

# Hands On Lab 1 Conexión OCI desde Equinix.



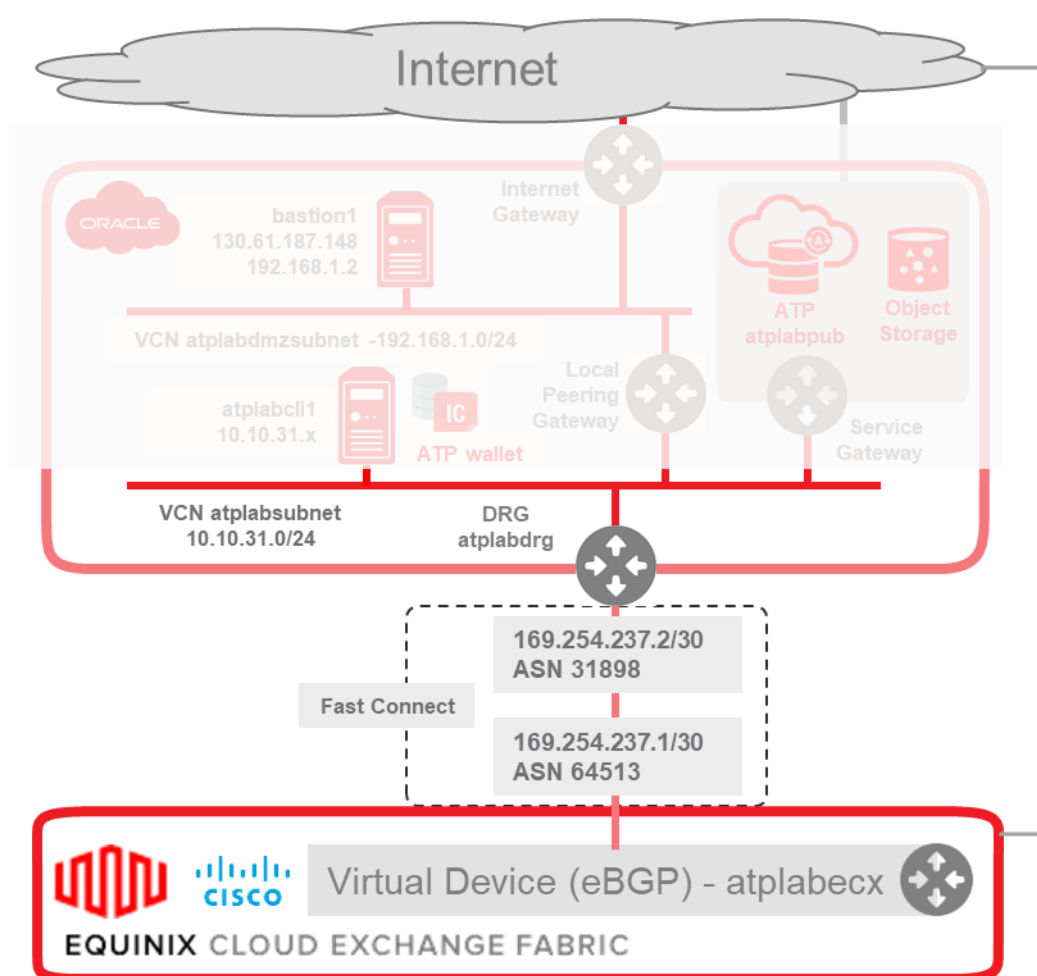
# Indice

|  |           |
|--|-----------|
| <b>HANDS ON LAB 1 CONEXIÓN OCI DESDE EQUINIX.</b>              | <b>1</b>  |
| <b>OBJETIVO DEL LABORATORIO</b>                                | <b>3</b>  |
| <b>CONFIGURACIÓN DESDE LA PARTE DE EQUINIX:</b>                | <b>4</b>  |
| CONEXIONES:  | 4         |
| <b>CONFIGURACIÓN DE RED DESDE ORACLE CLOUD INFRASTRUCTURE.</b> | <b>12</b> |
| <b>CONEXIÓN FAST CONNECT</b>                                   | <b>24</b> |
| <b>CONFIGURACIÓN DESDE EQUINIX PARA CONECTAR ORACLE CLOUD</b>  | <b>28</b> |
| <b>RESUMEN DEL LAB.</b>  | <b>41</b> |



# Objetivo del Laboratorio

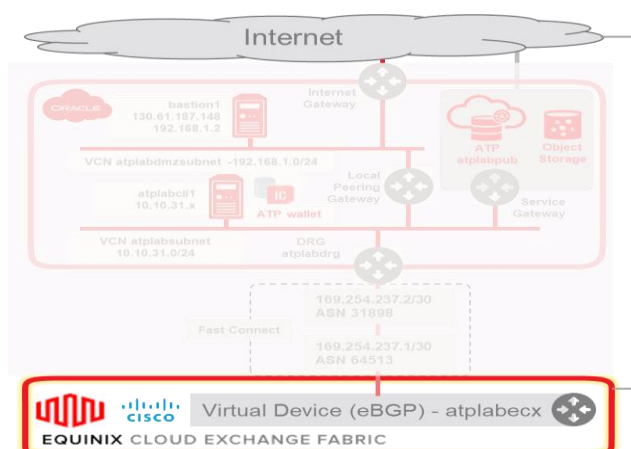
El objetivo de este laboratorio es crear la red de comunicaciones entre Oracle Cloud Intrastructure (OCI) y el proveedor de conexión de Data Center Equinix a través de Fast Connect y Equinix Cloud Exchange Fabric. También dejará preparado el Dynamic Route Gateway (DRG) en OCI para conectar en los siguientes laboratorios las redes desde Amazon AWS y Google Cloud Platform (GCP).



# Configuración desde la parte de Equinix:

## ¿Qué voy a hacer?

Va a crear el router virtual de Equinix cloud Exchange fabric para poder realizar más adelante la configuración eBGP con OCI.



## Conexiones:

|                 |   |
|-----------------|---|
| Consola Equinix | <a href="https://ecxfabric.equinix.com">https://ecxfabric.equinix.com</a> |
| Usuario         | Utilice las credenciales proporcionadas                                   |
| Clave           | Utilice las credenciales proporcionadas                                   |

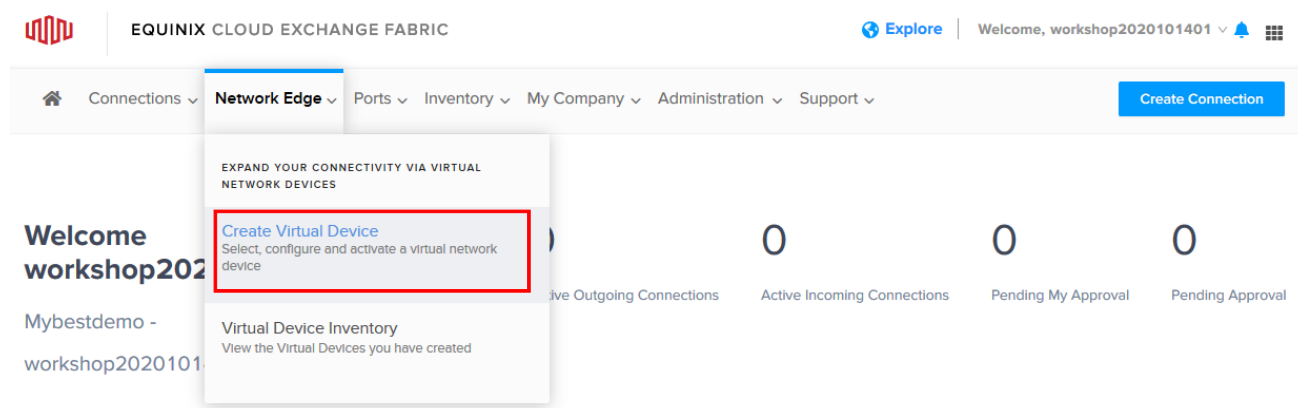
En primer lugar, hacemos log in en la consola de inicio de Equinix con nuestro nombre de usuario y contraseña.

The screenshot shows the Equinix login page. At the top, there is the Equinix logo. Below it, there is a 'Log In' section. The section contains a welcome message: 'Welcome to ECX Fabric. Please sign in to continue.' Below this, there are two input fields: 'Username' and 'Password'. The 'Username' field contains the text 'm'. The 'Password' field is masked with dots. To the right of each field is a circular icon with a right-pointing arrow. Below the input fields, there is a link: 'Forgot your Username or Password?'. To the right of this link is a blue button labeled 'Log In'. At the bottom, there is a link: 'Don't have an account? Request an account'.

Una vez dentro, accedemos a la consola de administración de cloud en Equinix. Desde aquí podemos crear tanto conexiones a nuestros clouds como configuraciones de red.

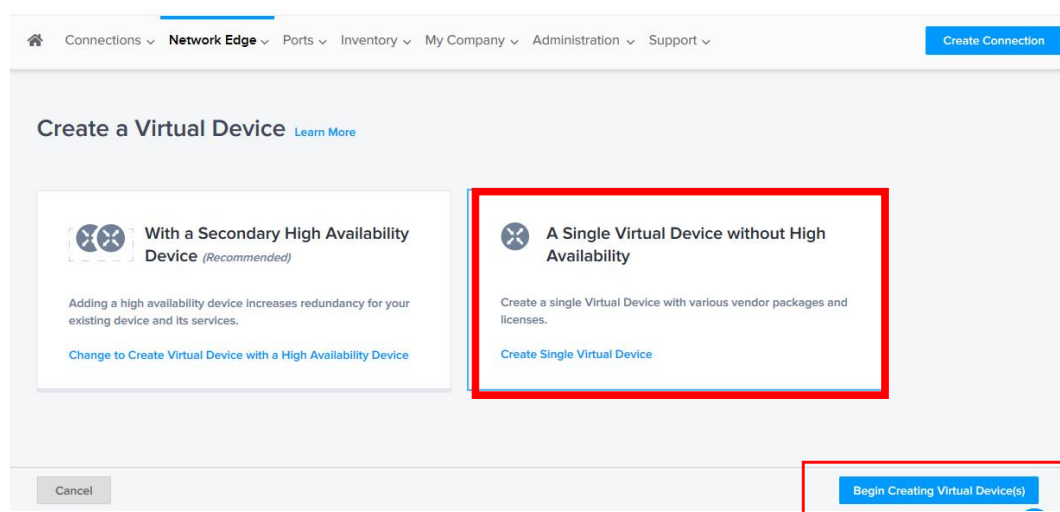


Para empezar, vamos a crear un nuevo dispositivo virtual 'Create Virtual Device'.



