

Routing design – OSPFv2/v3

Routes for public prefixes traffic are advertised in **BGP**

198.51.100.0/24
2001:db8::/32

note: this can also be done without BGP and the upstream can advertise the prefixes from their ASN

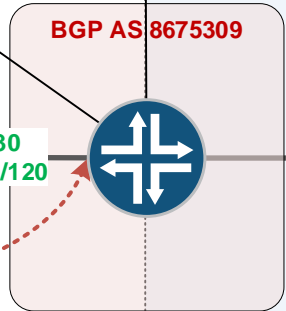
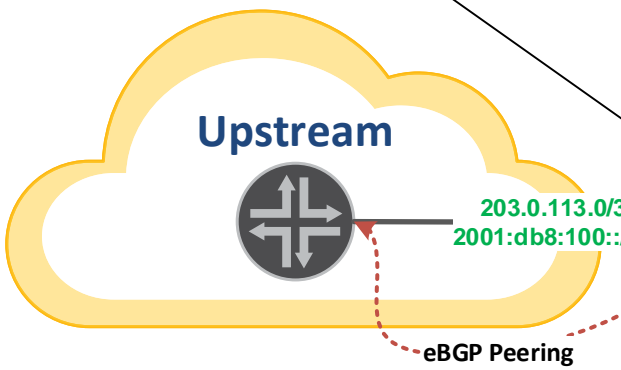
Use OSPF to originate **0.0.0.0/0** and **:::0** default route

Routes for customer traffic are in **OSPF**

100.65.0.0/24
100.65.1.0/24
100.65.4.0/24
100.65.5.0/24

Tower 2 - IPv4/IPv6

IPv4 – 100.65.0.0/22
IPv6 – 2001:db8:1000::/40



Routes for loopbacks and paths are in **OSPF**

100.126.0.0/29
100.126.0.8/29
100.126.0.16/29
100.126.0.24/29
100.126.0.32/29
100.127.0.1/32
100.127.0.2/32
100.127.0.3/32
100.127.0.4/32

Lo – 100.127.0.1
OSPF Area 0

IPv4 - 100.126.0.32/29
IPv6 - 2001:db8:126:5::/120
OSPF Area 0

IPv4 - 100.126.0.0/29
IPv6 - 2001:db8:126:1::/120
OSPF Area 0

100.65.0.0/16
2001:db8::/32

IPv4 - 100.126.0.24/29
IPv6 - 2001:db8:126:4::/120
OSPF Area 0

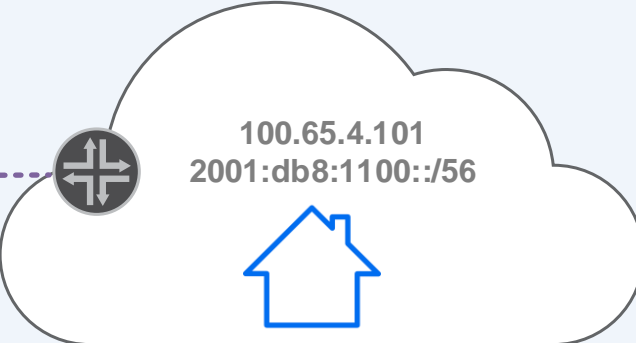
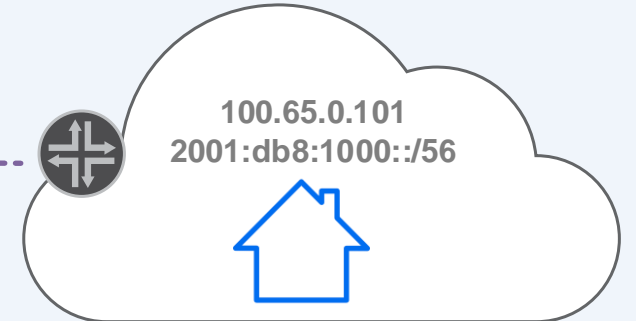
Lo – 100.127.0.3
OSPF Area 0

IPv4 - 100.126.0.8/29
IPv6 - 2001:db8:126:2::/120
OSPF Area 0

IPv4 - 100.126.0.16/29
IPv6 - 2001:db8:126:3::/120
OSPF Area 0

Tower 3 - IPv4/IPv6

IPv4 – 100.65.4.0/22
IPv6 – 2001:db8:1100::/40



IPv4 subnets are broken into a /22 per tower (/24 per AP) and handed off via DHCP.

IPv6 is broken into a /40 per tower (/48 per AP) with a /56 per subscriber and handed off via DHCPv6 PD.

OSPF Area 0