



# CMP v8.1.3 - Product Release Note

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# 1.0 Introduction

## 1.1 Scope

This document provides an overview of the CMP 8.1.3 release with specific focus on the additional functional and non-functional enhancements with respect to CMP 8.1.2.

## 1.2 Audience

This document is intended for both internal and external use for readers familiar with CMP to explain the key features of the release including any changes in how existing functions or processes are working.

## 2.0 Release Scope

### 2.1 Core CMP Modules

The following modules form the basis of the CMP 8.1.3 release:

Module	Version
agent-view	8.4.67
agent-view-interfaces-layer	8.4.145
agent-view-servlet	8.3.7
cmp-database-pkg	8.4.71
cmp-documentation-pkg	8.4.4
cmp-pentaho-reports-pkg	1.1.3
configuration-centre	8.4.27
dataModel	2.3.73
login-component	8.2.3
published-interfaces-layer	8.4.7
rest-ws	2.3.93
role-extender	8.3.1
setup-utility	1.0.42
shared-services	1.4.64
soap-ws	8.4.9
sso-client	1.6.3
validation	8.4.11
wso2is-login	1.4.2
sabre-action-monitor	2.3.9
sabre-advance-notification	1.1.2
sabre-batch-error-management	2.1.15
sabre-bill-print	2.3.19
sabre-comms	2.3.12
sabre-credit-control	2.3.2
sabre-credit-reference	2.3.1
sabre-dal	2.3.109
sabre-data-warehouse	2.3.8
sabre-debt-recovery-agency	2.3.1
sabre-device-enrolment	1.1.7
sabre-edit-subscription	1.6.2
sabre-external-configuration	2.3.2
sabre-external-reference-upload	1.7.1
sabre-gdpr-purge	2.3.4
sabre-general-ledger	1.0.40
sabre-generic-activity-adapter-daemon	2.1.13
sabre-generic-postingout-daemon	2.1.41
sabre-interface-purge	1.1.1

sabre-invoice-posting	2.2.4
sabre-invoice-production	2.3.4
sabre-ledger-monitor	2.3.4
sabre-managed-number-monitor	2.3.3
sabre-managed-numbers	2.2.2
sabre-mandate-registrations	2.2.1
sabre-mandate-revisions	2.2.1
sabre-mdsledger-adapter	2.2.1
sabre-non-recurring-payments	2.3.3
sabre-provisioning	2.3.32
sabre-rated-charge	2.3.1
sabre-rated-usage	2.3.3
sabre-receipt-pdf-collection-adapter	2.1.2
sabre-receipt-print	2.3.5
sabre-recurring-payments	2.3.10
sabre-recurring-pre-payments	1.2.16
sabre-sales-order	1.1.14
sabre-server	1.8.85
sabre-sim-profile	2.3.4
sabre-statement-production	2.2.5
sabre-usage-archiving	2.2.1
sabre-workflow-monitor	2.3.5

In addition, the following third-party components are included:

Module	Version
wso2is	5.0.7-17
jboss-postgres-jdbc-driver-eap7	1.0.33
webswing	2.5.5-47

The third-party components above are dependent on the following configuration modules:

Module	Version
jboss-aviewiface-address-lookup-interface-eap7	8.4.125
jboss-aviewiface-stock-check-interface-eap7	8.4.96
jboss-aviewiface-configuration-eap7	1.0-33
jboss-ccentre-configuration-eap7	1.0-33
jboss-pil-configuration-eap7	1.0-33
jboss-soapws-configuration-eap7	1.0-33

## 2.2 Optional CMP Modules

The following modules are not part of the core CMP 8.1.3 release but are considered optional modules that can be installed if required based on the specific installation requirements:

Module	Version
<b>sabre-bottomline-pdf-collection-adapter</b>	2.1.6
<b>sabre-bulk-action-framework</b>	1.6.1
<b>bulk-action-console</b>	1.3.2

If any of these modules are required for the installation, then they should be added to the 'additional\_modules' section of the inventory file.

## 2.3 UK-specific Adaptors

The following modules are provided specifically for the UK market to support BACS direct debit payments and credit reference extracts to Equifax:

Module	Version
<b>sabre-addacs-transformation-adapter</b>	2.2.1
<b>sabre-addacs-xml-adapter</b>	1.0.1
<b>sabre-arucs-transformation-adapter</b>	2.2.1
<b>sabre-arucs-xml-adapter</b>	1.0.2
<b>sabre-arudd-xml-adapter</b>	1.0.1
<b>sabre-auddis-transformation-adapter</b>	2.1.22
<b>sabre-auddis-transformation-inbound-adapter</b>	2.2.1
<b>sabre-auddis-xml-adapter</b>	1.0.2
<b>sabre-awacs-transformation-adapter</b>	2.2.1
<b>sabre-awacs-xml-adapter</b>	1.0.2
<b>sabre-bacs-transformation-adapter</b>	2.2.1
<b>sabre-bacs-xml-common</b>	1.0.1
<b>sabre-recurring-bank-payments-bacs-adapter</b>	2.1.2
<b>sabre-equifax-insight2001</b>	2.1.3
<b>sabre-experian-transformation-adapter</b>	2.2.1

Note that these modules are not installed by default and if required should be added to the 'additional\_modules' section of the inventory file as required. Note that some of these adaptors are mutually exclusive and therefore the specific modules that need to be added to the inventory file are dependent on the specifics of the deployment.

## 2.4 OCS-specific Adapters

The following modules are provided specifically for a Real Time Charging environment to support use of Openet as the external Online Charging System (OCS) integrated into CMP:

<b>Module</b>	<b>Version</b>
<b>sabre-openet-bill-cycle-adapter</b>	1.8.5
<b>sabre-openet-provisioning-adapter</b>	2.3.66
<b>sabre-openet-recurring-prepayment-adapter</b>	1.0.29
<b>sabre-openet-usage-adapter</b>	2.3.14
<b>openet-synchronous-provisioning-impl</b>	8.4.11

Note that these modules are not installed by default and if required should be added to the 'additional\_modules' section of the inventory file.

## 3.0 New and Changed Functionality

### 3.1 Introduction

CMP 8.1.3 introduces a number of functional and non-functional changes with respect to CMP 8.1.2. This includes new functionality as well as changes to existing functionality and non-functional improvements. These changes can be summarised as follows:

### 3.2 New functionality

#### 3.2.1 Hardware Attributes

When an order dispatch notification is received by CMP from the warehouse, any hardware details such as serial numbers provided within the dispatch JSON are uploaded into CMP but in CMP 8.1.2 they are not available for an agent to view in AgentView. This means it is difficult for an agent to see the IMEIs of the devices within an order for example.

In CMP 8.1.3 attributes associated with hardware items within a specific order can be viewed through AgentView. Individual hardware attributes can be edited as required.

#### 3.2.2 Fraud Check for Orders

As part of the order process, CMP can now indicate within the request whether a fraud check is required prior to sending the order to the warehouse. The fraud check is performed external to CMP but will validate the name and delivery address on the order. A fraud check may be successful, fail outright or may require secondary verification. Whether the fraud check has been successful or not is indicated by the status of the order. An order that undertakes a second check can be resubmitted again if the manual fraud check is successful. The ability to resubmit an order will be controlled through function security.

#### 3.2.3 General Ledger Extract

CMP 8.1.3 provides a new General Ledger job that creates a batch detailing the daily breakdown of all payments, invoices, purchases and bond redemption information (along with an associated nominal code) for a particular calendar month. The job provides an additional breakdown for certain items e.g. recurring payments by payment type and invoices by tax rate.

#### 3.2.4 Setting Marketing Preferences

Two new REST APIs (comms settings and comms preferences) are provided in CMP 8.1.3 to be able to enquire and update communication settings and enquire and update marketing communication preferences.

The GET comms settings API allows an external system to retrieve communications settings for the subscription or account. The PATCH comms settings API allows for the updating/setting of a customer's communication profile in CMP. This information is displayed in the header section of the Comms Preferences screen in AgentView.

The GET comms preferences API allows the user to query the comms preferences that are associated with a CMP subscription or Account. These preferences allow control over the communications that an end user might receive by allowing a user to opt in or out of a certain group of communications that is defined via configuration. The PATCH comms settings API allows the updating of a comms preference to either opt in or opt out of receiving communications of a particular type.

### **3.3 Changed Functionality**

#### **3.3.1 Account Services**

When defining an account service in Business Configuration, it is now possible to define whether the service is quantifiable or not i.e. whether a quantity can be specified at the time of provisioning onto an account. Quantifiable account services are not proratable and are not subject to a credit back on service termination.

For a quantifiable service, the agent can optionally enter a quantity at the point of provisioning an Account Service.

The service quantity can be modified up to the point that the service is billed for the first time. After that the quantity cannot be modified further. The service quantity is output on the bill for both subscription and non-subscription invoices and is visible through AgentView within both the Account Services and the Invoice Detail screens.

#### **3.3.2 Capture Email Address on AgentView Installation**

In CMP 8.1.3 the email address can now be entered as part of account and subscription creation through AgentView (it is already possible to provide an email address as part of the account/subscription creation through SOAP). In both cases the email address is optional. In the case of a subscription creation, the email address is defaulted to that of the account but this can be cleared or changed by the agent.

#### **3.3.3 Bill Cycle Change**

CMP 8.1.2 supports bill cycle change on CMP through both AgentView and SOAP. CMP 8.1.3 introduces additional functionality to support a bill cycle on the OCS.

A bill cycle change is only applicable to a postpaid subscriber and also any shared groups that the post-paid subscriber is an owner of. When a bill cycle is set as part of a subscriber creation, the bill cycle can be overridden by the agent as part of the installation. The bill cycle set at this point is used when creating the subscriber on the OCS even if the connection is delayed beyond the point that the subscription was created in CMP. The bill cycle is always obtained from the subscription's agreement.

A bill cycle change can be performed at any point during the lifecycle of the customer and can be changed to a later or earlier cycle date. The bill cycle change is effected late in the day before the new cycle which means a bill cycle change can be changed or undone up until the point that it is effected. Once a bill cycle change has been provisioned on the OCS, it is not possible to schedule another bill cycle change until the new bill cycle has come into effect. For example, in moving from bill cycle 2 to bill cycle 10, a second bill cycle change will not be possible until after the tenth of the month in which the bill cycle change was provisioned on the OCS. In addition, it will not be possible to change Price Plan whilst a bill cycle change is taking effect.

### 3.3.4 Non-Apple Device Enrolment

As well as Apple device enrolment, CMP 8.1.3 now supports the enrolment of other DEP providers such as Google or Samsung. Whilst the Apple DEP only supports apple phones, google supports any android phones and therefore CMP now identifies the device manufacturer as part of the device enrolment request.

### 3.3.5 Device Unenrolment

As well as device enrolment, CMP 8.1.3 also supports the ability to unenrol a device from any supported DEP i.e. Apple, Google and Samsung.

