

ORACLE

# DNS Management in OCI

Cloud built for Enterprises

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Technology Cloud Engineering (TCE)

Oracle Deutschland

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## Safe harbor statement

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# DNS Management in OCI – Easy with one VCN


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- When you create a VCN, a private view is also created automatically.
- Several private zones are created per subnet within the private view.
- The automatically created private zones are protected (cannot be changed) and contain all name resolutions for the internal IPs.
- However, additional private zones can be created in which you can then manage your own entries.

# More than just a single VCN – Still easy

- When you create a VCN, a DNS Resolver is also created automatically.

Networking » Virtual cloud networks » Virtual Cloud Network Details » Subnets



AVAILABLE

## MANAGEMENT

Move resource Add tags Delete

VCN Information Tags

**Compartment:** NETWORK  
**Created:** Fri, Jul 2, 2021, 12:12:59 UTC  
**IPv4 CIDR Block:** 10.33.0.0/23  
**IPv6 Prefix:** -

**OCID:** ...eaebcq [Show](#) [Copy](#)  
**DNS Resolver:** [Management](#)  
**Default Route Table:** [Default Route Table for Management](#)  
**DNS Domain Name:** mgmtfra.oraclevcn.com

# DNS Resolver

Networking » Virtual cloud networks » MANAGEMENT » Private resolver details



ACTIVE

## Management

Edit

Move resource

Add tags

### Private resolver information

Tags

**OCID:** ...wf36ka [Show](#) [Copy](#)

**Dedicated virtual cloud network:** [MANAGEMENT](#)

**Protected:** Yes [\(i\)](#)

A private DNS resolver handles DNS queries within your VCN based on private views and the private zones they contain. [Learn more](#)

A private DNS zone has similar capabilities to an internet DNS zone, but provides responses only for clients that can reach it through a VCN.

VCN creation includes a dedicated DNS resolver and a default private view with system-managed zones.

You will have to create views and zones that the resolver can use to direct internal traffic. [Learn more](#)

**Date created:** Fri, Jul 2, 2021, 12:13:00 UTC

**Compartment:** NETWORK

**Default private view:** [Management](#) [\(i\)](#)

# Add more Views to resolve names for other VCN

Resources

**Associated private views (10)**

Rules (4)

Endpoints (2)

Work requests (0)

## Associated private views

You can add private views to your resolver to manage how DNS queries are answered.

A resolver provides responses by checking zones in your custom private views, then in its default view, then by checking rules, and finally by using internet DNS.

<input type="checkbox"/>		<a href="#">Manage private views</a>	<input type="button" value="Remove"/>
<input type="checkbox"/>	Order	Private view	
<input type="checkbox"/>	1	<a href="#">PROD1</a>	⋮
<input type="checkbox"/>	2	<a href="#">ASM1</a>	⋮
<input type="checkbox"/>	3	<a href="#">SHARED</a>	⋮
<input type="checkbox"/>	4	<a href="#">NETWORK</a>	⋮
<input type="checkbox"/>	5	<a href="#">HR-IT</a>	⋮
<input type="checkbox"/>	6	<a href="#">SANDBOX</a>	⋮
<input type="checkbox"/>	7	<a href="#">OKE1</a>	⋮
<input type="checkbox"/>	8	<a href="#">OKE2</a>	⋮
<input type="checkbox"/>	9	<a href="#">Kubernetes</a>	⋮
<input type="checkbox"/>	10	<a href="#">VMWARE</a>	⋮
0 selected			Showing 10 items



# More than one region - It becomes more complex

- Create a Listener and a Forwarder in both regions.

Resources

Associated private views (10)

Rules (4)

**Endpoints (2)**

Work requests (0)

## Endpoints

The private endpoints used for forwarding and listening to DNS queries to or from another private DNS system such as a peered VCN or an on-premises network.

Create endpoint

Name	State	Subnet	Forwarding address ⓘ	Listening address ⓘ	Created
<a href="#">Forwarder</a>	● Active	<a href="#">OPERATIONS</a>	10.33.1.228	—	Fri, Aug 20, 2021, 09:29:07 UTC
<a href="#">Listener</a>	● Active	<a href="#">OPERATIONS</a>	—	10.33.1.112	Fri, Aug 20, 2021, 09:28:45 UTC

Showing 2 items < 1 of 1 >



# Zone Forwarding for Regions

- Create rules to forward the request to the region where the View exists.

Resources

Associated private views (10)

**Rules (4)**

Endpoints (2)

Work requests (0)

## Rules

Queries that match the rule condition or conditions will be handled by the rule. If no rules match, the query will be resolved from internet DNS.

