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# hp Unified OSS Console



## **Unified OSS Console V2.1**

### **Add-on OSS Analytics**

**Edition: 1.0**

**For the Linux (RHEL 6.5)**

**June 2015**

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# Preface

This document describes the user guide for the HP Unified OSS Console – Add-on OSS Analytics product. It is a mandatory product to use packages from OSS Analytics for QoE.

## Intended Audience

Here are some recommendations based on possible reader profiles:

- Administrator
- Operators
- Value Pack Designer
- Dashboards / Views Designer
- Integrator and delivery teams

## Software Versions

The term UNIX is used as a generic reference to the operating system, unless otherwise specified.

The software versions referred to in this document are as follows:

Product Version	Supported Operating systems
Unified OSS Console V2.1.0	Red Hat Enterprise Linux Server release RHEL 6.5
Unified OSS Console V2.1.0 – Addon OSS Analytics V1.1	Red Hat Enterprise Linux Server release RHEL 6.5

**Table 1 - Software versions**

## Typographical Conventions

Courier Font:

- Source code and examples of file contents.
- Commands that you enter on the screen.
- Pathnames
- Keyboard key names

*Italic Text:*

- Filenames, programs and parameters.
- The names of other documents referenced in this manual.

**Bold Text:**

- To introduce new terms and to emphasize important words.

## Associated Documents

- HP Unified OSS Console V2.1 - Installation Guide
- HP Unified OSS Console V2.1 – Release Notes
- HP Unified OSS Console V2.1 – Add-on OSS Analytics - Release Notes

## Support

Please visit our HP Software Support Online 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:

- Downloadable documentation.
- Troubleshooting information.
- Patches and updates.
- Problem reporting.
- Training information.
- Support program information.

## Getting Started

### 1.1 Pre-requisite

#### 1.1.1 Software

**This Add-on has only been developed for the HP Unified OSS Console V2.1** and need an installation of this product to work.

Please refer to the HP Unified OSS Console installation Guide to install this prerequisite.

#### 1.1.2 Web Browser

Only the following web browsers are supported:

Web Browser	Version	Web site
Microsoft Internet Explorer	10 or later	<a href="http://windows.microsoft.com/en-us/internet-explorer/download-ie">http://windows.microsoft.com/en-us/internet-explorer/download-ie</a>
Mozilla Firefox	V32 or later	<a href="https://www.mozilla.org/en-US/firefox">https://www.mozilla.org/en-US/firefox</a>
Google Chrome	V37 or later	<a href="https://www.google.com/chrome">https://www.google.com/chrome</a>

#### 1.1.3 Mobile Device

UOC is fully compliant with mobile devices and provides responsive screens capable to adapt their layout and display, depending on the device constraints like its screen resolution..

Requirements	Minimal	Recomanded
CPU	2 cores	4 cores
RAM	1 GB	2 GB
WIFI	802.11b/g/n	802.11ac
Display Size	any	Tablet 10"

## Add-on OSS Analytics

This add-on allows to connect the UOC product to the OSS Analytics Server especially the Analytics for QoE (data and engine server) to monitor and analyze in real-time dedicated OSS Analytics dashboards (Customer Experience...)