Va a crear un router **CISCO CSR 1000V**. Por favor siga la configuración paso a paso.

Para este laboratorio se usará un dispositivo sin alta disponibilidad:



En la siguiente pantalla escoja Cisco CSR 1000V y haga click en el botón 'Continue' al fondo de la página:



Connections ▾ Network Edge ▾ Ports ▾ Inventory ▾ My Company ▾ Administration ▾ Support ▾ [Create Connection](#)

## Create a Cisco CSR 1000V

Vendor Package Location Device Details Additional Services Review and Submit

Select Vendor Packages for your Devices

Cisco  
CSR 1000V

[See Description](#)

Juniper Networks  
vSRX

[See Description](#)

Palo Alto Networks  
VM Series

[See Description](#)

SD-WAN  
Cisco  
CSR

[See Description](#)

Dentro del paso a paso para crear este router, hay que proporcionar datos como la región en la que se va a ubicar el dispositivo. El primer paso es seleccionar la región en la que se va a situar el router (en este caso **Frankfurt**).

## Create a Cisco CSR 1000V

Vendor Package Location Device Details Additional Services Review and Submit

Select Virtual Device Location

Choose the Metro where this new Virtual Device will be deployed.

Select Metro

Silicon Valley

Ashburn

Chicago

Dallas

London

Frankfurt

Amsterdam

Singapore

Sydney

[Back](#) [Cancel](#) [Next: Device Details](#)

En segundo lugar, hay que nombrar el dispositivo y el host en el que se encuentra. Seleccione la licencia de ancho de banda para el router, y proveer un correo electrónico para recibir notificaciones.



|                                       |   |
|---------------------------------------|---|
| <b>Device name</b>                    | Atplabecx                                 |
| <b>Host name prefix</b>               | Atplabecx                                 |
| <b>Mail</b>                           | Your mail                                 |
| <b>Select License Throughput</b>      | 50 Mbps                                   |
| <b>Software Package &amp; Version</b> | La última versión que aparezca (16.09.05) |

## Create a Cisco CSR 1000V

✓ Vendor Package

✓ Location

✎

 Device Details

Additional Services

### Device Configuration

Select an option: have Equinix configure your device or configure it yourself.

**Equinix-Configured**  
Equinix will configure connectivity for your device via the ECX Fabric portal. This configuration includes services like VPN and BGP. This type of device has restricted access.

**Self-Configured**  
Provision and configure your own services. This type of device has less restricted access.

### Licensing

Would you like Equinix to provide a license or will you provide your own license?

**Subscription**  
Equinix provides the software license for you, then bills you for the service. This option includes end-to-end support.

**Bring your Own License**  
Use your existing software license. This option includes limited Equinix support.

### Device Resources

Select the appropriate resource below. ⓘ

2 Cores, 4 GB Memory

4 Cores, 4 GB Memory

6 Cores, 4 GB Memory

### Software Package

Select software package ⓘ

Security

### Version

Select a version ⓘ

16.09.02

16.09.03

16.09.05



**License Throughput**  
Select a license throughput. ⓘ

50 Mbps 1 Gbps 2.5 Gbps 5 Gbps 10 Gbps

**Virtual Device Details**  
Device Name ⓘ  
Atplabex ✓  
Host Name Prefix ⓘ  
Atplabex ✓

**Optional Details**  
**Order Reference/Identifier** Optional  
Enter a short name/number to identify this order on the invoice.  
Reference ⓘ  
  
0/100

**Interfaces**  
Select the number of interfaces for your device  
6 Interfaces (Default) ▾

**Device Status Notifications**  
Enter up to 5 email address(es) that will receive device status notifications.  
 ✓  
[Add Email\(s\)](#)

Back Cancel Delete Draft Device Save **Next: Additional Services**

Seleccione el botón **Next Additional Services** para añadir nuevos usuarios así como IPs de acceso al dispositivo recién creado.

Esta parte no se utilizará realmente en el laboratorio por lo que puede obviar esta configuración y pasar directamente por el siguiente menú sin hacer nada.

El último paso de este proceso sería revisar todos los datos introducidos para ello pulse sobre el botón **Next: Review**.





## Create a Cisco CSR 1000V



### Add Users

Define up to 5 distinct user credentials that will be loaded as an access control list for users accessing your Edge Device via SSH/HTTPS.

☐ Primary Device

### Add Access IP Addresses

Define one or more IP address subnets that will be loaded as an access control list for users accessing your virtual device.

☐ Primary Device

Back

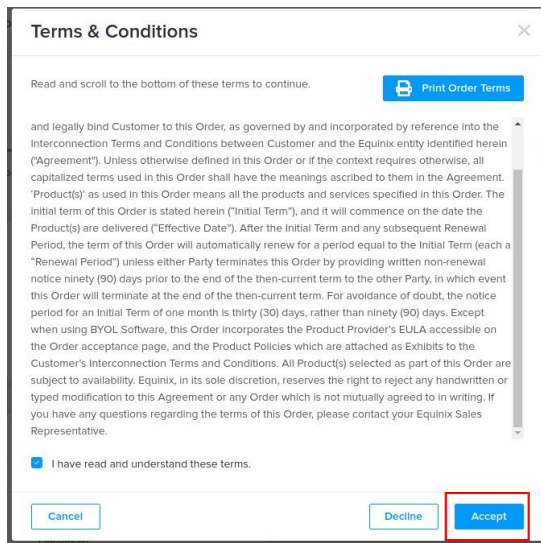
Cancel

Save

Next: Review



A continuación, aceptar los términos y condiciones.



Terms & Conditions

Read and scroll to the bottom of these terms to continue. [Print Order Terms](#)

and legally bind Customer to this Order, as governed by and incorporated by reference into the Interconnection Terms and Conditions between Customer and the Equinix entity identified herein ("Agreement"). Unless otherwise defined in this Order or if the context requires otherwise, all capitalized terms used in this Order shall have the meanings ascribed to them in the Agreement. "Product(s)" as used in this Order means all the products and services specified in this Order. The initial term of this Order is stated herein ("Initial Term"), and it will commence on the date the Product(s) are delivered ("Effective Date"). After the Initial Term and any subsequent Renewal Period, the term of this Order will automatically renew for a period equal to the Initial Term (each a "Renewal Period") unless either Party terminates this Order by providing written non-renewal notice ninety (90) days prior to the end of the then-current term to the other Party, in which event this Order will terminate at the end of the then-current term. For avoidance of doubt, the notice period for an Initial Term of one month is thirty (30) days, rather than ninety (90) days. Except when using BYOL Software, this Order incorporates the Product Provider's EULA accessible on the Order acceptance page, and the Product Policies which are attached as Exhibits to the Customer's Interconnection Terms and Conditions. All Product(s) selected as part of this Order are subject to availability. Equinix, in its sole discretion, reserves the right to reject any handwritten or typed modification to this Agreement or any Order which is not mutually agreed to in writing. If you have any questions regarding the terms of this Order, please contact your Equinix Sales Representative.

☒ I have read and understand these terms.

[Cancel](#) [Decline](#) [Accept](#)

Y por último pulsar sobre el botón **Create Edge Device** para crear el dispositivo de red en Equinix.



## Create a Cisco CSR 1000V

Vendor Package Location Device Details Additional Services Review and Submit

### Device Preview



**Atplabecx**  
Frankfurt  
Cisco | CSR 1000V | Router

### Device Details

|                              |                                   |
|------------------------------|-----------------------------------|
| Virtual Device Name          | Atplabecx                         |
| Host Name Prefix             | Atplabecx                         |
| Location                     | Frankfurt                         |
| Device Type                  | Router                            |
| Vendor                       | Cisco                             |
| Model                        | CSR 1000V                         |
| Device Configuration         | Equinix-Configured                |
| License                      | Sub                               |
| Device Resources             | 2 Cores, 4 GB Memory              |
| Software Package             | Security                          |
| Version                      | 16.09.05                          |
| License Throughput           | 50 Mbps                           |
| Interfaces                   | 6                                 |
| Term Length                  | 1 Month(s)                        |
| Device Notification Email(s) | workshop2020101401@mybestdemo.com |

### Terms & Conditions

Before your order can be submitted, you must do two things. 1. Click on the Vendor terms and 2. Click on the Order Terms, then review and accept them.

[Order Terms](#) | ☒ Accepted

### Additional Services

|  |   |
|--|---|
| SSH/HTTPS Access                         | Not Enabled   |
| Access IP Addresses Subnet(s) or FQDN(s) | No IP or network address was added to the access list |

Back

Cancel

Delete Draft Device

Save

Create Virtual Device

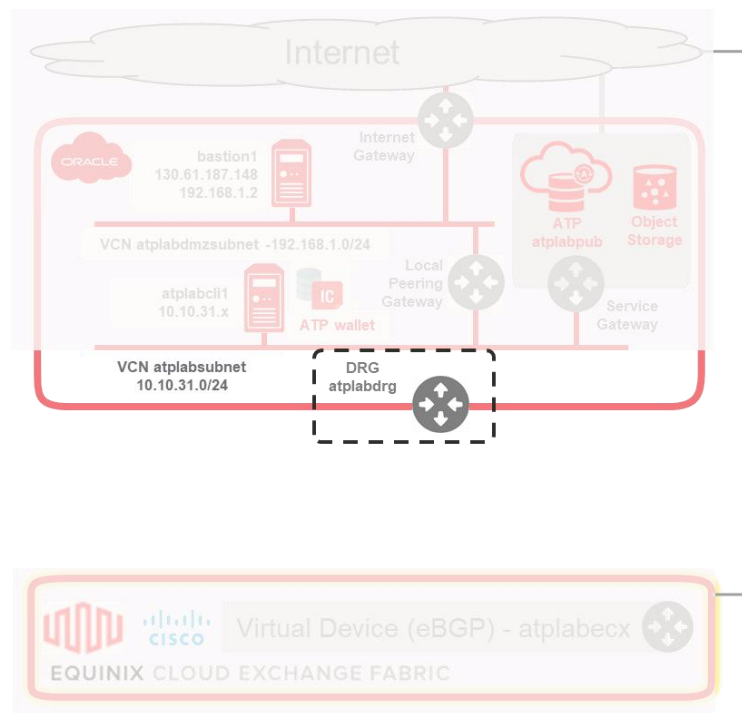
El dispositivo tardará unos minutos en ser provisionado. Durante este tiempo, puede continuar con el workshop.



