HP OSS Software

HP Customer Experience Assurance V5.2

BASE platform

Release Notes

June 2015

Release Notes Edition 1

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Chapter 1Preface

This document contains the release notes of HP Customer Experience Assurance (*CEA*) V5.2 product, BASE platform.

Please read this document before installing or using the HP Customer Experience Assurance.

1.1 Intended Audience

This document is intended for HP CEA users, who will use or administrate the platform.

1.2 Software Versions

Software	Version	OS	Other
Customer Experience Assurance (CEA)	5.2	Suse SLES SP1/SP2/SP3* X86-64bit	JAVA 8 and Google Maps

* Suse SLES SP3 for x86_64 machines is the recommended OS version

1.3 Supported Hardware

Software	Version	Hardware
Customer Experience Assurance (CEA)	5.2	HP Proliant DL380 G7, Gen8 and Gen9

1.4 Typographical Conventions

The following textual conventions are used in this document:

Hyperlinks: Displayed as underlined text e.g.

http://java.sun.com/javase/downloads/index.jsp

1.5 Associated Documents

The following documents contain useful reference information:

- HP Customer Experience Assurance 5.2 -Installation and Configuration Guide

- HP Customer Experience Assurance 5.2 -Admin Guide

- HP Customer Experience Assurance 5.2 -User Guide

1.6 Software License Key

1.6.1 FOR PRODUCTION SYSTEMS

The HP CEA Core License keys for production systems are obtained from the HP Software Licensing portal: www.hp.com/software/licensing.

Customers actually receive an Electronic Delivery Receipt which includes a direct link to the Licensing Portal with the Entitlement Order Number (EON) already pre-populated.

License activation allows customers requesting and receiving electronic license keys to unlock the HP CEA Core software product that HP delivers upon purchase order.

1.6.2 FOR NON PRODUCTION SYSTEMS

Please note that the pre-requisite to obtaining support for HP CEA Non-Production licenses is a valid support contract covering the Production license copies of products.

Licenses keys would be generated and installed in servers by HP CEA Global Practice.

1.7 Support

Please visit our HP Software Web site at: https://softwaresupport.hp.com/ for contact information, and details about HP Software products, services and support.

The Software support area of the Software Web site includes the following:

- Troubleshooting information

- Patches and updates

- Problem reporting

- Training information

- Support program information

Chapter 2
Packages and Dependencies

2.1 Packages

The CEA 5.2 supersedes the previous releases. The software is delivered with the following packages:

Base Platform

Package	Version	Build	RPM
FlowSight standard base platform package	5.2.0	62697	flowsight-base-nwi-standard-5.2.0-62697.noarch.rpm
FlowSight binary package	5.2.0	62697	flowsight-bin-nwi-5.2.0-62697.x86_64.rpm
FlowSight binary vcea package	5.2.0	62697	flowsight-bin-pkg-vcea-5.2.0-62697.x86_64.rpm
FlowSight vcea config package	5.2.0	62697	flowsight-config-vcea-nwi-5.2.0-62697.noarch.rpm
FlowSight standard Graphical User Interface	5.2.0	62697	flowsight-gui-standard-5.2.0-62697.x86_64.rpm
FlowSight Device Database package (DEVICE DB)	5.2.0	62697	flowsight-device-db-nwi-5.2.0-62697.noarch.rpm
FlowSight utilities package	5.2.0	62697	flowsight-utils-nwi-5.2.0-62697.x86_64.rpm

2.1 Dependencies

The following Open source packages and Zhilabs proprietary packages are mandatory to install and operate with this software release:

Package	Version	Build	Dependencies
FlowSight standard base platform package	5.2.0	62697	monit* (5.2.5_zl1), sysstat (8.1.5-7.32.1), openssh (5.1p1-41.51.1), smartmontools (5.38.0.20081027-2.16.2.1)
FlowSight binary package	5.2.0	62697	jre1.8.0_31-1.8.0_31-fcs, jeval (0.9.4-zl_1), janino (2.7.6-zl_1), jython (2.5.2-zl_1), python-pycrypto (2.3-6.1), gwt (2.0.3-zl_1), python-pysnmp (4.1.16c-1.5), net-snmp (5.4.2.1-8.2.1), python-pyasn1 (0.0.13-5.4), python-beautifulsoup (3.0.8.1-8.1), python-paramiko (1.7.7.1-12.1), jline (0.9.94-zl_1), libpcap (1.1.1-20100507_zl_1), syslog4j (0.9.46-zl_1), jna (3.3.0-zl_1), commons-compress (1.2-zl_1), snmp4j (2.0.3-zl_1), libaho (1.0-zl_0)
FlowSight GUI package	5.2.0	62697	tomcat6-zhilabs (6.0.20-zl_7), jre1.8.0_31-1.8.0_31-fcs, jline (0.9.94-zl_1), dialog (1.1-27.23.1), webgui-offline-resources (20101105-zl_1), xmlstarlet (1.0.1-3.15), commons-compress (1.2-zl_1), log4j-mini (1.2.15-26.27), tcptrace (6.6.7-zl_2), phantomjs (1.9.8-zl_1)

* Conditions of the AGPLv3 license must be followed if this library is modified

Chapter 3
New features

3.1 What's new

CEA 5.2 allows the Operator to go from an Executive level view of the network and business impacting indicators including:

- Radio Access Technology
- Location
- Devices
- QoE
- Video
- Roaming
- Priceplans

to a deep dive of each Customer, down to each raw event and signaling packet.

Release 5 is 100% compatible with Release 4, adding the following features in the Base software:

- Fully Customizable Dashboards
- Drill-down capabilities
- Pivot navigation mode
- Unique Users computation
- Heatmaps
- Full-search via query language: including "scheduled reports" and "alarms for KQI values"
- New reports for Video Streaming: including "video resolutions", "number of videos" and "number of stalls"
- New reports for Browsing: new dimension URL
- MIXED technology
- Improved administration: backlog warnings and usage statistics

Release 5 supports LTE technology.

