# tet\_compare\_stats.sh toolkit

This toolkit can be used to compare between signaling stats at dsTest and CPS **after** running a test case. The toolkit is executed **after** your test has been executed.

## 1.1 Configuration

Following should be ensured to get expected results from this toolkit.

Ensure the dsTest config and the config file passed as input to this toolkit, adhere to the following:

1. Ensure that traffic from each dsTest node-name is for **only one** particular interface / domain. This means you can have multiple dsTest nodes sending traffic **for one particular** interface / domain, but, one dsTest node should not be sending traffic for more than one interfaces / domains.

In case, one dsTest node sends traffic for more than one interfaces / domains, ensure the dsTest counters for each such interface / domain is differently named in the state machine, else there is no way to identify what traffic is for what particular interface / domain.

1. While creating config file for the tet\_compare\_stats.sh toolkit ensure the following:
2. For dsTest entries columns 3 and 5 in the config file shall have those entries which need to be combined to have a consolidated stat, say for one particular domain / interface.

Take the example of following config:

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_1,**-Gx-Broadband**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_2,**-Gx-Broadband**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_3,**-Gx-Broadband**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_VoloGx\_1,**-Gx-SPR**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_1,**-Gx-IMS**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_2**,-Gx-IMS**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_3**,-Gx-IMS**

dsTest,12.20.5.95,**ocs**,Site\_1\_TEJAS\_Solution2\_OCS\_1,**-Syp-OCS**

dsTest,12.20.5.95,**ocs**,Site\_1\_TEJAS\_Solution2\_OCS\_2**,-Syp-OCS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_1**,-Rx-IMS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_2**,-Rx-IMS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_3**,-Rx-IMS**

CPS,12.20.2.115,L2-CA-PRI-pcrfclient01,Gx

CPS,12.20.2.115,L2-CA-PRI-pcrfclient01,Rx

CPS,12.20.2.115,L2-CA-PRI-pcrfclient01,Sy

CPS,12.20.2.115,L2-CA-PRI-pcrfclient01,Syp

CPS,12.20.2.115,L2-CA-PRI-pcrfclient01,Sd

In above config, BROADBAND, SPR and IMS are separate domains for Gx interface and I wish to have separate stats for each domain from dsTest. Each unique dsTest node (the 4th columns in the above config) sends traffic for only one domain / interface, however the traffic for a domain say “Broadband” is sent from 3 different dsTest nodes (the first 3 rows in the config above), therefore giving the same name **–Gx-Broadband** in the 5th column will result into a consolidated stat, which comes as a separate column in the output report from this toolkit for dsTest stats.

Note that, CPS stats for separate domains / interfaces are automatically segregated by CPS so the report for CPS stats will automatically display the separate stats for each domain / interface.

**Enhancement:**

The above mentioned configuration support still exists with the toolkit but there is an enhanced configuration implemented which allows multiple interfaces to be supported by a single node dsTest node type e.g. “hss” node can support sh, cx and other interfaces, so in order to support this the configuration can be provided in the below way and the same is applicable for any node / interface combination that dsTest supports.

For dsTest stats capture, the 3rd column can be used to declare the “node-interface” combination, separate by a ‘-’ as shown in example below:

dsTest,12.20.5.95,**pcef-gx**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_1,**-Gx-Broadband**

dsTest,12.20.5.95,**pcef-gx**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_2,**-Gx-Broadband**

dsTest,12.20.5.95,**pcef-gx**,Site\_1\_TEJAS\_Solution2\_PCEF\_BB\_3,**-Gx-Broadband**

dsTest,12.20.5.95,**hss-sh**,HSS\_1**,-Sh**

dsTest,12.20.5.95,**hss-sh**,HSS\_2**,-Sh**

dsTest,12.20.5.95,**hss-cx**,HSS\_3**,-Cx**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_VoloGx\_1,**-Gx-SPR**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_1,**-Gx-IMS**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_2**,-Gx-IMS**