# Configuración de red desde Oracle Cloud Infrastructure.

## ¿Qué voy a hacer?

Va a crear un Dynamic Routing Gateway DRG en OCI. Este DRG se usará para realizar el tráfico de red entre OCI y Equinix al resto de redes y también a los servicios SaaS de OCI.

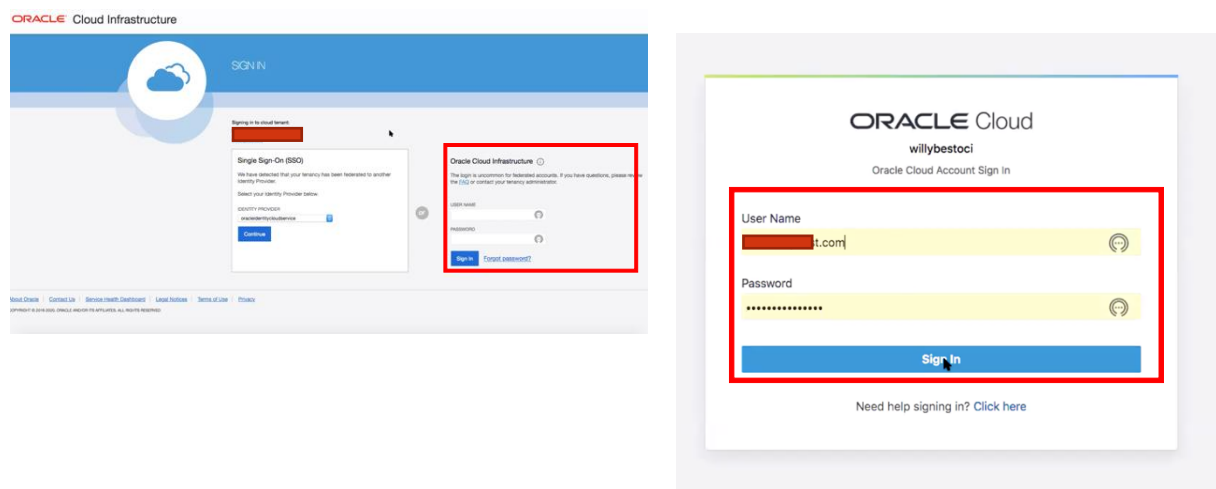


En primer lugar, debe ir a la pantalla de log-in, introducir el nombre de tenant de nuestra cuenta de cloud de Oracle.

| OCI URL   | <a href="https://console.eu-frankfurt-1.oraclecloud.com/">https://console.eu-frankfurt-1.oraclecloud.com/</a> |
|-----------|---|
| Tenant    | Utilice las credenciales proporcionadas   |
| User name | Utilice las credenciales proporcionadas   |
| Password  | Utilice las credenciales proporcionadas   |



Le aparecerá una pantalla para introducir nombre de usuario y contraseña.



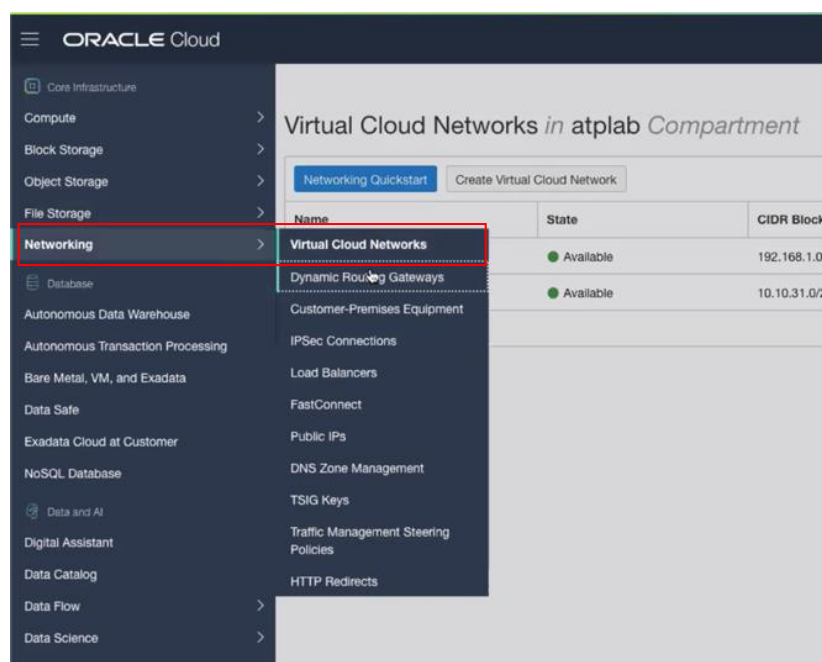
Una vez hecho esto, tendrá acceso al Dashboard de OCI (Oracle Cloud Infrastructure). Lo primero es **acceder a la configuración de Dynamic Routing Gateway**.

Un **Dynamic Routing Gateway**, permite conectar redes desde el cloud de Oracle a otros dispositivos fuera de este cloud, en este caso, utilizaremos esta puerta de enlace para **conectar nuestra red de Oracle Cloud Infrastructure con el router de Equinix**.

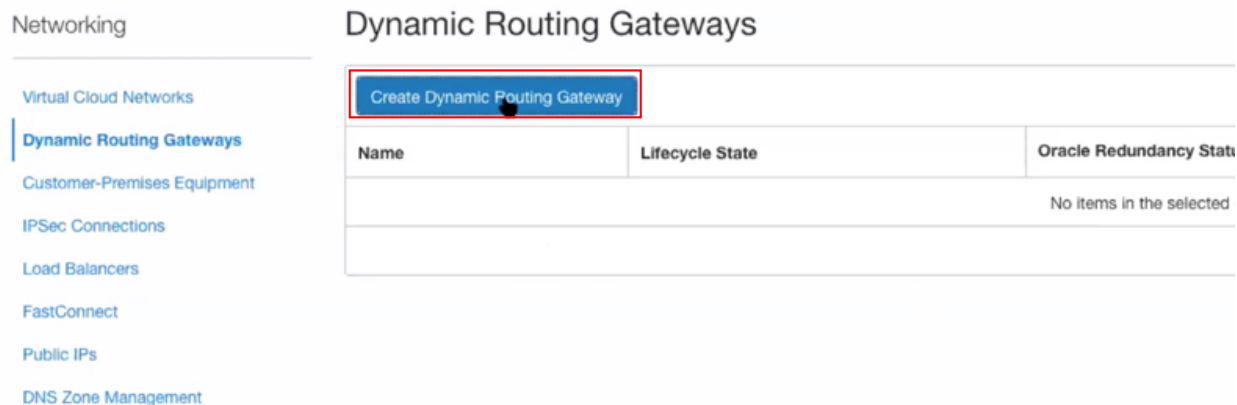
Para más información consulte el siguiente enlace a la documentación de Oracle:

<https://docs.cloud.oracle.com/en-us/iaas/Content/Network/Tasks/managingDRGs.htm>

En el menú principal de Oracle Cloud Infrastructure (icono hamburguer), en la **sección de networking**, debe seleccionar la **opción Dynamic routing gateways**.



Una vez dentro, debe pulsar el botón **Create Dynamic Routing Gateway**.



Networking

Virtual Cloud Networks

**Dynamic Routing Gateways**

Customer-Premises Equipment

IPSec Connections

Load Balancers

FastConnect

Public IPs

DNS Zone Management

**Create Dynamic Routing Gateway**

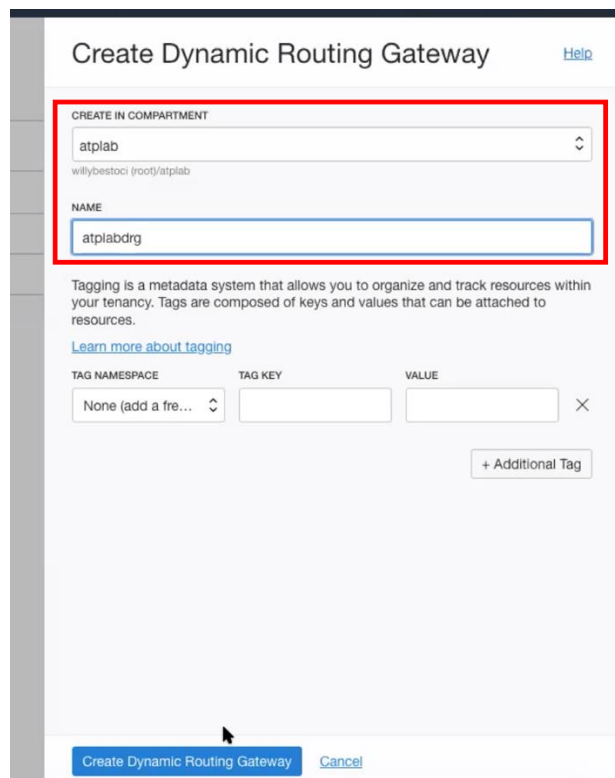
| Name                     | Lifecycle State | Oracle Redundancy State |
|--------------------------|-----------------|-------------------------|
| No items in the selected |                 |                         |

Le aparecerá en la parte derecha de la pantalla un paso a paso para crear el Dynamic Routing Gateway.

Seleccione un **compartment** y un **nombre** para esta nueva entidad.

