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## Connectivity Management Platform

# User Manual

**Version 9.100**

**Revision A**

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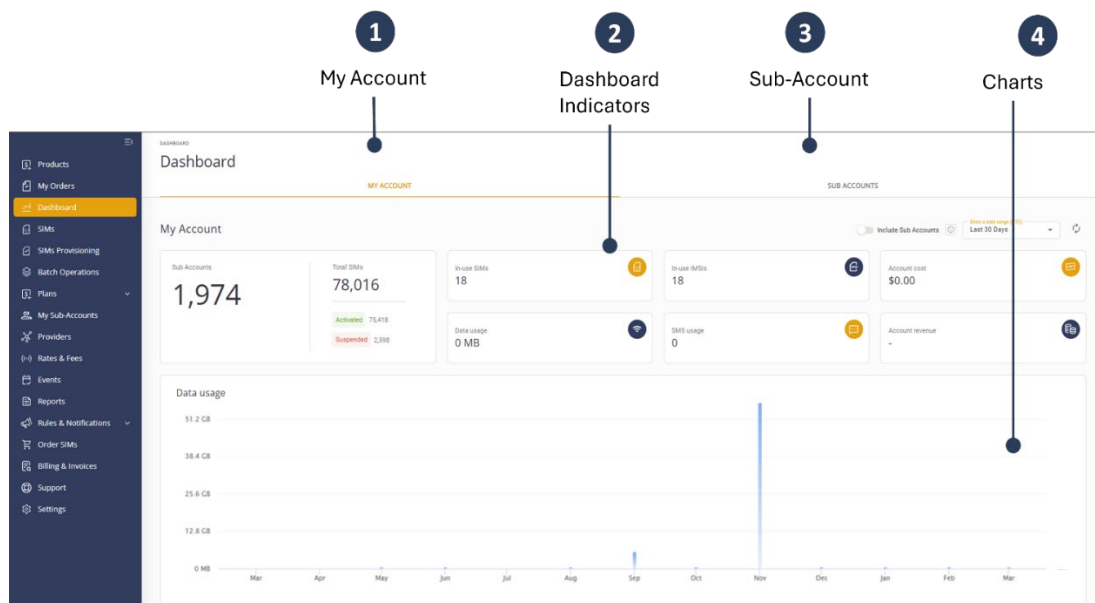
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# 1 Introduction

The Connectivity Management Platform (CMP) is a cloud-based solution that includes a fully virtualized 3G/4G/LTE and 5G core network, along with a comprehensive suite of Business Support Systems (BSS). These components enable our customers to fully manage their IoT business, from device manufacturing and distribution to complete IoT connectivity management.

## 1.1 CMP Homepage

The platform is a CMP-as-a-Service offering that includes various subsystems and management applications. A screen capture of the CMP homepage is shown below.



## 1.2 System Modules

All system modules are accessible through the sidebar menu which enables you to navigate the platform with ease. A description of the system modules is provided in this table.

System Module	Description	Reference
Dashboard	View key account information including usage statistics and trends.	See "My Dashboard" on page 13
SIM Management	Manage the life cycle for a single SIM, group of SIMs or an entire population.	Refer to "SIM Table" on page 24
Batch Operations	Perform bulk operations on groups of SIM in the account.	Refer to "Batch Operations" on page 69
Plans	Define and manage rate plans for use by SIM cards	Refer to "Types of Plans " on page 90

System Module	Description	Reference
My Sub Accounts	Manage customer accounts under the main account.	Refer to "My Sub Accounts" on page 155
Providers	Select available providers for each customer.	Refer to "Providers Module" on page 261
Connectivity Rates	View My Rates and set connectivity rates for each customer.	Refer to "Rates and Fees" on page 173
Events	View SIM population network events for SIM behavior information.	Refer to "Events Module" on page 201
Reports	Generate ad-hoc reports for various SIM and billing activities.	Refer to "Reports " on page 234
Rules & Notifications	Define rules and notification channels for various SIM and rate plan conditions	Refer to "Rules and Notifications" on page 209
Billing & Invoices	Create billing adjustments and view past invoices	Refer to "Billing & Invoices" on page 275
Support	View and manage account support tickets.	Refer to "Open a Support Ticket" on page 1
Settings	Configure global system parameters such as users, labels, etc.	Refer to "System Settings" on page 280

## 1.3 Version Release Information

Version 9.100, 05 June 2025, Revision A

## 1.4 Before You Begin

This section contains a general description of the system including browser compatibility, account hierarchy, access restrictions and contingencies relating to client information.

### 1.4.1 Browser Compatibility

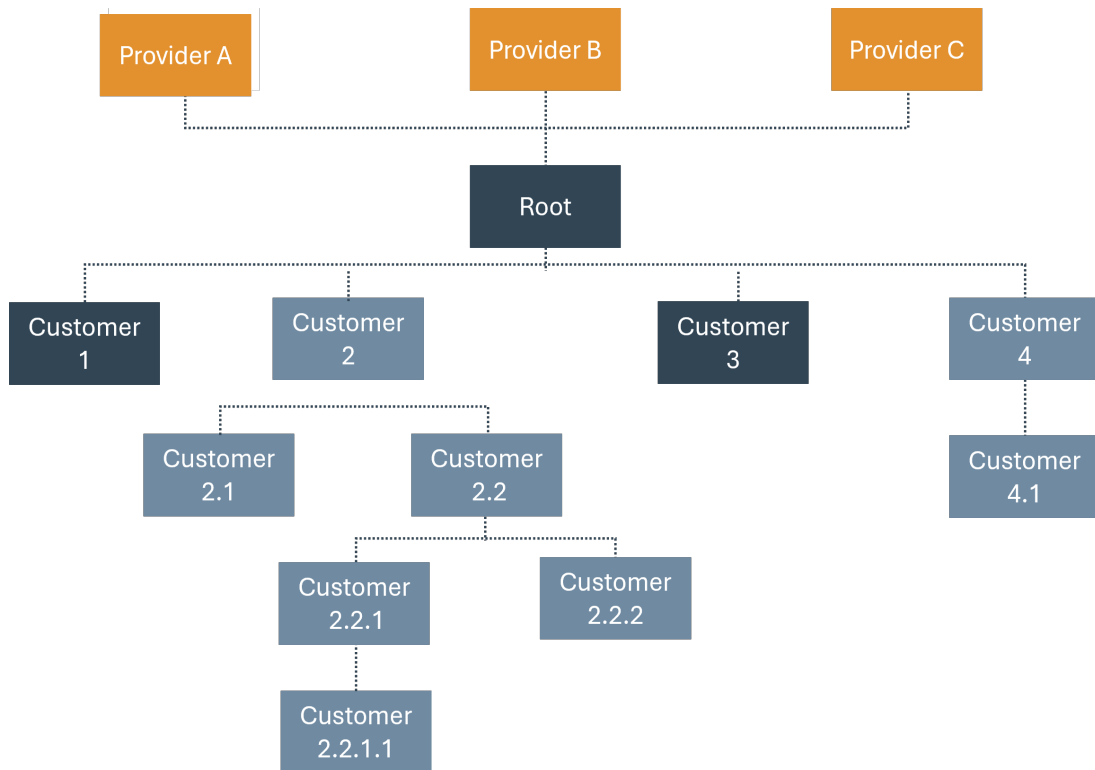
The SIM Connectivity Management system is compatible with all standard commercial web browsers, such as Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari, ensuring seamless accessibility and usability across different platforms.

### 1.4.2 User Access and Usage Authorization

Access to the SIM Connectivity management system is restricted to registered users exclusively. Each user is assigned specific user authorizations based on their designated user roles within the system. These authorizations align with their respective roles' permissions, ensuring that users only have access to the functionalities and data pertinent to their responsibilities. By enforcing this user-role based access control mechanism, the system maintains security and confidentiality while facilitating efficient management of SIM connectivity operations.

### 1.4.3 Account Hierarchy and Multi-Tenancy

The platform account structure is hierarchical; every (mainly customer) primary (or parent) account can have multiple, multi-level child accounts under it. A child account inherits the functions and permissions of its parent account, with the only difference being the resources it can access. The system is multi-tenant; every piece of information is distinguished by the account it belongs to. This ensures that an account can access only its own information and resources and is shielded from other accounts. The following diagram illustrates the account hierarchical structure:



### 1.4.4 Client Information

Should a power outage occur on the client end, it is important to note that any information stored in the CMP application memory will not be preserved. We advise users to regularly save their work to avoid potential data loss in such situations.

## 1.5 User Login

To login into the platform, do these steps:

1. Visit <https://floportal.flolive.net> to display the login screen.
2. Enter your **email** and **password**.
3. Click **Sign in** to display the My Account dashboard (refer to "My Dashboard" on page 13)

**NOTE:** Click **Forgot Password?** in login screen to reset the password.

## 1.6 Terms of Service

When you login to the system for the first you must accept the Terms of Use of Service agreement.

To accept the Terms of Service agreement, do these steps:

1. Go to the system **Login** screen.
2. Click **I Accept** to agree to the terms of service.
3. To save a PDF version of the Terms of Use of Service agreement on your computer click **Download** (optional).

**NOTE:** For more information refer to "Upload Terms of Use " on page 284

## 1.7 Set Language

To set the language of the user interface, do the steps:

1. Go to the top bar and click your **User ID**. to display the menu options.
2. Select **Languages** to display a list of available languages.
3. Select a Language to update the homepage.

## 1.8 System Logout

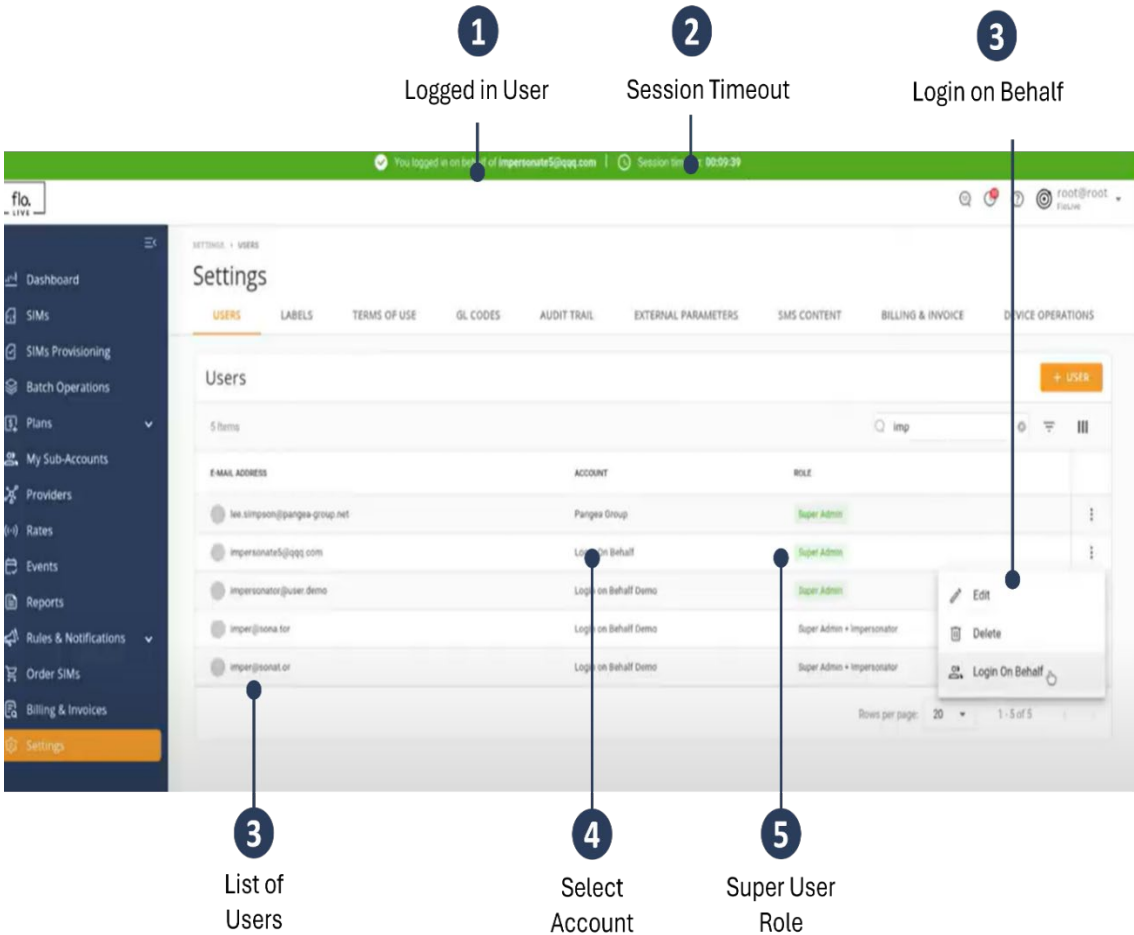
To log out of the system, do these steps:

1. Go to the top bar and click your **User ID**.
2. Click **Log out** when the drop-down menu is displayed

## 1.9 Login on Behalf

The Login on Behalf feature enables a parent super admin to access the system on behalf of a sub-account user. With this functionality, the parent super admin gains temporary access to the sub-account and can perform actions, view data, or manage settings as if they were logged in as the sub-account user.

An example of the Login On Behalf screen is shown here.



1.9.1 Preconditions

Make sure these conditions are met before you use Login On Behalf.

	Condition	Description
1.	User Permissions	The "Impersonator" must be logged in as a Super Admin.
2.	Account Type	The account must be a Connectivity Service Provider (CSP) Account
3.	User Token	The user must be registered in the system and have a valid Access and Refresh SSO token.
4.	MFA Status	The user Multi-Factor Authentication must be enabled or set as mandatory.
5.	Activity Status	The user must complete all assigned actions to enable Super Admin access.

1.9.2 Sub-Account Setup

To setup a sub-account for the Login On Behalf feature, do these steps:

- 1. Select an existing sub-account or create a new one.

2. Navigate to the account and settings enable the Connectivity Service Provider option.
3. Enable the **Allow Login** on Behalf option.
4. Set the **MFA** option to Enabled or Mandatory.
5. Click **Save** to update the account settings.

**NOTE:** If the MFA option is set to Disable then the Allow Login On Behalf option is also disabled.

### 1.9.3 Super Admin Setup

To define the Super Admin permissions for the Login On Behalf feature, do these steps:

1. Select **Settings** to display a list of users.
2. Select a **Super User** defined in the table and click the **Actions** icon.
3. Click **Edit** to display the Super Admin details.
4. **Role Type** and select **Super Admin + Impersonator**.
5. Click **Save** to update the user role settings.

### 1.9.4 Login On Behalf Via User Account

To Login On Behalf from the user account , do these steps:

1. Navigate to **My Account** on the top bar menu.
2. Select **My Account | Login On Behalf**.
3. Enter a user email address and click **Login**.

### 1.9.5 Login On Behalf Via System Settings

To Login On Behalf from the system settings, do these steps:

1. Select **Settings** from the sidebar menu.
2. Scroll the list of accounts and click the **Actions** icon for a selected account.
3. Click **Login On Behalf**.
4. Enter a user email address and click **Login**.

### 1.9.6 Session Timeout

When a Super Admin is logged in on behalf of a user, a green notification bar is displayed at the top of the screen. The notification bar contains the User ID and the Session Timeout.

### 1.9.7 Audit Trail

The Audit Trail for the Login on Behalf feature provides a comprehensive record of all actions performed by the parent super admin when accessing the system on behalf of sub-account users. The audit trail logs each login session initiated by a super admin and display these details:

- Specific name of the user and sub-account.
- Time and date of access including duration of session.
- Any action done by the Super Admin (e.g. data modifications and configuration settings etc.)

### 1.9.8 Logout On Behalf

To logout on behalf, do these steps:

1. Navigate to **My Account** on the top bar menu.
2. Select **My Account | Logout On Behalf**.

## 1.10 Display Online Help

To display the Online Help files, do these steps:

1. Go the top bar and click the ? icon to display the knowledge-base homepage.
2. Click **User Manual** display the online help default page.

**NOTE:** You can download a PDF Version of the User Manual from the top bar menu of the online help.

## 1.11 View Open Source Licenses

You can view and download Open Source licenses via the About Menu. The license information is updated every three months.

To view Open Source licenses, do these steps:

1. Go to the top bar and click your **User ID**. to display the menu options:
2. Click **About** to display a list of available licenses.
3. Click **Download** to save a PDF file to you computer.



4. Click **Close** to return to the Dashboard homepage.

**NOTE:** Links are provided for viewing of licenses from vendor sites.

## 2 My Dashboard

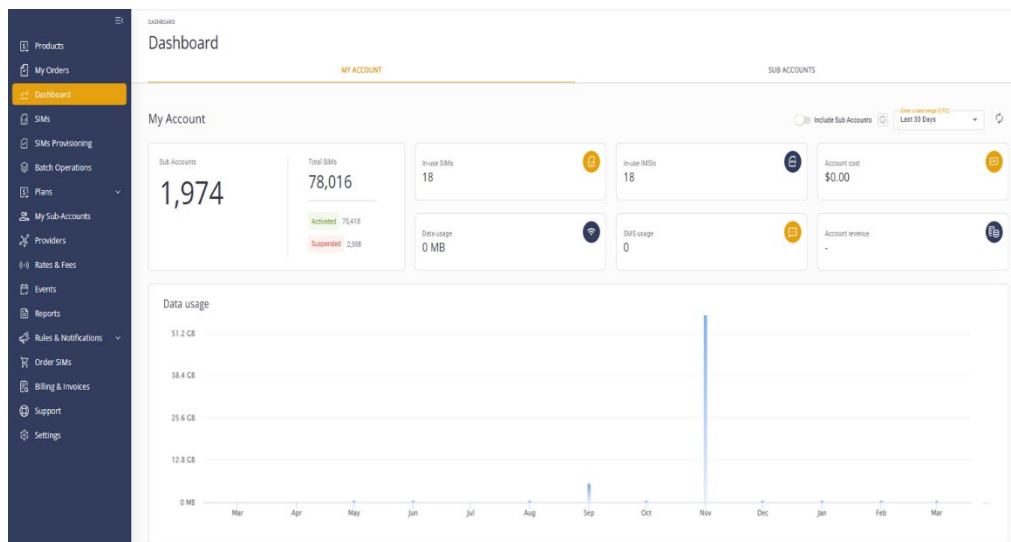
The Dashboard module provides comprehensive usage data for your (Parent) account and your (Child) sub-accounts over a user-configured length of time. It displays data and SMS usage, SIM connection data and cost, as well as revenue and profit summaries.

### 2.1 Types of Accounts

The dashboard module contains two different views:

Type of Account	Description
Parent Account	Displays data from your (Parent) Account with or without the inclusion of your sub-accounts (Child). This section provides an overview of usage data specific to your main account. For more information refer to "Parent Account Dashboard" on page 14
Sub-Accounts	Displays data bar graphs from selected sub-accounts. When more than one account is selected, the bar graph aggregates data over all selected accounts. Additionally, the bar-graph data displays can be transformed into a pie chart. Each slice of the pie chart represents the percentage contributed by each of the selected accounts. Data from unselected accounts are not included in the pie chart. For more information refer to "Sub Accounts Dashboard" on page 19.

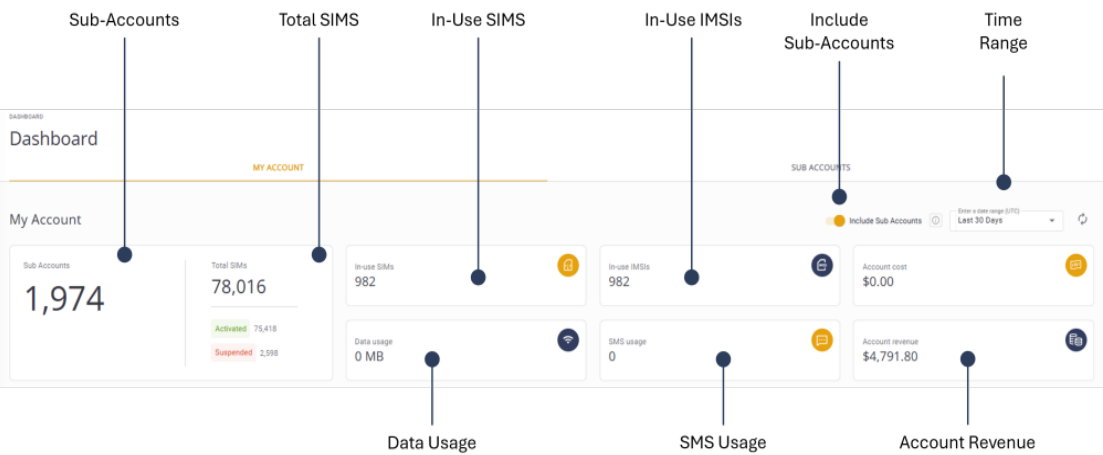
You can access the Parent Account and Sub Accounts by selecting the associated tab on the dashboard interface. A screen capture of the Dashboard module is shown here:



2.2 Parent Account Dashboard

The Parent Account serves as the primary entity within the SIM Connectivity Management system. This account controls and manages your account and all your associated Sub-Accounts. Typically, the Parent Account represents the main user or organization responsible for managing multiple Sub-Accounts and respective SIM cards or connected devices.

An example screen capture of the parent account data is shown here.



A description of the parent account data is provided in this table.

Attribute	Description
Sub-Accounts	Number of sub accounts created by this account. The account dashboard counts only one level down in the child accounts hierarchy.
Total Sims	Total number of SIMs under the account inventory. <ul style="list-style-type: none"> <li>Activated SIMs count is displayed in green.</li> <li>Suspended SIMs count is displayed in red.</li> </ul>
In Use SIMs	Number of SIMs connected to the network for the specified duration of time.
In Use IMSIs	Number of IMSIS in use for the specified duration of time.
Include Sub Accounts	Specify if sub-account data is displayed in parent account: <ul style="list-style-type: none"> <li>Enabled: Displays sub-account usage data for parent account.</li> <li>Disabled: Sub-account usage data not displayed for parent account.</li> </ul>
Time Range	Filter the time range for usage data in parent account.

Attribute	Description
Data Usage	Total amount of megabytes in use for all SIMs during the defined time-frame. For more information, refer to "Data Usage Chart" on page 16
SMS Usage	Total number of SMS sent by all SIMs during the specified time-frame. For more information, refer to "IMSI Per Location" on page 18
Account Revenue	Total account revenues from all child accounts during the user-configured length of time. For more information, refer to "Cost Revenue and Profit Chart" on page 17
IMSI Per Location	The total number of active IMSIs in each country for the specified duration of time. For more information refer to "IMSI Per Location" on page 18

## 2.3 View Parent Account Data

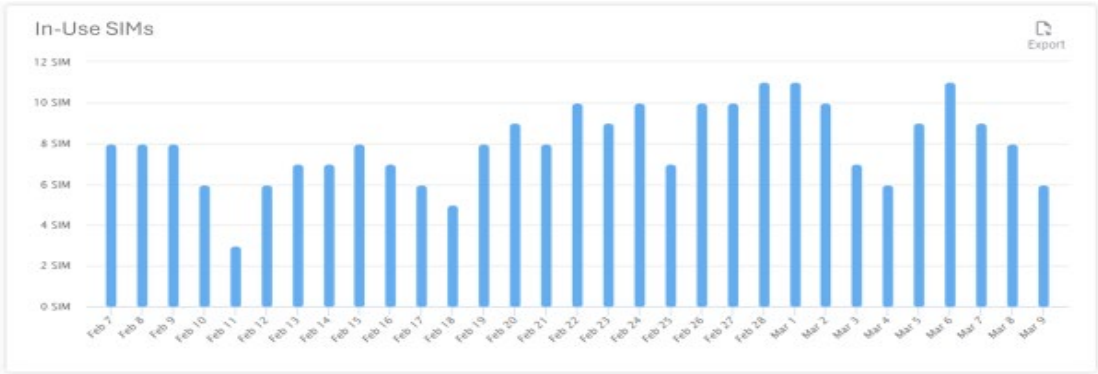
To view parent account data, do these steps:

1. Select **Dashboard** from the sidebar menu.
2. Click the **My Account** tab to display account data.
3. Select the **Include Sub Accounts** to display parent and sub-account data.
4. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom

### 2.3.1 In-Use SIM Chart

The In-Use SIM chart shows the number of SIMs that are connected to the network over a specified duration of time. Users can click the **Include Sub Accounts** toggle button to include or exclude the SIMs of sub-accounts.

