



CLOUDERA

Five Enterprise Public Cloud Use Cases That Make a Difference

Reduce Costs, Improve Productivity,
and Accelerate Better Business Outcomes

Table of Contents

Enable cloud success	3
Align enterprise-wide priorities	4
Democratize data and real-time analytics to diversify the drug portfolio	5
Monetize existing data assets to create new credit reporting products	7
Create a new line of business with streaming data and analytics in the cloud	9
Meet the demand for multi-tenancy and machine learning in life sciences	11
Accelerate the cloud journey and product innovation for asset management	13
CDP Is the complete cloud solution	15
Realize the benefits of public cloud	15
Create a unified hybrid experience	15
Take the next step	16

Enable Cloud Success

This eBook describes how top tier corporations across multiple industries have leveraged [Cloudera Data Platform \(CDP\)](#) to generate new revenue streams, decrease operational costs, and mitigate risks by modernizing their legacy data platforms and extending machine learning and real-time analytics to public cloud.

The customers highlighted in this document include global leaders in the biopharmaceutical, financial services, logistics, and life sciences industries. Each had unique challenges and followed a different path to the cloud. Some adopted cloud for the first time while others improved and expanded upon innovations already in-flight.

The common denominator across these stories is that they are all large global corporations and that CDP enabled them to effectuate enterprise-wide data solutions that facilitate the cross-functional collaboration necessary to optimize existing business, build new lines of business (LOB), and leverage economies of scale.

The Advantages of the World's Leading Enterprise Data Cloud

The advantages of Cloudera Data Platform (CDP) include:

- Hybrid & multi-cloud: Operates across all major public clouds and the private cloud with a public cloud experience everywhere
- Multi-function analytics: Integrates data management and analytic experiences across the data lifecycle for data anywhere
- Secure & governed: Delivers security, compliance, migration, and metadata management across all environments
- Open platform: Open source, open integrations, extensible, and open to multiple data stores and compute architectures

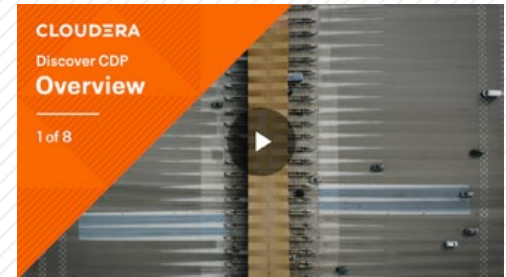
Align Enterprise-Wide Priorities

At the enterprise level, there is a fine balance between global standards and supporting the success of each LOB. While other products offer a single component of the data lifecycle and may appear to be the quickest path to market, the economic, security, and operational risks of point solutions are too great to ignore. Data engineers, architects, and practitioners agree that growing and protecting all LOBs in a cost-effective way is a good thing. But when it comes to data platform modernization strategies, divergence is in the details.

Across the enterprise, each team of technologists have their own set of priorities and perspectives with regard to the fit-for-purpose of cloud technologies. For example:

- **Data practitioners** build the use cases that generate revenue and mitigate risks for their LOB. They need the agility to quickly add capacity and users for new use cases.
- **Data architects** are charged with enabling cross-functional collaboration and protection for all LOBs. Flexibility, along with enterprise-wide data security and governance, is their prime concern.
- **Data engineers** build the platforms that the practitioners and architects use. They prioritize platform efficiency to serve their teams in the most cost-effective way.

As exemplified in the following pages, CDP enables diverse technology teams the fastest and easiest path towards powerful multi-function cloud-native analytics that can be delivered with enterprise-class security and governance for all data users.



See [this video](#) to learn how CDP powers data-driven decisions by easily, quickly, and safely connecting and securing the entire data lifecycle.

Democratize Data and Real-Time Analytics to Diversify the Drug Portfolio

Background

This customer is one of the largest biopharmaceutical companies in the world. They combine core research and development expertise with technological innovation to target specific difficult-to-cure diseases and to advance science. This success story describes how extending real-time streaming analytics and machine learning to the cloud enables faster time to value across the entire organization.