En este caso se introducirán los siguientes datos:

|                    |            |
|--------------------|------------|
| <b>Compartment</b> | Atplab     |
| <b>Name</b>        | atplabdrdg |



Create Dynamic Routing Gateway [Help](#)

CREATE IN COMPARTMENT

atplab

willybestoci (root)/atplab

NAME

atplabdrdg

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE TAG KEY VALUE

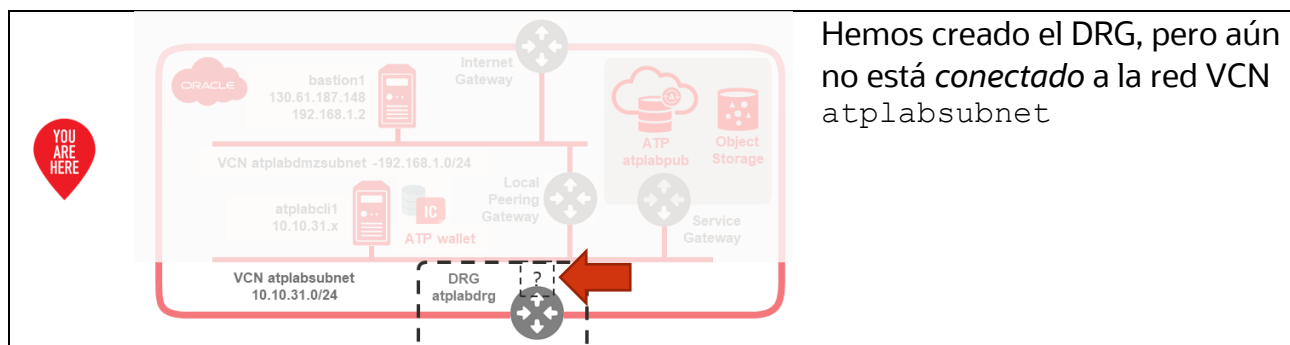
None (add a fre...) [ ] [ ] X

+ Additional Tag

Create Dynamic Routing Gateway Cancel



Una vez creado, aparecerá el panel principal de Dynamic Routing Gateway. Seleccione el nuevo DRG pulsando sobre su nombre.



A continuación, hay que asociarlo a una red Privada Virtual (VCN). Para ello, vaya a la sección **Virtual Cloud Networks**.

Networking » Dynamic Routing Gateways » atplabdr » Virtual Cloud Networks

## atplabdr

Edit Add Tags Move Resource Terminate

Dynamic Routing Gateway Information Tags

OCID: ...hpte6tiqma [Show](#) [Copy](#) Oracle Redundancy Status: —

Created: Mon, Oct 26, 2020, 1:43:24 PM UTC

### Resources

IPSec Connections (0)

**Virtual Cloud Networks (0)**

Virtual Circuits (0)

Remote Peering Connections (0)

### List Scope

COMPARTMENT

atplab

workshop2020101401 (root)/atplab

### Virtual Cloud Networks

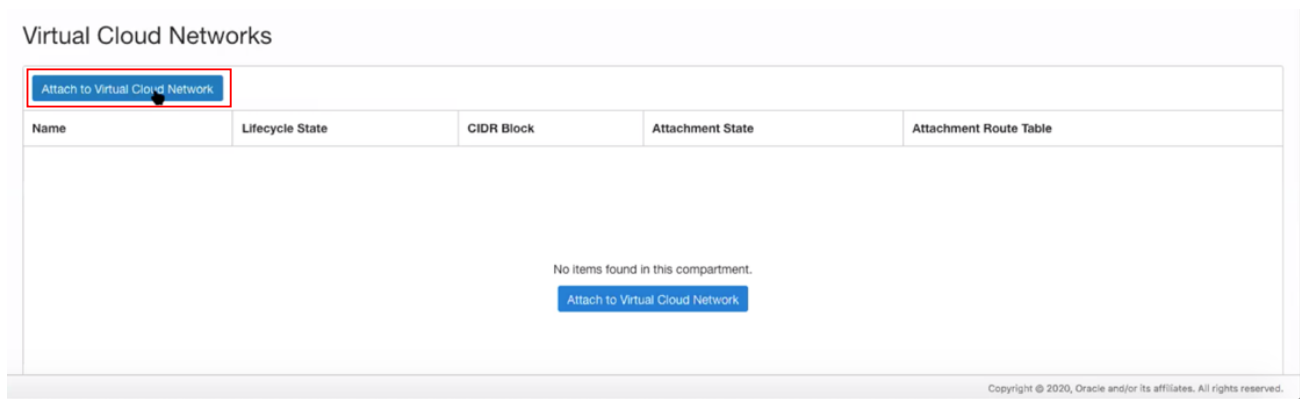
Attach to Virtual Cloud Network

| Name                                | Lifecycle State | CIDR Block | Attachment State | Attachment Route Table |
|-------------------------------------|-----------------|------------|------------------|------------------------|
| No items found in this compartment. |                 |            |                  |                        |

Attach to Virtual Cloud Network

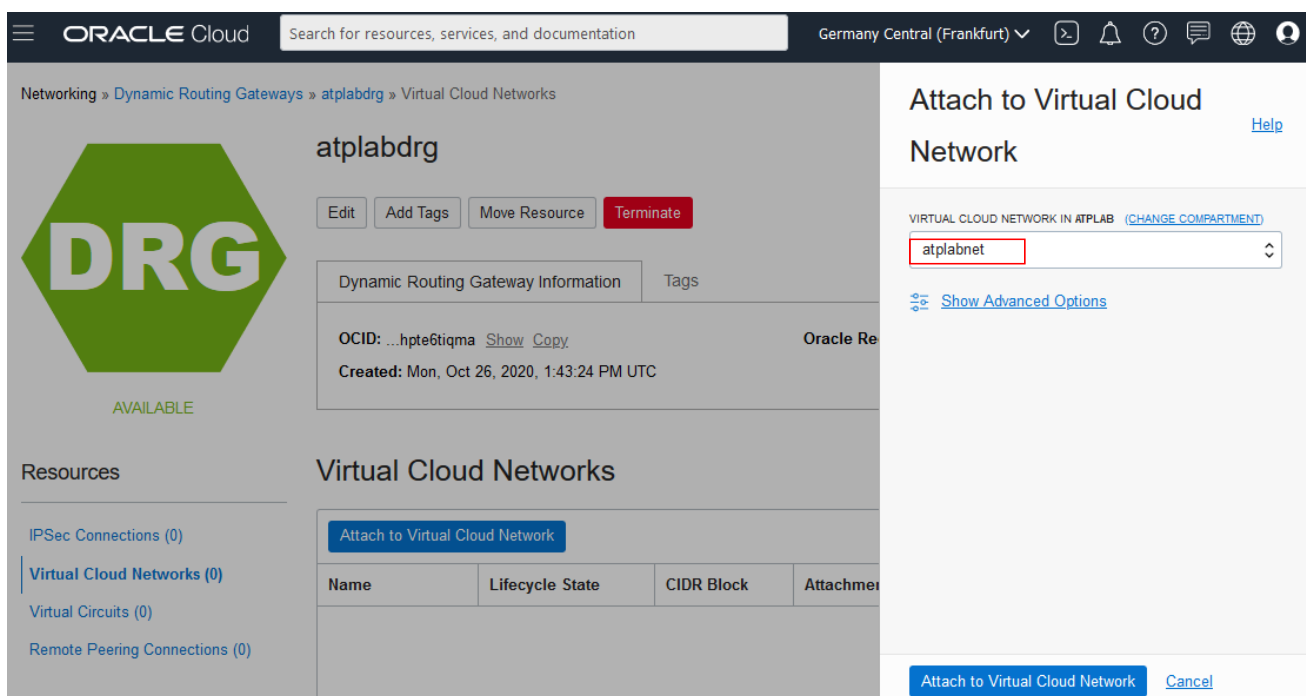
Pulse sobre el botón **Attach to Virtual Cloud Network** para asociar el DRG a la red privada.





Al pulsar en el botón para conectar una red privada virtual, aparecerá un menú de configuración paso a paso en la parte derecha de la pantalla.

En esta ocasión, **seleccione la VCN que se conectará a este Dynamic Routing Gateway -> atplabnet**



Pulse El botón **Attach to Virtual Cloud Network** para continuar.

Una vez hecho esto, podrá ver la red **conectada** a nuestro Gateway.







## atplabdr

[Edit](#)
[Add Tags](#)
[Move Resource](#)
[Terminate](#)

Dynamic Routing Gateway Information    Tags

OCID: ...hpte6tiqma [Show](#) [Copy](#)

Oracle Redundancy Status: —

Created: Mon, Oct 26, 2020, 1:43:24 PM UTC

### Resources

[IPSec Connections \(0\)](#)

[Virtual Cloud Networks \(1\)](#)

[Virtual Circuits \(0\)](#)

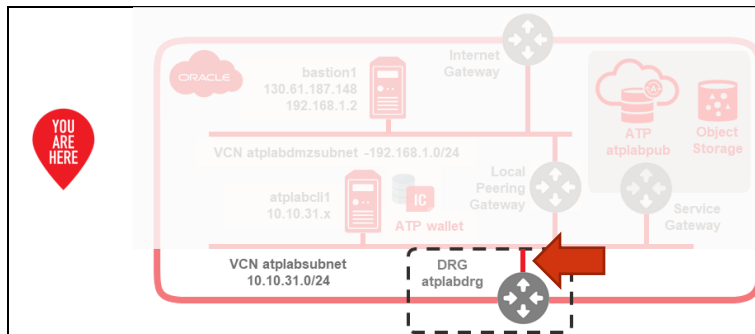
[Remote Peering Connections \(0\)](#)

### Virtual Cloud Networks

[Attach to Virtual Cloud Network](#)

| Name                      | Lifecycle State | CIDR Block    | Attachment State | Attachment Route Table |
|---------------------------|-----------------|---------------|------------------|------------------------|
| <a href="#">atplabnet</a> | Available       | 10.10.31.0/24 | Attached         | —                      |

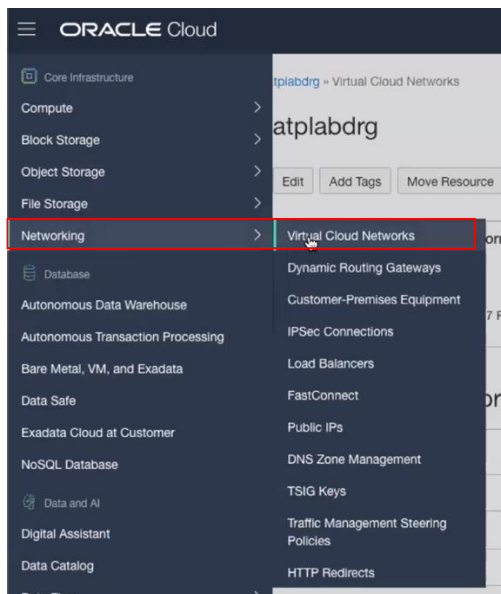
Showing 1 Item



Ya tiene conectado el DRG a la red atplabnet y ahora falta definir las reglas de enrutado para que el DRG sepa encaminar el tráfico de red.



