CMP 8.11

Online Analytics

Version 1.0

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Version Control

Version	Issue Date	Author	Comments
Version 1.0	26 May 2023	MDS	CMP 8.11 Release - No changes since the last release.

Terms Used in this Document

For definitions and explanations of the terms, abbreviations and acronyms used in this document, please see the *CMP Glossary* document.

1.0 Introduction

MDS Global Online Analytics (OLA) can support the drive to maximise revenue, reduce costs, improve customer experience, and better engage customers by providing the functionality to track and trend key performance indicators such as:

- churn
- connections
- customer contacts
- revenue
- profitability
- services consumed, as well as other key areas

Online Analytics offers a rich, interactive online dashboard, which uses data from the integrated database at the heart of the MDS Global Customer Management Platform (CMP).

Presented as a Software-as-a-Service solution, MDS Global OLA delivers meaningful business insight to MDS Global customers' senior and operational management groups.

OLA is an in-memory solution, delivered via a web browser to support access from multiple device types. Users can use the pre-calculated business metrics provided or can quickly interact with the information to serve their own analytical needs, without relying on in-house IT or Business Insight support. This makes OLA a flexible, cost effective and powerful business tool. The in-memory design allows ends users to interrogate data without impacting any production systems.

In addition, Online Analytics allows configuration of data extracted from CMP to enable, for example, reclassification of data to make for more logical analysis, or the grouping of account types to allow better customer segmentation.

1. 1 Purpose of This Guide

This guide provides an overview of the MDS Global OLA interface and functions and describes the specific KPIs and Analytics available; it is not intended to be a user guide or a technical overview.

1. 2 Required Reading

This document assumes prior knowledge of the *CMP Overview*.

2.0 OLA Design Overview

2. 1 Design Principles

Online Analytics (OLA) visualises data for users. A standard design approach achieves a consistent user experience. Each business function has configured Key Performance Indictors (KPIs) that can be displayed to enable access to further self-serve analytics.

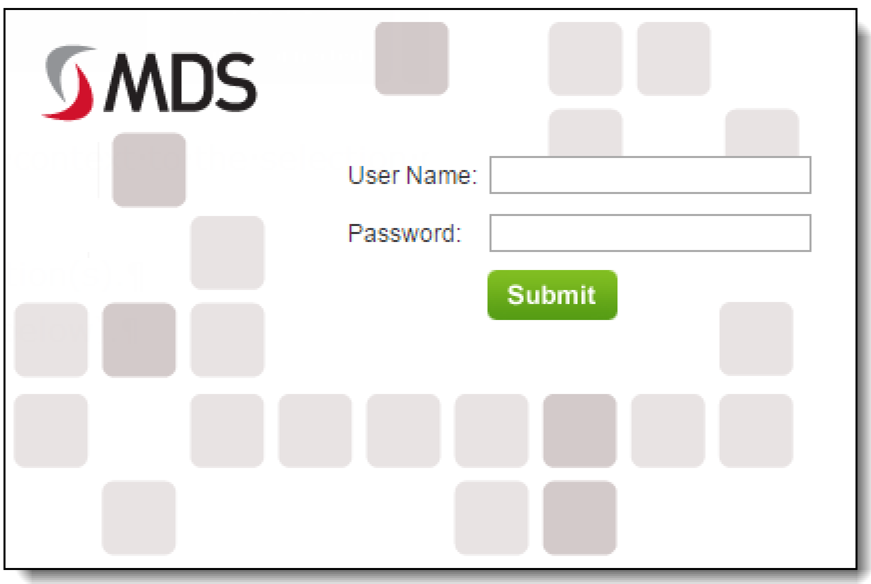
2. 2 Accessing Online Analytics

OLA is web-based. You need an Internet connection to access the product.

Access is granted by a user licence issued by MDS, subject to a valid commercial agreement.

Users access OLA via a web link or URL. Once accessed OLA displays a login screen:

A valid User Name and Password are required to access OLA.

