

# CLOUDERA

EBOOK

## Power Visual Insights Across the Data Lifecycle

Cloudera Data Visualization  
drives business impact with  
easy, fast, and intelligent  
reporting on Cloudera



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# Your Data Wants to be Seen

**But what happens if no one sees it?  
An integrated data visualization tool puts  
insights within reach of every stakeholder  
across the data lifecycle.**

Too often, analytical insights produce no business impact. It's possible they aren't available to the right people, they aren't presented in an easy to understand way, or people aren't sure if they should trust the data. Whatever the case, insights that fail to drive action from decision-makers are missed opportunities.

From data scientists to analysts to business users, people across any modern organization want to easily create and share business insights. And after all, the data is available to them — it's just not always easy to understand what it means.

Having a fully integrated and secure interactive data visualization tool can change that. Visualizations fill a critically important role, existing at the place where data connects with people. An integrated solution can open the door to rich data modeling, expanding the ways data can be used.

Unfortunately, typical methods of creating data visualizations have significant downsides. These methods generally

involve moving data from a centralized database or data lake to a downstream business intelligence (BI) platform or a third-party data visualization tool.

Doing this takes time, requires work and coordination from multiple teams, and creates the additional overhead of securing multiple copies of your data. Moving data around runs the risk of creating data silos, duplicating data, and creating blind spots. It can also generate headaches from a security and governance standpoint.

Cloudera Data Visualization is designed to overcome those drawbacks:

- It's a self-service, drag-and-drop dashboarding and application building tool that's included with Cloudera, so there's no data movement between third party tools.
- It enables data engineers, business analysts, and data scientists to quickly and easily explore data, collaborate, and communicate explainable insights across the data lifecycle. Users can get visual insights without writing any code.
- It lets you natively connect and visualize data from any data lake, data warehouse, or Cloudera service. You can tap into data anywhere in the data lifecycle.

Data that's not presented effectively can get overlooked. But visualization can create common understanding, making sure data gets noticed and lands with impact.

Only

**20%**

**of analytic insights actually deliver business outcomes.<sup>1</sup>**

<sup>1</sup> 1 Gartner "Our Top Data and Analytics Predicts for 2019," Andrew White, 03 January 2019

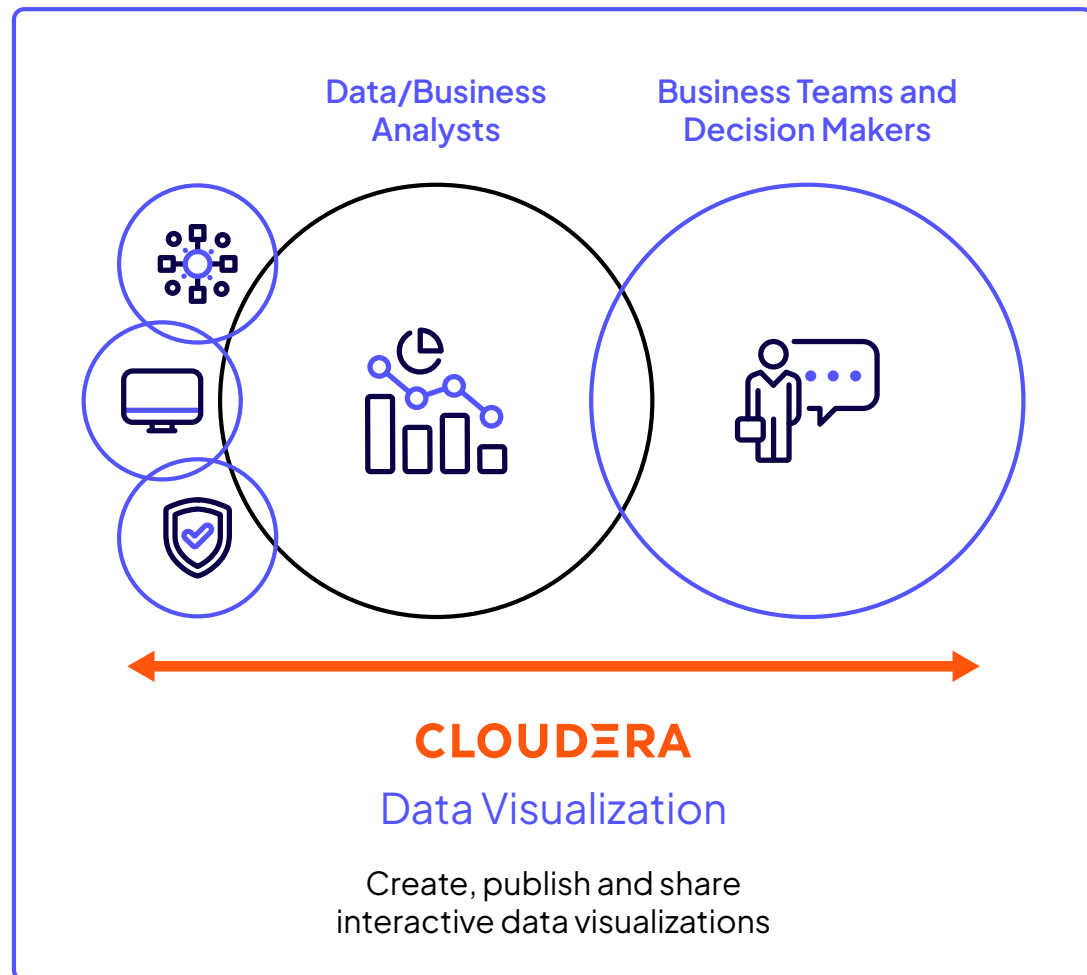
# Create a Common Language of Data Insights

