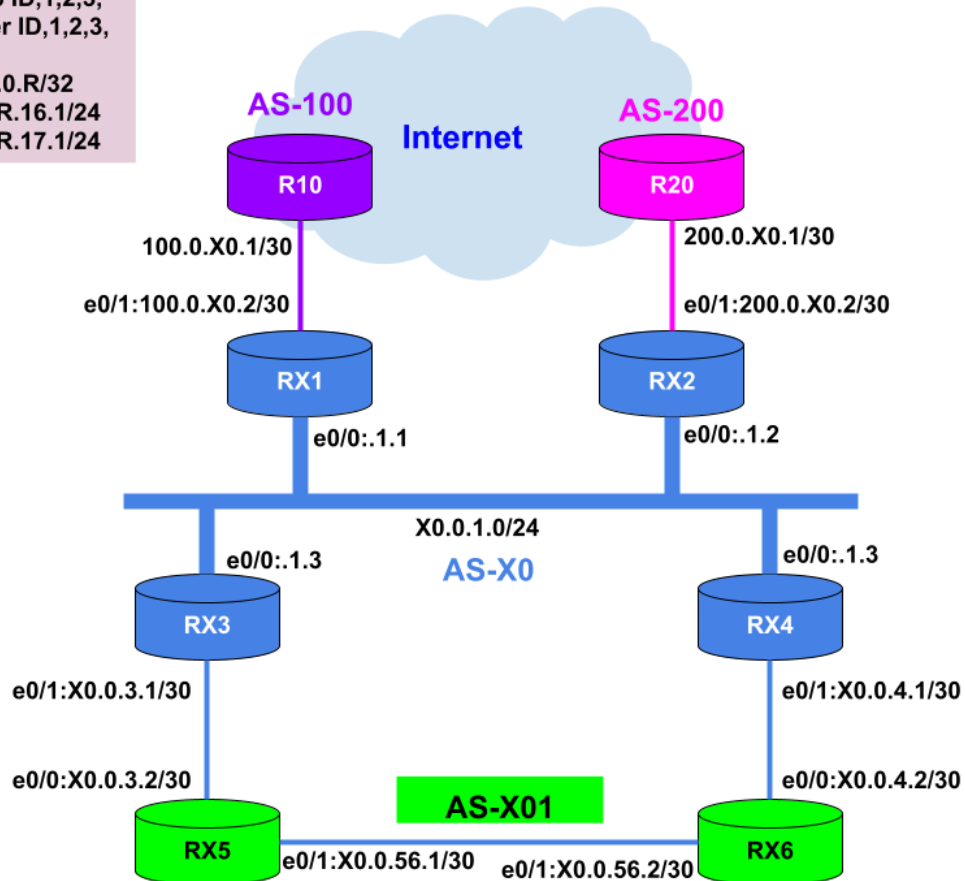# LAB - BGP - Multi-home

*# This doc belongs to MMNOG.  Do not use this material for commercials.*

X = Group ID,1,2,3,
R = Router ID,1,2,3,

Lo0: X0.0.0.R/32
Lo16: X0.R.16.1/24
Lo17: X0.R.17.1/24



*For your exercise, please refer to the above diagram.*

## Topology:

Blue ISP with ASX0 (Rx1 to 4) is connecting to 2 upstream providers AS100 and AS200.
Green ISP with ASX01 (Rx5 & Rx6) is its downstream
All routers already configured necessary IGP and basic BGP, including route announcement.
In every router, Lo16 and Lo17 are supposed to be Clients' Prefixes.
Note: Access to R10 & R20 are allowed but just user level.  So, you can check routing tables.

# Exercise

Configure to meet the following requirements.

1. Check configuration and ping test link IP addresses.  Check also OSPF routes, BGP sessions and BGP routes.
2. Blue ISP will use AS100 link as primary for incoming traffic for Client prefixes of Rx1 and Rx3 while the link is still a backup link for Client prefixes of Rx2 & Rx4.  (AS prepend)
3. Blue ISP will use AS200 link as primary for incoming traffic for Client prefixes of Rx2 & Rx4 while the link is still a backup link for Client prefixes of Rx1 & Rx3.  (AS Prepend)
4. From Blue ISP, outgoing traffic destined to prefixes of AS100 should go via Rx1; outgoing traffic destined to prefixes of AS200 should go via Rx2. (AS-Path & Local Preference)
5. Blue ISP will not accept Full BGP routes but default via AS-100 and partial via AS-200.
6. Green ISP will accept default-GW only from Blue ISP.
7. Green ISP will use link to Rx3 as primary link while link to Rx4 shall be backup link. At Rx5 & Rx6, adjust necessary bgp parameters to meet the above requirement. (MED & LP)
8. Advertise prefixe x1.5.16.0/24 of Rx5 and Rx6 only to ASx0. Do not advertise any other AS beyond it. (no-export, no-advertise)