F5 Big-IP Advanced Troubleshooting

I work with F5 since many years and I always need some advanced troubleshooting tools which I documented here a little bit.

CLI Commands

Show pool members monitoring status

```
tmsh show ltm pool all members field-fmt | grep -P "(ltm\ pool|active-member-cnt|addr|monitor-
status)"
```

Count pool members with monitoring status "monitor-status checking"

```
tmsh show ltm pool all members field-fmt | grep "monitor-status\ checking" | wc -l
```

Show Health Monitor status

Example with ICMP health monitor:

```
tmsh show ltm monitor icmp icmp

Answer:
Destination:  1.7.3.55:0
   State time:   up for 527hrs:54mins:45sec
   |   Last error:   N/A @2019.11.12 10:58:51

   Destination:  1.7.3.56:0
   State time:   up for 527hrs:54mins:45sec
   |   Last error:   N/A @2019.11.12 10:58:51
```

```
Destination:  1.7.3.131:0

 State time:   down for 527hrs:54mins:45sec

|   Last error:   No successful responses received before deadline. @2019.11.12 10:58:51


Destination:  1.7.3.139:0

 State time:   down for 527hrs:54mins:45sec

|   Last error:   No successful responses received before deadline. @2019.11.12 10:58:51
```

K53851362 - Displaying and deleting connection table entries from the command line

The BIG-IP connection table contains information about all the sessions that are currently established on BIG-IP system. You can display and delete the contents of the BIG-IP connection table from the command line using the tmsh connection command.

> **Important**: On systems with a large number of connections, executing the following commands with a large output may result in excessive output causing device instability. It is recommended you limit the output to specific IP address and/or port combination as demonstrated in the examples below.

Display Connection Table Entries:

1. To display the BIG-IP connection table entries for a particular virtual server, use the following tmsh command syntax:

   ```
   tmsh show /sys connection cs-server-addr <vs_ip> cs-server-port <vs_port>
   ```

   For example, to display the BIG-IP connection table entries for 10.10.2.2:443 virtual server, you would type the following command:

   ```
   tmsh show /sys connection cs-server-addr 10.10.2.2 cs-server-port 443
   ```

2. To display the BIG-IP connection table entries for a particular client IP address, use the following tmsh command syntax:

   ```
   tmsh show /sys connection cs-client-addr <client_ip>
   ```

   For example, to display the BIG-IP connection table entries for 10.10.20.2 client IP address, you would type the following commnad:

   ```
   tmsh show /sys connection cs-client-addr 10.10.20.2
   ```

3. To display the BIG-IP connection table entries for a particular pool member, use the following tmsh command syntax:

```
tmsh show /sys connection ss-server-addr <pool_member_ip> ss-server-port
<pool_member_port>
```

For example, to display the BIG-IP connection table entries for 192.168.10.2:80 pool member, you would type the following command:

```
tmsh show /sys connection ss-server-addr 192.168.10.2 ss-server-port 80
```

4. To display additional information about particular connection such as Idle timeout, number of packets sent etc, use the following tmsh command syntax:

```
tmsh show /sys connection cs-client-addr <client_ip> cs-client-port <client_port> cs-
server-addr <vs_ip> cs-server-port <vs_port> all-properties
```

For example, to display specific details of connection established between 10.10.20.2:51435 (client) and 10.10.2.2:443 (virtual server), you would type the following command:

```
tmsh show /sys connection cs-client-addr 10.10.20.2 cs-client-port 51435 cs-server-
addr 10.10.2.2 cs-server-port 443 all-properties
```

Delete the connection table entries:

1. To delete the BIG-IP connection table entries for a particular client IP and virtual server, use the following tmsh command syntax:

```
tmsh delete /sys connection cs-client-addr <client_ip> cs-server-addr <vs_ip> cs-
server-port <vs_port>
```

For example, to delete the BIG-IP connection table entries for 10.10.20.2 client IP address and 10.10.2.2:443 virtual server, you would type the following command:

```
tmsh delete /sys connection cs-client-addr 10.10.20.2 cs-server-addr 10.10.2.2 cs-
server-port 443
```

F5 Support Solution Link

[K53851362: Displaying and deleting BIG-IP connection table entries from the command line](#)

K7318: Overview of the bigtop utility

The **bigtop** tool is a command line utility that displays real-time statistical information for BIG-IP LTM system objects such as virtual servers and nodes. For example, the following items are displayed when using the **bigtop** utility:

- Current time
- Network activity in bits, bytes, packets, or requests
- Nodes available for virtual servers
- Current state of nodes

Example:

```
bigtop -n
```

```
                          | bits   since     | bits   in prior  |  current
                          | Mar 23 21:59:50  | 4 seconds        |  time
BIG-IP       ACTIVE       |---In----Out---Conn-|---In----Out---Conn-|  12:01:37
                          149.7G 2.694G 769374   6880    3584      4

VIRTUAL ip:port           |---In----Out---Conn-|---In----Out---Conn-|-Nodes Up--
/Common/192.168.20.106:443 1.431G 2.282G 261093   1856    1312      1      0
/Common/192.168.20.106:80  537.5M 410.8M 215520   5024    2272      3      0
/Common/192.168.20.107:443 1.120M 660720     105      0       0      0      0
/Common/192.168.20.107:80    7728    4888       1      0       0      0      0

NODE ip:port              |---In----Out---Conn-|---In----Out---Conn-|--State----
/Common/node1:80                 0      0       0      0       0      0 DOWN
/Common/node2:80                 0      0       0      0       0      0 DOWN
```

F5 Support Solution Link

[K7318: Overview of the bigtop utility](#)

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