An example of the In-Use SIMs chart is shown here.



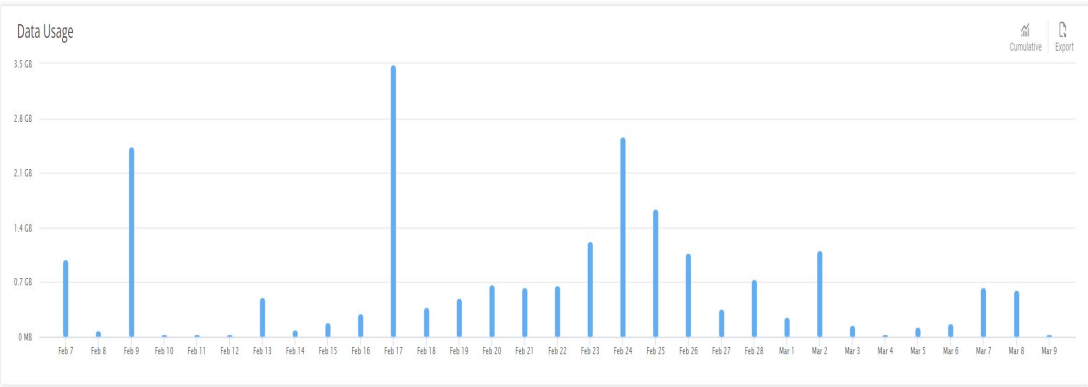
The In-Use SIMS chart options are described in this table.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

2.3.2 Data Usage Chart

The Data Usage chart shows the total Data usage of all SIMs over the user-defined length of time. Click the Include Sub Accounts toggle to include/exclude the SIMs of sub-accounts.

An example of the Data Usage chart is shown here.



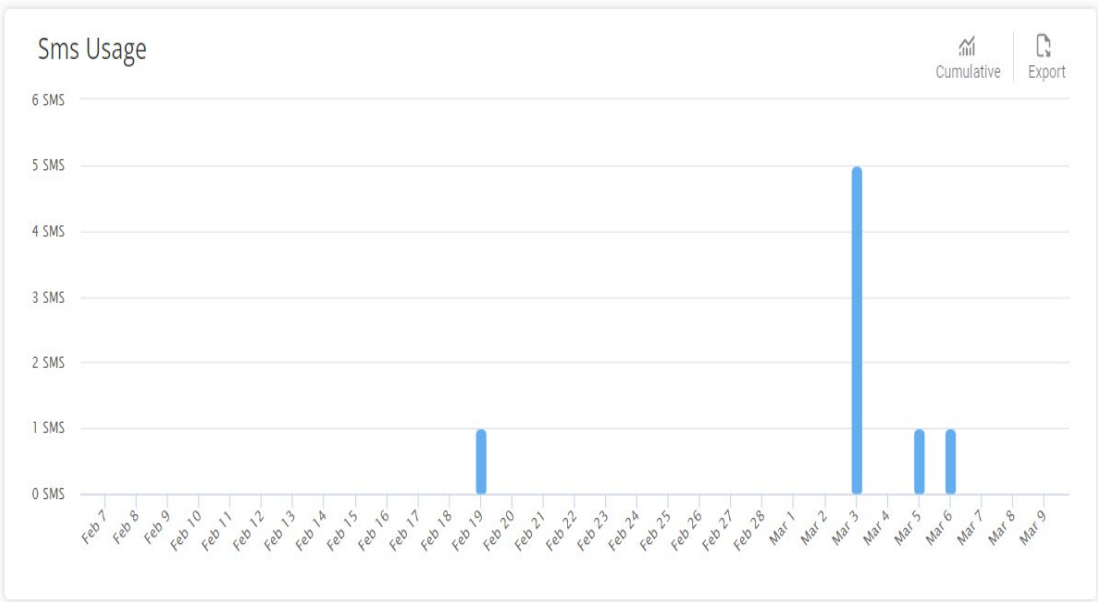
A description of the Data Usage chart options is provided in this table.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

2.3.3 SMS Usage Chart

The SMS Usage chart shows the total number of SMS sent by all SIMs for a specified duration of time. Users can click the Include Sub Accounts toggle to include or exclude the SIMs of sub-accounts.

An example of the SMS Usage chart is shown here.






A description of the chart options is provided in this table.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

2.3.4 Cost Revenue and Profit Chart

The Cost Revenue and Profit shows a calculation of account economic performance indicators. The indicators are color-coded as follows:

Color	Indicator	Description
	Cost	The total cost incurred by all SIMs in your account for a specified duration of time. This is the amount of money you must pay to your Parent account
	Revenue	The total account revenues earned by the SIMs in your sub accounts for a specified duration of time.
	Profit	Calculated as Revenue minus Cost for a specified duration of time.

An example of the Cost Revenue and Profit chart is shown here.



A description of the chart options is provided in this table.

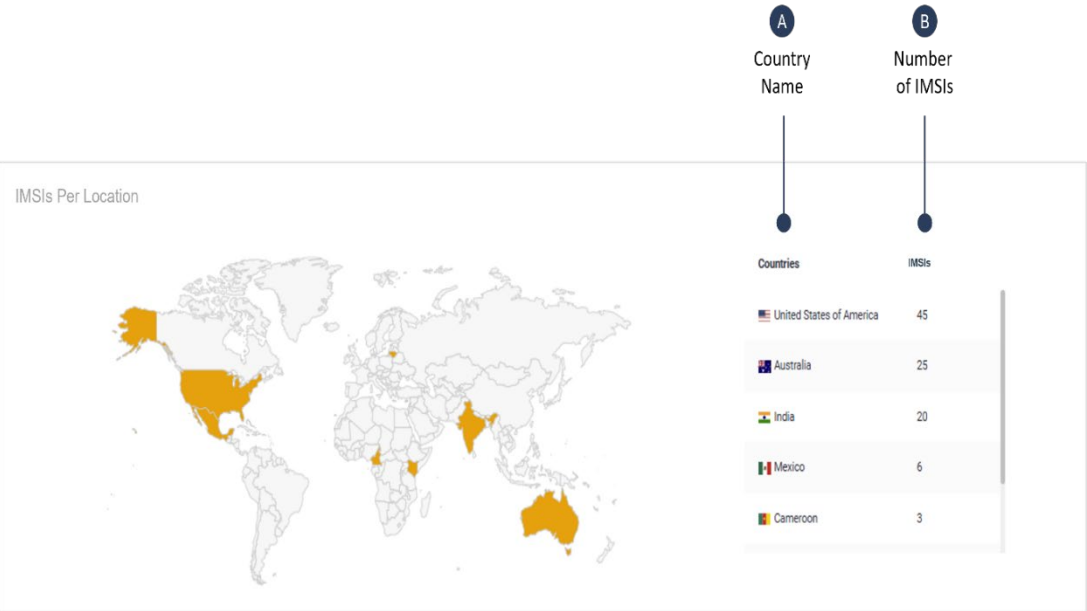
Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

**NOTE:** When the Include Sub-Accounts option is disabled, the dashboard only displays the Cost, since your main account does not have any revenue for its SIMs.

2.3.5 IMSIs Per Location

The IMSIs Per Location chart displays the total number of active IMSIs in each country for the specified duration of time.

An example of the IMSIs Per Location chart is shown here.



2.4 Export Parent Account Data

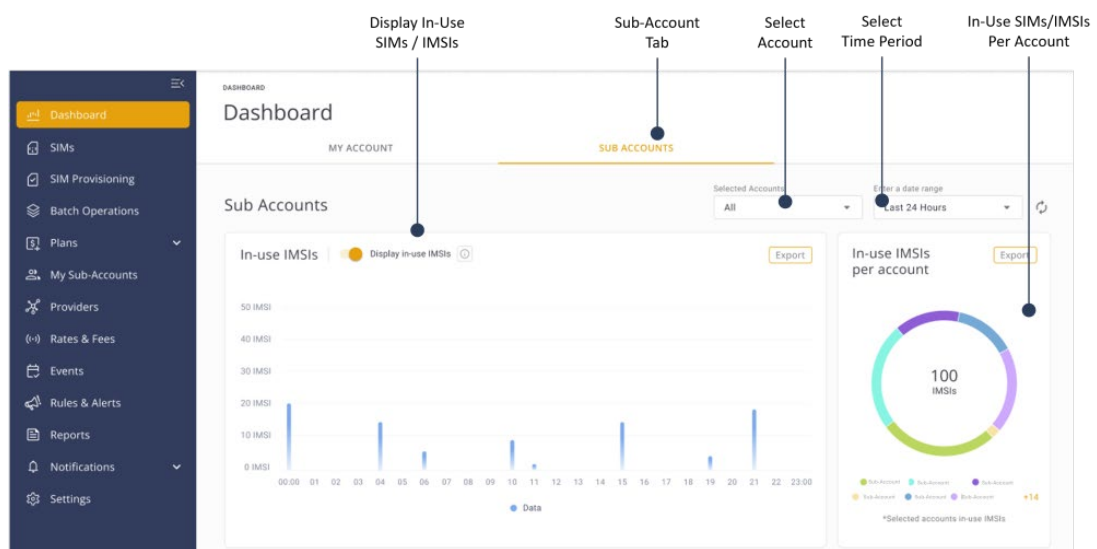
To export a the data for a parent account chart, do these steps:

1. Select **Dashboard** from the sidebar menu.
2. Click the **My Account** tab.
3. Scroll the page and select one of these charts.
  - Data Usage
  - In-Use SIMs
  - SMS Usage
  - Cost, Revenue and Profit
4. Select a chart and click **Export** to download a csv file to your computer.

## 2.5 Sub Accounts Dashboard

A Sub-Account is a child account linked to and managed under the Parent Account within the SIM Connectivity Management system. Sub-Accounts are often utilized to segment and delegate control over specific sets of SIM cards or connected devices.

A screen capture of the Sub-Accounts dashboard is shown here.



## 2.6 Types of Sub-Account Data

A description of the sub-account data is provided in this table.

Attribute	Description
Selected Accounts	Display data based on selected sub-accounts.
Time Period	Filter the time range for usage data in parent account.
In Use SIMS / IMSIs	Number of SIMs or IMSIs connected to the network for a specified duration of time.



Attribute	Description
In Use SIMS / IMSIs Per Account	The number of SIMs /IMSI in use per account for a specified duration of time.
Data Usage Charts	<p>The Data Usage charts displays this information:</p> <ul style="list-style-type: none"> <li>○ <b>Total Data Usage:</b> Total Data amount of megabytes in use by all selected accounts for a specified duration of time.</li> <li>○ <b>Data Usage Per Account:</b> Total amount of megabytes in use by each account for a specified duration of time.</li> </ul> <p>For more information, refer to "Data Usage Charts" on page 21.</p>
SMS Usage Charts	<p>The SMS Usage charts displays this information:</p> <ul style="list-style-type: none"> <li>○ <b>Total SMS Usage:</b> Total number of SMS sent by all SIMs for a specified duration of time.</li> <li>○ <b>SMS Usage Per Account:</b> Total number of SMS sent by each account for a specified duration of time.</li> </ul> <p>For more information, refer to "SMS Usage Charts" on page 21</p>
Revenue and Charges Charts	<p>The Revenues and Charges charts displays this information:</p> <ul style="list-style-type: none"> <li>○ Total amount of revenue from all child accounts for a specified duration of time.</li> <li>○ Total amount of charges incurred by all child accounts for a specified duration of time.</li> </ul> <p>For more information refer to "Revenue and Charges Charts" on page 22.</p>

## 2.7 View Sub-Account Data

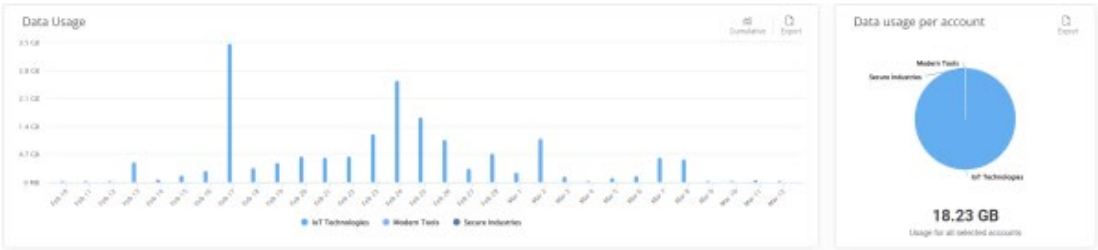
To view sub-account data, do these steps:

1. Select **Dashboard** from the sidebar menu.
2. Click the **Sub Accounts** tab.
3. Select one or more sub accounts from the **Select Accounts** list.

4. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
5. Select a chart and click **Export** to download a csv file to your computer.

2.7.1 Data Usage Charts

The Data Usage display shows the total Data usage of all SIMs in the Selected Accounts over the user-defined length of time. Here is an example of the Sub Accounts Data Usage and its pie chart showing the data usage over the selected time period.



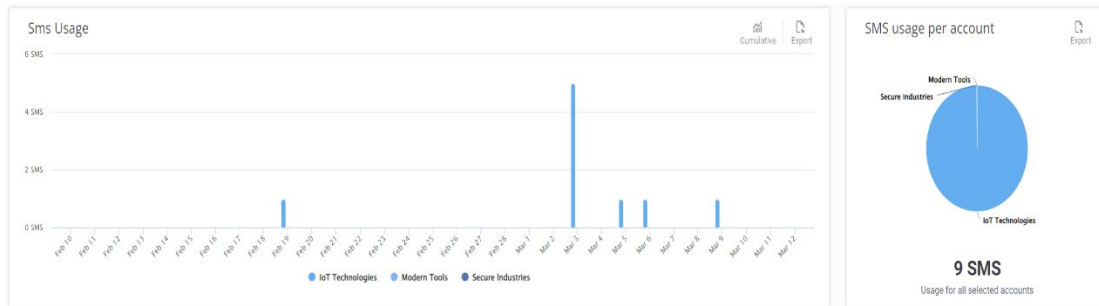
A description of the main components is provided here.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

2.7.2 SMS Usage Charts

The SMS Usage display shows the total number of SMS sent by all SIMs in the Selected Accounts over the user-defined length of time.

Here is an example of the Sub Accounts SMS Usage charts that show the SMS usage over the selected time period:



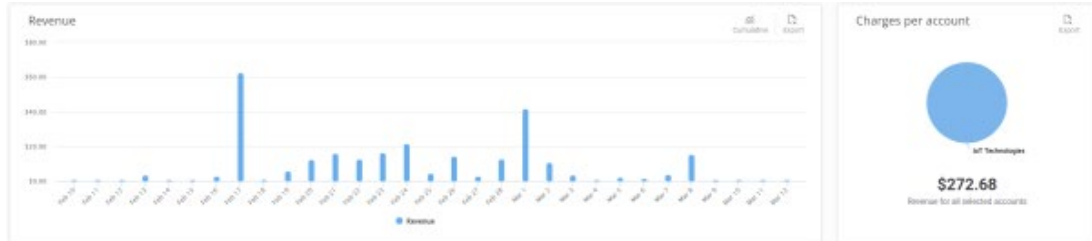
A description of the key elements is provided in this table.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

### 2.7.3 Revenue and Charges Charts

The Revenue bar graph and pie chart show a daily calculation of account revenue performance for specific time-frame. Revenue is defined as the total account revenues earned by the SIMs in the selected sub accounts for a defined length of time.

Here is an example of the Revenue bar graph and pie chart over the selected time period:



A description of the key elements is provided in this table.

Attribute	Description
Export	Click to Export as CSV file.
Tooltips	Hover over each bar in the bar graph to see the amount.

## 2.8 Export Sub-Account Data

To export data from a sub-account chart, do these steps:

1. Select **Dashboard** from the sidebar menu.
2. Click the **Sub-Accounts** tab.
3. Scroll the page and select one of these charts.

- In-Use SIMs
  - In-Use SIMs Per Account
  - Data Usage
  - Data Usage Per Account
  - SMS Usage
  - SMS Usage Per Account
  - Revenue
  - Charges Per Account
4. Select a chart and click **Export** to download a csv file to your computer.

## 3 SIM Table

The SIMs table is a central hub for the management of SIM cards that enables users to perform these tasks:

- View and manage allocated SIMs inventory
- Reallocate SIMs to child customers
- View SIMs status in real-time
- Manage related financial data

### 3.1 Table Data

The SIMs table lists the SIMs that have been manufactured and allocated to the current account and sub-accounts, including their operational status and additional attributes. The SIM table lists each SIM in a separate row. An example of the SIM data table is shown here.

Products

My Orders

Dashboard

SIMs

SIMs Provisioning

Batch Operations

Plans

My Sub-Accounts

Providers

Rates & Fees

Events

Reports

Rules & Notifications

Order SIMs

Billing & Invoices

Support

Settings

SIMS

EXPORT

123 SIMs

Location Israel Lithuania Mexico Namibia South Africa United States DTD Range IMEIV Free text

Clear All

ID	EX	ACTIVE IMSI	IMSI	IMEI	IMEIV	SELL PLAN	SYSTEM LABELS	STATUS	SMS Monthly usage	DATA Daily usage	SMS Weekly usage	SMS Daily usage	LABELS
8935711579006707944	22201041672284	3538032105280508	1546648543648	Automation PoLive Default...	Automation System Ja...	Active	0	0	0	0	-		
8998399901304270740	222010654270805	357150691264828	3571506912648211	-	Automation System Ja...	Active	-	-	-	-	-		
8998399901307038038	222010448491263	357150691264828	3571506912648288	-	Automation System Ja...	Active	-	-	-	-	-		
89357114959050823202	001200132072095	3538031156765768	-	Automation PoLive Default...	-	Active	-	-	-	-	-		
8935711889480505055	001200457829319	3578601019343402	-	Automation PoLive Default...	-	Active	-	-	-	-	-		
8998399901302881693	222010023563638	889850419379331	-	-	Automation System Ja...	Active	-	-	-	-	-		
8935711278450407011	222010090799138	3538032105280508	-	Automation PoLive Default...	Automation System Ja...	Active	0	0	0	0	-		
8935711887879880900	222010685936819	3538032105280508	-	Automation PoLive Default...	Automation System Ja...	Active	0	0	0	0	-		
8935711679258445864	00120118084652	3538032105280508	-	Automation PoLive Default...	-	Active	-	-	-	-	-		
89357118489798547996	222010589143879	3538032105280508	-	Automation PoLive Default...	Automation System Ja...	Active	-	-	-	-	-		
89357112177885432209	222010877311030	3538032105280508	-	Automation PoLive Default...	Automation System Ja...	Active	0	0	0	0	-		

Rows per page50

1 - 50 of 123

### 3.2 Table Columns

A description of the SIM attributes is provided in this table:

Attribute	Description
Account	The current account name the SIM is allocated to.
Active IMSI	The currently active IMSI used by the SIM.
Active MSISDN	Displays the active MSISDN currently used by the SIM.

Attribute	Description
Buy Plan/Package	Shows the plans and packages created by the Parent account and attached to this SIM.
Country	The last country in which the SIM established a connection.
Data Session Time	Display the date and time of the device last open/closed PDP session.
Last Data Record	Display the date and time of the device last created DR.
Data Usage (Period of Time)	<p>The current data usage information. The SIM's data usage shows the usage in three columns:</p> <ul style="list-style-type: none"> <li>○ <b>Monthly Usage:</b> The aggregate usage to date from the first calendrical day of the month, January 1, February 1, etc.; resets at midnight of the first day of the month.</li> <li>○ <b>Weekly Usage:</b> The aggregate usage to date from the first day of the week, Sunday to the present; the week starts on Sunday; resets at midnight Sunday.</li> <li>○ <b>Daily Usage:</b> The aggregate usage today starting from midnight; resets at midnight of the next day.</li> </ul>
EID	[eUICC SIM] The EID ID, which identifies this eUICC SIM (or eSIM). Hover the cursor over the EID icon to view the EID ID: Click the icon to copy the EID to the clipboard. This column is frozen in place and cannot be moved or hidden using Customize Columns. An empty cell (denoted by a hyphen) indicates that the SIM is a regular UICC SIM.
ICCID	The SIM's ICCID and the user-assigned SIM alias. This column is frozen in place and cannot be moved or hidden using Customize Columns.
IMEI	The IMEI number of the device using this SIM.
IMEISV	Displays the IMEI number with an additional designation for the device firmware/software version
IMSI	The list of IMSIs available on the SIM card. When there is more than one IMSI, the system displays the first IMSI followed by a "+" sign and the number of additional IMSIs (e.g., 123456677 +2). When you hover over the "+" sign, a tooltip is displayed to show the rest of the IMSIs.
In Data Session	Indicates whether the SIM is currently actively using a data session.
Labels	One or more labels assigned to the SIM for grouping, searching, filtering, and performing bulk actions on SIMs with the same label.
Last Data Record	The date and time of the last created data record for the selected SIM.
MSISDNs	Subscriber identifier by phone number assigned by the operator. For eUICC SIM (EID) with several profiles, the

Attribute	Description
	MSISDN of the currently active profile. When there is more than one MSISDN the system displays the first MSISDN followed by a “+” sign and the number of additional MSISDNs (e.g., 123456677 +2). When you hover over the “+” sign, a tooltip is displayed to show the rest of the MSISDNs.
Profile Alias	[eUICC SIM] Applies to this EID, which may have several embedded profiles with different ICCIDs, only one of which is active. The profile alias of the currently active profile of this EID (eUICC SIM).
Sell Plan/Package	Shows the plans and packages created by your account and that are used to charge your Sub-account SIM.
SMS Usage for Period of Time	The current SMS usage information. The SIM's SMS usage shows the usage in three columns identical to that for Data Usage: <ul style="list-style-type: none"> <li>Monthly Usage</li> <li>Weekly Usage</li> <li>Daily Usage</li> </ul>
Status	The current SIM status: Active, Suspended, or Suspended - Locked.
System Labels	Labels used to tag SIMs with system attributes (for example, EUICC, LPWA, etc.) and used in various business processes, such as generating reports, invoicing, and billing. Note that System Labels are assigned to SIMs during production and cannot be created nor edited using the platform portal.

### 3.3 SIM Data Actions

A description of the SIM table actions is provided in this table.

Action	Description
Search SIM	Search for a specific SIM, according to SIM Alias, EID, ICCID IMSI, IMEI or MSISDN. For more information refer to
Filter	Filter the SIMs table. For more information refer to
Export	Export the SIMs table contents to a CSV file. For more information refer .

### 3.4 Filter SIM Data

When you open the SIMs table it is recommended that you apply SIM Table filters to populate the SIMs based on filter criteria.

To filter the SIMs table, do these steps:

1. Click the **Filter** button, located in the upper right corner of the SIMs table.
2. To filter by **Accounts**, select all accounts you want to appear in the SIMs table.
3. To filter by **Location**, select all locations whose SIMs you want to view in the SIMs table.
4. To filter a range of SIMs, click the **Select Type** and select the appropriate type:
  - None
  - IMSI
  - ICCID
  - EID
  - IMEI
  - IMEISV
  - MSISDN

**NOTE:** The filter function works across all profiles of an eUICC SIM, both active and inactive. Thus, for example, if you filter by ICCID, IMSI or MSISDN type and you enter a range or discrete value that matches an inactive eUICC profile, the filter finds that SIM and displays it (its active profile) in the SIMs table.