When data teams and decision makers are on the same page, it opens new channels for achieving advanced analytics.

Behind every data analytics project is a human element, and getting people aligned can be one of the major challenges in advancing your initiatives.

Using advanced analytics requires collaboration between data analysts, business teams, and decision makers. A lack of common understanding can lead to gridlock, timid decisions, or missed opportunities.

Cloudera Data Visualization is a way to establish common ground, eliminate information silos, and make sure analytical insights have a real impact. Cloudera Data Visualization specifically achieves this by enabling fast, code-free, self-service data exploration, making cross-team collaboration easier and faster.



# Build and Share Rich, Interactive Visualizations, Fast

**Cloudera Data Visualization generates visual insights and supports rich data modeling, in a completely integrated, self-service tool.**

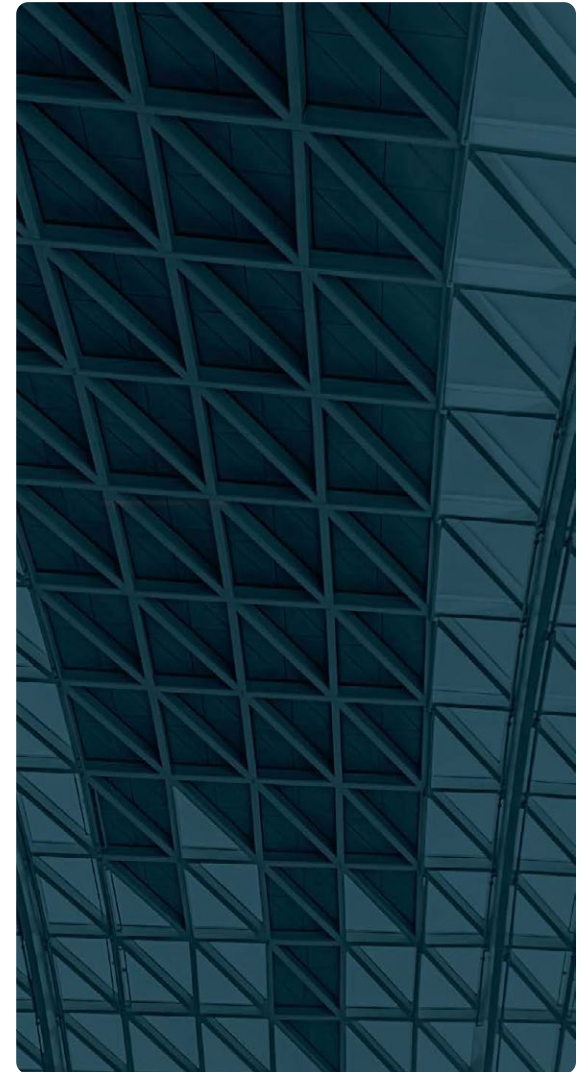
Data visualizations, by their nature, are intuitive, universal, and easily consumed by anyone. They're instrumental in eliminating knowledge gaps and bridging connections between stakeholders.