### 3.3.6 Order Cancellation

In CMP 8.1.2 it is possible to cancel an order through AgentView up to the point that the order is generated. CMP 8.1.3 additionally supports the capability to mark an order as cancelled up to and including the point where the order has been sent to the warehouse but where the warehouse has not yet dispatched the order. In this state it is possible for a privileged user to change the status of the order in CMP to 'Cancelled'. The order details remain in CMP with a status of cancelled for audit purposes.

If the order is awaiting dispatch and the agent cancels the order, there is a possibility that the order will be dispatched before the cancellation notification reaches the warehouse. In this case the order will be marked as 'Cancelled' in CMP but in fact the goods have actually been dispatched and should therefore either be paid for or returned. In this case if a dispatch notification is received by CMP for a cancelled order then the order will be uncancelled and processed as a normal dispatched order including any device enrolment.

### 3.3.7 Agreement Invoicing for Hardware and Airtime

When creating a new order through the CMP GUI the user is presented with a set of radio buttons to bill immediately, bill when the next account invoice is due or bill at the agreement level. Selecting to bill at agreement level for an order allows the hardware order to be invoiced on the same bill as the airtime charges.

### 3.3.8 Card Payments for Purchases through AgentView

CMP 8.1.3 provides the capability of making a purchase using a one-off card payment. After selecting "Card" as the required payment method and selecting a package to purchase the agent is now automatically redirected to a payment page to enter card details. The page that is presented is based on the underlying payment gateway integration. Once the card details have been successfully entered and the payment has been processed by the payment gateway, CMP is updated with the status of the payment which is visible through AgentView.

### 3.3.9 OCS Notification Attributes

The information received from the OCS when a subscriber exceeds a predefined allowance threshold on the OCS is not in a format to expose, as is, to the end subscriber.

CMP 8.1.3 allows the attributes provided within the OCS notification to be used to enrich the outbound communication with subscriber information held within CMP. The following additional CMP attributes can now be used within the threshold notification:

- Allowance Description
- Allowance Type (Data, Voice, Text or Cash)
- Usage Cap Description
- Formatted values for entitlement size, usage amount and remaining quota. Formatting is based on the type of allowance.

### 3.3.10 Workflow for Successful Purchase

When defining a Package through Business Configuration it is possible to define a workflow event to be raised when the package is assigned to a subscriber. In CMP 8.1.3 this workflow event will be raised against the subscription on successful purchase of the associated package. This workflow event can have a corresponding comms associated that will be sent to the subscriber.

### 3.3.11 Allowance Capping

It is possible to define allowance caps on the OCS to control different types of data usage that attract different wholesale rates. For example, a 100MB data allowance, would allow 100MB of Data, with National Roaming or International Roaming limited to 80MB. In CMP 8.1.3 consumption against these allowance caps is reported within AgentView in a similar way to other CMP-provisioned usage caps.

### 3.3.12 Variable Consumption Rates

The OCS supports a concept of flexible units that can be used to represent an allowance such as data or voice for example. An allowance of units allows different rates on unit consumption to be defined on the OCS for different call types so for example a domestic call may consume 10 units per minute whereas an international call to Europe may consume 25 units per minute for example.

In CMP we can present these units in any way we want such that 100 units could be represented as 100MB or 100 minutes for example. This means that a voice allowance with a unit definition on the OCS can consume seconds at different rates based on the type of call. The end user still sees their balance as voice minutes but the balance will be consumed faster for a 1 minute call to Europe than a 1 minute local call.

In CMP 8.1.3 it is now possible to link a units offer defined in the OCS to a voice or data allowance configured in CMP. A balance enquiry returning units from the OCS will be rendered in AgentView based on the type of allowance – data or voice. CDRs show both the charged and actual consumption of the service on the OCS e.g. charged 10 minutes against the balance, actually duration was 5 minutes.

### 3.3.13 Automatic Release of MSISDNs

In CMP 8.1.2 the GET Serial Numbers REST web service returns a set of available MSISDNs back to the end user based on attributes of the request. The numbers are marked in CMP as temporarily reserved and need are only made available again by running the Managed Number Monitor job.

In CMP 8.1.3 a reset interval system property is used to determine when the numbers are available again without the need to run the Monitor job.

### 3.3.14 Add Process Time into the Create Workflow API

Currently in CMP 8.1.2 the Create Workflow API allows an optional Resolution Date attribute to be supplied in the request, but there is no Resolution Time. AgentView allows the user to input both date and time values so that events get processed at particular times of the day. The API only handles the date and defaults the time to midnight.

The resolution required by time has been added to the Create Workflow SOAP service. If no resolution required by time is specified in the request then the time will default to midnight.

### 3.3.15 Prepaid Balance through REST

The GET Subscription REST has been enhanced to return the subscription's pre-paid balance within the response. The pre-paid balance is returned along with currency code.

### 3.3.16 Pre-activation service access

CMP 8.1.2 supports either a one or two-stage activation process depending on whether the SIM card is provided to the customer upon registration or some period of time afterwards. If there is a delay between registration and subscription activation then the subscription is created on the OCS in an inactive state such that the subscription cannot be used if the SIM card is intercepted during delivery. In order for the subscriber to be able to activate the subscription once they receive the SIM card, access to some limited services is required whilst the subscription is in an inactive state.

Following the creation of an inactive subscriber on the OCS, a single default allowance can now be added for that subscriber to allow the subscriber access to limited network services prior to the subscriber being fully activated. This allows, for example, the subscriber to access a Web portal to complete a two-part connection process.

### 3.3.17 Support for BACS A-reports in XML Format (UK Market Only)

CMP 8.1.2 supported inbound reports from BACS in a flat file format. The flat file format that is supported for outbound files is no longer supported for inbound reports but instead XML is used.

CMP 8.1.3 provides the following BACS adaptors to handle inbound reports from BACS in XML format:

- ADDACS Adaptor
- ARUCS Adaptor
- ARUDD Adaptor
- AUDDIS Adaptor
- AWACS Adaptor.

## 4.0 CMP Impact

### 4.1 Introduction

The functional and non-functional changes highlighted in section 3.0 above have had an impact CMP in the following areas:

- New and changed AgentView screens
- Admin Console changes
- New and changed Business Configuration screens
- SOAP web services changes
- RESTful web services changes
- Openet-specific adapter changes
- UK-specific adapter changes.

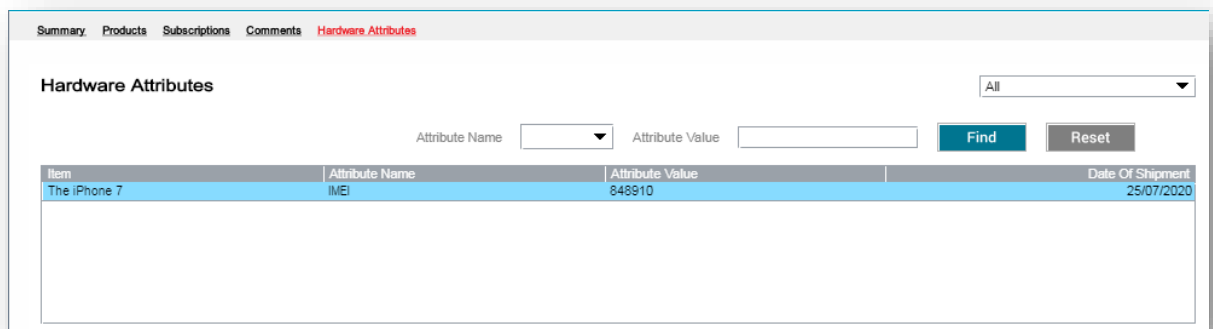
### 4.2 AgentView Changes

#### 4.2.1 New Screens

##### 4.2.1.1 Hardware Attributes

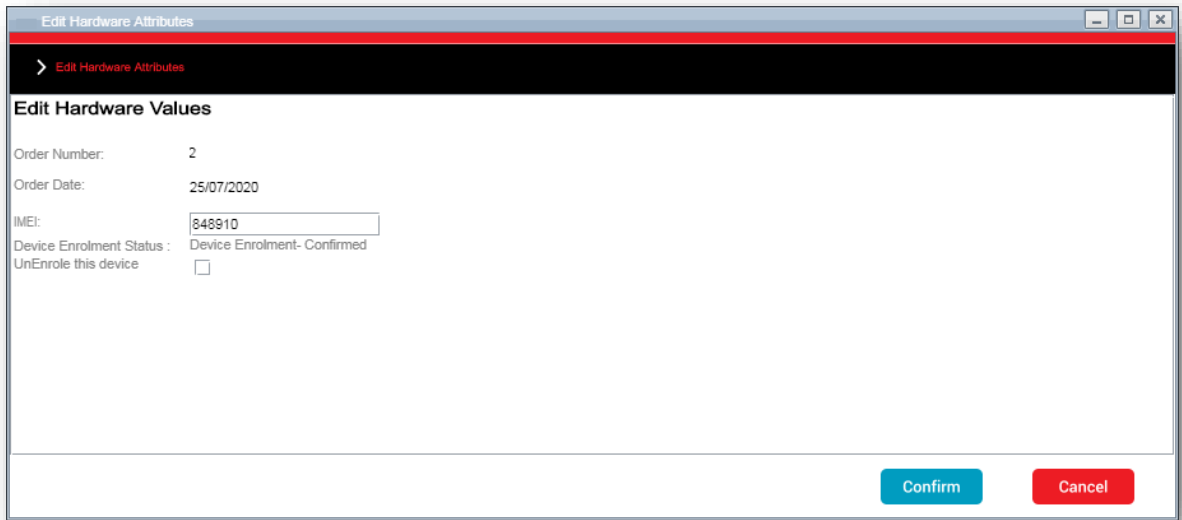
As described in section 3.2.1 above, CMP 8.1.3 now provides the ability to view the attributes of hardware items dispatched as part of a hardware order.

Within the Order Summary screen, a new swish item has been added to view hardware details for the order. The Hardware Attributes bottom panel shows a list of all hardware items on the order and all the attribute values associated with each item.