A continuación, en el menú principal de OCI (icono hamburguer), seleccione **Networking – > Virtual Cloud Networks**



Una vez en la sección de VCNs, seleccione la **red** que ha conectado a la **Dynamic routing Gateway (atplabnet)** y diríjase a la sección **route tables**.

A screenshot of the Oracle Cloud console showing the 'Virtual Cloud Networks in atplab Compartment' page. The left sidebar shows the 'Networking' section with 'Virtual Cloud Networks' selected. The main content area has a table of VCNs. The first row, 'atplabnet', is highlighted with a red box. The table has columns for Name, State, CIDR Block, Default Route Table, DNS Domain Name, and Created.

| Name         | State     | CIDR Block     | Default Route Table                                  | DNS Domain Name            | Created           |
|--------------|-----------|----------------|--|----------------------------|-------------------|
| atplabnet    | Available | 10.10.31.0/24  | <a href="#">Default Route Table for atplabnet</a>    | atplabnet.oraclevcn.com    | Mon, Oct 26, 2020 |
| atplabdmznet | Available | 192.168.1.0/24 | <a href="#">Default Route Table for atplabdmznet</a> | atplabdmznet.oraclevcn.com | Mon, Oct 26, 2020 |

A screenshot of the Oracle Cloud console showing the 'Route Tables in atplab Compartment' page. The left sidebar shows the 'Resources' section with 'Route Tables (1)' selected. The main content area has a table of route tables. The first row, 'Default Route Table for atplabnet', is highlighted with a red box. The table has columns for Name, State, Number of Rules, and Created.

| Name  | State     | Number of Rules | Created                         |
|---|-----------|-----------------|---------------------------------|
| <a href="#">Default Route Table for atplabnet</a> | Available | 3               | Mon, Oct 26, 2020, 09:42:18 UTC |

Pulse en el botón **Create Route Table**. En este caso va a crear una ruta **desde la red atplab hacia otras nubes**.



Crear los campos según la siguiente tabla:

|                              |                  |
|------------------------------|------------------|
| <b>Name</b>                  | routetablefordrg |
| <b>Create In Compartment</b> | atplab           |

Create Route Table [Help](#) [Cancel](#)

NAME  
routetablefordrg

CREATE IN COMPARTMENT  
atplab  
workshop2020101401 (root)/atplab

**Route Rules**

**Important:** For a route rule that targets a Private IP, you must first enable "Skip Source/Destination Check" on the VNIC that the Private IP is assigned to.

[+ Additional Route Rule](#)

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.  
[Learn more about tagging](#)

TAG NAMESPACE TAG KEY VALUE

None (add a free-f... [+](#)

[+ Additional Tag](#)

Pulsar el botón **+ Additional Route Rule**, e informamos los siguientes campos:

|                               |                         |
|-------------------------------|-------------------------|
| <b>Target Type</b>            | Dynamic routing Gateway |
| <b>Destination CIDR BLOCK</b> | 10.10.33.0/24           |
| <b>Description</b>            | To GCP                  |



## Route Rules

**Important:** For a route rule that targets a Private IP, you must first enable "Skip Source/Destination Check" on the VNIC that the Private IP is assigned to.

TARGET TYPE

Dynamic Routing Gateway

DESTINATION CIDR BLOCK

10.10.33.0/24

Provide IPv4 or IPv6 address.

TARGET DYNAMIC ROUTING GATEWAY

**Name:** atplabdrg

**Compartment:** atplab

DESCRIPTION OPTIONAL

To GCP

Maximum 255 characters

+ Additional Route Rule



Pulsar nuevamente el botón **+ Additional Route Rule**, e informamos los siguientes campos:

|                               |                         |
|-------------------------------|-------------------------|
| <b>Target Type</b>            | Dynamic routing Gateway |
| <b>Destination CIDR BLOCK</b> | 10.10.32.0/24           |
| <b>Description</b>            | To AWS                  |

TARGET TYPE  
Dynamic Routing Gateway

DESTINATION CIDR BLOCK  
10.10.32.0/24  
Provide IPv4 or IPv6 address.

TARGET DYNAMIC ROUTING GATEWAY  
**Name:** atplabdr  
**Compartment:** atplab

DESCRIPTION OPTIONAL  
To AWS  
Maximum 255 characters

**+ Additional Route Rule**

Pulsar nuevamente el botón **+ Additional Route Rule**, e informamos los siguientes campos:

|                               |                         |
|-------------------------------|-------------------------|
| <b>Target Type</b>            | Dynamic routing Gateway |
| <b>Destination CIDR BLOCK</b> | 10.10.34.0/24           |
| <b>Description</b>            | To AZURE                |



TARGET TYPE

Dynamic Routing Gateway

DESTINATION CIDR BLOCK

10.10.34.0/24

Provide IPv4 or IPv6 address.

TARGET DYNAMIC ROUTING GATEWAY

Name: atplabdrg

Compartment: atplab

DESCRIPTION OPTIONAL

To Azure

Maximum 255 characters

+ Additional Route Rule

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

| TAG NAMESPACE         | TAG KEY | VALUE |
|-----------------------|---------|-------|
| None (add a free-f... |         |       |

+ Additional Tag

Create Route Table Cancel

Y por último click en el botón Create Route Table.

Pulse sobre el nombre **route-table-for-drg** para revisar las rutas recién creadas.





## routetablefordrg

[Move Resource](#) [Add Tags](#) [Terminate](#)

[Route Table Information](#) [Tags](#)

OCID: ...fd6yzq [Show](#) [Copy](#)

Compartment: atplab

Created: Mon, Oct 26, 2020, 13:53:13 UTC

### Resources

[Route Rules \(3\)](#)

### Route Rules

[Add Route Rules](#) [Edit](#) [Remove](#)

| <input type="checkbox"/> | Destination   | Target Type              | Target                   | Description |   |
|--------------------------|---------------|--------------------------|--------------------------|-------------|---|
| <input type="checkbox"/> | 10.10.32.0/24 | Dynamic Routing Gateways | <a href="#">atplabdr</a> | To AWS      | ⋮ |
| <input type="checkbox"/> | 10.10.33.0/24 | Dynamic Routing Gateways | <a href="#">atplabdr</a> | To GCP      | ⋮ |
| <input type="checkbox"/> | 10.10.34.0/24 | Dynamic Routing Gateways | <a href="#">atplabdr</a> | To Azure    | ⋮ |

0 Selected

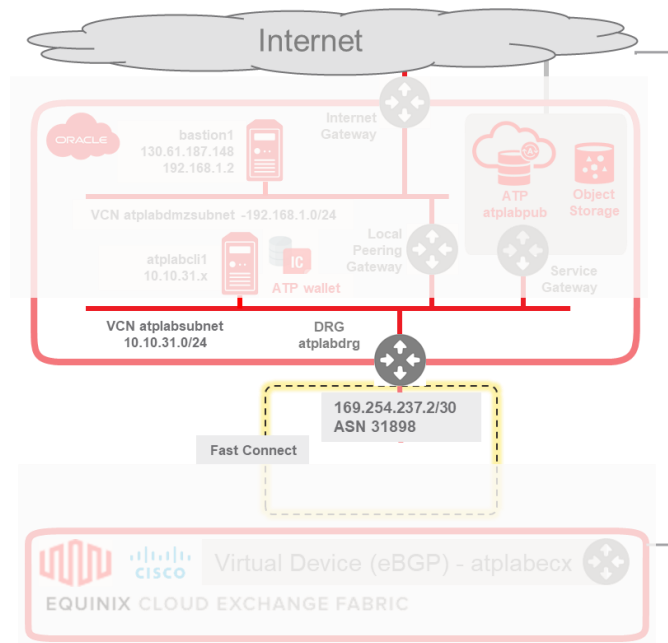
Showing 3 Items < 1 of 1 >



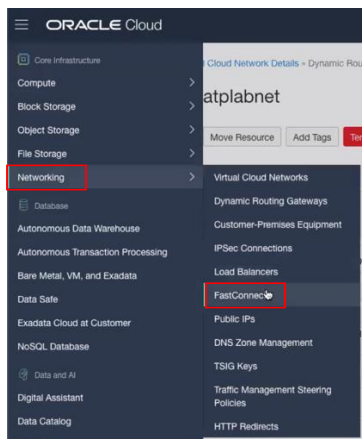
# Conexión Fast Connect

## ¿Qué voy a hacer?

Va a crear una conexión fast connect desde OCI a Equinix ECX para poder interconectar en los siguientes laboratorios con el resto de clouds.



Una vez creadas las tablas de rutas hacia las nubes de Google, Amazon y Azure vaya al menú principal de OCI (icono hamburguer), y dentro de Networking, acceda a la sección Fast Connect



Pulse el botón para crear una nueva **Fast Connect** con Nombre del FastConnect: **atplabfc**





ORACLE Cloud Search for resources, services, and documentation Germany Central (Frankfurt)

Networking

- Overview
- Virtual Cloud Networks
- Dynamic Routing Gateways
- Customer-Premises Equipment
- VPN Connections
- Load Balancers
- FastConnect

## FastConnect Connections in atplab Compartment

FastConnect is a connection between a customer's on-premises network and Oracle Cloud Infrastructure over a private physical network instead of the internet.

Create FastConnect

| Name            | Lifecycle State ⓘ | IPv4 BGP State ⓘ | Connection Type ⓘ | Created |
|-----------------|-------------------|------------------|-------------------|---------|
| No items found. |                   |                  |                   |         |

Showing 0 Items < Page 1 >

Seleccione el uso de un partner de Oracle y, después, seleccione Equinix.