### 2.1 OSS Analytics Overview

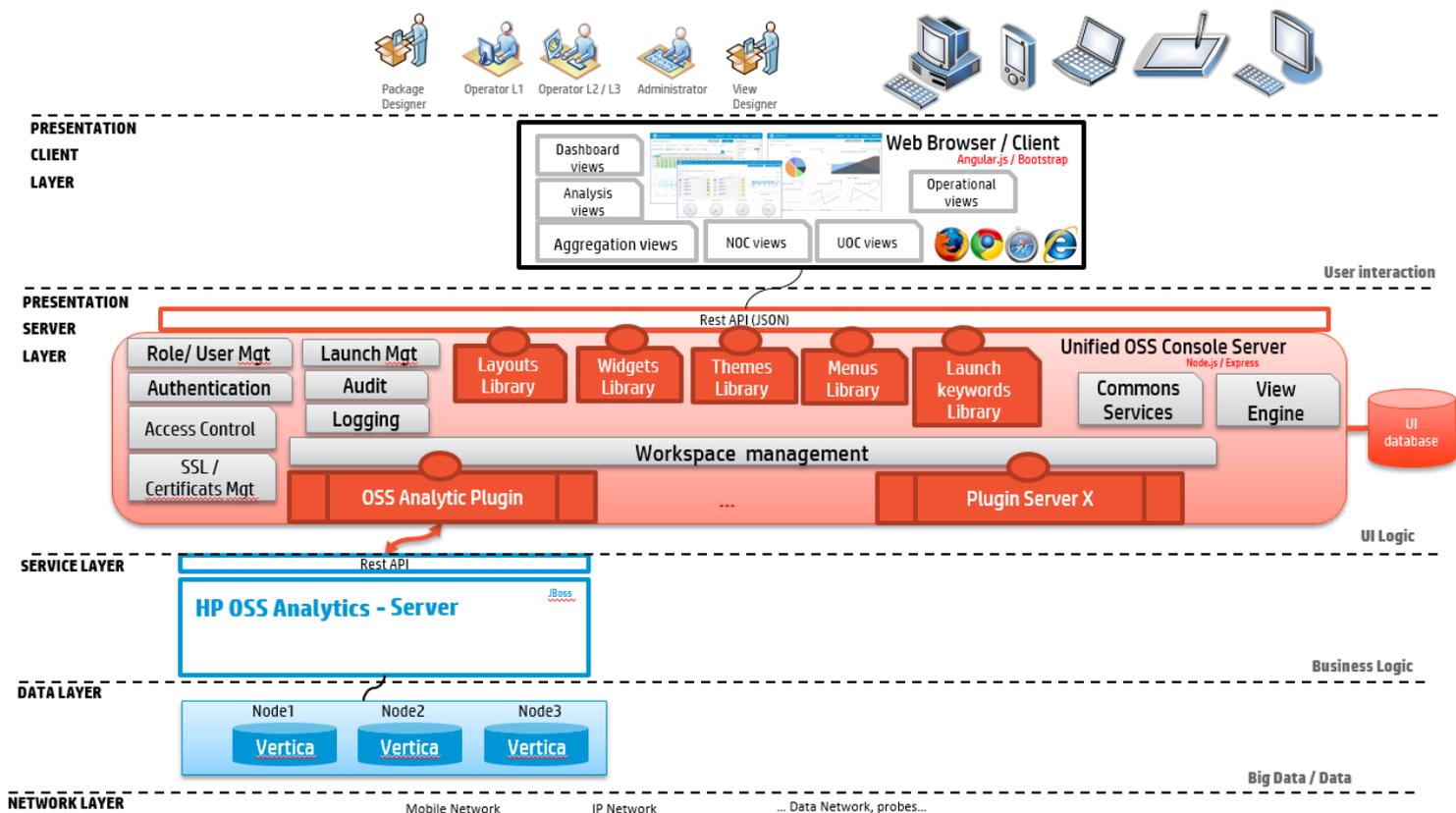


Figure 1 – OSS Analytics Overview

This Add-on provide an access to OSS Analytics server and its powerful database Vertica. It also brings some additional widgets dedicated to the analytics, especially for Quality of Experience (session table, customer care...)

## 2.2 OSS Analytics for QoE Overview

The Add-ons OSS Analytics extends the UOC product by adding the following features related to OSS Analytics for QoE:

- Out-of-the-box applications
- Real-time Dashboards & report
- Ready to use KPIs/KQIs Packages
- Operations Automation

