

HOL 2b – Azure ExpressRoute



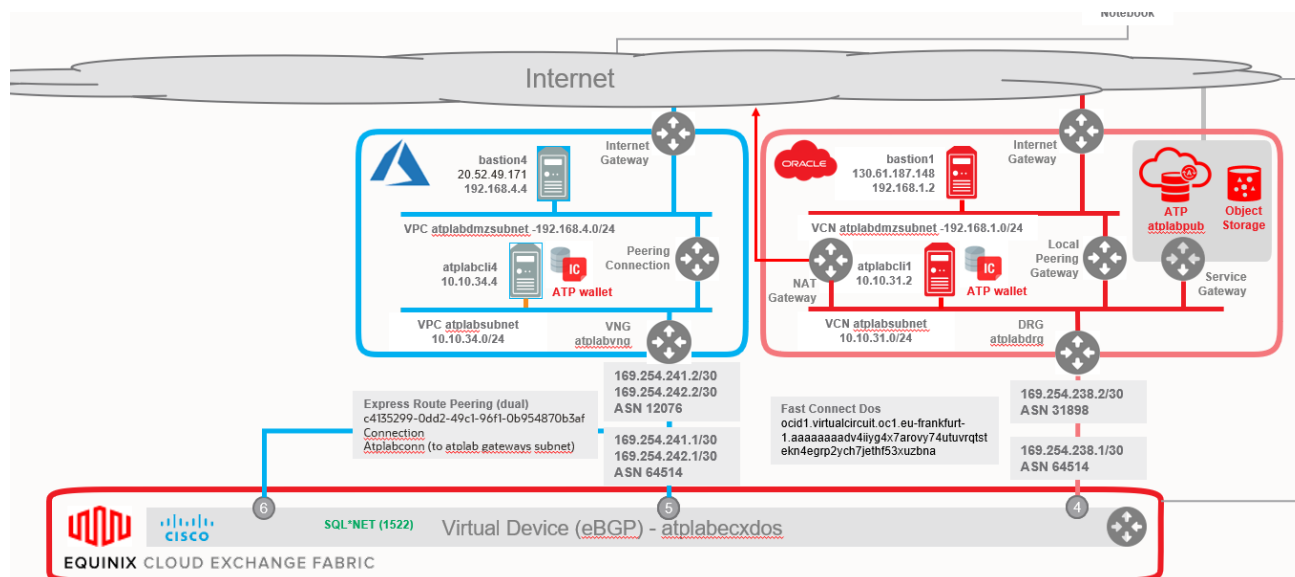
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Objetivo del Laboratorio

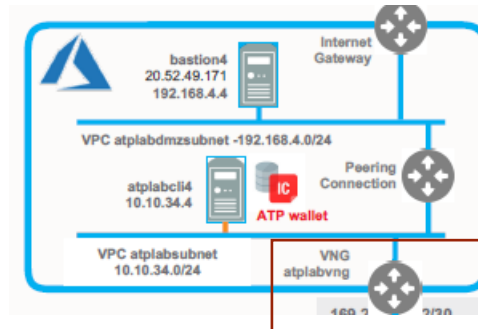
El objetivo del laboratorio es configurar los elementos necesarios para establecer la conectividad entre las nubes de Azure y Oracle Cloud Infrastructure (OCI):



Configuración de la interconexión desde el lado de Azure

¿Qué voy a hacer?

Vamos a crear el recurso *Virtual Network Gateway* que permitirá conectar la subnet privada atplabnet ya existente con el DC de Equinix



Datos de conexión para este apartado:

Consola: <https://portal.azure.com>

Email: <Your Azure Account Email>

Password: <Your Azure password>

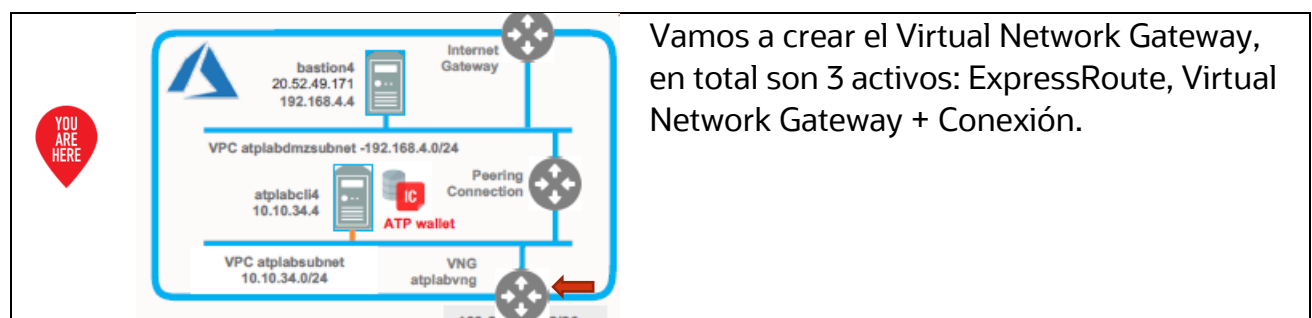
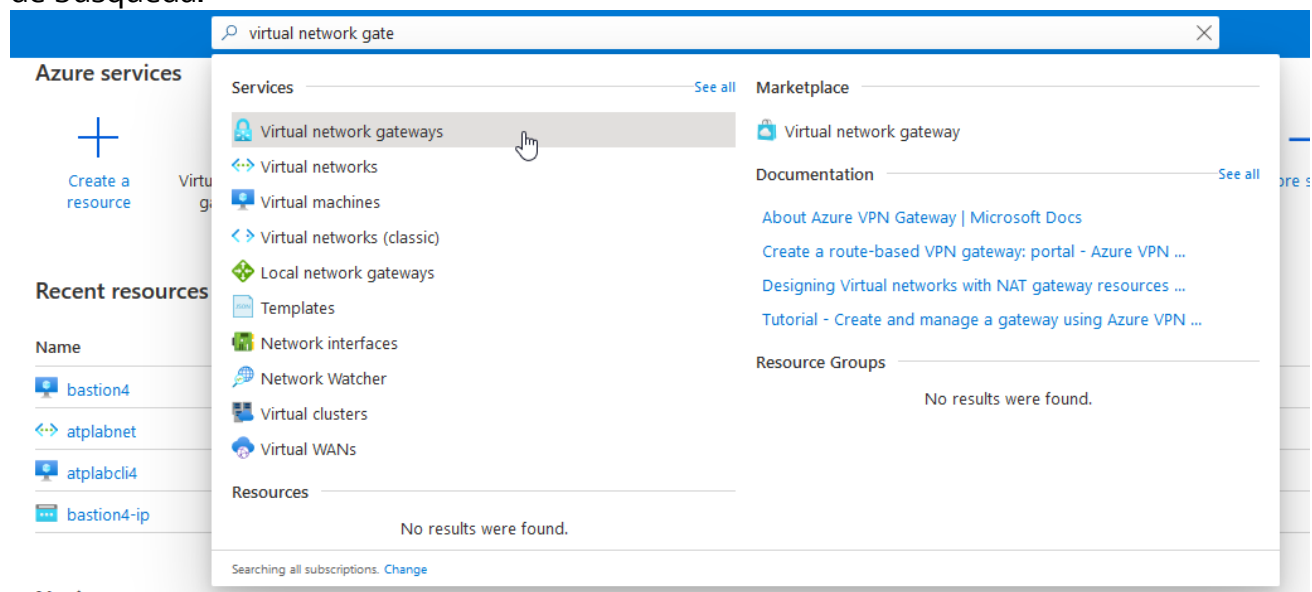
Nota: Todas las credenciales a las consolas serán proporcionadas individualmente por los instructores al comienzo del curso.