ORACLE Cloud Search for resources, services, and documentation Germany Central (Frankfurt)

## Create Connection

Help

1 Connection Type  
2 Configuration

### Connection Type

FastConnect lets you access your existing network from your Virtual Cloud Network (VCN) without traversing the internet. Choose an option:

CONNECTION TYPE

#### FastConnect Partner

Use this option if you have a relationship with a FastConnect partner. Here you set up the Oracle side of a virtual circuit that runs on the partner's connection. See the topics to the right.

#### FastConnect Direct

Use this option if you want a dedicated connection by the way of a third-party network partner or by colocating in a FastConnect POP. Here you request a cross-connect and receive the Letter of Authorization (LOA). After cabling is complete at the POP, you return here to activate the cross-connect and set up at least one virtual circuit. See the topics to the right.

PARTNER

Equinix: CloudExchange

Next Cancel

Documentation

- List of FastConnect Partners
- FastConnect Partner (Setup steps)
- FastConnect Direct: Third-Party Partner (Setup steps)
- FastConnect Direct: Colocate with Oracle (Setup steps)

En el siguiente menú, introduzca los siguientes datos:

|                                |                         |
|--------------------------------|-------------------------|
| <b>Name (optional)</b>         | atplabfc                |
| <b>Dynamic Routing Gateway</b> | atplabdrgr              |
| <b>Virtual Circuit Type</b>    | Private Virtual Circuit |
| <b>Bandwidth</b>               | 1 GBPS                  |
| <b>Customer BGP IP Address</b> | 169.254.237.1/30        |
| <b>Oracle BGP IP Address</b>   | 169.254.237.2/30        |
| <b>Customer BGP ASN</b>        | 64513                   |



ORACLE Cloud

Search for resources, services, and documentation

Germany Central (Frankfurt)

Create Connection

1 Connection Type

2 Configuration

NAME OPTIONAL

atplabfc

COMPARTMENT

atplab

workshop2020101401 (root)/atplab

VIRTUAL CIRCUIT TYPE

Private Virtual Circuit

Private IP addresses are advertised (typically RFC 1918). The connection uses a dynamic routing gateway that you attach to our VCN.

Public Virtual Circuit

Oracle Cloud Infrastructure public IP addresses are advertised (for example, for Object Storage). You also provide the public IP prefixes that you want to advertise.

DYNAMIC ROUTING GATEWAY IN **ATPLAB** [\(CHANGE COMPARTMENT\)](#)

atplabdrg

PROVISIONED BANDWIDTH

1 Gbps

BGP IP Addresses

CUSTOMER BGP IPV4 ADDRESS

169.254.237.1/30

Provide IPv4 Address: Example: 10.0.0.22/30

ORACLE BGP IPV4 ADDRESS OPTIONAL

169.254.237.2/30

Provide IPv4 Address: Example: 10.0.0.21/30

CUSTOMER BGP ASN

64513

☐ USE A BGP MD5 AUTHENTICATION KEY OPTIONAL

Provide a key only if your system requires MD5 authentication.

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE

None (add a free-form tag)

TAG KEY

VALUE

+ Additional Tag

Previous

Create

Cancel


Espere que se provisione su **Fast Connect** unos minutos hasta que aparezca el estado **Pending Partner**

Copyright © 2020, Oracle and/or its affiliates. All rights reserved. | Oracle Confidential

26

ORACLE Cloud Search for resources, services, and documentation Germany Central (Frankfurt) [Icons]

Networking » FastConnect » Connection Detail



**Connection Created**

What's next?

Copy the OCID and give it to the partner to provision the virtual circuit from their end. When BGP State changes to UP, the virtual circuit is ready to test.

OCID: ...s2po5q [Show](#) [Copy](#)

Partner Portal: [Equinix](#)

[Close](#)

**atplabfc**

[Edit](#) [Move Resource](#) [Add Tags](#) [Delete](#)

| Virtual Circuit Information  | BGP Information  | Tags |
|--|--|------|
| <p><b>Lifecycle State:</b> ● Pending Partner</p> <p><b>Partner Name:</b> Equinix</p> <p><b>Virtual Circuit Type:</b> Private</p> <p><b>Created:</b> Mon, Oct 26, 2020, 13:58:43 UTC</p> <p>OCID: ...s2po5q <a href="#">Show</a> <a href="#">Copy</a></p> | <p><b>IPv4 BGP State:</b> Down</p> <p><b>Connection Type:</b> Partner</p> <p><b>Provisioned Bandwidth:</b> 1 Gbps</p> <p><b>BGP MD5 Authentication:</b> Not Enabled</p> <p><b>Dynamic Routing Gateway:</b> <a href="#">atplabdrg</a></p> |      |

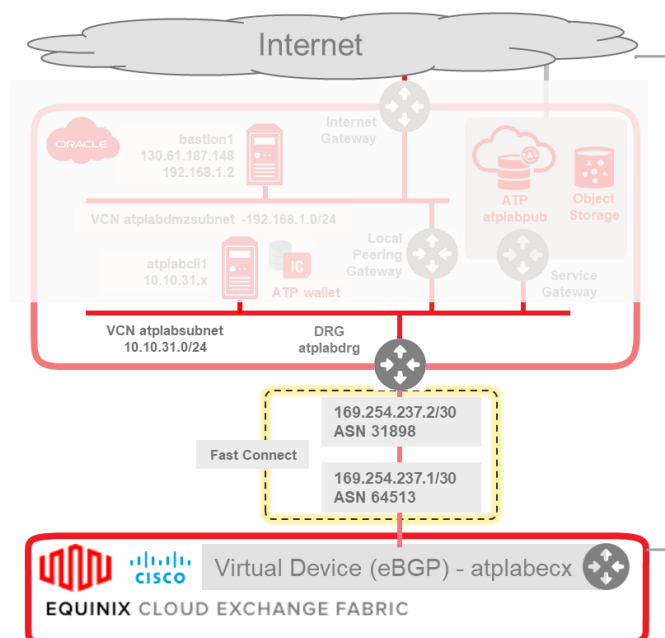
La conexión de FastConnect de OCI **no estará arriba** hasta que no se haya configurado desde el lado de Equinix en el virtual Router.



# Configuración desde Equinix para conectar Oracle Cloud

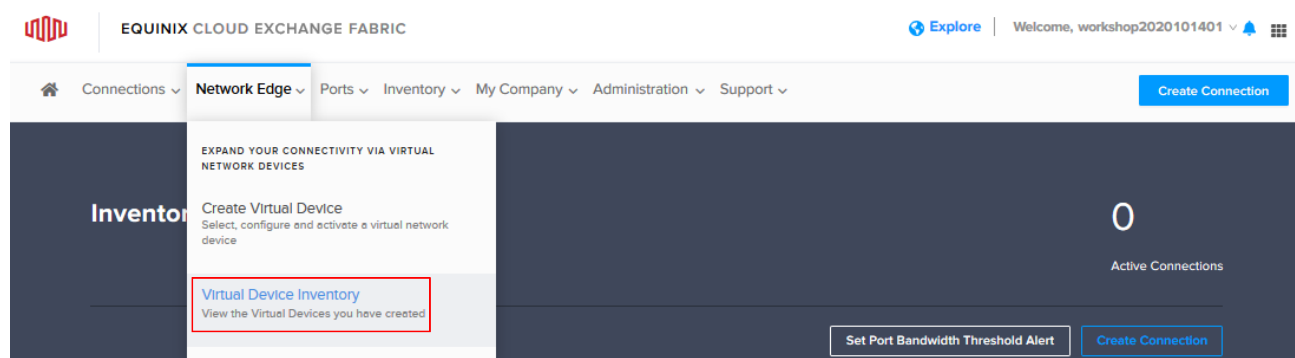
## ¿Qué voy a hacer?

Va a crear la conexión entre Equinix ECX y OCI fast connect que creó en el apartado anterior.



Vuelva a la consola de Equinix para comprobar que el Router que se ha creado al principio de este laboratorio ha sido **provisionado** correctamente.

En la consola Principal de Equinix debe seleccionar *Network Edge* y **Virtual Device Inventory** en el menú.



A continuación, seleccione su virtual router creado previamente [atpblabecx]

The screenshot shows the 'Inventory' section of the Equinix Cloud Exchange Fabric interface. The 'Virtual Devices' tab is selected, displaying a table with the following data:

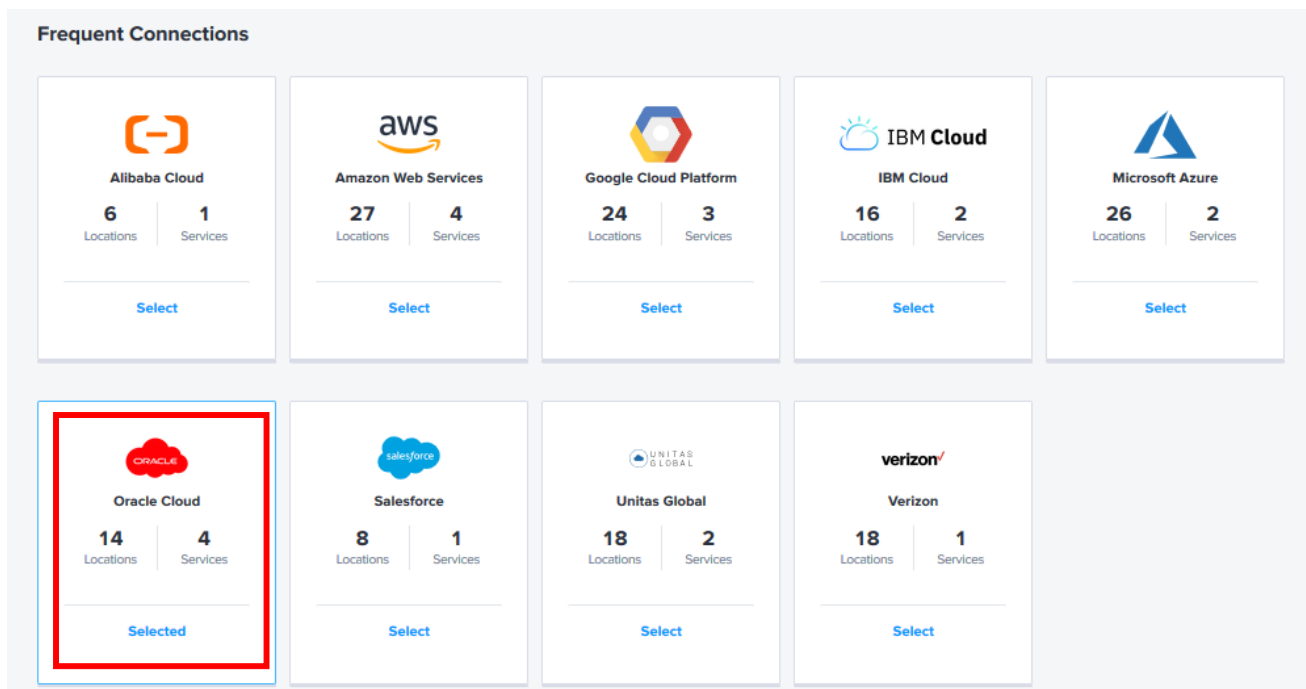
| Device Status | Device Type | Virtual Device Name | License Status | Vendor | Model     | Location  | Last Modified         |
|---------------|-------------|---------------------|----------------|--------|-----------|-----------|-----------------------|
| Up            | Router      | Atpblabecx          | Registered     | Cisco  | CSR 1000V | Frankfurt | Oct 26 2020 13:50 GMT |