3.2 Fully Customizable Dashboards

Release 5 introduces the fully customizable dashboards, XML file based. This allows the information to be organized in executive dashboards. The following screenshots correspond to the out-of-the-box initial screen and a couple of predefined dashboards accessible from the initial screen with simple clicks.
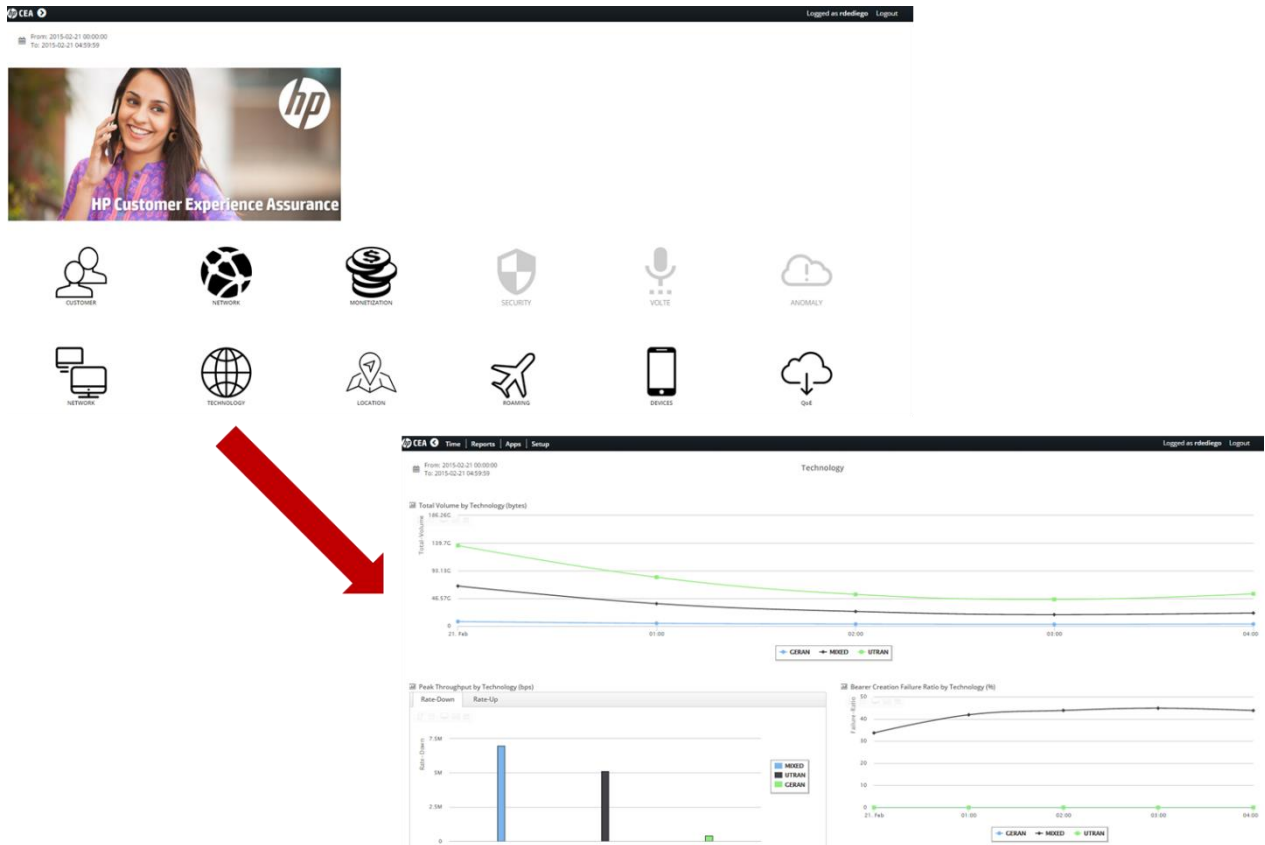
The predefined dashboards are organized in the following areas:

- Network
- Technology
- Location
- Roaming
- Device
- Video
- QoE

3.3 Drill-down capabilities

The new charts supported in Release 5.2 introduce the drill-down, which means the ability to query the data for a new dimension by filtering from a previous dimension displayed in the current chart.

This changes the visualization to a new chart with the selected filtering from the previous dimension and displaying the information grouped by the selected dimension to drill-down.

