

Unity Catalog

Learning Objectives

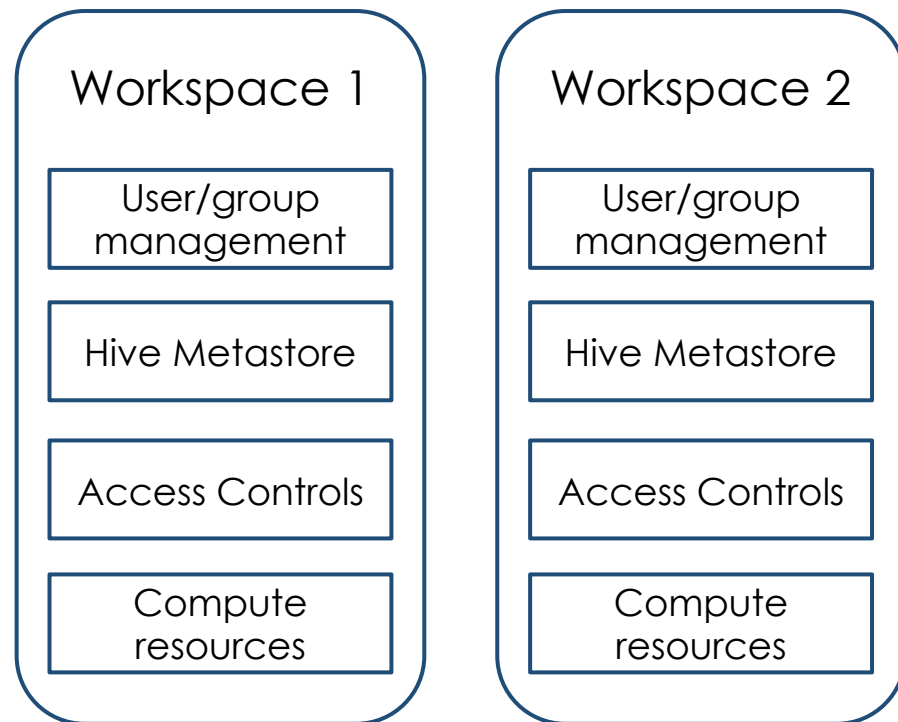
- ▶ What is Unity Catalog
- ▶ 3-level namespace
- ▶ Security model for governing data objects

Unity Catalog

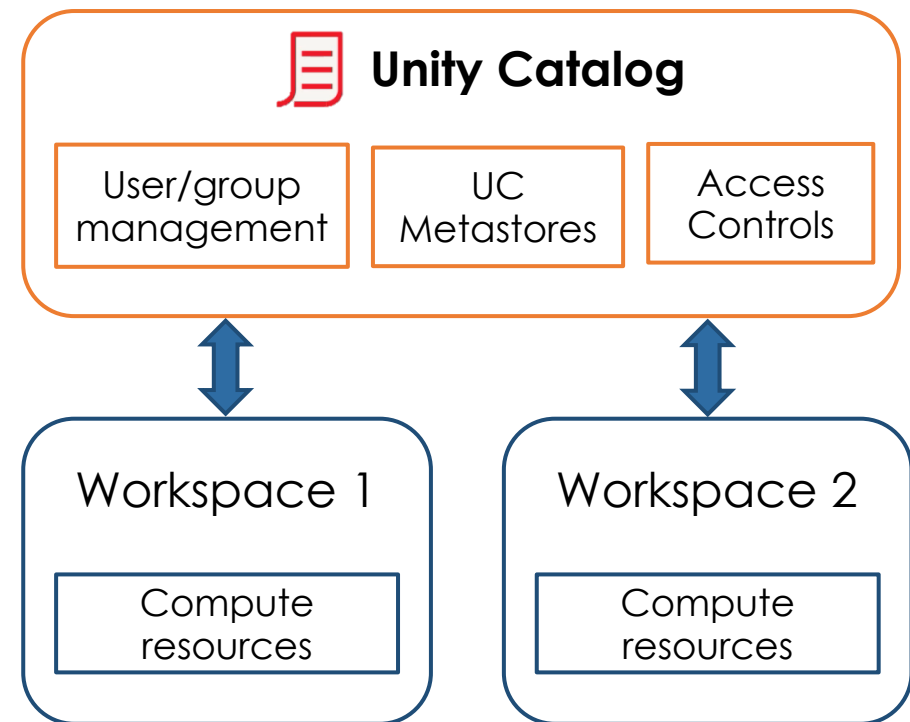
- ▶ Centralized governance solution across all your workspaces on any cloud.
- ▶ Unify governance for all data and AI assets
 - ▶ files, tables, machine learning models and dashboards
 - ▶ based on SQL

