

Lumen® Cloud Connect: eLynk to Oracle FastConnect

Direct, secure, private connection to Oracle Cloud

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Purpose

- The purpose of this document is to provide an end-to-end walkthrough for you to connect to Oracle Cloud Infrastructure (OCI) via FastConnect for the first time using Lumen eLynk Cloud Connect.
- Information contained is provided to serve as a supplement to Oracle documentation linked throughout this document.
- Be sure to review the provided links to obtain the most up-to-date information and for more details pertaining to Oracle processes

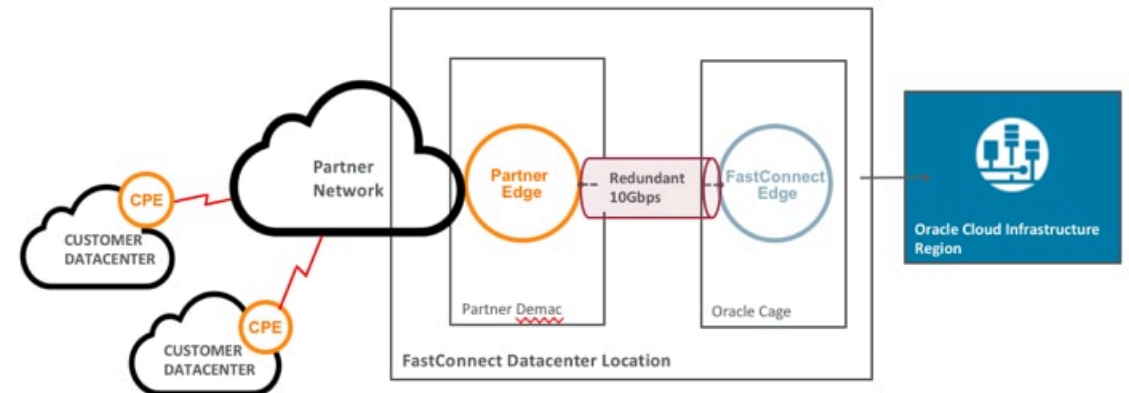
Disclaimer: The material in this guide is for informational purposes only and is taken from Oracle's website material. All Oracle related configuration information is based on the Oracle Console configuration instructions from the Oracle website.

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What is Oracle FastConnect?

- Oracle FastConnect is a network connectivity alternative to using the public internet for connecting your network with Oracle Cloud Infrastructure and other Oracle Cloud services.
- FastConnect provides an easy, elastic, and economical way to create a dedicated and private connection with higher bandwidth options, and a more reliable and consistent networking experience when compared to internet-based connections.
- Use Oracle FastConnect to extend your existing private networks to Oracle Cloud Infrastructure, via provider networks.



[Learn more about Oracle FastConnect](#)

