

Cloudera Shared Data Experience

DELIVERING CONSISTENT DATA CONTEXT FOR HYBRID AND MULTI-CLOUD

Business impact of consistent context

IMPROVED

- Self-service data access
- Business agility and insight
- Governance and compliance

REDUCED

- Security and business risk
- Operational costs and overheads

With SDX, organizations know their data and know it is used properly

Organizations today are leveraging data to drive more efficient processes and more effective outcomes. The highest value use cases rely on a variety of data analysis capabilities working in concert, yet this can be hard to achieve in a fragmented IT ecosystem. In a hybrid and multi-cloud world, organizations need data context – a single, consistent way to manage and maintain data access and governance policies across all users, analytics and deployments.

A critical part of Cloudera Data Platform (CDP), SDX (Shared Data Experience) is Cloudera's integrated set of security and governance technologies built on metadata and delivering consistent context across all analytics and public as well as private clouds. An intrinsic part of CDP, SDX reduces security risk and operational costs by delivering consistent data context across deployments. Multi-tenant data access and governance policies are set once, and automatically enforced across the data lifecycle in hybrid as well as multi-clouds. With these, organizations can deploy fully secured and governed data lakes faster



Secure by design

SDX' data context architecture ensures CDP is secure by design, unlike the approach taken by other vendors where security is an afterthought or bolt on. As a result, organizations can make new data available at speed and without compromise. SDX delivers comprehensive security right out of the box for data lakes as they are deployed and data as it is used.

SECURE PLATFORM DEPLOYMENT	SECURE DATA ACCESS
Identities: Manage adding enterprise users and groups to multi-tenant clusters	SSO: LDAP based authentication & authorization for services' web UIs
Network: Configure Kerberos based authentication, TLS wire encryption, DNS and proxies for web interfaces	Authorization: Manage data access on multi-tenant clusters with tag based policies
Storage encryption: Enable encrypted data at rest across the platform	Lineage and Audit: Access unified persistent audit and lineage across all clusters (transient or persistent, single or multi-user)
	Data stewardship: Discover, profile, curate and tag datasets with business context

“SDX includes comprehensive, granular security to protect against cyber threats, and unified governance for the audit and search capabilities that the modern world demands, especially with standards like PCI-DSS and GDPR.” Mike Olson, Co-founder, Cloudera

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

Key features and benefits

KEY FEATURE	BENEFIT
Insightful metadata	Trusted, reusable data assets and efficient deployments need more than just technical and structural metadata. CDP's Data Catalog provides a single pane of glass to administer and discover all data, profiled and enhanced with rich metadata that includes the operational, social and business context, and turns data into valuable information.
Powerful security	Eliminate business and security risks, and ensure compliance by preventing unauthorized access to sensitive or restricted data across the platform with full auditing. SDX enables organizations to establish multi-tenant data access with ease through standardization and seamless enforcement of granular, dynamic, role- and attribute-based security policies on all clouds and data centers.
Full encryption	Enjoy ultimate protection as a fundamental part of your CDP installation. Clusters are deployed and automatically configured to use Kerberos and for encrypted network traffic with Auto-TLS. Data at rest, both on-premises and in the cloud, is protected with enterprise-grade cryptography, supporting best practice tried and tested configurations
Hybrid control	Meet the ever-changing business needs to balance performance, cost and resilience. Deliver true infrastructure independence. SDX enables it all with the ability to move data, together with its context, as well as workloads between CDP deployments. Platform operational insight into aspects like workload performance deliver intelligent recommendations for optimal resource utilization.
Enterprise-grade governance	Prove compliance and manage the complete data lifecycle from the edge to AI and from ingestion to purge with data management across all analytics and deployments. Identify and manage sensitive data, and effectively address regulatory requirements with unified, platform-wide operations, including data classification, lineage, and modelling.

Accelerating data-driven insights

SDX enables a host of functional use cases, delivering tremendous business value by unlocking the insight data holds.

Automatic data profiling

With data volumes of any type exploding, quickly making new data available to end users lets organizations capitalize on the flood of information. The limiting factor is the time taken to understand the data. SDX automatically profiles new data as it arrives to build insight and classify sensitive information, triggering the appropriate access policies and ensuring corporate standards and compliance are always met.

Easy, secure data access

Innovation and digital transformation require organizations to uncover insight and value from their data at scale. The key enabler is providing all users access to all data and analytics to experiment and implement new use cases. SDX delivers consistent security and governance for multi-tenant data access across all deployments, marrying free access with complete safety and compliance.

Regulatory compliance

Regulatory compliance (e.g. GDPR and CCPA) demands a modern data architecture that decreases business and security risks stemming from ever-changing data privacy requirements. SDX lets organizations identify and manage sensitive data for compliance without disruption to business processes whilst also providing consistent security and governance transparently across all data and deployments.

Visit us on our website and learn more
cloudera.com/products/sdx.html