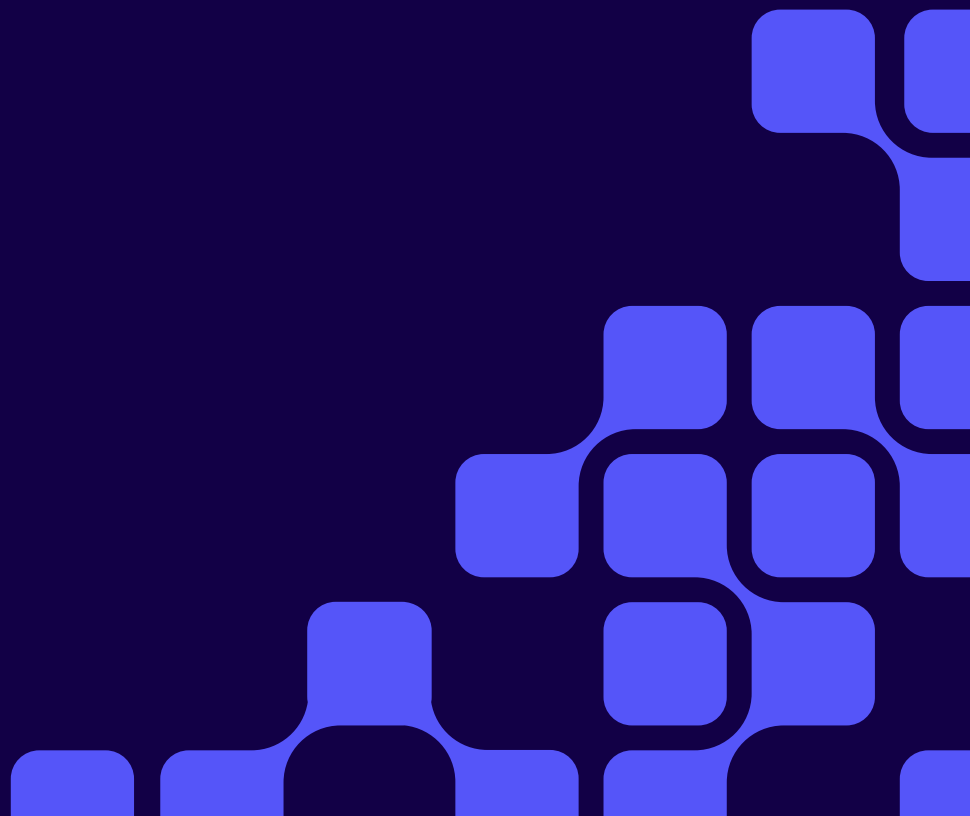


**CLOUDERA**

**WHITEPAPER**

# What Is True Hybrid: A Checklist



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A hybrid cloud approach to data management is crucial for businesses to innovate and leverage emerging technologies, like AI, at the enterprise scale. [Cloudera and Foundry Research](#) found that, among other challenges, 36% of IT leaders said data quality and availability ranked as a top challenge when it comes to achieving AI at scale. Regardless of what infrastructure it starts on, organizations often find themselves — due to circumstances beyond their control — needing to tap into a hybrid cloud approach. With the rapid emergence of new technologies, that shift to hybrid is quickly becoming mandatory. A hybrid cloud, though, is only impactful if that data and the AI and analytics it feeds are able to move easily and run securely in the right environment.

Reaching that stage takes much more than just adopting a hybrid cloud, moving data from one environment to another. Businesses need to go a step further to reach true hybrid. But what does true hybrid entail? A few key elements to look for in a true hybrid data platform should include:

- **A distributed cloud model:** True hybrid should operate as a single platform across data center and cloud as well as the edge so data and workloads move friction-free multi-directionally.
- **Portable, interoperable data services:** True hybrid encompasses the entire data lifecycle from ingestion to transformation, warehousing, and machine learning.
- **Data stores to address every eventuality:** True hybrid can handle data in all forms — structured, semi-structured, and unstructured.
- **A common interface to manage infrastructure:** True hybrid provides a single, common control plane regardless of where or how data and analytics are deployed.
- **Cross-platform security and governance:** True hybrid enables consistent security and governance across all environments.
- **Open and Extensible:** A true hybrid cloud is ready for the future and capable of extending to new clouds as they emerge.

A core part of our mission at Cloudera is to help customers implement solutions that unlock data insight and value from across true hybrid cloud. Cloudera is a true hybrid data platform that provides the foundation to make the most of all that hybrid cloud has to offer when it comes to data analytics, AI, and LLMs.

Wondering where your IT infrastructure stands? How close, or far, are you from attaining true hybrid with your existing data and analytics?

We've put together a checklist of some critical elements that make up a true hybrid data platform. Follow along and see where you stand.



of IT leaders reported that their organization interacts with all stages of the data life cycle process.<sup>1</sup>

## Enable Modern Data Architecture

Cloud-native — both public and private, on premises — is firmly cementing itself as the preferred data architecture among organizations looking to improve their data management capabilities and tap into technologies like AI. Any hybrid cloud approach needs to set a strong foundation to tap into the vast amounts of data that exist across the entire organization. An increasingly popular means of accomplishing this goal is through data lakehouses — a tool that Cloudera research found roughly two-thirds of IT leaders found to help reduce pipeline complexity.

