

Unity Catalog

Learning Objectives

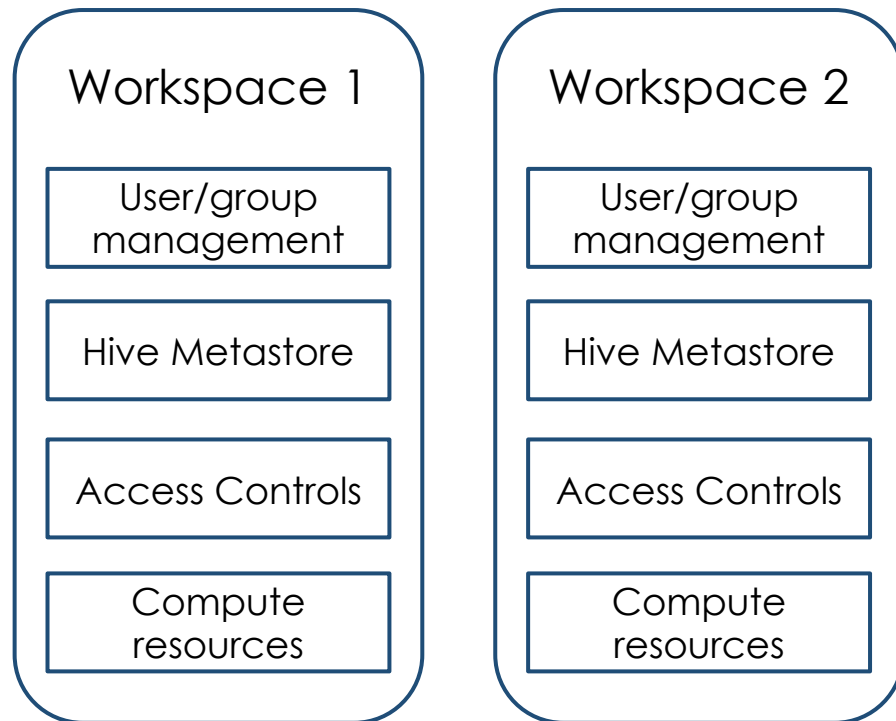
- ▶ What is Unity Catalog
- ▶ 3-level namespace
- ▶ Security model for governing data objects

Unity Catalog

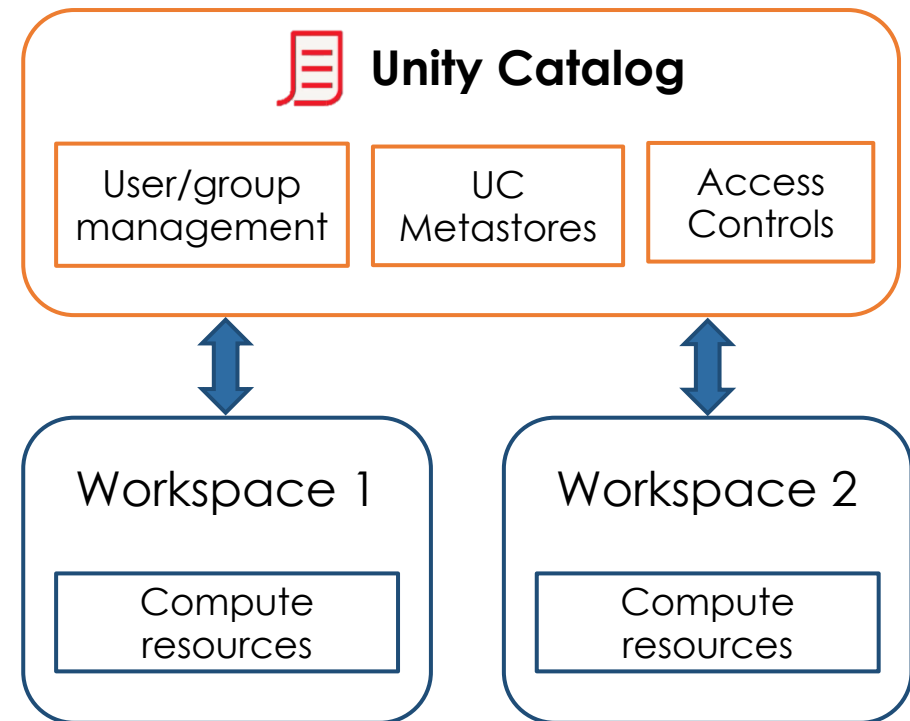
- ▶ Centralized governance solution across all your workspaces on any cloud.
- ▶ Unify governance for all data and AI assets
 - ▶ files, tables, machine learning models and dashboards
 - ▶ based on SQL

