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Oracle Unified Directory 12c

A Unified and High-Performance Directory

Oracle Unified Directory 12c is an all-in-one directory solution with storage, proxy, synchronization, and virtualization capabilities. OUD 12c is a consolidated directory service for high-performance enterprise and carrier-grade environments. It ensures scalability to billions of entries, ease of installation, elastic deployments, enterprise manageability and effective monitoring.
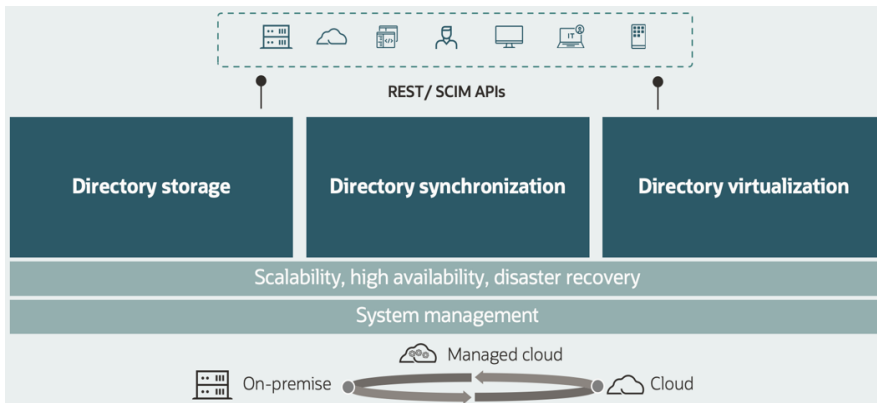

Figure 1. Oracle Unified Directory Deployment Options and Core Components

Core Functionalities

Oracle Unified Directory (OUD)12c is part of Oracle Directory Services Plus. OUD 12c provides the following functionalities, licensed and enabled as required:

- **Carrier Grade Performance and Scalability with Enterprise Grade Security**: Support billions of users and devices with a directory service that elastically scales as you grow avoiding unnecessary over provisioning upfront. Significant "write" performance improvements enable use cases for new applications that require frequent updates to cope with users' presence awareness and location updates. OUD is designed to help Service Providers support largest deployments with carrier-grade Service Level Agreement (SLA) and availability. OUD supports TLS1.3and IPv6 protocols. OUD encrypts all keystore passwords to address security requirements for all organizations.

- **Smaller Footprint Enables Embedding and Ease of Deployment**: With a smaller footprint and simplified installation, OUD maximizes deployment options. These qualities allow ISVs to bundle the directory in their own application. The directory server can be easily installed and configured quickly and be ready with the first set of data in just a few clicks.

- **Global Index for Elastic and Horizontal Scalability**: When it comes to distributing data across multiple data-partitions, OUD provides a choice of algorithms and a global index that support elastic deployments that will adjust to growing needs.

Key Features

- All-in-one Java-based directory service
- Several extensions beyond LDAP v3
- Elastic service to scale as applications and data grow
- High performance to authenticate billions of users
- Optimized memory usage and auto-tuning for simplified deployments
- Advanced and efficient replication model
- Proxy and data distribution with global index for very large deployments
- Highly available and secure directory service
- Technically superior performance and scalability exceed ODSEE functionality
- Feature parity with OVD on proxy and virtualization capabilities
- REST/SCIM data and admin end points
- Container image for on-premises and in-cloud deployment

Key Benefits

- One-stop solution for all directory needs: storage, virtual directory, meta-directory
- Deployable as standalone service or integrated with Fusion Middleware and Fusion Applications
- Easily embeddable in applications or equipment
- Adheres to standards simplifying application integration
- Deployment choices include bare metal, virtual machine,

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- **Unified Identity Data Across Data Sources with Virtualization**: By providing workflow elements as equivalent core plug-ins from Oracle Virtual Directory (OVD), OUD unifies identity data across heterogeneous data sources with virtualization and allows organizations to present a unified view of this data without the need to consolidate the data into a single store. With that, OUD could serve applications as the single source of truth for identity data within the enterprise.