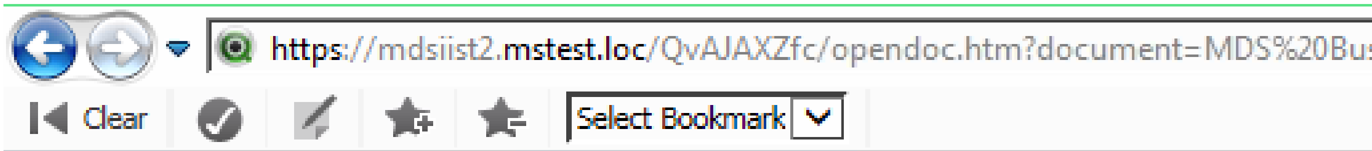


Login Screen

2. 3 Navigation

2. 3. 1 Toolbar

The OLA toolbar assists navigation, data selection, and collaboration.



OLA Toolbar

2. 3. 2 Breadcrumb Trail

The path to the current page is displayed at the top of the page. The current page is displayed in grey, the blue breadcrumb segments are live links to the named area.

Navigation Breadcrumb

2. 4 Exporting Data

A number of charts and visualisations can **Export to Excel** or **Export to CSV** to allow the displayed data to be downloaded for distribution to audiences without OLA access, or to save datasets with limited retention periods.

2. 5 Bookmarks

Bookmarks allow OLA users to save a configured data selection to allow quick access to a particular dataset that is commonly analysed. Bookmarks can be shared with other OLA users to mirror the same view of data.

2. 6 Notes

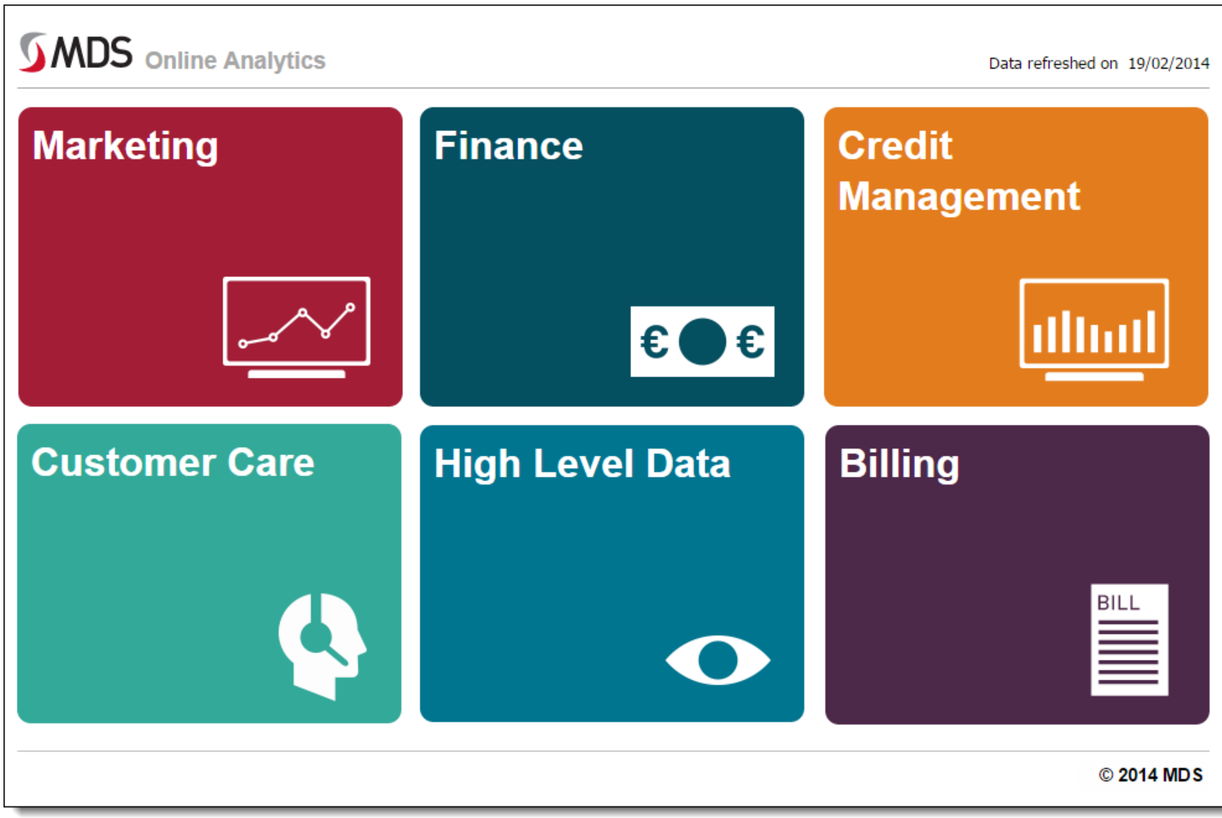
Users can add notes to charts, graphs and other visualisations. User can also use the notes to share information about particular metrics, trends, KPIs, or other items. Notes are editable by any user. A snapshot of the data can be added to each note to provide a visual representation.

