

# Implementing Public DNS on OCI

## A guide for optimizing performance and security!

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March 29<sup>th</sup> 2023



# Thank you for joining Today's session

## Housekeeping reminders during the webinar:

- All lines are muted so please use the Q & A/ Chat button/Public Slack to ask your questions
- You can see all the raised questions and upvote
- We have enabled the captioning option for this webinar, so feel free to use it if needed
- For any questions or a copy of the slide deck please contact us at: [contact-dcx-emea\\_ww@oracle.com](mailto:contact-dcx-emea_ww@oracle.com)
- Session will be recorded and posted on [Oracle Video Hub](#) and YouTube [Oracle Learning](#) Channels shortly.

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*oracledevrel.slack.com*

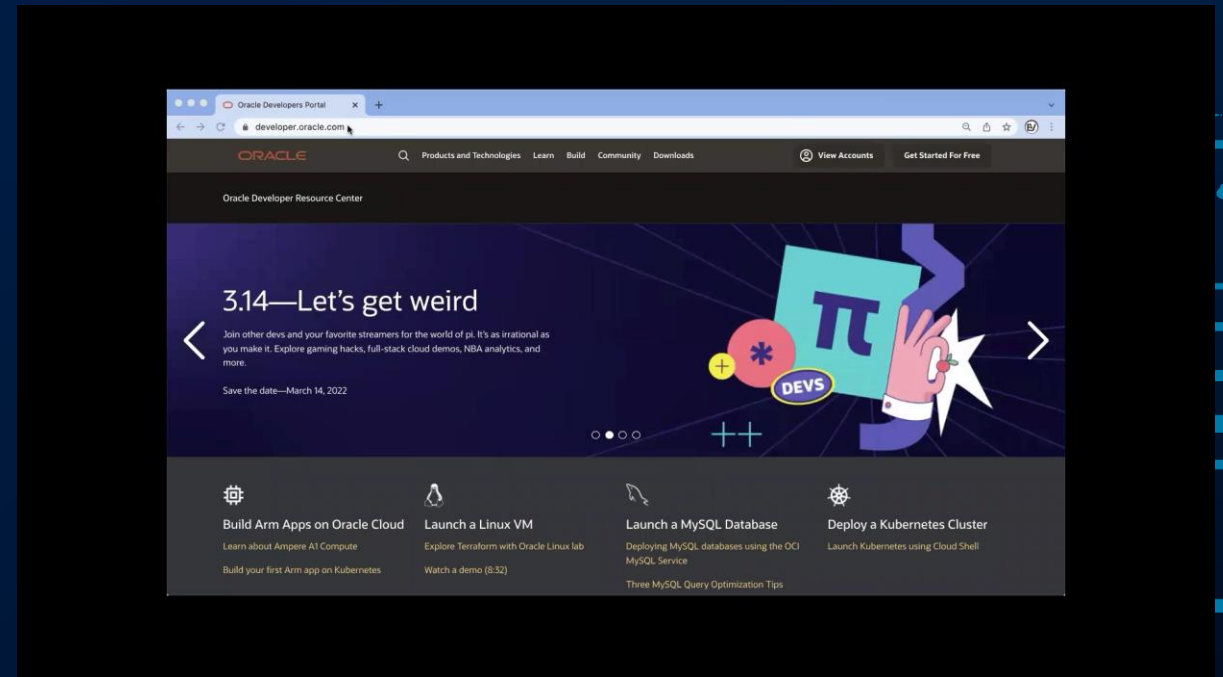
Join the dedicated Slack channel to be part of the conversation and raise your questions to our Experts also after the live:

Step 1: Access the Slack OracleDevRel Workspace following this link:

[https://bit.ly/odevrel\\_slack](https://bit.ly/odevrel_slack)

Step 2: Search the dedicated Channel: #cloud-coaching-emea

Step 3: Be engaged with the Community



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# Carlos Santos

Cloud Networking Specialist - Oracle EMEA



# Violeta Blendea

Digital Adoption Manager – Live events

# Implementing Public DNS on OCI

A guide for optimising performance and security!