Architecture

Before Unity Catalog



With Unity Catalog



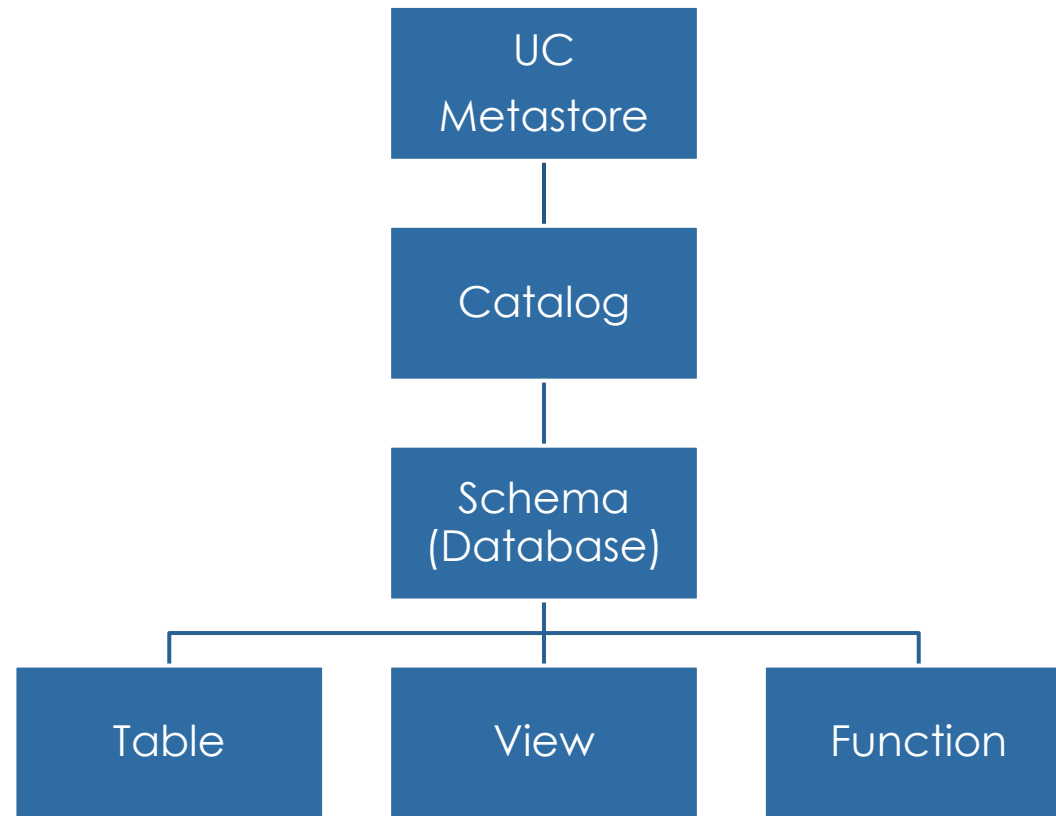
UC 3-level namespace

SELECT * FROM schema.table