Challenges

To maintain their market leading position, this company set out to diversify its drug portfolio and reduce operational costs by accelerating global cross-functional collaboration between 40,000+ scientists, researchers, communicators, manufacturing specialists, and regulatory experts.

The previous data platform did not provide the scalability nor the flexibility needed to support that effort. Disparate data silos positioned across the company made efficient data integration impossible, never mind providing the real-time streaming analytics, data science, and predictive modelling needed to bring the next cure to market.



CASE STUDY | BIOPHARMACEUTICAL INDUSTRY

Solution Deployed

The challenges described above were met and exceeded by implementing [Cloudera Data Platform \(CDP\)](#) for public cloud on AWS. On this platform, a clinical data warehouse was built that serves as a research convergence hub, integrating all of the organization's R&D research, clinical, and third party data sources.

[Cloudera DataFlow \(CDF\)](#) takes this effort to the next level of new drug discovery & development by bringing real-time streaming and analytics capabilities to the table. For example, this solution enables the inclusion of wearables into the clinical trials process.

Consistent data security and governance is provided through [CDP Shared Data Experience \(SDX\)](#) that addresses stringent compliance and global regulatory requirements, thus enabling safe democratization of data and analytics across every line of business, including R&D, commercialization, manufacturing, and supply chain.

Results

CDP Public Cloud with SDX and CDF powers data-driven insights. R&D productivity doubled while operational costs of clinical trials decreased substantially. Additionally, with improved cross-functional collaboration, more drugs and therapies are safely brought to market with faster FDA approvals.

What takes most companies over a year to build with on-premises technologies, this customer accomplished in just a month with CDP Public Cloud. They democratized data and real-time analytics, resulting in a much more diversified drug portfolio.



Doubled R&D productivity

Power Data Driven Insights

Traditionally, this customer would procure expensive third party data sets, such as electronic health records, only to have the value of that data locked away to only one or two Lines of Business (LOB).

Today, disparate data sources are harmonized through Cloudera Data Platform (CDP), which has enabled broader consumption across additional LOBs. Higher levels of data driven insights are powered through more advanced comparative analysis, which resulted in a doubling of R&D productivity.

Monetize Existing Data Assets to Create New Credit Reporting Products

Background

New revenue generation opportunities often come from monetizing existing data assets in novel ways and expanding the customer base. Flexibility is key to making that happen. This success story describes how a multi-national credit reporting company modernized their data platform so that they can deliver new innovative marketing, demand generation, and credit risk solutions to large existing customers at scale while lowering the cost of entry into prospective international markets of consumers, retailers, lenders, and other businesses.

Challenges

Prior to modernizing their data platform, the value of this company's data assets was locked up within 200+ disparate data warehouses. Their initial attempt to consolidate that data in the cloud resulted in high OpEx costs, surprise budget overruns, and disjointed on-premises and cloud infrastructure standards. New global business ventures were stymied because the platform was inflexible. It could not address complex enterprise security, data governance, tenant isolation, and other regional regulatory requirements.

CASE STUDY | FINANCIAL SERVICES

Solution Deployed

This customer now realizes improved flexibility, performance, and scale of data operations because it implemented a standardized “build once, deploy many” model with the unified solution of [Cloudera Data Platform \(CDP\)](#) for public cloud.

Across a global data landscape of on-premises and public cloud environments, CDP addresses the high multi-tenancy, contention isolation, and workload demands of their largest customer use cases.

At the same time, novel data analytics products and services are created and rolled out with [Cloudera Data Warehouse](#), [Cloudera Data Engineering](#), and [Cloudera Machine Learning \(CML\)](#) services. The elasticity and flexibility of CDP Public Cloud enables testing of new market opportunities as they materialize with a low-cost minimal infrastructure footprint that can scale exponentially as needed.

For existing and new global customers alike, [CDP Shared Data Experience \(SDX\)](#) provides a single pane of glass that solves for regional regulatory requirements as it pertains to data security and governance.

Results

By innovating on existing data assets and entering new markets, this customer expanded their global markets presence and accelerated product revenue growth by over 30%. Additionally, the OpEx of cloud costs were reduced by \$100-200K a month.