**Figure 1: Hardware Attributes Bottom Panel**

The list of item attributes can be filtered by attribute type and then further by attribute value to filter to a specific hardware attribute of a specific item. The agent can click on a specific hardware item to pop up the Edit Hardware Attribute Pop-up panel:

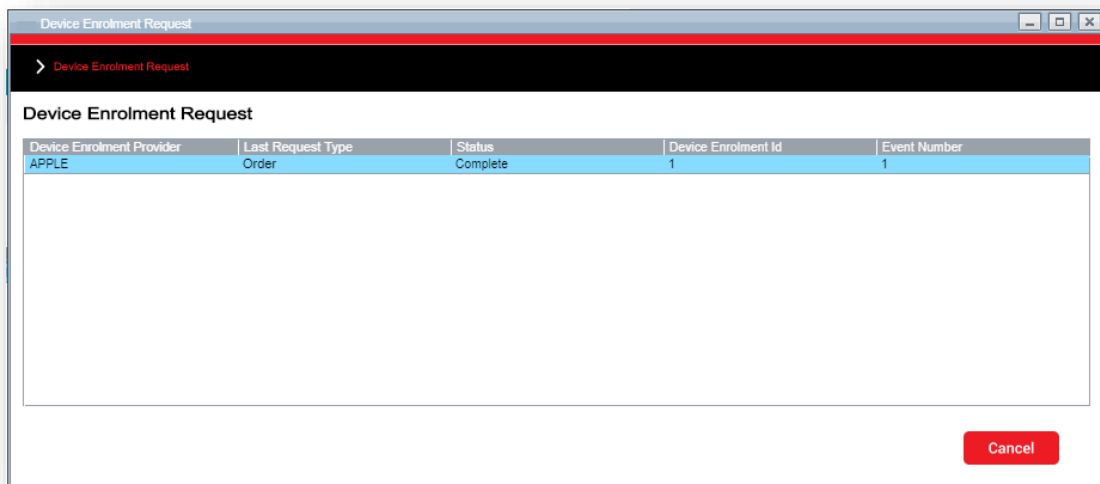


**Figure 2: Edit Hardware Attribute Popup**

From here it is possible to change attribute values and, if applicable, unenroll a device from a DEP provider (see Device Unenrolment in section 4.2.1.3 below).

#### 4.2.1.2 Device Enrolment Requests

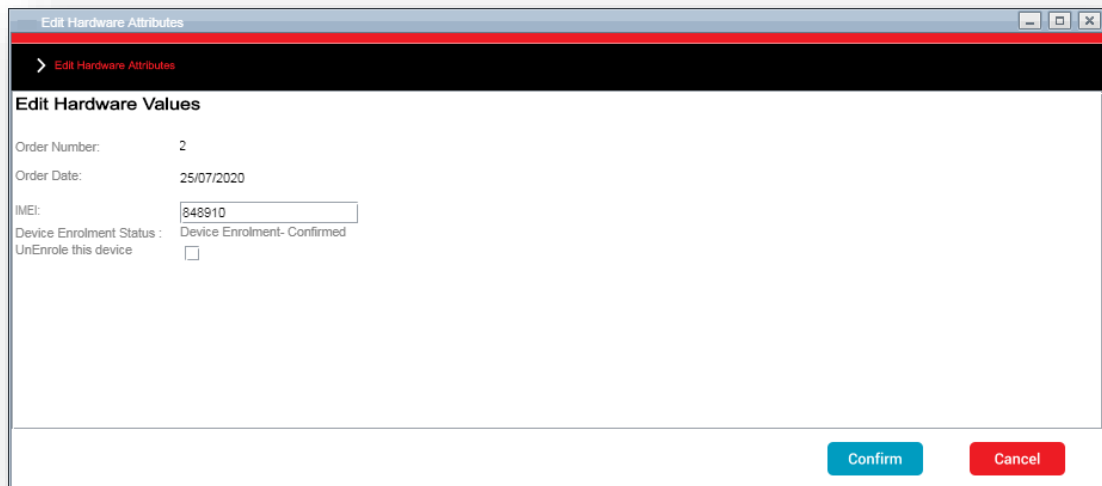
Where an order has requested for any devices within the order to be enrolled with the corresponding DEP provider then it is now possible to see the device enrolment status of each of the devices within the order by clicking on the hyperlink against the Device Enrolment status on the Order Summary screen:



**Figure 3: Device Enrolment Request Popup**

#### 4.2.1.3 Device Unenrolment

In CMP 8.1.3 the enrolment status of an individual device is now shown on the Edit Hardware Attribute popup available by right clicking on an individual hardware item within the Hardware Attributes bottom panel:



**Figure 4: Edit Hardware Resource Pop-up**

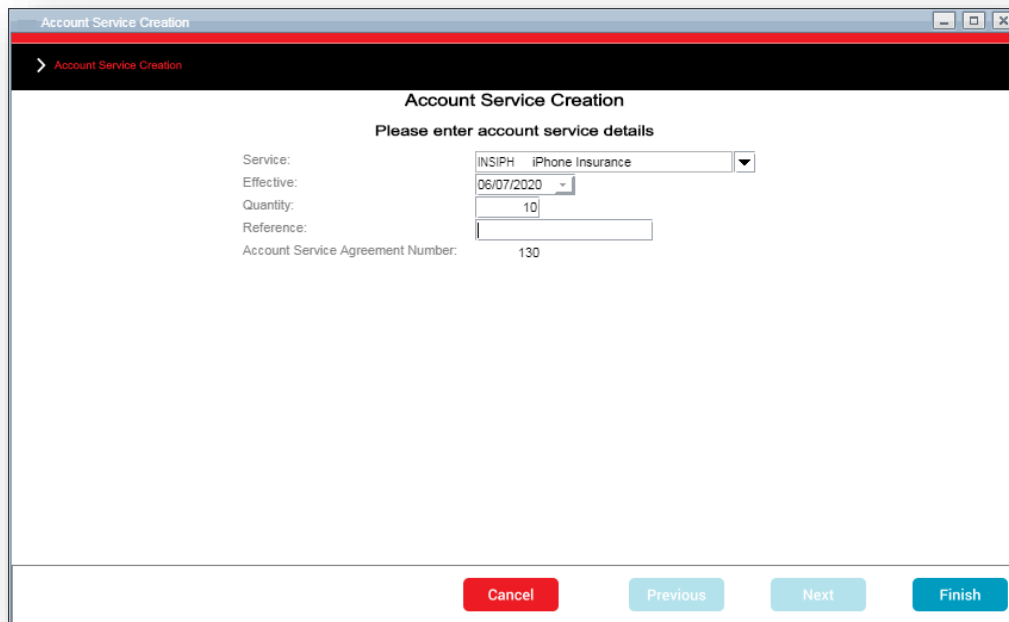
From the Edit Hardware Attributes popup, if an item is shown as enrolled then a checkbox is provided to unenrol a device from the corresponding DEP. The checkbox is not displayed if the device is not already enrolled. If the user checks the box and confirms the unenrolment then the item status will be set to 'Unenrol pending' and picked up by the Device Enrolment Request job. If configured, a workflow will be raised based on the response from the DEP provider (one for success and a separate workflow for failure).

## 4.2.2 Changed Screens

### 4.2.2.1 Account Services

CMP 8.1.3 introduces the concept of quantifiable services where a service quantity can be specified at the time of provisioning onto an account. Account Services can be marked as quantifiable services through Services configuration within Business Configuration (see section 4.4.2.1 below).

For a quantifiable service, the agent can optionally enter a quantity at the point of provisioning an Account Service.

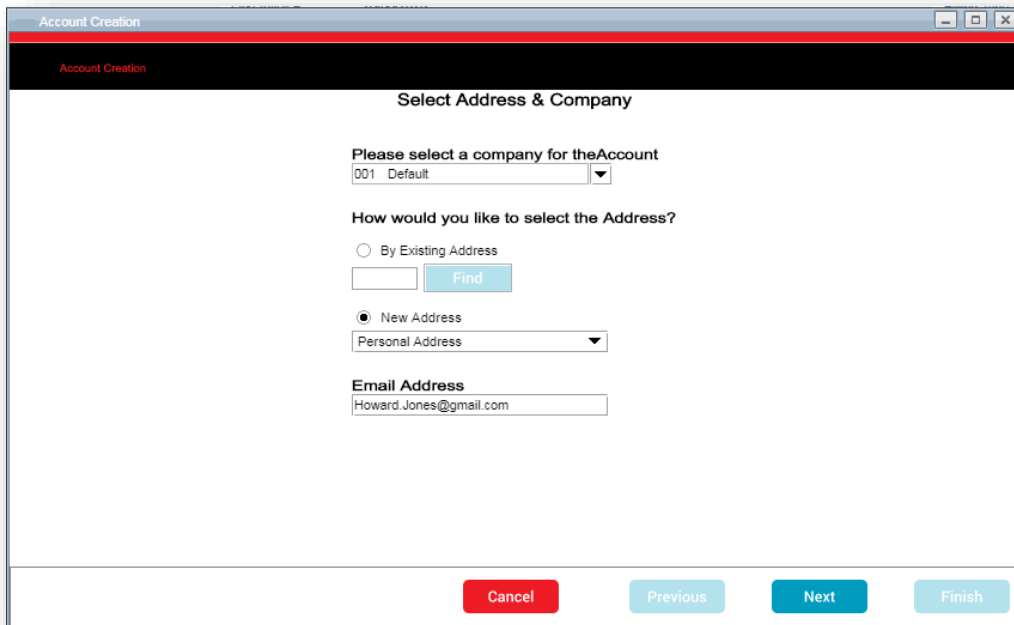


**Figure 5: Account Service Creation Popup**

The service quantity can be modified up to the point that the service is billed for the first time. After that the quantity cannot be modified further. The quantity is also visible through AgentView within both the Account Services and the Invoice Detail screens.

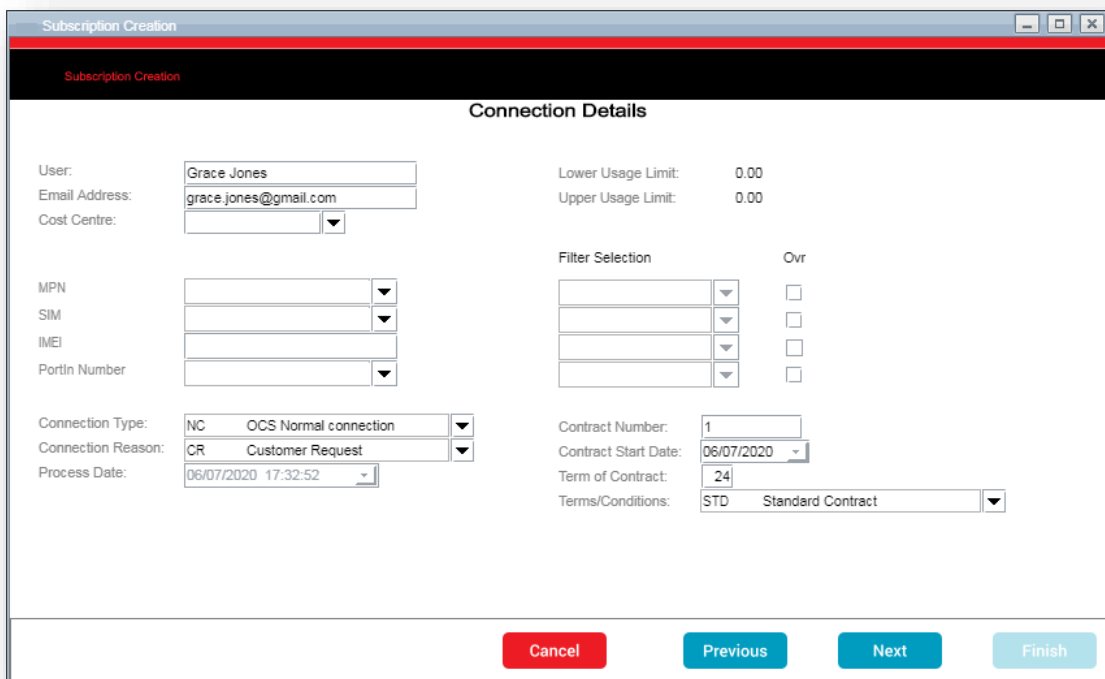
#### 4.2.2.2 Account & Subscription Creation wizard