En primer lugar, abrimos la consola de cloud de Azure (<https://portal.azure.com>) e introducimos el email proporcionado, le damos a next e introducimos nuestra contraseña:

The image shows two screenshots of the Microsoft Azure sign-in process. The first screenshot is the 'Sign in' page, which prompts the user to enter their email, phone, or Skype ID. A red box highlights the input field. The second screenshot is the 'Enter password' page, which prompts the user to enter their password. A red box highlights the password input field. Both screenshots have a 'Next' or 'Sign in' button at the bottom.

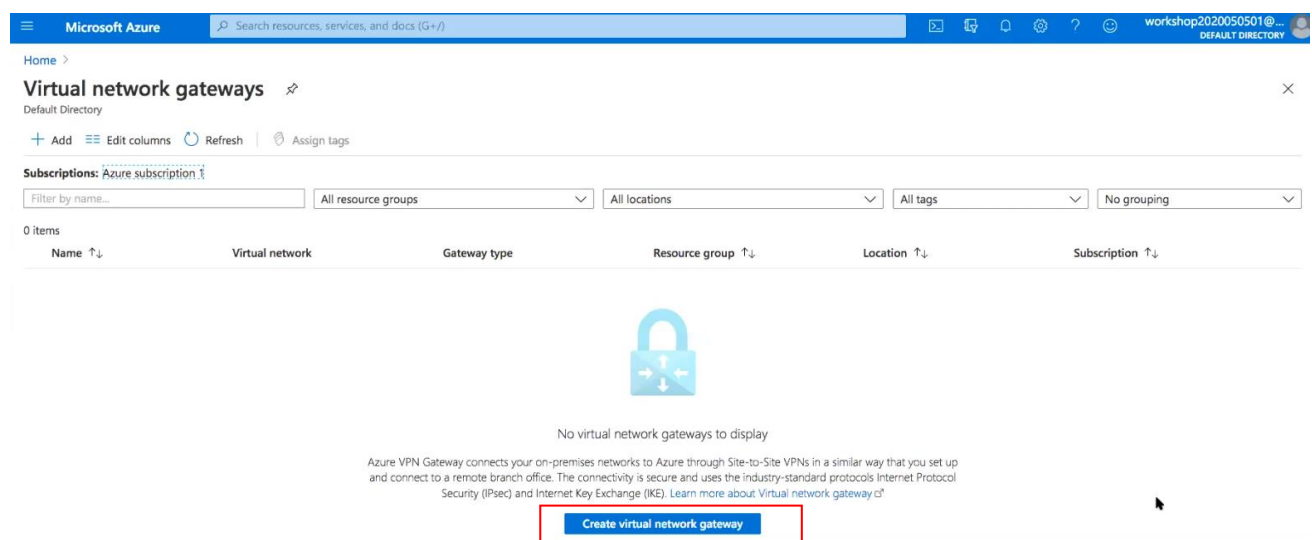


Vamos a crear la Virtual Network Gateway (VNG) en Azure. Desde el buscador de la barra superior, empezamos a teclear “Virtual Network Gateway” y hacemos click en el resultado de búsqueda.



Vamos a crear el Virtual Network Gateway, en total son 3 activos: ExpressRoute, Virtual Network Gateway + Conexión.

Desde aquí, creamos el Virtual Network Gateway.



Introducimos los siguientes valores:



Name	atplabvng
Region	Germany West Central
Gateway type	ExpressRoute
SKU	Standard
Virtual network	Atplabnet
Public IP address	Create New
Public IP address name	atplabvngip

Nota: en Subscription puede aparecer “Free Trial” o “Azure Subscription 1”

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual network gateways >

Create virtual network gateway

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *

Free Trial

Resource group ⓘ

atplab (derived from virtual network's resource group)

Instance details

Name *

atplabvng

Region *

Germany West Central

Gateway type * ⓘ

☐ VPN
☒ ExpressRoute

SKU * ⓘ

Standard

Virtual network * ⓘ

atplabnet

Create virtual network

Subnet ⓘ

GatewaySubnet (10.10.34.64/28)

Only virtual networks in the currently selected subscription and region are listed.

Public IP address

Public IP address * ⓘ

☒ Create new
☐ Use existing

Public IP address name *

atplabvngip

Public IP address SKU

Basic

Assignment

☒ Dynamic
☐ Static

Azure recommends using a validated VPN device with your virtual network gateway. To view a list of validated devices and instructions for configuration, refer to Azure's [documentation](#) regarding validated VPN devices.