5. To filter by Ranges, click the **Ranges** button and enter a **From** and **To** range.
6. To filter by Discrete SIMs. select a SIM ID type and then the **Free text** button.
7. Type or copy/paste the SIMs into the field as directed (comma delimiter).
5. To filter by (Billing) **Plan**, select all Billing Plans for the SIMs you want to view in the SIMs table.
6. To filter by **Labels**, select all the Labels assigned to the SIMs you want to view in the SIMs table.
8. To filter by **Status**, select one of these states:
  - Active
  - Suspended

**NOTE:** If you do not filter by Status, both Active and Suspended SIMs are displayed.

9. To filter by **Usage** (Data or SMS), first select a time period:



- Daily
- Weekly
- Monthly (default)

### 3.4.1 Set Time Frame

When you activate the filter, the **Data <time period> usage** and **SMS <time period> usage** columns of the SIMs table display the aggregate usage for the time period you choose.

Period of Time	Description
Monthly	The usage to date from the first calendrical day of the month, January 1, February 1, etc.; resets at midnight of the first day of the month.
Weekly	The usage to date from the first day of the week, Sunday to the present; the week starts on Sunday; resets at midnight Sunday.
Daily	The usage today starting from midnight; resets at midnight of the next day.

**NOTE:** If Multiple Plans are attached to a SIM, the Usage filter filters only the plan with the highest priority. The SIM with lower priority plans will not be displayed in the SIMs table, even if the SIM-(lower priority) Plan combination meets the Usage filter criteria.

### 3.4.2 Filter by Data Usage

To filter by Data Usage, do these steps:

1. Click the left arrow and select the **Data Amount Qualifier**:
  - a. **Less than** filters to “Less than or equal to”.
  - b. **Greater than**: Filters to “Greater than or equal to”.
2. Click the middle field and type an **Amount**: The data amount is a numerical value range (including 0 zero).
3. Click the right field and select the **Unit of Volume**.

**NOTE:** Only SIMs whose Data usage matches the Data filter criteria appear in the SIMs table.

### 3.4.3 Filter by SMS Usage

To filter by SMS usage, use the SMS filter fields.

1. From the Usage filter, select the **SMS** check box.
2. Click the left arrow and select the **Data Amount Qualifier**:
  - a. **Less than** filters to “Less than or equal to”.
  - b. **Greater than**: Filters to “Greater than or equal to”.
3. Click the right field and type an **Amount**.

**NOTE:** Only those SIMs whose SMS usage matches the SMS filter criteria appear in the SIMs table.

### 3.4.4 Filter by External Parameters

You can filter by only one External Parameter at a time. To filter by External Parameters, do these steps.

1. Click the **Parameter Name** field. A list of SIM-type External Parameters is displayed.
2. Select the **External Parameter**, for example DevType.

**NOTE:** You must know the value in its entirety to find the SIM(s) that the External Parameter with that value is attached to. Partial entries are not recognized.

3. Type the **Value** of the External Parameter in the Value field.
4. Click **Apply**.

**TIP:** When you complete your selection the Filter Options window closes, and the SIMs table displays only data with selected attributes only.

## 3.5 Export SIM Data

This feature enables users to export SIM table data to an external CSV file. There are two options to export the data displayed in the SIMs table:

- **Export Displayed Columns:** This option enables users to export data from the table containing only the columns currently visible on the user interface. It allows users to tailor their exports to include only the information currently displayed in the table.

- **Export Displayed and Hidden Columns:** With this option, users can export data from the table, including both the columns currently displayed on the user interface and any hidden columns. It provides users with a comprehensive export of all available data columns, ensuring no information is omitted from the exported dataset.

If the SIMs table has a larger number of SIMs than can be exported into a single file an appropriate message is displayed. You need to refilter the SIMs table to obtain finer granularity that reduces the table contents.

## CSV File Attributes

The exported file name has the following format: `SIM_export_yyyymmdd.csv`

**NOTE:** The exported filename contains the time stamp of the generated CSV file, for example: `SIM_export_20220201.csv`

**TIP:** The CSV file includes both the SIM identifiers (ICCID, EIDs, IMSIs) and UUIDs and can be associated with other actions, such as file-based bulk operations and API calls.

The CSV file includes both the SIM identifiers (ICCID, EIDs, IMSIs) and UUIDs and can be associated with other actions, such as file-based bulk operations and API calls. The SIMs in the CSV file are identified by the SIM name, the account name and billing plan. If the SIMs listed in the SIMs table have been mapped to external customer IDs, these customer IDs will be incorporated in the CSV file.

## Export Procedure

To export the SIMs table contents to a CSV file do these steps:

1. Select **SIMs** from the sidebar menu.
2. Click **Customize Columns** and select the columns you want to display in the SIMs table.
3. Click **Save** to update the SIMs table.
4. Click **Export Options** and select one of these options:
  - a. Export Displayed Columns
  - b. Export Displayed and Hidden Columns.
5. Click **Export** to download csv file.

## Example CSV File

Here is an example of the exported CSV file.

Sim UUID	Child Sim UUID	ICCID	EID	Profile Alias	Account UUID	Account Name	Sub Account UUID	Sub Account Name	Alias	Last Activated
262c72a0-b7be-4449-908e-4156740b5dd		8935711001000690026		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive				
7f5aeedc-ae5e-40f6-818b-3f4d5a5a366		154321221586279437440		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive			test_alias	211543005108
79a89113-40f1-40ea-8614-8641e598b2b		494a2055-4961-a807-14544833a60f		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	3ba5762d-11d6-458c-a37f-2b5d5176c3d	parent_account_896192	test_alias	22201307089
fec94af-f07a-495e-8241-a26c6e77789a		809622a6-3d62-4f38-8c73-74d4e44f2302		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	61a4148-11a4-4b0d-bd5e-eb8072e03c4	parent_account_703632	test_alias	22201307081
17079910-bc8f-4082-ba31-7a620cac05c		154321221130415436343		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive			test_alias	21154304649
c294d6e5-ec3e-4c6b-9034-1c7175d0fe2f		0d498ae4-0935-4ea3-abcf-acda1737a028		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	928c2e21-ee68-4a4d-9574-e50e3e46698	0705_nerya	test_alias	7778049980
a23270a7-a1d5-4359-9579-6c5f4a6263f		02aa8013-8f0b-41d3-948a-0291376165ed		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	c1d131de-8066-46aa-9994-a10580194e7	heorhii_2nd_level_account	test_alias	
f4f486cc-d01e-455f-a581-b2888aae22e8		6f4cc6c4-14d5-4ea4-b3fa-c5abcf650b9		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	c1d131de-8066-46aa-9994-a10580194e7	heorhii_2nd_level_account	test_alias	7778049032
8af00ae1-b947-460b-b29f-e99ff7a37ad		15432122188572672597		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive			test_alias	21154319313f
2f303d3-884a-4e60-ab09-d0449471918		154321221660943788433		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive			test_alias	21154374073f
f04801c1-945f-464e-a456-e07864f5833		a4e1d3e7-c8ac-498a-99a3-1a6fea7f5de1		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	a9e702c6-9b32-401d-964f-3154426a97a5	solidTest		78265210291
0f80a6e9-7f55-467a-96ca-6375b1031000		97b76dec-a1d5-44d1-8449-84e6c6d08275		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	a9e702c6-9b32-401d-964f-3154426a97a5	solidTest		78265210291
c0394fac-ba78-4776-817f-f9a55abe2ad		46700842828150000000		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive				78265210291
3b632d3b-f23d-4078-a360-454e469b70f		154321221204929974379		fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive			test_alias	21154341936f
80816f14-15c6-4c57-a34b-1de4f7174d0		69c28900843619300000	644819890753720000000000000000	fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive				3940553238
92021111-8aa4-445a-b7ab-7f9d58bfc07		91015836166275533999	7934260250835199802457948463224	fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive				+2155621559
4e4f0ed3-37ca-4a93-9589-9e014f348e2		38181253689441156702	6126039547536958194442082621012	fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive				6408545886
389d4e8b-d1a8-48a4-b997-ba69af7294d0		7acba202-b05f-437f-a80b-ab03627c7212	46700842828080000000	fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	a9e702c6-9b32-401d-964f-3154426a97a5	solidTest		78265210291
794625b6-028a-480f-b424-f240a2271a7		10948708-c793-40a9-80cd-bd093981a1cb	46700842828060000000	fiolive	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	a9e702c6-9b32-401d-964f-3154426a97a5	solidTest		78265210291
09a82c29-278e-ae52-a1bb78d01311		8deaf00a-239e-4fa5-a490-3c7640636165	893570001087556225	Telenor	5ba39f3b-29d2-43ba-948e-0b7103e0740	fiolive	eb89f0d1-9868-4f0d-96ff-b78f1d0e4848	YAPT		99911000000

**NOTE:** The cell delimiter for lists of values within a cell is a comma (,).

### 3.5.1 Description of CSV Information

A description of the CSV information is shown in this table.

Attribute	Description
SIM UUID	The UUID (Universal Unique Identifier) of this SIM.
Child Sim UUID	The child subscriber UUID of this SIM.
ICCID	The SIM ICCID (Integrated Circuit Card Identifier) serial number.
EID	[eUICC SIM] The EID ID, which identifies this eUICC SIM (or eSIM). An empty cell indicates that the SIM is a regular UICC SIM.
Profile Alias	[eUICC SIM] Applies to this EID. which may have several embedded profiles with different ICCIDs, only one of which is active. The profile alias of the currently active profile of this EID (eUICC SIM).
Account UUID	The UUID of the account that this SIM belongs to.
Account Name	The full account name of this SIM.
Sub Account UUID	The UUID of the sub account that this SIM belongs to.
Sub Account Name	The full account name of this SIM.
Alias	The alias (if any) applied to the account that this SIM belongs to.
Last Activated MSISDN	The last MSISDN that was activated by this SIM (member of MSISDN/IMSI pairing).
MSISDNs	The list of MSISDNs that have been assigned to this SIM.

Attribute	Description			
Last Activated IMSI	The last IMSI that was activated by this SIM (member of MSISDN/IMSI pairing).			
IMSI	The list of IMSIs that have been assigned to this SIM.			
IMEI	The IMEI assigned to this GSM SIM.			
IP Address	Last allocated IP address.			
SIM Status UUID	The SIM’s status instance UUID.			
SIM Status	SIM Status: ACTIVE, SUSPENDED.			
Sell Plan UUID	The UUIDs of the Sell Billing Plan that the SIM subscriber is paying for.			
Buy Plan UUID	The UUIDs of the Buy Billing Plan (created by the Parent account) that the SIM subscriber is paying for.			
Sell Plan Name	The names of the Sell Billing Plans assigned to this SIM.			
Buy Plan Name	The name of the Buy Billing Plan assigned to the SIM.			
Sell Plan Priority	The Sell Plans current assigned priorities (used for Multi Plans) .			
Buy Plan Priority	The Buy Plans current assigned priorities (used for Multi Plans).			
Sell Plan Data usage	The total Sell-Plan Data usage of this SIM at the moment that the CSV file was created.			
Sell Plan SMS usage	The total Sell-Plan SMS usage of this SIM at the moment that the CSV file was created.			
Buy Plan Data usage	The total Buy-Plan Data usage of this SIM at the moment that the CSV file was created.			
Buy Plan SMS usage	The total Buy-Plan SMS usage of this SIM at the moment that the CSV file was created.			
Country	The country where the SIM was last connected.			
Labels	User labels assigned to this SIM.			
System Labels	System labels assigned to this SIM.			
Last connected time	The last time this SIM connected to the network at the moment the CSV file was created.			
RAT	The Radio Access Technology used by this SIM at the time the CSV file was created.			
	RAT Type Used by HSS/HLR			
	Value	RAT Type	Value	RAT Type
	1000	UTRAN – 3G	1013	WB-EUTRAN(GEO)
	1001	GERAN – 2G	1014	WB-EUTRAN(OTHERSAT)
	1002	GAN	1021	NB-IoT(LEO)
	1003	HSPA Evolution	1022	NB-IoT(MEO)

Attribute	Description			
	1004	EUTRAN - 4G	1023	NB-IoT(GEO)
	1005	EUTRAN NB IoT	1024	NB-IoT(OTHERSAT)
	1006	NR – 5G	1031	LTE-M(LEO)
	1007	LTE-M	1032	LTE-M(MEO)
	1008	NR-U	1033	LTE-M(GEO)
	1011	WB-EUTRAN(LEO)	1034	LTE-M(OTHERSAT)
	1012	WB-EUTRAN(MEO)		
	RAT Type Used by AAA/GGSN/PGW			
	Value	RAT Type		
	0	<reserved>		
	1	UTRAN – 3G		
	2	GERAN – 2G		
3	WLAN			
4	GAN			
5	HSPA Ecolution			
6	EUTRAN (WB-EUTRAN – 4G			
7	Virtual			
8	EUTRAN NB IoT			
9	LTE-M, CAT-M			
10	NR			
Connected operator	The ID code of this SIM’s operator.			
Last Location	The last location recorded of this SIM at the moment the CSV file was created.  The coordinates comprise four values separated by a slash, as follows:  MCC/MNC/LAC or TAC/CellID or SAC or ENB or RAC  For the fourth value, the order is important:			

Attribute	Description								
	<ul style="list-style-type: none"> <li>○ If the first is found, only it will appear; if not, then the second value will appear</li> <li>○ If not, then the third value will appear.</li> </ul> <p>Thus:</p> <ul style="list-style-type: none"> <li>○ If CI is found, then the location will be MCC/MNC/LAC or TAC/CI</li> <li>○ If CI is not found, the location will be MCC/MNC/LAC or TAC/SAC</li> <li>○ If SAC is not found, the location will be MCC/MNC/LAC or TAC/ENB</li> <li>○ If ENB is not found, the location will be MCC/MNC/LAC or TAC/RAC</li> </ul> <p>Range:</p> <table border="1"> <tr> <td>MCC = Mobile Country Code</td><td>CellID = Identifies the BTS or a sector</td></tr> <tr> <td>MNC = Mobile Network Code</td><td>SAC = Service Area Code</td></tr> <tr> <td>LAC =Location Area Code</td><td>ENB = E-UTRAN NodeB</td></tr> <tr> <td>TAC =Tracking Area Code</td><td>RAC = Routing Area Code</td></tr> </table>	MCC = Mobile Country Code	CellID = Identifies the BTS or a sector	MNC = Mobile Network Code	SAC = Service Area Code	LAC =Location Area Code	ENB = E-UTRAN NodeB	TAC =Tracking Area Code	RAC = Routing Area Code
MCC = Mobile Country Code	CellID = Identifies the BTS or a sector								
MNC = Mobile Network Code	SAC = Service Area Code								
LAC =Location Area Code	ENB = E-UTRAN NodeB								
TAC =Tracking Area Code	RAC = Routing Area Code								
External parameters	The list of External Parameters names and values assigned to the SIM.								
<time period>Data Usage	<p>The SIM's current data usage information. The SIMs data usage shows the usage in three columns:</p> <ul style="list-style-type: none"> <li>○ Daily Data Usage Mb: The aggregate usage today starting from midnight; resets at midnight of the next day.</li> </ul>								

Attribute	Description
	<ul style="list-style-type: none"> <li>Weekly Data Usage Mb: The aggregate usage to date from the first day of the week, Sunday to the present; the week starts on Sunday; resets at midnight Sunday.</li> <li>Monthly Data Usage Mb: The aggregate usage to date from the first calendrical day of the month, January 1, February 1, etc.; resets at midnight of the first day of the month.</li> </ul>
<time period>SMS Usage	The SIM's current SMS usage information.

## Search SIM Data

You can search the SIMs Table by SIM Alias, ICCID, EID (eUICC SIM identifier), IMSI number or MSISDN. The search function works across all profiles of an eUICC SIM, both active and inactive. Thus, for example, if you search by ICCID, IMSI or MSISDN type and you enter a complete or partial value that matches an inactive eUICC profile, the search engine finds that SIM and displays the active profile in the SIMs table.

To search the SIMs Table:

- Go to the Search field on the right side of the page header.
- Type the ICCID, EID, IMSI number or MSISDN in the search box. A list of results is displayed.
- Click on an Alias (ICCID/EID/IMSI/MSISDN) in the search result to open the SIM Page.
- Use the scroll bar to view additional ICCIDs/EIDs/IMSI/MSISDN.

**TIP:** You can type any part of the search parameter to display a list of entities that match the partial entry.

## 3.6 SIM Actions

You can perform different actions on single or multiple SIMs from the SIMs module. You can also perform SIM actions on a single SIM displayed in the SIMs Info Page.



### 3.6.1 Single SIM Actions

A description of the actions for a single SIM is provided in this table.

Action	Description
Top up	<p>Top-up the SIM with additional Data, SMS or money quota, depending on the SIM's assigned Billing Plan. Topping Up changes only the quotas of the current billing cycle. It does not change the quotas defined in the Billing Plan.</p> <ul style="list-style-type: none"> <li>○ Only SIM child accounts can be topped-up.</li> <li>○ You can top-up multiple SIMs at the same time only if they all have the same Billing Plan.</li> <li>○ If a SIM has multiple plans attached, you can top up only one plan at a time (by selecting the plan</li> <li>○ You cannot top-up SIMs that do not have an attached Billing Plan.</li> </ul>
Change alias	Give a SIM an alias or edit an existing alias to facilitate searching for this SIM in this and other modules (from the Search SIMs field).
Details	Opens the SIM Info page for additional SIM information
Move	Move the SIM to a different account
Reload SIM	This action is performed on a SIM that may experience registration and/or connectivity issues with the current connected mobile network. Click this action to manually send a cellular network "Cancel Location" command to the SIM. The SIM will try to reregister to the mobile network.
Labels	Attach a label to this SIM; you can attach an existing label or create a new label and attach it
Suspend	Change the SIM state from Active to Suspended, in which the SIM cannot register to the network. This option is applicable only for an active SIM.
Activate	Change the SIM state from Suspended to Active, in which the SIM can register to the network. This option is displayed only for a suspended SIM.
Send SMS	Send Text SMS to the device.
Manage Plans	<p>Opens the Manage Plans tab in the SIMs Info page that lists all Billing Plans attached to this SIM and allows you to:</p> <ul style="list-style-type: none"> <li>○ Attach new Sell plans to this SIM</li> </ul>

Action	Description
	<ul style="list-style-type: none"> <li>○ Detach plans from this SIM</li> </ul>
Attach Plan	<p>Attaches the SIM to a new Billing Plan.</p> <ul style="list-style-type: none"> <li>○ Only Sell plans can be attached</li> <li>○ Only SIM child accounts can be assigned to a new Billing Plan.</li> <li>○ You can change the plans of multiple SIMs at the same time only if they all have the same Billing Plan (see below).</li> </ul>
Detach Plan	<p>Detaches the SIM from a Billing Plan it now belongs to. If you detach a SIM from a pre-paid (Money or Usage) Billing Plan in the middle of a billing cycle, the SIM is still charged over the entire billing cycle. When you detach a SIM from a Billing Plan, and no other Billing Plans are attached, the SIM can no longer use connectivity services; connectivity is restored when the SIM is reattached to a Billing Plan.</p>

### 3.6.2 Multiple SIM Actions

A description of the actions for multiple SIMs is provided in this table.

Action	Description
SIM Activate	Change the SIM state from Suspended to Active, in which the SIM can register to the network,
Top up	<p>Top-up the SIM with additional Data, SMS or money quota, depending on the SIM's assigned Billing Plan.</p> <p>Topping Up changes only the quotas of the current billing cycle. It does not change the quotas defined in the Billing Plan.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>○ Only SIM child accounts can be topped-up.</li> <li>○ You can top-up multiple SIMs at the same time only if they all have the same Billing Plan.</li> <li>○ If a SIM has multiple plans attached, you can top up only one plan at a time (by selecting the plan)</li> </ul>

Action	Description
	<ul style="list-style-type: none"> <li>You cannot top-up SIMs that do not have an attached Billing Plan.</li> </ul>
Move	Move the SIM to a different account. You can move multiple SIMs at the same time only if they are all in the same account.
Reload SIM	This action is performed on a SIM that may experience registration and/or connectivity issues with the current connected mobile network. Click Reload SIM to manually send a cellular network "Cancel Location" command to the SIM. The SIM will try to reregister to the mobile network.
Labels	Attach a label to this SIM; you can attach an existing label or create a new label and attach it
Suspend	Located under Action Menu. Change the SIM state from Active to Suspended, in which the SIM cannot register to the network
Attach Plan	<p>Located under Action Menu. Attach the SIMs to a new Billing Plan.</p> <ul style="list-style-type: none"> <li>Only Sell plans can be attached.</li> <li>Only SIM child accounts can be assigned to a new Billing Plan.</li> <li>You can change the plans of multiple SIMs at the same time only if they all have the same Billing Plan.</li> </ul>
Detach Plan	Located under Action Menu. Detach the SIMs from the Billing Plan they now belong to. If you detach a SIM from a pre-paid (Money or Usage) Billing Plan in the middle of a billing cycle, the SIM is still charged over the entire billing cycle. When you detach a SIM from a Billing Plan, and no other Billing Plans are attached, the SIM can no longer use connectivity services; connectivity is restored when the SIM is reattached to a Billing Plan.

### 3.6.3 SIM Info Page Actions

A description of the actions available in the SIMs Info page is provided in this table.

Action	Description
Top up	<p>Top-up the SIM with additional Data, SMS or money quota, depending on the SIM's assigned Billing Plan. Topping Up changes only the quotas of the current billing cycle. It does not change the quotas defined in the Billing Plan.</p> <ul style="list-style-type: none"> <li>○ Only SIM child accounts can be topped-up.</li> <li>○ You can top-up multiple SIMs at the same time only if they all have the same Billing Plan.</li> <li>○ If a SIM has multiple plans attached, you can top up only one plan at a time (by selecting the plan)</li> <li>○ You cannot top-up SIMs that do not have an attached Billing Plan.</li> </ul>
Change alias	Give a SIM an alias or edit an existing alias to facilitate searching for this SIM in this and other modules (from the Search SIMs field).
Move	Move the SIM to a different account,
Reload SIM	This action is performed on a SIM that may experience registration and/or connectivity issues with the current connected mobile network. Click <b>Reload SIM</b> to manually send a cellular network " <b>Cancel Location</b> " command to the SIM. The SIM will try to re-register to the mobile network.
Labels	Attach a label to this SIM; you can attach an existing label or create a new label and attach it
Suspend	Change the SIM state from Active to Suspended, in which the SIM cannot register to the network. This option is available only for active SIMs.
Activate	Change the SIM state from Suspended to Active, in which the SIM can register to the network. This option is available only for a suspended SIM.

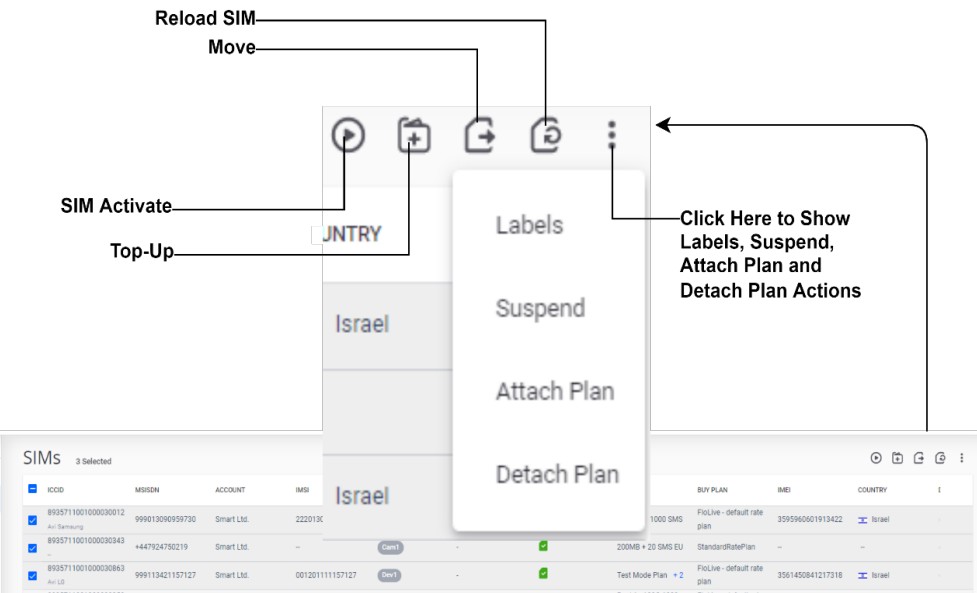
Action	Description
Send SMS	Send Text SMS to the device.

