

Prepared (Subject resp)		No. 1/1532-CXP9039443 Uen		
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Counter Statistics Tool Instructions

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1 General

1.1 Overview

When ENIQ and ENM are set up, counters are turned ON by default. There are some counters that are not used and remain unaccessed. Loading of unaccessed counter data into the database consumes unnecessary space.

Counter statistics tool helps the user to identify the counters that are not in use that is the counters which are not accessed. Counter statistics tool provides counter usage data of the counters used for reporting or queries by the end users which helps user to decide if they can disable the counters which are not accessed. This helps in addressing the scalability requirement to meet the network growth.

1.2 Key Features

This section describes the counter statistics tool key features.

1.2.1 Supported on RHEL Only

ENIQ-S (ENIQ Statistics) counter statistics tool is supported on RHEL Operating System (OS).

1.2.2 Feature Selectivity

User has the provision to select the specific feature of interest. Based on feature selection counter statistics gets displayed. All features get selected if feature selection is skipped.

1.2.3 Time Range Specific Reporting

User has the provision to select time range like last 1 day, last 7 days, last 30 days, last 90 days, last 180 days, last 1 year, or specific date range. Based on provided input, counter statistics data for that range gets displayed.

1.2.4 CSV Report Generation

Counter statistics tool generates CSV files for offline analysis. CSV files contains details like table or view name, counter name, counter count or total counter count, access date or last accessed and feature name.

1.2.5 Support For Custom Techpacks

Counter statistics tool provides support for addition of custom techpacks. A placeholder configuration file `/eniq/log/sw_log/ig/CounterTool/tables_to_be_considered` is provided. User has provision to add the custom techpack table in the configuration file which is considered to get counter usage data.

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1.3 Prerequisites

The user must have the following prerequisites:

- Familiarity with Ericsson Network IQ
- Relevant RHEL knowledge
- ENIQ is installed
- `dcuser` account

1.4 Typographic Conventions

The following table shows the typographical conventions used in this document:

Table 1 List of Conventions

Convention	Description	Example
<code>resource-id</code>	System Elements	The files are located in <code>HOME/bin</code>
<code>input</code>	Commands	Enter the following command: <code>cd HOME</code>
<code>output</code>	System Output	- Program terminating ... - System awaiting input
<code>{user} #</code>	Prefix such as <code>bash #</code> (Bash shell) is used to denote the shell in which the command is to be entered.	<code>{root} # init 6</code>

1.5 Common Variables

The following table shows the common variables used in the document:

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Table 2 Common Variables

Variable	Description
<server_type>	Specifies the following blade type: <ul style="list-style-type: none">• For Single Blade/RACK/Cordin ator - server_type is CO• For Reader 1 - server_type is RD1• For Reader 2 - server_type is RD2

1.6 Counter Statistics Tool Log Files

The execution of counter statistics tool can be tracked from the log files in the following directory:

```
/eniq/local_logs/counter_tool/
```

```
/eniq/local_logs/counter_tool_display/
```

2 Counter Statistics Tool Overview

High level solution provided by counter statistics tool is, counter statistics tool enables SAP IQ logs. Logs are parsed to fetch external reporting queries and extract access data. Extracted information is then aggregated and saved in database. Counter statistics tool provides CLI based option to get access statistics based on following inputs:

- Feature selection
- Date range selection

Following section describes more about CLI approach.

2.1 Counter Display: CLI Approach

Counter display is based on customer demand. The user can get the statistics using CLI approach.

Counter display provides the following information as per the requirement:

- Accessed or unaccessed counters for particular TechPack at a defined time level or date range
- A CSV file reports with access and unaccessed counter data information

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- Flexibility to get aggregated access count data per day per counter by selecting the required date range
- Minimum and maximum accessed counters
- Counter volume for each counter
- Total counter volume

The following inputs are required in the CLI approach.

- **Feature List:** User can select the specific feature of interest. This is optional. If the feature is skipped, then all features are considered by default
- **Time Level:** User can provide input like last 1 day, last 7 days, last 15 days, last 30 days, last 90 days, last 180 days, last 1 year, or specific date range

Based on the inputs provided following output is displayed:

- Summary table having total number of counters, number of accessed counters, and number of unaccessed counters
- CSV files are generated along with the summary table with the following details like table or view name, counter name, counter count, access date or last accessed and feature name

File name format is <date>_<time>_aggregated_counters.csv and <date>_<time>_counter_data_per_date.csv having retention period as seven days.