Seleccione el botón **Crear conexión** y, en la sección de conexiones frecuentes, seleccione la conexión de Oracle Cloud.

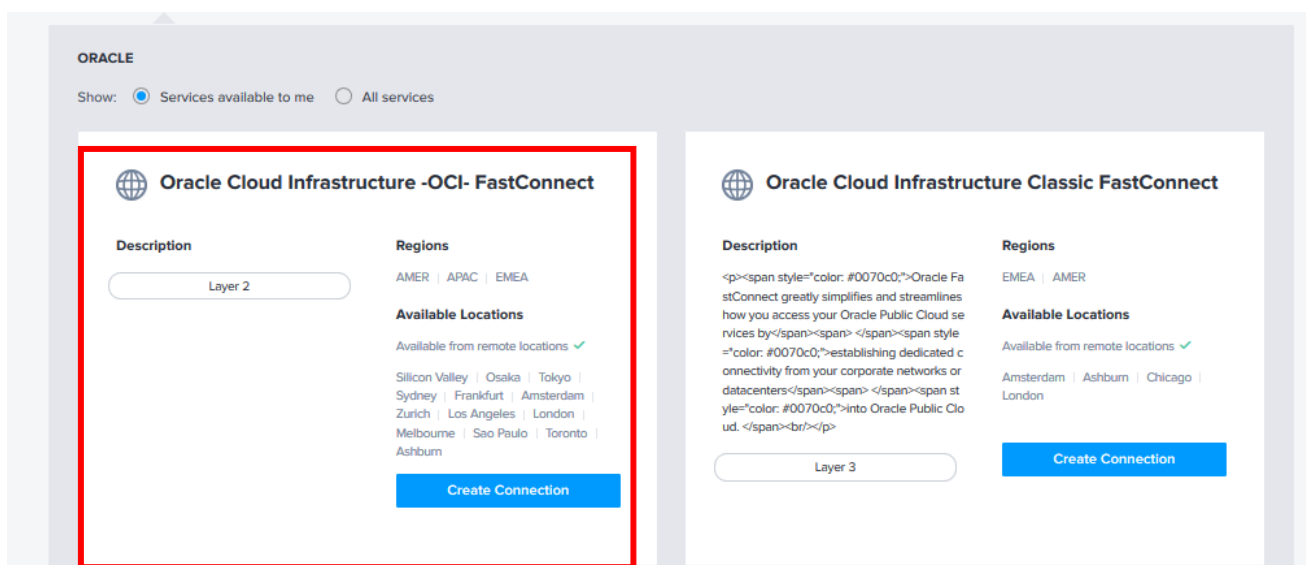
The screenshot shows the 'Your Virtual Device' section. It displays the 'Atpblabecx' device with details: Frankfurt, Cisco | CSR 1000V | Router. A 'Create Connection' button is highlighted in the bottom right corner.

Seleccione la **conexión de Oracle Cloud**





Seleccione el tipo de conexión asociado a **Oracle Cloud Infrastructure -OCI- FastConnect**, la primera.



A continuación, seleccione la región de Frankfurt tanto en el origen como en el destino, seleccione también el dispositivo virtual que ha creado



Select Locations

Connection Details

Review

Select Locations

Preview

Atplabex  
Frankfurt

Speed  
~  
Latency (RTT)  
< 1 ms

Oracle Cloud  
Frankfurt

Origin

Locations with ports or Virtual Devices

Connect Using

Port

Service Token

Virtual Device

EMEA 1

Select Location

Frankfurt

1 Virtual Devices

Virtual Devices in Frankfurt:

Atplabex  
Frankfurt  
Cisco | CSR1000V\_TRIAL |  
ROUTER

Destination

Oracle Public Cloud Group (SE3 Cage 60210) locations you can connect with

AMER 5 EMEA 4 APAC 4

Suggested:

Frankfurt

eu-frankfurt-1  
Latency (RTT) < 1 ms

Remote:

Amsterdam

eu-amsterdam-1  
Latency (RTT) 8 ms

Zurich

eu-zurich-1  
Latency (RTT) 6 ms

London

uk-london-1  
Latency (RTT) 14 ms


Pulse en el botón **Next** e introduzca el **OCID del FastConnect de Oracle Cloud Infrastructure**, lo puede obtener desde la pantalla principal de **virtual cloud networks dentro de FastConnect** en la consola de OCI.

Copyright © 2020, Oracle and/or its affiliates. All rights reserved. | Oracle Confidential

31

ORACLE Cloud Search for resources, services, and documentation Germany Central (Frankfurt) > >

Networking » FastConnect » Connection Detail



PENDING PARTNER

atplabfc

Edit Move Resource Add Tags Delete

Virtual Circuit Information BGP Information Tags

**Lifecycle State:** Pending Partner **IPv4 BGP State:** Down

**Partner Name:** Equinix **Connection Type:** Partner

**Virtual Circuit Type:** Private **Provisioned Bandwidth:** 1 Gbps

**Created:** Mon, Oct 26, 2020, 13:58:43 UTC **BGP MD5 Authentication:** Not Enabled

**OCID:** ocid1.virtualcircuit.oc1.eu-frankfurt-1.aaaaaaafxhe3gbqjd  
nzbkr74lczrpegsg6rxeggczeiw2xdlrpy2po5q [Hide](#)  
[Copy](#) **Dynamic Routing Gateway:** [atplabdr](#)

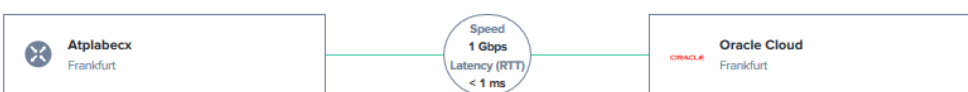
A continuación, en la pantalla de Equinix, en el paso a paso para crear una conexión con OCI, introduzca lo siguiente:

|                                     |                          |
|-------------------------------------|--------------------------|
| <b>Fast Connect Virtual Circuit</b> | Atplab-toOCI             |
| <b>Virtual Circuit OCID</b>         | OCID of your FastConnect |

Select Locations Connection Details Review

### Connection Details

Preview



**Connection Information**

FastConnect Virtual Circuit

Atplab-toOCI

**Virtual Circuit OCID**

ilcircuit.oc1.eu-frankfurt-1.aaaaaaafxhe3gbqjdnzbkr74lczrpegsg6rxeggczeiw2xdlrpy2po5q ✓

**Interface Selection**

This interface will be reserved for all incoming Connections to this device. It will not be available to create Connections to any other service provider.

☒ Automatically select the next available interface on my device(s)

☐ I will select the interface on my device

**Purchase Order Number** Optional

The purchase order number will be included in the order confirmation email

e.g. PO1544555





**No** hace falta introducir **Purchase Order**. Pase a la siguiente pantalla pulsando el botón **Next**, seleccione el ancho de banda contratado, continúe

The screenshot shows a web interface with two main sections. On the left, a box titled 'Connection Speed' is highlighted with a red border. It contains a 'Billing Tier' of 'Up to 1 Gbps' and a 'Speed Selected' of '1 Gbps'. Below this, it shows a 'Monthly Charge' of '150.00 EUR'. On the right, a 'Pricing Overview' section shows a 'Local Connection' of '150.00 EUR' and a 'Remote Surcharge' of '0.00 EUR', resulting in a 'Total' of '150.00 EUR'. A note below the total states: 'Additional taxes and/or fees may apply, depending on the Metro.' At the bottom of the page, there is a 'Previous' button on the left and a 'Next' button on the right, both highlighted with red borders. A blue button labeled 'Design Summary' is also visible between the two main sections.

| Connection Speed             |                              |
|------------------------------|------------------------------|
| Billing Tier<br>Up to 1 Gbps | 1 Gbps                       |
| Speed Selected               | Monthly Charge<br>150.00 EUR |

| Pricing Overview   |                   |
|--|-------------------|
| Local Connection:  | 150.00 EUR        |
| Remote Surcharge:  | 0.00 EUR          |
| <b>Total:</b>  | <b>150.00 EUR</b> |
| <small>Additional taxes and/or fees may apply, depending on the Metro.</small> |                   |

Previous Next

Finalmente repase todos los datos introducidos, introduzca un correo para recibir notificaciones y confirme.