# Agenda

What is the Domain Name System

Types of DNS servers

- Recursive DNS Server

- Authoritative DNS Server

How a DNS lookup works

OCI Public DNS

- What is it?

- Features

# What is the Domain Name System (DNS)

Humans use names to access resources in the Internet

Example: `www.oracle.com`

Computers use IPs to communicate with each other

IPv4 example: `138.1.33.162`

IPv6 example: `2a02:26f0:9b00:396::a15`

DNS acts as a translator or a phonebook to translate names to IPs

Probably the most used service on the Internet and the less known

Critical importance, if it fails websites and services fail



# Types of DNS servers

## Types of DNS servers

### **Authoritative DNS server**

An Authoritative DNS server is a server that contains the “zone” configuration for a domain or a set of domains.

This is the last DNS server to be queried and is the final source for information regarding the domain being queried.

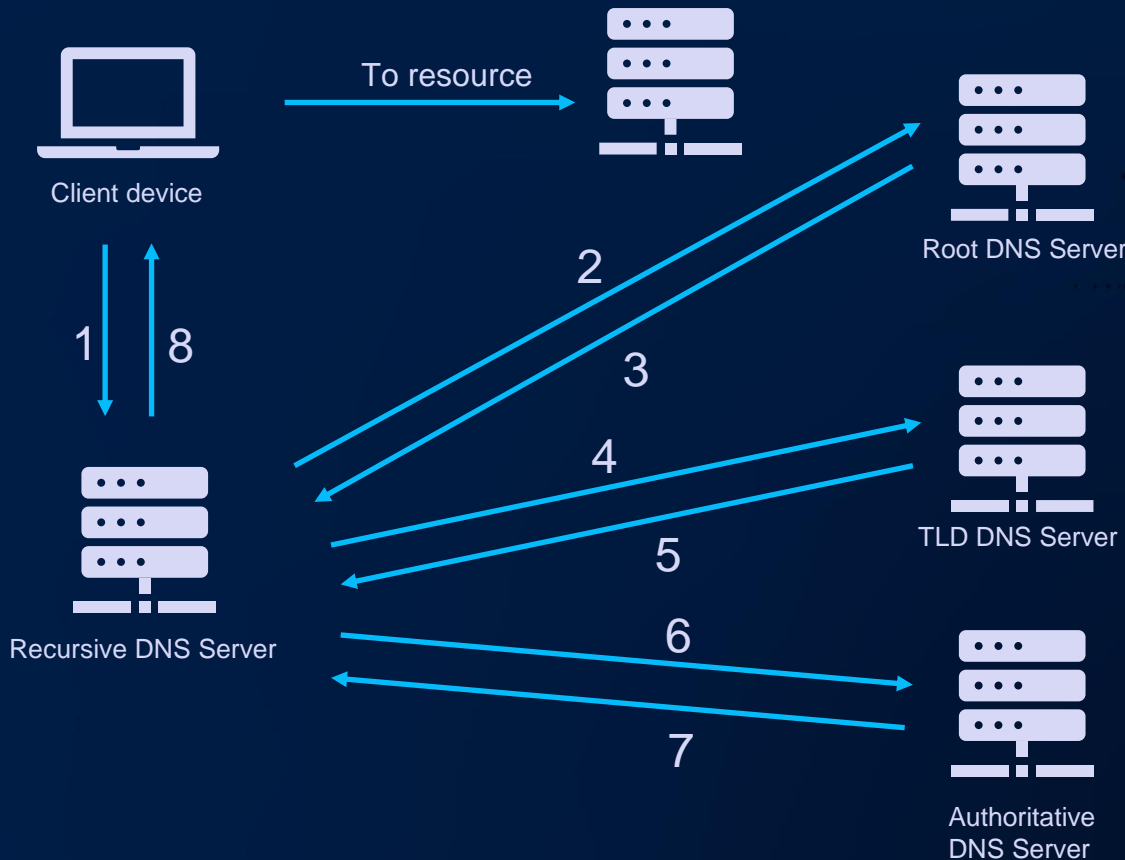
### **Recursive DNS server**

The recursive DNS server or resolver, acts as a middle man trying to resolve queries already in cache and if they don't exist then it goes in search of the authoritative DNS server to get the answer to the query.