The following image displays a drilldown sequence, reaching the Individual Contributors:
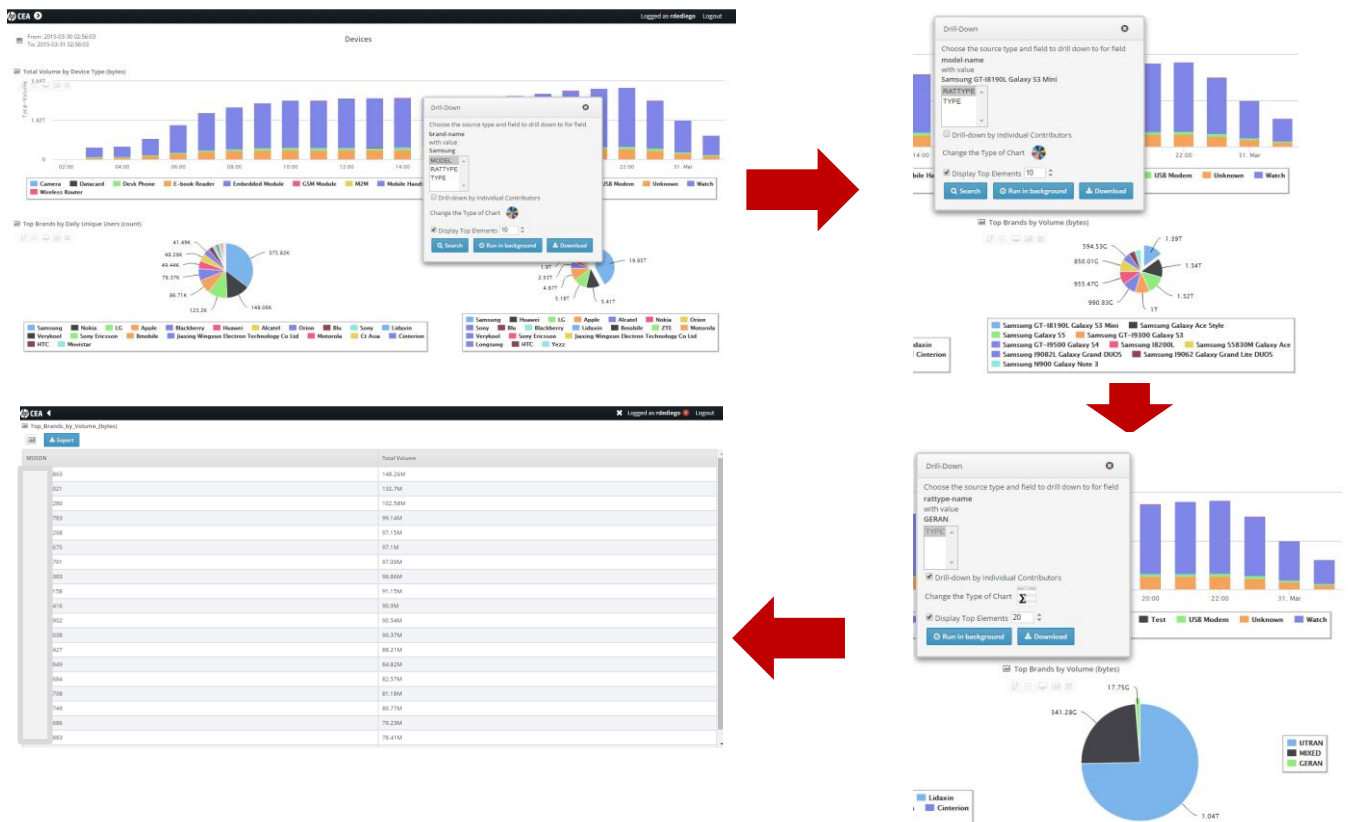
3.4 Pivot Navigation Mode

Release 5 introduces a new mode to access the information available in the pre-configured reports. The new mode allows the user to select one or more initial dimensions to display an indicator along with a visualization.
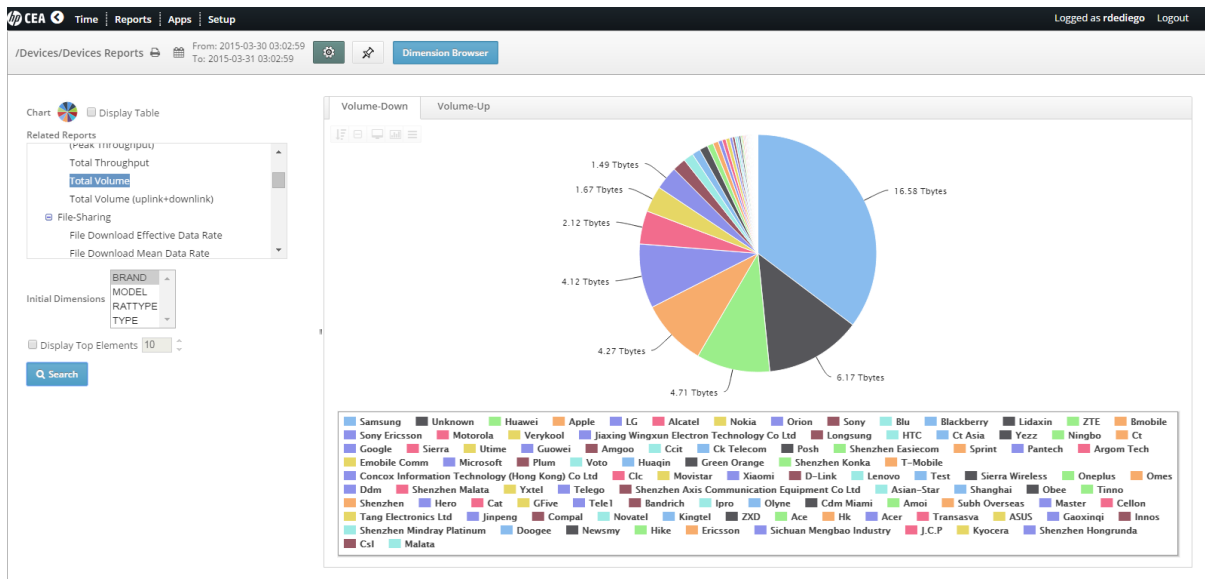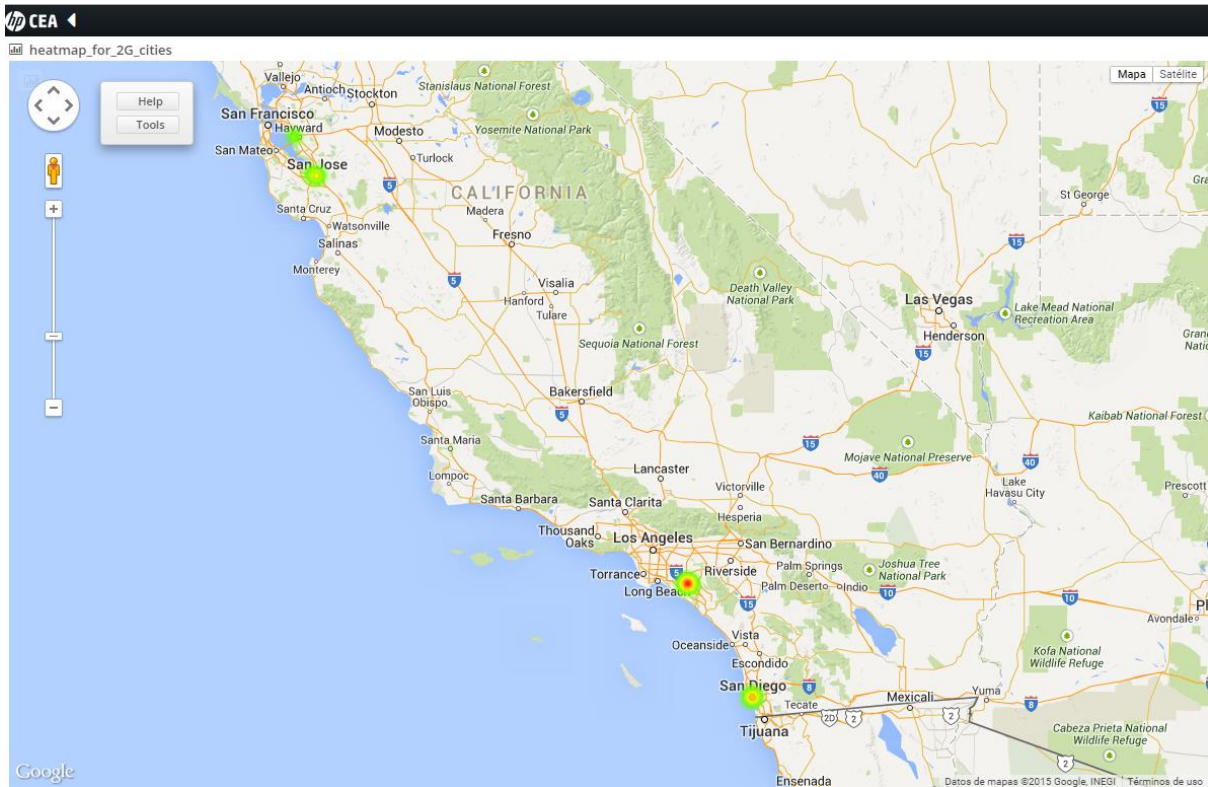
3.5 Unique Users Computation

