Troubleshooting

This troubleshooting section includes the following topics:

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Report Is Not Displayed Correctly

The following may be helpful for troubleshooting a report that is not displayed correctly:

- Verify that your flow exporter is configured with the correct destination IP.
- If you are using a VRF, ensure that it is added at the destination.

```
(config-flow-exporter)# destination 1.1.1.1 vrf myVrf
```

- Check whether samplers are configured correctly.
- Check the flow exporter statistics for errors.

```
# show flow exporter statistics
Flow Exporter my_exporter:
Packet send statistics (last cleared 4d00h ago):
  Successfully sent:        203808              (280136412 bytes)
Client send statistics:
  Client: Option options interface-table
Records added:            18528
  - sent:                 18528
 Bytes added:             1852800
  - sent:                 1852800
 Client: Option options vrf-id-name-table
  Records added:          3474
   - sent:                3474
 Bytes added:             125064
   - sent:                125064
 Client: Option options sampler-table
  Records added:          0
  Bytes added:            0
Client: Option options application-name
  Records added:          1213584
```

- Check the cache output and verify that the specific monitor is not empty.

```
# show performance monitor cache detail [format record]
# show performance monitor history
```

- Verify policy and class-map hits (counters should increase).

```
# show policy-map type performance-monitor interface g0/0/2
 GigabitEthernet0/0/2
  Service-policy performance-monitor input: mymon_in
    Class-map: select_ipv4_tcpperf (match-all)
      354704 packets, 75729623 bytes
      30 second offered rate 1000 bps, drop rate 0000 bps
      Match: protocol ip
      Match: access-group name ipv4_tcpperf
    Class-map: class-default (match-any)
      0 packets, 0 bytes
      30 second offered rate 0000 bps, drop rate 0000 bps
      Match: any
```

- Review the running-config and verify that nothing is missing or misconfigured. The problem can be caused by even a single access-list missing.

- **Cisco IOS XE Platforms**: Verify that account-on-resolution (AOR) is active.

  – If AOR is active, handles will have a non-zero value, as shown in the following example:

```
# show platform hardware qfp active feature fnf datapath aor
 CFT:  ConfigAddress 0x8a1e16a0, Instance 0x8a1de760, Feat ID 1, FlowObj ID 1
 CVLA: handle 0x97f00000 epoch 0x4
```

  – If AOR is inactive, handles will have the value of zero, as shown in the following example:

```
# show platform hardware qfp active feature fnf datapath aor
 CFT:  ConfigAddress 0x8a1e16a0, Instance 0x00000000, Feat ID 0, FlowObj ID 0
 CVLA: handle 0x0 epoch 0x4
```

Incorrect TCP Performance Statistics

The following may be helpful for troubleshooting incorrect TCP performance statistics:

- Verify that the monitor that includes TCP performance metrics is applied to only one interface.

- For that interface, service-policy must be attached in both directions.

- Check for asymmetric routing.

- Verify that routes/route-maps are configured correctly.

- If filtering applications, ensure that the appropriate class-map has hits.

- Verify that account-on-resolution (AOR) is active. For details about verifying AOR, see .

- Enable IP NBAR Protocol Discovery on the interface to determine whether the protocol of interest is identified.

```
Router(config-if)# ip nbar protocol-discovery
Router# show ip nbar protocol-discovery interface g0/0/3
```

```
GigabitEthernet0/0/3
Last clearing of "show ip nbar protocol-discovery" counters 00:00:10
                          Input               Output
                          -----               ------
   Protocol               Packet Count        Packet Count
                          Byte Count          Byte Count
                          30sec Bit Rate (bps)    30sec Bit Rate (bps)
                          30sec Max Bit Rate (bps) 30sec Max Bit Rate (bps)
----------------------- ----------------------- -----------------------
http                     7                   8
                         3472                1740
                         0                   0
                         0                   0
```

Memory/Cache Warning

An error message typically occurs if the total memory consumed by all monitors exceeds 25% of the total available memory. If the memory required for all enabled features exceeds the memory available, the following may be helpful for troubleshooting:

- Review the configuration. If there are mismatches, remove the configuration and reapply it.
- Reduce the FNF monitor cache size.

Also see Cache Size Recommendation, page 6-1.

Cache Warning on Cisco IOS Platforms

On Cisco IOS platforms, the following type of MMA warning can occur:

```
7310: 2013-09-17T00:32:02: %SCRIPT-6-DIAG: Sep 16 23:55:56.459 PDT: %MMA-3-CACHE_OVERFLOW:
The number of flows has exceeded 95% of the configured size, monitor testing-url_ipv4,
please increase cache size
```

Memory Warning on Cisco IOS XE Platforms

On Cisco IOS XE platforms, the following type of FNF warning can occur:

```
Oct 28 14:44:10.358 IST: %QFP_FNF-4-FNF_MEM_UPLIMIT_WARN: F0: cpp_cp:  Netflow and
Flexible Netflow configuration is using (140199440) bytes of data plane DRAM which exceeds
the recommended maximum of (134217728) bytes.
```

This warning message indicates that a large amount of memory is allocated to Flexible NetFlow (FNF) monitors. Allocating this amount of memory to FNF monitors is acceptable, but the total memory required by all other enabled features must not exceed the available memory.

More Than 32 Matches per Class

The following may be helpful for troubleshooting the following type of error message regarding configuring more than 32 matching statements:

```
cannot configure more than 32 matching statements per class-map for the interface
```

- Review your class-map configuration.

    # **show class-map**

- Make sure every class-map has no more than 32 match instructions, including hierarchical classes. Remove redundant match instructions

More Than Five Monitors per Class

The following may be helpful if you receive the following type of error message regarding the limit of five (5) monitors per policy per class:

```
%Only 5 monitors allowed per policy per class
```

- Review the class-map configuration.

  # **show class-map**

- Verify that every class-map has no more than five monitors, including FNF monitors which are applied directly on the interface. Remove any redundant monitors and retry.