For an account creation, a new field has been added to the creation wizard to capture an email address on the **Select Address & Company** wizard panel. The email address is optional:



**Figure 6: Account Creation Wizard**

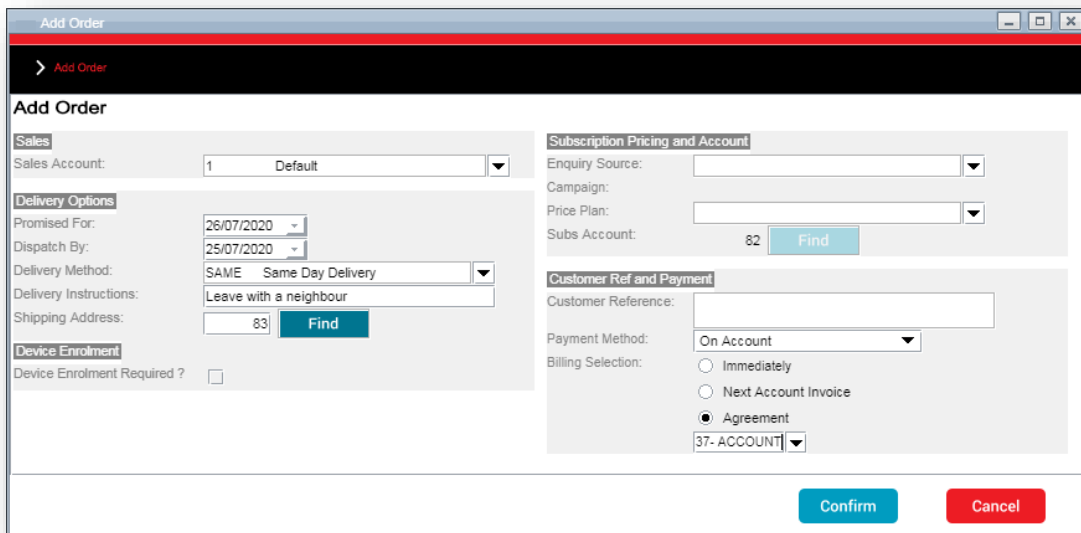
For a subscription creation, a new field has been added to the creation wizard to capture an email address on the **Connection Details** wizard panel. The email address is defaulted to that of the account but this can be cleared or changed. As with the Account Creation wizard, the subscription email address is optional.



**Figure 7: Subscription Creation Wizard**

### 4.2.2.3 Hardware Orders

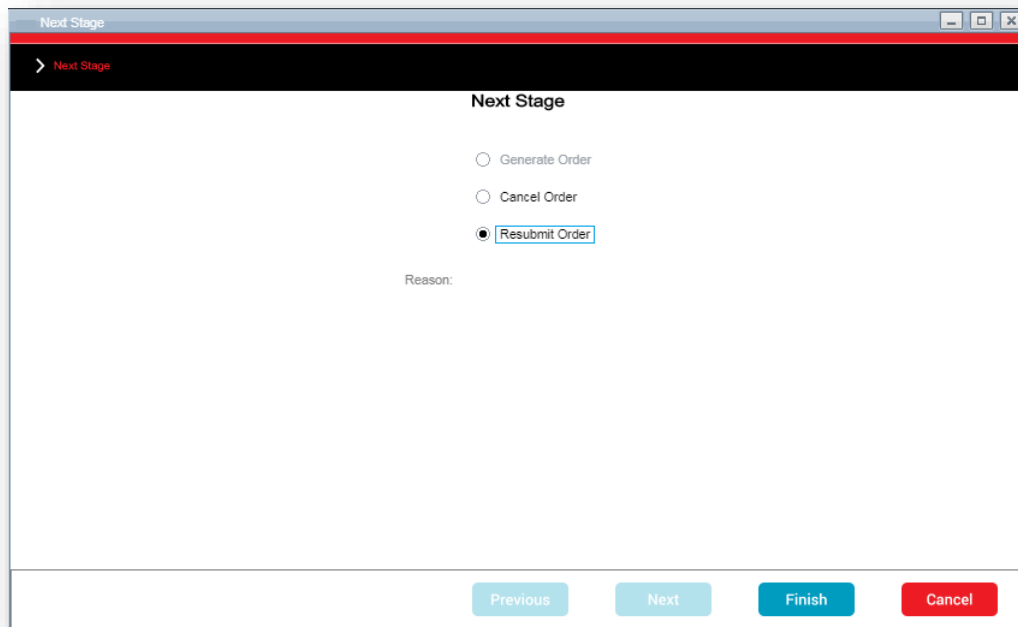
When creating a new order, or editing an existing order, through the CMP GUI the agent is now presented with a set of radio buttons to determine when and how to bill. Options available are to bill immediately, bill when the next account invoice is due, or bill at the agreement level. If the agreement level is selected, then the agent is prompted to select an agreement number from the agreement numbers logged against the account and if applicable the corporate and group as well. The Agreement Logging level is visible within the drop-down.



**Figure 8: Add Order Pop-up**

### 4.2.2.4 Fraud Check

As described in section 3.2.2 above CMP can now indicate within the request whether a fraud check is required prior to sending the order to the warehouse. A fraud check may be successful, fail outright or may require secondary verification. Whether the fraud check has been successful or not is indicated by the status of the order on the Order Summary screen. An order that undertakes a second check can be resubmitted again if the manual fraud check is successful. The hyperlink on order status within the Order Summary screen provides the option of resubmitting an order:



**Figure 9: Resubmit Order Pop-up**

This option is only applicable where the order status is 'Awaiting Review'. If the order is resubmitted then the order status will be updated to 'Resubmitted' and the order resent to the warehouse with the fraud check required flag set to indicate no fraud check is required.

The ability to resubmit an order is controlled through the function security. The new function name associated with resubmitting a Sales Order is “RESUBORDER”.

**4.2.2.5 Order Cancellation**

As described in section 3.3.6 above, CMP 8.1.3 now supports the capability for a privileged agent to mark an order as cancelled up to and including the point where the order has been sent to the warehouse but where the warehouse has not yet dispatched the order. The order can now be cancelled by clicking the hyperlink on the order status of 'Awaiting Dispatch'. If the agent does not have appropriate privileges then the hyperlink will not be available to the agent in this state.

The new function name associated with cancelling a Sales Order that has already been sent to the warehouse is “CANCELSOD”.

**4.2.2.6 Purchase a Product with Card**

In CMP 8.1.3 it was now possible to make a purchase through AgentView via card. The purchases popup in AgentView now provides the capability of making a purchase using a one-off card payment by selecting "Card" as the required payment method. The agent is redirected to a card entry page provided by the underlying payment gateway integration. Once the card details have been successfully entered and the payment has been processed by the payment gateway, CMP is updated with the status of the payment and

this is visible to an agent in the purchased products mini panel on the Subscription Account Summary screen.

Note that it is not yet possible to purchase recurring bolt-on packages by card. Card purchase of recurring bolt-ons requires the use of registered cards (i.e. cards for which CMP has already captured a 'token' which can be used to take recurring payments) Recurring card purchases will be supported in a future CMP release.

A reference implementation with Stripe is provided as part of the release.

#### 4.2.2.7 Purchases Panel

In CMP 8.1.2, the option to end package allowances was available from the Allowances mini and bottom panels. This was based on the fact that packages that could be ended i.e. recurring bolt-ons, would have only a single allowance. However, a package can have multiple allowances and therefore it is more logical to end the package from the Purchases mini and bottom panels.

#### 4.2.2.8 Add Refund

The Add Refund pop-up, available from the Payment History bottom panel allows a refund to be made by either payment or credit note. If 'Credit Note' is selected the transaction dropdown is populated with sales ledger invoice transactions with a positive gross amount.

In CMP 8.1.3, if 'Payment' is selected the transaction dropdown now includes spread payments. If 'Credit Note' is selected the transaction dropdown also includes invoice transactions with a negative gross amount.

#### 4.2.2.9 Other changes

On the **Edit Account panel**, a new dropdown of 'Tax Rate Code' has been introduced that is enabled when the 'Override Tax Rate to Account' checkbox is checked.

On the **Invoice Line Details panel** the item description has been increased to 50 characters.

on the **Agreement Details panel** restrictions have been introduced when trying to perform a bill cycle change when the change has not fully taken effect on the OCS. When changing to a higher bill cycle e.g bill cycle 4 to bill cycle 8, a second bill cycle change will not be possible until after the 8<sup>th</sup> of the month of which the bill cycle change takes place. When changing to a lower bill cycle e.g bill cycle 8 to bill cycle 4, a second bill cycle change will not be possible until after the 4<sup>th</sup> of the month after which the bill cycle change takes place.

It is also not possible to perform a Price Plan change when a bill cycle change has not been fully effected on the OCS.

The **Payments bottom panel** has been enhanced to provide additional filters for 'Approved' and 'Cancelled' payments.

The **Bond Bottom panel** has been modified to add a new 'remaining redemption amount' column to show if any of the bond has been redeemed. If the bond has not been redeemed then the remaining amount shows the full bond amount.

## 4.3 Admin Console Changes

### 4.3.1 New Processes

The following new processes have been defined in CMP 8.1.3

- Data Warehouse Consumer Prepaid -
- Number Monitor
- Payment Card Purge
- Advance Notification
- Interface Purge

The Data Warehouse Consumer Prepaid process executes the following jobs followed by their associated probes in a sequential fashion as follows:

- Data Warehouse job Subscription
- Subscription Alert Probe for Extract Complete
- Data Warehouse job Subscription Features
- Subscription Features Alert Probe for Extract Complete
- Data Warehouse job Subscription Services
- Subscription Services Alert Probe for Extract Complete
- Data Warehouse job Account
- Account Alert Probe for Extract Complete
- Data Warehouse job Agreement
- Agreement Alert Probe for Extract Complete
- Data Warehouse job Prepaid Usage
- Prepaid Usage Alert Probe for Extract Complete
- Data Warehouse job Purchases
- Purchases Alert Probe for Extract Complete
- Data Warehouse job Payments
- Payments Alert Probe for Extract Complete
- Data Warehouse job Unallocated Usage
- Unallocated Usage Alert Probe for Extract Complete.

The Number Monitor process executes the Managed Number Monitor job followed by its associated alert probe for low availability of numbers.

The Payment Card Purge process executes the Payment Card Purge job followed by its associated alert probe for Batch Complete.

The Advance Notification process executes the Advance Notification job followed by its associated alert probe for Batch Complete.

The Interface Purge process executes the Interface Purge job followed by its associated alert probe for Batch Complete.