To do SIM actions on a single selected SIM from the SIMs table on the SIMs page:

1. Click the Actions icon located on the right side of the SIM row. The SIM Actions dialog box is displayed.
2. Select the desired action from the SIM Actions pop-up.

To do SIM actions on a single selected SIM or multiple selected SIMs from the SIMs table on the SIMs page:

1. Select a single SIM or multiple SIMs using the check boxes to the left of each SIM row. The SIM Actions for single/multiple SIMs appear at the right side of the SIMs module header.



Single/Multiple SIM Actions from the Left-Side Checkboxes

2. Select the desired action.

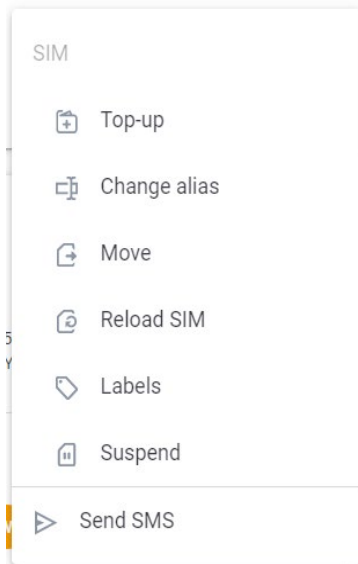
To do SIM actions on a single selected SIM from the SIMs Info page:

1. From the SIMs table, click on the table row containing the SIM or select a SIM from a Search action result list.

The SIM Info page appears

2. Click located at the upper right corner of the SIM Info page (the extreme right edge of the page header containing the SIM General information):

The SIM Actions pop-up appears.



Single SIM Actions from SIM Info Page Right-Side Icon

3. Select the desired action from the SIM Actions pop-up.

## Top Up SIM

You can Top Up SIMs by:

- Clicking the icon at the right end of a SIM row to Top Up a single SIM
- Using the checkboxes on the left side of each SIM row to select a single or multiple SIMs
- Clicking the icon at the right end of the SIM Info page header ([Getting SIM Info](#))

### Guidelines

Top Up can be done on SIMs whose assigned Billing Plan is of type Money or Usage.

A SIM assigned the Money Billing Plan can be topped-up with additional money for the current billing cycle.

A SIM assigned the Usage Billing Plan can be topped-up with additional Data quota or SMS quota, or both, for the current billing cycle; you also set the price (cost) of the new quota.

Topping Up changes only the quota of the current billing cycle. It does not change the quotas defined in the Billing Plan.

You cannot top up SIMs that do not have an attached Billing Plan.

You cannot top up SIMs that are attached to a Pool Plan. You can, however, top-up the Pool Plan.

When you top up a SIM with Multiple Plans, you must choose the plan you want to top up; you can top up only one plan at a time. This is true also when you top up multiple SIMs from the SIMs table.

#### Top Up a single or Multiple SIMs from the SIMs Table

The Top-up action is available for:

- Single SIMs from the SIMs table
- Multiple SIMs from the SIMs table
- SIM on the SIM Info page

To do the Top up action:

1. Invoke Top-up as described above.

The Top up this SIM dialog appears.

Note that when you select multiple SIMs from the SIMs table, the ICCID identifier at the top of the dialog does not appear.



Top-up this SIM

This top-up is for the SIM with ICCID: 8905711001000000012

Plan  
Plan 1 (0.1000 GB)

Cost  
Currency

Cost  
Currency

CANCEL SUBMIT

#### Top Up SIM Dialog

2. Click the Plan field and select a plan that the SIM is attached to.
3. Set the parameters in the Top-up this SIM dialog:
  - Cost
  - Currency

- Number of SMS
- Data volume + Units (Gigabyte, Kilobyte, Megabyte)

4. Click Submit.

## Change SIM Alias

The Change Alias action is available for:

- Single SIMs from the SIMs table using the Action menu.
- SIM on the SIM Info page using the Action menu or directly in the SIM Info Page General Info area.

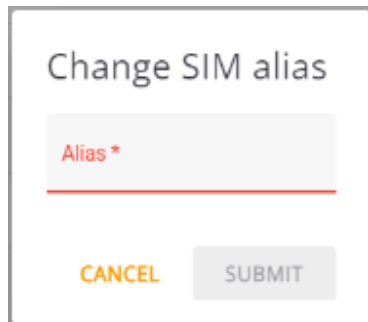
### Change SIM Alias Using the Action Menu

Change SIM Alias can be invoked for single SIMs from the Action menus of the SIMs table and the SIM Info page.

To do the Change Alias action from the Action menus:

1. Invoke Change alias from the Action menu.

The Change SIM alias dialog appears.

A dialog box titled "Change SIM alias". It contains a text input field with the placeholder text "Alias \*". Below the input field are two buttons: "CANCEL" in orange text and "SUBMIT" in grey text.

### Change SIM Alias Dialog

2. Type the alias or edit an existing alias in the Alias field.
3. Click Submit.

The alias appears under the ICCID number in the ICCID column:

8935711001000031358
Travel8

### SIM Alias Example

Change SIM Alias Directly in the SIMs Info Page General Info Area



To do the Change Alias action directly from the SIMs Info | General Info area:

1. From the SIMs table, click on the table row containing the SIM or select a SIM from a Search action result list.

The SIM Info page appears.

If you have not yet given the SIM an alias, the ICCID appears in boldface in the General Info area, like this:

**8935711001000030053** Active

SIM ICCID in the SIM Alias Field when no Alias has been Assigned.

If you have already given the SIM an alias (for example, Travel8), the alias appears in boldface in the General Info area, like this:

**Travel8** Active

SIM Alias in the SIM Alias Field

2. Hover your cursor and then click the ICCID or the old alias and type the new alias in the field:



Hover and then Click SIM Alias Field to Change Alias Name

3. Press Enter.

The alias is generated. When you close the SIM Info page, the alias appears under the ICCID number in the ICCID column, as described above.

## Show SIM Details

The Details action is available for:

- Single SIMs from the SIMs table

The Details action shows the details of a single SIM in the SIMs table.

To do the Details action:

- Invoke Details as described above.

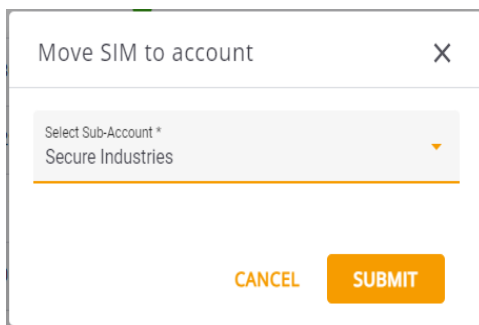
The SIMs Info page opens for the selected SIM.

## 3.7 Move SIM

Use the Move SIM action to transfer one or more SIMs from your account to a sub-account. The move actions are described in this table.

Move SIM(s)	Description
Single SIM in the SIMs Table	Select a single SIM in the SIMs table and move to a sub-account.
Multiple SIMs in the SIMs Table	Select multiple SIMs in the SIMs table and move to a sub-account
Single SIM from the SIM Info page	the SIM info page and move to sub-account.

A screen capture of the Move SIM to Account dialog box is shown here.



**NOTE:** The Move action is applicable only for SIMs in the same account.

### 3.7.1 Move Single SIM to Sub -account

To move a SIM to a sub-account, do these steps:

1. Select **SIM Management** from the sidebar menu. The SIMs table is displayed.
2. Select a SIM row and click the **Actions** icon.
3. Select **Move** to display the **Move SIM to Account** dialog box.
4. Click the **Select Sub-account** list box.

5. Select a target sub-account and click **Submit**. The SIM is moved to the select sub-account.

**TIP:** Alternatively you can move a single SIM directly from the SIM Info page. Click a SIM to display the SIM Info page and select Move from the Actions icon located at the top of the page.

### 3.7.2 Move Multiple SIMs to Sub -account

To move multiple SIMs to a sub-account, do these steps:

1. Select **SIM Management** from the sidebar menu. The SIMs table is displayed.
2. Check multiple SIM rows to select the relevant SIMS displayed in the table.
3. Click the **Move** button located in the table header. The Move SIM to Account dialog box is displayed.
4. Click the **Select Sub-account** list box.
5. Select a target sub-account and click **Submit**. The selected SIMs are moved to the select sub-account.

#### Reload SIM

The Reload SIM action is available for:

- Single SIMs from the SIMs table
- Multiple SIMs from the SIMs table
- SIM on the SIM Info page

The Reload SIM action is performed on a SIM that may experience registration and/or connectivity issues with the current connected mobile network.

Click Reload SIM to manually send a cellular network “Cancel Location” command to the SIM. The SIM will try to reregister to the mobile network.

To Reload a SIM:

- Invoke the Reload SIM action, as described above.

The SIM location is cancelled. The next time the SIM performs any action, its location is restored.

#### Assign Labels

The Labels action is available for:

- Single SIMs from the SIMs table

- Multiple SIMs from the SIMs table
- SIM on the SIM Info page:
  - Using the Action menu
  - Directly from the Labels Info area on the SIM Info page

SIM Labelling allows an operator to tag SIMs with labels for these purposes:

- Grouping SIMs with common parameters
- Filtering SIMs
- Actions or bulk operations on SIMs with common label

#### Guidelines

Labels are assigned to SIMs in a single account. However, the label is not unique to that account and the same label can be applied to SIMs in a different account.

The SIM label is case-sensitive.

The SIM label structure is limited to:

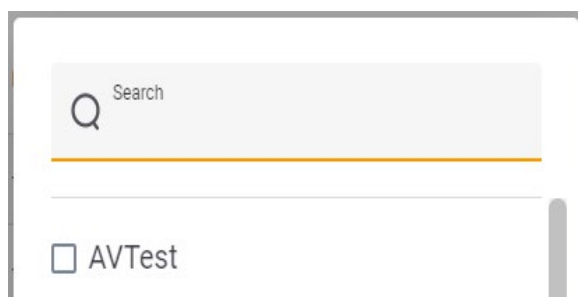
- A single word (no spaces allowed)
- Alphanumeric characters only (a, b, c, 0, 1, 2, etc.)
- Special characters are not allowed
- Underlines between characters are not allowed

You can also create Labels using Settings > Labels. After you create them there, you must return to the SIMs module to assign them to SIMs.

To Label a SIM from the Action menus:

1. Invoke the Labels action, as described above.


The SIMs Label dialog appears:




SIMS Label Dialog (showing one created Label)

Note that when you open the SIMs Label dialog, all existing labels appear in the dialog with a checkbox in one of these states:


- : The (existing) label is not assigned to any selected SIM

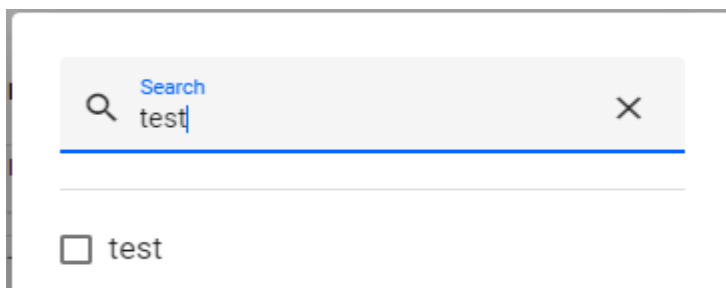
-  : The (existing) label is assigned to all selected SIMs

-  : The (existing) label is assigned to only some of the selected SIMs

2. Do one of the following:

- Existing Label: Type the label name in the Search field to find the label and then

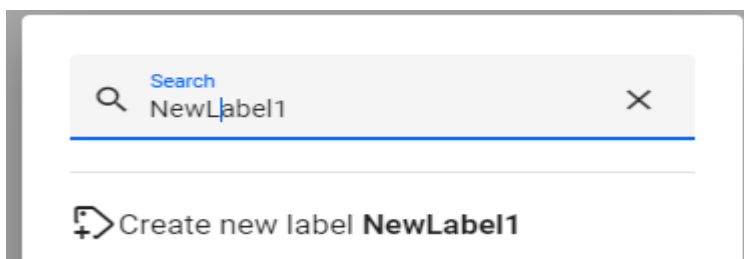
click the existing label checkbox several times until the  icon appears in the check box:



The label is assigned to all selected SIMs (when you click Apply).

The Associated SIMs column in the Labels table at Settings > Labels is updated with the newly associated SIMs.

- New Label: Type the name of the new label in the Search field and select the new label:



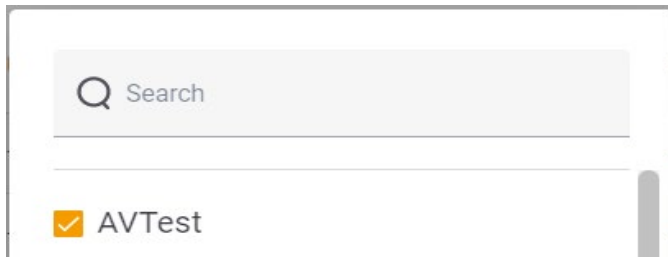
The new label(s) is added to the Labels table (when you click Apply) at Settings > Labels.




3. Click Apply and the label(s) is assigned to the SIMs you selected.

To Remove Labels from a SIM using the Action menus:




1. Invoke the Labels action, as described above:

The SIMs Label dialog appears showing the Labels assigned to the SIM.



- The  icon appears in the checkbox of each label assigned to the selected SIM(s) when:
    - You invoke Labels from a single SIM row (using the  icon)
    - The label is assigned to all the SIMs you selected (using the checkboxes on the left side of the SIM rows)
  - The  icon appears in the checkbox of each label assigned to the selected SIM(s) when:
    - The label is assigned to only some of the SIMs you selected (using the checkboxes on the left side of the SIM rows)
2. Click the check box of the label(s) you want to remove from the SIMs one or



more times to toggle between the three options, (  ,  ,  ) until the check box is empty ( ).

3. Click Apply.

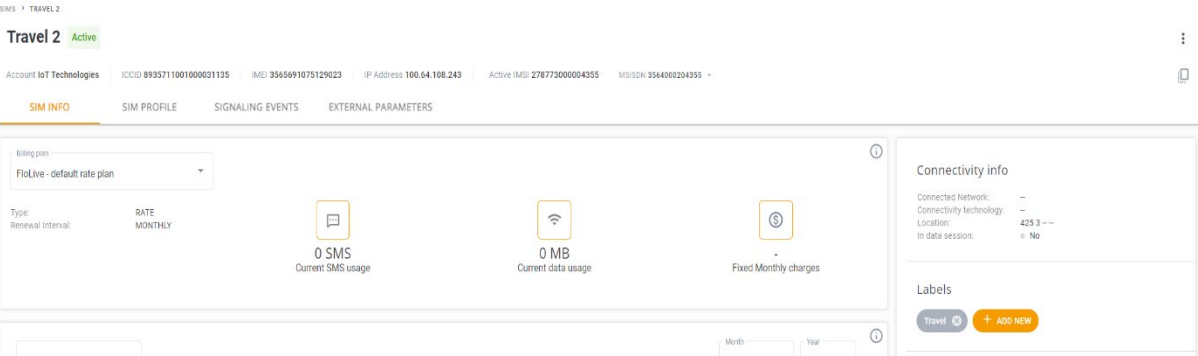
The SIM is removed from the Associated SIMs column in the Labels table at Settings > Labels .

To Add/Remove a Label from a SIM from the Labels Info area in the SIMs Info Page

You can add or remove a label to or from a single SIM (the one selected from the SIMs table) from the SIM Info page.

1. From the SIMs table, click on the table row containing the SIM or select a SIM from a Search action result list.

The SIM Info page appears.

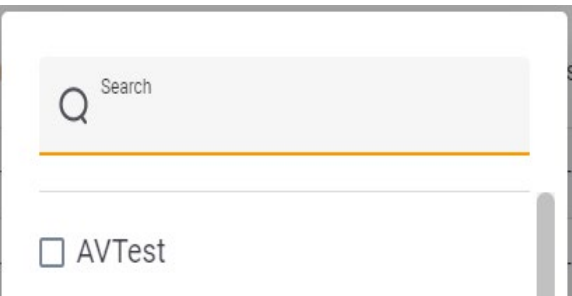


SIM Info Page Showing Labels Panel

- Under the Labels panel, click  .

The SIMs label dialog appears.

- Existing Label: Type the label name in the Search field and select the existing label check box:

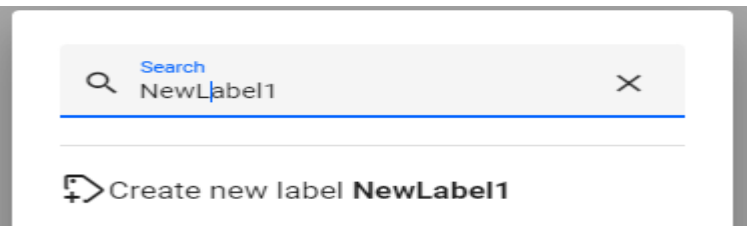


Note that when you open the SIMs Label dialog, all existing labels appear in the dialog with a checkbox in one of these states:


- ☐ : The (existing) label is not assigned to the SIM
- ☒ : The (existing) label is already assigned to the SIM

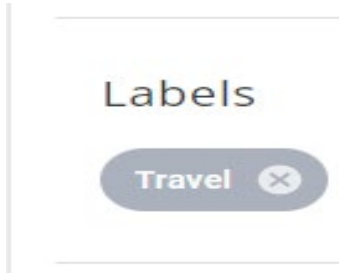
The Associated SIMs column in the Labels table at Settings > Labels is updated with the newly associated SIM.

- New Label: Type the name of the new label in the Search field and select the new label:



The new label is added to the Labels table (when you click Apply) at Settings > Labels.

3. To Remove a label(s) from the SIM, the Labels Panel on the SIM Info page and click the  on the label: .



The SIM is removed from the Associated SIMs column in the Labels table at Settings > Labels .

### 3.7.3 Activate / Suspend SIM

You can activate or suspend a SIM based on its current status, such as activating a suspended SIM or suspending an active one. These actions are available both for individual and multiple SIMs. A description of the key concepts is provided in this table.

Term/Concept	Description
Activate	Action to make a suspended SIM active again.
Suspend	Action to temporarily deactivate an active SIM.
Multiple SIMs	When selecting multiple SIMs, the action applies to all, ignoring the current status of each.
SIM Info Page	A detailed view of a specific SIM, from which you can invoke actions directly.

### 3.7.4 Single SIM Activation / Suspension

To activate or suspend a single SIM, do these steps:

1. Navigate to the SIMs Table.
2. Select the SIM you wish to activate or suspend.
3. Perform the relevant action:
  - a. Click the **Activate** icon to activate a suspended SIM.
  - b. Click the **Suspend** option from the Action menu to suspend an active SIM.

### 3.7.5 Multiple SIM Activation / Suspension

To activate or suspend multiple SIMS, do these steps:



1. Navigate to the SIMs table.
2. Select multiple SIMs.
3. Invoke the **Activate** or **Suspend** action.

**NOTE:** All selected SIMs will be activated or suspended, regardless of the current status of each SIM.

### 3.7.6 Activate/Suspend from SIM Info Page

To activate or suspend from SIM Info page, do these steps:

1. Open the SIM Info page for the relevant SIM.
2. Use the **Activate** or **Suspend** action available on the page.

#### Send SMS

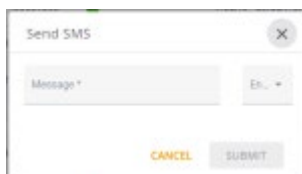
The Send SMS action is available for:

- Single SIMs from the SIMs table
- SIM on the SIM Info page

To do the Send SMS action:

1. Invoke the Send SMS action, as described above.

The Send SMS dialog appears.

A screenshot of the 'Send SMS' dialog box. It has a title bar with 'Send SMS' and a close button (X). Inside, there is a text input field labeled 'Message \*', a dropdown menu labeled 'En...' for encoding, and two buttons at the bottom: 'CANCEL' and 'SUBMIT'.

Send SMS

2. Type your SMS message in the Message field.
3. Click the Encoding button on the right and select the desired message encoding, GSM-7 or UCS2
4. Click Submit to send the message.

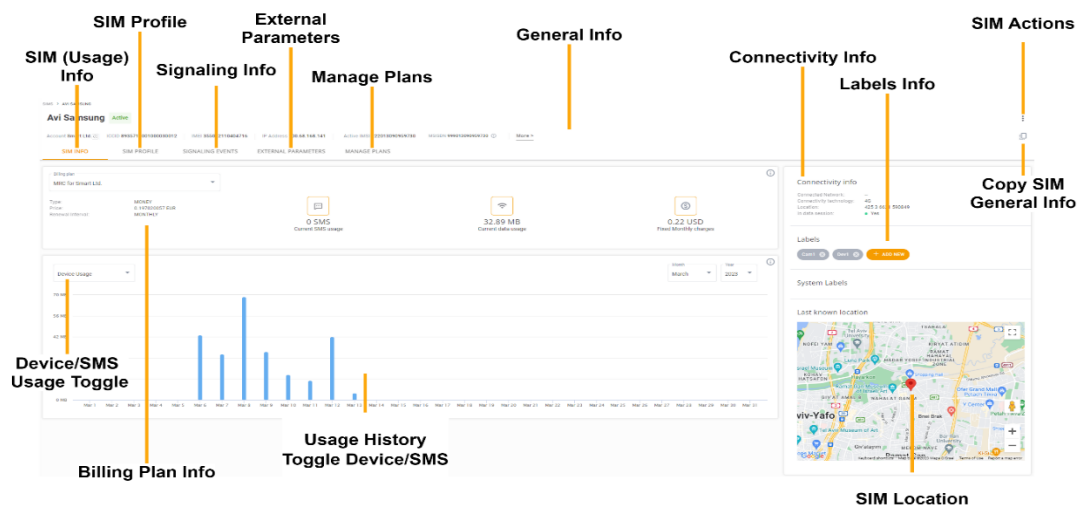
## 3.8 Getting SIM Info

SIM info is collected in the SIM Info page, which provides detailed SIM information. The SIM Info page contains 4 tabs.

- General Info Area

- SIM Info Tab
- SIM Profile Tab
- Signaling Events Tab
- Manage Plans Tab

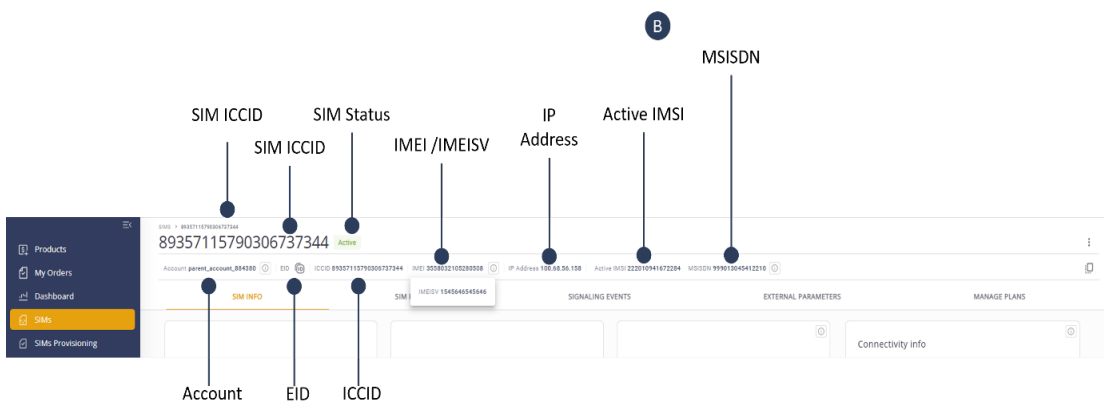
A screen capture of the SIMs Info page is shown here.