30% faster product revenue growth

Build Once, Deploy Many

With Cloudera Data Platform (CDP), this customer was able to implement one standard platform that could deploy multiple products and architectures. The realized benefits include:

- OpEx cloud costs decreased by \$100K/month
- Better compliance with security and governance regulations
- Improved end user experiences

Create a New Business with Streaming Data and Analytics in the Cloud

Background

This customer operates one of the world's largest parking networks and has a successful track record of innovation, applying advanced technology to the commercial real estate industry. This story describes how bringing real-time streaming and data analytics to the cloud enabled a new line of business that monetizes underutilized parking structures with the concept of urban kitchens.

Challenge

This company's penchant for fast paced business models was not supported by its existing data architecture. In fact, its data platform was a business blocker. As the data ingestion rate of current business grew to multiple tens of GB per day, the company started to see the economic and functional limits of what could be done.

Additionally, their data platform did not support new micro business models that connect small businesses with individuals. This is mainly because it lacked unified data security, governance, and lineage capabilities that are needed to comply with regional data privacy regulations, such as the European Union's General Data Protection Regulation (GDPR).

Consequently, the new foray into urban kitchens was not tenable, especially considering the new IoT sensor data and mobile commerce transaction volumes that would come with it.



Solution Deployed

This customer solved multiple challenges at once, which could only have been accomplished with the right combination of multi-function analytics at scale, security, and governance of [Cloudera Data Platform \(CDP\)](#) for public cloud.

First, to cost effectively operate its existing business, they replaced their legacy data warehouse with [Cloudera Data Warehouse](#) on CDP Public Cloud. This initial step provides self-service analytics on massive amounts of verified data to thousands of users without compromising cost, speed, or security.

Second, to enable a new IoT based line of business, they leverage the latest innovations in real-time streaming and data analytics (see side bar) with [Cloudera DataFlow \(CDF\)](#) for Data Hub.

Third, the resulting new data privacy regulatory challenges of data governance, security, and lineage were handled with [Shared Data Experience \(SDX\)](#).

Results

The company has realized a more robust platform at a lower total cost of ownership. Their data architecture can now handle data growth 5-10 times greater than before while meeting all data privacy regulations such as GDPR. This has enabled them to continuously innovate on new business models and expand those models across the globe.

UP TO
10x

Up to 10x more
data capacity

Build Business with the Latest Streaming and Analytics Innovations

This customer created an IoT based new line of business by leveraging the real-time streaming and data analytics capabilities of [Cloudera DataFlow \(CDF\)](#) for Data Hub.

As an open platform, CDF helped this customer develop novel solutions by giving them access to the latest and most stable innovations that open source communities have to offer.

They made use of the entire set of streaming data functions that CDF supports.

- Edge and flow management with Apache NiFi
- Streams messaging through Apache Kafka
- Stream processing and analytics with Apache Flink

For example, they are creating new ways to serve their customers with complex geospatial analysis and prescriptive analytics. This will let them gain a deeper understanding of their customers to better meet their needs and lay the groundwork to exploit new monetization opportunities.

Meet the Demand for Multi-Tenancy and Machine Learning in Life Sciences

Background

This customer is a global provider of advanced analytics, technology solutions, and research services to the life sciences industry. They serve thousands of pharmaceutical, biotechnology, and medical device companies, all of which have sophisticated machine learning and data science teams to solve unique market challenges. This story is about how **Cloudera Data Platform (CDP)** marries machine learning with the public and private cloud to address complex multi-tenant challenges.

Challenge

Meeting the machine learning demands of thousands of clients around the world was hampered by an inflexible legacy platform that could not evolve, making it difficult to address data science demands on a client per client basis. For example, it took over two months to make a novel genomic data analytics platform available to client Research and Development (R&D) teams due to the management and provisioning bottlenecks of disparate data clusters. Also, discontinuity between environments made consistent HIPPA data privacy compliance difficult.

CASE STUDY | LIFE SCIENCES

Solution Deployed

This customer replaced its existing platform architecture with CDP Public Cloud and CDP Private Cloud. CDP's robust self-service capabilities enable each client to manage and provision their own data workloads, solving for the aforementioned bottlenecks, while [Shared Data Experience \(SDX\)](#) ensures a consistent data security and governance framework across all types of users, workloads, and environments.