- The following reports are generated :
 - **Per Counter Aggregated Data:** Aggregated access count data for each counter
 - **Counter Data Per Date:** Date-wise report for each counter with access count

For more information about input and output, refer "Counter Statistics Tool Instructions".

3 Preparations

3.1 Custom Techpack Handling

Custom techpack handling allows user to get counter usage statistics for custom tables. By default dc_, pm_ tables are always considered by the tool

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The tables that needs to be considered for processing are mentioned in /eniq /log/sw_log/iq/CounterTool/tables_to_be_considered.txt file..

Following is the example of the file:

```
atrcxb2961[eniq_stats] {root} #:
atrcxb2961[eniq_stats] {root} #: cat /eniq/log/sw_log/iq/CounterTool/tables_to_be_considered.txt
dc_
dim_
pm_
atrcxb2961[eniq_stats] {root} #:
atrcxb2961[eniq_stats] {root} #:
atrcxb2961[eniq_stats] {root} #:
```

Figure 1 File for addition of tables

Note: In case of the custom tables , table name needs to be added in lowercase in the above configuration file.

ENIQ-S offers the following EBS Technology packages, catering for different technologies - GSM, WRAN, SGSN. See the respective Technology Package Description document for more details on associated Fact/BH/Aggregation tables:

- For PM_E_EBSW, refer to the release specific "Technology Package Description, Ericsson EBSW" document available in "CPI Store Library", Reference [1].
- For PM_E_EBSG, refer to the release specific "Technology Package Description, Ericsson EBSG" document available in "CPI Store Library", Reference [1].
- For PM_E_EBSS, refer to the release specific "Technology Package Description, Ericsson EBSS" document available in "CPI Store Library", Reference [1].

These Techpacks contains custom counters that are defined by Customer using MOM files containing objects - either counters or attributes, and are installed on ENIQ using EBS Upgrader. See the section 'Using EBS Upgrader', from the document "Ericsson Network IQ Statistics Systems Administrators Guide". Refer to the release specific "Ericsson Network IQ Statistics Systems Administrators Guide" document available in "CPI Store Library", Reference [1].

Counter statistics tool supports these custom counters in PM_E_ERBS* techpacks.

3.2 Enabling Counter Tool

Counter statistics tool relies on logs which needs to be turned ON and turning ON logs requires database restart.

Counter statistics tool must be enabled to collect the data. Execute the following steps to enable the counter statistics tool:

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Server	<ul style="list-style-type: none"> • ENIQ-S (Standalone) Server • ENIQ-S Coordinator Server • ENIQ-S Reader1 server • ENIQ-S Reader 2 Server
User	root
root	<pre># cd /eniq/admin/bin</pre> <pre># bash counter_statistics_tool.bsh -a data_collection</pre>

The following prompt appears after executing the command:

```
atrcxb2961[eniq_stats] {root} #:
atrcxb2961[eniq_stats] {root} #: bash counter_statistics_tool.bsh -a data_collection

***** 2020-11-19_14:50:58 : Entering data_collection on atrcxb2961 *****

This would require restart of the Database Service. Do you wish to proceed? (Yes|No)

Yes
2020-11-19_14.51.03 - Creating required log directories on atrcxb2961
2020-11-19_14.51.03 - successfully created required log directories on atrcxb2961
2020-11-19_14.51.03 - Creating required configuration file on atrcxb2961
2020-11-19_14.51.03 - Successfully created required configuration file on atrcxb2961
2020-11-19_14.51.03 - Enabling Request Level Logging
2020-11-19_14.51.05 - Engine current profile on server 10.45.196.25 is NoLoads
2020-11-19_14.51.05 - Engine profile on server 10.45.196.25 is already NoLoads, change not required

=====< 2020-11-19_14.51.05 - Stopping ENIQ services >=====
2020-11-19_14.51.05 - Stopping ENIQ service eniq-dwhdb

ENIQ services stopped correctly on atrcxb2961
2020-11-19_14.51.19 - eniq-dwhdb stopped successfully
2020-11-19_14.51.19 - Updated parameters in /eniq/database/dwh_main/dwhdb.cfg file on atrcxb2961

=====< 2020-11-19_14.51.20 - Starting ENIQ services on atrcxb2961 >=====
2020-11-19_14.51.20 - Starting ENIQ service eniq-dwhdb

ENIQ services started correctly on atrcxb2961
2020-11-19_14.53.31 - eniq-dwhdb has started successfully
2020-11-19_14.53.31 - Successfully enabled Request Level Logging
2020-11-19_14.53.32 - master cron entry for counter tool has been added successfully in crontab

***** 2020-11-19_14:53:32 : Successfully completed data_collection *****
```