Cloudera Data Visualization offers a rich selection of tools for building engaging visualizations. Right from the start, you can choose from more than 34 visual types that are automatically available for drag-and-drop visualizations. And since it's fully integrated with Cloudera, you can be up and running with zero setup time.

From the basic bar graphs and gauges, to more complex chord visuals and dendrograms, the right visual tool for any data set is ready to use. Visually engaging tools including interactive maps, word clouds, and calendar heat maps are built in. You can also create custom extensions for adding supporting textual, image, or behavioral aspects to a dashboard.

Intuitive, drag-and-drop functionality puts a powerful toolset within easy reach. You can deliver fast intelligent reporting without moving data or using third-party tools and without having to write code. And AI-powered features — including built-in Visual Recommendations and Natural Language Search — accelerate your time-to-value.

Within minutes, you can create and share interactive dashboards. Fast and intuitive tools allow analytics teams to be agile as they deliver insights to their peers, and to stakeholders throughout the business.



# Business Use Case: How a Bank Maintained Stability in Uncertain Times

Banks and other financial services can gain an advantage from real-time visualizations of data, such as dashboards showing liquidity status.

The largest financial institution in Indonesia, Bank Mandiri, uses Cloudera for running data integration from their single source of truth, the Enterprise Information & Decision Platform.

During the COVID-19 pandemic, Bank Mandiri was able to develop several key dashboards within a day in order to mitigate risk. The bank was able to ramp up their daily data processing to address the need, 10 million records per day, thanks to the scalability and agility of the platform they already had in place.

A large blue "\$1B" is centered within a light blue rounded rectangle. A short red horizontal line is positioned directly beneath the "1".

Avoided loss with  
real-time monitoring

Established 3 critical  
dashboards within 24  
hours to mitigate risks  
from COVID pandemic.

“

With our dashboards, we can secure our liquidity above the safety level. The real time monitoring helped avoid estimated losses of IDR 15 trillion (USD 1 billion), which would have happened due to lack of visibility into our liquidity status. Secondly, safeguarding our employees to help us understand if they are at risk of exposure. We are monitoring employees' health on a daily basis in real-time. The Cloudera platform gives us the response speed we need, shortening the time to process data from 7 days to just hours.

Billie Setiawan  
Head of Enterprise Data Management  
Bank Mandiri



# See Data in Real Time, and Share it Automatically

**Maintain an accurate view of your business with real-time dashboards and applications with built-in security and governance features.**

Your insights are always going to lag behind if they require manual processes, such as moving data from one system to another to generate visualizations. Cloudera Data Visualization enables powerful analytical automation, letting you share real-time insights to help people discover optimization opportunities across the data lifecycle.

## **Dashboards and Applications**

Real-time dashboards automatically assemble multiple visuals into a single collection using the most current data, often with filtering applied. Cloudera Data Visualization includes an intuitive Dashboard Designer, giving you the flexibility to place all necessary information about a dataset, a line of inquiry, or a business on the same screen.

You can modify the look and feel, add multiple sources of data, and combine different dashboards to create powerful interactive experiences for everyone in your business.

You can also use the App Designer interface to build applications, which are collections of dashboards tied together.

Creating dashboards and applications with an integrated visualization solution such as Cloudera Data Visualizations means your analytics are as current as your data.