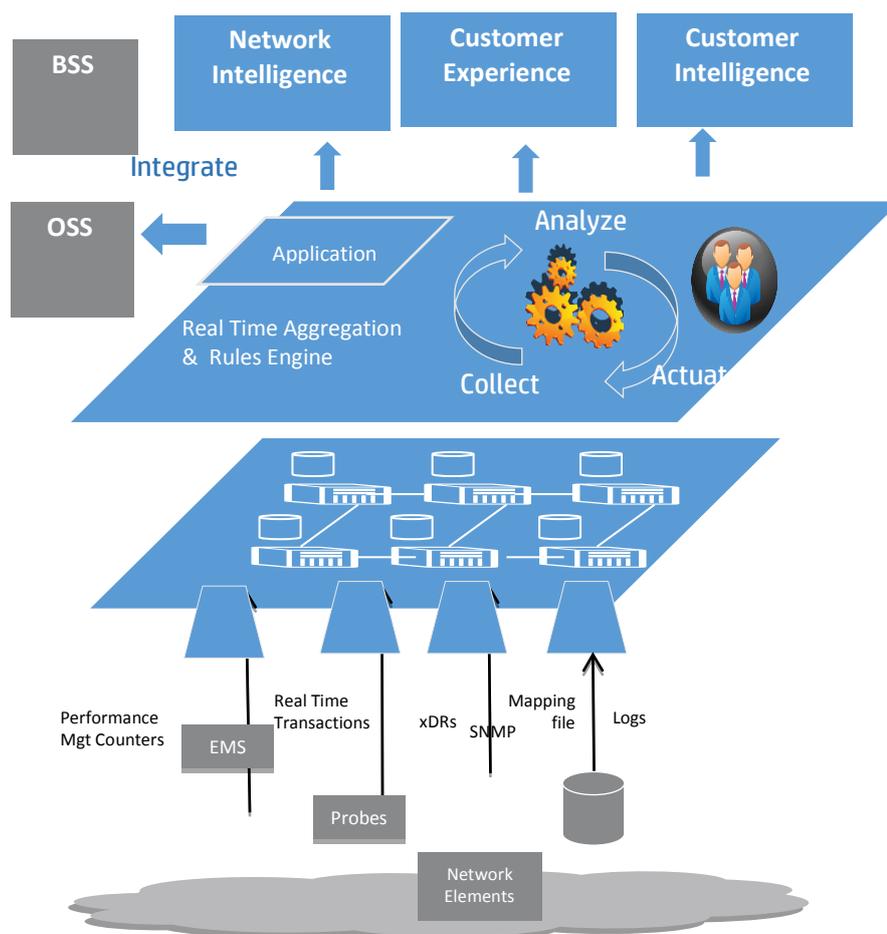


Figure 2 – OSS Analytics for QoE Overview

## 2.3 Add-on OSS Analytics

This UOC OSSA Add-on installs:

- the plugin OSSA on the UOC Server in **<install\_dir>/server/addons/plugin/ossa**
- the configuration file for plugin OSSA on the UOC Server in **<install\_dir>/server/public/addons/plugins/ossa/config.json**

And provides 2 additional widgets:

- OSSA Session Table widget in  
**<install\_dir>/client/addons/ossa/widgets/ossa-session-table.**
- OSSA Customer Care widget in  
**<install\_dir>/client/addons/ossa/widgets/ossa-ccd.**

## 2.3.1 Add-ons Server

This extension will also install the following server component.

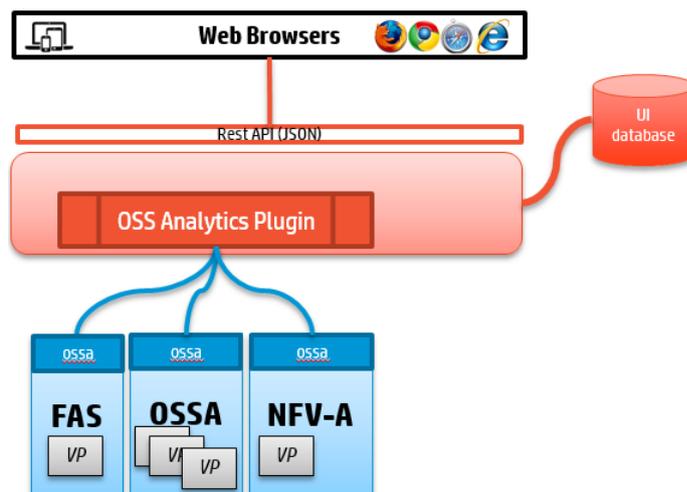
### 2.3.1.1 Plugin OSS Analytics

This extension installs a new plugin to access to the OSS Analytics Server (OSSA Server). It requires a correct installation of the server to be fully functional and manage only packages that follow the unified value pack format for OSS Analytics.

The plugin OSSA can now manage several data server configuration sharing the the same interface (ex: OSSA)

→ The configuration file has been updated to provide multiple servers ,protocols, ports definition.

→ During the startup, UOC queries all defined servers to collect all value packs.



**Figure 3 – Multiple servers configuration for OSSA Plugin**

Example of OSSA configuration file:

<install\_dir>\server\public\addons\plugins\ossa

```
{  
  "servers": {  
    "cea": {  
      "protocol": "http",  
      "host": "ossv031.gre.hp.com",  
      "port": "8080"  
    },  
    "fas": {
```

```
        "protocol": "http",
        "host": "dubaiv1.gre.hp.com",
        "port": "8080"
    }
},
"active": true,
"demo": false
}
```

---

*the plugin OSSA on the UOC Server in <install\_dir>/server/addons/plugin/ossa*

*Plugin Configuration is installed in <install\_dir>/server/public/addons/ossa/config.json*

---

By default the compression is enabled between Unified OSS Console and the OSSA Server.