Review + create

Previous

Next : Tags >

Download a template for automation

No añadimos ningún tag y pasamos directamente a la revisión y creación del VNG



Home > Virtual network gateways >

Create virtual network gateway

✓ Validation passed

Basics Tags **Review + create**

Basics

Subscription	Free Trial
Resource group	atplab
Name	atplabvng
Region	Germany West Central
SKU	Standard
Virtual network	atplabnet
Subnet	GatewaySubnet (10.10.34.64/28)
Gateway type	ExpressRoute

Tags

None

Create

Previous

Next

[Download a template for automation](#)

Tras unos minutos la VNG estará aprovisionada:

Home >

Microsoft.VirtualNetworkGateway-20201027160816 | Overview

Search (Ctrl+/) << Delete Cancel Redeploy Refresh

Overview

Inputs

Outputs

Template

We'd love your feedback! →

Deployment is in progress

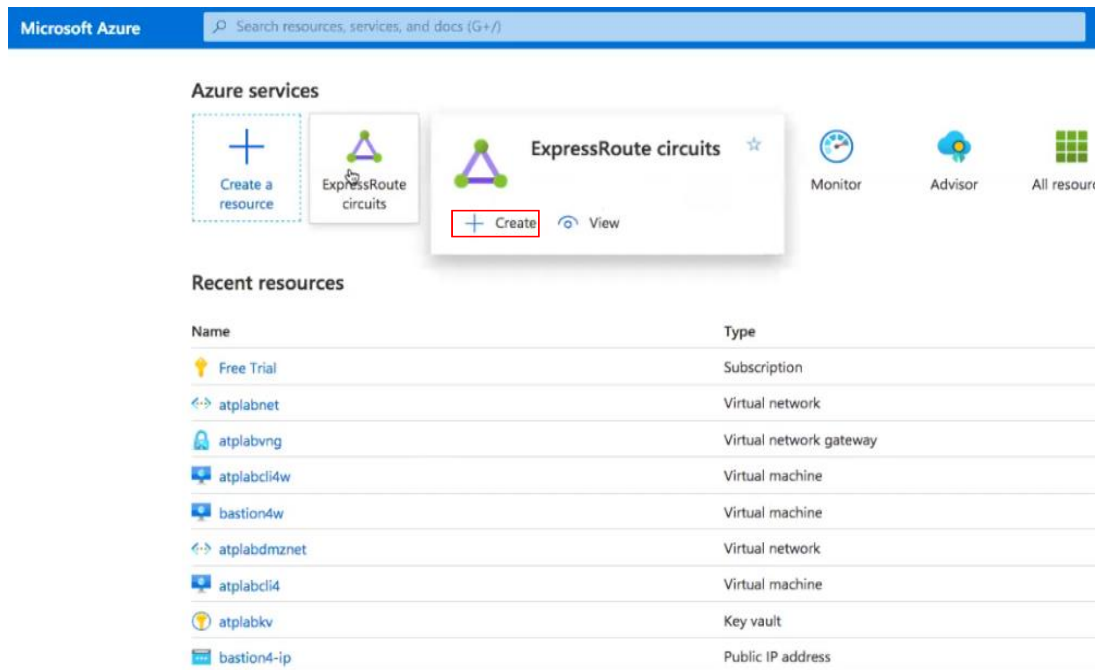
Deployment name: Microsoft.VirtualNetworkGateway-2020102716... Start time: 10/27/2020, 4:09:28 PM
Subscription: [Azure subscription 1](#) Correlation ID: 0b72cdc6-de28-4846-bf0a-5c5a09fafbf5
Resource group: [atplab](#)

Deployment details [\(Download\)](#)

Resource	Type	Status	Operation details
atplabvng	Microsoft.Network/virtualNetw...	Created	Operation details
atplabvngip	Microsoft.Network/publicIPAdd...	OK	Operation details



Ahora vamos a crear el Express Route, que es el circuito dedicado para conectar a Equinix. Pasamos el ratón por encima de ExpressRoute Circuits y hacemos click en Create:



En la siguiente pantalla, hacemos click en Create ExpressRoute Circuit



Home >

ExpressRoute circuits

Default Directory

+ Add ⚙️ Manage view ▾ ↻ Refresh ⬇️ Export to CSV | 🏷️ Assign tags | ❤️ Feedback

Filter by name... Subscription == all Resource group == all Location == all + Add filter

Showing 0 to 0 of 0 records.

Name ↑ Circuit ... ↑↓ Provid... ↑↓ Provider ↑↓ Peerin... ↑↓ Resource group ↑↓



No ExpressRoute circuits to display

Use ExpressRoute to set up a fast, private connection to Microsoft cloud services from your on-premises infrastructure or co-location facility. You can create a connection between your on-premises network and the Microsoft cloud in three different ways, CloudExchange Co-location, Point-to-point Ethernet Connection, and Any-to-any (IPVPN) Connection. Connectivity providers can offer one or more connectivity models. You can work with your connectivity provider to pick the model that works best for you.

[Learn more about ExpressRoute](#)

Create ExpressRoute circuit



En Basics, rellenamos la siguiente información y pulsamos Next: Configuration

Project Details	
Subscription	Free Trial / Azure subscription 1
Resource group	atplab
Instance Details	
Region	Germany West Central
Name	atplaber

Microsoft Azure Search resources, services, and docs (G+/f)

Home > ExpressRoute circuits >

Create ExpressRoute

Basics Configuration Tags Review + create

Use Azure ExpressRoute to create private connections between Azure datacenters and infrastructure on your premises or in a colocation environment. Establish connections to Azure at an ExpressRoute location, such as an Exchange provider facility, or directly connect to Azure from your existing WAN network, such as a multiprotocol label switching (MPLS) VPN, provided by a network service provider.
[Learn more about Express Route circuits](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Azure subscription 1

Resource group * ⓘ atplab
[Create new](#)

Instance details

Region * ⓘ Germany West Central

Name * ⓘ atplaber

Review + create < Previous **Next : Configuration >**

En *Configuration*, rellenamos la siguiente información:

Port type	Provider
Create new or import from classic	Create new
Provider	Equinix
Peering Location	Frankfurt
Bandwidth	50Mbps
SKU	Standard
Billing Model	Metered
Allow Classic Operations	No



Microsoft Azure

Search resources, services, and docs (G+/)

Home > ExpressRoute circuits >

Create ExpressRoute

Basics **Configuration** Tags Review + create

ExpressRoute circuits can connect to Azure through a service provider or directly to Azure at a global peering location.
[Learn more about circuit types](#)

Port type *

Provider

Direct

Create new or import from classic * ⓘ

Create new

Import

Provider * ⓘ

Equinix

Peering location * ⓘ

Frankfurt

Bandwidth * ⓘ

50Mbps

SKU * ⓘ

Standard

Premium

Billing model * ⓘ

Metered

Unlimited

Allow classic operations ⓘ

Yes

No

Review + create

< Previous

Next, Tags >

Revisamos la configuración y creamos el ExpressRoute:



Home > ExpressRoute circuits >

Create ExpressRoute

✓ Validation Passed

Basics Configuration Tags Review + create

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Basics

Subscription	Free Trial
Resource group	atplab
Region	Germany West Central
Name	atplaber

Configuration

Port type	Provider
Create new or import from classic	Create new
Provider	Equinix
Peering location	Frankfurt
Bandwidth	50Mbps
SKU	Standard
Billing model	Metered
Allow classic operations	No

Create

< Previous

Next

[Download a template for automation](#)

La interfaz nos indicará que el ExpressRoute se está aprovisionando.



