

Lenses Security & Governance

Lenses, a DataOps platform, accelerates time to value, opening up data streams to a wide audience. Lenses enables rapid construction and deployment of data pipelines at scale, for enterprises, with governance and security.

DataOps is currently transforming data management. Building a data-driven culture mandates that all data personas work with data, enabling participation from the entire business. Organisations are trying hard to expose their data via platform teams. As a result, many end up with customised DIY solutions with in-house engineering teams spending most of their time building infrastructure and tooling. Data should be in the hands of its users, as simple as their email, to enable innovation and minimise time to value. Lenses empowers this.

Get more from you data with Lenses and DataOps, leverage your data and existing data skills to iterate quickly and move to production faster.

Focus on:

- ➔ Leveraging your whole organisation
- ➔ Data pipelines over infrastructure
- ➔ Configuration over code
- ➔ Data analytics over engineering
- ➔ Operations made easy

BENEFITS

- ✓ Faster time to value
- ✓ Empowerment of data literate business users
- ✓ Reduced engineering effort
- ✓ Focus on data and business requirements

KAFKA ENABLER

- ✓ Access live and batch data
- ✓ Power your teams with access to real time streams
- ✓ Move to production faster with a comprehensive to access data

Protection & Security for business integration

In the modern hyper-connected and digitally transformed business, enterprise risk continues to increase. From fraud, to ever-changing compliance regulations, you need to increase visibility and unlock the power of real-time data streaming and advanced analytics to lower enterprise risk.

With the new regulations around data privacy such as GDPR, HIPAA, AML, companies handling private data put a lot of effort to minimise their risks. We make sure we keep Data Governance at high standards for your data in motion.

- ✓ Right to request a copy of personal data
- ✓ Keep detailed records of data activities
- ✓ Protect Sensitive Data
- ✓ Role-based Data Access
- ✓ Access Control Lists
- ✓ SSL Encryption and Kerberos
- ✓ LDAP and Active Directory

Role Based Access

Enterprise user require more than use simple users. Lenses provides role based access that can be integrated with LDAP and Kerberos to simplify governance. Lenses roles, in conjunction with *topic-centric* black and white listing also control access to applications that consume or produce data.

- LDAP integration
- Pluggable [LDAP template](#) for group retrieval
- Topic blacklisting including consuming/producing applications
- Topic whitelisting including consuming/producing applications.

Data Governance

Right to request a copy of personal data

Lenses SQL engine allows thorough examination and retrieval of records. Collect and export the records required as CSV or JSON format. Automate any requests for personal data via APIs and CLI tool.

```
SELECT * FROM topicA WHERE customer.id = XXX LIMIT 1000000
```

Keep detailed records on data activities

All actions impacting your data are automatically captured and the full audit trail is preserved.

- Any user access to data. The WHO accessed WHAT and WHEN report is available.
- Any Kafka Connect data integration. You know WHICH connect process accessed data and WHEN.
- Any SQL processor. You know WHAT data activities have been performed on data and WHEN.
- Any System (infrastructure level) action like creating a topic, or changing a configuration, or deleting a topic is tracked and stored.

Protect Sensitive Data

If leveraging Apache AVRO as a data container, you can annotate with "**obfuscate**":"**true**" any sensitive field. Once a field is "protected" Lenses will always obfuscate the contents. Use this to make sensitive fields invisible to any user via any means: Web UI, REST, WS, CLI, Python, Go, JDBC.

Access Control Lists

When authentication is enabled (via Kerberos or TLS certificates), you can utilize the Kafka ACLs infrastructure.

SSL Encryption and Kerberos

All the components of Lenses fully support Kafka clusters with SASL_SSL or SSL providing 100% network-level encryption.

LDAP and Active Directory

You can plug your own custom code for mapping users and groups when using [LDAP](#) or AD .

Audits

Data governance is not complete without auditing. All actions in Lenses are audited, even queries. The logs are immutable stored back into the underlying middleware allows users the option to store into other systems via our Lenses connector collection or build reports using Lenses SQL.

Features on Data Transformation

Control Access	
Role Based Access	Lenses supports role-based authorisation to protect your cluster and your data, especially in a multi-tenant environment. Also provides a no-data role for operation and support teams
Basic Authentication	Token-based authentication scenarios
LDAP	Integrate via memberOf or pluggable LDAP, or AD (Active Directory) and provide the people in your organization role-based access to Kafka streaming data
Kerberos	JaaS, Utilise Kerberos Authentication, Authorization, Single sign-on
TLS Certificates	Authenticate and Authorise Clients and Application via signed TLS certificates
ACLs	Manage Access Control Lists (Kafka ACLs) via Lenses interface / CLI
Quotas	Manage Kafka quotas for clients via Lenses Interface / CLI
Multi-tenancy	Blacklist and Whitelist capabilities for user groups. It applies topic-centric security which can restrict access to various topics and its involved pipelines

Governance & Lineage	
Audit Logs	Immutable audit logs to track all CRUD actions in a who did what and when fashion. Lenses also audits actions happen outside Lenses, by periodically monitoring your infrastructure.
Audit Data access	Compliance is hard when it comes to data access so Lenses is logging all queries and data access for its users.
Data Schemas	Lenses keeps its own metastore for data types and schemas and also integrates with widely used Schema Registries to poll the schemas, including schema management with RBAC. Visualizes history of Avro schemas and ensures evolution. See Browse Data.
Topologies	Application / Topology level view of data-pipelines, to highlight relations of data with private or GDPR regulated data.
Query Topologies	Visualise the internal data processing flow structure for continuous queries and custom applications that processing streaming data.

More

- ➔ [How to Access data in-motion with Lenses](#)
- ➔ [Lenses SQL Engine for Browsing & Processing Data](#)
- ➔ [Lenses Resources](#)

About Us

Landoop creator of Lenses, is a London based company. Our aim is to help companies open up their business data to all relevant users seamlessly by giving them the power of data operations. DataOps is currently transforming data management. Building a data-driven culture mandates that all data personas work with data, enabling participation from the entire business. Organisations are trying hard to expose their data via platform teams. As a result, many end up with customised DIY solutions with in-house engineering teams spending most of their time building infrastructure and tooling. Data should be in the hands of its users, as simple as their email, to enable innovation and minimise time to value.

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