## 4.3.2 New Jobs

### 4.3.2.1 Bill Cycle Change Job

In order to support bill cycle changes on the OCS, a new Bill Cycle Change job (and associated extract and load daemons) has been introduced in CMP 8.1.3.

When a bill cycle change is executed on the OCS, it generates new instances of allowances and overage caps which take effect on the first day of the new bill cycle. The unique identifiers of these new instances must be stored in CMP so that updated (including expiry) of these instances can be executed.

The Openet Bill Cycle Change Adapter is responsible for querying the Openet OCS for the allowances and usage caps relating to the subscription (or shared allowance group) that has had its bill cycle changed. The allowance instance identifiers are stored in CMP for processing by the Bill Cycle Change job. When the new records are due to come into effect, this job is triggered to update CMP allowance and usage cap records to refer to the new allowance and usage cap instances created as part of the bill cycle change.

### 4.3.2.2 General Ledger Extract

CMP 8.1.3 provides a new General Ledger job that creates a batch detailing the daily breakdown of all payments, invoices, purchases and bond redemption information for a particular calendar month.

The General Extract job is run for a specific month and year and extracts the following based on the job run period:

- Payments - The payments nominal code is specified at the top of the Payments section in the General Ledger JSON output. The following breakdown exist within the Payments section of the JSON output
  - Recurring - covers both successful and failed (reversals) recurring payment records accumulated by payment type (Direct Debit, VISA etc) for each day within the job run period. Failed recurring payments will appear as two records in the extract, one for the original payment and one for the reversal. These transactions may appear on separate days and in separate extracts based on when the payment was drawn and the reversal occurred
  - Non-recurring - covers only successful one-off payments for each day within the job run period
  - Online - covers only successful online payments for each day within the job run period
  - Bond - covers only successful bond payments for each day within the job run period
  - Refund - covers only successful refund payments for each day within the job run period

- Prepaid Balance - covers only successful payments from a prepaid balance for each day within the job run period
- Invoices - The invoices nominal codes are specified at the top of the Invoices section in the General Ledger JSON output.
  - Summary of tax - creates a record for each distinct day and tax rate. If there are multiple tax rates separate totals are accumulated for each tax rate
  - Summary of the nominal charges - accumulates a total per day per nominal code
- Bond redemptions - a bond redemption summary record is created totalling bond redemptions for each day within the job run period. Zero totals for a day are not reported. The bond redemptions nominal code is specified at the top of the Bond Redemptions section in the General Ledger JSON output.
- Purchase - a purchases summary record is created for each purchase type (prepaid, postpaid or balance) totalling purchases for each day within the job run period. Zero totals for a day are not reported. The purchases nominal code is specified at the top of the Purchases section in the General Ledger JSON output for each purchase type.

The nominal codes used within the GL extract are defined within the General Ledger module properties.

Once the General Ledger job has run, downstream daemons extract the batches of ledger records and convert them to the required external system format and transmit them to the required destination. The job is typically scheduled to run once for a given calendar month.

The existing General Ledger extract has been removed from the Invoice Posting job.

A new General Ledger extract JSON schema (general-ledger.schema.json) is available in CMP 8.1.3 to support the output of the GL extract job.

The version of the updated JSON schema released with CMP 8.1.3 is 1.0.

### 4.3.3 Changed Jobs

#### 4.3.3.1 Sales Order Request Job

The Sales Order Request Job has been modified to support the ability to perform a fraud check on a sales order prior to sending the order to the warehouse (see section 3.2.2 above).

A new element, "contactDetails", has been added to the Order Request JSON (order-request.schema.json). The new element appears after the postal address in the order array and contains the contact numbers (telephoneNumber & telephoneNumber2) that are defined depending on whether the address is a business or personal one.

A second element, "fraudCheckRequired", has been added to the Order Request JSON after the contact Details in the order array. Whether a fraud check is required or not can be controlled via a new job property, sales.order.request.job.fraudcheckrequired.

The version of the updated JSON schema released with CMP 8.1.3 is 1.1.

#### 4.3.3.2 Sales Order Dispatch Job

The Sales Order Dispatch Job has been modified to support a new status of 'REVIEW' that is required if a fraud check on a sales order request requires a second fraud check.

The Sales Order Dispatch JSON (order-dispatch.schema.json) has been modified accordingly to support a new status of "REVIEW".

The version of the updated JSON schema released with CMP 8.1.3 is 1.1.

#### 4.3.3.3 Device Enrolment Request Job

In order to support device enrolment of non-Apple devices, the device manufacturer is now output within the devices object of the outbound Device Enrolment Request JSON (device-enrolment-request.schema.json).

The version of the updated JSON schema released with CMP 8.1.3 is 1.1.

#### 4.3.3.4 Device Enrolment Response Job

The Device Enrolment Response job has been enhanced for CMP 8.1.3 to optionally generate a workflow event on successful and unsuccessful device enrolment. In the case of an error response, any associated error messages are included in the workflow event notes.

#### 4.3.3.5 Bill Print Job

The Bill Print job JSON schema (bill-print.schema.json) has been modified as follows:

- the account service quantity and the reference have been added in the bill item section for account bill items
- the Payment Type (code and description) has been added to the general invoices section
- the order date and CMP order number have been added to the orderDetail section
- the Cost Centre has been added to the subscription part of the invoices section.
- the description of the 'isCopy' element has been changed to 'Deprecated' as requesting copies of invoices is not currently supported as these will typically be available online
- the description of the 'isMarketingExcluded' element has been changed to 'Not currently used'
- the 'totalAmountDue' element has been removed for the 'giroReference' section as this information is already present outside the giro reference block
- a new element, 'totalCharges' has been added in the account sub-section of the statement section after the existing element 'totalAdjustments' element. This contains the monetary total of gross amounts for all the charges on this account for this period
- a new array element, 'charges' has been added in the account sub-section of the statement section after the existing element 'adjustments' element. This contains the gross amount of charges on the invoice including tax

- the bill item description fields with the 'account bill items' and 'subscription bill items' sections of the invoices envelope have been increased from 30 to 50 characters.

The version of the updated JSON schema released with CMP 8.1.3 is 1.2.

#### 4.3.3.6 Recurring Pre-payments job

The Recurring Pre-payments job has been modified to not run in card mode by default but instead enforces selection of either balance or card mode. If no mode is selected when the job is submitted then an error will be displayed to the user.

In addition, separate module properties are now available for both the card and balance offset. This is the number of days to look ahead for payments that are due in order to pull payments early in order to handle any rejections and end any associated allowances ahead of automatic renewal on the OCS.

#### 4.3.3.7 Ledger Monitor Job

In CMP 8.1.2 there are three algorithms that are used by the Ledger Monitor job for cash matching namely by invoice number, by open amount and oldest first. These are checked in this order. None of these take disputed invoice charges into consideration. If a customer has an issue with an invoice charge an agent can place that amount into query until the matter is resolved. If a payment is subsequently made by the customer, CMP needs to ensure none of the payment is used to pay off a disputed/queried invoice charge.

CMP 8.1.3 introduces a new cash matching algorithm to cater for this situation. The new algorithm reduces the open amount by the amount in query. This new algorithm replaces the existing open amount algorithm.

#### 4.3.3.8 Other Changes

A new module property, `comms.monitor.dataUnitsOfMeasure`, has been added to the comms module properties to define the units of measure used for the formatting of data allowances. The property value has a list of codes in a comma separated format:  
GB,MB,KB

#### 4.3.4 New Probes

The following probes have been introduced in CMP 8.1.3:

- Advance Notifications Job Alert probe for Batch Complete
- General Ledger Job:
  - Alert probe for Batch Completed
  - Alert probe for Extract Completed
  - SLA probe for Extract Completed
- Recurring Payments Job
  - Alert probe for Transmission Complete (Payments Posting)
  - Alert probe for Batch Completed (Bank)
  - Alert probe for Extract Completed (Bank)

- SLA probe for Extract Completed (Bank)
- Alert probe for Batch Completed (Card)
- Alert probe for Extract Completed (Card)
- SLA probe for Extract Completed (Card)
- Recurring Payments Rejections Job
  - Alert probe for Transmission Complete (Reversals Posting)
  - Alert probe for Batch Completed
  - Alert probe for Load Completed
  - SLA probe for Batch Completed.

#### 4.3.5 Changed Probes

The Invoice Posting Job alert probe for Extract Completed G/L has been removed as this has been superseded by the General Ledger job probes.

#### 4.3.6 Module Properties

The CMP 8.1.2 Admin Console module properties functionality does not allow additional properties to be added through the console. In CMP 8.1.3 the user is provided with the ability to add one or more properties for modules which contain camel routes (daemons, probes, etc). Properties which can be added are selected from a predefined list based on the defined options for the specific camel route(s) used in the module.

The meaning of each property is now displayed as a popover when the user selects a “i” button next to any property which has help defined.

In addition, the CMP 8.1.2 Admin Console module properties functionality does not allow properties to be removed through the console. In CMP 8.1.3 the user will be given the ability to remove optional properties for modules which contain camel routes (daemons, probes, etc). Properties which can be removed will be determined based on the defined options for the specific camel route(s) used in the module. Only properties which are editable will be able to be removed. If an optional property has been marked as read-only the user will not have the ability to remove it.

#### 4.3.7 Job Prioritisation

The CMP administration server (Sabre server) is capable of hosting an array of jobs, each one with differing importance. CMP 8.1.3 introduces prioritisation of jobs so that their threads of execution are given priority.

Priority is set through a "priority" property to the job metadata with possible values of "normal", "high" and "low". This is set by MDS Global and would typically not be modified.

## 4.4 Business Configuration Changes

### 4.4.1 New Screens

#### 4.4.1.1 Network Features

CMP 8.1.3 now supports the ability to edit an existing network feature definition.

### 4.4.2 Changed Screens

#### 4.4.2.1 Services

When configuring an Account Service through Business Configuration, the Add Service and Edit Service screens have been changed to introduce a 'Quantity' checkbox to indicate whether the Account Service can have a quantity associated with it when provisioned on an account. The checkbox is only visible for Account Services. The View screen also indicates whether the Account Service is configured as a quantity service or not.

