

Course : Oracle Cloud Infrastructure Architect Professional Workshop

OFFICIAL COURSE: DIGITAL SUPPORT AVAILABLE FOR 90 DAYS ONLY

Practical course - 5d - 35h00 - Ref. OCW

With this training, you'll benefit from solid knowledge of infrastructure architecture using Oracle Cloud Infrastructure (OCI) services. You'll get hands-on experience working with the core OCI service. With the skills acquired, you will be able to further explore Oracle Cloud Infrastructure services to design and implement a secure and scalable cloud solution that meets high availability and disaster recovery requirements.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Make architectural decisions based on best practices and CLB principles
- ✓ Design highly available secure networks with disaster recovery options
- ✓ Explore and exploit different ways of connecting to cloud networks
- ✓ Database sizing and capacity planning for performance
- ✓ Describe Oracle Database Cloud Migration Solutions
- ✓ Understand metrics, alarms, monitoring query language
- ✓ Create a K8s cluster in OCI using Quick Start

Intended audience

Cloud administrators, cloud architects and IT managers.

Prerequisites

Completion of one of the Oracle Cloud Infrastructure Fundamentals or Oracle Cloud Infrastructure Architect Associate Workshop courses, or equivalent knowledge and skills.

PARTICIPANTS

Cloud administrators, cloud architects and IT managers.

PREREQUISITES

Completion of one of the Oracle Cloud Infrastructure Fundamentals or Oracle Cloud Infrastructure Architect Associate Workshop courses, or equivalent knowledge and skills.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Certification

Successful completion of the exam leads to Oracle Cloud Infrastructure Architect Professional certification.

[Comment passer votre examen ?](#)

Practical details

Teaching methods

Training in French. Course material and practical exercises in English, in digital format and ACCESSIBLE ONLY FOR 90 DAYS. Good understanding of written English.

Course schedule

1 Design and implement a real network architecture

- Networking workshop.

2 Designing scalable, resilient solutions for HA & DR

- High availability (HA).
- High availability - transition to a highly available architecture.
- Disaster recovery (DR).
- Disaster recovery planning.

3 Cloud-native, microservices and serverless architecture design

- Microservices design methodology.
- Introduction to containerization.
- Oracle Cloud Infrastructure Registry OCIR : Introduction.
- Oracle Cloud Infrastructure Registry (OCIR) management.
- OCIR management demo.
- Introduction to Kubernetes.
- Introduction to OKE.
- Prerequisites for creating an OKE cluster
- Creation of an OKE cluster on OCI.
- Demo Creating an OKE cluster on OCI.
- Cluster access configuration.
- Demo - Configuring cluster access Deploying an application on OKE.
- Demo - Deploying an application on OKE.
- Cluster resource tagging.
- User-managed keys.
- Custom cloud-init scripts.
- File storage for PVC.
- Serverless: triggers, use cases and concepts.
- Demo - QuickStart functions on Cloud Shell.
- Demo - Creating a function from a custom Docker file.
- API Gateway configuration.

4 Provide infrastructure in code form

- Introduction to Terraform and Terraform configurations.
- Basic principles of the OCI resource manager.
- Synchronization of Resource Manager and infrastructure.
- Console extension.

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

5 Deploying Oracle Database Cloud Service

- Oracle DBCS - Custom database software image.
- Oracle DBCS - Security.
- Connect VM DBCS on a private subnet - Using the Bastion service.
- Move VM DBCS.
- Changes to Oracle ExaCS databases.
- Database Cloud Service - Monitoring metrics and events.
- Cloning in VM DBCS.
- Stand-alone database - Metrics and events monitoring.

6 Deploying Oracle Autonomous Database

- Automatic provisioning.
- Automatic configuration.
- Automatic indexing.
- Automatic partitioning.
- Optimizer statistics.
- Initialization parameters.
- Scaling.
- Shared scaling operation (Demo: Scaling).
- Automatic start and stop function.
- Controlled access.
- Encryption.
- TDE master key encryption.
- Patch updates.
- Audit.
- Use of customer-managed keys.
- Authentication with IAM.
- Self-repair.
- Network access.
- Cloning.
- Backup and restore.
- Patches and updates.
- Disaster recovery.
- Autonomous Data Guard.
- Database actions.

7 Design for hybrid cloud architecture

- VMware product overview.
- Use cases, key benefits and values.
- SDDC deployment.
- Hybrid cloud design.
- Demo - OCVS.
- Demo - Access to the SDDC.
- Access to Microsoft Azure.

8 Migrating local workloads to OCI

- Data migration.
- Data migration -Data and disk transfer appliance.
- Data migration -Online migration.
- Demonstration: Storage Gateway.
- Database migration to OCI.
- Database migration to OCI DBCS - UI Based Migration Tools.
- Database migration to OCI DBCS - Remote cloning.
- Database migration to OCI DBCS - RMAN.
- Database migration to OCI DBCS - Datapump.
- Database migration to OCI DBCS - Other tools and methods.
- Database migration to OCI DBCS - Automated migration methods.

9 Design for safety and compliance

- OCI Web application firewall.
- WAF components.
- Load Balancer demo and WAF strategies.
- WAF strategy creation demo : Demo - Creating a WAF access control.
- Demo - Activation of protection rules and XSS.
- Demo - Creating a WAF bot management system.pptx.
- Demo - Adding an access control rule.
- Certificates.
- Demo - Certificates.
- Demo - Certification authority - Part 1.
- Demo - Certification authority - Part 2.
- Operating system management with Oracle Cloud Infrastructure.
- Demo - Operating system management.
- Vulnerability analysis.
- Demo - Cloud Guard integration with vulnerability scanning
- Oracle Data Safe in OCI.
- Oracle Data Safe - Security and user evaluation.
- Oracle Data Safe - Activity audit.
- Oracle Data Safe - Data discovery.
- Oracle Data Safe - Data masking.
- Oracle Data Safe - Architecture.
- Oracle Data Safe - targets DB connectivity.

10 Implementing real-world architectures

- Reference architecture 1: Architecture overview.
- Reference architecture 2: Star architecture.
- Reference architecture 3: HPC architecture.
- Reference architecture 4: Security architecture.