## **Automatic Updates**

Additionally, Cloudera Data Visualization lets you easily set rules for scheduled updates, email reports, and dynamic alerts to ensure everyone has access to the latest insights. You can set a list of people to be notified on a regular basis, or when a data event occurs. And you can share dashboards through email on a schedule or based on a threshold. Once created, it's easy to monitor and rerun automatic emails.

## **Incorporate the Most Current Data**

And when you're dealing with multiple data sets and types, Cloudera Data Visualization gives you the tools for data blending and modeling, bringing together data from different sources within your visualizations. It's fully integrated with Cloudera Data Warehouse, a cloud-native selfservice data warehouse capable of analyzing all data types. Data can be accessed across any public cloud, on-premises, or hybrid cloud deployment. You can even incorporate data from other visual applications.

Cloudera Data Visualization offers the assurances of the Shared Data Experience (SDX), the security and governance layer of Cloudera that gives you control over data throughout all platform deployments. Native integration with Cloudera also means Digital Visualization works with your organization's existing SSO for authentication. There's no need for multiple governance policies, multiple sign-ins, or any movement of data outside Cloudera.

## **Powered by Open Source Data Tools**

Cloudera's tools for ingesting, storing, and querying data include:

- Apache Nifi and Apache Flink for streaming ingest and processing framework
- Hive LLAP and Impala for analytic engines for warehousing
- Solr for text and unstructured data
- Hbase for real-time applications

[Read the Cloudera Data Visualization data sheet.](#)

# Put Predictive Models to Use in More Places

## Now anyone can ask predictive questions directly from machine learning models.

Machine learning — which uses computer algorithms to extract useful knowledge from data — has already transformed many fields. From increasing the accuracy of medical outcome predictions, to fighting fraud, to helping match customers with new services, ML enables humans to make more intelligent choices using data sets.

To be useful, ML knowledge needs to be presented as explainable insights. Cloudera Data Visualization can be used to build predictive applications, bringing explainable machine learning to more people throughout your organization. It's done by directly accessing the models deployed and served with Cloudera AI.

## About Cloudera Machine Learning

Fully integrated with Cloudera, Cloudera AI gives data science teams access to enterprise data pipelines, scalable compute resources, and preferred ML tools. Built on Kubernetes, it lets users deploy containerized machine learning workspaces in a few clicks, giving teams the resources they need for ML without waiting.

Data scientists can take advantage of cloud resources to train models, test various approaches, and deploy models at scale. In these environments they can work with familiar tools such as Jupyter Notebooks and RStudio.

And since it's integrated with Cloudera, it includes the security and governance advantages of SDK. Data scientists and administrators have full visibility from data source to production, enabling

easy collaboration across teams. Data analysis can start without having to rely on administrators to approve and set up login credentials and data access checks.

Once a model is trained and deployed, you can use Cloudera Data Visualization to build self-service visual tools that let anyone ask predictive questions and get answers directly from the ML model.

Custom applications built with Cloudera Data Visualization access ML models directly. The result is everyone can use the model in ways they understand — not just data scientists. Using Cloudera for both machine learning and data visualizations puts these powerful predictive modeling tools into the hands of more people, helping decision makers make more confident decisions faster.



# Take Your Next Step — Empower Your Teams with Data Visualizations

With Cloudera Data Visualization, you can enable everyone who works across your data lifecycle to get valuable insights. Give your teams the ability to explore, collaborate, communicate, and drive action with an integrated data visualization solution.

[Learn how Cloudera Data Visualization can bring visibility to your data.](#)

# About Cloudera

Cloudera is the only true hybrid platform for data, analytics, and AI. With 100x more data under management than other cloud-only vendors, Cloudera empowers global enterprises to transform data of all types, on any public or private cloud, into valuable, trusted insights. Our open data lakehouse delivers scalable and secure data management with portable cloud-native analytics, enabling customers to bring GenAI models to their data while maintaining privacy and ensuring responsible, reliable AI deployments. The world's largest brands in financial services, insurance, media, manufacturing, and government rely on Cloudera to be able to use their data to solve the impossible — today and in the future.

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