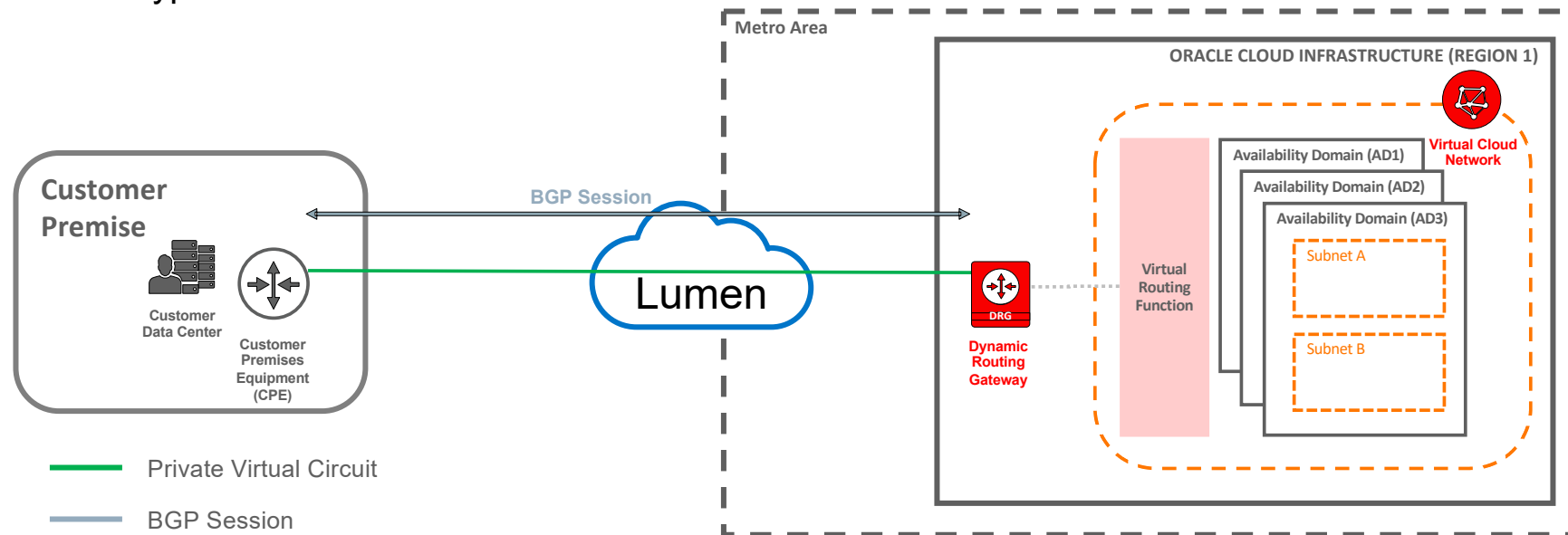
Getting started with Oracle FastConnect using an Oracle provider

- This document is for eLynk (point to point Ethernet Virtual Private Line / EVPL) service from your location to Oracle Cloud Infrastructure (OCI).
- The supporting service ordered from Lumen is eLynk Cloud Connect service to Oracle.
- The service ordered from Oracle is FastConnect.
- Within Oracle documentation, the service is called FastConnect with an [Oracle provider](#) (partner)
- Lumen CloudConnect is a layer-2 solution.
- BGP is used to exchange routing information between Oracle and your network. BGP peering is between your equipment and the Oracle OCI environment.
- Oracle assumes you already have connectivity between your location(s) and Lumen. The eLynk Cloud Connect service to Oracle will satisfy this assumption.
- Lumen does not resell the Oracle FastConnect or OCI services. You must order FastConnect and OCI services directly from Oracle.
- High-level steps for provisioning include (more details are found throughout this document):
 1. Order eLynk Cloud Connect to Oracle Cloud Infrastructure (OCI) from your Lumen representative.
 2. Configure FastConnect in the Oracle Console.
 3. Lumen provisions the point-to-point, layer-2, eLynk Cloud Connect Service and requests the Oracle FastConnect ID (OCID) from you.
 4. Lumen completes provisioning and activation of the service within the Oracle OCI Provider portal. This links the eLynk Cloud Connect circuit to your Oracle FastConnect service.

