FORRESTER®

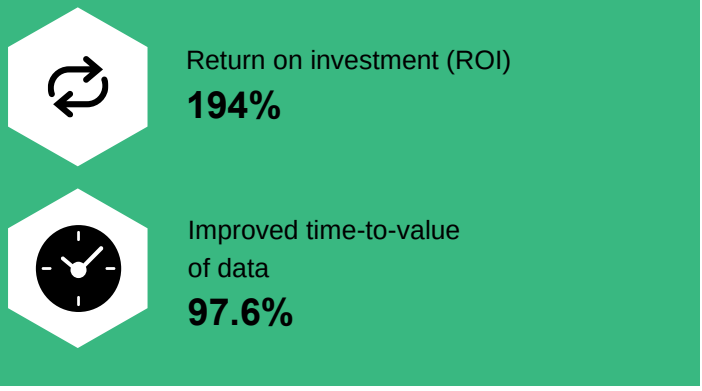
Organizations Adopt Cloudera Data Platform Public Cloud To Improve The Elasticity And Scalability Of Data Analytics

Enterprise organizations with outdated, on-premises data analytics infrastructure face frustrations related to scaling up and down this infrastructure and the software that runs on it as data demands fluctuate over time. Given the inelasticity of an on-premises data analytics architecture, scaling becomes both costly and time-consuming, delaying the time-to-value of strategic data analytics projects and increasing pressure on IT and business teams to deliver value from analytics.

Cloudera Data Platform (CDP) is a data analytics and management platform targeted at large enterprises that can be flexibly deployed on public cloud and on-premises, giving enterprises a hybrid or multicloud environment. This abstract will focus on the deployment of Cloudera Data Platform as a public cloud service. CDP Public Cloud features:

- Ingestion, management, and delivery of workloads like data analytics, transactions, and machine learning (ML) with a data visualization dashboard.
- Data security and governance.
- Centrally managed data allowing self-service for data analytics and business decision-making.
- Deployment on major public clouds and combinations of these (multicloud).

To better understand the benefits, costs, and risks associated with Cloudera Data Platform Public Cloud, Cloudera commissioned Forrester Consulting to interview six decision-makers across four enterprise organizations and conduct a Total Economic Impact™ (TEI) study.[1]



INVESTMENT DRIVERS

Prior to investing in CDP Public Cloud, the interviewees' organizations utilized data analytics solutions designed to run on-premises. This resulted in common challenges, including:

- **Difficulty scaling data analytics.** Regardless of how their organizations deployed their legacy analytics solutions or where data was stored, the interviewees found their solutions difficult to scale to meet data analytics needs. Many decision-makers could not predict exactly how much capacity their organizations truly needed to effectively run analytics work, aggravating the scaling challenge. This meant that they were constantly attempting to grow to meet unforecasted workloads, and this work would be delayed while additional on-premises infrastructure was deployed.

READ THE FULL STUDY HERE

> **"Compared to before, we really embrace scalability with CDP, spawning a new environment within just a day or two."**
>
> *IT manager, telecommunications*

- **Data chaos.** Before CDP Public Cloud, interviewees' firms also struggled that data that was spread out across multiple silos within each organization. This impacted their ability to analyze organizationwide data to understand their businesses as a whole and develop overarching business strategies.

SOLUTION REQUIREMENTS

The interviewees' organizations searched for a solution that could:

- Easily scale up and down analytics workloads as demand fluctuated.
- Build with and seamlessly integrate with open source technologies to accelerate analytics work.
- Flexibly enable multicloud and hybrid data cloud strategies for the analytics workloads.

> **"Even when we deployed our legacy solution on the cloud, we never got the elasticity of a true cloud analytics solution. We still had to do all the same work when expanding our analytics that we would have done if it was running in a data center."**
>
> *Chief data and analytics officer, pharmaceuticals*

KEY RESULTS

After the investment in CDP Public Cloud, data analytics at the interviewees' organizations became more flexible and less expensive. As data analytics became nearly instantly scalable, costs to scale and the time-to-value of data workflows both shrank. Employees also benefited from less data reporting and system integration work, while organizations spent less on infrastructure and software on a gross and net basis.

Reduced costs to scale data analytics by 99.5% and improve time-to-value by 97.6%. By leveraging CDP Public Cloud's elastic and scalable infrastructure for data analytics, interviewees' organizations reduced the labor time of deploying additional data analytics infrastructure from two months for five FTEs (1,665 person-hours) down to one day for one FTE (eight person-hours). They also reduced the total time to deployment of this infrastructure to end users from six months (1,000 hours) down to three days (24 hours). This resulted in a productivity improvement to data workflows of 48.8%.