Release 5 introduces unique users' computation in a daily basis. The indicator is available per data session and application reports.
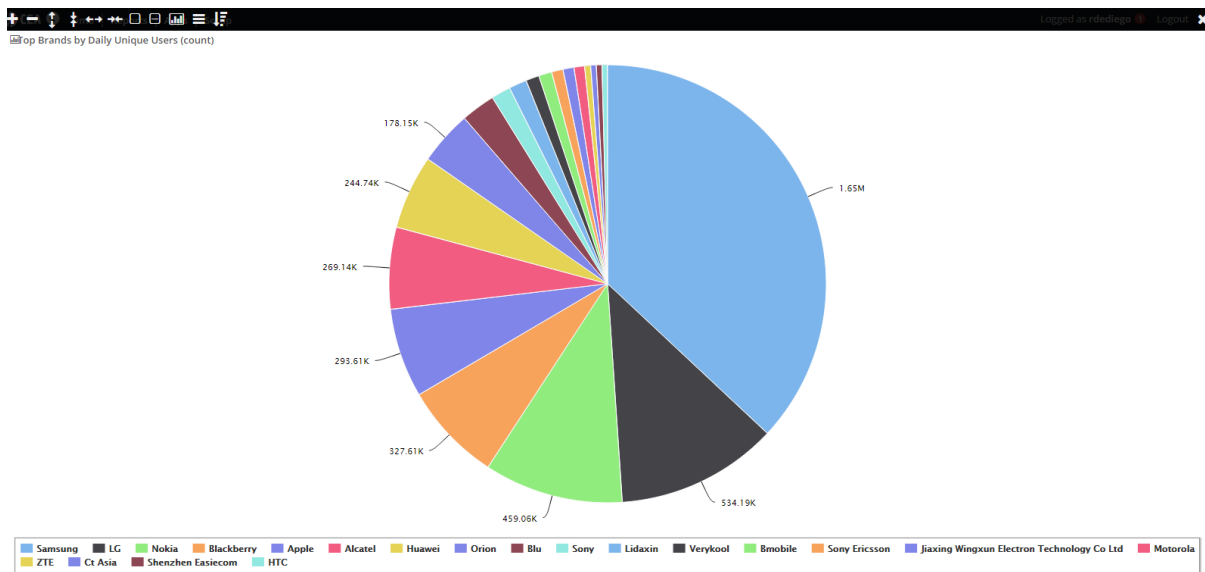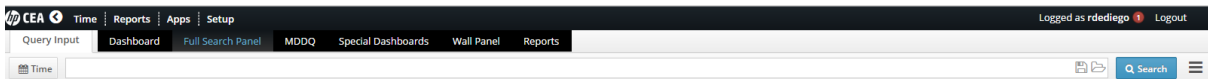

3.6 Heatmaps

Geolocated information in release 5 can be displayed in single or multi-layer heatmaps.

3.7 Full-search via query language

Full Search Panel provides an interface to create any formula for troubleshooting.

The order and labels of the menus may vary depending on the installations.
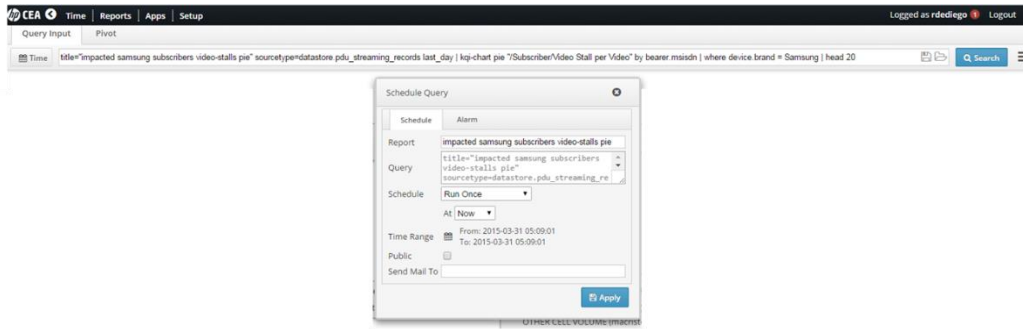
The user should have the right role to create the report.