Microsoft Azure

Search resources, services, and docs (G+/)

Home >

Microsoft.ExpressRoute-20200713180744 | Overview

Deployment

Search (Ctrl+/) << Delete Cancel Redeploy Refresh

Overview

Inputs

Outputs

Template

We'd love your feedback! →

✓ Your deployment is complete

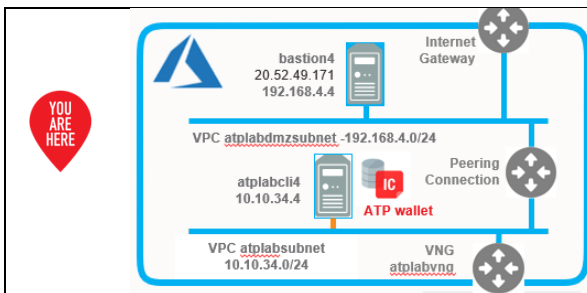
Deployment name: Microsoft.ExpressRoute-20200713180744
 Subscription: [Free Trial](#)
 Resource group: [atplab](#)

Start time: 7/13/2020, 6:10:15 PM
 Correlation ID: cd2457cc-ce58-4370-aff5-bd7a1a3e4c1c

Deployment details [\(Download\)](#)

Next steps

[Go to resource](#)



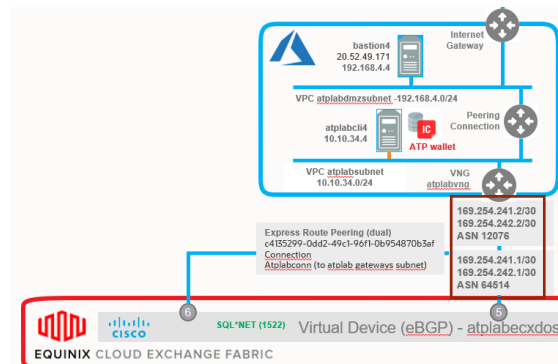
La configuración del lado de Azure ya está lista. El VNG y ExpressRoute que nos permitirán establecer la conexión con Equinix está creado y asociado con la red privada.



Configuración de la conexión desde Equinix

¿Qué voy a hacer?

Vamos establecer una conexión dentro del router *virtual* de Equinix hacia la nube de Azure, más concretamente, hacia el ExpressRoute creado en un apartado anterior.

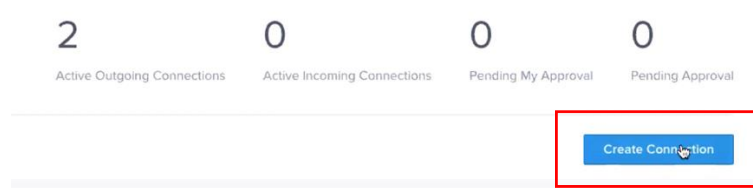


Datos de conexión para este apartado:

Consola: <https://ecxfabric.equinix.com>
User name: <Your Equinix username>
Password: <Your Equinix password>

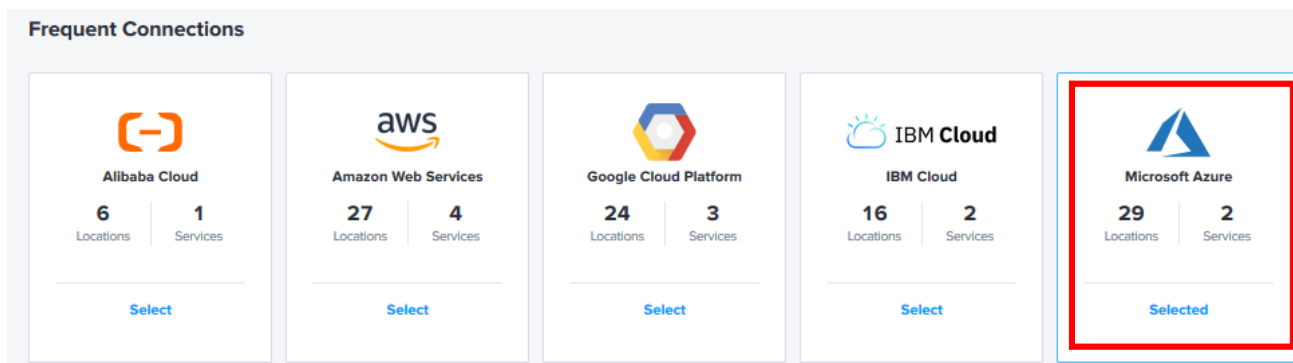
Nota: Todas las credenciales a las consolas serán proporcionadas individualmente por los instructores al comienzo del curso.

Una vez logados en la consola de Equinix, pulsamos el botón `Create Connection`:

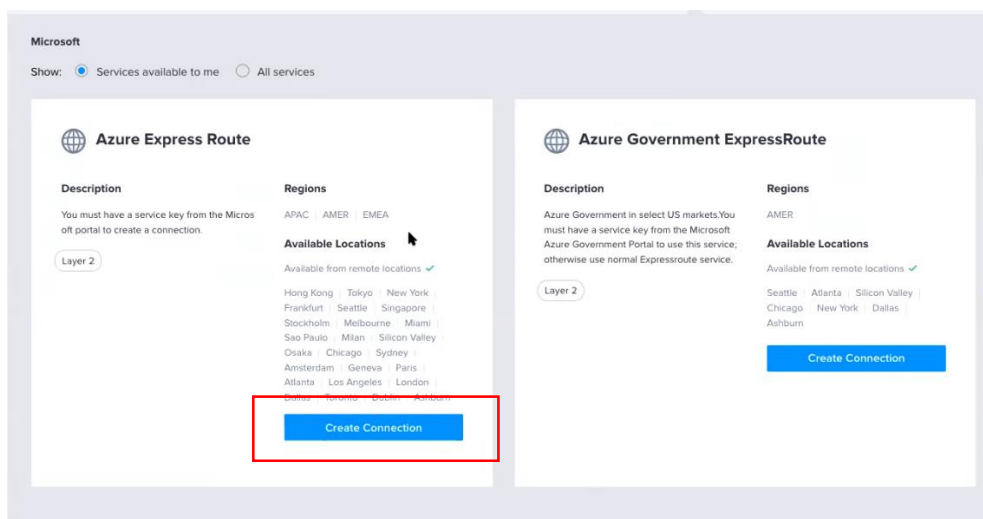


Aparecerán las conexiones más frecuentes, seleccionamos la de `Microsoft Azure`:





A continuación, seleccionamos la de Azure Express Route, que incluye la región de Frankfurt, y pulsamos Create Connection:



Una vez seleccionado el tipo de conexión, aparecerá un resumen sobre los pasos a seguir para crear la conexión con el cloud de Azure. Pulsamos Create a Connection to Microsoft ExpressRoute para continuar:





Steps: Connecting to Microsoft Azure

1 Find Your Microsoft Service Key

In the Microsoft Azure portal

Retrieve the location-specific service key from the Microsoft Azure portal. Follow the specific steps for Office 365, Private or Public Services.

