Implement a multicloud PeopleSoft deployment on Oracle Cloud and Microsoft Azure

Service Categories
Azure, Database Services, Distributed Cloud, Multicloud, Oracle Cloud Infrastructure (OCI)

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Oracle Database Service for Microsoft Azure is an Oracle Cloud Infrastructure (OCI) service that delivers Oracle cloud databases directly to Microsoft Azure customers through the Oracle Interconnect for Azure (this capability is available between the two cloud environments in 11 regions around the world). Oracle Database Service for Microsoft Azure enables Azure administrators and developers to seamlessly connect their Azure applications to multiple OCI database services. You can build new applications that combine the full Azure catalog of AI, analytics, and Windows compute services with Oracle Database Services. This access is made possible through a guided process that securely connects Microsoft Azure and OCI accounts and a user interface for Azure professionals to deploy and manage OCI Database services.

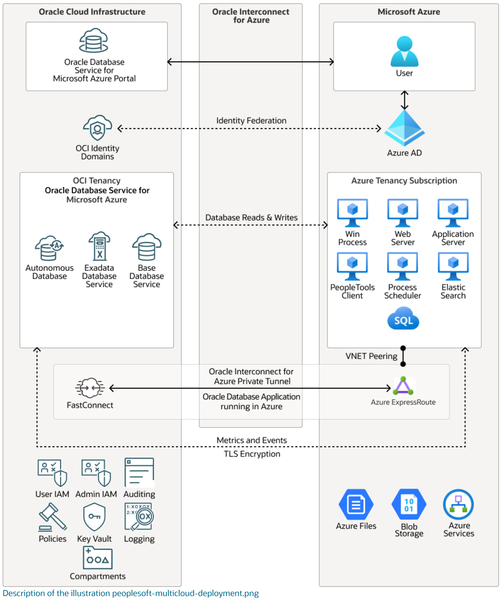
Architecture

This architecture shows how to securely connect Microsoft Azure and Oracle Cloud Infrastructure (OCI) accounts. A user interface for Azure professionals enables you to deploy and manage OCI database services.

Oracle Database Service for Microsoft Azure supports the following Oracle Cloud database service offerings:

- Oracle Autonomous Database Shared
- Oracle Exadata Database Service
- Oracle Base Database

The following diagram illustrates this reference architecture implementation of PeopleSoft with Oracle Database Service for Microsoft Azure and Microsoft Azure compute. In this architecture Oracle Database Service for Microsoft Azure wires together components in Microsoft Azure and OCI tenants.



Description of the illustration peoplesoft-multicloud-deployment.png

Download diagram

To use Oracle Database Service for Microsoft Azure, an Azure Administrator must first onboard an Microsoft Azure environment and Oracle Database Service for Microsoft Azure. The onboarding process includes the following:

- **Account linking**
  Creates the configuration that connects an Azure tenancy to an OCI tenancy; this is a required step and must be completed before an authorized user can access the Oracle Database Service for Microsoft Azure Portal.
- **Subscription linking**
  Links one or more Azure subscriptions to Oracle Database Service for Microsoft Azure to manage the billing.
- **Identity federation (optional)**
  Enables Azure users to log into Oracle Database Service for Microsoft Azure using their Azure credentials. With identity federation, Oracle Database Service for Microsoft Azure streams much of the day-to-day operational data from Oracle Database Service for Microsoft Azure managed Oracle databases to Azure Application Insights and Azure Log Analytics.

After onboarding is completed, the administrator and database administrators or developers use the Oracle Database Service for Microsoft Azure Portal to deploy and provision Oracle database products for use in the onboarded Azure environment.

For each database service, Oracle Database Service for Microsoft Azure supports the common administration and application access capabilities:

- Create, read, update, delete, list (CRUDL)
- Clone database
- Database backup (automatic and manual)
- Database restore (restore to existing database for now)
- Generate Azure connection string
- Display database metrics

The architecture has the following components:

- **Tenancy**
  A tenancy is a secure and isolated partition that Oracle sets up within Oracle Cloud when you sign up for Oracle Cloud Infrastructure. You can create, organize, and administer your resources in Oracle Cloud within your tenancy. A tenancy is synonymous with a company or organization. Usually, a company will have a single tenancy and reflect its organizational structure within that tenancy. A single tenancy is usually associated with a single subscription, and a single subscription usually only has one tenancy.
- **Compartment**
  Compartments are cross-region logical partitions within an Oracle Cloud Infrastructure tenancy. Use compartments to organize your resources in Oracle Cloud, control access to the resources, and set usage quotas. To control access to the resources in a given compartment, you define policies that specify who can access the resources and what actions they can perform.
- **FastConnect**
  Oracle Cloud Infrastructure FastConnect provides an easy way to create a dedicated, private connection between your data center and Oracle Cloud Infrastructure. FastConnect provides higher-bandwidth options and a more reliable networking experience when compared with internet-based connections.
- **Oracle Base Database Service**
  Oracle Base Database Service is a fully managed database service that lets developers quickly develop and deploy secure, cloud native applications. Oracle automates all tasks, such as backup and recovery, database and operating system patching, updates, and data encryption.
- **Autonomous Database**
  Oracle Cloud Infrastructure Autonomous Database is a fully managed, preconfigured database environments that you can use for transaction processing and data warehousing workloads. You do not need to configure or manage any hardware, or install any software. Oracle Cloud Infrastructure handles creating the database, as well as backing up, patching, upgrading, and tuning the database.
- **Autonomous Data Warehouse**
  Oracle Autonomous Data Warehouse is a self-driving, self-securing, self-repairing database service that is optimized for data warehousing workloads. You do not need to configure or manage any hardware, or install any software. Oracle Cloud Infrastructure handles creating the database, as well as backing up, patching, upgrading, and tuning the database.
- **Autonomous Transaction Processing**
  Oracle Autonomous Transaction Processing is a self-driving, self-securing, self-repairing database service that is optimized for transaction processing workloads. You do not need to configure or manage any hardware, or install any software. Oracle Cloud Infrastructure handles creating the database, as well as backing up, patching, upgrading, and tuning the database.
- **Exadata Database Service**
  Oracle Exadata Database Service enables you to leverage the power of Exadata in the cloud. You can provision flexible X8M systems that allow you to add database compute servers and storage servers to your system as your needs grow. X8M systems offer RoCE (RDMA over Converged Ethernet) networking for high bandwidth and low latency, persistent memory (PMEM) modules, and intelligent Exadata software. You can provision X8M systems by using a shape that's equivalent to a quarter-rack X8 system, and then add database and storage servers at any time after provisioning.
- **Oracle Interconnect for Azure**
  Oracle Interconnect for Azure is Oracle's first multicloud offering. It delivers a direct network connection between specific Azure and Oracle Cloud Infrastructure (OCI) data centers around the world. It enables Azure administrators and developers to connect their applications to applications and services running in OCI without creating dedicated links or sending their application traffic across the public internet.

Considerations

Consider the following points when deploying this reference architecture.

- **Identity Federation**
  Microsoft Azure users log into Oracle Database Service for Microsoft Azure using their Azure credentials. An Azure user must have Oracle Cloud Infrastructure (OCI) credentials to work in the OCI Console. For example, users must use the OCI Console to perform tasks not currently enabled through Oracle Database Service for Microsoft Azure. Oracle recommends that organizations federate their Azure user identities to OCI. With this in place, authorized users log in to Azure, Oracle Database Service for Microsoft Azure, and OCI using a single set of credentials – their existing Azure credentials.
- **Support**
  Oracle Database Service for Microsoft Azure is jointly supported by Oracle and Microsoft through our existing partnership and Microsoft and Oracle Interconnect for Azure. Customers encountering an issue in Oracle Database Service for Microsoft Azure create an OCI Service Request directly from within the Oracle Database Service for Microsoft Azure Portal. OCI Support engineers work the issue and, when necessary, engage Microsoft Azure support to resolve the issue.
- **Billing**
  OCI bills customers directly for Oracle Database Service for Microsoft Azure-provisioned resources. From the Oracle Database Service for Microsoft Azure Portal, authorized users can link directly to the OCI billing page to view details about their service use.

Explore More

Learn more about Oracle Database Service for Microsoft Azure and Oracle Cloud Infrastructure.

Review these additional resources:

- Announcing Oracle Database Service for Microsoft Azure
- Oracle Database Service for Microsoft Azure Overview
- Oracle Database Service for Microsoft Azure Documentation
- *Best practices framework for Oracle Cloud Infrastructure*

Acknowledgments

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