Figure 2 Enabling Counter Tool

If user selects "No", counter statistics tool is not enabled.

Note: Downtime required for enabling counter statistics tool is two minutes.

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After enabling counter statistics tool, crons are scheduled and counter statistics tool directory structure is created.

4 Counter Statistics Tool Instructions

The counter statistics tool is executed through crons.

Execute the following instructions to get counter statistics:

Note:

- After enabling the tool, tool needs to collect the statistics for minimum one day. Following script should not be executed immediately after enabling the tool.
- Database services must be up and running before execution of the following script.

Server	<ul style="list-style-type: none">• ENIQ-S (Standalone) Server• ENIQ-S Coordinator Server
User	dcuser
Command	# <code>bash /eniq/admin/bin/counter_statistics.bsh</code>

Note: Depending on the size of the data stored in the database, the retrieval of data can take time after the execution of the above script.

User needs to provide following inputs during the execution of `counter_statistics.bsh` script:

1. Feature list

User needs to select list of features from available features:

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```

checking for any malformed licenses...
license check complete
Currently installed and licensed ENIQ features
=====
[1] Ericsson Network IQ PM Alarm Module (eniq_oss_1)
[2] Ericsson GSM BSS PM Tech Pack (eniq_oss_1)
[3] Ericsson WCDMA RAN PM Tech Pack (eniq_oss_1)
[4] Ericsson CS Core (AXE) PM Tech Pack (eniq_oss_1)
[5] Ericsson MGW PM Tech Pack (eniq_oss_1)
[6] Ericsson SGSN PM Tech Pack (eniq_oss_1)
[7] Ericsson GGSN PM Tech Pack (eniq_oss_1)
[8] Ericsson SASN PM Tech Pack (eniq_oss_1)
[9] Ericsson IMS IPworks PM Tech Pack (eniq_oss_1)
[10] Ericsson IS-SBG PM TP (eniq_oss_1)
[11] Ericsson SARA PM Tech Pack (eniq_oss_1)
[12] Ericsson GSM BSS EBS Tech Pack (eniq_oss_1)
[13] Ericsson SGSN EBS PM Tech Pack (eniq_oss_1)
[14] Ericsson WCDMA RAN EBS PM Tech Pack (eniq_oss_1)
[15] Ericsson MTAS PM TP (eniq_oss_1)
[16] Ericsson CUDB PM Tech Pack (eniq_oss_1)
[17] Ericsson SmartEdge PM Tech Pack (eniq_oss_1)
[18] Ericsson SAPC PM Tech Pack (eniq_oss_1)
[19] Ericsson ML-PPP PM Tech Pack (eniq_oss_1)
[20] Ericsson CPG PM Tech Pack (eniq_oss_1)
[21] Ericsson SNMP MIBII PM Tech Pack (eniq_oss_1)
[22] Ericsson LTE RAN PM Tech Pack (eniq_oss_1)
[23] Ericsson HSS PM Tech Pack (eniq_oss_1)
[24] Ericsson SIU PM Tech Pack (eniq_oss_1)
[25] Ericsson IS-MGW PM Tech Pack (eniq_oss_1)
[26] Ericsson IS-MGC PM Tech Pack (eniq_oss_1)
[27] Ericsson TSS-AXE PM Tech Pack (eniq_oss_1)

```

2. Time level / Specific date / Range of date

```

Available Time Levels.