### 3.9 SIM Info Header

The SIM Info header contains detailed information for a selected SIM.

An example of the SIM Info header is shown here.



A description of the SIM Info header is provided in this table.

Field Name	Description
SIM ICCID	The unique identifier for each SIM card.
Account Name	The name of the account associated with the SIM card.

Field Name	Description
SIM Alias	A user-defined name for the SIM card.
SIM Status	The current status of the SIM card (e.g., active or suspended).
IMEI /IMEISV	The International Mobile Equipment Identity number of the device (including software version) using the SIM.
IP Address	the last IP address allocated to the SIM from the core Packet Gateway (PGW).
Active SIM	Indicates the last activated IMSI/MSISDN.
IMSI	The IMSI uniquely identifies the SIM card within the mobile network. The SIM must be active to view the IMSI/MSISDN pairings. For eUICC SIMs, the IMSI/MSISDN pairings are shown only for the currently active profile
MSISDN	The Mobile Station International Subscriber Directory Number, which is the phone number associated with the SIM card
IMSI Provider Alias	The IMSI Provider name.
SIM Actions	Actions that can be performed on the SIM card, such as activation, deactivation, or modification.
Copy to clipboard	An option to copy the displayed SIM information to the clipboard.

### 3.10 SIM Info Tab

The SIM Info tab provides comprehensive details about the activities and status for a selected SIM.

An example screen capture of the SIM Info panels is shown here.



A description of the SIM Info panels is provided in this table.

Panel Name	Description
Billing Plan	Displays relevant details when you select a plan from the drop-down list of all plans attached to the SIM.
SMS Remaining Balance	<p>The number of SMS messages left for a SIM to use. It shows how much is still available from the total limit before it runs out.</p> <p><b>NOTE:</b> The term "Remaining Balance" is used exclusively for Prepaid Plans only (e.g. Usage and Money). When a Rate Plan is displayed the term "Current Usage" is displayed.</p>
Data Remaining Balance	<p>The amount of data (megabytes) left for a SIM to use. It shows how much is still available from the total limit before it runs out.</p> <p><b>NOTE:</b> The term "Remaining Balance" is used exclusively for Prepaid Plans only (e.g. Usage and Money). When a Rate Plan is displayed the term "Current Usage" is displayed.</p>
Connectivity Info	<p>Connectivity info includes these details:</p> <ul style="list-style-type: none"> <li>○ <b>Last Connected Network:</b> Displays the local network name to which the SIM is currently connected. If the SIM is not connected, it shows the name of the last connected network.</li> <li>○ <b>Last Connectivity Technology:</b> Indicates the SIM's registration Radio Access Technology (RAT), such as 3G, 4G, or 5G.</li> <li>○ <b>Last Data Connectivity Technology:</b> Shows the RAT type for the SIM's data session, such as 3G, 4G, or 5G. If the SIM is currently in a data session, hover the panel to display the last date and time the SIM was connected to a data session.</li> </ul>
System Labels	Displays the the labels assigned to the selected SIM. You can click <b>+Add New</b> to add a new label.
Select Usage Type	Select the type of information (SMS or Data) to show in the timeline chart.

Panel Name	Description
Usage Chart	Displays the daily usage of SMS or Data for the specified month and year.
Date (Month/Year)	Select a month and year to display SMS or Data in the Usage Chart.
Last Known Location	<ul style="list-style-type: none"> <li>○ <b>Country:</b> Displays the name of the last country used by the SIM.</li> <li>○ <b>Last SIM Location:</b> Shows the SIM's last network location (MCC, MNC, LAC, Cell ID) and its last connected location on a map. This information is based on the cellular network and may vary in accuracy due to antenna information.</li> </ul> <p><b>NOTE:</b> Several external factors can influence the accuracy of the last connected location, including (a) the device's receiver and location, (b) transmission interference from atmospheric sources, and (c) obstruction or reflection of location services from nearby structures. Additionally, as geolocation data is crowd-sourced, it may sometimes contain unintentional deviations.</p>

## 3.11 SIM Profile

The SIM Profile tab displays the SIM card multi IMSI profile settings.

### 3.11.1 Regular UICC SIM (single ICCID profile)

A regular UICC SIM has one ICCID profile and optionally multi IMSIs, which appear as in the following example:

SIMS > 24558808030358500000

24558808030358500000 Active

Account floLive | ICCID 24558808030358500000 | IMEI - | IP Address - | Active IMSI 54861425413577 | MSISDN 1781221037

SIM INFO **SIM PROFILE** SIGNALING EVENTS EXTERNAL PARAMETERS

**SIM profile**

ICCID	IMSI	MSISDN	LOCATION	PLMN	SMSC	APN
24558808030358500000 <span>Active</span>	154321791938221	154325412152111	Canada	1092837649	12352345	iot-apn2
	98237640982345	154325412152111	Canada	54356754547...	483830340029	iot-apn
	61239470928	154325412152111	Canada	345320345034	2384720398	iot-apn3
	23978401293864	154325412152111	Canada	619238746982	0192837401	iot-apn4
	5638947562982	154325412152111	Canada	23497102948	81923869190	iot-apn5

### 3.11.2 UICC SIM Card

The UICC SIM card can host up to 10 IMSI profiles. Each row indicates a single IMSI profile.

### 3.11.3 eUICC SIM Profile

An eUICC SIM has multiple ICCID profiles; the following example illustrates how these profiles may appear in the SIM Profile tab (the Active profile is always listed first):

SIMS > 24558808030358500000

24558808030358500000 Active

Account FloLive | EID | ICCID 24558808030358500000 | IMEI - | IP Address - | Active IMSI 54861425413577 | MSISDN 1781221037

SIM INFO **SIM PROFILE** SIGNALING EVENTS EXTERNAL PARAMETERS

**SIM profile**

ICCID	MSI	MSISDN	LOCATION	PLMN	SMSC	APN
24558808030358500000 <span>Active</span> >	154321791938221	154325412152111	Canada	1092837649	12352345	iot-apn2
45198082038878100000 >	98237640982345	154325412152111	Canada	543567F54547...	483830340029	iot-apn
94883877602497000000 >	61239470928	154325412152111	Canada	345320345034	2384720398	iot-apn3
VF_Turkey	23978401293864	154325412152111	Canada	619238746982	0192837401	iot-apn4
	5638947562982	154325412152111	Canada	23497102948	81923869190	iot-apn5

In a multi ICCID profile display, the data is shown for each profile by clicking the arrow ( > ) next to the ICCID number. The first profile is activated by default when the SIM Profile tab is first displayed. Each ICCID profile can host up to 10 **IMSI** profiles, the same as a UICC SIM. Each row indicates a single IMSI profile.

A description of the SIM card IMSI profile attributes is provided in this table.

Attribute	Description
IMSI	IMSI number including provider alias name.
MSISDN	SIM MSISDN number
Location	The SIM location (region or country) in which this profile is to be used
PLMN	Public Land Mobile Network (PLMN), determines the preferred local operator that the SIM will try to connect to
SMSC	SIM SMSC number
APN	SIM APN

## 3.12 View Real/ Mapped IMSIs

Users can view both Real and Mapped IMSIs on the SIM profile page, thereby reducing confusion between the two.

The types of IMSIs are described in this table.

Type	Description
Real IMSI	This is the actual IMSI assigned to the SIM card by the mobile network operator. It is a unique identifier that is used to identify the subscriber in the mobile network.
Mapped IMSI	This is a representation of the real IMSI used for integration with different systems, anonymization, or to provide a user-friendly identifier while maintaining a relationship with real IMSIs without exposing sensitive information.

To view the Real and Mapped IMSIs, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Scroll the SIMs table and click a SIM to display the **SIM Details page**.
3. Select the **SIM Profile** tab.

A screen capture of the Real and Mapped SIMs details is shown here.

### Signaling Events Tab

The SIM Signaling Events tab displays the history of core-network signaling events generated by the selected SIM.

The Signaling Events tab display is identical to that of the Events Module. The content of the Signaling Events tab is for a single SIM selected from the SIMs table. In contrast, the Events Module provides an aggregate view for all SIMs.

**NOTE:** For more information about signaling events refer to the "Events Module" on page 201

### External Parameters Tab

The External Parameters tab is used to set and assign External Parameter values to a SIM-type External Parameter.

**NOTE:** For information about how to set and assign the SIM External Parameter values refer to "Assign External Parameter Values" on page 292.

### 3.12.1 Manage Plans

The Manage Plans tab is used to attach Multiple Plans to a SIM; the plans are attached one at a time to the SIM. You can also detach plans from a SIM, one at a time, from this tab. When you attach multiple plans to a SIM, the plans are prioritized. When a SIM is first attached to a Billing Plan, it has the lowest priority; then you can change the priority after you attach the Billing Plan. The priority order of the Billing Plans attached to a SIM enables tiered pricing. You can assign different Billing Plans to different SIMs in the same account. In other words, you can set different rates for different SIMs in the same account.

A screen capture of the Manage Plans tab is shown here:

**Note:** You can attach up to four plans per SIM.

To attach Plans to a SIM from the Manage Plans tab:

1. Go to the SIMs Info page and click **Manage Plans**. The Manage Plans tab is displayed. The Manage Plans tab shows the Billing Plan(s) that are now attached to the SIM.
2. Click **+ Plan A** to add a row showing the Sell Plan field. This indicates that you can only attach a Sell Plan to the SIM.
3. Click the **Sell Plan** field. A list of available plans appears.
4. Select a plan. The selected plan now appears in the Sell Plan field.
6. Click **Apply**. The plan is attached to the SIM in lowest priority.

To change the priority of the plans:

- Change the priority of the plans shown by drag-and-drop of each one into the desired position. The list is in descending priority order with the highest priority plan at the top.

To remove a plan from the list and then detach it from the SIM:

1. Select the plan you want to remove and then detach.
2. Click the **Delete** icon at the end of the table row with the plan you want to remove and detach from the SIM.



3. Click **Apply** to confirm the delete operation.
4. To detach the plan from the SIM, click **Apply**.

### 3.13 How to Lock SIM to Device

This feature enables users to lock and unlock a SIM based on the associated International Mobile Equipment Identity (IMEI). When the lock function is enabled, the SIM card can only be used with a specific device. If the SIM card is used for a different device, the system automatically suspends the relevant subscriber.

The SIM Lock feature supports these capabilities:

- **Lock SIM to IMEI:** Upon initial detection of an IMEI associated with a SIM card, the system automatically locks the SIM to that device. This ensures that the SIM is tied to a specific device, enhancing security and preventing unauthorized usage.
- **Unlock SIM:** Customers can unlock the SIM and transfer it to a new device. When the system detects a new IMEI associated with the SIM, it “unpairs” the previous device and automatically locks the SIM to the new device.
- **SIM Reset:** Customers can reset locked SIM cards from the portal. This functionality provides users with autonomy over their SIM cards, enabling them to manage locked status as needed.

**IMPORTANT:** Locked SIMs are prevented from accessing any service, including SMS, voice, and data. This strict service restriction ensures that locked SIMs remain inactive until unlocked, maintaining security protocols.

#### 3.13.1 Assign Lock Permission to Account

To enable a customer to lock a SIM to a device, you need to setup the customer account permissions.

To assign lock permission to an account do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Scroll the table and click an account to display the Account Details page.
3. Check the **Allow Customer to Lock SIM with a Device (IMEI)** option.

Here is a screen capture of the account permission option.

Allow Customer to Lock SIM  
with a Device (IMEI)

MY SUB-ACCOUNTS > 0204 NERYA

0204 nerya

ACCOUNT CONTACTS ADDRESSES BILLING & INVOICE EXTERNAL PARAMETERS

Account UPDATE

Account Name\* 0204 nerya Currency\* GBP

VAT Identification No

Charge by order\* SIM Activity Indication\* Network Registration

☐ Allow customer to attach SIMs to Buy Plans

☐ Allow customer to lock SIM with a device (IMEI)

☐ Hide connectivity rates

☐ Connectivity Service Provider

☐ Display SIM account hierarchy ☐ Allow login on behalf

MFA ☒ Mandatory ☐ Enabled ☐ Disabled

### 3.13.2 Lock SIM to Device

To lock a SIM to device for a specific subscriber, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Click the **Actions** option for a SIM listed in the table.
3. Select **Device Operations** to display the SIM lock dialog box.
4. Check the **Lock SIM with Device** option. The SIM will be locked paired to the first device it is detected on.
5. Click **Update** to lock SIM to device.

The system locks ("pairs") the subscriber to the first used IMEI. If the SIM is used in another IMEI (a different device) then the system suspends the subscriber.

Here is a screen capture of the SIM lock option.

Device Operations for SIM 99983999013022483584 ✕

SIM LOCKING RESETTING

☐ Do not lock SIM with device  
The SIM can be used on any device.

☒ Lock SIM with devices  
The SIM will be locked (paired) to the first device it is detected on.

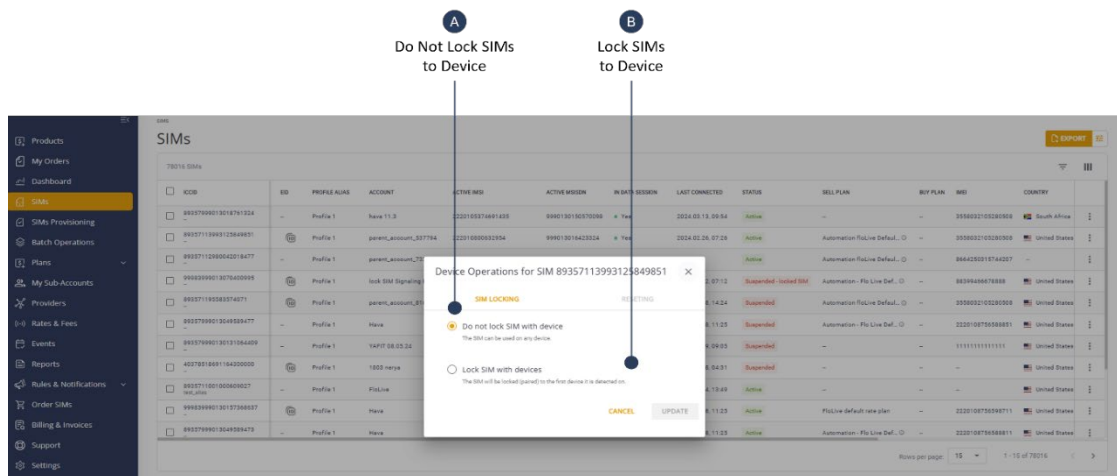
CANCEL UPDATE

### 3.13.3 Unlock SIM

To unlock a SIM for use on any device, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Click the **Actions** option for a SIM listed in the table.
3. Select **Device Operations** to display the SIM lock dialog box.
4. Check the **Do Not Lock SIM with Device** option. The SIM can be used on any device.
5. Click **Update** to lock SIM to device.

Here is a screen capture of the SIM lock and unlock dialog box.



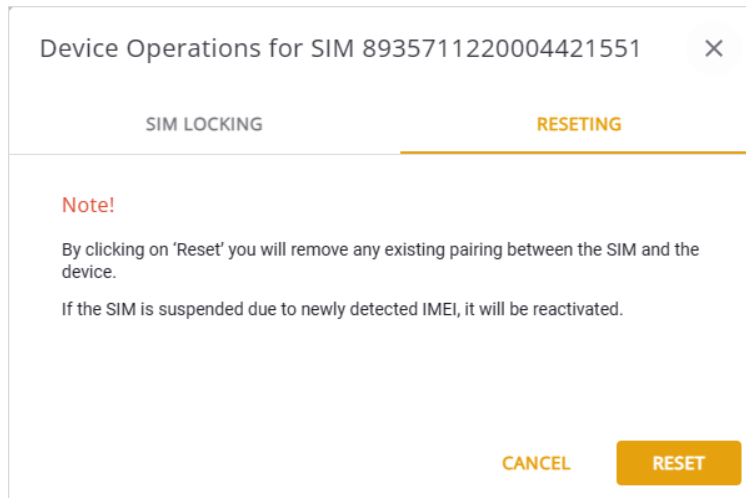
### 3.13.4 Reset SIM

When you reset a SIM you remove any existing pairing between the SIM and the device. If the SIM is suspended, it will be reactivated on detection of first IMEI.

To reset a SIM, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Click the **Actions** option for a SIM listed in the table.
3. Select **Device Operations** to display the SIM lock dialog box.
4. Select the **Resetting** tab.
5. Click **Reset** to lock SIM to device.

Here is a screen capture of the SIM Reset dialog box.



### 3.13.5 View SIM Lock Status

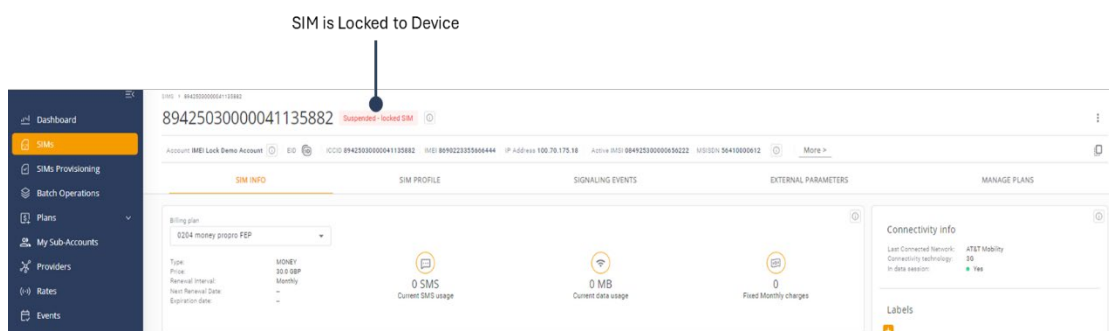
To view the status (locked or unlocked) for a specific SIM, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Click **Customize Columns** and select **Status** to display in the SIMs table.
3. Scroll the **Status** table column to view which SIMs are locked.

Here is a screen capture of the SIM locked status.



You can also view the locked/unlocked status in the SIM Details page.



# 4 SIMs Provisioning

## Guidelines

This function is available only for Mobile Network Operators (MNO) that are managing and provisioning SIMs by themselves.

A custom output file is used to provision the SIMs. You can download and view a sample of the output file structure in two formats:

- **\*.outp** that you can import directly into and read from a text editor such as Notepad++
- **\*.xlsx**, an Excel file that translates the Output Variables of the \*.outp file into Excel file format for easy viewing

The MNO operator can provision SIMs only to its own root account and to no other. Only after the SIM is provisioned can the MNO operator allocate that SIM to one of its child accounts. The provisioned SIMs also appear in the MNO's parent account as already allocated to the MNO.

floLIVE does not validate the SIM IDs, such as IMSIs, once provisioning is complete.

## Downloading Sample Output Files

To download sample output files:

1. From the Navigation Bar, click SIMs Provisioning.

The SIMs Provisioning page appears:

SIMs Provisioning

571 Items

FILE NAME

UPLOAD DATE

LAST UPDATED

QUANTITY

FREE RESOURCES

ACTION TYPE

STATUS

TARGET ACCOUNT

automation-PROVISIONING-File4493

02.10.2023

02.10.2023

20

20

Provisioning

Ready

floLive

## SIMs Provisioning Page

2. Click 

SAMPLE

.

The Sample options appear:

SAMPLE

Provisioning file xlsx

Provisioning file outp

Deprovisioning file xlsx


Apply



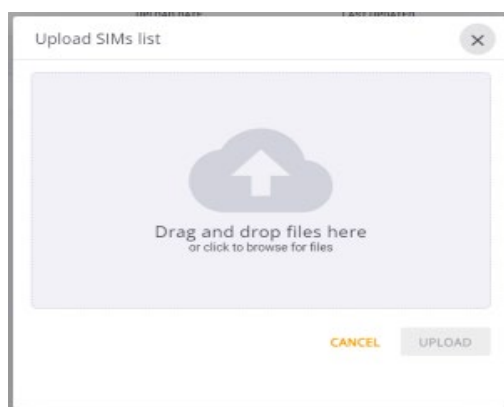
**Note:** The system recognizes only the **IMSI\_Map** values, not the **IMSI** values. For example, there is an **IMSI1** value and an **IMSI\_Map1** value. The system takes only the **IMSI\_Map1** value and that is the value that appears under **IMSI1** column in the Excel (\*.xlsx) file.

### Provisioning SIMs


To provision SIMs:

1. Build your output file using the sample files as a guide.
2. From the SIMs Provisioning, click  **UPLOAD**.

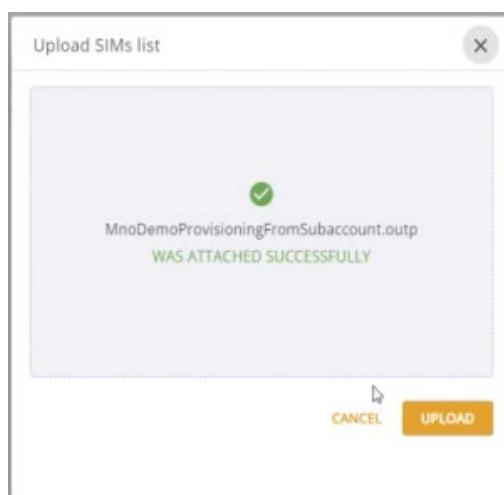
The Upload SIMs list dialog appears:



Upload SIMs list Dialog

3. Browse or drag the output file into the **Drag and drop files here** field and click  **UPLOAD**.

When you drop or select the output file, the system automatically parses it and returns a Success message or an Error message if the file is invalid. For example:



Upload SIMs List Output File Load Confirmation

When the output file is uploaded, the file appears in the SIMs Provisioning table with a **Ready** status, indicating that the SIM or SIMs in the output file can now be provisioned. For example:

SIMS PROVISIONING

SIMS Provisioning

2 Items

Q

≡

⌂

↺

FILE NAME	UPLOAD DATE	LAST UPDATED	QUANTITY	FREE RESOURCES	STATUS	
MnoDemoProvisioningFromSubaccount	19.09.2023	19.09.2023	3	2	Ready	⋮
ilaTestRootToMno13_09_v2	13.09.2023	13.09.2023	3	0	Provisioned	⋮

Uploaded Output File with Ready Status in SIMs Provisioning Table

Note the Free Resources column in the SIMs Provisioning table. The value indicates how many SIMs in the output file remain available for provisioning.

- Click on a table row with a **Ready** status.

The Resources table for that file appears; the table lists all resources (ICCID/EID) uploaded with the output file with status Ready (ready to be provisioned).

SIMS PROVISIONING

MNO DEMO PROVISIONING FROM SUBACCOUNT

← MnoDemoProvisioningFromSubaccount

Upload Date  
19.09.2023

Quantity  
3

3 Items 0 Selected

In Progress 0

Timeout 0

Failure 0

Fatal Failure 0

Invalid Data 0

Unauthorized 0

Entity Locked 0

Provisioned 0

Ready 3

<input type="checkbox"/>	EID	ICCID	IMSI	MSISDN	STATUS	
<input type="checkbox"/>	-	8935711266602620016	310266667654336 +1	555666456806 +1	Ready	⋮
<input type="checkbox"/>	-	8935711266602620017	310266667654337 +1	555666456807 +1	Ready	⋮
<input type="checkbox"/>	-	8935711266602620018	310266667654338 +1	555666456808 +1	Ready	⋮

Uploaded Output File SIM Resources Table

- Select one or more SIM resources using the check boxes on the left of the rows, for example.