# Types of DNS servers

## How a DNS lookup works

There are 8 steps involved in each DNS lookup:



# OCI Public DNS

## What is it?

OCI DNS is a highly scalable authoritative DNS server that lets you create, import and manage DNS zones.

## Supported DNS records (27) \*:

A, AAAA, ALIAS, CAA, CERT, CNAME, CSYNC, DHCID, DNAME, DS, IPSECKEY, KEY, KX, LOC, MX, NAPTR, NS, NSAP, PTR, PX, RP, SOA, SPF, SRV, SSHFP, TLSA, TXT

\* <https://docs.oracle.com/en-us/iaas/Content/DNS/Reference/supporteddnsresource.htm>

# OCI Public DNS

## Features

Because the DNS service is critical for users to connect to services, it is of the utmost importance to protect this service.

### Features:

- DDoS protection included
- Anycast network (assures high availability and low latency)
- Can act as a secondary DNS server (increasing resiliency)
- Supports traffic management
- Accessible through Web console, API or SDK
- Easily import zones in Bind file format

### Service Limits:

- Supports 1000 zones per account and 25,000 records per zone.

# OCI Public DNS

## Features

OCI Public DNS service also allows to do Traffic Management.

With this service users can be redirected to different IPs, depending on five criteria:

- **Load Balancing**  
Distributes traffic over several servers to optimize performance
- **Failover**  
Automatically redirects traffic to the next highest priority server when primary server is unavailable.
- **Geolocation steering**  
Dynamically routes traffic requests based on originating geographic conditions (e.g. New Jersey or China).
- **ASN steering**  
Dynamically routes traffic requests based on originating ASN number (e.g. 6185).
- **IP prefix steering**  
Dynamically routes traffic requests based on originating IP prefix (e.g. 172.16.1.0/24).

# Useful resources

Get your own Always Free OCI account:

<https://www.oracle.com/cloud/free/>

OCI DNS homepage:

<https://www.oracle.com/cloud/networking/dns/>

Public DNS documentation:

<https://docs.oracle.com/en-us/iaas/Content/DNS/home.htm>

Private DNS documentation:

<https://docs.oracle.com/en-us/iaas/Content/DNS/Tasks/privatedns.htm>

OCI DNS FAQ:

<https://www.oracle.com/uk/cloud/networking/dns/faq/>

# Cloud Coaching upcoming Events

## Every Wednesday @ 11 CEST

- <https://bit.ly/FreeCloudCoachingEvents>



- <https://bit.ly/next-events-odev>

# BOOST 1-1 call





# Useful Resources

👉 You can learn more about the topics above and the Oracle Cloud by following the links:

- [Oracle Cloud Terminology](#)
- [Welcome to Oracle Cloud Infrastructure](#)
- [Oracle Cloud Infrastructure Platform Overview](#)
- [Adding Users](#)
- [Getting Started with Policies](#)
- [Common Policies](#)
- [Getting Help and Contacting Support](#)
- [Shared Responsibility Model](#)
- [Frequent Asked Questions](#)
- [Guide to Customer vs Oracle Management Responsibilities](#)
- [Release Notes](#)

## OCI Documentation

- 👉 Start with OCI concepts
- <https://docs.cloud.oracle.com/iaas/Content/GSG/Concepts/baremetalintro.htm>

