Authorization for Data & Data Lakes

Securely connecting identities to digital assets,
powered by Policy Based Access Control (PBAC)

Dynamic Authorization for Data Security

Rapid digital transformation has fueled an explosion of data for many organizations. This growth brings with it a significant security challenge as organizations build iniatitives to address security gaps across data and its access control.

While data collaboration is critical for insight and analytics, vulnerable access points pose a data breach risk and can be costly for organizations with sensitive data that's critical for their business.

Consistently and continuously protecting resources across different databases and repositories, whether on-premises or in the cloud, is a challenge that data and security teams struggle with. The challenge is exacerbated when data resources are distributed across diverse databases and do not have native nor extensive authorization capabilities.

The PlainID Authorization Platform provides centralized management with distributed enforcement for data access using **PlainID Authorizers**™. PlainID's Authorizers provide out-of-the-box integration with industry leading data lake solutions to simplify authorization for your data and data lakes.

Business Values

Enable Secure Data Collaboration
Protect data and its access distributed across the enterprise and shared between respositories and data lake technologies.

Minimize Risk with Identity-first Security
Implement security best practices for data access across various environments: on-premises, hybrid, and in the cloud.

Better Manage Data Access Policies
Consistently and continuously secure data access with access policies for all types of data and data lakes with a single pane of glass through a central management platform.

Features:

Business-driven Policy Design for APIs
Leverage a graphical UI management console where data access policies can be quickly and easily configured to reflect business logic using simple language.

Query Modification Based on Access Policy
Filter data at the service level to improve performance and security for application requests. Make requests identity-aware to fetch only specific data for authorized identities.

Dynamic & Fine-grained Authorization
Dynamically enforce access controls according to business policies down to the data-level and field-level, including unstructured data and JSON objects.

PlainID Authorizers for Data Lakes
Integrate dynamic, runtime authorization with all types of databases including industry leading providers such as Snowflake, Denodo, Dremio, Google BigQuery, AWS Redshift, Trino, and more.

Dynamic & Coarse-grained Authorization
Implement Permit / Deny policies for database and table-level access of resources.

Operational Data Access Enforcement
Enforce authorization for indirect access to data via APIs, microservices and data lakes.

Business Intelligence (BI) Data Access Enforcement
Enforce direct access and authorization of BI tools with PlainID's Network Proxy Authorizer.

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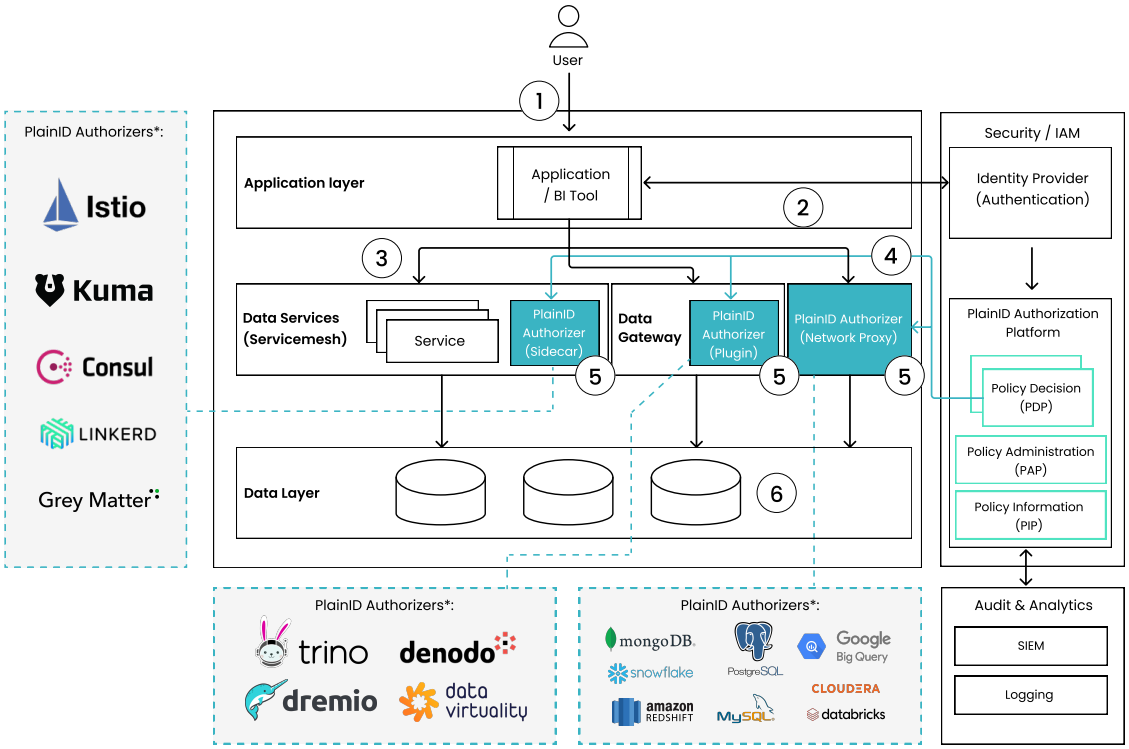
Solution Architecture

The PlainID Authorization Platform provides flexible methods through PlainID Authorizers to enforce data access control and accommodate specific enterprise architectures for data access. These deployment methods include:

Data Services Authorizer | **Data Gateway Authorizer** | **Network Proxy Authorizer**

Data Security Enforcement with PlainID Authorizers

1. User logs into the application, Business Intelligence (BI), or Analytics tool
2. Application/tool sends Authentication request to the IdP
3. Application/tool requests access to the data through a PlainID Authorizer for the following:
   - Data Service (as a sidecar)
   - Data Gateway (as a plugin)
   - PlainID Authorizer (as a network proxy)
4. The Authorizer queries the PDP for a dynamically calculated authorization resolution
5. The response is translated to a data filtering clause and a list of authorized data elements which is used to modify the original data query
6. The original query is modified based on the authorization resolution resulting in filtering/masking of the columns/ rows/cells as needed



*Visit PlainID.com for the full list of Authorizers

About PlainID

PlainID, the Authorization Company, simplifies the complexity businesses face when securely connecting identities to digital assets. Powered by PBAC, PlainID provides a SaaS-based, centralized policy management platform with decentralized enforcement to manage who can access what across the enterprise technology stack; including applications, data, API, microservices and more.

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