dsTest,12.20.5.95,**pcef**,Site\_1\_TEJAS\_Solution2\_PCEF\_IMS\_3**,-Gx-IMS**

dsTest,12.20.5.95,**ocs**,Site\_1\_TEJAS\_Solution2\_OCS\_1,**-Syp-OCS**

dsTest,12.20.5.95,**ocs**,Site\_1\_TEJAS\_Solution2\_OCS\_2**,-Syp-OCS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_1**,-Rx-IMS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_2**,-Rx-IMS**

dsTest,12.20.5.95,**cscf**,Site\_1\_TEJAS\_Solution2\_CSCF\_3**,-Rx-IMS**

1. For CPS entries in the config file, column 3 must be the pcrfclient hostname (from where the bulk stats are to be referred) and column 4 must be the interface name as understood by CPS i.e. as used by CPS in the bulk stats files at /var/broadhop/stats/ folder.
2. For more details related to config for this toolkit, run the toolkit with following option:

./tet\_compare\_stats.sh –e

## 1.2 How and when to run this Toolkit

1. Run the toolkit as follows to get the command line options available

./tet\_compare\_stats.sh –h

1. Assuming you have already prepared the config for this toolkit, when running a system test, follow the following approach to get stats with this toolkit.
2. Note the **CPS timestamp** when **loading** the dsTest config at dsTest for connecting to the CPS. E.g. **15-06-2016-14-52** (dd-mm-yyyy-hh-mm)
3. Run your dsTest nodes as required by the test.
4. Execute your test e.g. bringing a VM down, etc.
5. Once your test completes, **stop** (**DO NOT** **delete**) the dsTest nodes and monitor top\_qps to ensure the traffic stops at CPS.
6. Once the traffic has stopped, **wait for the next 5th minute CPS timestamp** to ensure latest bulk stats are generated e.g. if current CPS timestamp is 15:32:00 then wait till 15:35:00 before running this toolkit.
7. Now, run the toolkit with one of the following based on whether you need the default stats output report name or your specific stats output report name:
8. For default stats output report (here the toolkit automatically creates a report and tell the name)

./tet\_compare\_stats.sh –c <path\_to\_the\_tookit\_config> -f **15-06-2016-14-52** –t “**now**”

1. For your specific report name use as follows:

./tet\_compare\_stats.sh –c <path\_to\_the\_tookit\_config> -w <Tyw13145q\_report.txt> -f **15-06-2016-14-52** –t “**now**”

Note that you can give absolute path above for the output report / config.

For GR setup, the toolkit needs to be executed for each separate site to get the report for each site.

# tet\_pull\_stats.sh toolkit

This toolkit can be used to pull various stats while executing a test against CPS.

This toolkit should be run **while executing** your test or ideally just before starting your test. The toolkit allows changes in what you want to capture at run time, so you can start with a standard config for this toolkit and update the config while this toolkit is running, in order to capture more / less stats. More details on how to do this are mentioned below.

The config of this toolkit allows run-time changes to the time duration in which specific stats (like mongostat, etc.) need to be pulled.

Run as tet\_pull\_stats.sh –h to get the details of command line options available with this toolkit.