[1] PAST 1 DAY
[2] PAST 7 DAYS
[3] PAST 30 DAYS
[4] PAST 90 DAYS
[5] PAST 180 DAYS
[6] PAST 1 YEAR
[7] SPECIFIC DATE RANGE

Select the option you wish to retrieve statistics.

```

Above time levels are available, but counter statistics tool must have been enabled prior to the selected time level.

For example, if option `Past 1 year` is selected and counter statistics tool is not enabled since past one year, then counter statistics will not be present for past one year.

If feature list and time level / specific date / range of date is not provided, entire set of statistics present in the database is considered.

On successful completion of execution of the script, below information is displayed and reports are generated.

Prepared (Subject resp)		No. 1/1532-CXP9039443 Uen		
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```

=====
COUNTER RECOMMENDATION SUMMARY : atxkb3941(eniq_state)
=====
2020-11-02 08:01:59 - FEATURE SELECTED: Default - All features in the database would be taken into consideration
=====
PARAMETER                                     VALUE
-----
Total Unique Counters                         4693
Total Unique Accessed Counters                 314
Total Unique Unaccessed Counters              4379
-----
----- 02-11-2020 08-01-59: Please find the detailed Summary Reports :-----
Aggregated access count across the selected Time Range:/eniq/log/sw_log/CounterTool/Statistics/02-11-2020_08-01-59_aggregated_counters.csv
Daywise statistics across the selected Time Range:/eniq/log/sw_log/CounterTool/Statistics/02-11-2020_08-01-59_counter_data_per_date.csv
=====

```

Figure 3 Output

The above figure shows the information displayed after the execution of the script. The information consist of following:

- Total unique counters: 4693
- Total accessed counters in <X> days: 314
 <x> refers to selected date range.
- Total unaccessed counters in <X> days : 4379
 <x> refers to selected date range.
- Report file generated for daywise statistics and aggregated access count

Two CSV files are generated as a part of counter statistics report:

1. Daywise Statistics

Daywise statistics file includes both unaccessed and accesssed counter information. All the details in this file is the daywise statistics that is collected by the counter statistics tool from the database dump. In case of unaccessed counters, counter_count is zero and access date is NA.

File format for the daywise statistics is:<date>_<time>_counter_data_per_date.csv.

Following is an example of daywise statistics:

Prepared (Subject resp)		No. 1/1532-CXP9039443 Uen		
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#	Table_Name	Counter_Name	Access_Count	Access_Date	Feature_Name#
1	DC_E_ERBS_BBPROCESSINGRES	pmpdcpktdiscleth		14 2020-11-16	Ericsson LTE RAN PM Tech Pack
2	DC_E_ERBS_BBPROCESSINGRES	pmpdcpktdiscleth		14 2020-11-16	Ericsson LTE RAN PM Tech Pack
3	DC_E_ERBS_BBPROCESSINGRES	pmpdcpktdiscleth		14 2020-11-16	Ericsson LTE RAN PM Tech Pack
4	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepatt1xrttsrvcc	46	2020-11-16	Ericsson LTE RAN PM Tech Pack
5	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepsucc1xrttsrvcc	46	2020-11-16	Ericsson LTE RAN PM Tech Pack
6	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepattcsfb	18	2020-11-16	Ericsson LTE RAN PM Tech Pack
7	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepattcsfbem	21	2020-11-16	Ericsson LTE RAN PM Tech Pack
8	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepsucccsfb	24	2020-11-16	Ericsson LTE RAN PM Tech Pack
9	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepsucccsfbem	21	2020-11-16	Ericsson LTE RAN PM Tech Pack
10	DC_E_ERBS_CDMA20001XRTTCEI	pmztempary96	19	2020-11-16	Ericsson LTE RAN PM Tech Pack
11	DC_E_ERBS_CDMA20001XRTTCEI	pmztempary97	24	2020-11-16	Ericsson LTE RAN PM Tech Pack
12	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepatt1xrttsrvcc	14	2020-11-16	Ericsson LTE RAN PM Tech Pack
13	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepsucc1xrttsrvcc	21	2020-11-16	Ericsson LTE RAN PM Tech Pack
14	DC_E_ERBS_CDMA20001XRTTCEI	pmhorepatt1xrttsrvcc	8	2020-11-16	Ericsson LTE RAN PM Tech Pack
15	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatgeran	6	2020-11-16	Ericsson LTE RAN PM Tech Pack
16	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatinterf	7	2020-11-16	Ericsson LTE RAN PM Tech Pack
17	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatinterf	7	2020-11-16	Ericsson LTE RAN PM Tech Pack
18	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatnonmobir	7	2020-11-16	Ericsson LTE RAN PM Tech Pack
19	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatnonmobite	7	2020-11-16	Ericsson LTE RAN PM Tech Pack
20	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexatutran	8	2020-11-16	Ericsson LTE RAN PM Tech Pack
21	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexsuccgeran	8	2020-11-16	Ericsson LTE RAN PM Tech Pack
22	DC_E_ERBS_EUTRANCELLFDD_F	pmflexcellhoexsuccinterf	8	2020-11-16	Ericsson LTE RAN PM Tech Pack

