

ACCELERATE AI WITH TRUSTED DATA

Achieve Mission Success with Cloudera's
Unified Hybrid Data Platform



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AI presents a tremendous opportunity for public sector agencies to accelerate their mission. Expectations are vast. And while AI can provide the rich insights needed to solve problems, locating, organizing, and extracting necessary actionable data in context often remains an obstacle. Agencies typically face three major challenges when it comes to harnessing the power of their data:

- First, data is being generated at an unprecedented volume and velocity, and some government organizations struggle to manage it efficiently.
- Second, the growing expectations regarding the operational impact of AI requires focused data management. Estimates from ai.gov suggest that over 80% of government employees are using AI on a daily or weekly basis.
- Lastly, because programs are funded individually, some departments have migrated workloads to the public cloud, while others remain hosted in on-premises data centers, requiring agency CIOs to manage their applications and data using a hybrid cloud approach. The Federal Data Center Enhancement Act of 2023 directs government agencies to, "prioritize and, to the greatest extent possible, leverage commercial data center solutions, including hybrid cloud, multi-cloud, co-location, interconnection, or cloud computing."

Considerations for Harnessing and Transforming Data

Do You Want to Deploy AI? Have a Plan.

Managing data across silos and hybrid environments becomes even more important when AI is the path to success.

The applications for AI are far-reaching, giving agencies opportunities to better serve the public across healthcare, cybersecurity, transportation, environmental, and other services. There are already more than 700 AI use cases in the works across government agencies. However, the data being used are an attractive target for bad actors, creating potential cybersecurity risks. New AI applications also reveal data capability gaps for organizations who need to modernize quickly.

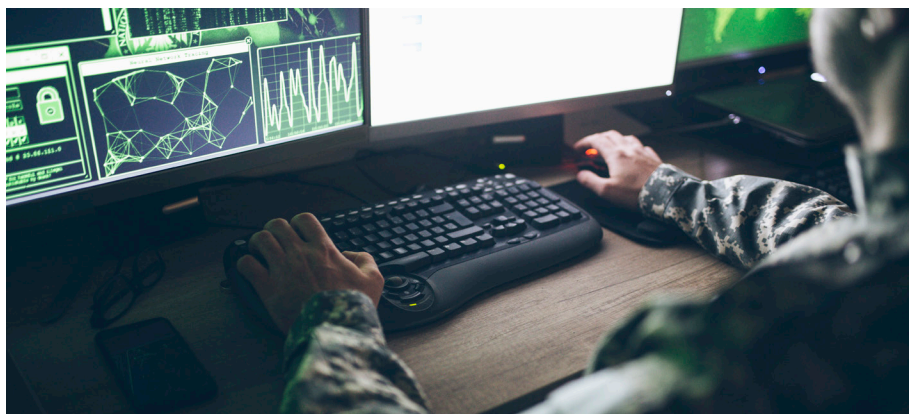
Trusted AI also requires robust management and governance of data sets on a massive scale, which presents another new challenge for government agencies.

Cloudera Helps Address Data Governance and Security Mandates

The public sector must tackle the challenges of harnessing and transforming raw data into actionable insights while keeping pace with ever-evolving governance and cybersecurity mandates.

How Can Cloudera Help?

Acceleration of agency missions requires trusted access to and sophisticated analytics on data wherever it may reside.



For example, data protection is one of the core pillars of security in the Cybersecurity and Infrastructure Security Agency's (CISA) Zero Trust Maturity Model. This adds pressure on agencies to close security vulnerabilities and harden security postures. Federal agencies require FedRAMP Authorization, while Department of Defense (DoD) agencies require Cloud Computing Provisional Impact Level Authorization for all cloud services. StateRAMP (while similar to FedRAMP) supports state and local governments by providing policies and procedures that standardize security requirements for public cloud services.



To meet these and other mandates, many agencies are building zero trust architecture with data as the central pillar. Access control management is also an important consideration for agencies. The Identity, Credential and Access Management (ICAM) framework is designed to enable system owners to ensure that only the right person is accessing the right information at the right time for the right reason. This framework is particularly important for AI use cases, for which access to cloud-based data sets using and producing solutions requires tighter access controls. Cloudera Shared Data Experience (SDX) helps users with ICAM by delivering integrated security and governance, visibility through a single pane of glass, and data management at massive scale.

Cloudera Can Help You Manage Your Hybrid Environment

While data is the key to unlocking mission success for agencies, it is not useful unless data teams can locate, move, analyze, and transform it into knowledge to drive faster and better decisions. CIOs manage data and applications in a variety of environments, including private cloud, public cloud, and data centers.

