

## BGP Lab Exercise 2

-----

1. Building on the previous exercise, we are now going to connect to a neighbouring ISP in our locality. For the lab, you will connect to the Router Team directly next to you. For example, Router A will connect to Router B, Router C will connect to Router D, etc. Use the Serial interface and the supplied serial cable to do this (it may well be already connected for you by the lab instructors).
2. Agree between you and your neighbouring AS whose address block you will take IPv4 addresses from for the point to point link.

IPv4 Address Block for the Point to Point Link:

Likewise, for the IPv6 addressing for the point to point link, agree whose address block you will take.

IPv6 Address Block for the Point to Point link:

3. Write down the AS number of the network you are connecting to:

AS Number:

4. Configure eBGP with this AS. Use the examples in the previous exercise to guide you. Don't forget to set up both IPv4 and IPv6 BGP peerings.
5. Check the BGP process for IPv4 using "sh ip bgp" and sub commands to see what prefixes you are receiving from your neighbouring AS. For IPv6, remember that the syntax is "sh bgp ipv6" and sub commands. Note that "sh bgp ipv4" will also work to show you the state of the IPv4 BGP table.
6. What routes do you see? What paths are available? Describe what you see in the space below:

7. We are now at the stage where we are talking BGP with our upstream ISP and BGP with the neighbouring ISP in our locality. We are using both IPv4 and IPv6 for this peering. Note that this is the common way that ISPs configure IPv4 and IPv6 peerings - whatever is

done with IPv4 is repeated with IPv6.

But we have no filters and as you saw in the previous step. We are now going to fix this using two different methods in the next two exercises.