2 Create Cloud Exchange Connection

In the ECX Fabric portal

Create a connection on the ECX Fabric portal. Get started below.

3 Set up Microsoft Peering

In the Microsoft Azure portal

Complete the Microsoft Peering on the Microsoft Azure portal if they aren't already completed.

Create a Connection to Microsoft ExpressRoute

A continuación, seleccionamos Frankfurt como región de **origen** y **destino** y también el **dispositivo virtual** atplabecxdos creado en el laboratorio anterior y pulsamos Next para continuar:

Primary Origin
Locations with ports or Virtual Devices

Connect Using

- Port
- Service Token
- Virtual Device**

EMEA 1

Select Location

- Frankfurt**
2 Virtual Devices

Virtual Devices in Frankfurt:

- Atplabecxdos**
Frankfurt
Cisco | CSR1000V_TRIAL | ROUTER
- Atplabecx
Frankfurt
Cisco | CSR1000V_TRIAL | ROUTER

Destination
MICROSOFT locations you can connect with

AMER 11 **EMEA** 12 **APAC** 8

Suggested:

- Frankfurt**
Latency (RTT) < 1 ms

Remote:

Hamburg Latency (RTT) 14 ms	Stockholm Latency (RTT) 21 ms	Milan Latency (RTT) 10 ms
Amsterdam Latency (RTT) 8 ms	Zurich Latency (RTT) 6 ms	Geneva Latency (RTT) 9 ms
Paris Latency (RTT) 9 ms	London Latency (RTT) 14 ms	Dublin Latency (RTT) 24 ms

Next

Como se ha dicho anteriormente, ExpressRoute requiere una conexión redundante por lo que debemos nombrar ambas conexiones. En los detalles de conexión, introducir atplab-toAZU1 para la conexión primaria y atplab-toAZU2 para la secundaria



Primary Connection Information

Connection Name

Secondary Connection Information

Connection Name

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

Service Key

Application Details

Select Application:

☐ Microsoft
 ☐ Private

☐ ExpressRoute Peering VLAN ID

Purchase Order Number

Optional

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

Ahora debemos volver a la interfaz de Azure para averiguar el *Service Key* a introducir. Localizamos el *ExpressRoute* atplaber creado previamente

Azure services



Recent resources

Name	Type	Last Viewed
atplaber	ExpressRoute circuit	a few seconds ago
Azure subscription 1	Subscription	25 minutes ago
atplabnet	Virtual network	30 minutes ago
atplabvng	Virtual network gateway	2 weeks ago
atplabcli4w	Virtual machine	2 weeks ago
bastion4w	Virtual machine	2 weeks ago

Encontraremos el *Service Key* en la pantalla de información del *ExpressRoute*

Microsoft Azure

Search resources, services, and docs (G+/I)

workshop2020050501@...
DEFAULT DIRECTORY

Home > ExpressRoute circuits >

ExpressRoute circu...
Default Directory

+ Add Manage view

Filter by name...

Name ↑

atplaber

atplaber

ExpressRoute circuit

Search (Cmd+I)

Delete Refresh

Initiate the provisioning process with your service provider.

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Connections

Authorizations

Peerings

Resource group (change)

atplab

Circuit status

Enabled

Location

Germany West Central

Subscription (change)

Azure subscription 1

Subscription ID

7a38916c-320e-488c-9810-6a017331d093

Tags (change)

project : atplab

Provider

Equinix

Provider status

Not provisioned

Peering location

Frankfurt

Bandwidth

50 Mbps

Service key

c1eacd75-c31e-483f-90ca-d653a9a230f3

Volvemos a Equinix para introducir este valor, y seleccionamos *Private* bajo *Application Details*



Primary Connection Information

Connection Name

Service Key

Secondary Connection Information

Connection Name

Application Details

Select Application:

☐ Microsoft

☒ Private

☐ ExpressRoute Peering VLAN ID

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

Seleccionamos la opción de velocidad de conexión de 50 MBPS y pulsamos Next:

Connection Speed

Billing Tier
Up to 50 Mbps

50Mbps

Speed Selected

Monthly Charge
55.00EUR

...

Previous

Next

Una vez hecho todo esto y revisados los datos, introducimos un mail para recibir notificaciones (puede ser cualquier email, incluso uno inválido) y pulsamos Submit your Order:

Notifications

1 Recipient(s)

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

Add another email

Design Summary

Submit your Order



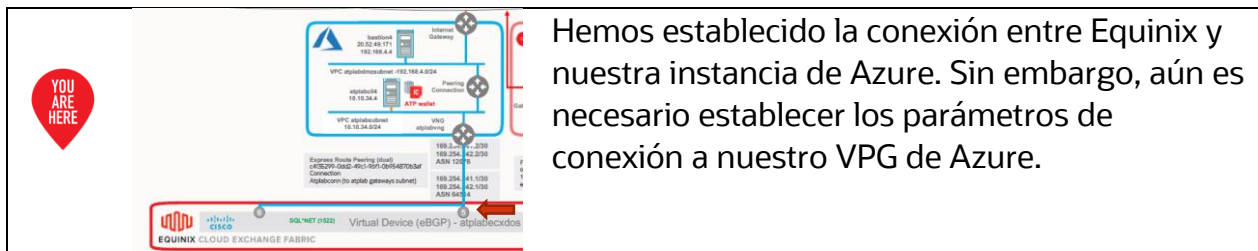
Una vez se haya procesado la orden (inmediato) pulsamos en el botón **Go to My Inventory**:

The screenshot shows a confirmation page with a green checkmark and the text "Your order was submitted." Below this, it states "We've sent a confirmation email to the emails you have provided." On the right, there are four status updates for connections 'atplab-toAZU1' and 'atplab-toAZU2', all showing a "PENDING_BGP_PEERING" status. The main content area has three sections: "Next Steps" (a green box with instructions to wait for an email and then configure peering details), "Look for your order details in your email" (a grey box with an envelope icon), and "View your connection in your Inventory" (a grey box with a "Go to My Inventory" button highlighted with a red rectangle). To the right of the inventory section, a preview of the 'atplab-toAZU1' connection is shown, indicating it is a Frankfurt Origin to Azure Express Route (Frankfurt) Destination.