Above example shows the daywise counter statistics. Figure shows details like table name, counter name, access count, access date, and feature name.

For example, for counter **pmpdcpktdiscleth**:

- Table name: DC_E_ERBS_BBPROCESSINGRESOURCE_RAW
- Counter count: 14
- Access date: 2020-11-16
- Feature name: Ericsson LTE RAN PM Tech Pack

2. Aggregated Access Count

Aggregated CSV report contains aggregated access count across the selected time level. The file provides information such as "Last access date" which provides information about when the counter is last accessed in the selected time range, "Total_Access_Count" which provides information about overall aggregated number of times accessed across the selected time range. In case of unaccessed counters, counter_count is zero and access date is NA.

File format for aggregated access count is:<date>_<time>_aggregate_d_counters.csv.

Following is an example of aggregated access count::

Prepared (Subject resp)		No. 1/1532-CXP9039443 Uen		
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#	Table Name	Counter Name	Access_Count	Access_Date	Feature_Name#
2	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb1	33	2020-11-18	Ericsson LTE RAN PM Tech Pack
3	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb10	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
4	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb100	70	2020-11-18	Ericsson LTE RAN PM Tech Pack
5	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb11	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
6	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb12	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
7	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb13	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
8	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb14	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
9	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb15	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
10	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb16	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
11	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb17	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
12	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb18	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
13	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb19	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
14	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb2	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
15	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb20	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
16	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb21	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
17	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb22	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
18	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb23	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
19	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb24	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
20	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb25	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
21	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb26	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
22	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb27	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
23	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb28	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
24	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb29	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
25	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb3	34	2020-11-18	Ericsson LTE RAN PM Tech Pack
26	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb30	36	2020-11-18	Ericsson LTE RAN PM Tech Pack
27	DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb31	35	2020-11-18	Ericsson LTE RAN PM Tech Pack
28	DC_F_ERBSG2_PMULINTERFERENCEREPORT_RAW	pmradiorecinterferencecpwrbrpb32	36	2020-11-18	Ericsson LTE RAN PM Tech Pack

Above example shows the aggregated access count statistics for the selected time range. Figure shows details like table name, counter name, access count, access date, and feature name.

For example, for counter **pmradiorecinterferencecpwrbrpb1**:

- Table name: DC_E_ERBSG2_PMULINTERFERENCEREPORT_RAW
- Counter count: 33
- Access date: 2020-11-18
- Feature name: Ericsson LTE RAN PM Tech Pack

The following example shows difference between **Daywise Statistics** and **Aggregated Access Count**:

#	Table Name	Counter Name	Access	Access_Date	Feature_Name #
	DC_E_RAN_UCELL_RAW	pmdltrafficvolumeps16	4	11/16/2020	Ericsson WCDMA RAN PM Tech Pack
	DC_E_RAN_UCELL_RAW	pmdltrafficvolumeps16	6	11/17/2020	Ericsson WCDMA RAN PM Tech Pack
	DC_E_RAN_UCELL_RAW	pmdltrafficvolumeps16	21	11/18/2020	Ericsson WCDMA RAN PM Tech Pack
	DC_E_RAN_UCELL_RAW	pmdltrafficvolumeps16	1	11/21/2020	Ericsson WCDMA RAN PM Tech Pack

Figure 4 Daywise Statistics

Above example shows counter count for the counter **pmdltrafficvolumeps16**. It shows the count for dates 16/11/2020, 11/17/2020, 11/18/2020, 11/21/2020 as 4, 6, 21, and 1 respectively.

