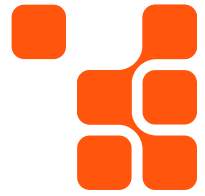


INDUSTRY FOCUS | STATE AND LOCAL GOVERNMENT

How State and Local Governments Can Benefit from a Hybrid Data Cloud

Keys to data-driven success



Data combined with analytics is a uniquely valuable asset for state and local government agencies. When harnessed correctly, it can enhance productivity, lead to better decision making, improve transparency, and reduce costs. As agencies seek to eliminate fraud, waste and abuse, combat cyber-threats, and improve citizen services, cloud is one of the obvious technologies to unlock the value of data. However, the discussion is no longer about just the public cloud, but rather hybrid cloud.

Hybrid Is The De Facto Model

The reality is that hybrid cloud is the new normal. According to a 2021 Meritalk survey of state and local government IT leaders, “85 percent say the pandemic amplified the importance of migrating to a hybrid cloud environment. And 67 percent say the pandemic accelerated their organization’s hybrid cloud adoption by a year or more.” While 56 percent of respondents report “managing and securing data to be their biggest challenge”, implementing a hybrid architecture as part of an organization’s data strategy stands to give public sector agencies the solutions required to overcome these challenges.

But how do you use a hybrid cloud to unlock value from the vast amounts of data generated by the public sector? To answer that question, we researched industry analyst cloud guidance, customer experiences with data applications, and considerable advice from our partner ecosystem. The answer is a hybrid data cloud. While they are not easy to implement, they are real and practical, and every organization is doing them a little differently.

A hybrid data cloud combines the data management, analytics, transactional, and data science services of public and private clouds. That “and” is important because with “and” state and local agencies can unlock value from all their data, no matter where it is. A hybrid data cloud enables agencies to industrialize the development, production, and operationalization of AI-powered data applications. It provides the extension of AI-powered data applications across the organization faster and more reliably.

85%

Of state, local and government IT leaders say the pandemic amplified the importance of migrating to a hybrid cloud environment
(2021 Meritalk Survey)

The Hybrid Data Cloud Top 10

So what makes a good hybrid data cloud? From our research, we have identified the following essential elements:

1. Distributed cloud model

A hybrid data cloud is based on a distributed cloud model that operates across all infrastructures. Operated as a single platform, there's no need to pick one platform for the on-premises data architecture and another for the cloud. Data and workloads move friction-free and in any direction between clouds without costly rewrites or refactors.

2. Portable, interoperable data services

Implementing a new use case requires more than just a better data warehouse or snazzier data science workbench. With a hybrid data cloud, interoperable data services cover the data lifecycle and are portable across clouds with no refactoring or redevelopment.

3. Data services for all eventualities

Uncovering value and insight demands data services that are more than just diverse in terms of what they deliver. In a hybrid data cloud, data services must be able to work with all data, including structured, semi-structured, and unstructured data. They must also deal with the various sources that generate data, and support multiple forms of ingestion, processing, and analytics, including batch and streaming.

4. Separated compute and storage

The key to cloud-native scale and agility is the separation of compute and storage, enabling independent, flexible, and horizontal scaling of resources. A hybrid data cloud delivers not only separation but also choice on which resource is consumed from which provider, so organizations can select the optimal resource mix based on price, performance, and locality.

5. Common tools

With data and workloads spread across multiple clouds, it's important to keep tabs on utilization, performance, and cost without subjecting users to different tools, architectures, and metrics used for each. With a single pane of glass, a hybrid data cloud provides complete observability over data, analytics, and AI workloads along with the tools to manage and optimize data center hardware and cloud infrastructure.

6. Orchestration and management

The most valuable business use cases leverage multiple data services, each deployed to the most suitable infrastructure. hybrid data cloud tooling to easily orchestrate and automate management workflows takes the complexity out of working across heterogeneous clouds.

7. Cross-platform security and governance

Good data governance uncovers business value and helps demonstrate compliance; strong security ensures the right users can access more data. Neither can be an afterthought in one or multiple form factors. Consistent security and governance across all deployments is the crux for hybrid cloud success and a fundamental requirement for the mobility of data and services.

8. Automated, optimized workload placement

Individual teams, departments, and organizations have continually evolving priorities around cost and performance for data and analytics. In a hybrid data cloud, an intelligent decision framework automatically places or moves data and workloads to adapt to change circumstances, ensuring continuous, optimal delivery without refactoring.

9. Intuitive experience

Hybrid should not mean different interfaces and ways of working on each cloud. A true hybrid data cloud offers simple, consistent, and intuitive experiences for data users and developers everywhere, streamlined with a unique identity across all environments for each user.

10. Open and extensible

One thing is for certain: change is constant. A successful hybrid data cloud must be ready for what the future brings. That includes being able to extend to new clouds, new data types, and new data services.

Cloudera – The Only True Hybrid Platform for Data, Analytics, and AI

Cloudera is the industry's leading hybrid platform. It includes an integrated suite of secure cloud-native data services for data collection, engineering, warehousing, transactional analytics, data science, and reporting that can run on multiple public clouds and on premises, including the edge. It supports all types and structures of data at rest as well as in motion. And it delivers data security and governance that is controlled centrally and applied consistently across clouds, without gaps between services and without the need to become an expert in each and every unique cloud. Unlike most cloud data services, it is based on open source and open standards to ensure future extensibility.

Cloudera's hybrid platform enables state and local government agencies to harness all of their data so they can confidently build and deliver AI-powered applications, streamline operations, combat cyber threats, and improve citizen services faster, easier, and more reliably.

A hybrid platform combines the data management, analytics, transactional, and data science services of public and private clouds.

CLouDERA

Cloudera, Inc. | 5470 Great America Pkwy, Santa Clara, CA 95054 USA | cloudera.com

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.

To learn more, visit [Cloudera.com](https://cloudera.com) and follow us on [LinkedIn](#) and [X](#).