Architecture

Before Unity Catalog



With Unity Catalog



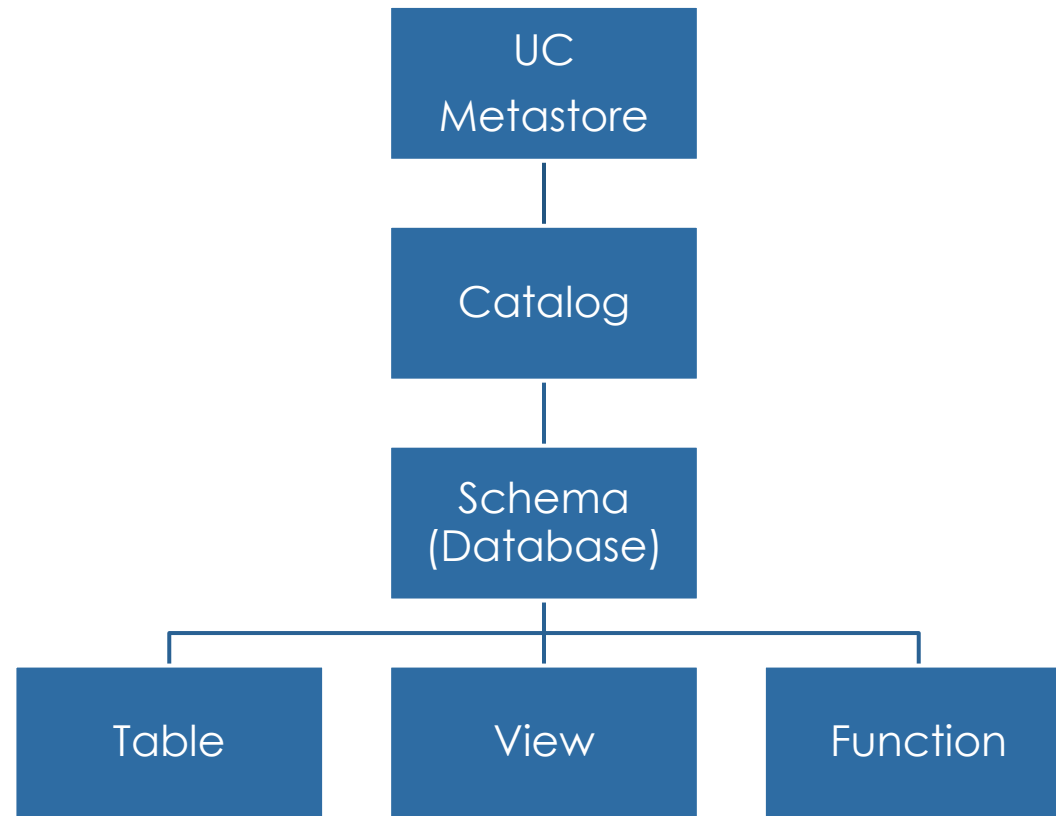
UC 3-level namespace

```
SELECT * FROM schema.table
```

