AWS AND TABLEAU AT DEUTSCHE BAHN

German company Deutsche Bahn AG is Europe's biggest railway operator. It has 300,000 employees worldwide and serves 2.6 billion passengers annually. One of its subsidiaries, Deutsche Bahn Station & Service AG, is responsible for operating 5,000-plus railway stations. It collects huge volumes of passenger and logistical data from these stations. To manage all this information, the company needed to move to a central platform that was more accessible and could replace manual reporting.

Deutsche Bahn worked with M2, Amazon Web Services (AWS), and Tableau to transform its data strategy. In five months, it decommissioned its on-premises data center and migrated to a serverless architecture on AWS. In addition to the number of travelers and shop rentals, it also captures Internet of Things (IoT) data including elevators, fire alarms, and clocks. Tableau visualizes all this train station data, enabling employees to use dashboards for self-service analytics, to ask questions of the data, and make decisions based on data insights.

With the scalable, cloud-based solution built on AWS and Tableau, Deutsche Bahn can easily add new data sources that can be quickly accessed through dashboards.

EXPERIAN SAFEGUARD HELPS PUBLIC ORGANISATIONS USE DATA TO PROTECT THE VULNERABLE



Experian UK is a global information services company that works to transform data into something meaningful for its customers and society at large. To that end, the company worked with Tableau and Amazon Web Services (AWS) to create the Experian Safeguard dashboard, an analytics tool that uses demographic data to identify communities that may require extra care and support during the COVID-19 pandemic.

The Experian Safeguard dashboard is free to use for public organisations and provides key insights about local communities, such as pinpointing areas that have high concentrations of people over the age of 70 and/or living alone. One National Health Service Trust uses Tableau heat maps to help find the best locations for new food banks where they will reach the greatest number of people in need.

Why Tableau? Experian was already using Tableau and knew its deep analytics and high-quality visualisation capabilities were the best match for the project. The tool needed to be accessible to a wide range of organisations, easy to use without in-depth training, and scalable. Tableau Server deployed on AWS and an intuitive user interface met all those needs. Additionally, the customizable dashboard was developed and delivered in two weeks, allowing quick access to the 70+ organisations who use it.

As for the future, Experian already uses Tableau to deliver the best for its clients. “Data visualisation and storytelling go hand in hand, helping people to spot trends quickly and understand what they mean,” says Sarah Robertson, Product Director at Experian. “As such, the use of powerful visualisation technologies like Tableau will undoubtedly play a big role in our future.”



FREE NOW DRIVES SERVICE IMPROVEMENTS FOR 14 MILLION PASSENGERS WITH ADVANCED ANALYTICS

FREE NOW is a taxi app serving more than 14 million passengers in more than 100 European cities. The company saw rapid growth in a five-year period, which strained its underlying data structure, making it difficult to improve service and operations due to a lack of fast access to accurate data.

FREE NOW moved to Amazon Web Services (AWS) and implemented Tableau as its sole data analytics platform, enabling the whole company to work from a single source of truth. “With a fully flexible system based in AWS, we can handle seasonal spikes in demand and the resulting data processing much more easily,” says Andrew Emmett, Head of Analytics. “Tableau then integrates seamlessly into this, ensuring everyone in the company can see and work from the exact same data sets, no matter where they are geographically.”

Tableau’s intuitive interface also makes complex data easier to understand. In fact, the number of Tableau users grew by over 2000%, from around 10% of the workforce to more than 50% when employees realized they could use it as a self-serve tool for analytics needs, enabling more informed decision making throughout the company. Tableau offers flexibility and scalability that allows FREE NOW to add new users without compromising speed or consistency of data analysis.

“We’ve grown very fast in the last five years, which could have caused major issues without the right tools in place. Tableau’s flexibility has allowed us to grow unconstrained in this regard; it works just as well with 400 users as it does with 20.”

Andrew Emmett,
Head of Analytics, FREE NOW



GLOBAL LUXURY HOTEL GROUP ACCOR IMPROVES BUSINESS DECISIONS ACCESS TO FAST, ACCURATE DATA INSIGHTS

When Accor Luxury and Premium Brands acquired FRHI Hotels & Resorts, each of the 100-plus hotels had its own set of business performance reports that had to be updated manually. Besides taking up a lot of time and resources, the risk of errors was high due to the manual process of updating the reports. The company needed world-class dashboards to improve quality and customer loyalty. Accor decided to migrate to an analytics platform fully hosted on the cloud, choosing Tableau Online hosted on Amazon Web Services (AWS).

“Centralizing everything through Tableau Online quickly led to dramatic improvements,” says Nicolas Leseurre, Director of Planning and Analytics. “Time spent updating and delivering reports dropped from 10 days to just two hours.”

Employees have fast access to accurate data insights with a view of everything in one platform. The intuitive platform also makes it easy for employees to create high-level dashboards and visualizations on their own all while supported by the Tableau community of experts. This ensures that Accor’s data analytics goals are achieved.

WHY TABLEAU ON AWS?

Tableau and AWS recently launched a Modern Cloud Analytics program (MCA) to accelerate customers' cloud analytics journey.

The key components of the program are:

- **Core product integration**, including Tableau Data Connectors, AWS Quick Starts, and Tableau Server management integration.
- **Technical resources**: Equipping partners with prescriptive guidance, application architecture and operating models to offer a streamlined migration experience for customers.
- **Investing in programs** to offer customer assessments, migration processes, proof-of-concepts, and deployment/support services to cost-effectively deploy Tableau on AWS.

Learn more about Tableau on AWS and try Tableau for free



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