Cloudera simplifies data management by providing:

- The capability to manage petabytes of data with ease
- A single pane-of-glass view of data
- Services to manage the wide range of fast-moving data sources, such as cloud, edge devices, and other collection points

Managing these challenges is not only expensive and time-consuming, but it also prevents agencies from getting a holistic view and governance over their data.

To address data management challenges, agencies are trying to take advantage of the speed, scale, and efficiencies of the cloud while optimizing costs by building hybrid and multi-cloud strategies. To be successful, agencies need observability and command and control of data wherever it may be.

Sensitive, mission-critical data must be secured wherever it resides, whether it is on-premises, in a public cloud, or in a private cloud. Operational problems that require complex analytics, such as AI/ML, often require data from disparate sources. Agencies must consider these complexities.

Cloudera's Open Data Lakehouse

A full lifecycle of data services, from the Edge to AI, connecting the dots between different data sets, offering quick analytics.

One Unified Hybrid Data Platform to Achieve Mission Success

While modern data can be complex and difficult to navigate, there are solutions. To overcome these challenges, agencies can turn to a unified platform that can transform raw data into meaningful insights to drive missions forward. They can confidently manage the toughest data challenges with the industry's only true hybrid data, analytics, and AI platform.

Cloudera's open data lakehouse offers data services that support the full data lifecycle, from batch and stream processing to real-time analytics and AI, and it can be deployed wherever your data resides. Cloudera connects the dots between different data sets, delivering faster time to insights. The flexible platform keeps model training costs manageable, even as training volumes grow, lowering Total Cost of Ownership. Its secure, interoperable, end-to-end services enable efficient and cost-effective collection, processing, movement, and analysis of petabytes of data across hybrid and multi-cloud environments without infrastructure lock-in.

Cloudera's platform services the entire data lifecycle and supports a rich ecosystem of Federal Systems Integrators (FSIs) and third-party partner capabilities. This augments and extends native platform capability. In many cases, it also enables the preservation of existing investments, which supports architecture modernization in the future.

Cloudera takes a holistic approach, providing unified visibility, governance, and security across different data streams, analytics tools, and users. It helps agencies simplify analytics and AI/ML initiatives to gain new insights and better serve their data-driven mission.

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.

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Turn Raw Data into Actionable Insights

Cloudera empowers agencies to drive their missions forward with a data-driven approach. Across the public sector, Cloudera's hybrid data platform is a powerful solution for organizations who need to:

- **Simplify data discoverability and consumption.** Cloudera ensures that teams can easily consume data and put it to use, regardless of the scale, type, or source. It provides flexibility so teams can run workloads and analytics in the best, most cost-effective environment to achieve more sophisticated insights and intelligence.
- **Accelerate Enterprise AI.** Cloudera accelerates the deployment of AI and advanced analytics, cutting Generative AI development and production time by 50% with one-click solutions. By efficiently empowering agencies with AI insights, Cloudera helps provide better citizen services. Generative AI and Large Language Models (LLMs) are only as good as the data they have been trained on. Cloudera Enterprise AI enables agencies to trust models with complete security and governance.
- **Take advantage of hybrid and multi-cloud strategy benefits.** Hybrid and multi-cloud environments have many benefits, but it can be difficult for agencies to tap into them. Cloudera empowers agencies to securely adopt cloud-smart approaches with the flexibility to operate workloads where it's most advantageous to run them, whether that's on public or private cloud(s), on-premises data centers, or at the edge. This enables agencies to take advantage of a true hybrid strategy to run analytics anywhere and scale as needed to suit their needs.
- **Enable accelerated mission success using modern data architectures and streamlined governance.** More data typically results in more silos. This challenge leaves agencies looking for a way to consolidate and automate data collection, movement, and enrichment. Cloudera enables modern data architectures, including data lakehouse, data fabric, and data mesh, making data more available, easier to access, and correlated. Agencies can connect the dots and run analytics on a unified view of their data. Additionally, a holistic platform is more cost-effective since it streamlines management, governance, and security, alleviating the resource burden.
- **Bolster security measures.** Accelerating AI deployments and super-charging decision-making with data isn't better if security lags. Cloudera enhances security within zero-trust architecture. With data as a central pillar, Cloudera supports agencies in addressing vulnerabilities and hardening their security postures against ever-evolving and increasing threats

Put Your Data to Work to Accelerate Your Mission

Across government agencies, the key to meeting mission goals is figuring out how to meet your mission faster with descriptive and predictive analytics and AI at scale, and getting all of your data securely working for you. Agencies can stop drowning in data and instead turn it into actionable insights.

With Cloudera, your agency can focus on using data to uncover hidden insights, explore options, and "work the problem" to enable outcomes that move missions forward, all with trusted data that the public sector depends on.

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Learn more at www.cloudera.com/publicsector