[Manage rules](#) [Remove](#)

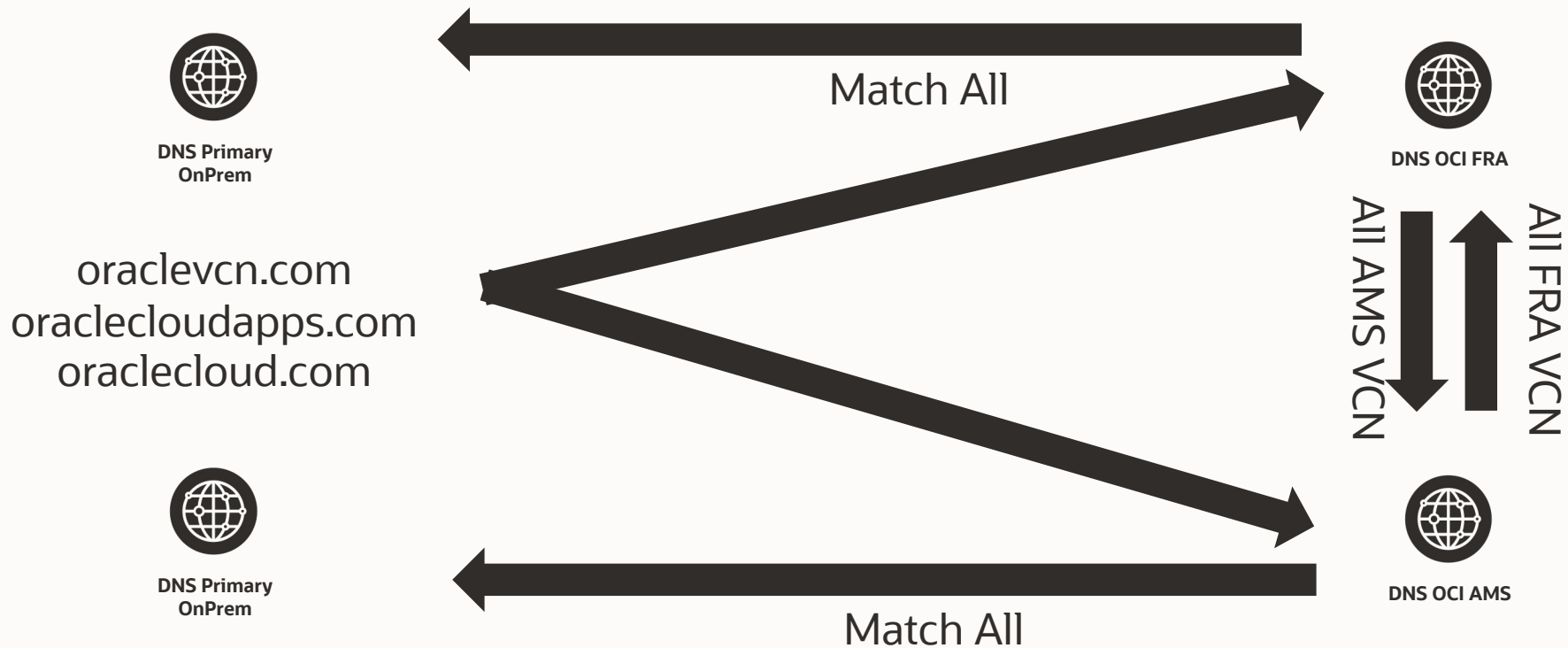
<input type="checkbox"/>	Order	Rule condition <sup>i</sup>	Client CIDR blocks/domains <sup>i</sup>	Rule action	Source endpoint <sup>i</sup>	Destination IP address	
<input type="checkbox"/>	1	Domains	ams.oci.████████.cloud	Forward	<a href="#">Forwarder</a>	10.33.129.87	⋮
<input type="checkbox"/>	2	Domains	mgmtams.oraclevcn.com, prod1ams.oraclevcn.com, sbams.oraclevcn.com, hritams.oraclevcn.com, asm1ams.oraclevcn.com	Forward	<a href="#">Forwarder</a>	10.33.129.87	⋮
<input type="checkbox"/>	3	None	Match all	Forward	<a href="#">Forwarder</a>	10.16.176.222	⋮
<input type="checkbox"/>	4	None	Match all	Forward	<a href="#">Forwarder</a>	10.21.3.222	⋮

0 selected Showing 4 items





# Zone Forwarding for OnPrem and Regions



# DHCP

Under DNS Server Address, enter the listeners you just created per region.

With running VMs:

`sudo service network restart`

to be able to use the DHCP option.

## Edit DHCP Options



Name *Read-only*

Metro DHCP Options

DNS Type

Internet and VCN Resolver

Instance can resolve host names within the VCN and internet host names. No Internet Gateway is required.

Custom Resolver

Specify one to three DNS Servers IP addresses below. At least one is required. ✓

DNS Server Address

10.16.176.222



DNS Server Address

10.21.3.222



+ Another DNS Server

DNS Search Domain Type

Subnet Search Domain

Sends the subnet domain name to DHCP clients based on their subnet membership. Example: subnet1.vcn1.oraclevcn.com

VCN Search Domain

Sends the VCN domain name to DHCP clients based on their VCN membership. Example: vcn1.oraclevcn.com

Custom Search Domain

Sends the provided fully qualified domain name (FQDN) to DHCP clients. Use this option with more advanced DNS scenarios.

Search Domain *Read-only*

<subnet\_label>.mgmtfra.oraclevcn.com



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**Oracle** Technology Cloud Engineering (TCE)

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