En la siguiente pantalla, podemos ver las nuevas conexiones ExpressRoute de Azure hacia Frankfurt:

The screenshot displays the Oracle Cloud Infrastructure "Connections" page. The top navigation bar includes links for Connections, Ports, Virtual Devices, Routing Instances, Connectors, Subscriptions, and IP Blocks. The "Connections" section is active, showing a list of connections. The "Show:" filter is set to "Outgoing Connections". There are search filters for "Search Connections", "Search Service Key", "Search Ports by Name", "Location", "Provider Status", and "Status". The list shows five connections: "atplab-toAZU2" (Redundant, Frankfurt Origin to Azure Express Route (Frankfurt) Destination), "atplab-toAZU1" (Redundant, Frankfurt Origin to Azure Express Route (Frankfurt) Destination), "atplab-toGCP" (Frankfurt Origin to Google Cloud Partner Interconnect Zone 1 (europa-west3) Destination), "atplab-toAWS" (Frankfurt Origin to AWS Direct Connect (eu-central-1) Destination), and "Atplab-toOCI" (Frankfurt Origin to Oracle Cloud Infrastructure -OCI- FastConnect (eu-frankfurt-1) Destination). The first two connections, "atplab-toAZU2" and "atplab-toAZU1", are highlighted with a red rectangle.





Volvemos a la consola de Azure (<https://portal.azure.com>). Volvemos a abrir la página de detalle del *ExpressRoute* atplaber y hacemos click en *Private Peering* (espere unos minutos si aún no está activo).

Refresh has succeeded
Refresh has succeeded for ExpressRoute circuit 'atplaber'

Initiate the provisioning process with your service provider.

Resource group (change)
atplab

Provider
Equinix

Circuit status
Enabled

Provider status
Not provisioned

Location
Germany West Central

Peering location
Frankfurt

Subscription (change)
Azure subscription 1

Bandwidth
50 Mbps

Subscription ID
7a38916c-320e-488c-9810-6a017331d093

Service key
c1eacd75-c31e-483f-90ca-d653a9a230f3

Tags (change)
project : atplab

Type	Status	Primary subnet	Secondary subnet	Last modified by
Azure private	Not provisioned	-	-	-
Azure public	Not provisioned	-	-	-
Microsoft	Not provisioned	-	-	-

Rellenamos los siguientes datos:

Peer ASN	64514
Primary Subnet	169.254.241.0/30
Secondary Subnet	169.254.242.0/30
VLAN ID	346



Home > ExpressRoute circuits > atplaber >



Private peering

atplaber

Save Discard Delete



Peer ASN * ⓘ

64514



Primary subnet * ⓘ

169.254.241.0/30



Secondary subnet * ⓘ

169.254.242.0/30



VLAN ID * ⓘ

346



Shared key



...

...

...



Volvemos a Equinix, en la configuración de la conexión a Azure hacemos scroll hacia abajo del todo hasta encontrar la configuración BGP.

atplab-toAZU1 Redundant

Frankfurt Atplabecxdos Origin — Azure Express Route (Frankfurt) Destination

Atplabecxdos Virtual Device

Atplabecxdos Virtual Device

Azure Express Route EQUINIX-ECP-IXP-ETHERNET | Frankfurt

Azure Express Route EQUINIX-ECP-IXP-ETHERNET | Frankfurt

[Refresh Connection Status](#)

Primary Connection Overview		Edit
Name	atplab-toAZU1	
Unique ID	6c0ed0dd-01ca-480a-86d8-662c143a43d7	
Virtual Device Name	Atplabecxdos	
Virtual Device UUID	35eebf93-115c-4e41-b958-217f2a62c80c	
Status	Pending BGP	
Provider Status	Pending BGP	
Seller-Side Port Name	EQIX-FRA32-09XGMR-CIS-1-PRI-06012020	
Seller-Side VLAN ID	72. (Private)	
Authentication Key	c111cf5e-13a3-4ae5-af04-f26febd3dfe6	

Secondary Connection Overview		Edit
Name	atplab-toAZU2	
Unique ID	66ea87e4-ae8f-4582-afa9-69ca5621d02c	
Virtual Device Name	Atplabecxdos	
Virtual Device UUID	35eebf93-115c-4e41-b958-217f2a62c80c	
Status	Pending BGP	
Provider Status	Pending BGP	
Seller-Side Port Name	EQIX-FRA32-09XGMR-CIS-2-SEC-06012020	
Seller-Side VLAN ID	72. (Private)	
Average Last Month Latency	< 1 ms	

Primary BGP Information [Learn More](#)

Secondary BGP Information [Learn More](#)

Local ASN

Local IP Address

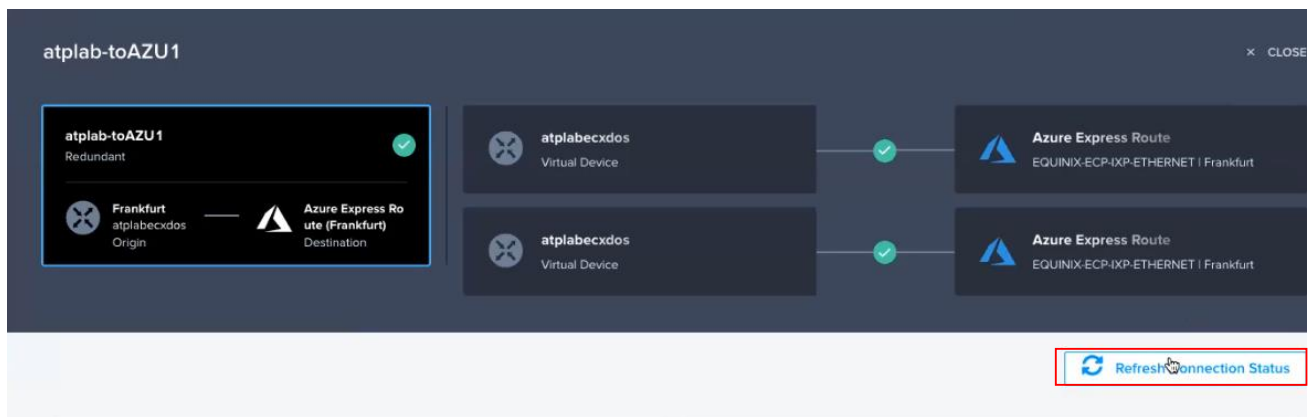
Remote ASN

Remote IP address

BGP Authentication Key

Si no aparece un mensaje de *This connection is not provisioned*, volvemos arriba y pulsamos en refrescar hasta que nos desaparezca ese mensaje y nos aparezca un botón de aceptar bajo cada formulario. Este proceso puede tardar unos minutos.