Write down some compulsory parameters as dates (from, to) and sourcetype (those containing app information). After that, you can represent this KPI in several ways by using chart function. Some examples:
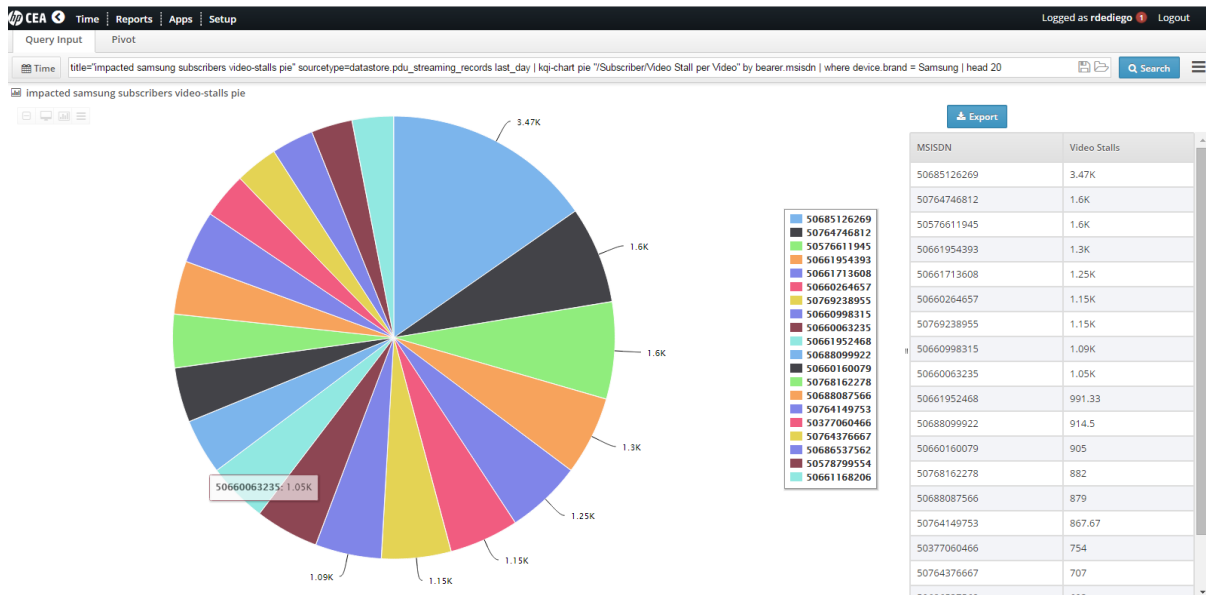
- Pie
- Column
- Bar
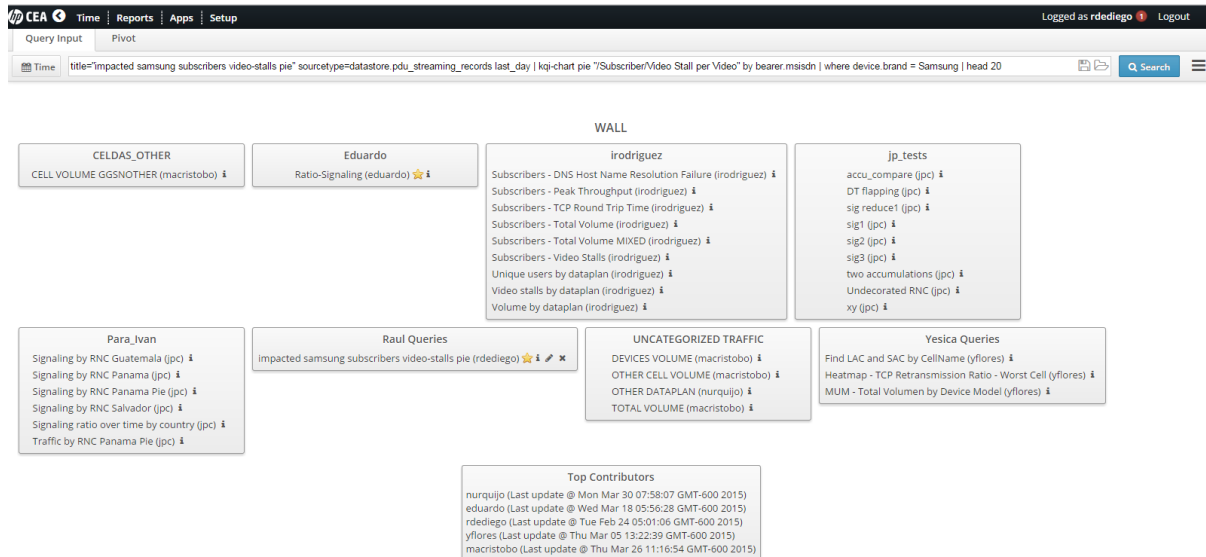- Stackedpie
- Stackedcol
- Stackedbar
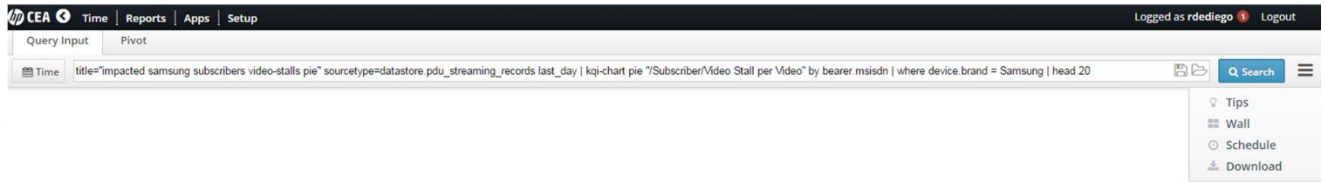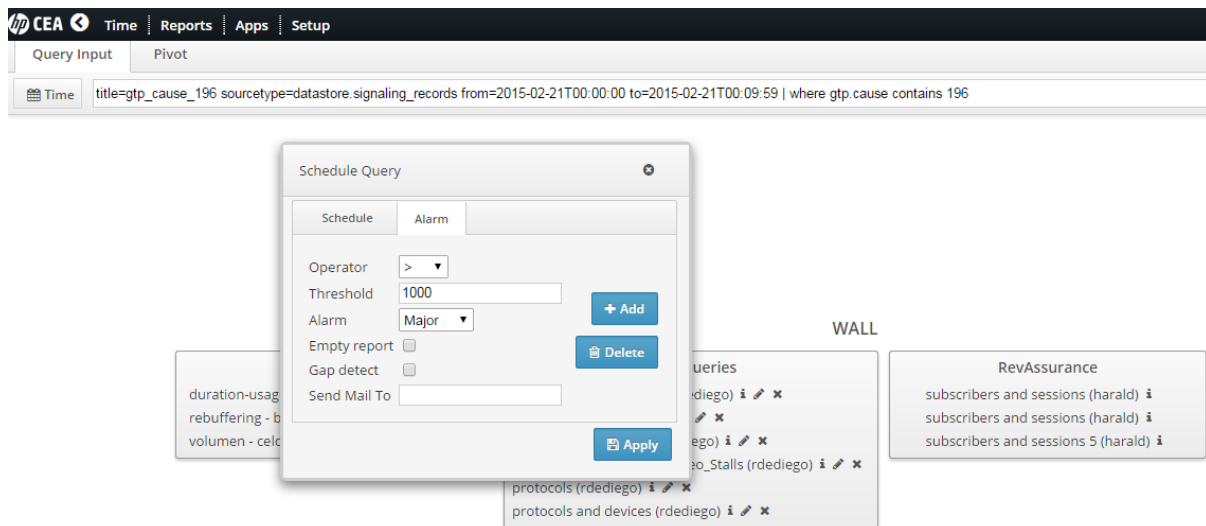
Execution of queries could be scheduled:

You would get the outcome:

Queries could be also saved in the Wall and make them available for other users.

Alarms can also be set for the reports, by scheduling queries with thresholds:

See product documentation or online help to checkout other possibilities.

3.8 New reports for Video

Streaming KQIs have been modified in the following way:

- Streaming Rebuffering Time:

  o In 4.5 this KQI measured the difference between the Rebuffering Time and the Streaming Duration (which could mean a negative Time in case there was no Rebuffering).

  o In new release it just takes into account the Rebuffering Time value

- New KQIs:

  o Total Number of Videos

  o Total Reproduction Time per Video

  o Reproduction Quality

- o Number of Stalls per Video
- New dimensions
  - o Video-codec
  - o Max-resolution
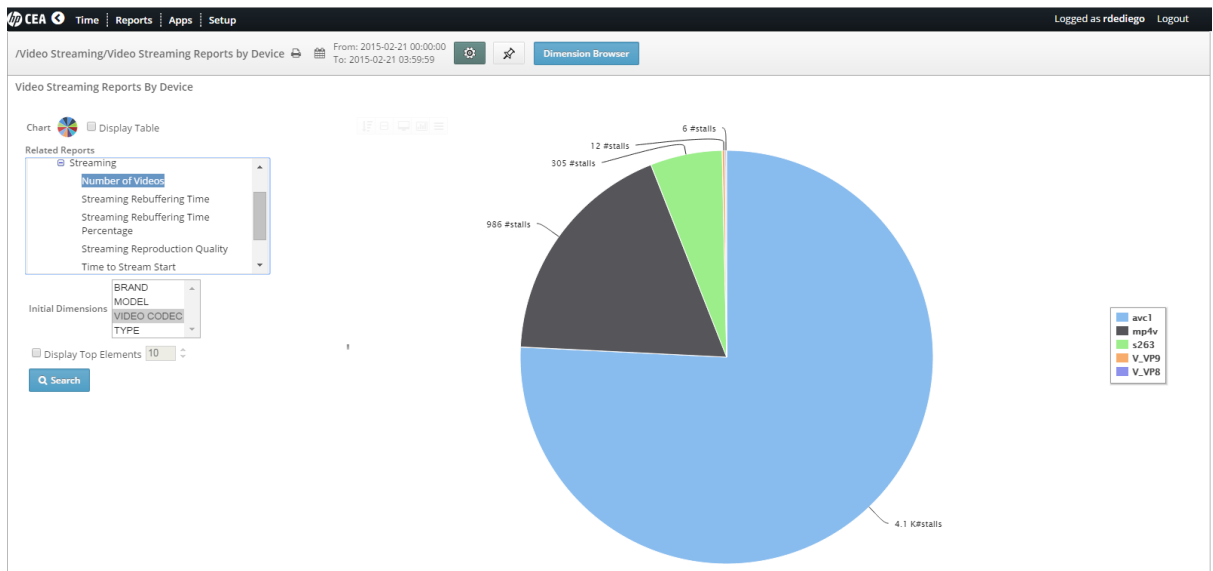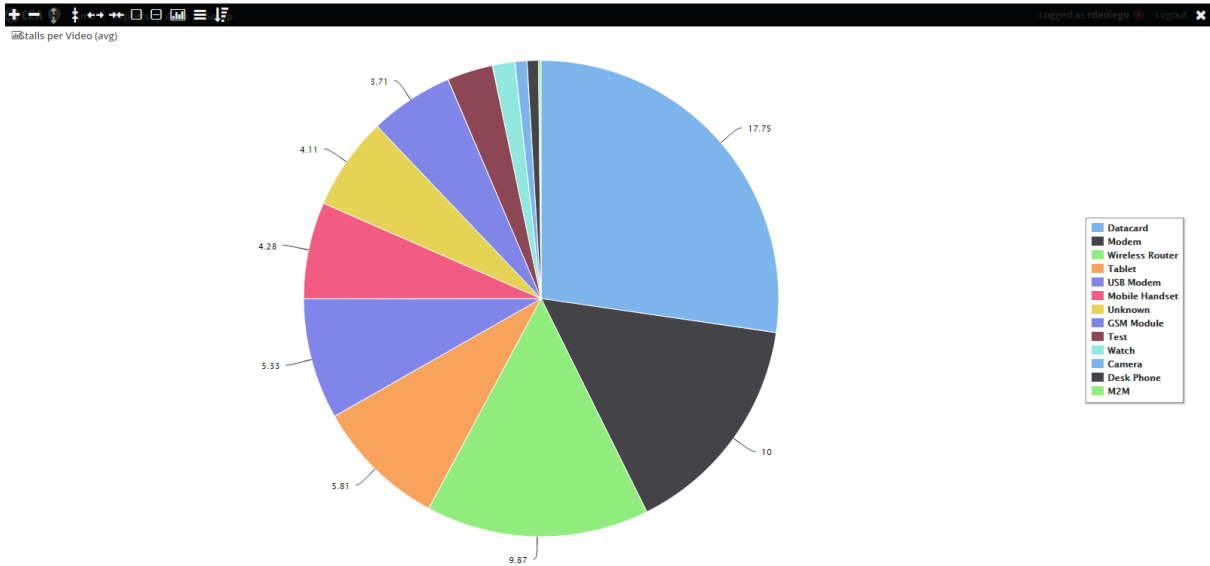