2. 7 Real-time Collaboration

A user can invite other users to share an OLA session, enabling real-time collaboration. The same data can then be viewed by multiple users on multiple devices regardless of whether the invitees are licenced OLA users. Shared sessions enable interested parties to interact through OLA in real time by allowing viewing along with access to OLA functionally from their own device.

2. 8 Home Page

The **Home** page is a high-level visual representation of the Business Functions configured in OLA. This starting point allows users to select which functional area to display for further information.



The Home Page

OLA applies colour coding to the data when it is displayed to highlight context-sensitive associated and non-associated data. Links to further information are displayed in white; out of scope data is shown in grey.

Pre-built filters in the reports enhance data analysis, allowing the user to use the links to make further data selections for deeper insight.

3.0 Analytics Reporting

OLA provides pre-calculated metrics for common business functions such as Marketing, Finance, Customer Care, Credit Management and Billing. This guide describes the pre-calcuated Key Performance Indicators (KPIs) and Analysis information for the following:

- Marketing
- Finance
- Credit Management
- Customer Care
- Billing
- General Data

3.0 Marketing

3. 1 Key Performance Indicators

KPI	Description
Churn by Month Connected	This analytic provides the churn rate for up to 36 months along with an average churn rate line for the period. Each individual column represents the churn rate for that particular month.
Connected Subscribers	The current number of connected subscribers is displayed as the point of the data being refreshed.
Contract Re-signs	This KPI represents the percentage of subscribers who have extended their contract terms once they passed their previous contract renewal date. The measure is taken over a rolling 12 month period.

3. 2 Marketing Analysis

Analytic	Description
Churn by Month Connected	This analytic allows inspection of a particular connection month to understand the churn profiles of connections made in that month. This is both a useful indicator of early churn from a particular month and also allows churn predictions to be made based on the understanding of intra month churn. Date ranges can be selected and calculated interactively and, for example, the churn figures for a quarter, half year, and year period can be accessed by simple highlighting of the date range of interest. A further feature is the ability to select connections made in a particular connection month to quickly compare different years.
Churn by Month and Tariff	This allows the user to drill down to analyse how particular tariffs and networks perform from a churn perspective. A further feature is the ability to select connections made in a particular connection month to quickly compare different years. This dashboard also allows for analysis to be performed both by the connection reason and disconnection reason to allow visibility of the causes of churn and for the performance of different connection sources to be understood.
Churn Analysis	Churn Analysis allows a side-by-side comparison of the performance of different tariffs, connection month/year, networks and customer types to directly compare the number of subscribers originally connected, how many are remaining, and the churn rate. Choosing any of the options populates the data and further choices remain available to drill further into the data.
Contract Resigns	This analytic allows a deeper understanding of the success of new business acquired against existing customers retained over a rolling 12 month period. Comparisons can be drawn from reviewing different tariffs and customer types with the results being shown numerically and graphically.
Tariff Analysis	Tariff analysis is designed to provide understanding of profitability at tariff level, thus helping enable decision makers to understand the relationship between churn and profitability. For example, a highly profitable tariff may have a low churn rate and focus can be applied to convert existing or new customers to these tariffs. Alternatively a high-margin tariff may have unacceptable churn levels, suggesting that customers don’t necessarily apply the same value. This extends to show monthly revenue by revenue type (services or usage) and tariff based on subscriber invoicing, Average Revenue per User (ARPU) and Average Margin Per User (AMPU). Usage is broken down into its component parts –. Calls, Data, SMS and bundled / non-bundled – allowing powerful self-serve analytics to be performed.