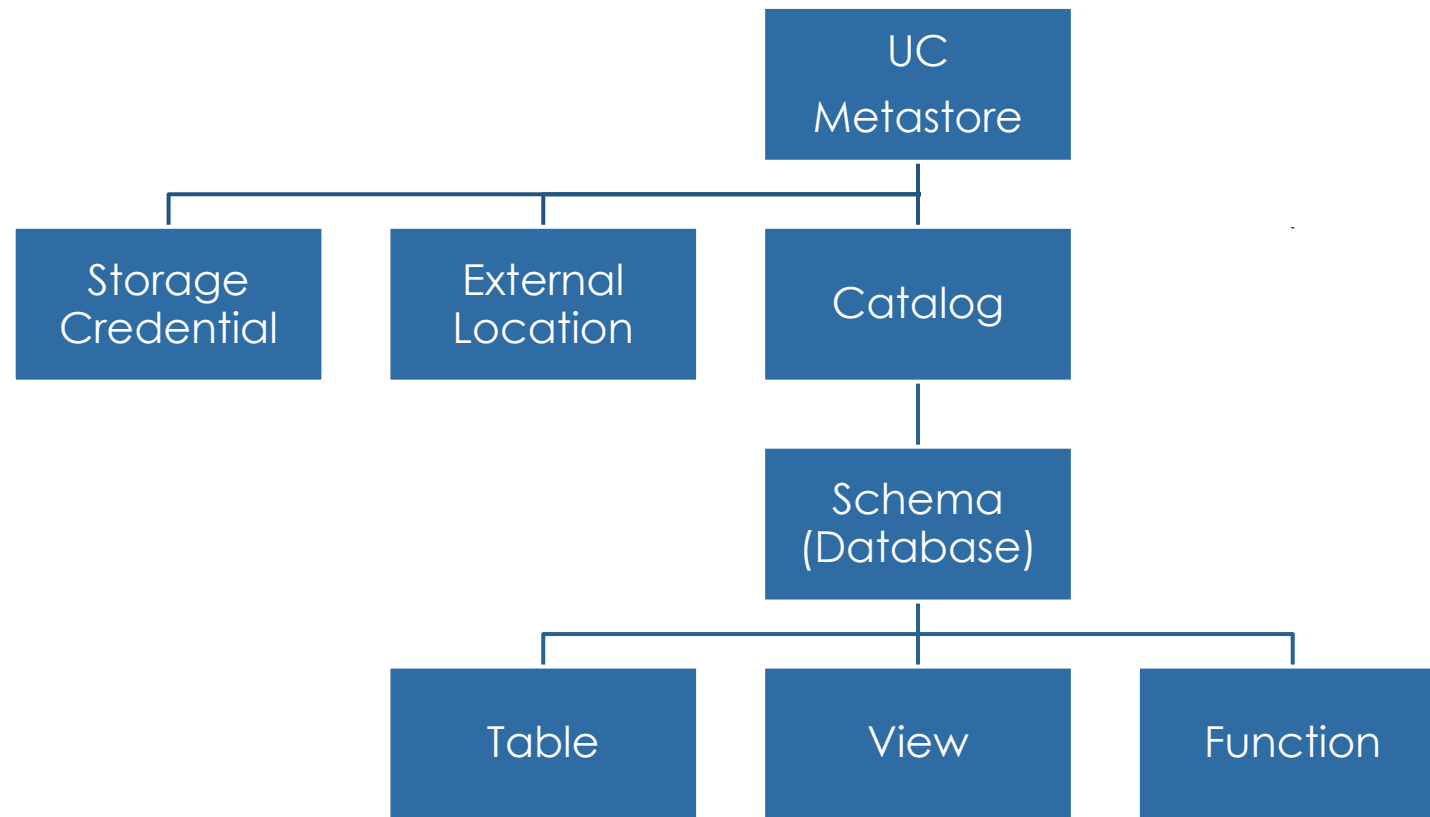


SELECT * FROM **catalog**.schema.table

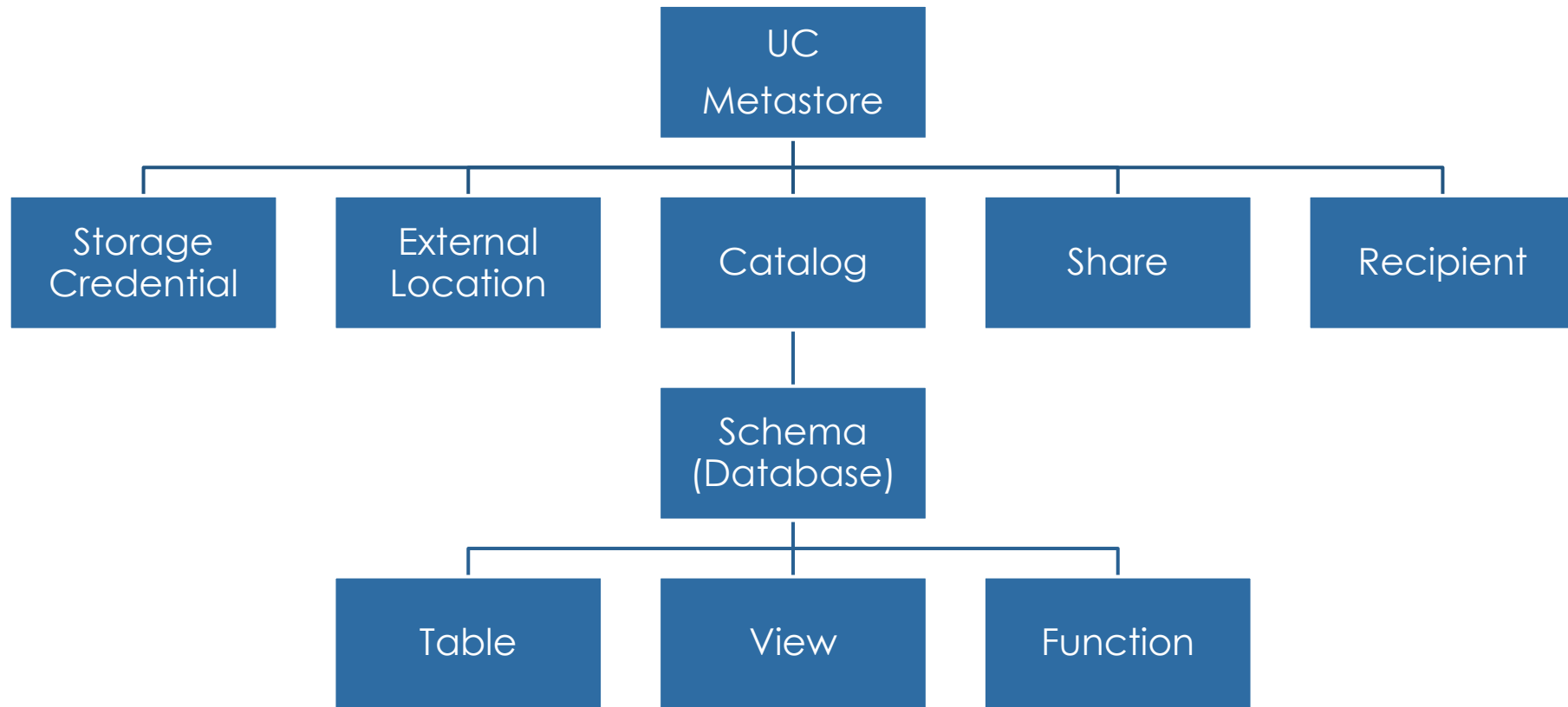
UC hierarchy



UC hierarchy



