BGP

- Disable automatic neighbor activation prior to BGP configuration
- Configure BGP peering between directly connected interfaces when possible. iBGP peering should be configured using loopback interfaces.
- Configure ASN 200 with full-mesh iBGP peering
- Configure every router to advertise its directly connected networks. Redistribution is allowed only in ASN 200
- Configure devices to show the appropriate Next Hop IPs within the BGP table
- Configure AS-Path prepending on R8 so that the Loopback interfaces contain ASN 456, 7889, 123
- Configure R7 so that the Loopback interfaces contain ASN 800, 900, 1000
- Configure R9 to suppress all IPv4 prefixes received by R8 and summarize them into a single /25 route. Advertise the /25 route to other BGP peers. Prepended ASNs should still be visible within the summarized route
- Configure R5 and R6 to suppress all IPv4 prefixes received by R7 and summarize them into a single /22 route. Advertise the /22 route to other BGP peers. Prepended ASNs should still be visible within the summarized route

ASN 100

L0: 5.5.5.1/24
L1: 5.5.55.1/24
L1234: 1.2.3.9/32

R9

ASN 200

L0: 200.2.0.1/24
L1: 200.2.1.1/25
L2: 200.2.2.1/26
L1234: 1.2.3.4/32

R4

1.2.1.x/24

L1234: 1.2.3.1/32

R1

1.1.1.x/24

L1234: 1.2.3.2/32

R2

1.3.1.x/24

L1234: 1.2.3.5/32

R5

11.4.11.x/24

1.5.1.x/24

1.4.1.x/24

R3

4.7.4.x/24

3.7.3.x/24

R6

7.6.7.x/24

L1234: 1.2.3.3/32

L1234: 1.2.3.6/32

ASN 300

L0: 166.6.0.1/24
L1: 166.6.1.1/24
L2: 166.6.2.1/24
L1234: 1.2.3.7/32

3.6.3.x/24

R7

2.7.2.x/24

ASN 400

L0: 8.8.8.33/27
L1: 8.8.8.65/28
L2: 8.8.8.81/29
L1234: 1.2.3.8/32

R8

2.5.2.x/24

2.6.2.x/24