<table>
<tr><th>Analytic</th><th>Description</th></tr>
<tr><td>Subscriber Volume</td><td>
Three dashboard charts are available:

Subscription Tracker
Connection Length
Contract End Date

The entire subscriber base can be analysed using a number of key factors:

Network
Connection Status – connected or disconnected
Connection Reason
Customer Type
Disconnection Reason
Contract Status - in or out of contract
Type Allocation Code Number (TAC No) – derived
Tariff and Package Description and Code – active/non active
Disconnection Reason
Contract End Date
Customer Type
Group Name
Corporate Name
Customer Name
Year/Month/Date

This data is presented numerically and graphically for ease of use.
Subscription Tracker
In combination with other key data from Online Analytics, retention and upgrade strategies can be established. For example, having established that Tariff ABC has good profitability and churn rates, Subscriber Volumes can help identify the number of customers on that particular tariff who are out of contract.
Connection Length
Insight is also provided to show the average tenure of the different customer segments using any combination of the factors above. For example, identify the number of subscribers who are out of contract who have been connected over two years for use in a retention programme. The number of subscribers in or out of contract can then be tracked to gauge success.
Contract End Date
A specific chart is tasked with displaying subscriber contract end dates aggregated by the date, month and year that the contract ends is also available.
</td></tr>
</table>

3.0 Finance

3. 3 Key Performance Indicators

KPI	Description
Overall ARPU	The overall Average Revenue Per User (based on subscriber invoices) is shown prominently in the KPI section. The figure displayed is the ARPU for the last 6 months and excludes VAT from any figures shown.
Value of Open Queries	Any open query is a disruption to cash flow and potential indication of customer dissatisfaction. This KPI summarises the value of open queries.
Profitable Subscribers	The Profitable Subscriber KPI is based on subscriber invoicing over time showing the percentage of subscribers where billed revenue exceeded the wholesale cost of the usage consumed by the subscribers in that month. Hovering over the columns within the charts allows data points to be viewed that provide more detail.
Sales Ledger Adjustments	The value and volume of Sales Ledger Adjustments can be an indication of potential lost revenue and customer dissatisfaction. The Sales Ledger Adjustments KPI chart allows tracking and trending of the value of adjustments applied over time.

3. 4 Finance Analysis

Wherever profitability is analysed, it is assumed that the wholesale cost of usage is included in the usage records and that the cost accurately represents the cost of usage.

<table>
<tr><th>Analytic</th><th>Description</th></tr>
<tr><td>Customer Revenue Analysis</td><td>This analytic contains the similar attributes as Tariff Analysis but in addition, provides for revenue and profitability to be analysed in more detail by:
Network
Invoice Day
Tariff Description
Customer Type
Group Name
Corporate Name
Customer Name
The dashboard contains the following charts:
Customer Spend
Spend Per Usage Types
Usage Record bundling
Revenue and Margin Per Subscriber
ARPU Per Network
Revenue and Margin Per Tariff (Customer Specific)
These charts allow a variety of analytics to be performed, for example:
ARPU split between Services or Usage
Total Revenues
Wholesale Costs
Usage and Service Revenue
Usage Bundling
Spend per usage type
ARPU per Network
For any selected Group. Corporate or Customer by tariff:
ARPU
AMPU
Revenue
Number of subs invoiced</td></tr>
<tr><td>Device Revenue Analysis</td><td>Device Revenue Analysis derives a TAC from the International Mobile Equipment Identity (IMEI) serial number field in CMP (where stored). Subscriber invoicing is used to match subscriber invoices to subscriber IMEIs, allowing the number of subscribers by TAC and their associated revenue to be presented.

Analysis is available by:
TAC Number
Network
Invoice Month</td></tr>
<tr><td>Amounts in Query</td><td>Amounts in Query can be investigated from a number of angles in order to analyse agent performance in resolving queries, the aging of open queries, the average value, and the average time taken to resolve queries.