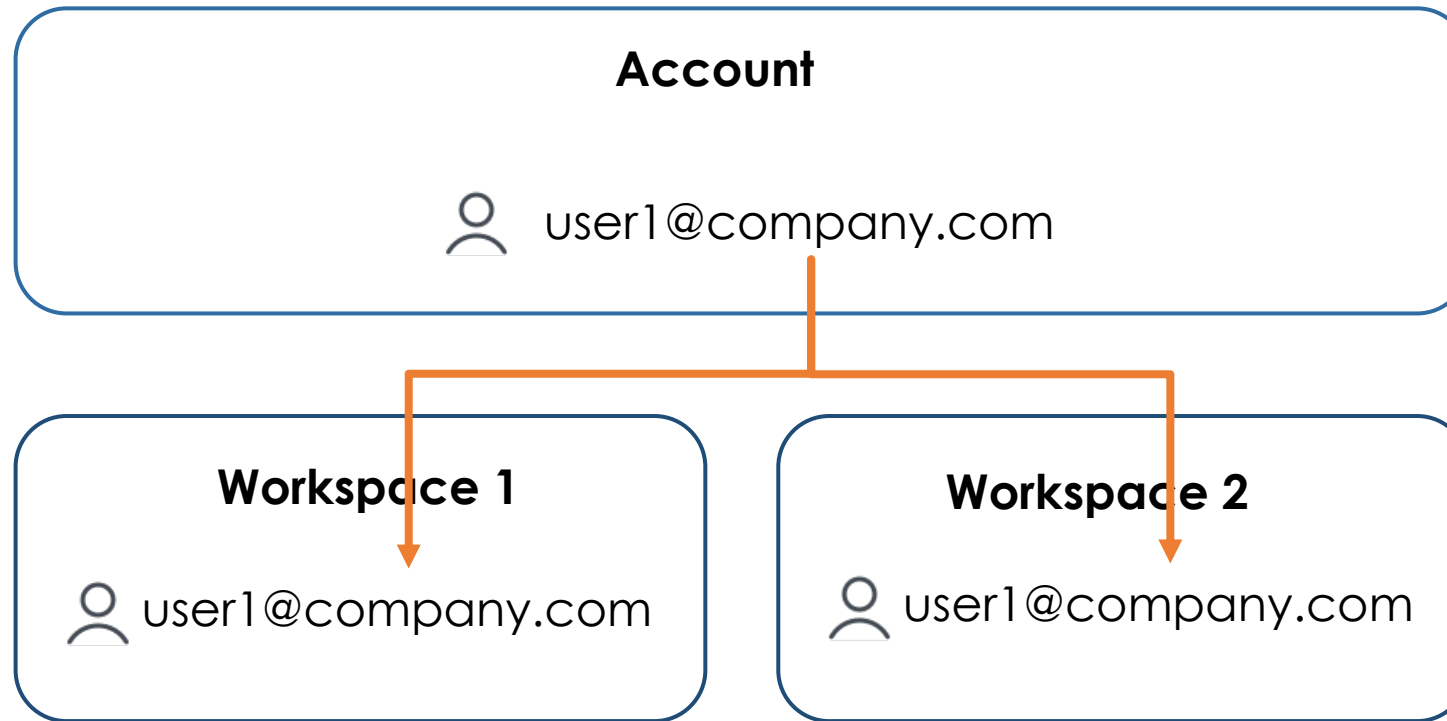
UC hierarchy



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

Storage
Credential

External
Location

Catalog

Share

