



FUNCTIONAL LEARNING DEMO CONFIGURING EQUINIX CONNECT PART 2 OF 3

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Hello I'm **Rupinder Randhawa**, Principal Product Manager with Equinix. Welcome to Configuring Equinix Connect Part 2 of 3. In this video we will cover single home architectures. In part three of this series we will cover dual home architectures.

Single-Homed architectures.

Single-Homed Direct – PA (Provider Assigned IP addresses).

Most common for out of band applications. This is a very simple configuration. The customer is using a flat network meaning there is no routed network.

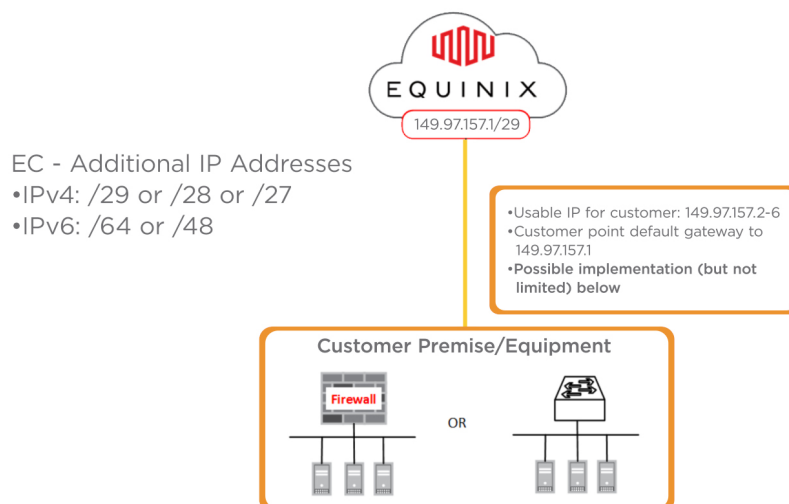
The Default IP address assigned is a /30, meaning that the customer will have 1 usable IP address for configuring their firewall or switch.

If the customer wants to have more IP addresses behind that, they can purchase them from Equinix using the POF “EC Additional IP Addresses”. Their choices are

- /29 or /28 or /27 for IPv4
- /64 or /48 for IPv6

The example shown here is for a customer with a /29.

Single-Homed Direct – PA (Provider Assigned IP addresses)



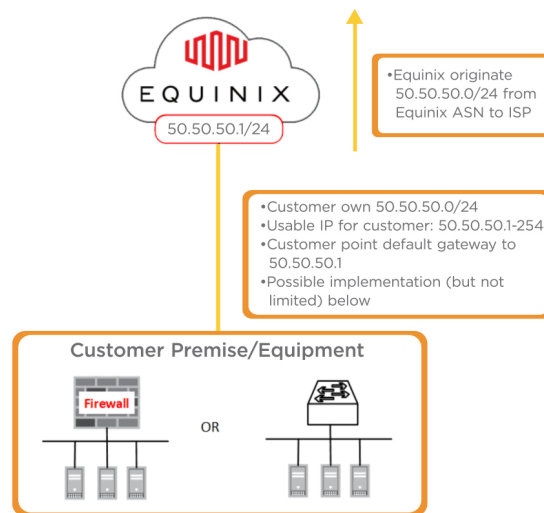


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Single-Homed Direct – PI (Provider Independent). Most common for OOB applications. This is the same as the previous example, except that the customer wants to use their own subnet and does not want to run BGP. Equinix has to originate the prefix/subnet.

Note that the customer's own subnet has to be greater than or equal to a /24.

Single-Homed Direct – PI (Provider Independent)



Single-Homed Static – PA (Provider Assigned IP addresses)

In this example, the customer is using a Routed network behind their devices.