SIMS PROVISIONING

MNO DEMO PROVISIONING FROM SUBACCOUNT

← MnoDemoProvisioningFromSubaccount

Upload Date  
19.09.2023

Quantity  
3

3 Items 1 Selected

Full Provision

BSS Provision

Export

In Progress 0

Timeout 0

Failure 0

Fatal Failure 0

Invalid Data 0

Unauthorized 0

Entity Locked 0

Provisioned 0

Ready 3

<input checked="" type="checkbox"/>	EID	ICCID	IMSI	MSISDN	STATUS	
<input type="checkbox"/>	-	8935711266602620016	310266667654336 +1	555666456806 +1	Ready	⋮
<input checked="" type="checkbox"/>	-	8935711266602620017	310266667654337 +1	555666456807 +1	Ready	⋮
<input type="checkbox"/>	-	8935711266602620018	310266667654338 +1	555666456808 +1	Ready	⋮

Selected Resource with Ready Status from SIM Resources Table

The Resources table for that file appears; the table lists all resources (ICCID/EID) uploaded with the output file with status Ready (ready to be provisioned).

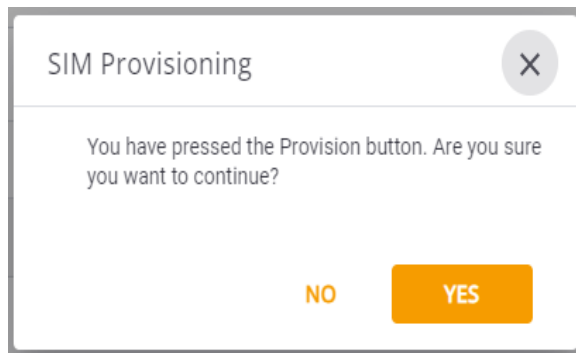
- Click 

BSS PROVISION

.



A confirmation query appears.



#### SIM Provisioning Confirmation Query

#### 7. Click **Yes**.

The Provisioning process begins and the SIM Resource or Resources you selected appear in the SIM Resources table with status **In Progress**.

When Provisioning is completed, the SIM appears in the SIMs Table. Use the Search SIMs table to find the SIM. You can now perform all SIM Actions, such as Attaching Plans.

floLIVE does not validate the SIM IDs, such as IMSIs, once provisioning is complete.

The SIMs Resource(s) that has been provisioned appears in the Resources table with status **Provisioned**.

#### 8. Return to the SIMs Provisioning table showing the output file name.

Notice the Free Resources column now shows the number of SIMs remaining that have not been provisioned. So if you provisioned one of three resources only, the Free Resources column shows the value **2**. If you provisioned all resources, the Free Resources column shows the value **0**.

If there are Free Resources available, the Output File name appears with the status **Ready**.

If all resources in the Output File have been provisioned, the file name appears with status **Provisioned**.

If there is a failure, the status is **Failure**. In case of failure, contact **Customer Support**.

## 5 Batch Operations

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The batch operation module enables users to perform and manage SIM actions for a large number of SIMs including tasks such as activating 25000 SIMs or transferring 25000 SIMs to a sub-account. These operations are carried out asynchronously by the system. Batch operations are managed by uploading a CSV file. This file identifies the required operation, and the SIMs targeted for these actions. The CSV file is structured with the comma (,) character serving as a delimiter between the CSV fields—field1,field2,field3. The initial line of the CSV file acts as a Header and defines the fields that must be included in the CSV file for each SIM (subscriber) action performed within the selected batch operation. Subsequent lines correspond to individual subscriber actions. The batch operation file uses system internal identities, UUIDs, to designate SIMs and other system entities such as plans, accounts, and statuses.

### 5.1 Upload New Batch File

To create a new batch operation, do these steps:

1. Export the SIMs Table Contents to a CSV File.
2. Verify that the file format and all entities are valid.
3. Type a name in the **Batch Name** field.
4. Click **Operation Type** to display the batch operation options.
5. Select a batch **Operation Type**.
6. Drag and drop a csv file to be uploaded.
7. Click **Upload** to complete upload external parameters.

**TIP:** You can choose when to execute the batch operation. The system executes the batch operation in small chunks, and you can track the batch operation progress.

**NOTE:** All information you need to build the batch CSV file can be obtained by exporting the SIMs Table Contents to a CSV File. For more information, refer to

### 5.2 Batch Operations List

The Batch Operations List contains all batch files that have been uploaded, both those not yet executed and those that have been executed. Each batch file is executed directly from the list.

To view the Batch Operations List, do these steps:

1. Select **Batch Operation** on the navigation sidebar. The Batch Operations List is displayed.

## 2. Click a row of the Batch Operations List to display the Batch Records page.

The Batch Operations List appears.


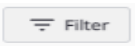


SIM CENTER > BATCH OPERATION


Batch Operations List

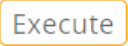

Q Search Filter [icon] REFRESH UPLOAD

BATCH NAME	BATCH DATE	OPERATION TYPE	QUANTITY	STATUS	
ID1 add Label AVTest	07/02/2023	Add label to SIM	2	Success	[icon]
IOT T add Alias name	05/02/2023	Set alias to SIM	4	Ready	[Execute] [icon]
IOT T - Add Travel Label	05/02/2023	Add label to SIM	4	Success	[icon]
Travel SIMs MoveSubAccount - 002	11/10/2022	Move SIM to sub-account	10	Ready	[Execute] [icon]
Travel SIMs Activate - 001	11/10/2022	Set SIM Status	10	Ready	[Execute] [icon]

### 5.2.1 Batch Operations List

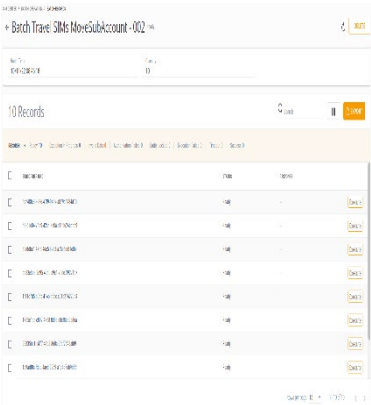
Attribute	Description
	<p>Click the Search field to search for a Batch Name in the list</p> <ul style="list-style-type: none"> <li>○ Case-sensitive</li> <li>○ Supports the “Contain method” where typing any part of the Batch Name will filter the list</li> </ul>
	<p>Filter the Batch Operations List by these parameters (described below):</p> <ul style="list-style-type: none"> <li>○ (Batch) Name</li> <li>○ Batch Date</li> <li>○ Operation Type</li> <li>○ Quantity</li> <li>○ Status</li> </ul>
	Customize columns: Show/Hide and Move
	Refresh the Batch Operations List: useful after you have performed any operation on the list or on one of the batch files to make sure the table is up to date

Attribute	Description
 <b>UPLOAD</b>	Click to upload a batch file needed to perform the batch operation
Batch Name	The name you gave the batch operation when you uploaded the batch file; click the Batch Name (shown in hyperlink) to open detailed information on the batch operation
Batch Date	The date that you uploaded the batch file on
Operation Type	<p>The type of operation you designated when you uploaded the batch file, one of:</p> <ul style="list-style-type: none"> <li>○ Move SIM to sub-account</li> <li>○ Move SIM back to the Parent account</li> <li>○ Attach SIM to plan</li> <li>○ Detach SIM from plan</li> <li>○ Set SIM Status</li> <li>○ Add label to SIM</li> <li>○ Remove label from SIM</li> <li>○ Top-up</li> <li>○ Set alias to SIM</li> </ul>
Quantity	The quantity of operations included in the uploaded batch file; each operation is a row in the CSV file
Status	<p>The status of the batch operation before and after executing it:</p> <ul style="list-style-type: none"> <li>○ Ready: the batch operation has not yet been executed and is Ready for execution</li> <li>○ Success: the batch operation has been executed and was successful for all operations</li> </ul>

Attribute	Description
	<ul style="list-style-type: none"> <li>○ Uploading in Progress</li> <li>○ Executed (partially failed): the batch operation has been executed, but some operations have failed</li> <li>○ Execution Failed: the batch operation has been executed and has completely failed (no operation was successfully completed)</li> <li>○ Invalid Data: The batch file has invalid data and is rejected</li> <li>○ Invalid Data (partially): The batch file has at least one entry that has invalid data and that entry fails; all other entities are valid, and the batch operation proceeds</li> </ul>
	<p>Click this button to execute the batch operation</p> <ul style="list-style-type: none"> <li>○ A batch operation with the status Success cannot be re-executed</li> </ul>
	<p>Click this button to delete the batch operation (if available)</p> <p>Note: You can delete a batch operation with status Success only from the Batch Records page of that batch operation.</p>






2. Click a row of the Batch Operations List to retrieve detailed information on that batch operation.



The Batch Records page appears:

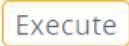


5.2.2 Batch Records Page

The Batch Records table shows detailed information of each operation in the batch file, one operation per row.

Attribute	Description
	Refresh the Batch Operations List: useful after you have performed any operation on the list or on one of the batch files to make sure the table is up to date
	Click to delete this batch name; you can delete any batch from this page, regardless of status
Records Table	Contains all operations in the uploaded batch file. The Records Table can be filtered by a set of fixed parameters
	Click the Search field in the Records table to search for a Subscriber (SIM) UUID <ul style="list-style-type: none"> <li>○ Case-sensitive</li> <li>○ Supports the “Contain method” where typing any part of the SIM UUID will filter the list</li> </ul>
	Customize Records Table columns: Show/Hide and Move.
	Export the table to a CSV file

Attribute	Description
Records Band	 <p>Contains a fixed set of parameters used to filter the Records Table:</p> <ul style="list-style-type: none"> <li>○ Ready: Shows only those batch operations with status Ready.</li> <li>○ Execution in Progress: The batch operation is still underway.</li> <li>○ Invalid Data: Invalid data has been detected in the uploaded CSV file.</li> <li>○ Authorization Failed: The batch operation has not been duly authorized and so cannot be executed.</li> <li>○ Entity Locked: The batch operation includes an entity (such as a SIM) that has been locked and so cannot be accessed.</li> <li>○ Execution Failed: Lists all failed operations.</li> <li>○ Timeout: The batch operation has Timed Out and could not be completed.</li> <li>○ Success: The batch operation has succeeded.</li> </ul> <p>Click a parameter or combination thereof to filter the Records Table by the selected parameter(s).</p>
Active Band	<div>Filter</div>  <p>Appears only when a filter(s) has been activated in the Records Band.</p> <p>Shows a filter(s) that is currently active; the Records table shows only those operations that comply with this filter parameter(s).</p>
Subscriber UUID	The SIM UUID of this operation in the batch execution.
Status	The status of the batch operation before and after executing it:

Attribute	Description
	<ul style="list-style-type: none"> <li>○ Ready: the batch operation has not yet been executed and is Ready for execution.</li> <li>○ Success: the batch operation has been executed and was successful for all operations.</li> <li>○ Partially Failed: the batch operation has been executed, but some operations have failed.</li> <li>○ Executed Failed: the batch operation has been executed and has completely failed (no operation was successfully completed).</li> </ul>
Response	<p>The system response to any status other than Ready or Success, generally a descriptive Error message:</p> <ul style="list-style-type: none"> <li>○ An operation with Ready status has no response, since it has not yet been executed.</li> <li>○ An operation with Success status has no response since all operations were successful.</li> </ul>
	<p>Click this button to execute a single operation in the batch file, that is, on one SIM only</p> <p>Appears only for an eligible SIM.</p>

## 5.3 Move SIM to Sub-Account

You are moving SIMs from the account you are logged into now to your sub-accounts (one level). You can move SIMs by the batch operation from your account into any of your sub-accounts. This means you can send different SIMs to different sub-accounts at the same time. All SIMs that you move are in the account you are logged into; you cannot move SIMs from a sub-account to another sub-account.

The information you need to build the batch CSV file is:

- Sub-Account UUID
- SIM UUID

The order of the columns in the CSV file for this batch operation is:

Sub-Account UUID,Sim UUID



The Move SIMs to Sub-Account batch file looks like this:

Sub Account UUID	Sim UUID
f1589d0d-8a2e-4445-9965-a3be646ad999	8eaebd47-6a89-41d6-9f7a-64f3938c6999

## 5.4 Move SIM to Parent Account

You can move SIMs from any of your sub-accounts (one level) back to your account in the same batch operation. This means you can send SIMs that are now located in different sub-accounts back to your Parent account at the same time; not all SIMs have to be in the same sub-account.

The information you need to build the batch CSV file is:

- Sub-Account UUID
- ICCID
- Child SIM UUID (of the SIM in the sub-account from which you want to move it)
- SIM UUID (of the SIM in the Parent account)

The order of the columns in the CSV file for this batch operation is:

Sub-Account UUID,ICCID,Child SimUUID,Sim UUID

The Move SIM Back to the Parent Account batch file looks like this:

Sub Account UUID	ICCID	Child Sim UUID	Sim UUID
f5144932-49a5-4af8-9c69-24b6e60ac999	8.9357E+18	cb771401-5410-4d84-a6eb-0627f4111999	06a41507-e3a0-48a4-9200-8b934bdfb999

## 5.5 Attach SIM to Plan

You can attach Sell Plans to the SIMs if they are defined in one of your sub-accounts (Level 1). You can attach plans to SIMs from any of your sub-accounts at the same time using a batch operation.

**NOTE:** Not all SIMs have to be in the same sub-account

An example of the Upload Batch file dialog box is shown here.

The screenshot shows the 'Upload Batch File' dialog box with the following callouts:

- A** Batch Name: Points to the 'Batch Name\*' text input field.
- B** Attach SIM to Plan: Points to the 'Operation Type\*' dropdown menu, which currently shows 'Attach SIM to plan'.
- C** Column Order: Points to the 'columns-order' section, which lists 'Child Sim UUID, Product Plan UUID, Plan Priority'.
- D** Sample File: Points to the 'sample-file' label above the file upload area.
- E** Sample File: Points to the 'Or click to browse' link in the file upload area.

The dialog box includes a 'CANCEL' button and an 'UPLOAD' button at the bottom right.

The information you need to build the batch CSV file is:

- Child SIM UUID
- Product Plan UUID
- Plan Priority

**TIP:** Download the **Sample File** and fill in the information in each of the columns.

To attach a SIM to Plan, do these steps:

1. Select **Batch Operation** on the navigation sidebar.
2. Click **Upload** to display Upload Batch file dialog box.
3. Type a **Batch Name**.
4. Click the **Operation Type** field and select the **Attach SIM to Plan** option.
5. Drag & drop a CSV file to the dialog box or select the **Click to Browse** option.
6. Click **Upload** to display batch operation in table.
7. Select the batch operation in the table and click **Execute** to attach SIM to plan.

## 5.6 Detach SIM from Plan

You can detach Sell Plans from the SIMs if they defined in one of your sub-accounts (Level 1). You can detach plans from SIMs from any of your sub-accounts at the same time using the batch operation.

**NOTE:** Not all SIMs have to be in the same sub-account.

The information you need to build the batch CSV file is:

- Child SIM UUID
- SIM Plan UUID (the subscriber plan instance UUID)

The order of the columns in the CSV file for this batch operation is:

- Child Sim UUID,SimPlan UUID

The Detach SIM from Plan batch file looks like this:

Child Sim UUID	Sim Plan UUID
f5144932-49a5-4af8-9c69-24b6e60ac999	cb771401-5410-4d84-a6eb-0627f4111999

.

## 5.7 Set SIM Status

You can change the status using the batch operation CSV files on SIMs that are in your account level and in any of your sub-accounts (one level).

- Range: ACTIVE, SUSPEND

You can change the status of any SIMs from any of your sub-accounts at the same time using the batch operation; not all SIMs have to be in the same sub-account levels.

The information you need to build the batch CSV file is:

- SIM UUID
- SIM Status
- New SIM Status (ACTIVE or SUSPEND)

The order of the columns in the CSV file for this batch operation is:

Sim UUID,Sim Status,New Sim Status

The Set SIM Status batch file looks like this:

Sim UUID	Sim Status	New Sim Status
98cdd42e-b468-4167-bbc9-ce2621f4e999	01b6416b-9239-45ae-838f-70fac0d4a6e7	SUSPEND
889a9468-adff-4af2-b495-1f17942de999	01b6416b-9239-45ae-838f-70fac0d4a6e7	SUSPEND

Set SIM Status Batch File: Example

## 5.8 Add Label to SIM

You can add a label using the batch operation CSV files to SIMs that are in your account level and in any of your sub-accounts for a single level.

**NOTE:** If you try to add a label that does not exist, the system skips that entry and continues the batch operation.

The information you need to build the batch CSV file is:

- SIM UUID
- Label Name

The order of the columns in the CSV file for this batch operation is:

- Sim UUID, Label Name

The Add Label to SIM batch file looks like this:

Sim UUID	Label Name
8eaebd47-6a89-41d6-9f7a-64f3938c6999	NewLabel

Download an example Add Label to SIM CSV batch file [here](#).

## 5.9 Remove Label from SIM

You can remove a label using the batch operation CSV files from SIMs that are in your account level and in any of your sub-accounts (one level).

The information you need to build the batch CSV file is:

- SIM UUID
- Label Name

The order of the columns in the CSV file for this batch operation is:

Sim UUID,Label Name

The Remove Label from SIM batch file looks like this:

Sim UUID	Label Name
8eaebd47-6a89-41d6-9f7a-64f3938c6999	LabelName

## 5.10 Top Up

The guidelines for executing the Top Up batch operation are identical to those for topping up a single SIM.

**TIP:** Refer to "Top Up SIM" on page 41 to read these guidelines.

The information you need to build the batch CSV file is:

- Sub-Account UUID
- Child SIM UUID
- SIM Plan UUID
- Cost: The amount of money to be charged for the Top Up

To perform a Top Up batch operation, do these steps:

1. Designate the Cost for all plan types. You can enter 0 for the Cost if you want the Top Up to be gratis.
2. Specify the **Cost Currency**. You must designate the Cost Currency even when you enter 0 for the Cost.
3. Enter the **Amount** of money to be added to the plan. The amount is exclusively for a Money-type plan. You can enter 0 for the Amount if you want the Top-Up to be gratis. However, if you enter 0, you still must fill in the Amount Currency. If the Subscriber Plan is a Usage-type plan, leave this parameter blank.
4. Specify the **Amount Currency**. If you have used the Amount parameter, the Amount Currency parameter is mandatory. If you entered 0 for the Amount, you must still designate the Amount Currency. If the Subscriber Plan is a Usage-type plan, leave this parameter blank.
5. For a Usage-type plan you must enter the **SMS** value. The SMS value is the number of SMSs to be added. If the Top Up does not apply to SMS, enter 0. If the Subscriber Plan is a Money-type plan, leave this parameter blank.
6. For a Usage-type plan you must enter the **Data** value to specify the volume of data to be added. If the Top Up does not apply to Data, enter 0. If the Subscriber Plan is a Money-type plan, leave this parameter blank. You must specify the Data

Units: Mandatory if the Data field is filled in (even if the Data value is 0); the range is KB, MB, GB.

The order of the columns in the CSV file for this batch operation is:

Sub-Account UUID,Child Sim UUID,Sim Plan UUID,Cost,Cost Currency,Amount,Amount Currency,SMS,Data,Data Units

The Top Up batch file looks like this:

Sub Account UUID	Child Sim UUID	Sim Plan UUID	Cost	Cost Currency	Amount	Amount Currency	SMS	Data	Data Units
2bee4c56-68b9-4c44-86b5-fa5906aae9d7	4043333b-c754-4c3f-b1e1-2cc8b19663a2	35466784-d516-4602-b2b7-8118d26da8e3	25	EUR			25	10 GB	

**Download:** Click this link to download an example Top Up CSV batch file: [Top Up Batch File: Example](#)

## 5.11 Set Alias to SIM

You can set an alias to SIMs located in your main account and in one of your sub-accounts (level 1). You can set the alias of SIMs from any of your sub-accounts at the same time using the batch operation; not all SIMs have to be in the same sub-account.

The information you need to build the batch CSV file is:

- SIM UUID
- Alias Name

The order of the columns in the CSV file for this batch operation is:

Sim UUID,Alias Name

The Set Alias to SIM batch file looks like this:

Sim UUID	Alias Name
8eae4d7-6a89-41d6-9f7a-64f3938c6999	Alias 1
75538a8a-bde9-4edd-aa38-1f3784017999	Alias 2

## 5.12 Add External Parameters

You can add, update and delete external parameters for a large number of entities such as sub accounts, billing plans and SIMs in a single operation. To perform a batch operation for external parameters, you need to upload a CSV (Comma-Separated Values) file containing the entity identifiers and corresponding external parameter values to be processed.

The information you need to build the batch CSV file is:

Identifier	Description
Entity Type	Type of entity (Account, SIM or Plan)
Entity ID	The UUID of the entity
Params Name	An external parameter name
Params Value	An external parameter value

The order of the columns in the CSV file for this batch operation is:

- Entity Type, Entity Id, Params Name, Params Value

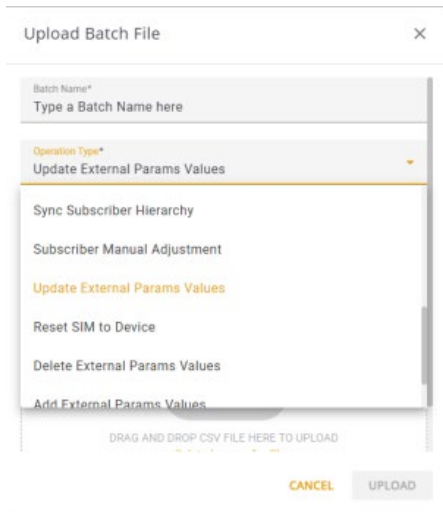
#### Step-by- Step Procedure

To add external parameters, do these steps:

1. Select **Batch Operations** from the sidebar menu.
2. Click **Upload** to display the Upload Batch File dialog box.
3. Type a name in the **Batch Name** field.
4. Click **Operation Type** to display the batch operation options.
5. Select **Update External Params Values**.
6. Drag and drop a csv file to be uploaded.
7. Click **Upload** to complete upload external parameters.

An example screen capture of the Upload Batch File dialog box is shown here.

**TIP:** You can click **Sample File** in the dialog box to download an empty template with predefined fields and headers



## 5.13 Delete External Parameters

You can delete external parameters for a large number of entities such as sub accounts, billing plans and SIMs in a single operation. To perform a batch operation for external parameters, you need to upload a CSV (Comma-Separated Values) file containing the entity identifiers and corresponding external parameter values to be processed.

The information you need to build the batch CSV file is:

Identifier	Description
Offer Entity Type	Type of Offer
Entity ID	The UUID of the entity
Params Name	An external parameter name

The order of the columns in the CSV file for this batch operation is:

- Offer Entity Type, Entity Id, Params Name

### Step-by- Step Procedure

To delete external parameters, do these steps:

1. Select **Batch Operations** from the sidebar menu.



2. Click **Upload** to display the Upload Batch File dialog box.
3. Type a name in the **Batch Name** field.
4. Click **Operation Type** to display the batch operation options.
5. Select **Delete External Params Values**.
6. Drag and drop a csv file to be uploaded.
7. Click **Upload** to complete upload external parameters.

See below an example of the Attach SIM to Plan parameters. Download the CSV batch file [here](#).

OFFEREntity Type	Entity Id	Params Name
SUBSCRIBER	c732d785-8d4e-4e7e-acc2-4999ea60f059	Test
SUBSCRIBER	5504e560-f839-4b70-96bf-7569607df6f7	Test

**Upload Batch File** [X]

**Batch Name\***  
Type a Batch Name Here

**Operation Type\***  
Delete External Params Values

- Subscriber Manual Adjustment
- Update External Params Values
- Reset SIM to Device
- Delete External Params Values**
- Add External Params Values
- Account Manual Adjustment

DRAG AND DROP CSV FILE HERE TO UPLOAD

**CANCEL** **UPLOAD**

### 5.13.1 Upload and Execute the Batch File

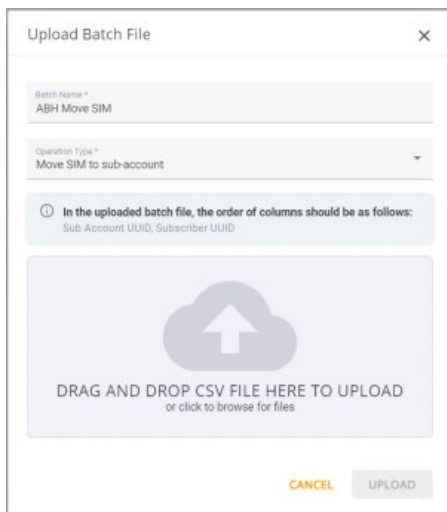
The batch operation is performed via a prepared CSV file containing the information needed to run the batch operation (described above for each operation).