It is possible to disabled this compression adding a specific definition in the configuration file.

```
"cea": {
    "protocol": "http",
    "host": "ossv031.gre.hp.com",
    "port": "8080",
    "gzip" : false
},
```

---

*Default value for gzip option is **true**. Compression is enabled for optimization.*

---

### 2.3.2 Add-ons Client

This extension installs the following client components on top of the existing default widgets and allows the view designer to mix them together to provide accurate dashboards.

- Widget OSS Analytics Session Table (ossa-session-table)
- Widget OSS Customer Care Dashboard (ossa-ccd)

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*OSSA Session Table in <install\_dir>/client/addons/ossa/widgets/ossa-session-table*

*OSSA CCD in <install\_dir>/client/addons/ossa/widgets/ossa-ccd*

---

## 2.3.2.1 Widget OSS Analytics Session Table

Identifier	Name
ossa-session-table	OSSA Session Table

**Table 2 – Add-ons OSSA Widgets**

This new widget is available after installation in the widget library.



**Figure 4 – Widget Library - OSSA Session Table**

This widget allows to display PDP sessions of a specific subscriber. There are several ways to identify the subscriber:

- By IMSI
- By MSISDN
- By IMEISV

After entering a value, a query is executed to retrieve all the PDP sessions associated to this user in the requested period of time.

The Session table displays a set of columns related to the session of the user. It is possible to dynamically sort these columns (ascending or descending) by clicking on their headers. It is also possible to change the order of these columns by drag-and-dropping their headers.

🔍 🔄 ✖ ⚙

Sessions for subscriber: **IMSI: 208331000024432 MSISDN: 331000024432 IMEISV: 3515100515315103** Total count: 11

START_TIME	STOP_TIME	APN	MODEL	GROUP_NAME	SUBGROUP_NAME	RATE_PLAN_NAME	RAT_NAME	summary_throughp...	summary_average_...	total_volume_down	total_volume_up
21:00:43 14-09-17	21:04:36 14-09-17	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	0	1.777	1350	2447
02:05:30 14-09-18	02:09:09 14-09-18	blackberry.net	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	46011.2	81.631	64428	46266
05:22:30 14-09-18	05:22:31 14-09-18	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	4547.2	10.003	6158	3878
05:22:34 14-09-18	05:26:53 14-09-18	blackberry.net	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	791326.4	24828.163	8169439	1136884
06:23:31 14-09-18	06:23:42 14-09-18	blackberry.net	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	11537.6	37.508	10596	9713
06:23:31 14-09-18	07:06:18 14-09-18	blackberry.net	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	11537.6	45.916	10551	9657
08:18:24 14-09-18	09:11:13 14-09-18	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	1990.4	14.364	5768	1047
08:18:24 14-09-18	10:03:23 14-09-18	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	9049.6	96.607	92612	21284
08:18:29 14-09-18	08:28:26 14-09-18	blackberry.net	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	10699.2	351.175	94240	27679
09:58:54 14-09-18	10:13:54 14-09-18	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	67040	5114.956	871854	0
09:58:54 14-09-18	10:26:39 14-09-18	hpptt.testdata.com.fr	Blackberry Tour 9620	_UNKNOWN_	_UNKNOWN_	_UNKNOWN_	UTRAN	67040	2078.613	911826	0

**Figure 5 – Example of OSSA Session Table**

The View Designer can also link this widget to any other chart widget. If this is the case, clicking a Session table's row can display details in another widget (e.g. the evolution of the metric over time).

The configuration button allows the operator to refine the visual presentation.

- Start or not automatically the query after entering a subscriber id
- Maximum number of columns to display
- Maximum number of row to display
- Date/time format
- Selection of visible columns in the table

**Widget Configuration Panel**

MBBQOE / MBBQoE Customer Care / PDP Sessions / Session Table

**Automatic Query:**

**Maximum number of columns:**

**Maximum number of rows:**

**Timestamp format:**

**Choose columns:**

- APN
- FIRST\_CELL\_NAME
- FIRST\_GGSN
- FIRST\_SGSN
- GROUP\_NAME
- IMEISV
- IMSI
- LAST\_CELL\_NAME
- LAST\_GGSN
- LAST\_SGSN
- MCC
- MNC
- MODEL
- MSISDN
- OS
- RATE\_PLAN\_NAME
- RAT\_NAME
- SESSION\_ID
- START\_TIME
- STOP\_TIME
- SUBGROUP\_NAME
- qos\_max\_dl\_rate
- qos\_max\_ul\_rate
- summary\_average\_throughput
- summary\_average\_throughput\_down
- summary\_average\_throughput\_up
- summary\_throughput
- summary\_throughput\_down
- summary\_throughput\_up
- total\_volume\_down
- total\_volume\_up