Private virtual circuit

eLynk Cloud Connect to Oracle Cloud Infrastructure (OCI) FastConnect

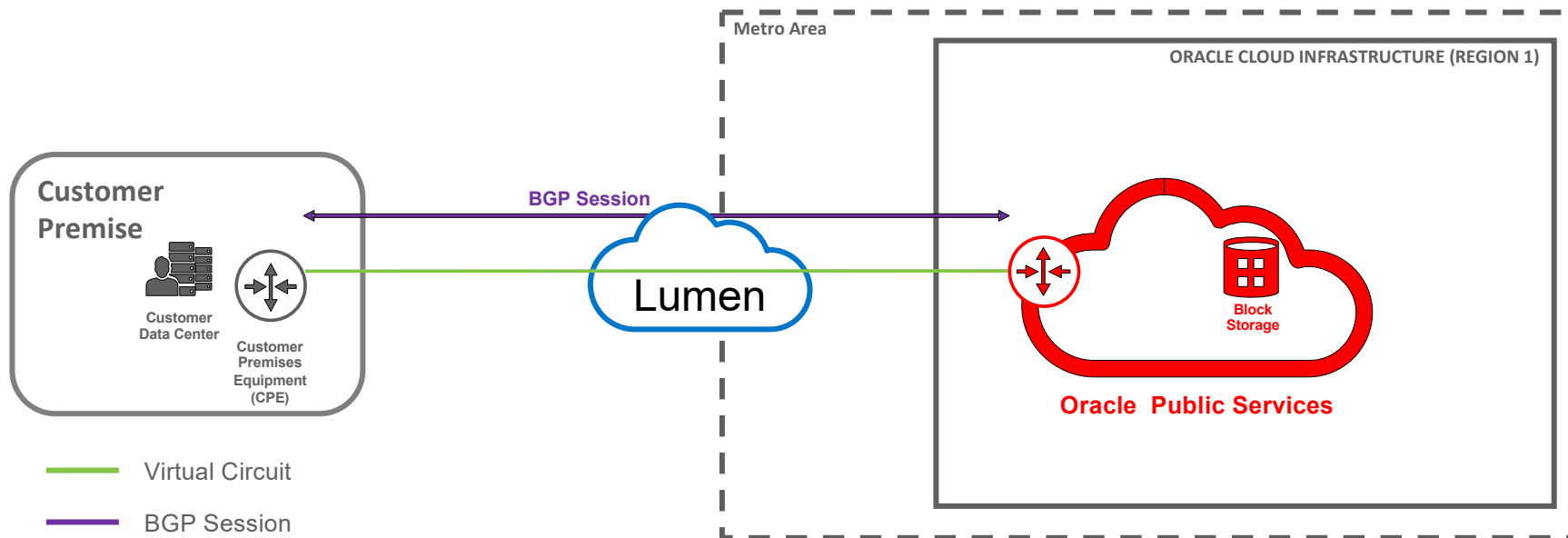
- You must allocate IP addresses for the private virtual circuit as required by Oracle.
- You must allocate the autonomous system number (ASN) required by Oracle.
- You must configure IPs/ASN/BGP appropriately on your required layer-3 device at the premise and within their OCI environment using the Oracle console
- BGP peering is between you and Oracle. Lumen does not participate in layer-3 routing with this service type.



Public virtual circuit

eLynk Cloud Connect to Oracle Cloud Infrastructure (OCI) FastConnect

- eLynk Cloud Connect could be used to connect to Oracle public services as well by defining a public virtual circuit in the Oracle console.
- For public peering, you are responsible for the following:
 - Any NAT configuration on your network/equipment.
 - You must have your own allocated/registered public IP subnets that will be advertised via BGP peering. (**Note:** Lumen does not assign public IP addresses to this layer-2 service.)
 - You must obtain and provide your public ASN number.
 - Oracle provides IP addresses to address the public virtual circuit for BGP peers only.



Roles and responsibilities

Steps required to set up Cloud Connect to Oracle FastConnect	End customer	Lumen	Oracle
Set up connectivity to Oracle FastConnect location			
Order Lumen eLynk Cloud Connect service(s) to Oracle Cloud Infrastructure	X		
Create a FastConnect virtual circuit via Oracle Console . Once created the console will generate an Oracle ID (OCID)-Virtual circuit could be private or public	X		
Provide the OCID to Lumen upon request	X		
Create eLynk Cloud Connect circuit per your order, linking it to your OCID for FastConnect		X	
Update virtual circuit attributes using OCI provider portal		X	
Set up BGP peering between your edge and the Oracle edge device			
Configure BGP Peering on your layer-3 device facing Oracle	X		
Configure virtual cloud network (VCN) in the Oracle console to allow subnets to forward traffic to the customer premises network via FastConnect. This includes routing and access lists.	X		