Primary BGP Information [Learn More](#)

Local ASN:

Local IP Address:

Remote ASN:

Remote IP address:

BGP Authentication Key:

[Accept](#)

Secondary BGP Information [Learn More](#)

Local ASN:

Local IP Address:

Remote ASN:

Remote IP address:

BGP Authentication Key:

[Accept](#)

Rellenamos los campos de BGP con la siguiente información

Primary BGP information		Secondary BGP Information	
Local ASN	64514	Local ASN	64514
Local IP Address	169.254.241.1/30	Local IP Address	169.254.242.1/30
Remote ASN	12076	Remote ASN	12076
Remote IP address	169.254.241.2	Remote IP address	169.254.242.2
BGP Auth key	Vacío	BGP Auth Key	vacío

Primary BGP Information [Learn More](#)

Local ASN: ✓

Local IP Address: ✓

Remote ASN: ✓

Remote IP address: ✓

BGP Authentication Key:

[Accept](#)

Secondary BGP Information [Learn More](#)

Local ASN: ✓

Local IP Address: ✓

Remote ASN: ✓

Remote IP address: ✓

BGP Authentication Key: ✓

[Accept](#)

Aceptamos cada configuración por separado y esperamos a que queden aprovisionadas:



Primary BGP Information Learn More Edit	
Local ASN	64514
Local IP Address	169.254.241.1/30
Remote ASN i	12076
Remote IP address	169.254.241.2
BGP Authentication Key	-
Provisioning Status	Provisioning

Secondary BGP Information Learn More Edit	
Local ASN	64514
Local IP Address	169.254.242.1/30
Remote ASN i	12076
Remote IP address	169.254.242.2
BGP Authentication Key	-
Provisioning Status	Provisioning

Tras unos minutos:

Primary BGP Information Learn More Edit	
Local ASN	64514
Local IP Address	169.254.241.1/30
Remote ASN i	12076
Remote IP address	169.254.241.2
BGP Authentication Key	-
Provisioning Status	Provisioned
BGP State	Established

Secondary BGP Information Learn More Edit	
Local ASN	64514
Local IP Address	169.254.242.1/30
Remote ASN i	12076
Remote IP address	169.254.242.2
BGP Authentication Key	-
Provisioning Status	Provisioned
BGP State	Established

Si volvemos a Azure, podemos comprobar que la conexión ahora está aprovisionada:

The screenshot shows the Azure portal interface for an ExpressRoute circuit. The left sidebar contains navigation options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Configuration, Connections, Authorizations, Peerings, Properties, Locks, and Export template. The main content area displays the circuit details for 'atplaber'.

Circuit Details:

- Resource group: atplab
- Circuit status: Enabled
- Location: Germany West Central
- Subscription: Free Trial
- Subscription ID: 873f663b-d710-4e22-919e-427b820e490c
- Tags: Click here to add tags
- Provider: Equinix
- Provider status: Provisioned**
- Peering location: Frankfurt
- Bandwidth: 50 Mbps
- Service key: ad34a177-f64a-4669-a885-be460109cf0a

Peering Table:

Type	Status	Primary subnet	Secondary subnet	Last modified by
Azure private	Provisioned	169.254.241.0/30	169.254.242.0/30	Customer
Azure public	Not provisioned	-	-	-
Microsoft	Not provisioned	-	-	-

Volvemos al menú principal de Azure y hacemos click en *Connections*



Microsoft Azure

Search resources, services, and docs (G+/)

Azure services

Create a resource Virtual network gateways Virtual machines **Connections** ExpressRoute circuits Service Health Help + support Cost Management ... Virtual networks More services

Recent resources

Name	Type	Last Viewed
atplabcli4	Virtual machine	17 minutes ago
atplabvng	Virtual network gateway	19 minutes ago
atplaber	ExpressRoute circuit	44 minutes ago
Azure subscription 1	Subscription	an hour ago
atplabnet	Virtual network	2 hours ago
atplabcli4w	Virtual machine	2 weeks ago
bastion4w	Virtual machine	2 weeks ago
atplabdmznet	Virtual network	2 weeks ago
atplabkv	Key vault	4 weeks ago
bastion4-ip	Public IP address	4 weeks ago

Creamos una nueva Connection

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Connections

Default Directory

+ Add Edit columns Refresh Assign tags

Subscriptions: Azure subscription 1

Filter by name... All resource groups All locations

0 items

Name ↑↓

No connections to display

Create a secure connection to your virtual network by using VPN Gateway or ExpressRoute.

[Learn more about VPN Gateway](#) [Learn more about ExpressRoute](#)

Create connection

Introducimos los siguientes datos y hacemos click en Next:Settings

Project Details	
Subscription	Free Trial / Azure subscription 1
Resource group	Atplab
Instance details	
Connection type	ExpressRoute
Name	atplabcon
Region	Germany West Central



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Connections

>

Create connection

>

×

Basics

Connection type *

ExpressRoute

Subscription *

Azure subscription 1

Resource group *

atplab

Create new

Location *

Germany West Central

Introducimos los siguientes valores:

Virtual network Gateway	atplabvng
ExpressRoute circuit	atplaberc
Redeem authorization	Sin marcar
Routing weight	0



[Home](#) > [Connections](#) > [Create connection](#) >

Settings

*Virtual network gateway ⓘ

atplabvng



☐ Redeem authorization ⓘ

*ExpressRoute circuit ⓘ

atplaber



Connection name *

atplabcon



Routing weight *

0



No introducimos ningún tag y pasamos directamente a la página de revisión y creación.