**Apply**

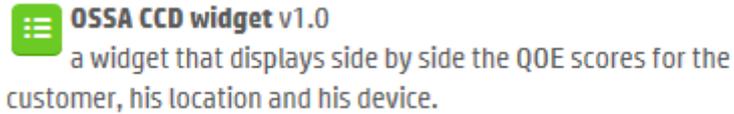
**Figure 6 – OSSA Session Table Configuration Panel**

### 2.3.2.2 Widget OSS Customer Care Dashboard

Identifier	Name
ossa-ccd	OSSA Customer Care Dashboard

**Table 3 – Add-ons OSSA CCD Widget**

This new widget is available after installation in the widget library.



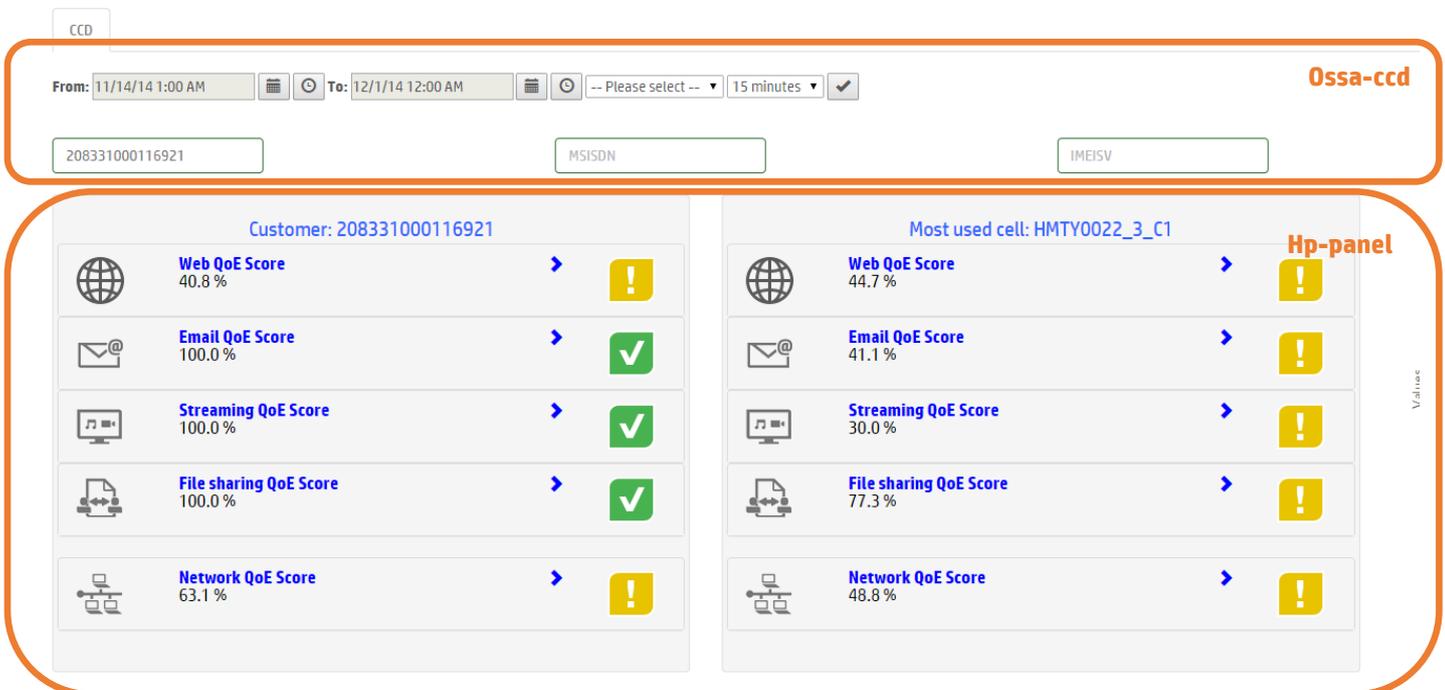
**Figure 7 – Widget Library - OSSA Customer Care Dashboard**

This widget allows to display side by side the Quality of Experience (QoE) scores of a customer, his location and his device.