#### 4.4.2.2 Comms Default Fields

As described in section 3.3.9 above, CMP 8.1.3 allows the attributes provided within the Openet notification to be used to enrich the outbound communication with subscriber information held within CMP. This is achieved through the introduction of a new bean, OCSNOTIFICATIONATTRIBUTES. The new bean will handle different types of formatting instructions supplied in the parameter definition for the comms field. For example:

- Used to get the allowance description, the field parameter will be as follows:  
**triggerNotificationAttributeName=subscriptionId, dataType=Text, field=triggerNotificationAttributeValue, retrieve=allowanceDescription**
- Used to get the allowance type, the field parameter will be as follows:  
**triggerNotificationAttributeName=subscriptionId, dataType=Text, field=triggerNotificationAttributeValue, retrieve=allowanceType**
- Allowance amounts can be formatted using a divisor and unit of measure template. The field parameter will be as follows:  
**triggerNotificationAttributeName=entitlementSize, dataType=Text, field=triggerNotificationAttributeValue, format=unitOfMeasure, usingAttributeForAllowanceUoM=subscriptionId, divideBy=100**

To enable this a number of new parameters are supported:

- field parameter **retrieve=allowanceDescription** - applied to the subscription id field within the external OCS notification to get the allowance description from the Allowance table.
- field parameter **retrieve=allowanceType** - applied to the subscription id field within the external OCS notification to get the type from the Allowance table. Job properties are used to map the allowance type value (e.g. V) to a description (e.g. voice)
- field parameter **retrieve=usageCapDescription** - applied to the subscription id field within the external OCS notification to retrieve a usage cap description from the Usage Cap table

- field parameter **divideBy={operand value}** - used to trigger a division of the amount provided within the external OCS notification by the operand value. This will be used to convert the input attribute to a value expected by the Unit Of Measure being applied.
- field parameter **usingAttributeForAllowanceUoM=subscriptionId** - applied to the subscription id field within the external OCS notification and used to get the related allowance Unit Of Measure.
- field parameter **usingAttributeForUsageCapUoM=subscriptionId** - applied to the subscription id field within the external OCS notification and used to get the related usage cap Unit Of Measure
- field parameter **format=unitOfMeasure** - applied to the entitlement size, usage amount or remaining quota fields supplied within the external OCS notification value to be formatted as follows:
  - divide input attribute value by **divideBy** parameter value, if present
  - get allowance or usage cap Unit Of Measure
  - if formatting a usage cap or a voice, text or cash allowance, or a zero value data allowance value, apply the Unit Of Measure obtained in the previous step
  - if formatting a non-zero data allowance value, dynamically apply a unit of measure appropriate to the value of the attribute e.g. show 100 MB instead of 0.1GB.

#### 4.4.3 Packages

When defining a Package through Business Configuration it is now possible to define a workflow event to be raised when the package is successfully purchased by subscriber. The workflow can only be defined for bolt-on and top-up packages.

#### 4.4.4 Tariff Usage Caps

The Tariff Usage Caps tab in the tariff links screen has been enhanced so that it is no longer possible to delete the full usage cap on a postpaid tariff. Doing so would enable a subscriber on that tariff to have unlimited overage.

### 4.5 SOAP Web Service Changes

#### 4.5.1 Create Workflow Web Service

To make this web service consistent with AgentView, a 'Resolution Required By Time' attribute has been added to the Create Workflow SOAP service. If no resolution required by time is specified within the request then the time is defaulted to midnight. The SOAP service populates the resolution required by time when creating the Workflow Event.

## 4.6 RESTful Web Services Changes

### 4.6.1 New RESTful Web Services

#### 4.6.1.1 GET Comms Settings Web Service

The GET Comms Settings REST web service allows an external system to retrieve communications setting for the subscription or account. If no communications settings have been defined then the API will return a record with null values except for the hierarchy entity (AccountId or SubscriptionId). Communications setting attributes include:

- Hierarchy Entity - describes the Subscription or Account number that this comms settings relates to (subscription Id or account id)
- Time Exclusion Period - period over which communications should not be sent for the subscription or account
- Preferred Language - preferred language to be used for communication
- Special needs - identifier of any special needs requirements for communication e.g. braille
- Preferred Delivery Method - the preferred method that the user would like to use for communication from the operator.

#### 4.6.1.2 PATCH Comms Settings Web Service

The PATCH Comms Settings web service allows for the updating/setting of a customer's communication profile in CMP. This information is displayed in the header section of the Comms Preferences screen in AgentView.

#### 4.6.1.3 GET Comms Preferences Web Service

The GET Comms Preferences web service allows the user to query the comms preferences that are associated with a CMP subscription or Account. These preferences allow control over the communications that an end user might receive by allowing a user to opt in or out of a certain group of communications that is defined via configuration. Communication preference attributes include:

- Hierarchy Entity - describes the Subscription or Account number that this comms preferences relates to (subscription Id or account id)
- Comms preference - identifier of the specific communication preference (preference code and description)
- Opted In - indicates whether the user has opted in or out of receiving communications associated with this comms preference
- Allowed to opt out - indicates whether a user is allowed to opt out of receiving a certain type of communications
- Allow time exclusion - indicates whether time exclusions apply to the communications associated with this comms preference or not.

#### 4.6.1.4 PATCH Comms Preferences Web Service

The PATCH Comms Settings web service allows the updating of a comms preference to either opt in or opt out of receiving communications of a particular type.

### 4.6.2 Changed RESTful Web Services

#### 4.6.2.1 Subscription Web Service

The existing GET Subscription REST web service has been enhanced to return the subscription's pre-paid balance within the response.

The pre-paid balance is not included in the response if the subscription is not on a pre-paid tariff. If the subscription is not yet connected then the balance is set to zero. The pre-paid balance is returned along with currency code.

When a prepaid subscription is disconnected, its prepaid balance is stored in CMP because that balance may be purged by the OCS. This balance will be returned within the GET Subscription response when querying a disconnected prepaid subscription.

#### 4.6.2.2 Serial Numbers web service

The GET Serial Numbers REST web service has been modified to now take into account the date and time set on the managed number record when an MSISDN is returned to the calling application as part of the GET Serial Numbers response.

A new system property has been added (parameter group 'GENERAL.SETTINGS', parameter name 'NUMBER.RESET.INTERVAL'). in CMP 8.1.3 that is now used by the GET Serial Numbers web service to select a list of available numbers to return to the calling application. Numbers that are available and numbers that have been selected previously but where the management status date/time has elapsed (less than the current time less the reset interval property).

#### 4.6.2.3 Purchase web Service

The POST Purchase web service has been enhanced to set the price of subscription service based on the purchase price within the REST request rather than the Package Service or Tariff Package Service price. The purchase price must be within the min/max specified for the service in the package being purchased otherwise the purchase is rejected. When creating subscription services for a purchased package, the purchase price is always used for non-rolling services. For rolling services, only the price of the first instance is overridden.

In addition, the payment validation has been enhanced as follows:

- If a bolt-on package (recurring or non-recurring) is being purchased for a subscription that is not yet connected, the purchase is rejected if that package has already been purchased for that subscription
- The purchase or a top-up or bolt-on package is rejected if the package is marked as inactive
- For balance purchases the payment type must not be supplied
- For pre-paid purchases:

- card details element must not be supplied if the payment method (associated with the payment type) is not credit/debit card
- card details element, if supplied, is validated as follows:
  - the name on card is mandatory
  - the last 4 digits of the card are mandatory
  - the expiry month and year are mandatory and must be the current month/year or later
  - the card token is optional for the purchase of non-recurring bolt-ons.

The Card Payment object has been modified as follows:

- the startDate field has been split into two fields, startYear and startMonth
- the expiryDate field has been split into two fields, expiryYear and expiryMonth.

#### **4.6.2.4 Payments Web Service**

The POST Payment web service has been enhanced to prevent payment sources of 'Recurring', 'Non Recurring' or 'Prepaid Balance' from being used within the request as these are not valid payment sources when a payment is created in CMP through REST.

#### **4.6.2.5 Allowance Summary Web Service**

For unlimited allowances, the information returned within the response has changed to have the following totals:

allowance groups that contain an unlimited allowance should have totals set as follows:

- inclusive: -1
- remaining: -1
- rollover: 0.

#### **4.6.2.6 Serial Numbers Web Service**

The GET Serial Numbers web service has been modified to allow a filter based on an account number. This account number can be an ordinary account or an account associated with a salesperson.

### **4.7 Openet-specific Adapters**

The Openet-specific adapters are optional components of the CMP deployment that are based on the licence agreement with MDS Global.

#### **4.7.1 Openet Provisioning Adapter**

##### **4.7.1.1 ECS 7.0.6 Compatibility**

The Openet Provisioning Adapter has been updated and verified against ECS 7.0.6. CMP 8.1.3 will not function correctly with earlier versions of the Openet ECS.

ECS 7.0.6 provides a completely redeveloped Offer Catalogue (OC) on the OCS with a new set of REST APIs and the use of OAuth2 as an authentication protocol for REST API access.

The OC APIs are used within Business Configuration to link CMP allowances, usage caps and features to corresponding offers on the OCS.

For the authentication of the Offer Catalogue APIs, a token (provided by a Keycloak Authorization server) is now required and must be present in the header section of the Offer Catalogue REST API request messages.

#### 4.7.1.2 International Prefix

The OCS requires a subscriber's MSISDN provisioned on the OCS to be in full E.164 format which includes the mobile country code as well as the mobile network code and subscriber number. In order to support this provisioning requirement for both subscriber creation and mobile number change, the international prefix (defined on the network table) is used to prefix the MSISDN stored in CMP. Prior to adding the prefix any national trunk prefix must be stripped from the MSISDN. A new property, trunkPrefix, has been added to the adapter module properties to optionally define the trunk prefix if used by the network for mobile numbers.

The trunkPrefix property value is defined as a TBC module property and as such requires configuration on installation/upgrade.

#### 4.7.1.3 ECS Carrier Id

The carrier id on Openet is effectively an identifier of the MVNO integrated to the OCS instance in an MVNE environment. The carrier Id is now defined as a system property (Parameter Group "OCS.INTERFACE", Parameter Name "OCS.INTERFACE.CARRIER.ID") and is mandatory project configuration required after an installation.

#### 4.7.1.4 Pre-activation service access

As described in section 3.3.16 above, following the creation of an inactive subscriber on the OCS, a single default allowance can be added for that subscriber to allow the subscriber access to limited network services prior to the subscriber being fully activated.

In order to support this the Openet provisioning adaptor is configured with a default OCS offer id (module property defaultOcsAllowanceId) that corresponds to an offer on the OCS that is automatically provisioned as part of the inactive subscriber creation. The 'default' offer will not appear as part of the valid subscription allowances in AgentView.

Careful consideration should be given to how the default offer will be used when defining it on Openet. For example, if the default offer is to remain in place for a limited time when the subscriber is inactive, then the offer should be defined as non-recurring for a fixed period. When the offer expires all service access will be blocked. If the offer is to remain throughout the lifetime of the customer to allow portal access if all other services are blocked for example then the OCS default offer will need to be defined as a recurring offer.

The value is defined as a TBC module property and as such requires configuration on installation/upgrade.

#### 4.7.1.5 Other Changes

In addition, the Openet Provisioning Adapter has been updated to populate a new (optional) element in the provisioning response message: networkActivities.

A networkActivity record is created for each command that is executed on the Openet OCS and records the response code received for each command as well as an important attribute of the command being executed.

#### 4.7.2 Bill Cycle Change Adapter

In order to support the complexities of a bill cycle change on Openet, a new Openet adapter has been introduced in CMP 8.1.3. This works in conjunction with the Openet Provisioning Adapter and the new Bill Cycle Change job discussed in section 4.3.2.1 above.

When a bill cycle change is executed, Openet generates new instances of allowances and overage caps which take effect on the first day of the new bill cycle. The unique identifiers of these new instances must be stored in CMP so that updated (including expiry) of these instances can be executed.