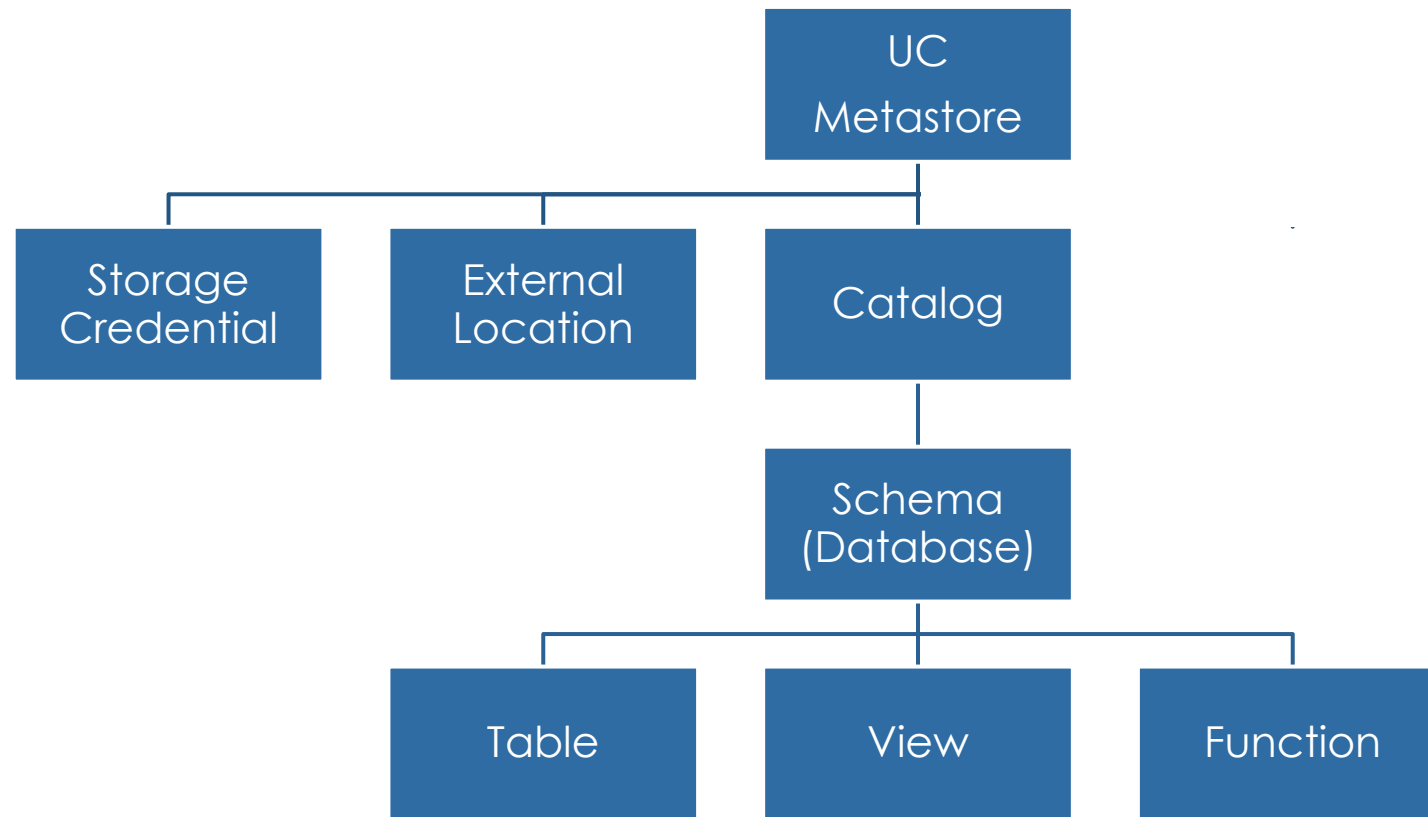


```
SELECT * FROM catalog.schema.table
```