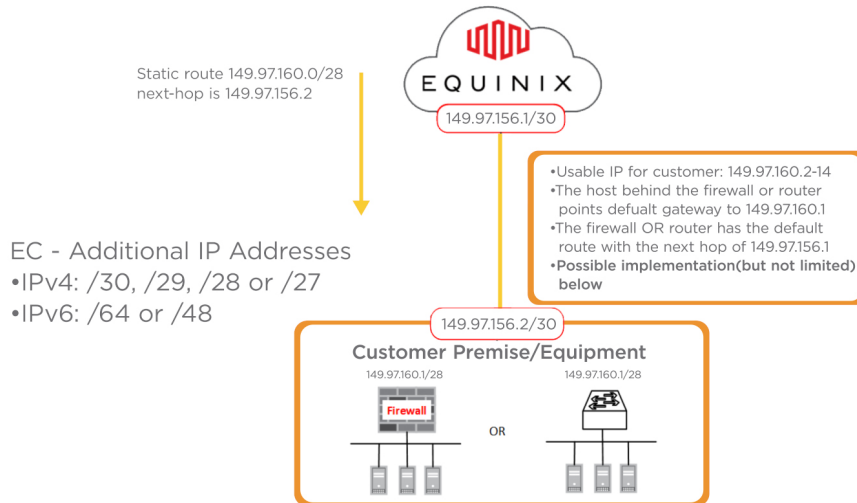
Customer points the default route to the first IP on the /30 P2P subnet.

The diagram on below is using /28 as an example for the routed subnet with the /30 assigned free of charge

In this case, PA indicates that the customer is purchasing additional IP addresses from Equinix

- The IPv4 choices are: /30, /29, /28, or /27
- The IPv6 choices are: /64 or /48

Single-Homed Static - PA (Provider Assigned IP addresses)

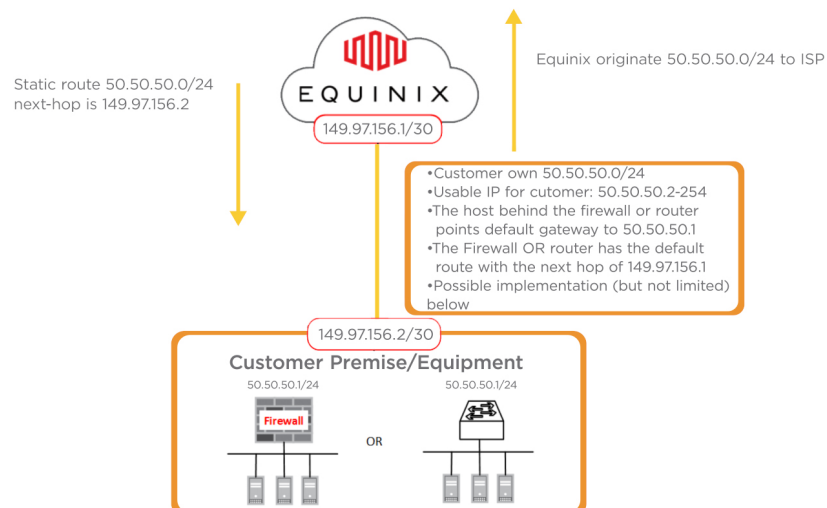


Single-Homed Static - PI (Provider Independent).

This is similar to the previous example, except here the customer wants to use their own subnet and does not want to run BGP. Equinix originates the prefix/subnet.

- Note that the Customer's own subnet has to be greater than or equal to /24
- The diagram below is using the customer's /24 for the routed subnet with the /30 assigned free of charge by Equinix

Single-Homed Static - PI (Provider Independent)



Single-Homed BGP – PA (Provider Assigned IP addresses) (Private ASN with PA Space).
Here the Customer needs the assignment from Equinix for both Private ASN and PA space. Equinix provides an IPv4 /30 or IPv6 /126 for configuration.

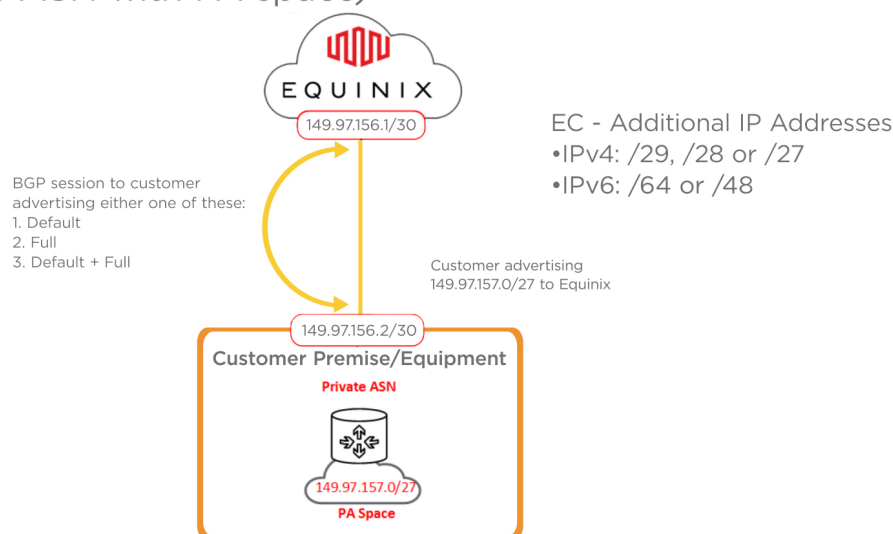
BGP Policy is used to select:

1. Default Routes
2. Full Routes
3. Default + Full Routes

Getting Additional IP addresses from Equinix becomes mandatory using the POF “EC Additional IP Addresses”.

- IPv4 choices are: /29, /28 or /27
- IPv6 choices are: /64 or /48

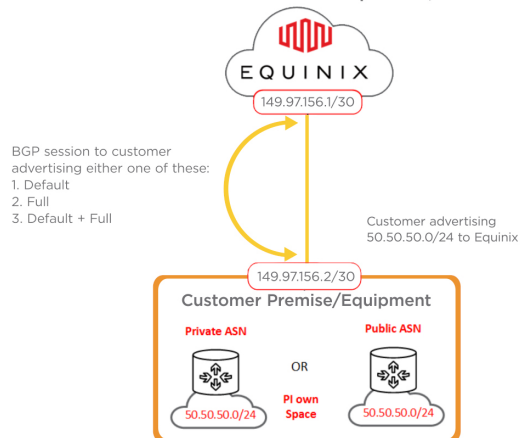
Single-Homed BGP – PA (Provider Assigned IP addresses) (Private ASN with PA space)



Single-Homed BGP – PI (Provider Independent) (Public or Private ASN with PI Space).

- This is similar to the previous example, except here the Customer has their own PI space
- Customer’s own subnet has to be greater than or equal to /24
- They either have their own Public ASN or are using a Private ASN assigned by Equinix
- Equinix provides an IPv4 /30 or IPv6 /126 for configuration
- BGP Policy is used to select:
 1. Default Routes
 2. Full Routes
 3. Default + Full Routes

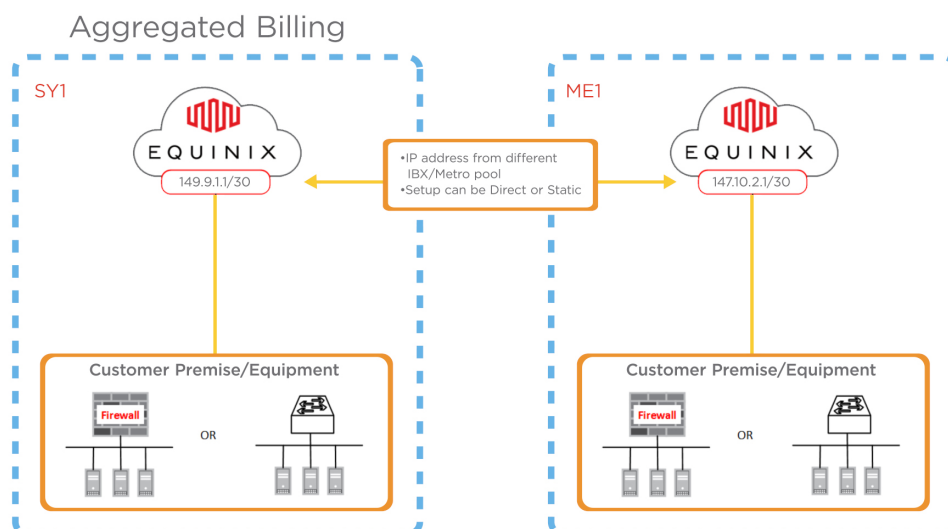
Single-Homed BGP – PI (Provider Independent) (Public or Private ASN with PI Space)



Aggregated Billing.

This is only supported in select locations such as Australia. Think of this as two separate and independent single-homed services, but the traffic usage is added or aggregated together as one billing service. All single-homed configurations are supported but this example shows;

- 2 x Single-Homed in different IBXs
- Direct/Static PA only can be used
- 2 x IP addresses are assigned from different IBX IP pools
- No redundancy control from Equinix is provided
- The IP Assignment will be based on the Direct or Static configuration rules



That completes Configuring Equinix Connect Part 2 of 3.