- The chief data and analytics officer at a pharmaceuticals firm shared: "On top of all the work we had to do to add capacity before, all instances were running 100% of the time. There was no scalability and no elasticity."
- The head of data management at a technology organization said: "With CDP Public Cloud, we just push a button, decide the size of the cluster, and CDP launches all the machines, configurations, etc. It's magic."
- A data scientist at a telecommunications company stated: "The most important thing has been being able to handle the bursting of unforecasted workloads. We can actually work on these now instead of prioritizing them, putting others on hold, and potentially losing money."

Improved efficiency of data reporting by 50%. Interviewees described improving the efficiency of their organizations' data-reporting practices via automation, saving 72 person-hours of labor for each of the 250 reports run annually. As a result, reports were automatically generated in 30 minutes, compared to an average of three days before, for a reduction of 97.9%. Interviewees shared that CDP Public Cloud was 50% responsible for these savings

- The director of data analytics at a telecommunications firm said: "Before CDP Public Cloud, reporting could take days or weeks and required expensive specialists in the data analytics solution we were using. By the time business stakeholders were getting reports, the data was already stale."
- The director of data analytics also noted: "Because of the architecture we're using with CDP Public Cloud and some open source solutions, reports are now automatically generated and take an average of 30 minutes. We can drill down, use filters, and have very little impact on the time the report gets used by business stakeholders."

Improved efficiency of data integrations by 70%. CDP Public Cloud also enabled the interviewees' organizations to develop data integrations more efficiently, from an average prior time of 50 days down to 15 days per integration project. The chief data and analytics officer at a pharmaceuticals company shared: "Before CDP Public Cloud, developing integrations was like building a house from scratch. Now, it's like putting together a prefabricated home with fewer and modular components."

Improved business value by increasing revenues by 1.5%. Interviewees noted various ways that CDP Public Cloud improved their business value, from less time spent on R&D to more successful product development. For one decision-maker and the composite organization, CDP Public Cloud was used to improve customer loyalty, with a total impact of adding 3% to annual revenues of which CDP Public Cloud was 50% responsible.

- The chief data and analytics officer for a pharmaceuticals firm said: "We would have never been able to do with our prior technology stack what we're doing now. CDP Public Cloud has enabled R&D staff to improve productivity by 20% to 40%, reducing preclinical trials from eight months at the high end down to two months at the low end. We've also doubled the probability that a development is successful at trials, moving from 5% to 10% likelihood."
- The director of data analytics at a telecommunications company stated: "The revenue impact from CDP Public Cloud has been significant. It's been partially responsible for at least 3% of our revenue growth."

Reduced related on-premises infrastructure by 100% and associated labor costs by 50%. After deploying CDP Public Cloud, the interviewees decommissioned their on-premises data analytics infrastructure and software while also saving on the associated labor costs for this infrastructure. After moving to the cloud, interviewees decommissioned 100% of the on-premises infrastructure associated with the data moved, while reducing net labor costs by 50%.

- The head of data management at a technology organization said: "We're saving on our [cloud platform provider] fees with CDP Public Cloud by switching off two clusters every evening. With 8 hours' less usage, we're saving about 30% on our cloud compute costs."
- The chief data and analytics officer at a pharmaceuticals firm noted: "With our legacy infrastructure, 200 nodes required between three and four admins to manage, while with CDP Public Cloud, the same nodes now only require one or two admins."

TOTAL ECONOMIC IMPACT ANALYSIS

For more information, download the full study: "The Total Economic Impact™ Of Cloudera Data Platform Public Cloud," a commissioned study conducted by Forrester Consulting on behalf of Cloudera, October 2021.

STUDY FINDINGS

Forrester interviewed six decision-makers at four organizations with experience using Cloudera Data Platform and combined the results into a three-year composite organization financial analysis. Risk-adjusted present value (PV) quantified benefits include:

- Reduced cost and improved time-to-value of scaling, saving $3.7 million.
- Improved efficiency of reporting, saving $2.0 million.
- Reduced cost of data integrations, saving $501,300.
- Improved business value totaling $15.3 million.
- Reduced spending on on-premises infrastructure, saving $13.7 million.

Return on investment (ROI)

194%

Net present value (NPV)

$23.11M

Appendix A: Endnotes

[1] Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.


FORRESTER®