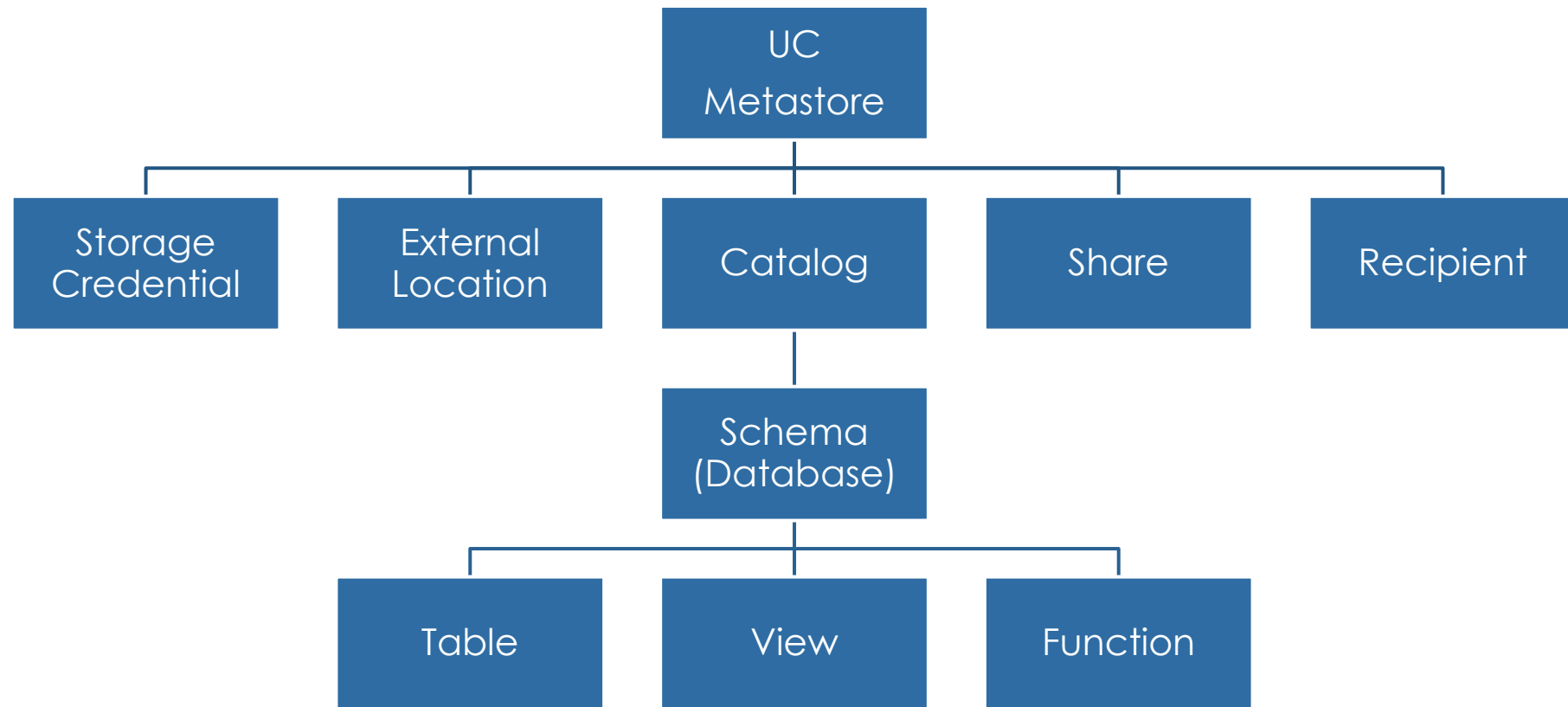
UC hierarchy



UC hierarchy



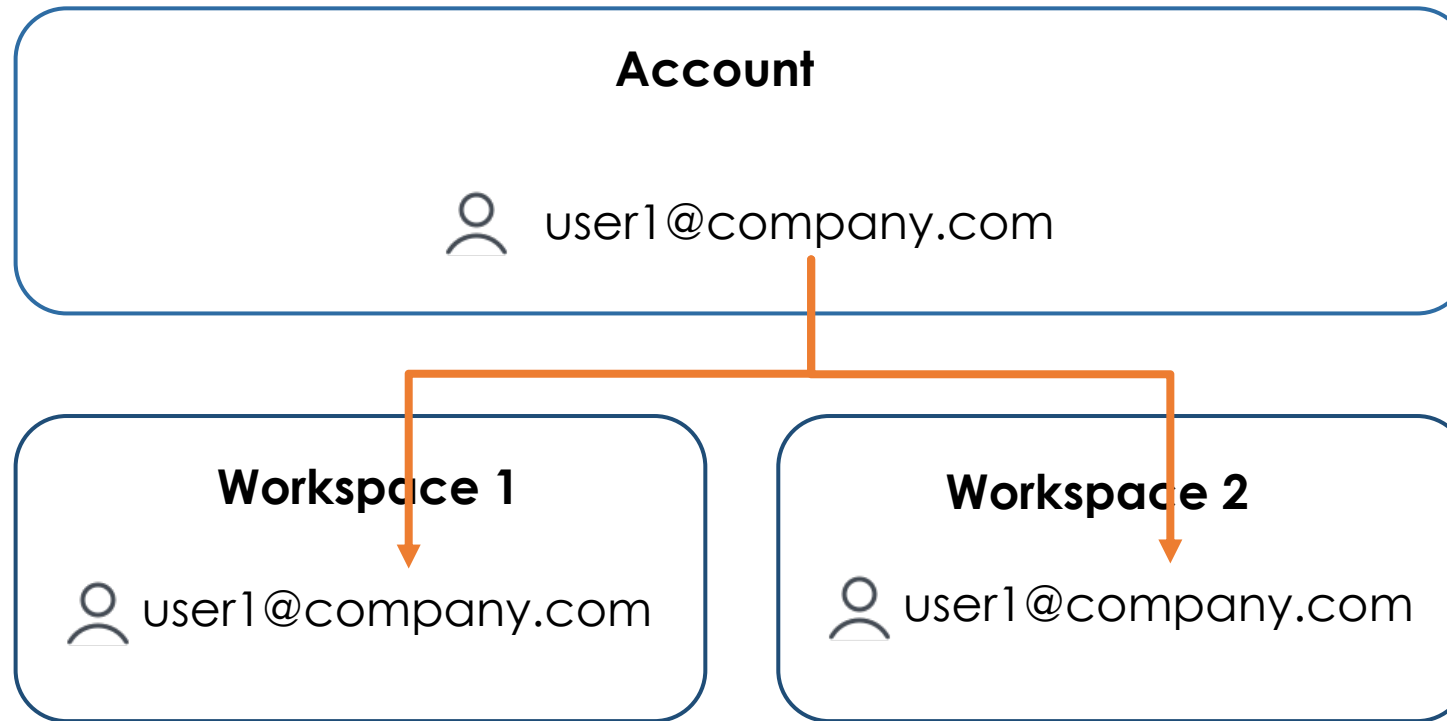
UC hierarchy



Identities

- ▶ **Users:** identified by e-mail addresses
 - ▶ Account administrator
- ▶ **Service Principles:** identified by Application IDs
 - ▶ Service Principles with administrative privilege
- ▶ **Groups:** grouping Users and Service Principles
 - ▶ Nested groups

