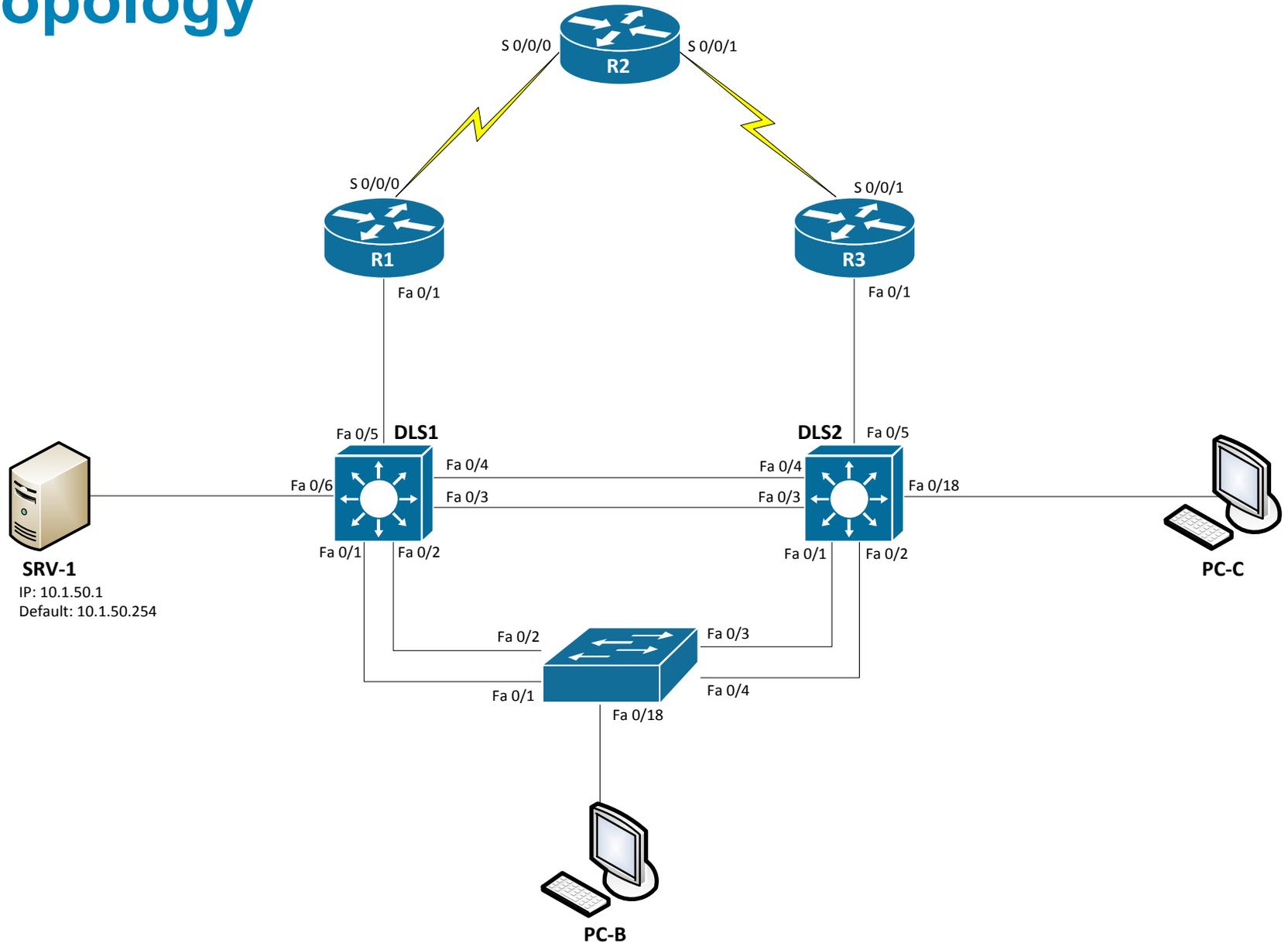




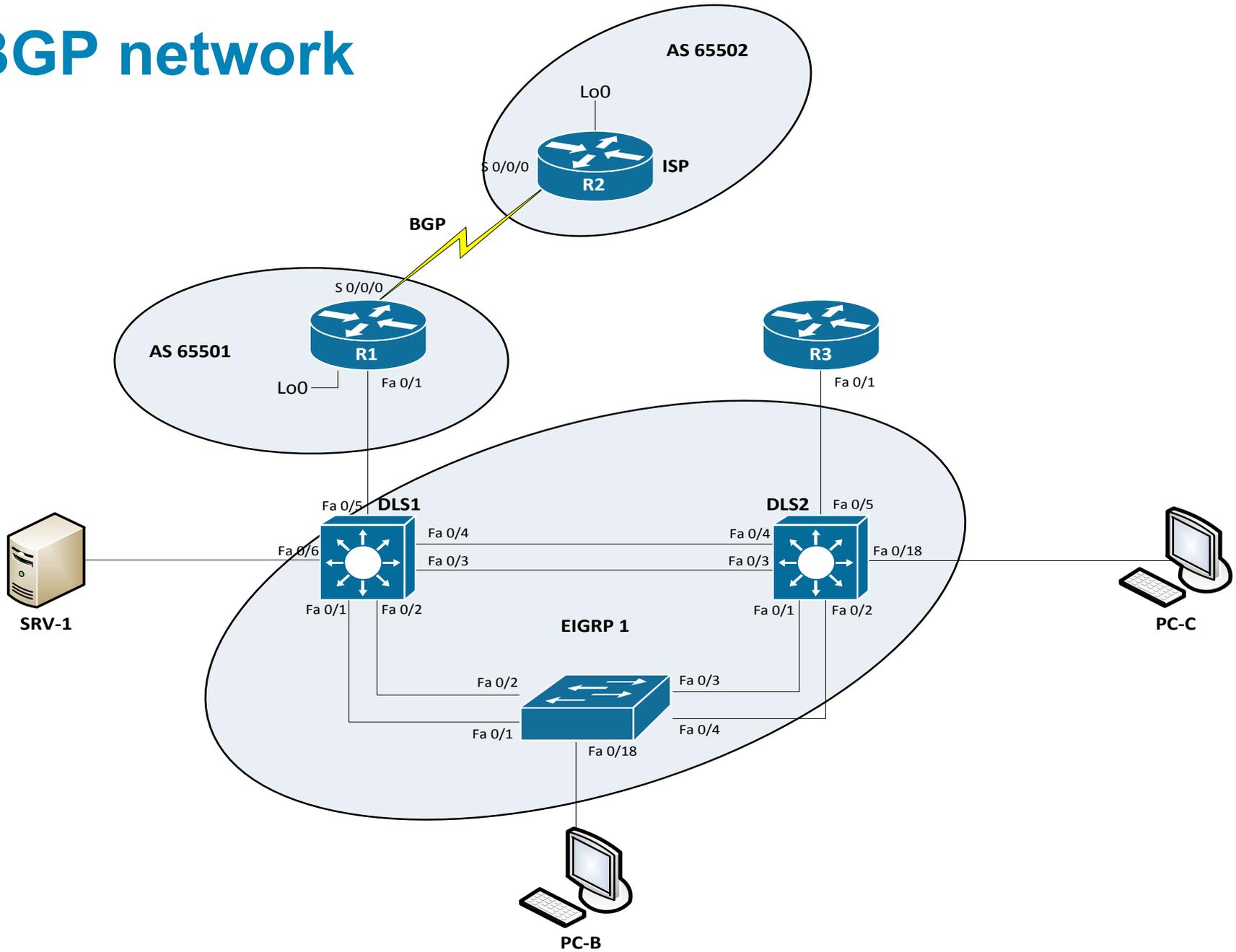
# LAB: Module 5



# Topology



# BGP network



# Tasks

- **Prepare topology**
- **Start TFTP server on SRV-1 with config files**
- **Troubleshoot L3 problems**

# Trouble ticket Lab 5-3 TT-A

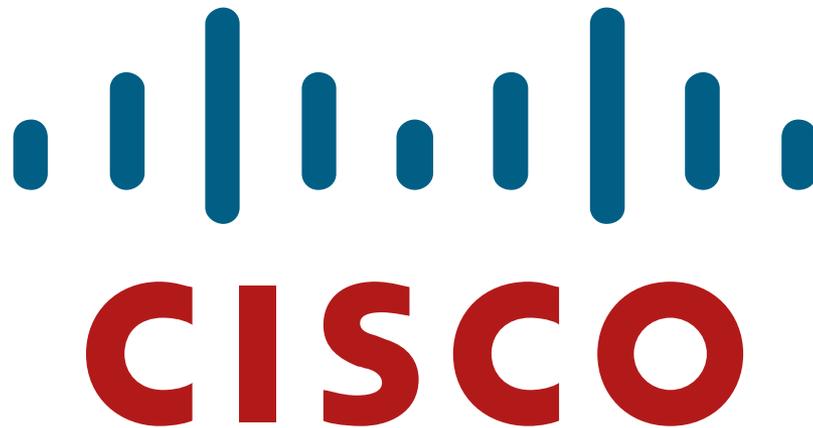
- Load appropriate config files: Lab53-%H-53-TT-A-Cfg
  - %H: hostname e.g. R1
- After your colleague finished configuring BGP on edge router R1, you tested connectivity from PC-B in VLAN 10 to the ISP router to verify the configuration and peering between R1 and R2. This test failed. When you asked your colleague, he said he did not actually test the configuration from a client PC on the internal network. He suspected there was a problem with the ISP and contacted them to find out if there was an issue at their end. They stated that everything was correctly configured on router R2.
- Your task is to diagnose the problem and verify that BGP is properly configured to enable BGP peering between router R1 and the ISP.

# Trouble ticket Lab 5-3 TT-B

- Load appropriate config files: Lab53-%H-53-TT-B-Cfg
  - %H: hostname e.g. R1
- The next step after the peering has been established is to test the new hosted services subnet, which has been created using VLAN 130. This subnet uses the 172.30.1.0/27 IP address block that was assigned to your company by the ISP. The subnet has been configured, and a test server has been installed (simulated by DLS1 SVI VLAN 130 - 172.30.1.1). Internet clients must be able to access the subnet from ISP router R2 (simulated by Lo0 192.168.2.1). Other hosts in the EIGRP 10.1.0.0/16 domain do not require access to the hosted services subnet.
- Your task is to verify VLAN configuration and routing functionality. Also, verify that traffic from the Internet can be sent to the hosted network test server in VLAN 130 via R1 and that the return traffic can be received via ISP router R2.

# Trouble ticket Lab 5-3 TT-C

- Load appropriate config files: Lab53-%H-53-TT-C-Cfg
  - %H: hostname e.g. R1
- Your ISP uses prefix lists to ensure that customers do not announce routes that have not been officially assigned to them. This is critical for an ISP because if two customers were to accidentally announce the same route as their own, it would create problems for both customers and the ISP. After you corrected the static route and BGP route injection issues on R1, one of your colleagues was working with the hosted services test network and made some changes. Now he can no longer ping from the hosted network test server (DLS1 VLAN 130) to the ISP. The ISP is also not receiving the advertisement for the hosted services subnet.
- Your task is to diagnose this problem and resolve it.



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