OCI Services documentation

- ➔ <https://docs.oracle.com/en/cloud/iaas/index.html>

## OCI Training

- 👉 Oracle Cloud Online Videos
- ➔ [https://cloud.oracle.com/en\\_US/iaas/training](https://cloud.oracle.com/en_US/iaas/training)
- 👉 Oracle Cloud Learning Subscription
- ➔ <https://education.oracle.com/oracle-cloud-learning-subscriptions>

## What's New in OCI:

- ➔ <https://youtu.be/-Zw6fZp2u9Y>

## Free OCI Certification

- 👉 Get Oracle Cloud Infrastructure (OCI) certified for free
- <https://education.oracle.com/oracle-oci-certification#more>



# Find out more

## Videos

- [Byte-sized Videos for Developers](#)

Cloud networking essentials, Basic (but essential) cloud security on Oracle Cloud, Scheduling resources on Oracle Cloud

- [Learn Cloud concepts in 5 minutes](#)

Cloud security using Cloud Guard, Working with Oracle Cloud's Quotas, Oracle Cloud: How to increase service limits, Cost Management and Budgets, Oracle Cloud VCN Practice, Oracle Cloud - Networking basics, Oracle Cloud Console Navigation, How to start on Oracle Cloud (2021), How Compartments work in Oracle Cloud, Oracle Cloud - Getting support, Billing, compartments, tags, and the cost estimator, Oracle Cloud - User management, access control and security policies, Oracle Cloud services available in the console, Oracle Cloud console, federated identities and regions, Oracle Cloud activation and basic concepts

## Tracks

- Getting Started Path: <https://www.oracle.com/explore/gettingstarted>

## Live sessions & Recorded:

- <https://youtube.com/playlist?list=PLKCK3OyNwIzvEoCufw74dlrsPKkQ8oGgV>

- Free Cloud Coaching Clinics webinars playlist

- <https://www.oracle.com/emea/cloud/cloud-coaching/#digital-classrooms>

Getting Started on Oracle Cloud, ACTIVATE your Oracle cloud journey in a 1-hour webinar with live demos, ACTIVATE your Oracle Cloud Account, with a live hands-on session, Modernize your Monitoring - OCI Observability and Management Platform

- <https://www.youtube.com/playlist?app=desktop&list=PLPlzp-E1msrYlxuAEsOsXhd6SiGmXlrRL>

Cloud Coaching: How to Leverage Identity Cloud Service, Cloud Coaching: Oracle Infrastructure Monitoring and Management, Oracle Cloud Cost Control & Budget Monitoring, Oracle Cloud Coaching: Networking and Connectivity, Cloud Coaching Office Hours: Storage Services, Oracle Cloud Coaching: Compute Fundamentals, Cloud Coaching: Identity and Access Management

## Tracks

- Kubernetes Path: [https://www.oracle.com/explore/dcx-s1e5\\_](https://www.oracle.com/explore/dcx-s1e5_)
- Cloud Security Path: <https://go.oracle.com/LP=107405>
- Microservice Path: <https://go.oracle.com/LP=109583>
- Infrastructure Path: <https://go.oracle.com/LP=113061>

## Live sessions & Recorded:

- <https://www.oracle.com/emea/cloud/cloud-coaching/#digital-classrooms>

Kubernetes 2.0 Monitoring, Oracle Essbase on Cloud - What's New with Essbase, Simplifying Machine Learning using Oracle Data Science, Deep dive into OCI GoldenGate - Active-Active Replication and Data Mapping & Manipulation

- <https://www.youtube.com/playlist?app=desktop&list=PLPlzp-E1msrYlxuAEsOsXhd6SiGmXLrRL>

Oracle Cloud Coaching: Data Science and Machine Learning, What's new @ Oracle Cloud - This month's dedicated product updates, Oracle Cloud Coaching: Container Engine for Kubernetes

- <https://youtube.com/playlist?list=PLKCK3OyNwlvAayq-yQexP5uU93FseLph>

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# Thank you for attending!

For a copy of today's slide deck or to engage with one of our Cloud Experts please reach out to us on:

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