

ROUTER SETUP FOR EXPORTING NETFLOW STATISTICS

This document will illustrate the configuration steps for setting up the export of NetFlow statistics to a centralized NetFlow Analyzer server.

Router Configuration

1. Login to the WAN router.
2. Issue the command: **show ip interface brief**
 - a. This command will show you an overview of the interface name (ATM0/0, FastEthernet0/0, etc.) and the IP Address assigned to each interface.
 - b. You will want to write down the interface name of the local LAN. Typically it is FastEthernet0/0. You should see an IP address of 10.117.x.1.
 - c. You will also want to write down the interface name of the ATM/WAN interface. Typically it is ATM0/0. You should see an address of 10.117.63.x
3. Issue the following commands in order:
 - a. **configure terminal**
 - i. This will bring you into router configuration mode.
 - b. **ip flow-cache timeout active 1**
 - i. Breaks up flows into 1-minute fragments. This will generate the traffic utilization graphs most accurately.
 - c. **snmp-server ifindex persist**
 - i. Each interface has its own index ID number. This command will make sure that the ifindex numbers do not change when the router is rebooted.
 - d. **ip flow-export source Local LAN Interface**
 - i. This should be the local LAN interface you gathered from step 2b. Example: ip flow-export source FastEthernet0/0
 - ii. This command tells the NetFlow server to talk to the router through SNMP on this interface IP address.
 - e. **ip flow-export version 5**
 - i. This command sets the version to export the NetFlow statistics to. NetFlow Analyzer supports version 5, 7, and 9, but use version 5.
 - f. **ip flow-export destination Netflow Server IP 9996**
 - i. This command tells the router to export to the NetFlow server address on UDP port 9996. Example: ip flow-export destination 10.117.10.228 9996
4. The router's export configuration is setup. Now each interface needs to be setup to report flow cache data.
5. You should be at a configuration prompt. It should look like **RouterName(config)#**
6. Issue the following commands to turn on reporting for each interface. (Local LAN, and WAN):
 - a. LAN Interface
 - i. **interface Local LAN interface**
 - ii. **ip route-cache flow**
 1. This command turns on flow statistic caching.
 - iii. **ip nbar protocol-discovery**
 1. This command tells the router to keep statistics for every protocol that is known by NBAR (Network-Based Application Recognition).

- b. WAN Interface
 - i. **interface Local WAN interface**
 - ii. **ip route-cache flow**
 - 1. This command turns on flow statistic caching.
 - iii. **ip nbar protocol-discovery**
 - 1. This command tells the router to keep statistics for every protocol that is known by NBAR (Network-Based Application Recognition).
- 7. Press **Control+Z** inside the router. It should take you to a **Router#** prompt. If not, you can type **exit** and then hit enter until the prompt reads **Router#**.
- 8. Issue the command **show ip interface brief** again.
- 9. Issue the following command for every ATM0/0, ATM0/0.x, FastEthernet0/0, and FastEthernet0/0.x interface:
 - a. **show snmp mib ifmib ifindex Interface Name**
 - b. You should see the following output: **Interface: Ifindex = X**
 - c. Write down that Ifindex number for every interface.
- 10. Now that the router and interfaces are configured, login to the NetFlow Server.
- 11. A router should be seen in the list with several interfaces (ifindex X).
- 12. Based on the information gathered in step 9a for each interface, you should be able to click the little Edit icon next to the blue ifIndex X link in the summary and type in the appropriate name.

The steps listed above should be all you need to successfully configure a router to report NetFlow statistics to a centralized NetFlow server.