#	Table Name	Counter Name	Total Access_Count	Last_Access_Date	Feature_Name #
	DC_E_RAN_UCELL_RAW	pmdltrafficvolumeps16	32	11/21/2020	Ericsson WCDMA RAN PM Tech Pack

Figure 5 Aggregated Statistics

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		Reference	

Above example shows counter count for the counter `pmdltrafficvolumes16`. It shows aggregated count as 32. As seen in "Daywise Statistics", last accessed date is 11/21/2020 and total aggregated count of the counters is 32.

4.1 Disabling Counter Tool

Execute the following command to disable the counter statistics tool and stop logging:

Server	<ul style="list-style-type: none">• ENIQ-S (Standalone) Server• ENIQ-S Coordinator Server• ENIQ-S Reader1 server• ENIQ-S Reader 2 Server
User	root
root	<pre># cd /eniq/admin/bin # bash counter_statistics_tool.bsh -a disable_logging</pre>

Note: Stopping the services manually or due to any activity involves service restart.

For example : For upgarde, the tool needs to be disabled and then enabled again.

5 Log Monitoring

Ensure that the following flag files are present once the tool is enabled:

1. Flag file that ensures that the tool is enabled

```
/eniq/log/sw_log/iq/CounterTool/.rll_enabled_flag
```

2. Flag file to check parsing is consistent

```
/var/tmp/parse_tmp/first_occurance_instance_one
```

Execute the following command to check if any failed query messages seen in logfiles:

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Table 3

Server	<ul style="list-style-type: none"> • ENIQ-S (Standalone) Server • ENIQ-S Coordinator Server
User	root
Commands	<pre>{root} # cd /eniq/local_logs/counter_tool</pre> <pre>{root} # grep "failed_parsed_queries" /eniq/local_logs/counter_tool/counter_statistics_tool_*</pre> <p>For Example:</p> <pre>{root} #: cd /eniq/local_logs/counter_tool</pre> <pre>{root} # grep "failed_parsed_queries" /eniq/local_logs/counter_tool/counter_statistics_tool_*</pre> <pre>/eniq/local_logs/counter_tool/counter_statistics_tool_parse_levels_2020-11-18_07:00:02.log:ERROR: 2020-11-18 07:01:11,351: Failed to parse few queries. Please find the failed queries in /eniq/log/sw_log/iq/CounterTool/failed_queries/failed_parsed_queries_18-11-2020_07:00:12.txt</pre>

Note: If any failed queries are present after the execution of "grep" command, contact ericsson support.

If the current date-time is not same as date-time of the IQ logging file, then disable the logging and enable it again.

Execute the following command to check date-time of the IQ logging file:

```
{root} #: ls -larth /eniq/log/sw_log/iq/CounterTool/CO/data_files/iqtracedwhdb.log
```

```
ieatrcxb3732[eniq_stats] {root} #: ls -larth /eniq/log/sw_log/iq/CounterTool/CO/data_files/iqtracedwhdb.log
-rw-r----- 1 dcuser dc5000 427M Dec 2 18:59 /eniq/log/sw_log/iq/CounterTool/CO/data_files/iqtracedwhdb.log
```

Figure 6 IQ logging file

If current date-time is not same as date-time of the IQ logging file, then execute the following steps:

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Approved (Document resp)	Checked	Date 2020-09-23	Rev PA1	Reference

Server	<ul style="list-style-type: none">• ENIQ-S (Standalone) Server• ENIQ-S Coordinator Server• ENIQ-S Reader1 server• ENIQ-S Reader 2 Server
User	root
root	<pre># cd /eniq/admin/bin # bash counter_statistics_t ool.bsh -a data_collection # bash counter_statistics_t ool.bsh -a disable_logging</pre>

Prepared (Subject resp)		No. 1/1532-CXP9039443 Uen		
Approved (Document resp)	Checked	Date 2020-09-23	Rev PA1	Reference

6 **Glossary**

MOM Managed Object Model

7 **References**

[1] *CPI Store Library*
 <http://cpistore.internal.ericsson.com/>