## 2.1 Initial config preparation and run-time changes to the config

e.g. config file

sar,15,SITE1,lb,qns

top,10,SITE1,lb,pcrfclient

top\_qps,5,SITE1

vmstat,10,SITE1,lb,qns

mpstat,10,SITE1,lb,qns

iostat,15,SITE1,lb,qns,sessionmgr

mongostat,5,SESSION-SITE1,set01,set02,set03,set08a

mongostat,5,SESSION-SITE2,set02,set08a

mongotop,5,SESSION-set01-SITE1,set01

mongotop,5,SESSION-set02-SITE1,set02

bulkstat,300,SITE1

#bulkstat,300,SITE2

trap,0,SITE1,lb

mongologs,0,SITE1,set01

mondblogs,0,SITE1,pcrfclient

puppetlogs,0,SITE1,lb

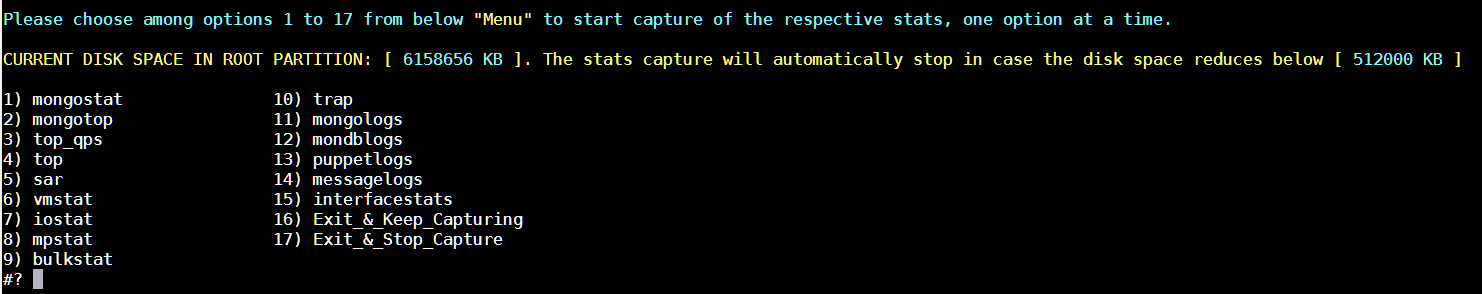
messagelogs,0,SITE1

interfacestats,5,SITE1,sessionmgr01

The configuration for mongostat (Option 1), mongotop (Option 2) and mongologs (Option 11) will be automatically generated by the utility based on the configuration provided in mongoConfig.cfg. e.g.

1. First column in above config is a **keyword** based on the Menu items that this toolkit displays for pulling stats.

E.g. of Menu is shown below:



Any stat keyword that starts with the word **mongo** can have multiple entries in the config file.

e.g. a consolidated mongostat report is prepared for whatever set names are provided in a row with keyword mongostat. So for different groups of mongo replica sets you can have different such rows for mongostat. As a result the toolkit will prepare different stats files.

Mongotop currently works only on per set basis so for each replica set that you want mongotop stats, please have separate rows as shown in sample config above.

1. Second column, which is the time duration in seconds in which a particular stat needs to be polled from CPS, **offers two features**:
2. The duration for any stat can be modified at run time while that particular stat is being captured by the toolkit. E.g. if mongostats are being captured in 5 second duration, the same can be modified to 10 or 3 while the stats are being captured by the toolkit. **It is not required to restart the toolkit execution.** Accordingly the output will have stats in that particular duration.
3. The entry in this column **also acts as a trigger** for pulling the stats in that particular row from additional replica sets / VMs at run time. For ex. if say mongostat capture is being done with the config entry “mongostat,5,SESSION-SITE2,set02,set08a” then at run time if there is a need to add another setname for this stat capture, the same can be added but at the same time also modifying the time duration e.g. if you want to add set03 in the above capture **at run time** i.e. while the stat is already being captured, then add this setname, set03, in the above row but also modify the time duration to say 6, to make the config entry as “mongostat,6,SESSION-SITE2,set02,set08a,set03”. This will result in stats for set03 being saved in the output file along with the stats for set02 and set08a. The time duration can be reverted to 5 after the stats for the new setname, set03, have started coming in the output file for this stat from the toolkit, normally this happens in 10 seconds.

**The above can be used even for those stats which are not time dependent, like trap, mongologs, etc.**

1. 3rd Column is a name you want to get added to the output file created by the toolkit for the particular stat. Note that this must be unique for each row entry of mongo related stats, for which **multiple row entries** are allowed in the config file.
2. 4th and subsequent columns define the setnames (for mongostat) or VM name for other stats. You can provide comma separated list of specific VM names like pcrfclient01, qns05, etc. in which case the respective stat shall be pulled from only those VMs or you can provide a group of VMs e.g. pcrfclient,qns,lb in which case the particular stat shall be pulled from all pcrfclients, all qns and all lb VMs.
3. The toolkit can be executed without going through the Menu system, by using –a or –s options. More details can be looked by using –h option with the toolkit.