- **Oracle Unified Directory Service Manager for Superior User Experience**: Besides an advanced Command Line Interface with interactive mode, OUD leverages Oracle Unified Directory Service Manager (OUDSM), Oracle's common graphical user interface for directories. OUDSM enables you to configure the structure of the directory, define objects in the directory, add and configure users, groups, and other entries. OUDSM is also the interface you use to manage entries, schema, security, and other directory features.

- **Advanced Monitoring Capabilities**: To keep your directory service under full control, Oracle Enterprise Manager Grid Control provides graphical monitoring with historical data collection for OUD.

- **Centralized User Management**: Consolidate Unix/Linux and Oracle DB users in a directory via OUD.

- **Integration with Oracle Fusion Middleware Stack**: In addition to strong adherence to LDAP v3, DSML v2 (Directory Services Markup Language) standards, and compatibility with Oracle Directory Server Enterprise Edition, OUD integrates with Oracle's Fusion Middleware to provide an all-Java experience.

- **Integration with Oracle Enterprise User Security and Oracle Access Management**: Once configured, integrating OUD and Enterprise User Security (EUS) enhances and simplifies your authentication and authorization capabilities by allowing you to leverage user identities stored in an LDAP-compliant directory service without any additional synchronization. In addition, integrating Oracle Access Management (OAM) and OUD allows organizations to store identity information in a LDAP Server where OUD acts as an identity store.

- **Integration with Oracle RADIUS Agent**: Oracle RADIUS Agent integrates with OUD out-of-the-box to manage authentication to RADIUS–enabled clients such as DB, VPN, or SSH. It delegates primary authentication to OUD through Password Authentication Protocol (PAP) and second factor authentication to Oracle Advanced Authentication (OAA).

- **Optimized for Java**: OUD is a pure Java application with an embedded database, it is optimized out of the box for the Java environment. Available on many platforms, it maximizes your choice of hardware and operating systems in terms of deployment.

- **REST/SCIM APIs for Data and Administration**: OUD provides REST and SCIM APIs with LDAP feature parity such as "users and groups looking up" tasks. The REST and SCIM APIs allow for modernized web and mobile apps development, previously a limitation using LDAP. Similarly, the Admin REST APIs with DSCONFIG admin tool feature parity enable

or container on-premises and in the cloud

- Enables new web and mobile applications such as social networking and location-based applications with high write volumes and REST/SCIM end points

- In conjunction with Oracle Enterprise User Security (EUS), centrally manage Oracle database users

- Integrate with Oracle RADIUS Agent to provide remote authentication for database, VPN, and SSH

Related Products

- Oracle Identity Governance: User administration (provisioning), privileged account management, identity intelligence and analytics

- Oracle Access Management:

  Complete solution for adaptive authentication, authorization, federation, SSO, and password policy passwordless authentication (FIDO2, YubiKey) including RADIUS authentication scenarios.

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directory configuration, manageability, and reporting capabilities using modernized custom UIs.

- **OUD Container Image:** The OUD container image allows OUD deployment on-premises and in the cloud with Kubernetes container orchestration, allowing deployment and upgrade automation, auto-scale, and portability to multiple cloud and on-premises environments.

- **Smooth Transition from Oracle Directory Server Enterprise Edition (ODSEE) and Oracle Virtual Directory (OVD):** OUD is Oracle's strategic directory and the logical transition path for organizations using Oracle Directory Server Enterprise Edition (ODSEE) and Oracle Virtual Directory (OVD). OUD 12c provides customers with better performance and scalability than ODSEE thereby helping to reduce deployment and maintenance costs. OUD provides the same data transformation and application specific view in OVD and it offers feature parity with equivalent core plug-ins in OVD for the same proxy use cases in OUD. Organizations can take advantage of the OUD capabilities, by transitioning their Oracle Directory Server Enterprise Edition (ODSEE) and Oracle Virtual Directory (OVD) deployments to OUD in a seamless approach.

Learn more about Oracle Unified Directory Services 12c:

https://www.oracle.com/security/identity-management/directory-services/

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