Identity Federation



Privileges

- ▶ CREATE
- ▶ USAGE
- ▶ SELECT
- ▶ MODIFY
- ▶ READ FILES
- ▶ WRITE FILES
- ▶ EXECUTE

Security model

GRANT **Privilege** ON **Securable_Object** TO **Principal**

Privileges

CREATE

USAGE

SELECT

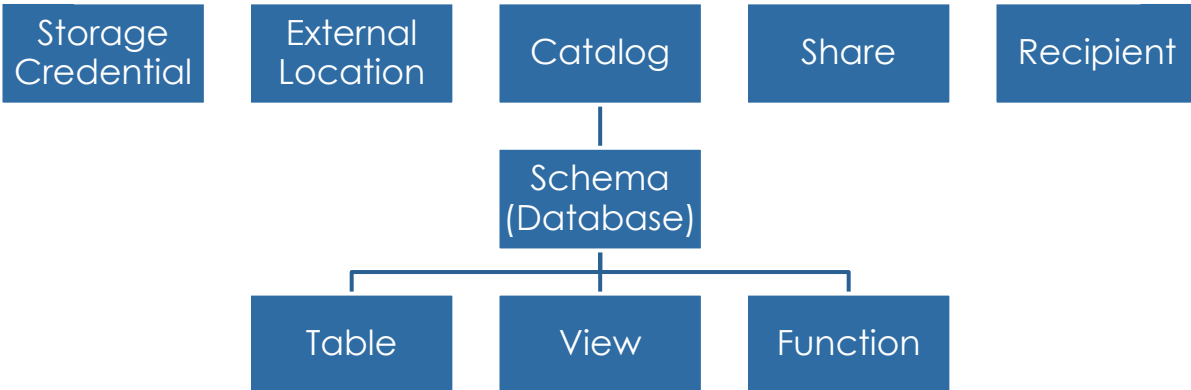
MODIFY

READ FILES

WRITE FILES

EXECUTE

Securable objects



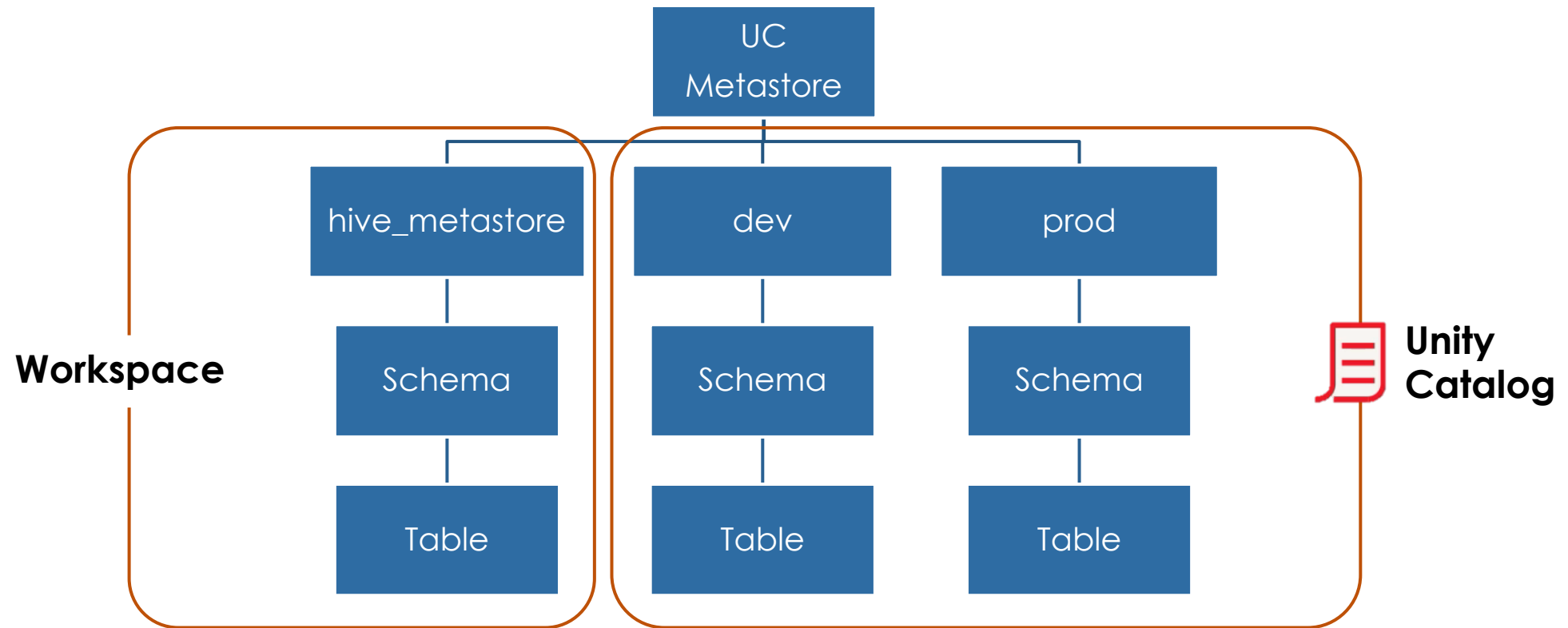
Principles

User

Service Principles

group

Accessing legacy Hive metastore



Features

- ▶ Centralized governance for data and AI
- ▶ Built-in data search and discovery
- ▶ Automated lineage
- ▶ No hard migration required

Account Console

- ▶ Log in as account administrator
- ▶ <https://accounts.cloud.databricks.com>