### Tips

- Utilize an open data lakehouse to manage large volumes of unstructured or semi-structured data to feed into whatever environment, AI model, or engine that needs it for analysis.
- Taking advantage of an end-to-end data lakehouse reduces complexity across data environments and gives a critical boost to employee experience.<sup>2</sup>

## Enable Consistent Functionality Across IT Environments

In a hybrid cloud approach, organizations are faced with the challenge of managing data across a growing number of environments. As data and analytics move between infrastructures, the tools that effectively manage it in one environment may not translate to another. If a data warehouse looks and operates differently on cloud compared to on premises, that would only add to the complexity. That could result in a multitude of different tools and processes to keep data management on track. The need for additional tools can lead to extra costs and hamper efficiency. According to a Forrester report, 75% of data practitioners and decision-makers reported they can save more than 4 hours each day if the stages in the data lifecycle are integrated into a single platform. True hybrid data platforms enable greater cross-functionality for tools, meaning the same practices can be copied from environment to environment.

### Tips

- A true hybrid data platform, like [Cloudera](#), can help you avoid frustration and inefficiency by eliminating the need for multiple tools across environments.
- Implement a hybrid data platform that provides a single, consistent view to track utilization, performance, resource use, and expenses across hybrid cloud infrastructure.

### What is True Hybrid

True hybrid should cater to all forms of data. This ranges from structured data (data that has a nice, well-defined and fixed structure that can be stored in relational databases) to unstructured data (which encompasses everything else, including audio, video, images, and whole documents).

## Enable Orchestration and Management of Automated Workflows

With businesses looking to increase productivity and drive efficiency across IT infrastructures, workloads are rapidly growing. Add a hybrid cloud architecture and the complexity only increases as IT leaders are left managing those workloads in various environments. We've talked about the need for a unified functionality for tools in a true hybrid environment as one example of improving productivity. But beyond that, a true hybrid data platform should set organizations up for better management of automated processes. True hybrid cuts through complexity, reducing the need for a growing list of data services that can make managing automated processes difficult.

### Tips

- Make sure your hybrid data platform is agile enough to adapt quickly to change, ensuring delivery without refactoring by automatically placing and moving workloads.
- A true hybrid data platform makes orchestrating complex automation easy by eliminating the need to use multiple data services across cloud environments.

# 90%

of IT leaders agreed that unifying the data life cycle on a single platform is critical for analytics and AI.<sup>1</sup>

## Create Consistent Security and Data Governance Across Environments

In a hybrid environment data is constantly flowing from one location to another — on premises, in the cloud. When it comes to maintaining compliance and security, this presents a unique challenge for data governance. Not only is governance crucial from a security and compliance standpoint, it's also a major contributor to overall data quality too — directly linking to the effectiveness of AI and analytics that are utilized in a given hybrid infrastructure. While data in one location may allow access to a specific set of users, when it's moved into a new location, those accesses could change and leave information exposed. A true hybrid data platform goes beyond enabling data access across environments, ensuring access rules are continuously maintained without needing to be reset.

### Tips

- Leverage a true hybrid data platform to maintain data regulations and standards as information passes from one environment to another.
- A robust data platform can help you keep your data secure no matter where it's at, protecting access to sensitive data and avoiding the risk of attacks or breaches.

52%

of IT leaders said that governance and compliance is what's holding end-to-end data management back.<sup>1</sup>

## Cloudera — The True Hybrid Data Platform

Cloudera delivers on the true hybrid data platform promise of modern data architectures with data anywhere. Cloudera is a unified platform with portable, interoperable data analytics for the full data lifecycle and distributed data management running on public clouds, on premises, and at the edge.

Is your current approach not checking all the boxes? No matter the state of your hybrid cloud environment, Cloudera is ready to help you achieve true hybrid.

Visit our website and learn more at [cloudera.com/why-cloudera/hybrid-data-platform](https://cloudera.com/why-cloudera/hybrid-data-platform)

93%

of IT leaders agreed that multi-cloud/ hybrid capabilities for data and analytics are key for an organization to adapt to change.<sup>1</sup>

### Sources

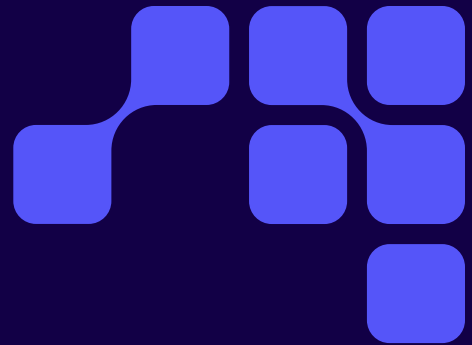
<sup>1</sup> CIO Whitepaper: Data architecture and strategy in the AI era.

<sup>2</sup> Use AI Via An End-To-End Data Lakehouse To Increase Data Lifecycle Efficiency From Ingestion To Prediction.

## 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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