To upload the batch file, do these steps:

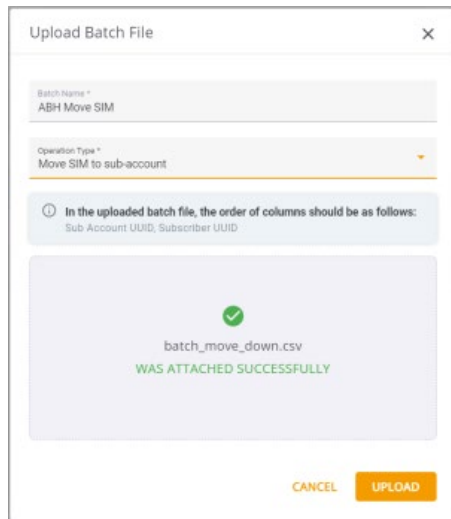
1. Navigate to the **Batch Operations List** and click **Upload** to display the Upload Batch File dialog box.
2. Click **Batch Name** and name the batch operation that will be performed by the uploaded batch file.
3. Click **Operation Type** and select the batch operation:
  - a. Move SIM to sub-account
  - b. Attach SIM to plan
  - c. Set SIM Status
  - d. Remove label from SIM
  - e. Top-up
  - f. Detach SIM from plan
  - g. Add label to SIM
  - h. Set alias to SIM
  - i. Move SIM back to the parent account.

The dialog expands to show:

- A message appears under the Operation Type field that tells you the proper content and order of columns in the CSV file for the batch operation you selected.
- A space to select the CSV file by drag-and-drop or by browsing.



When you drop or select the CSV file, the system automatically parses it and returns a Success message or an Error message if the file is invalid, for example:



#### 4. Click Upload.

The batch operation is created; the Upload Batch File dialog closes and the new batch operation appears in the Batch Operations List with Status Ready, for example:

SIM CENTER > BATCH OPERATION

Batch Operations List

Q Search Filter || REFRESH UPLOAD

BATCH NAME	BATCH DATE	OPERATION TYPE	QUANTITY	STATUS	
ABH Move SIM	14/03/2022	Move SIM to sub-account	2	Ready	Execute

New Batch Operation in the Batch Operations List: Status Ready

#### 5. Do one of the following to execute the batch operation:

- Execute the entire batch file with all its operations.
- Execute the batch file, one operation at a time.

Execute Entire Batch File with All Operations

- From the Batch Operations List, click Execute to execute the entire batch file with all its operations. The system executes the batch operation in small chunks, and you can track the batch operation progress.

Execute Batch File One Operation at a Time

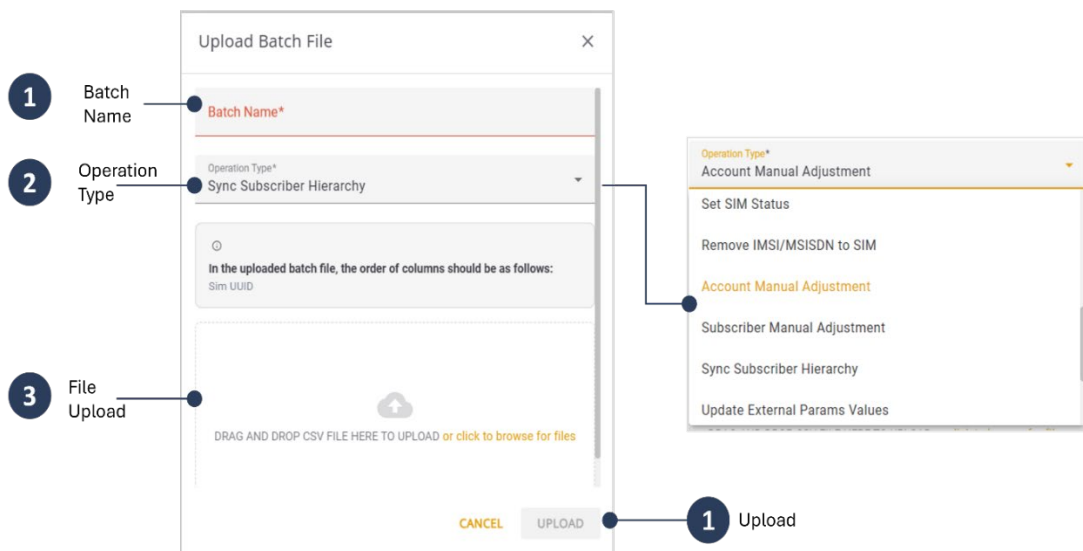
- Click the Batch Name in the Batch Operations List. The Batch Records page with the Records table appears. Each row in the table is one operation in the batch file.
- Click Execute on one operation to execute only that operation.

## 5.14 Batch Operation Adjustment

To make a billing adjustment via batch operation, do these steps:

1. Select **Batch Operations** from the sidebar menu.
2. Click **Upload** to display the Upload Batch File dialog box.
3. Enter a **Batch Name** for the batch operation.
4. Select the appropriate **Operation Type**:
  - a. Account Manual Adjustment
  - b. Subscriber Manual Adjustment
5. Add a **CSV file** in the file upload area.
6. Click **Upload** to execute the batch operation.
7. Refresh the Batch Operation page and click **Execute** to update billing data.

Here is a screen capture of the Upload Batch file dialog box.



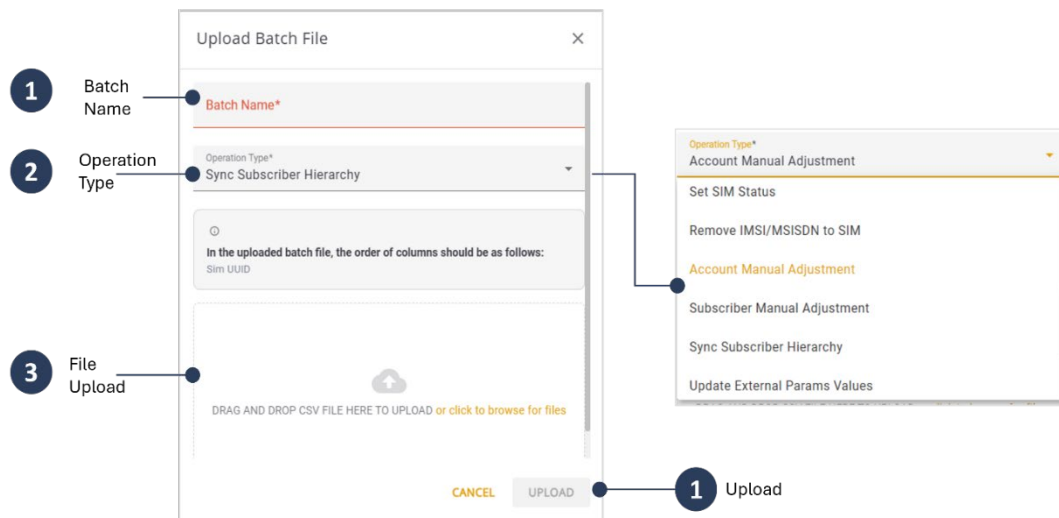
The batch operation procedure for Subscribers and Accounts is the same. Make sure you use the appropriate actions and files when you run a batch operation.

## 5.15 Account Manual Adjustment

To make a manual adjustment for an account via batch operation, do these steps:

1. Select **Batch Operations** from the sidebar menu.
2. Click **Upload** to display the Upload Batch File dialog box.
3. Enter a **Batch Name** for the batch operation.
4. Select **Account Manual Adjustment**.
5. Add a **CSV file** in the file upload area.
6. Click **Upload** to execute the batch operation.
7. Refresh the Batch Operation page and click **Execute** to update billing data.

Here is a screen capture of the Upload Batch file dialog box.



## 6 Plans and Packages

This section contains detailed information on how to manage plans for your sub-accounts.

### 6.1 Plan Guidelines

Use these guidelines when you assign SIMs to a plan.

Guideline	Description
Plan Assignment	Each SIM in the inventory can be assigned to one or more Plans.
SIM Allocation	Only SIMs allocated to sub-accounts can be assigned to a Plan. SIMs allocated to the main account cannot be assigned to a plan.
Activation Type	Defines different methods of when to start charging for a plan
SIMs Across Child Accounts	Multiple SIMs can be assigned across sub-accounts to a single plan.
Differentiated Rates	Users can assign different plans to SIMs within the same account to set different rates.
Renewal Interval	Set the renewal terms for plans to ensure that assigned SIMs maintain their connectivity without interruption.
Eligible Accounts	Parent accounts can select the sub-accounts that are authorized to use the plan.
Expiration Date	Enables users to control the plan validity period.
SIM Management	Use the SIMs module to attach or detach SIMs from plans. Assigned SIMs are displayed in the Sell Plan column, while the associated plan is displayed in the Buy Plan column.

#### 6.1.1 Plan Prioritization and Structure

Guideline	Description
Priority of Plans	Multiple plans attached to a SIM have a priority order. The first attached plan gets the highest priority. Users can change the priority after attaching the plans to create tiered pricing.
Resource Sharing in Pool Plans	In a Pool Plan, multiple SIMs share resources such as money balance, data usage, and SMS volume.
Independence in Regular Plans	In a Regular Plan, each SIM works independently of other SIMs using the same plan.

## 6.1.2 Availability and Limitations

Guideline	Description
Provider Limitations	Users can limit a Regular or Pool Plan to one or more authorized providers for the sub-account. Multiple plans can differ by selected providers.
Availability Zones	Users can attach Availability Zones to Regular and Pool Plans to limit SIM usage to specific countries and operators.

## 6.1.3 Customers and Sub-Accounts

Guideline	Description
Sub-Account Management	Users can manage multiple sub-accounts under a customer, each with distinct plans and SIM allocations.
Customer-Specific Pairing	The SIM-Plan pairing applies only to each customer and determines how each customer pays for the SIM.
Eligible Accounts	Defines which sub-accounts can use a plan based on settings from the parent account.
Connectivity Requirement	A SIM must be attached to a plan for customers to access connectivity services like Data and SMS.
Control Limitations	Customer do not have control over plan-SIM pairings and allocations after SIMs have been assigned to their sub-accounts.

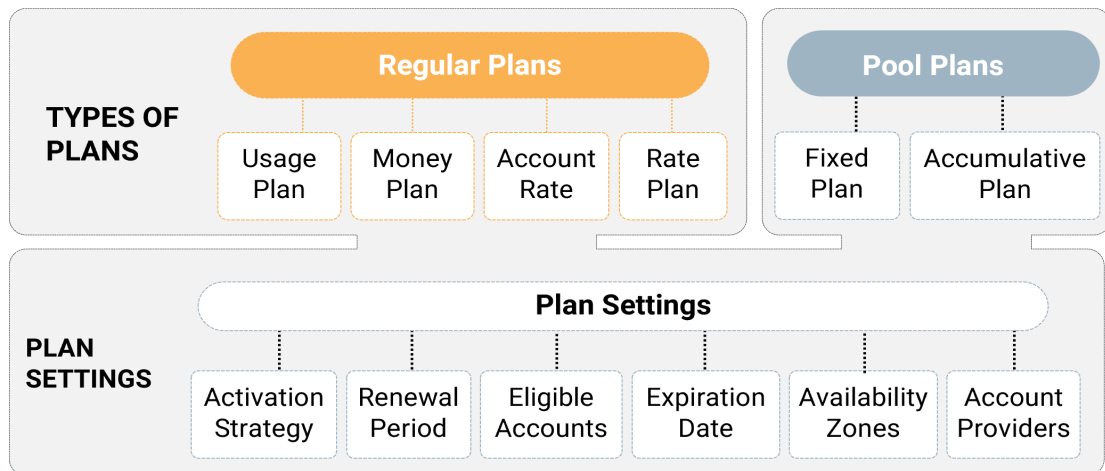
## 6.2 Types of Plans

The Plans module enables you to create and configure Sell Plans for SIMs that your child accounts (customers) pay for. You can assign each SIM in your inventory to one or more plans. You can also assign multiple SIMs across all your child accounts to a single plan, which makes management easier and reduces unnecessary duplication of plans.

There are two types of Plans as described in this table:.

Plan Type	Description
Regular Plans	Each SIM assigned is independent of the others.
Pool Plans	The SIMs share resources like money balance, data usage, and SMS volume.

An overview of the plan types and settings is shown here.



### 6.2.1 Plan Settings

All plan types, both Regular and Pool can be customized by defining various common settings. A description of the plan settings is provided here.

Plan Type	Description
Activation Strategy	Defines the conditions under which a plan becomes active and the services start being available. Refer to "Activation Strategy" on page 118
Renewal Period	Specifies how and when the plan will renew, either based on time periods or no renewal. Refer to "Renewal Strategy" on page 119
Eligible Accounts	Specifies which sub-accounts are eligible to use the plan.
Expiration Date	Determines when the plan expires, either by a fixed date or duration from first use. Refer to "Expiration Strategy" on page 118.
Availability Zones	Geographic and network operator restrictions that limit where and how the plan can be used. Refer to "Availability Zones" on page 121
Account Providers	Plans can be limited to one or more authorized providers for sub-accounts. You can create different plans based on the providers selected. If no providers are limited, the Plan applies to all authorized providers in the sub-account.

**NOTE:** Only SIMs already allocated to your child accounts (customers) can be assigned to a Plan. SIMs in your main account cannot be assigned to any Plan.

## 6.3 Buy and Sell Plans

You can view the Buy and Sell Plans associated with your SIMs to manage your billing policies and ensure they align with your business needs.



Type of Plan	Description
Buy Plans	Access and review the Buy Plans created by your parent account. These plans are for SIMs in your inventory, but you cannot modify them as they are managed by the parent account.
Sell Plans	View and manage the Sell Plans that you have created for SIMs assigned to your child accounts (customers). These plans define the billing terms for the SIMs your customers use.

A screen capture of the Sell and Buy Plans table is shown here.

PLAN NAME	COST	TYPE	ELIGIBLE ACCOUNTS	ALLOCATED SIMS	DATA	DEVICE DATA LIMIT	SMS	DEVICE SMS LIMIT	PRORATED	RENEWAL PERIOD	ACTIVATION TYPE	AVAILABILITY
Vinu Laptop Plan	50 USD	Money	Laptop	1	-	-	-	-	No	Monthly	Renewal Cycle Activity	-
Ten for Ten	10 EUR	Usage	Default (all accounts)	0	500 MB	-	100	-	No	One Time	First Activity	EU Roaming
VF_8_P_DS_UK_250MB	7 GBP	Usage	Default (all accounts)	0	250 MB	-	50	-	No	One Time	First Activity	UK Only
1Gb	5 EUR	Usage	Smart Ltd.	3	1 GB	-	-	-	No	Monthly	Regular	EU Roaming
NA US1 US2	0 USD	Plan Rate	Default (all accounts)	0	-	-	-	-	No	Monthly	Regular	USA Local

A description of the Sell/Buy Plan table columns is provided here.

	Column Header	Description
A	Plan Name	The name of the connectivity plan.
B	Cost	The total price of the plan.
C	Type	The plan type (e.g. Usage, Rate, Money).
D	Eligible Accounts	The sub-accounts that can use a plan based on settings from the parent account.
E	Allocated Sims	The number of SIM cards included in the plan.
F	Data	The total data allowance provided.
G	Device Data Limit	The data usage limit per device.
H	SMS	The total number of SMS messages included.
J	Device SMS Limit	The SMS usage limit per device.
K	Prorated	Indicates whether charges are prorated.
L	Renewal Period	The frequency of plan renewal.
L	Activation Type	The method of activating the plan.
M	Availability Zones	Geographic regions where the plan is available.

### 6.3.1 View Buy Plans

To view Buy Plans created by your parent account, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Click the **Buy Plans** tab to display the plans created by your parent account.

**NOTE:** You can view the buy plans created by your parent account, but you cannot edit these plans.

### 6.3.2 View Sell Plans

To view the Sell Plans you have created and assigned to your child accounts, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Click the **Sell Plans** tab to display the plans you have created and assigned to your child accounts.

## 6.4 Connectivity Type

When you create a plan you need to configure the type of connectivity. There are two connectivity types:

- **Cellular Connectivity:** Refers to data SMS and voice services provided through traditional cellular networks for defined geographical coverage areas.
- **Satellite Connectivity:** Applies to data services delivered via satellite technology offering global coverage for remote isolated areas where cellular networks may be unavailable.

A comparison of the cellular and satellite connectivity rates is provided in this table.

Feature	Cellular Rates	Satellite Rates
Pricing Structure	Vary based on network provider, plan type, and usage; often includes bundled packages.	Tend to be higher due to infrastructure costs; typically no bundled packages.

Feature	Cellular Rates	Satellite Rates
Charging Units	Implemented using 1 KB charging units. Can also be billed in larger units such as megabytes (1 MB) or gigabytes (GB).	Implemented using 1 byte charging units for precise billing on data consumption.

**NOTE:** Satellite coverage is supported for data service only.

## 6.5 Types of Regular Plans

There are various types of plans that determine how customers are charged for data and SMS usage. The platform offers flexibility for both prepaid and postpaid plans, with options for setting quotas, limits, or fixed rates.

The main types of regular plans are described in this table.

	Type of Plan	Description
1.	Usage Plan	A prepaid package that sets a data quota (KB, MB, GB) and/or SMS volume for a renewal period. The quota can be prorated over the renewal period.
2.	Money Plan	A prepaid package that sets a money limit for usage over a renewal period. The money quota can also be prorated.
3.	Account Rate	A postpaid plan where charges are based on the account-level Connectivity Rates tables for SIMs attached to the plan.
4.	Rate Plan	<p>A postpaid package where customers pay after consuming data services or sending SMSs during the renewal period. You can set limits for data and SMS usage. Rate Plans come with fixed rates for both data and SMS, which must be specified. There are two variations of Rate Plans:</p> <ul style="list-style-type: none"> <li>○ <b>Fixed Rate Plan:</b> The rates for both data and SMS usage are fixed by Billing Plan. You must define rates for both services.</li> <li>○ <b>Customized Rate Plan:</b> Rates are sourced from a custom Excel file that you upload, containing SMS and data rates. SIMs attached to this plan are restricted to the countries, operators, and PLMNs listed in the file.</li> </ul>

**IMPORTANT:** You should note that Regular Plans cannot be edited. You can delete a regular plan only if there are no SIMs attached to it.

**NOTE:** You can Attach/Detach existing plans to a SIM in the SIMs management module.

Create Usage Plan

A Usage Plan is prepaid that sets a data quota (KB, MB, GB) and/or SMS volume for a specified renewal period. The quota can be prorated over the renewal period.

A screen capture of the Usage Plan options is shown here.

A

B

E

H

J

K

L

M

N

Create Regular Plan

Plan type\*

Usage

Plan Name\*

Plan cost\*

Currency\*

Eligible Accounts

☐ Prorated
 ☐ Including platform fee

Available services

☐ Data
 

Allowance

Unit

☐ SMS
 

Allowance

Activation Strategy

Activation Type\*

Renewal Strategy

Renewal Period\*

Expiration Strategy

Expiration type\*

No Expiration

Availability Zones

☒ Everywhere
 ☐ White list zones

Providers

☒ All account providers
 ☐ Select providers

CANCEL

CREATE

C

D

F

G

Plan Parameters

A description of the Usage Plan parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Plan Name	A unique identifier for the plan.
C	Plan Cost	The cost of the plan, with option to specify the currency.
D	Currency	The currency used for the plan cost.
E	Eligible Accounts	The accounts that are eligible to use the plan.
F	Prorated	Calculation of cost based on actual usage.
G	Including Platform Fee	Includes monthly payments for Access Fees and/or Surcharge Fees.
H	Available Services	Defines the services available in the plan, including data allowance in KB, MB, or GB, and SMS allowance.
J	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
K	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
L	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
M	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
N	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create a Usage Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.
3. Click **+ Plan** to display the Create regular Plan dialog box.
4. Select **Usage** from the list of **Plan Types\***.
5. Type a name in the **Plan Name\*** field.
6. Specify a value in the **Plan Cost\*** field.
7. Specify the **Currency\*** from the list of options.
8. Select one or more **Eligible Accounts**.
9. Check the **Prorated** option if appropriate.

**NOTE:** The Prorated option is used to calculate a proportionate adjustment if a SIM is activated partway through the renewal period. The purpose is to ensure that charges align with the actual usage time.

8. Check the **Including Platform Fee** if applicable.
9. Check the type of **Available Services**:
  - Data: Specify the allowance amount and unit (KB, MB, GB)
  - SMS: Specify the allowance amount.
10. Select an "Activation Strategy" on page 118.
11. Select a "Renewal Strategy" on page 119.
12. Select an "Expiration Strategy" on page 118.
13. Check the appropriate "Availability Zones" on page 121.
14. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
15. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## Create Money Plan

A money plan is prepaid package that sets a money limit for usage over a renewal period. The money quota can be prorated over the renewal period.

A screen capture of the Money Plan Options is shown here.

The screenshot shows the 'Create Regular Plan' form with the following fields and labels:

- A**: Plan type\* (Dropdown menu, selected: Money)
- B**: Plan Name\* (Text input, value: Money Plan)
- C**: Balance value\* (Text input, value: 10)
- D**: Currency\* (Dropdown menu, selected: USD)
- E**: Eligible Accounts (Text input, value: Eligible Accounts)
- F**: ☐ Prorated
- G**: ☐ Including platform fee
- H**: Activation Strategy (Section header)
- J**: Activation Type\* (Dropdown menu, selected: Regular)
- K**: Renewal Strategy (Section header)
- L**: Renewal Period\* (Dropdown menu, selected: Monthly)
- M**: Day type\* (Dropdown menu, selected: First day of selected period)
- K**: Expiration Strategy (Section header)
- L**: Expiration type\* (Dropdown menu, selected: No Expiration)
- L**: Availability Zones (Section header)
- M**: ☒ Everywhere ☐ White list zones
- M**: Providers (Section header)
- M**: ☒ All account providers ☐ Select providers

Buttons: CANCEL, CREATE

## Plan Parameters

A description of the Usage Plan parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Plan Name	A unique identifier for the plan.
C	Balance Value	The amount of prepaid money in the plan.
D	Currency	The currency used for the plan cost.
E	Eligible Accounts	The accounts that are eligible to use the plan.
F	Prorated	Calculation of cost based on plan activation.
G	Including Platform Fee	Includes monthly payments for Access Fees and/or Surcharge Fees.
H	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
J	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.

	Parameter	Description
K	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
L	Availability Zones	Determines where the plan is available, with options for Everywhere or White List Zones. Refer to "Availability Zones" on page 121.
M	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create a Money Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.
3. Click **+ Plan** to display the Create regular Plan dialog box.
4. Select **Money** from the list of **Plan Types\***.
5. Type a name in the **Plan Name\*** field.
6. Specify an amount in the **Balance Value** field.
7. Specify the **Currency\*** from the list of options.
8. Select one or more **Eligible Accounts**.
9. Check the **Prorated** option if appropriate.

**NOTE:** The Prorated option is used to calculate a proportionate adjustment if a SIM is activated partway through the renewal period. The purpose is to ensure that charges align with the actual usage time.