Creating FastConnect with an Oracle Provider to obtain an OCID

[Learn how to create an Oracle FastConnect with an Oracle provider and request an OCID](#)

Complete the following tasks within the Oracle console:

1. Sign in to OCI console.
2. Create a Virtual Cloud Network (VCN)*.
3. Create a DRG and attach to VCN*.
4. Create a FastConnect connection with the proper virtual circuit (private or public).
5. Fill in the details for the connection.
6. Copy Oracle cloud ID (OCID). Share this OCID with the Lumen Provisioning team when they request it.
7. Update/create a route rule to include customer premises subnets pointing to the DRG as the next hop

* steps 2 and 3 are prerequisites for creating a FastConnect virtual circuit. Subsequent FastConnects can jump down to step 5.

For issues or questions, reference the [FastConnect with an Oracle provider guide](#).

Request Lumen eLynk Cloud Connect service

- To order a Lumen eLynk Cloud Connect to Oracle Cloud Infrastructure, contact your Lumen Account Representative
- Oracle service(s) you can connect to:
 - Virtual Cloud Network (VCN) via a Private Virtual Circuit
 - Oracle Public Services like Object Storage via a Public Virtual Circuit
- Determine the amount of bandwidth needed on the eLynk EVC to Oracle
 - Note: Maximum bandwidth per eLynk EVC is 3Gb
 - Oracle sells either 10G or 1G virtual Circuits.
 - Oracle does not perform Rate limiting.
 - example: If customer wants 3G of bandwidth they should order 10G from Oracle, and 3G from Lumen
- Which Oracle Region and/or FastConnect location do you require connectivity to and if it is commercial or government
- What contractual term length is desired (1yr, 3yr, 5yr etc...)
- Information needed by Lumen to complete the order/connection:
 - ❑ OCID (Oracle Cloud Identifier)
 - ❑ This is requested by the Lumen provisioning team once the order is submitted.
 - ❑ Customer obtains the OCID from the Oracle Console when the Virtual Circuit is created

Lumen Provisions eLink Cloud Connect to Oracle

- Upon network order submission, Lumen provisions a layer-2 eLink Ethernet virtual circuit (EVC) to be terminated to the appropriate FastConnect location (Oracle region) per the order.
- Lumen requests the Oracle OCID from you to complete provisioning. (See instructions on obtaining the OCID on [step 6 on page 9.](#))
- Upon completion of the provisioning, Lumen provides the following information documenting what has been configured within the Oracle environment using the Oracle provider portal:
 - order # / circuit ID
 - circuit ID in the “Reference Comment” field
 - the “Cross Connect Group or Cross Connect” details
 - the VLAN ID
 - any scheduling information if a coordinated activation was requested
 - instructions for contacting Lumen with questions or for any service activations issues
- You are responsible for configuring all required IP addressing and BGP routing on your layer-3 device at your location and within the Oracle console. You are also responsible for any/all NAT configurations required for Oracle public services.
 - On the Oracle console, you can see the state of the virtual circuit lifecycle state (provisioning or provisioned), the provider state (Active or Pending Provider), and the BGP state (Down).

Additional Oracle OCI FastConnect resources

FastConnect with an Oracle provider information and how to	https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnectprovider.htm
Oracle FastConnect network providers	https://cloud.oracle.com/en_US/fastconnect/providers
FastConnect pricing	https://cloud.oracle.com/en_US/fastconnect/pricing
Oracle Cloud Infrastructure FastConnect FAQ	https://cloud.oracle.com/en_US/fastconnect/faq
FastConnect documentation	https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm
Oracle OCI support contacts	<p>OCI NOC:</p> <ul style="list-style-type: none">• 512-712-7403• cloud_noc_us_grp@oracle.com <p>OCI FastConnect Support</p> <ul style="list-style-type: none">• bmc_fastconnect_admins_us_grp@oracle.com