This analytic displays:
Highest Open Query Amounts with amounts > £10,000 highlighted
Customer Name and Group showing the Oldest Open Query Amounts</td></tr>
<tr><td>Profitable Subscribers</td><td>Further information is made available about the value of volume of non-profitable subscribers with a filter of customer type.</td></tr>
</table>

Analytic	Description
Sales Ledger Adjustments & Sales Ledger Adjustment Analysis	Reducing the volume and value of SLAs can often lead to increased profitability and, by identifying root cause, increased customer satisfaction. Two dashboards provide SLA details in chart and table form that cover Sales Ledger Adjustments (SLAs) from the previous 12 months. The data covers: • The reason for the SLA • The Agent raising the SLA • Whether the SLA is debit or credit amount • Top 10 credit adjustments by reason per month • Top 10 agents raising the most credit adjustments • Highest value credit adjustments • Total value / volume of SLAs in the both for Net SLAs and splits between credit and debit adjustments • All customers who have had an SLA applied in the previous 12 months

3.0 Credit Management

3. 5 Key Performance Indicators

KPI	Description
Aged Debt Value	The most recent aged debt total is displayed on the landing page together with the number of Customers that make up the total value of debt. Aged debt figures are updated on a monthly and weekly basis and the date of the last update is displayed.
Aged Debt Week Profile	The Weekly Aged Debt Value is shown by total debt split into overdue or current categories and is tracked over time.
Aged Debt Weekly Movement	Provides a comparison of the value change between the last two values of weekly aged debt.
Aged Debt Monthly Movement	Provides a comparison of the value change between the last two values of monthly aged debt.

3. 6 Credit Management Analysis

Analytic	Description
Aged Debt Detail and History Monthly / Weekly	This analytic allows a number of different elements of the aged debt portfolio to be understood and analysed further. Up to 12 months aged debt history is available for analysis on either a weekly or monthly basis, allowing the user to drill down to Customer Type or Account type level to understand the value and volume of debt for differing customer segments. The aging profile of each weekly or monthly debt position is also presented. The facility to analyse at a customer level is also provided to enable users to track debt performance and aging categories over time.
Highest Debtors Table	Representation of highest value debtors at Customer level based on the most recent aged debt figures. The ability to focus on overdue amounts, overdue amounts greater than 90 days, or overdue amounts greater than 180 days is also enabled.

3.0 Customer Care

3. 7 Key Performance Indicators

KPI	Description
Unallocated Summary	The wholesale cost and the current outstanding volume of unallocated calls is displayed. Further analysis of unallocated calls is provided in Customer Care > Customer Care Analysis.
Unallocated Tracker	Unallocated Tracker shows the value and volume of unallocated usage over the previous 3-month period together with the aging bucket of the unallocated usage at the point in time that the data was produced to allow tracking and trending of the unallocated usage.
Average Workflow Events Raised Daily	The KPI averages the number of qualifying workflows raised per day over the last 12 months. Workflow events can be excluded from the analysis if required, for example, exclude system raised workflow events.
Unresolved Overdue Workflow	The analytic summarises the current volume of workflow events that are both unresolved and overdue by month.

3. 8 Customer Care Analysis

Analytic	Description
Unallocated Summary Analysis	The Unallocated Summary Analysis allows a more detailed insight into the categories of Unallocated Usage allowing the volume, value and age of any particulate category of unallocated usage to be queried.
Unallocated Tracker	The Unallocated Tracker provides the ability to monitor the trend of unallocated calls (value and volume) by category to establish positive and negative trends, thus helping to target the reduction of unallocated usage over time.
Workflow Events Analysis	Workflow events are a fundamental part of CMP customer and subscriber management and having the ability to query the types, volumes and statuses of workflow events helps to manage customer satisfaction, potential revenue leakage, propensity to contact call centre, churn and many other key operational challenges. Volumes and types of workflow events can be tracked over time, by type and code, resolution times, status and reason to gain insight into the issues that impact customers. This analytic allows a detailed understanding of workflows raised and their status, including: • Volumes of event types and codes over time • Reason codes associated with workflows • Overdue/Not Overdue • Resolved / Unresolved • The average number of days that workflows are open • User, Department and location information including *Raised by*, *Current user* and *Resolved By*
Workflow Summaries	Workflow Summaries provides further analysis of the workflows raised: • The Top 10 most common workflow events in the last 12 months • The Top 10 most common workflow events per month • The Top 10 Agents in terms on number of workflows raised • By month the status of workflows raised in that month • Highest volume unresolved workflow events by agent

Configuration of the selection of workflow events is available to determine which workflow events, if any, to exclude from analysis.