✓

Select Locations

✓


Connection Details

✎


Review

## Review

Preview

 **Atplabex**  
Frankfurt

Speed  
1 Gbps  
Latency (RTT)  
< 1 ms

 **Oracle Cloud**  
Frankfurt

**Connection Summary**

|                            |  |
|----------------------------|--|
| Connection Name            | Atplab-toOCI   |
| Virtual Device Name        | Atplabex   |
| Speed                      | 1 Gbps   |
| Billing Tier               | Up to 1 Gbps   |
| Purchase Order Number      | -  |
| Virtual Circuit OCID       | ocid1.virtualcircuit.oc1.eu-frankfurt-1.aaaaaaafxhe3gbqjdnzbr74bxzrpegsg6rxeggczfeiw2xdrirpys2po5q |
| Average last month latency | < 1 ms   |
| Billed to                  |  |

**Pricing Overview**

|                   |            |
|-------------------|------------|
| Local Connection  | 150.00 EUR |
| Remote Connection | 0.00 EUR   |
| Total             | 150.00 EUR |

Additional taxes and/or fees may apply.

**Notifications** 1 Recipient(s)

Enter email address(es) that will receive notifications about this connection:

workshop2020101401@mybestdemo.com

Add another email

Design Summary

Previous

Submit your Order

Puede ver en la consola principal la nueva conexión recién creada.



The screenshot shows the Oracle Cloud Infrastructure console. At the top, there's a navigation bar with 'Connections', 'Network Edge', 'Ports', 'Inventory', 'My Company', 'Administration', and 'Support'. A 'Create Connection' button is in the top right. Below the navigation bar, the 'Inventory' section is active, showing '0 Active Connections'. A 'Set Port Bandwidth Threshold Alert' button and another 'Create Connection' button are at the bottom right of this section. Below this, there's a 'Connections' section with filters for 'Outgoing Connections', 'Incoming Connections', 'Remote Connections Only', and 'Service Token Connections Only'. Search filters for 'Search Connections', 'Search Service Key', 'Search Ports by Name', 'Location', 'Provider Status', and 'Status' are present. A 'Reset Filters' link is at the bottom right. The 'Connections' list shows one connection, 'Atplab-toOCI', which is highlighted with a red box. The connection details show 'Frankfurt' as the Origin and 'Oracle Cloud Infrastructure -OCI- FastConnect (eu-frankfurt-1)' as the Destination.

Vuelva a seleccionar Network Edge, View Virtual Device y seleccione su virtual device. A continuación, seleccione Connections para ver la conexión con OCI y poder configurarla desde el lado de Equinix.

This screenshot is similar to the first one, showing the 'Connections' page in the OCI console. The 'Connections' section is active, and the 'atplab-toOCI' connection is highlighted with a red box. The connection details show 'Frankfurt' as the Origin and 'Oracle Cloud Infrastructure -OCI- FastConnect (Frankfurt region obmc)' as the Destination. The interface includes the same navigation bar, filters, and search options as the first screenshot.

Si **selecciona la conexión al cloud de Oracle**, puede ver los detalles, y puede ver que la conexión esta provisionada.



Atlab-toOCI

CLOSE

Atlab-toOCI

Frankfurt Atlabecx Origin

Oracle Cloud Infrastructure -OCI- FastConnect (eu-frankfurt-1) Destination

Atlabecx Virtual Device

Oracle Cloud Infrastructure -OCI- FastConnect

Oracle Public Cloud Group (SE3 Cage 60210) | eu-frankfurt-1

Refresh Connection Status

Primary Connection Overview

Edit

|                            |   |
|----------------------------|---|
| Name                       | Atlab-toOCI   |
| Unique ID                  | bdb461e1-da67-4ae2-bba4-c5c53c45c86d  |
| Virtual Device Name        | Atlabecx  |
| Virtual Device UUID        | c16fc455-50f5-4862-9f49-9a24c1ebf5b4  |
| Status                     | Provisioned   |
| Provider Status            | Provisioning  |
| Seller-Side Port Name      | ORACLE-DEUTSCHLAND-BV-FR4-ECX-PRI-01  |
| Seller-Side VLAN ID        | 528   |
| Authentication Key         | ocid1.virtualcircuit.oc1.eu-frankfurt-1.aaaaaaafxhe3gbqjdnzbnkr74lxzrpegs6rxeggczeiw2xdrfrrpys2po5q |
| Average Last Month Latency | < 1 ms  |
| Seller-Side Region         | eu-frankfurt-1  |

Bandwidth Details

|                  |           |
|------------------|-----------|
| Connection Speed | 1 Gbps    |
| Billing Tier     | Up to 1 G |

Ahora quedaría hacer efectiva la conexión punto a punto entre Oracle Cloud Infrastructure y Equinix.

Para ello hay que proporcionar los siguientes detalles dentro de Equinix, que se pueden obtener desde el Cloud de Oracle.

Los campos están disponibles al final del formulario de la consola de Equinix, seguramente tendrá que hacer un *scroll-down* de la pantalla hasta que aparezca dicho formulario.



**Primary BGP Information** [Learn More](#)

|                           |                                  |
|---------------------------|----------------------------------|
| Local ASN                 | Enter Local ASN                  |
| Local IP Address          | Enter the local IP address       |
| Remote ASN <span>i</span> | Enter Remote ASN                 |
| Remote IP address         | Enter Remote IP Address          |
| BGP Authentication Key    | Enter the BGP Authentication Key |

**Accept**

Sitúese **dentro del FastConnect** que hemos creado dentro **de Oracle Cloud Infrastructure**, y vaya a la pestaña **BGP Information**. Ahí puede ver los parámetros requeridos desde Equinix.

ORACLE Cloud Search for resources, services, and documentation Germany Central (Frankfurt) >

Networking » FastConnect » Connection Detail

**atplabfc**

Edit Move Resource Add Tags Delete

Virtual Circuit Information BGP Information Tags


Customer BGP ASN: 64513  
Oracle BGP ASN: 31898

Customer BGP IPv4 Address: 169.254.237.1/30  
Oracle BGP IPv4 Address: 169.254.237.2/30

Introduzca estos datos en la conexión de Oracle dentro de Equinix. Hay que tener en cuenta que la introducir *Remote IP address* solo hay que poner la IP sin la máscara de red.




**Primary BGP Information** [Learn More](#)

|  |                                  |   |
|--|----------------------------------|---|
| Local ASN  | 64513                            | ✓ |
| Local IP Address   | 169.254.237.1/30                 | ✓ |
| Remote ASN  | 31898                            | ✓ |
| Remote IP address  | 169.254.237.2                    | ✓ |
| BGP Authentication Key   | Enter the BGP Authentication Key |   |

[Accept](#)

Una vez introducidos los datos, compruebe si la conexión se realiza desde el lado de Oracle, inicialmente estará en estado del ciclo de vida “provisioning” y BGP state “Down”



PROVISIONED

**atplabfc**

[Edit](#) [Move Resource](#) [Add Tags](#) [Delete](#)

**Virtual Circuit Information** **BGP Information** **Tags**

**Lifecycle State:** ● Provisioned

**Partner Name:** Equinix

**Virtual Circuit Type:** Private

**Created:** Mon, Oct 26, 2020, 13:58:43 UTC

**OCID:** ocid1.virtualcircuit.oc1.eu-frankfurt-1.aaaaaaafxhe3gbqjd nzbkr74lxzrpegsg6rxeggczeiw2xdlrpys2po5q [Hide](#)  
[Copy](#)

**Pv4 BGP State:** Down

**Connection Type:** Partner


**Provisioned Bandwidth:** 1 Gbps

**BGP MD5 Authentication:** Not Enabled

**Dynamic Routing Gateway:** [atplabdrq](#)

Desde el lado de Equinix, el estado de aprovisionamiento aparecerá como “PROVISIONING”, espere unos minutos.

**Primary BGP Information** [Learn More](#) [Edit](#)

|  |                  |
|--|------------------|
| Local ASN  | 64513            |
| Local IP Address   | 169.254.237.1/30 |
| Remote ASN  | 31898            |
| Remote IP address  | 169.254.237.2    |
| BGP Authentication Key   | -                |
| Provisioning Status  | Provisioning     |



Espera a que el estado cambie a “PROVISIONED”

| Primary BGP Information <a href="#">Learn More</a> |                  | <a href="#">Edit</a> |
|--|------------------|----------------------|
| Local ASN  | 64513            |                      |
| Local IP Address                                   | 169.254.237.1/30 |                      |
| Remote ASN <a href="#">i</a>                       | 31898            |                      |
| Remote IP address                                  | 169.254.237.2    |                      |
| BGP Authentication Key                             | -                |                      |
| Provisioning Status                                | Provisioned      |                      |

Ahora puede ir al cloud de Oracle y ver que el estado del ciclo de vida es **provisioned** también

Espere hasta que el **Estado de BGP** sea “UP”

Oracle Cloud console showing the details of a Virtual Circuit (VC) named **atplabfc**. The status is **PROVISIONED**. The BGP state is **UP**.


| Virtual Circuit Information  | BGP Information   | Tags |
|--|---|------|
| <b>Lifecycle State:</b> <span style="color: green;">●</span> Provisioned | <b>IPv4 BGP State:</b> Up                                 |      |
| <b>Partner Name:</b> Equinix   | <b>Connection Type:</b> Partner                           |      |
| <b>Virtual Circuit Type:</b> Private                                     | <b>Provisioned Bandwidth:</b> 1 Gbps                      |      |
| <b>Created:</b> Mon, Oct 26, 2020, 13:58:43 UTC                          | <b>BGP MD5 Authentication:</b> Not Enabled                |      |
| <b>OCID:</b> ...s2po5q <a href="#">Show</a> <a href="#">Copy</a>         | <b>Dynamic Routing Gateway:</b> <a href="#">atplabdrq</a> |      |

Una vez esto ocurra, podrá ver en **Equinix** también los estados de provisionamiento y BGP como “PROVISIONED” y “Established”



**Primary BGP Information** [Learn More](#)

[Edit](#)

|  |                  |
|--|------------------|
| Local ASN  | 64513            |
| Local IP Address   | 169.254.237.1/30 |
| Remote ASN  | 31898            |
| Remote IP address  | 169.254.237.2    |
| BGP Authentication Key   | -                |
| Provisioning Status  | Provisioned      |
| BGP State  | Established      |





# Resumen del Lab.

1. Ha configurado el dispositivo **Cisco en Equinix** para poder configurar la conexión con OCI.
2. Ha configurado rutas de acceso en el **DRG de OCI**
3. Ha creado y configurado una conexión **Fast Connect en OCI**
4. Ha creado la conexión desde **OCI a Equinix**