Considerations for Streaming reports are:

- Streaming sites:
  - o Streaming flows are those HTTP flows which end in popular video streaming sites like:

- video.google.com/youtube.com

- instagram.com

- metacafe.com

- vimeo.com

  o Each provider implements adaptive video differently, and for this reason, only adaptive video/DASH in YouTube is supported.

- Disclaimers:

  o Due to the high variability of delivery methods for streaming videos, video analysis can only be guaranteed for the above video sites as of 1st December 2014. Any changes in the delivery processes by each provider will be reflected in next releases as per Zhilabs roadmap.

  o Secure connections to streaming sites (https) will not be accounted in streaming calculations.

  o The video analysis only takes place for video-on-demand. Live streaming is not supported.

  o Specific behaviour for each program when downloading video files may affect metric calculations. For example, video player loads part of the video when accessing the website, and waits for the user to hit play to download the rest, which can happen right away or after some time.

  o The socket used for the video transport needs to be exclusively dedicated to the video. Pipelining is not accepted. Example: Downloading an image before downloading the video in the same socket.

  o Videos with length shorter than 5 seconds will not contribute to the metrics.

  o Acceptable videos will include metadata at the beginning of the file.

  o Matroska based files (MKV or WebM), video metadata needs to travel in the same packet that the beginning of the EBML file.

  o If the player generates inactivity time blocks, for example, if the user pauses the reproduction of the video, metrics can be affected. Assumption is then that the video player downloads the video continuously.

3.9 New reports for Browsing

HTTP Session Time is now available for the dimension URL, providing the HTTP session Time measurement for a list of up to 50 home pages such as www.google.com/ or www.apple.com/
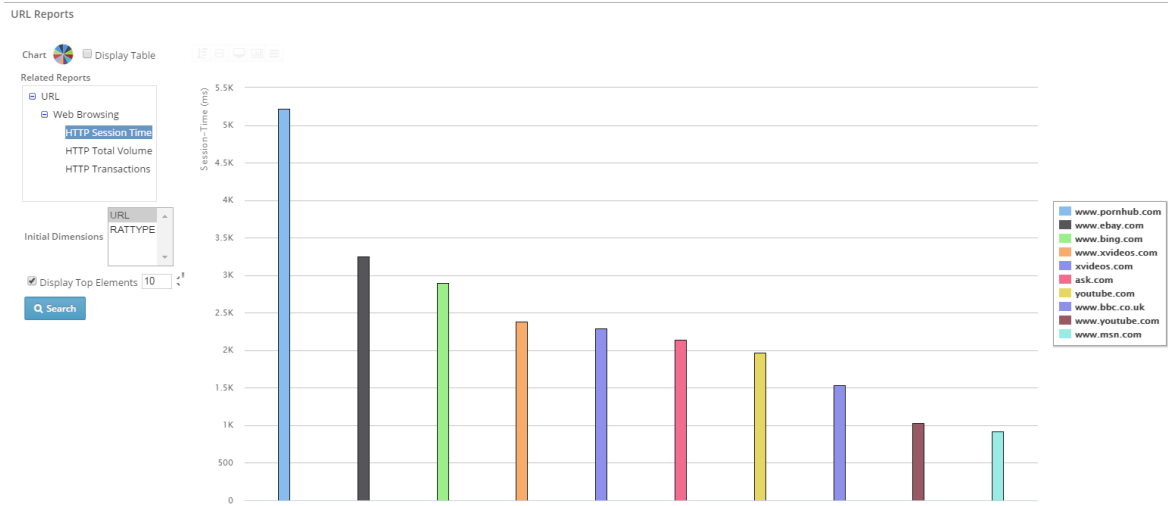
3.10 MIXED technology