3.0 Billing

3. 9 Key Performance Indicators

Billing KPIs are based on the entire invoicing value and volumes for all customers invoiced over a rolling 12 month period rather than subscription invoicing, which is used for Average Revenue Per User and Average Margin Per User. This ensures that all the revenue billed to the customer base is available for analysis.

KPI	Description
Billing by Month	Provides a view of the total revenue invoiced to customers over a 12 month period both in terms of the value and the volume of invoices produced. The figures include Sales Ledger Adjustments and exclude VAT.
Services by Group	The 5 top ranking billed services by month are provided for comparison of the major billing services over time.
Top 20 Billed Services Month To Date	The current billing month to date position provides up to the top 20 services and then aggregates any other service not in the top 20 into a category of *other*.

3. 10 Billing Analysis

Analytic	Description
Billing Detail	Billing Detail allows analysis of billed revenue by Customer Type, Account Type and Customer by Billing Type. Billing Type categorises revenue into subscription-level or non-subscription revenue and subscription or non- subscription Sales Ledger Adjustments. Invoice dates allow further drill-down to allow forecasting of revenues to take place and also aid understanding of intra-month billing patterns that impact cash flow projections.
Billed Service Analysis	Billed Detail Analysis provides the ability to analyse billed services over time with the added flexibility of drill-downs by Customer/Account Types The value and volume of services are available for analysis on a rolling 12 months basis, allowing individual or group of services/discounts to be monitored.
Billed Detail Analysis	Billed Detail Analysis provides a tabular view of the value of services billed over time with the ability to select customers in order to understand at a detailed level the services/discounts they are invoiced. Services are ranked by month and descending value.

3.0 General Data

The General Data option from the **Home** Page doesn't offer the same level of detailed user-driven analysis as the functional areas detailed above. However, it is designed to provide other useful data that does not necessarily fit within the other subject areas.

General Data	Description
Subscriptions by Customer Type	Provides a count of the number of subscriptions attributed to each Customer Type.
Customer Base Breakdown	Displays the number of accounts and subscriptions associated to each payment method and also the number of accounts and subscriptions by their payment terms. The charts allow selections to be made such as Payment Type = Cheque, which displays the associated payment terms for cheque payers. Customer Types or Customers can be selected to provide a more granular view of this data.
High Level Financials	A snapshot view of the value of subscriber invoicing in the last complete billing month and the number of subscribers invoiced.
High Level Financial Details	A direct comparison between the last 2 billing months, this shows the value and volume of the subscribers who were billed in the previous month. It also shows the percentage of those subscribers who were profitable, compared to the previous billing month, based on subscriber level invoices.
ARPU and AMPU	Utilises Subscriber Invoicing to chart the highest ARPU and highest AMPU tariffs over the period of invoicing analysed. Drill downs are available by Network, Customer Type and Invoice Month. Additionally, two tables are provided that show by month the highest ARPU and AMPU together with the number of Subscribers invoiced. Where a tariff description is selected, a further filter is displayed to enable identification of tariff codes.
Tariffs & Churn	Two charts display the most popular tariffs and packages in terms of the number of subscribers connected to them by tariff description. Selecting a Tariff displays the associated packages and vice versa. Further drill-downs are made available for Network and Customer Type Selection. An additional table of disconnections by month of disconnection is provided, showing the previous 12 months disconnections by tariff description, Where a tariff description is selected, a further filter is displayed to enable identification of tariff codes. The total number of subscriber who have connected in total to the tariff is displayed.
Revenue and Margin	Utilises Subscriber Invoicing to determine the highest revenue and highest margin tariffs over the period of invoicing analysed. Drill downs are available by Network, Customer Type and Invoice Month. Further a table is provided that shows Top 10 tariffs invoiced by Revenue and the associated margin and number of subscribers invoiced. Where a tariff description is selected a further filter is displayed to enable identification of tariff codes.