The Openet Bill Cycle Change Adapter is responsible for querying the Openet OCS for the allowances and usage caps relating to the subscription (or shared allowance group) that has had its bill cycle changed. The allowance instance identifiers are stored in CMP for processing by the Bill Cycle Change job.

#### 4.7.3 Openet Rated Usage Adapter

The Openet Rated Usage Adaptor has been modified to handle the concept of Flexi Units, as described in section 3.3.12 above, which means that there is now a distinction between actual and billable units within the CDR received from the OCS e.g. a 20 second call may be charged for 60 seconds. The billable units are now visible within the Recent Usage screen within AgentView.

In addition the existing Openet Rated Usage adapter antinlude property is now derived from the new carrier id property instead of having the carrier id hard coded in the file name patterns i.e. the '1000' value in the following string 'ecs\_gy\*\_1000.rwf,ecs\_ro\*\_1000.rwf'.

### 4.8 UK-specific Adapters

As described in section 3.3.17 above CMP 8.1.2 supports inbound reports from BACS in a flat file format that is no longer supported. Instead XML is used.

New BACS adaptors have been created in CMP 8.1.3 to convert the inbound XML reports into internal JSON format that can then be consumed by the recurring payments rejections or mandate revisions job.

## 5.0 Product Support Issues

### 5.1 Solved Issues

The following issues have been addressed within this release:

Reference	Area	Description
<b>CMPIS-304</b>	Invoicing	Invoice Production - Service Pricing Issue (bill item calculator)
<b>CMPIS-305</b>	Admin Console	Scheduler - changing job parameters doesn't work
<b>CMPIS-306</b>	Invoicing	Inconsistent Bill Print JSON file name
<b>CMPIS-307</b>	Rated Usage	Usage Load Daemon should set Usage Class Code to NULL when one is not supplied
<b>CMPIS-311</b>	AgentView	Event Code Search error
<b>CMPIS-316</b>	Rated Usage	usageClassCode look-up based on usageClassificationKey is not being done
<b>CMPIS-317</b>	AgentView	View invoice in agent-view error
<b>CMPIS-319</b>	Managed Numbers	Managed Numbers job fails but still reports success
<b>CMPIS-330</b>	Business Config	Add Package Service panel issues
<b>CMPIS-334</b>	AgentView	Re-adding a usage cap is not possible
<b>CMPIS-338</b>	Invoicing	Issue with non-subs invoices when consolidation level is subscription
<b>CMPIS-342</b>	Web Services	Purchase REST - Unable to find subscriber under account Error returned when No Tariff Package Links
<b>CMPIS-353</b>	Comms	Templates location not being accessed correctly
<b>CMPIS-368</b>	Rated Usage	Invalid OCS Allowance Instance Id not being handled correctly
<b>CMPIS-372</b>	Invoicing	Invoice Production - Error Metadata Refactoring
<b>CMPIS-377</b>	Business Config	Application of charge for enabling a feature not working
<b>CMPIS-378</b>	AgentView	Internal System Error on Subscriber Installation
<b>CMPIS-397</b>	Credit Control	Error Metadata Refactoring
<b>CMPIS-406</b>	AgentView	Balance Retrieval Fails with usage
<b>CMPIS-408</b>	Web Services	REST Post serial numbers (list) updating data incorrectly
<b>CMPIS-412</b>	AgentView	Price plan is not changing in the summary screen after tariff/plan change
<b>CMPIS-413</b>	AgentView	Shared limit is not updated in agent view allowance panel
<b>CMPIS-415</b>	AgentView	Shared services does not display under active services panel for prepaid subscriber with shared allowances
<b>CMPIS-472</b>	Business Config	Add Allowances - performance when populating OCS Allowance Name dropdown
<b>CMPIS-553</b>	Business Config	Add Package Service - unable to add multiple rolling records for the same service
<b>CMPIS-624</b>	Business Config	Add Tariff Usage Cap - Prepaid Tariff cannot be defined with full caps
<b>CMPIS-699</b>	Business Config	Add a Communication - Error when configuring delivery methods
<b>CMPIS-962</b>	Admin Console	Interfaces – Incorrect Record & Error Counts
<b>CMPIS-976</b>	Rated Usage	Detail Sequence should always start at 1 on Rated Usage JSON

<b>CMPIS-985</b>	Admin Console	Incorrect Job Name in 'View Job Execution Detail' screen.
<b>CMPIS-986</b>	Data Warehouse Extracts	Prepaid Usage Analytics - batch job issue & probe required
<b>CMPIS-995</b>	Payments	Mandate Registrations Extract Daemon not encrypting file correctly
<b>CMPIS-996</b>	Data Warehouse Extracts	Billed Usage Analytics job is producing empty file
<b>CMPIS-997</b>	Data Warehouse Extracts	Unbilled Usage Analysis job doesn't run if no date passed in
<b>CMPIS-998</b>	Credit Reference Extract	Credit Reference extract not encrypting file correctly
<b>CMPIS-999</b>	Data Warehouse Extracts	Unallocated Usage Analytics job not extracting all data in FULL mode
<b>CMPIS-1016</b>	AgentView	Agent View - View Invoice Details Panel - Large Data Unit Value
<b>CMPIS-1046</b>	Web Services	REST Get Subscription - Issue with Billing Filter
<b>CMPIS-1064</b>	AgentView	Agent View - Serial Management Status date not updated during Sub Creation and Number Change
<b>CMPIS-1065</b>	Data Warehouse Extracts	Data Warehouse - Delimiter Job Property
<b>CMPIS-1068</b>	AgentView	Subscription service is added with 'isinvoicethisservice' set to true (1) for Prepaid subscribers
<b>CMPIS-1079</b>	Web Services	REST - Patch Payment should allow cancellation of "Approved" refund
<b>CMPIS-1085</b>	AgentView	Issue with display of allowances in Agent View following allowance Transfer
<b>CMPIS-1096</b>	Login	Length of 'New Password' and 'Confirm Password' fields inconsistent
<b>CMPIS-1103</b>	Web Services	New workflow records are generated when user send REST request to end the package allowances (which are already ended)
<b>CMPIS-1109</b>	Purge	Account Purge failing
<b>CMPIS-1124</b>	Rated Usage	Exception thrown when Serial Number is populated on inbound JSON
<b>CMPIS-1125</b>	Orders	Stock Check not handling Non Stock Items correctly
<b>CMPIS-1128</b>	AgentView	Corrupt Data Errors being thrown on subscriber creation
<b>CMPIS-1130</b>	Orders	outboundDeviceEnrolment JSON not populating customerDEPID field correctly
<b>CMPIS-1141</b>	Ledger Monitor	Poor Ledger Monitor performance
<b>CMPIS-1142</b>	Business Config	TariffPackage entries for Shared Packages are not linked
<b>CMPIS-1143</b>	AgentView	Description of the end allowance need to be changed as end package
<b>CMPIS-1145</b>	Orders	Message not being created for outboundSalesOrder with Business type delivery address
<b>CMPIS-1146</b>	Orders	Only 50 products accessible via Category and Product dropdown associated with orders.
<b>CMPIS-1160</b>	Web Services	Card token validation should only be checked if the purchase is a recurring bolt on
<b>CMPIS-1161</b>	AgentView	Not consistent on Transfer amounts display in adjustment and allowance panel
<b>CMPIS-1167</b>	AgentView	Getting a confirmation error on adding allowance action when user raise a CC event for DC subscriber
<b>CMPIS-1168</b>	Web Services	updateAddress SOAP Web Service not working correctly
<b>CMPIS-1170</b>	Payments	Recurring prepayment job reporting an error incorrectly

<b>CMPIS-1171</b>	Comms	Email comms 'Subject' not being presented to user even though it has been created.
<b>CMPIS-1175</b>	AgentView	Agent View - Cannot view Posted Invoices
<b>CMPIS-1181</b>	Provisioning	Provisioning Daemon Metadata incomplete/incorrect
<b>CMPIS-1182</b>	Provisioning	Provisioning Response Daemon Metadata incomplete/incorrect
<b>CMPIS-1183</b>	Provisioning	Openet Provisioning Adapter Metadata incomplete/incorrect
<b>CMPIS-1185</b>	Provisioning	Openet Recurring Pre Payment Adapter Metadata incomplete/incorrect
<b>CMPIS-1186</b>	Payments	Recurring Pre Payments Daemon Metadata incomplete/incorrect
<b>CMPIS-1187</b>	Payments	Recurring Pre Payment Rejections Daemon Metadata incomplete/incorrect
<b>CMPIS-1191</b>	AgentView	Total of usage units should be equal to "Total usage data " in the rated usage screen
<b>CMPIS-1195</b>	AgentView	Agent View - Error when adding refund to account on card payment type
<b>CMPIS-1196</b>	Sabre Server	Default narayana transaction timeout too low
<b>CMPIS-1197</b>	Payments	Recurring Payments Job - Refunds - Transmission Error
<b>CMPIS-1198</b>	Payments	Recurring Payments Job – Refunds – all payment sources included
<b>CMPIS-1204</b>	Managed Number Monitor	Previously SELECTING numbers get EXPIRED
<b>CMPIS-1212</b>	AgentView	Exception on double-free of EJB
<b>CMPIS-1220</b>	Workflow Monitor	Error when processing (re)connection event if sub has usage caps
<b>CMPIS-1221</b>	SIM Profiles	SIM Profiles Load Daemon fails when file contains more than 30 SIMs
<b>CMPIS-1222</b>	SIM Profiles	SIM Profiles Batch Job - population of fields on Serial Number Management table
<b>CMPIS-1223</b>	Payments	Non Recurring Payments – missing link between the payment and the sales ledger
<b>CMPIS-1224</b>	Invoicing	Statement Production - Corporate - Invoice & Statement Same Level
<b>CMPIS-1244</b>	Rated Usage	Rated Usage Load - batch containing errors should only create one interface batch header
<b>CMPIS-1250</b>	Orders	Cannot Raise Orders Against a Business Address
<b>CMPIS-1259</b>	Web Services	REST Payment - Bond - Payment Identifier incremented incorrectly
<b>CMPIS-1260</b>	Web Services	REST Payment - Bond or Online- No Card Details supplied error message
<b>CMPIS-1261</b>	Web Services	REST Payment - Online – Error message required for invalid payment amounts
<b>CMPIS-1262</b>	Web Services	REST Payment - Online - Receipt Requested should set requested date/time
<b>CMPIS-1270</b>	Data Warehouse Extracts	Invoice Detail Analytics Job Failure
<b>CMPIS-1272</b>	Comms	Special character displayed in commsrequesttargetdistribution table
<b>CMPIS-1282</b>	Invoicing	Invoice Consolidation - Incorrect Module code
<b>CMPIS-1284</b>	Business Config	Business Configuration labels not displayed
<b>CMPIS-1285</b>	AgentView	User is signed out during login process
<b>CMPIS-1286</b>	Web Services	PATCH Serial Numbers - Possible to Change Status of an Allocated Serial Number