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Home > Connections > Create connection >

Summary

Basics

Connection type	ExpressRoute
Subscription	Azure subscription 1
Resource Group	atplab
Location	Germany West Central

Settings

Virtual network gateway	atplabvng
Redeem ExpressRoute authorization	No
ExpressRoute circuit	atplaber
Connection name	atplabcon

Pulsamos *Create* y tras unos minutos se habrá creado la conexión entre nuestra *VNG* y nuestro *ExpressRoute*

Microsoft Azure Search resources, services, and docs (G+)

Home >

Connections

Default Directory

+ Add Edit columns Refresh Assign tags

Subscriptions: Azure subscription 1

Filter by name... All resource groups All locations All tags No grouping

1 items

<input type="checkbox"/> Name ↑↓	Status	Peer 1	Peer 2	Resource group ↑↓	Location ↑↓	Subscription ↑↓
<input type="checkbox"/> atplabcon	Succeeded	atplabvng	atplaber	atplab	Germany West Central	Azure subscription 1

Verificamos que están llegando las rutas por BGP, volvemos al *ExpressRoute* atplaber, hacemos click en el *Peering: Azure private*



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Home > ExpressRoute circuits > atplaber

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Connections

Authorizations

Peerings

Properties

Locks

Export template

Delete Refresh

Resource group (change) : atplab

Circuit status : Enabled

Location : Germany West Central

Subscription (change) : Free Trial

Subscription ID : 873f663b-d710-4e22-919e-427b820e490c

Tags (change) : Click here to add tags

Provider : Equinix

Provider status : Provisioned

Peering location : Frankfurt

Bandwidth : 50 Mbps

Service key : ad34a177-f64a-4669-a885-be460109cf0a

Peerings

Type	Status	Primary subnet	Secondary subnet	Last modified by
Azure private	Provisioned	169.254.241.0/30	169.254.242.0/30	Customer
Azure public	Not provisioned	-	-	-
Microsoft	Not provisioned	-	-	-

y Get Route table:

Microsoft Azure Search resources, services, and docs (G+)

Home > ExpressRoute circuits > atplaber > Private peering

atplaber

Save Discard Delete

Peer ASN *

64514

Primary subnet *

169.254.241.0/30

Secondary subnet *

169.254.242.0/30

VLAN ID *

346

Shared key

Get ARP records

Get route table

Get route table summary



Deberemos ver algo similar a lo siguiente, con las subredes 10.10.31.0/24 y 10.10.34.0/24, tanto en el enlace primario con en el secundario:

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[Home](#) > [atplaber | Peerings](#) > [Private peering](#) >

Route table (Primary)

AzurePrivatePeering - atplaber

[Download](#) [Show secondary](#)

 Showing only top 200 primary records, click Download above to see all.

Network	↑↓	Next hop	↑↓	LocPrf	↑↓	Weight	↑.
10.10.31.0/24		169.254.241.1				0	
10.10.34.0/24		10.10.34.76				0	
10.10.34.0/24		10.10.34.77*				0	
130.61.0.128/25		169.254.241.1				0	
130.61.2.128/25		169.254.241.1				0	
130.61.4.128/25		169.254.241.1				0	
134.70.40.0/21		169.254.241.1				0	
134.70.48.0/22		169.254.241.1				0	
138.1.0.0/22		169.254.241.1				0	
138.1.40.0/21		169.254.241.1				0	
138.1.64.0/22		169.254.241.1				0	
138.1.108.0/25		169.254.241.1				0	
140.91.16.0/22		169.254.241.1				0	
140.91.20.0/23		169.254.241.1				0	
147.154.128.0/19		169.254.241.1				0	



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>

atplaber

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Private peering

>

Route table (Primary)

AzurePrivatePeering - atplaber

Download

Show secondary

Showing only top 200 primary records, click Download above to see all.

Network	↑↓	Next hop	↑↓	LocPrf	↑↓	Weight	↑.
10.10.31.0/24		169.254.241.1				0	
130.61.0.128/25		169.254.241.1				0	
130.61.2.128/25		169.254.241.1				0	
130.61.4.128/25		169.254.241.1				0	
134.70.40.0/21		169.254.241.1				0	
134.70.48.0/22		169.254.241.1				0	
138.1.0.0/22		169.254.241.1				0	
138.1.40.0/21		169.254.241.1				0	
138.1.64.0/22		169.254.241.1				0	
138.1.108.0/25		169.254.241.1				0	
140.91.16.0/22		169.254.241.1				0	
140.91.20.0/23		169.254.241.1				0	
147.154.128.0/19		169.254.241.1				0	

Para ver la misma información del enlace secundario pulsando *Show secondary*:



Home > atplaber | Peerings > Private peering >

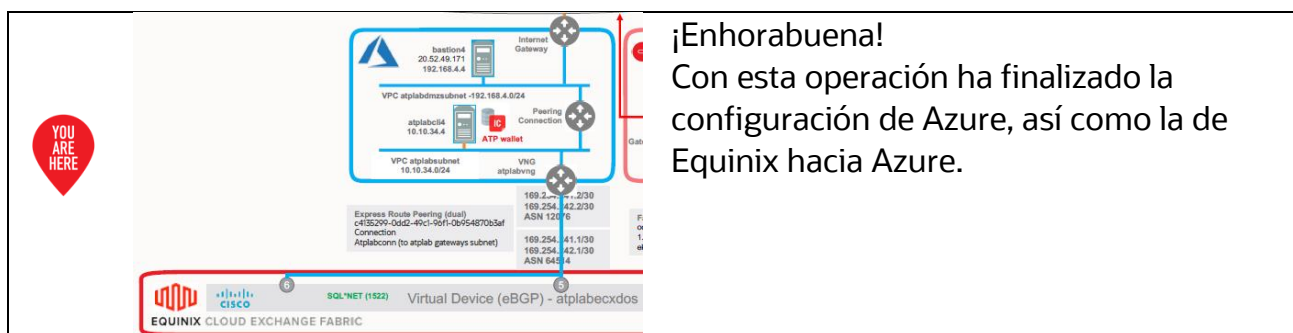
Route table (Secondary) ↗

AzurePrivatePeering - atplaber

Download Show primary

Showing only top 200 secondary records, click Download above to see all.

Network	↑↓	Next hop	↑↓	LocPrf	↑↓	Weight	↑.
10.10.31.0/24		169.254.242.1				0	
10.10.34.0/24		10.10.34.76				0	
10.10.34.0/24		10.10.34.77*				0	
10.10.34.0/24		169.254.242.1				0	
130.61.0.128/25		169.254.242.1				0	
130.61.2.128/25		169.254.242.1				0	
130.61.4.128/25		169.254.242.1				0	
134.70.40.0/21		169.254.242.1				0	
134.70.48.0/22		169.254.242.1				0	
138.1.0.0/22		169.254.242.1				0	
138.1.40.0/21		169.254.242.1				0	
138.1.64.0/22		169.254.242.1				0	
138.1.108.0/25		169.254.242.1				0	
140.91.16.0/22		169.254.242.1				0	
140.91.20.0/23		169.254.242.1				0	



¡Enhorabuena!
Con esta operación ha finalizado la configuración de Azure, así como la de Equinix hacia Azure.