To meet the machine learning demands of each client, a data science cloud is now offered on top of CDP with [Cloudera Machine Learning \(CML\)](#). This combination provides the cloud infrastructure flexibility that is crucial to delivering the scalability and availability that they need (see side bar at right).

Results

CDP modernized this life sciences company's data platform and equipped them with a cloud-native architecture that moves at the speed of business and ensures security and cost control, all with the optionality of hybrid cloud.

The new architecture processes data 72x faster than before while reducing total cost of ownership. In some cases, prediction accuracy for clinical trials improved by four fold, thus accelerating the pace of drug development all while ensuring compliance with HIPPA and other stringent data privacy regulations.

Bringing these capabilities to their clients enables healthcare researchers around the world to focus on new products and features because they are now able to tailor their own data science and machine learning environments to push healthcare forward.

A large orange graphic consisting of the number '4' and the letter 'x' in a bold, sans-serif font. The '4' has a vertical line through its center, and the 'x' is positioned to its right.

4x faster patient qualification for clinical trials

Deploy Public and Private Cloud to Address All Types of Client Needs

Cloudera Data Platform (CDP) enabled this customer to serve a variety of their client needs in the most effective way possible.

To serve the short-term analytics needs without burdening their clients' own internal IT resources, this customer provides a secure data science platform on the public cloud with access to the latest data science tools.

For clients that collaborate on longer-term programs that use large and highly sensitive data sets for clinical trials, this customer provides a data science platform on private cloud.

This is a good example of how you can leverage a consistent platform with a single set of policies to do different workloads in different deployment models.

Accelerate the Cloud Journey and Product Innovation for Asset Management

Background

This customer is one of the world's largest pension investors and administrators. Millions of people rely on them for the efficient investment of their pension premiums when they are young and, later in life, consistent retirement income.

As a world leading asset manager, they have taken a significant role in leading responsible and sustainable investing. This story describes how **Cloudera Data Platform** (CDP) enabled them to re-imagine their data platform with their first foray into the cloud to improve existing services and enable their businesses to adapt to new market and ethical business drivers.

Challenge

This customer hit a roadblock in its effort to fast forward existing business into a new world that weighs the return of investments against the sustainability and societal impact of those investments. Its on-premises data systems were reaching end-of-life (EOL), endangering critical use cases. The platform also hindered new product development due to the long lead times needed to deploy real-time streaming and machine learning workloads.

This created a sense of urgency, as a solution needed to be established before the legacy platform hit EOL, not to mention that staying on-premises would end up incurring a 20% higher cost over the next 3 years. To do this, critical workloads needed to be migrated to a modern data platform on very short timescales.

CASE STUDY | FINANCIAL SERVICES

Solution Deployed

To progress in the most efficient way possible, this asset manager partnered with [Cloudera Professional Services and Training \(PS&T\)](#), leveraging the cumulative expertise derived from partnering with thousands of organizations to successfully modernize their data platforms.

To address the EOL challenges described above, CDP was used to streamline migration of critical data workloads to the public cloud. Seamless integration with [Cloudera Machine Learning \(CML\)](#) provides all of the capabilities and flexibility needed to develop new use cases.

Results

Through this new future proof data architecture, this financial services company will be able to rapidly increase its innovation cycle because, through cloud adoption, use cases are now deployed in minutes rather than months. Additionally, they have realized a €800K CapEx saving on infrastructure.

A large graphic of the text '€800k' in a bold, orange, sans-serif font. The '8' and '0's have a diagonal hatching pattern. The background is a dark blue with a faint, repeating pattern of white squares and lines, resembling a grid or data visualization.

€800k CapEx savings on infrastructure

Adopt a Strategic Approach and Learn from the Best

This customer leveraged Cloudera's Accelerated Cloud Execution (ACE) program to identify new use cases for CDP Public Cloud. A series of white glove and tailored enablement sessions were provided with Cloudera product specialists across the various analytics services in CDP.