<b>CMPIS-1287</b>	AgentView	View Allowance Details - Incorrect Unit of Measure
<b>CMPIS-1295</b>	Invoicing	Incorrect Serial Number on Invoice Detail
<b>CMPIS-1307</b>	Action Monitor	Trigger SQL & Reader Query Not in Sync
<b>CMPIS-1308</b>	Payments	Recurring Payments - Creation of Payment records not setting payment time
<b>CMPIS-1309</b>	Payments	Non Recurring Payments - Hard coded value in Payment Audit
<b>CMPIS-1310</b>	AgentView	Delete Itemised Bill Service Constraint issue
<b>CMPIS-1311</b>	General Ledger Extract	Various Issues
<b>CMPIS-1312</b>	Web Services	REST Payment - Online Payment - Population of Payment Type incorrect for online payments
<b>CMPIS-1321</b>	Payments	Recurring Payment Response Control - Code Refactor
<b>CMPIS-1328</b>	AgentView	Internal System Error when searching for invalid customer reference
<b>CMPIS-1333</b>	Payments	Recurring Pre Payments Job - Metadata Incomplete/Incorrect
<b>CMPIS-1334</b>	Payments	Recurring Pre Payment Rejections Job - Metadata Incomplete/Incorrect
<b>CMPIS-1342</b>	Business Config	Package Services - Date being stored incorrectly for new records
<b>CMPIS-1350</b>	Payments	Recurring Pre Payment Rejections - End Package - Rolling
<b>CMPIS-1354</b>	Invoicing	Bill Print JSON Output mismatch with Schema
<b>CMPIS-1355</b>	Receipts	Receipt Print JSON Output mismatch with Schema
<b>CMPIS-1360</b>	Web Services	REST - cardToken is defined incorrectly in the Create Purchase Web Service
<b>CMPIS-1367</b>	Web Services	REST Payment - Additional Check for Payment Type Population

## 6.0 Documentation

### 6.1 Product Documentation

The product documentation is available online at <https://cmp-docs.com/Content/Home.htm>. This online portal requires authorised access, which can be obtained by contacting MDS Global support. The documentation is also available as downloadable PDFs as follows:

Document	Version	Status
<b>CMP 8.1.3 Release Notes</b>	1.0	New
<b>CMP 8.1 CMP Overview</b>	1.2	Updated
<b>CMP 8.1 Installation Guide</b>	1.5	Updated
<b>CMP 8.1 Business Configuration Overview</b>	1.4	Updated
<b>CMP 8.1 Billing Functionality Guide</b>	1.3	Updated
<b>CMP 8.1 Extracts Guide</b>	1.5	Updated
<b>CMP 8.1 Reporting Guide</b>	1.1	Updated
<b>CMP 8.1 RESTful Web Services API Guide</b>	1.3	Updated
<b>CMP 8.1 Operational Overview</b>	1.3	Updated

#### 6.1.1 Updated Documents

##### 6.1.1.1 CMP Overview

The CMP Overview has been updated for CMP 8.1.3 to include orders at agreement Level, device unenrolment and the option to perform a fraud check on orders.

##### 6.1.1.2 Installation Guide

The Installation Guide has been updated to include details of prerequisites for the installation of a high availability system specifically for the report server and also has been updated to document the changes to the inventory configuration tool and associated inventory file.

##### 6.1.1.3 Business Configuration Overview

The Business Configuration Overview document has been updated to align with the changes described in section 4.4 namely around quantifiable account services, allowances and Variable Consumption Rates and Communications Default Fields.

##### 6.1.1.4 Billing Functionality Guide

The Billing Functionality Guide has been updated in line with the new bill cycle change functionality.

##### 6.1.1.5 Extracts Guide

The Extracts Guide has been updated to highlight the parameter(s) each job can take.

#### **6.1.1.6 Standard Reporting Guide**

The Standard Reporting Guide has been restructured to provide improved navigation of the document.

#### **6.1.1.7 RESTful Web Services API Guide**

The RESTful Web Services Guide has been updated in line with the changes specified in section 4.6 above.

#### **6.1.1.8 Operational Overview Guide**

The System Administration Guide has been updated to include the General Ledger Job, Device Unenrolment, the Bill Cycle Change Job and the Invoice Posting Job updates.

#### **6.1.1.9 Batch Jobs and JSON Schemas Guide (Online Guide Only)**

The Batch Jobs and JSON Schemas Guide has been updated for the Bill Cycle Change job defined in section 4.3.2.1, the General Ledger Extract job and schema described in section 4.3.2.2, the Sales Order and Device Enrolment jobs and schemas defined in sections 4.3.3.1, 4.3.3.2 and 4.3.3.3, the Bill print Job and schema described in section 4.3.3.5, the Recurring Pre-payments Job described in section 4.3.3.6 and the Ledger Monitor job described in section 4.3.3.7.

## **6.2 Online Help**

No updates have been performed to the online help for CMP 8.1.3.

## 7.0 Release Upgrade Path

The CMP 8.1.3 installer includes the capability to upgrade a CMP 8.1.2 installation without the loss of configuration or customer data provided that the software, file system and database structure of the installation in question are at no point manually modified.

**The CMP 8.1 Installation Guide, and the details below, should be read before attempting the upgrade to CMP 8.1.3.**

### 7.1 Upgrade Notes

#### 7.1.1 Database Consolidation

The CMP 8.1.3 release simplifies the database structure for two of the third party applications that CMP uses, WSO2 and Pentaho.

In previous releases the WSO2 application required 3 databases to be created as part of its install. In the case of a HA install this would increase to 4 databases. The CMP 8.1.3 release consolidates these 4 databases down to 2 databases. These 2 databases will have predefined names of “wso2” and “wso2reg”.

In previous releases the Pentaho application required 3 databases to be created as part of its install. In the CMP 8.1.3 release these 3 databases have been consolidated down to 1 database. This database will have a predefined name of “Pentaho”. As a result of this change, the installer requires a new JDBC password to be defined as part of the upgrade process.

In order to consolidate the databases for both WSO2 and Pentaho, **it will be necessary to stop both applications prior to an upgrade**. This can be done by issuing the following commands on the appropriate host:

- **WSO2** - systemctl stop wso2is
- **Pentaho / JWS** – systemctl stop jws5-tomcat

Note that this may also stop AgentView and WSO2 Login UI if they are hosted on the same box

These services will be restarted as part of the upgrade.

#### 7.1.2 Overridden Properties Files

It should be noted that an existing CMP installation with overridden module property files will not be automatically upgraded.

Where the module property file has changed between the CMP 8.1.2 and CMP 8.1.3 release then it may be necessary to redeploy the module. Modules that require redeployment, either because of additional configuration requirements, missing configuration or an overridden properties file, are indicated a warning symbol above the deployment icon. If the module has missing configuration then use the edit button on the module properties page to add required configuration rather than using the missing module property configuration page accessible through the warning link at the top of the page:

**One or more modules contain properties which need to be configured in order to function. Click [here](#) to configure these properties.**

If the module cannot successfully be edited and re-deployed then it may be necessary to revert back to the original properties file first and then re-apply the changes made for 8.1.2. It is recommended that the overridden properties files are backed up (/etc/mdsglobal/sabre/server/classpath-override) prior to the upgrade.

Note: there is a known issue in CMP 8.1.3 with deploying through the module configuration page and therefore the module property edit option should be used in all cases.

### 7.1.3 Pentaho Reports

As part of the database consolidation above, the Pentaho reports are re-installed into the new database. Therefore if any other Pentaho reports have been created beyond the standard set provided as part of the previous CMP installation then these must be downloaded using the Pentaho administration client prior to stopped the Pentaho application and uploaded again afterwards if still required.

## 7.2 Third party libraries

The following third party libraries will be updated as part of the installation:

- apache camel: 2.24.0 to 2.25.1
- apache tomcat (embedded): 9.0.21 to 9.0.36
- hazelcast: 3.11.4 to 3.12.7
- spring batch: 4.1.2 to 4.2.4
- spring boot: 2.1.5 to 2.3.1
- spring framework: 5.1.7 to 5.2.7
- spring security: 5.1.5 to 5.3.3
- hibernate: 5.3.10 to 5.4.17.

## 7.3 Configuration Changes

The following configuration updates should be considered when upgrading an existing CMP 8.1.2 environment:

### 7.3.1 Configuration of Flexi Units

As described in section 3.3.12 above, flexi-units enable usage against an allowance to be consumed at different rates. In order to support this, new configuration is required in CMP to enable the Rated Usage job to process the usage records received from the OCS.

For Flexi Data, records need to be created in the UsageEventClassification table with a usageClassKey equal to the Rating Group, Service Id and zone.

For Flexi Voice, records need to be created in the CallClass table record with callClass values that correspond to the usage class code provided in the OCS usage records. Records also need to be created in the CallClassService table with a callClassCode value that corresponds to the usage class code provided in the OCS usage records.

### 7.3.2 Connection Workflow Events

It is recommended that workflow event codes relating to connection events are updated prevent them being selected and generated outside of connection and reconnection processes.

This can be done by first viewing the details of each of the network connection and reconnection event codes, selecting the 'Event Level & Security' tab and clicking the Edit button. The 'Manually Selectable?' checkbox should be unchecked for each event. If the standard CMP configuration is being used then this will require updates to the following workflow events:

- CONN/DC
- CONN/NR
- CONN/DR

### 7.3.3 Device Enrolment Response Workflow Events

As stated in section 4.3.3.4 above, the Device Enrolment Response Job can generate a workflow based on the response to the device enrolment request from the DEP provider. The event type and event code to be used are configured in the Diary Event Properties table using a property group identifier of "DEVICE\_ENROLMENT" and a property name of "return.complete.success" and "return.complete.failure".

This change requires direct update of the CMP database and should only be performed by MDS Global personnel.

### 7.3.4 Comms Messages

It should be noted that when defining text for an SMS or push notification message, if the message contains a substitution value with a percentage sign following it then two '%' signs must be used instead of one e.g. "\${OCSVOLUMETHRESHOLDVALUE}%%."

### 7.3.5 Unit of Measure

It is recommended that the existing configuration for the unit of measure "MINS" should have the formatPattern attribute updated from 'MM Min' to 'MM Min ss Sec' to display allowances in minutes and seconds in AgentView.

This change requires direct update of the CMP database and should only be performed by MDS Global personnel.

### 7.3.6 New Function Security

To support the new function security implemented for cancelling an order after dispatch and resubmitting a sales order after a fraud check, records need to be added to the roleDiseFunctionName table for function codes "CANCELSD" and "RESUBORDER" and assigned to an appropriate role(s).

To support the new function security implemented for the new Hardware Attribute panels the records need to be added to the roleDiseFunctionName table for function codes "VWRESOURCE" (view hardware attributes), "UPRESOURCE" (update hardware attribute) and "ADRESOURCE" (add hardware attribute).

This change requires direct update of the CMP database and should only be performed by MDS Global personnel.