In Technology reports a new value is available: MIXED. This value gives the operator a good idea of amount of traffic in data sessions where handovers happened.
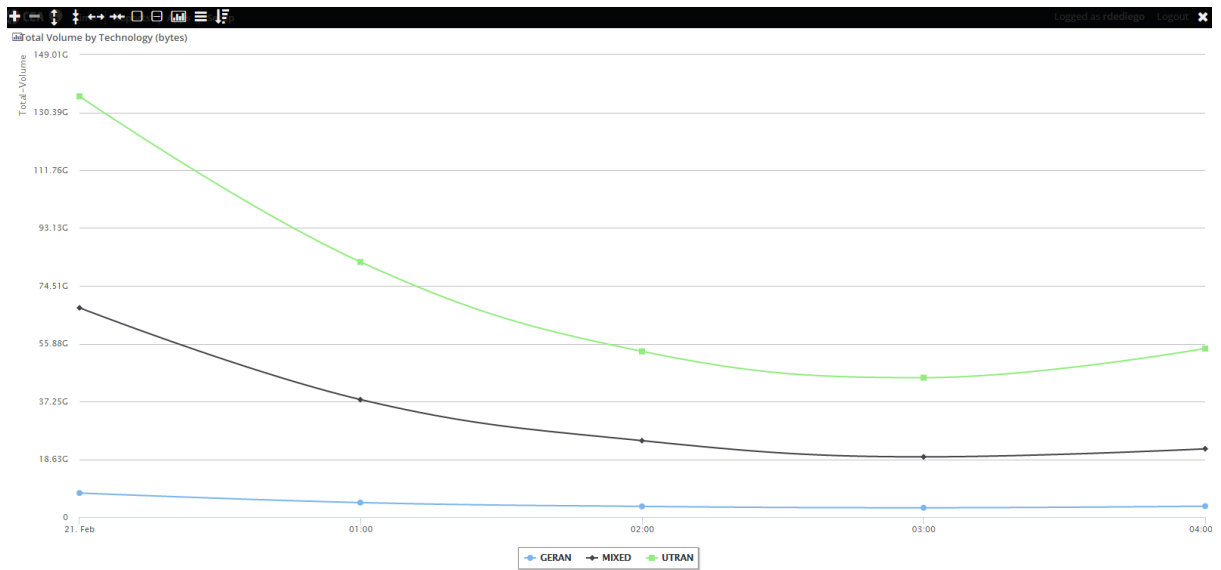

3.11 LTE reports

New release 5.2 supports LTE technology. Those operators that has 4G enabled networks will see:

- Values for specific KQIs in LTE-signaling
- Values for specific LTE network nodes (e-node-b, MME)

3.12 Improved administration

3.12.1 Backlog warnings

New release includes a feature that informs the user when there is still some backlog to process and which family KPI's might be affected:
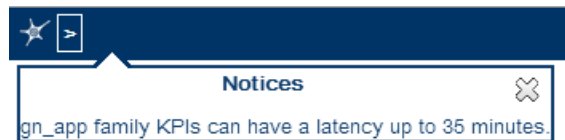

In backlog situations KQI values can be affected.

3.12.2 Usage statistics

This feature provides statistics about the usage of the platform such as the number of logins or the most popular queries.

Platform Usage Statistics are accessible via Main Menu by selecting Apps > Admin Console > Statistics option. It includes four tabs:

- General Statistics

- Login Statistics

- Report Statistics

- User Report Statistics
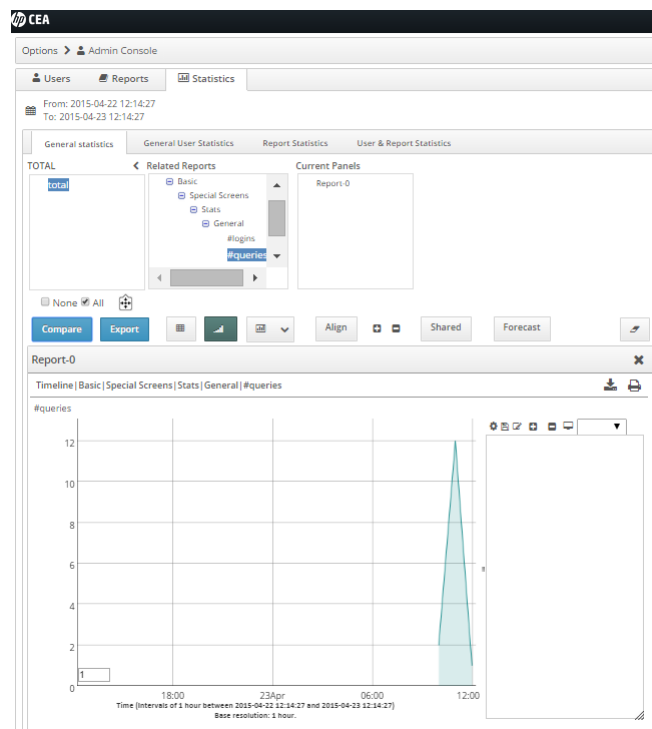
Chapter 4
Known issues

4.1 BASE

ID	Title	Impact for the end user	Workaround in current release
4651040347	[FullSearch] Timestamp without format	Minor format issue in full-search when exporting to csv	-
4651102472	[FullSearch] Wrong units for Get-sessions function values	Some fields (like tunnel-id) when visualized in table have units (example: K)	-
4651122079	[Performance] Not allowed to change Schedule parameter nor delete scheduled reports	Scheduled reports should finish	New scheduled report should be created
4650686872	[Security] Zhilabs user with superuser privileges	None	Suoders file has been changed in order to avoid the proble
4651004041	[Installation] zstore5 permissions	None	-
4651092909	[Performance] Slowness when several heavy full-search queries have been run	Slowness when querying reports	Number of scheduled reports should be limited to specific
4651169733	[FullSearch] Partial result warning not shown in MOLE querys	Partial results	It happens in exceptional situations (e.g. servers down)
4651215339	[Performance] Backlog generated by remote-collector	Backlog in the system.	Support team should be informed
4651020995	[Scheduling] Alarms on multi-column KQIs	Multi-column KQIs cannot be alarmed. List of multi-column KQIs in the User Guide	-

Maintenance packs will be generated periodically for bug-fixing.