The pre-defined workshop sessions enabled, educated, and up-skilled the customer's teams to extract business value with CDP, resulting in faster time to value through use case deployment.

This customer engaged Cloudera Professional Services and Training (PS&T) in partnership with the ACE program to help configure security and execute on their cloud journey. PS&T has worked with over 1,000 organizations to drive value from their data. They've seen common themes in our customers' challenges as they modernized their platforms and, by helping them find solutions, have learned how to best help companies in their journey to public cloud.

CDP is the Complete Cloud Solution

These success stories describe unique use cases across diverse industries but common outcomes are a result by implementing one standardized cloud solution. Each customer described in this paper realized new revenue streams, decreased operational costs, and mitigated risks.

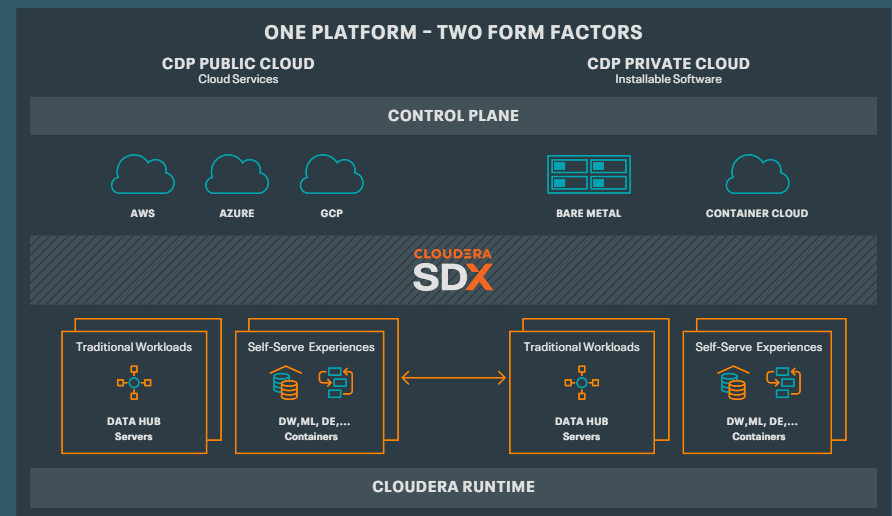
Realize the Benefits of Public Cloud

CDP Public Cloud is the fastest and easiest path towards powerful cloud-native analytics that are secure, cost-efficient, and work better together through a seamless and end-to-end data cloud. It lets you:

- Deliver services across the entire data lifecycle to enable business users to achieve faster insights from data.
- Control runaway cloud costs with automated workload and resource management.
- Deliver consistent security and governance across the full data lifecycle.
- Provide agility to quickly add capacity and users for new use cases.

Create a Unified Hybrid Experience

CDP Public Cloud is a great first step to modernizing your data platform but many enterprises will need to distribute workloads across hybrid environments. With CDP you can deploy the same data analytics platform across private cloud on-premises and multiple public clouds (AWS and Azure, with GCP coming soon).



Take the Next Step

To move forward, consider these next steps:

- Experience a powerful analytics platform that simplifies the management of hybrid and multi-cloud data with security and governance, spin up a [free 60-day trial](#) of CDP Public Cloud.
- [Start a test drive](#) to get hands-on with the platform and services.
- Get help with new workloads, from planning to pilot with CDP Public Cloud, by reaching out to your Cloudera Account Team to learn about the Accelerated Cloud Execution (ACE) program. It includes a series of workshops for Data Flow, Data Warehouse, Machine Learning, and more to understand how CDP Public Cloud can drive your business objectives. Once you've identified the target workloads, Cloudera ACE will support delivery of those workloads to the public cloud.

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises.

Learn more at cloudera.com | US: +1 888 789 1488 | Outside the US: +1 650 362 0488

© 2021 Cloudera, Inc. All rights reserved. Cloudera and the Cloudera logo are trademarks or registered trademarks of Cloudera Inc. in the USA and other countries. All other trademarks are the property of their respective companies. Information is subject to change without notice. 4359-001 2021

[Privacy Policy](#) | [Terms of Service](#)

CLUDERA