Recipient

Schema
(Database)

Table

View

Function

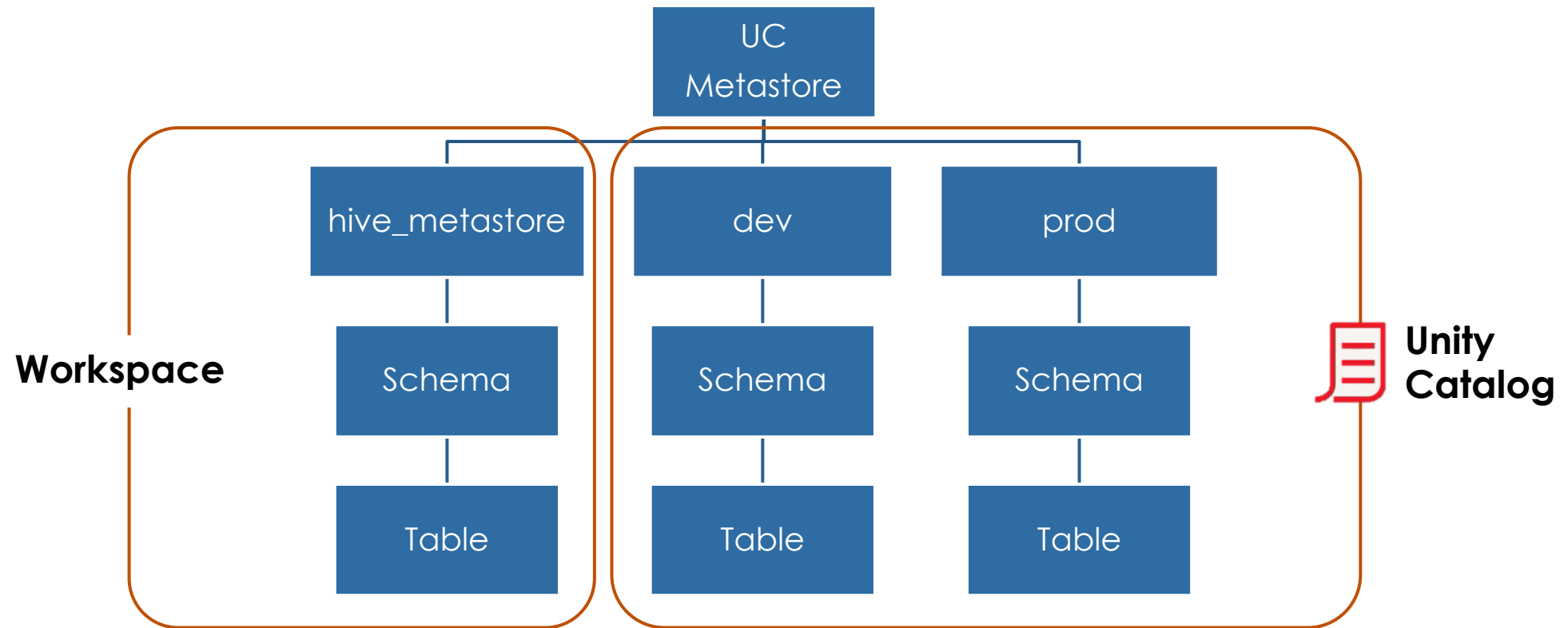
Principles

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>