There are several ways to identify the subscriber:

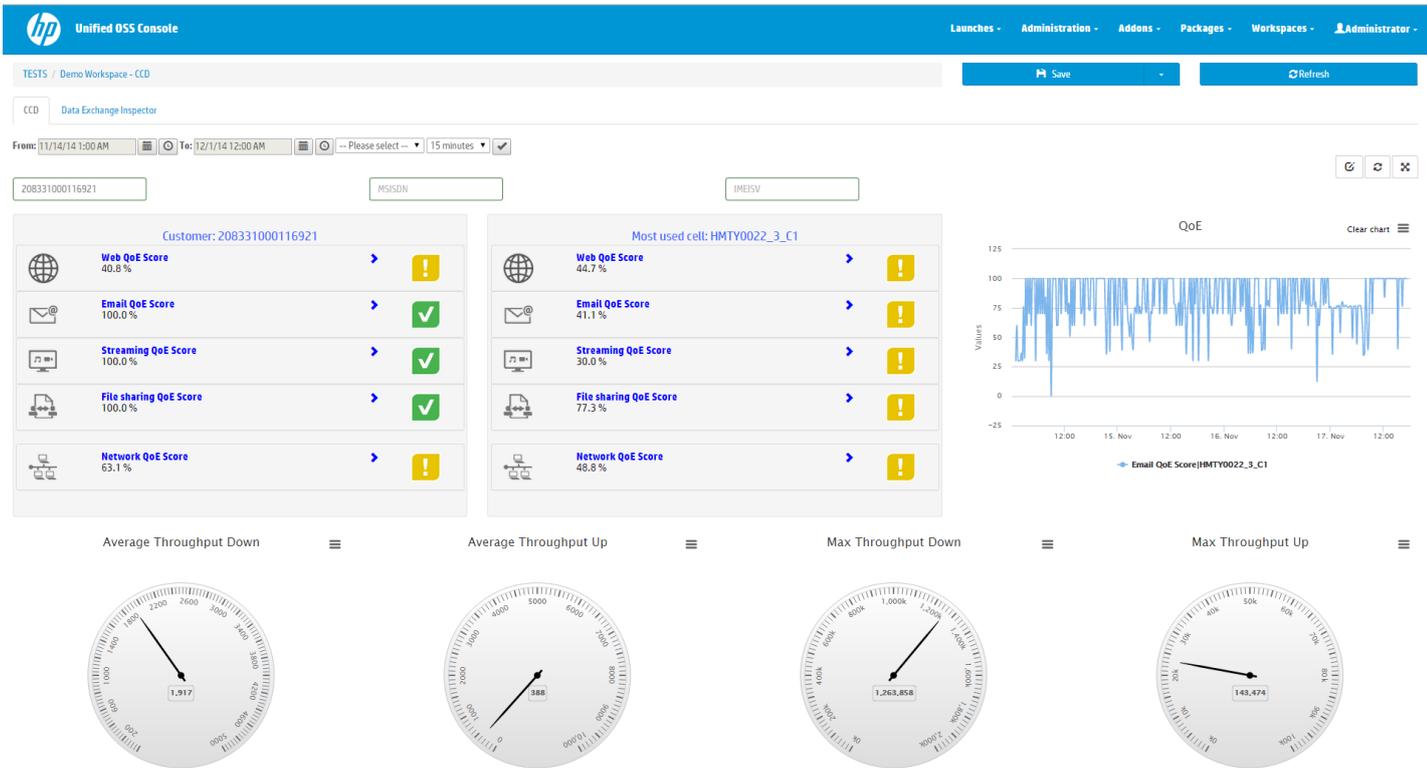
- By IMSI
- By MSISDN
- By IMEISV

After entering a value, several queries are executed to retrieve all the information needed to provide a summarized panel of the customer’s QoE, the customer’s main location’s QoE, and the customer’s mobile device model’s QoE, for the selected period of time.



**Figure 8 – Example of OSSA Customer Care Dashboard**

By default, there is no presentation of results, so this CCD widget is usually used in association with another widget like hp-panel or hp-gauge to present synthetic information. The view designer can define thresholds per metric and adjust the presentation style (icon, badge value, color...) based on the metric's value and predefined thresholds.



**Figure 9 –Example - OSSA Customer Care View with other charts widgets (panel , line, gauges...)**

*Note: All these dashboard need to be designed on demand by a view designer. They are customizable and it is possible to assemble several widgets on the same page.*