Dual Stack IPv4 and IPv6

In some of our previous lab we have learned to address and configure routing protocols such as RIP, EIGRP and OSPF with IPv6. Additionally we have configured Network Address Translation (NAT) and Dynamic Host Configuration Protocol using IPv6. But what if you need to implement IPv6 in an existing IPv4 network, to do this we need to learn another IPv6 technology call Dual Stacking.

Doing an IPv6 implementation project does not require that you tear down an existing working IPv4 network and replacing it with a new IPv6-enabled network, causing unnecessary down time and expense. Instead, the IPv4 and IPv6 networks can run in parallel in what the industry calls a "dual-stack" network.

In this free CCNA lab we will use Casco’s Packet Tracer to configure a simple lab for you to perform dual stacking, which means you have to configure both IPv4 and IPv6 routing between the routers which will allow the computers and servers to communicate.

# Learning objectives:

* Review basic router configuration.
* Review IPv6 and IPv4 addressing.
* Review IPv6 and IPv4 routing.
* Learn to configure dual stack on interfaces.

I have configured the computer and server with the necessary addresses, subnets and gatways.

# Task:

1. Configure routers with IP v4 and IPv6 addresses and subnets as shown in the network diagram.
2. Configure RIP and IPv6 RIP on all routers.
3. Verify you configuration and insure connectivity.
4. This concludes the Free CCNA Lab.