8. Check the **Including Platform Fee** if applicable.
9. Select an "Activation Strategy" on page 118.
10. Select a "Renewal Strategy" on page 119.
11. Select an "Expiration Strategy" on page 118.
12. Check the appropriate "Availability Zones" on page 121.
13. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.



- **Select providers:** This plan can be assigned to selected providers only.

14. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## Create Account Rate Plan

An Account Rate Plan is a postpaid plan where charges are based on the account country-network combination specified in the Connectivity Rates table. The account rates are applicable for SIMs attached to the plan.

**NOTE:** For a detailed explanation of how connectivity rates work refer to " Rates and Fees" on page 173

A screen capture of the Account Rate Plan options is shown here.

The screenshot shows the 'Create Regular Plan' form with the following fields and labels:

- A:** Plan type\* (Dropdown menu showing 'Account Rate')
- B:** Plan Name\* (Text input field showing 'Money Plan')
- C:** Plan cost\* (Text input field)
- D:** Currency\* (Dropdown menu)
- E:** Eligible Accounts (Dropdown menu)
- F:** Including platform fee (Checkbox)
- G:** Limit Settings (Section header)
- H:** Activation Strategy (Section header)
- I:** Activation Type\* (Dropdown menu)
- J:** Renewal Strategy (Section header)
- K:** Renewal Period\* (Dropdown menu)
- L:** Expiration Strategy (Section header)
- M:** Expiration type\* (Dropdown menu showing 'No Expiration')
- N:** Availability Zones (Section header)
- O:** Everywhere (Radio button)
- P:** White list zones (Radio button)
- Q:** Providers (Section header)
- R:** All account providers (Radio button)
- S:** Select providers (Radio button)

At the bottom right, there are 'CANCEL' and 'CREATE' buttons.

## Plan Parameters

A description of the Account Rate parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Plan Name	A unique identifier for the billing plan.
C	Plan Cost	The cost of the plan, with options to specify the currency.
D	Currency	Defines the plan currency.
E	Eligible Accounts	The accounts that are eligible to use the plan.
F	Including Platform Fee	Includes monthly payments for Access Fees and/or Surcharge Fees.
G	Limit Settings	Limits the usage of Data to a specified amount of units or to predefined number of SMS messages.
H	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
J	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
K	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
L	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
M	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

## Step-by-Step Instructions

To create an Account Rate Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plan** tab.
3. Click **+ Plan** to display the Create Regular Plan dialog box.
4. Select **Account Rate** from the list of **Plan Types\***.

5. Type a name in the **Plan Name\*** field.
6. Specify a value in the **Plan Cost\*** field.
7. Specify the **Currency\*** from the list of options.
8. Select one or more **Eligible Accounts**.
9. Check the **Including Platform Fee** if applicable.
10. Specify the **Limit Settings** for the account rate plan (optional).
  - Data: Specify the plan amount limit and unit (KB, MB, GB).
  - SMS: Specify the plan amount limit.

**NOTE:** When the limit settings are exceeded, SIM services for this plan are blocked.

8. Select an "Activation Strategy" on page 118.
9. Select a "Renewal Strategy" on page 119.
10. Select an "Expiration Strategy" on page 118.
11. Check the appropriate "Availability Zones" on page 121.
12. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
13. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

### 6.5.1 Create Fixed Plan Rate

When you create a Fixed Plan Rate you must specify rates for both data and SMS.

A screen capture of the Fixed Plan Rate options is shown here.

Create Regular Plan ×

**A** Plan type\* **B** Rate type\* **C** Plan Name\* **D** Plan cost\* **E** Currency\* **F** Eligible Accounts **G** ☐ Including platform fee ⓘ

**H** Fixed Rates

☒ Data Price per MB \* Currency \* ☒ SMS Price per SMS \* Currency\*

**J** Limit Settings

☐ Data Allowance Units ☐ SMS Allowance

**K** Activation Strategy ⓘ

Activation Type\*

**L** Renewal Strategy

Renewal Period\*

**M** Expiration Strategy

Expiration type\*

No Expiration

**N** Availability Zones

☒ Everywhere ☐ White list zones

**O** Providers

☒ All account providers ☐ Select providers

**CANCEL** **CREATE**

## Plan Parameters

A description of the Fixed Plan Rate parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Rate Type	Specifies if the Rate Plan is Fixed or Customized
C	Plan Name	A unique identifier for the billing plan.
D	Plan Cost	The cost of the plan, with option to specify the currency.
E	Currency	Defines the plan currency.
F	Eligible Accounts	The accounts that are eligible to use the plan.
G	Including Platform Fee	Includes monthly payments for Access Fees and/or Surcharge Fees.

	Parameter	Description
H	Fixed Rates	Specifies the price and currency for both Data and SMS usage.
J	Limit Settings	Limits the usage of Data to a specified number of units or to predefined number of SMS messages.
K	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
L	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
M	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
N	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
O	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create an Account Rate Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.
3. Click **+ Plan** to display the Create regular Plan dialog box.
4. Select **Plan Rate** from the list of **Plan Types**.
5. Select **Fixed** from the list of **Rate Types**.
6. Type a name in the **Plan Name\*** field.
7. Specify a value in the **Plan Cost\*** field.
8. Select the **Currency\*** from the list of options.
9. Select one or more **Eligible Accounts**.
10. Check the **Including Platform Fee** if applicable.
11. Define the **Fixed Rate** price and currency for Data and SMS usage.
12. Specify the **Limit Settings** for the account rate plan (optional).

- Data: Specify the plan amount limit and unit (KB, MB, GB).
- SMS: Specify the plan amount limit.

**NOTE:** When the limit settings are exceeded, SIM services for this plan are blocked.

8. Select an "Activation Strategy" on page 118.
9. Select a "Renewal Strategy" on page 119.
10. Select an "Expiration Strategy" on page 118.
11. Check the appropriate "Availability Zones" on page 121.
12. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
13. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## 6.5.2 Create Customized Plan Rate

Plan Rates can be customized based on data uploaded from an Excel file. SIMs attached to this plan are restricted to the countries, operators, and PLMNs listed in the file.

A screen capture of the Customized Plan Rate options is shown here.

The screenshot shows the 'Create Regular Plan' form with the following fields and sections labeled with callout letters:

- A**: Plan type\* (Plan Rate)
- B**: Rate type (Customized)
- C**: Plan Name\*
- D**: Plan cost\*
- E**: Currency\*
- F**: Eligible Accounts
- G**: ☐ Including platform fee
- H**: Customize Rates (with a file upload area and a CANCEL button)
- J**: Limit Settings (with checkboxes for Data and SMS, and input fields for Allowance and Units)
- K**: Activation Strategy (with an Activation Type\* dropdown)
- L**: Renewal Strategy (with a Renewal Period\* dropdown)
- M**: Expiration Strategy (with an Expiration type\* dropdown set to No Expiration)
- N**: Availability Zones (with radio buttons for Everywhere and White list zones)
- O**: Providers (with radio buttons for All account providers and Select providers)

### Plan Parameters

A description of the Customized Plan Rate parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Rate Type	Specifies if the Rate Plan is Fixed or Customized
C	Plan Name	A unique identifier for the billing plan.
D	Plan Cost	The cost of the plan, with options to specify the currency.
E	Currency	Defines the plan currency.
F	Currency	Defines the plan currency.
G	Eligible Accounts	The accounts that are eligible to use the plan.

	Parameter	Description
H	Customize Rates	Upload an Excel file containing the rates for specific countries, operators and PLMNs.
J	Limit Settings	Limits the usage of Data to a specified number of units or to predefined number of SMS messages.
K	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
L	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
M	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
N	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
O	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create a Customized Plan Rate, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.
3. Click **+Plan** to display the Create regular Plan dialog box.
4. Select **Plan Rate** from the list of **Plan Types**.
5. Select **Customized** from the list of **Rate Types**.
6. Type a name in the **Plan Name\*** field.
7. Specify a value in the **Plan Cost\*** field. If you do not want to set a Plan Cost, enter **0** (zero).
8. Select the **Currency\*** from the list of options.
9. Select one or more **Eligible Accounts**.
10. Check the **Including Platform Fee** if applicable.
11. **Upload** an Excel file in the **Customize Rates** field..



12. Specify the **Limit Settings** for the account rate plan (optional).
  - Data: Specify the plan amount limit and unit (KB, MB, GB).
  - SMS: Specify the plan amount limit.

**NOTE:** When the limit settings are exceeded, SIM services for this plan are blocked.

8. Select an "Activation Strategy" on page 118.
9. Select a "Renewal Strategy" on page 119.
10. Select an "Expiration Strategy" on page 118.
11. Check the appropriate "Availability Zones" on page 121.
12. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
13. Click **Create** to display the plan in the plans table.

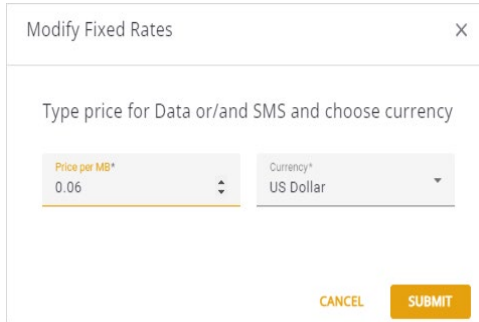
**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## 6.6 Modify Rates of a Fixed Rate Plan

You can modify the rates of a Fixed Plan Rate directly from the Plan Details page. Modifications can only be made to rates that have already been configured. For example, if a Fixed Plan Rate includes both Data and SMS rates, you can modify both. However, if your Fixed Rate Plan specifies only a Data rate and does not include an SMS rate, you can modify the Data rate but will not be able to add an SMS fixed rate.

A screen capture of the Modify Fixed Rate dialog box is shown here.



To update the rates of a Fixed Plan Rate, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.

Click the appropriate Plan Rate to display the plan details page.

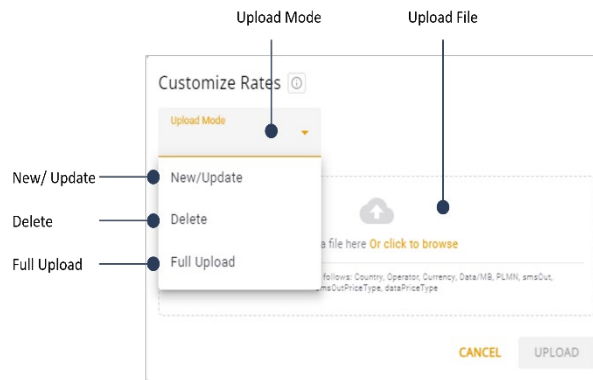
3. Select the **Plan Details** tab.
4. Click the **Edit** icon to display the **Modify Fixed Rate** dialog box.
5. Update these fields:
  - Price per MB
  - Currency
6. Click **Submit** to update the Plan Rate.

### 6.6.1 Update Customized Plan Rate

To update a Customize Plan Rate, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** tab.
3. Click the appropriate **Customized Plan Rate** to display the plan details page.
4. Select the **Customize Rates** tab.
5. Click **Update Rates** to display the Customize Rates dialog box.
6. Click **Upload Mode** and select the desired action from the list:
  - New/Update
  - Delete
  - Full Upload
4. Select an Excel file and click **Upload**. The rates table displays the updated data.

A screen capture of the Customize Rate dialog box is shown here.



A description of the Upload Modes is provided in this table.

Upload Mode	Description
New / Update	Add new rates from the Excel file that are not yet in the system or update existing rates that have changed.
Delete	Remove rates listed in the Excel file from the system. Rates that are not included in the Excel file will remain untouched, ensuring only the specified rates are deleted.
Full Upload	Replace all rates in the system with those from the Excel file. New rates will be added, existing rates will be updated, and any rates not found in the Excel file will be removed, keeping the system current.

The Excel file contains these parameters.

Parameters	Description
Country	The country where the rate plan is applicable.
Operator	The service provider associated with the rate plan
Currency	The type of currency used for pricing the rates.
Data MB	The rate of a single unit of for 1 megabyte.
PLMN	The Public Land Mobile Network identifier for the operator.
smsOut	The rate for a single SMS.
smsOutPriceType	The pricing structure for outgoing SMS messages (e.g., fixed price, block).
dataPrice Type	The pricing structure for data usage (e.g., fixed price, block).

## 6.7 Types of Pool Plans

A pool plan is a single plan shared by multiple SIMs. The resources in the pool plan are used by all SIMs assigned to the plan. A Pool Plan helps organizations manage a group of SIM cards

that can be shared among many devices. This approach makes it easier to allocate resources, reduce costs, and adjust to different connectivity needs as they change, providing operational flexibility and scalability.

Type of Plan	Description
Fixed Pool Plan	This plan includes a predetermined number of SIM cards at a set price. The customer pays a fixed fee for a fixed quota of SIMs, which provides predictable and stable cost. This type of plan is suitable for use cases that have consistent connectivity needs. Customers know exactly what resources they have and what they will pay.
Accumulate Pool Plan	In this plan, each new SIM added to the pool incurs additional costs and contributes to its own specific quota. Customers designate quota amounts for each SIM, which can vary over renewal periods. This approach provides flexibility, allowing organizations to expand their connectivity as needed, but also leads to variable expenses depending on the number of SIM cards in use.

## 6.8 Create Fixed Pool Plan

A Fixed Pool Plan includes a predetermined plan cost and quota shared by all SIMs that are allocated to this Pool plan. The customer pays a fixed fee for a fixed quota of SIMs, which provides predictable and stable cost. This type of plan is suitable for use cases that have consistent connectivity needs. Customers know exactly what resources they have and what they will pay.

A screen capture of the Fixed Pool Plan parameters is shown here.

The screenshot shows a 'Create new Pool Plan' form with the following fields and labels:

- A**: Pool Type\* (Dropdown menu, currently set to 'Fixed')
- B**: Pool name\* (Text input field)
- C**: Pool Cost\* (Text input field)
- D**: Currency\* (Dropdown menu)
- E**: Eligible Accounts (Dropdown menu)
- F**: Pool Quota section, containing:
  - ☒ Data: Allowance\* (Text input), Unit\* (Dropdown menu)
  - ☒ SMS: Allowance\* (Text input)
- G**: Limit Settings section, containing:
  - ☐ Data: Allowance (Text input), Unit (Dropdown menu)
  - ☐ SMS: Allowance (Text input)
- H**: Activation Strategy (Section header with an info icon)
- I**: Activation Type\* (Dropdown menu)
- J**: Renewal Strategy section, containing:
  - Select Renewal Period\* (Dropdown menu)
- K**: Expiration Strategy section, containing:
  - Select expiration type\* (Dropdown menu, currently set to 'No Expiration')
- L**: Availability Zones section, containing:
  - ☒ Everywhere
  - ☐ White list zones
- M**: Providers section, containing:
  - ☒ All account providers
  - ☐ Select providers

At the bottom right, there are 'CANCEL' and 'CREATE' buttons.

## Plan Parameters

A description of the Fixed Pool Plan parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Pool Name	A unique identifier for the fixed pool plan.
C	Pool Cost	The cost of the fixed pool plan.
D	Currency	The currency used for the plan cost.
E	Eligible Accounts	The accounts that are eligible to use the plan.
F	Pool Quota	The allowance amount for data and SMS.
G	Limit Settings	Set data and SMS usage limits per SIM to ensure that a single SIM does not consume the entire pool allowance.

	Parameter	Description
H	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
J	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
K	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
L	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
M	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create a Fixed Pool Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Click **+Plan** to display the Create New Pool Plan dialog box.
4. Select **Fixed** to display the Create New Pool Plan settings page.
5. Select a **Child Account\*** from the list.
6. Enter a name in the **Pool Name\*** field.
7. Specify a value in the **Plan Cost\*** field.
8. Specify the **Currency\*** from the list of options.
9. Select one or more **Eligible Accounts**.
10. Check the type of **Pool Quota**:
  - Data: Specify the allowance amount and unit (KB, MB, GB)
  - SMS: Specify the allowance amount.
11. Specify the **Limit Settings** to apply for each SIM)
  - Data: Specify the allowance amount and unit (KB, MB, GB)
  - SMS: Specify the allowance amount.
12. Select an "Activation Strategy" on page 118.
13. Select a "Renewal Strategy" on page 119.
14. Select an "Expiration Strategy" on page 118.

15. Check the appropriate "Availability Zones" on page 121.
  - Everywhere
  - White-List Zones
16. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
17. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## 6.9 Create Accumulative Pool Plan

For Accumulative Pool Plans, each new SIM added to the pool incurs additional costs and contributes to the Pool plan quota. Customers designate quota amounts for each SIM, which can vary over renewal periods. This approach provides flexibility, allowing organizations to expand their connectivity as needed, but also leads to variable expenses depending on the number of SIM cards in use.

A screen capture of the Accumulative Pool Plan parameters is shown here.

The screenshot shows a 'Create new Pool Plan' form with the following fields and labels:

- A**: Pool Type\* (Dropdown menu, currently set to 'Accumulative')
- B**: Pool name\* (Text input field)
- C**: Cost per assign device \* (Text input field)
- D**: Currency\* (Dropdown menu)
- E**: Eligible Accounts (Text input field)
- F**: Quota per assign device (Section header)
- G**: Data (Checkbox, checked) and SMS (Checkbox, checked) options for Quota per assign device
- H**: Limit Settings (Section header)
- I**: Allowance\* (Text input field) and Unit\* (Dropdown menu) for Data and SMS options
- J**: Activation Strategy (Section header)
- K**: Activation Type\* (Dropdown menu)
- L**: Renewal Strategy (Section header)
- M**: Select Renewal Period\* (Dropdown menu)
- N**: Expiration Strategy (Section header)
- O**: Select expiration type\* (Dropdown menu, currently set to 'No Expiration')
- P**: Availability Zones (Section header)
- Q**: Everywhere (Radio button, selected) and White list zones (Radio button)
- R**: Providers (Section header)
- S**: All account providers (Radio button, selected) and Select providers (Radio button)

At the bottom right, there are 'CANCEL' and 'CREATE' buttons.

## Plan Parameters

A description of the Accumulative Pool Plan parameters is provided in this table.

	Parameter	Description
A	Plan Type	The type of regular plan selected.
B	Child Account	The name of the sub-account
C	Pool Name	A unique identifier for the fixed pool plan.
D	Pool Cost	The cost of the fixed pool plan.
E	Currency	The currency used for the plan cost.
F	Eligible Accounts	The accounts that are eligible to use the plan.
F	Quota Per Assign Device	The amount of additional data and SMS quota added to the pool for every SIM that is added to the plan.



	Parameter	Description
G	Limit Settings	Set data and SMS usage limits per SIM to ensure that a single SIM does not consume the entire pool allowance.
H	Activation Strategy	Specifies when the plan starts. The Activation Type can be set to regular, Renewal Cycle Activity, or First Activity. Refer to "Activation Strategy" on page 118.
J	Renewal Strategy	Defines the renewal period, which can be set to Daily, Weekly, Monthly, Quarterly, Semi-Annual, Annual, or One Time. Refer to "Renewal Strategy" on page 119.
K	Expiration Strategy	Specifies the plan expiration type, which can be set to No Expiration, Fixed Date, From Offer Activation, or From Plan First Use. Refer to "Expiration Strategy" on page 118.
L	Availability Zones	Determines where the plan is available, with options for Everywhere or White-List Zones. Refer to "Availability Zones" on page 121.
M	Providers	Specifies whether all account providers are available or if specific providers are selected for the plan.

### Step-by-Step Instructions

To create an Accumulative Pool Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Click **+ PLAN** to display the Create New Pool Plan dialog box.
4. Select **Accumulative** to display the Create New Pool Plan settings page.
5. Enter a name in the **Pool Name\*** field.
6. Specify a value in the **Cost Per Device\*** field.
7. Specify the **Currency\*** from the list of options.
8. Select one or more **Eligible Accounts**.
9. Specify the **Quota Per Assign Device**:
  - Data: Specify the allowance amount and unit (KB, MB, GB)
  - SMS: Specify the allowance amount.
10. Specify the **Limit Settings** to apply for each SIM)
  - Data: Specify the allowance amount and unit (KB, MB, GB)
  - SMS: Specify the allowance amount.
11. Select an "Activation Strategy" on page 118.

12. Select a "Renewal Strategy" on page 119.
13. Select an "Expiration Strategy" on page 118.
14. Check the appropriate "Availability Zones" on page 121
  - Everywhere
  - White-List Zones
15. Check the appropriate **Providers** option:
  - **All account providers:** This plan can be assigned to all authorized providers listed in the "Providers Module" on page 261.
  - **Select providers:** This plan can be assigned to selected providers only.
16. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**IMPORTANT:** You can now access the SIMs Module to attach SIMs to this plan. You should note that a SIM must be attached to a plan in order to utilize connectivity services such as Data and SMS.

## 6.10 Top Up Pool Plan

You can add Data and/or an SMS allowance to Top Up the balance of a Pool Plan.

**NOTE:** You need to attach a Pool Plan to at least one SIM before you perform the Top Up procedure.

To top up a Pool Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Pool Plans** tab.
3. Scroll the table and click the **Actions** icon for a specific pool plan.
4. Click the **Actions** icon and select the **Top-up option.** to display the Top Up dialog box.
5. Enter a value in the **Cost\*** field.
6. Select the applicable **Currency\***.
7. Specify the additional allowance for **SMS** and **Data**.
8. Click **Update** to complete the Top Up operation.

A screen capture of the Top Up dialog box is shown here.



## 6.11 Activation Strategy

When you create a plan, you are required to specify the type of Activation Strategy assigned to the Plan.

A description of the Activation Strategies is provided in this table.

Activation Type	How It Works
Regular	The SIM card starts to be charged for the plan as soon as it is attached to the plan.
Renewal Cycle Activity	The SIM card is charged for the plan only if it has been active within the renewal cycle. If it has not been active, no charges will apply.
First Activity	The SIM card starts to be charged for the plan only upon its first connection to the network. After that, charges are applied at each renewal cycle.

## 6.12 Expiration Strategy

An expiration strategy defines the conditions under which plan terminates, including the duration of service validity and the criteria for renewal. You can specify fixed expiration dates, conditions based on activation, or parameters relating to initial use.

A description of the expiration options is provided in this table.

Expiration Type	Description
No Expiration	The plan does not expire.
Fix Date	The plan expires on a date you choose from a calendar.
From the Offer Activation	Sets the duration of plan validity from the moment the SIM is attached to the plan in Days, Months, or Years.
From Plan First Use	Sets the duration of plan validity from the moment the plan is first used by the SIM in Days, Months, or Years.

## 6.13 Renewal Strategy

When you create a plan, you must specify the Renewal Period (a.k.a. Renewal Interval) for the billing cycle. The available renewal intervals are described in this table.

Renewal Period	How it Works
Daily	The plan is renewed at midnight every day, regardless of the time the SIM was attached to the plan. For a Money or Usage plan, any balance you have left over from the previous day is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming day.
Weekly	The plan is renewed at midnight every Monday morning, regardless of when (date/time) the SIM was first attached to the plan (over the week). For a Money or Usage plan, any balance you have left over from the previous week is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming week.
Monthly	The plan is renewed at midnight on the morning of the first of the month, for example at midnight on the morning of June 1. The plan is renewed regardless of when the SIM was first attached to the Plan (over the previous month). For a Money or Usage plan, any balance you have left over from the previous month is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming month.
Quarterly	<p>The plan is renewed at midnight on the morning of these dates (every three months):</p> <ul style="list-style-type: none"> <li>○ January 1</li> <li>○ April 1</li> <li>○ July 1</li> <li>○ September 1</li> </ul> <p>The plan is renewed regardless of when the SIM was first attached to the plan (during the previous quarter). For a Money or Usage plan, any balance you have left over from the previous quarter (three months) is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming quarter.</p>
Semi-Annually	The plan is renewed at midnight on the morning of these dates (every six months):

Renewal Period	How it Works
	<ul style="list-style-type: none"> <li>○ January 1</li> <li>○ July 1</li> </ul> <p>The plan is renewed regardless of when the SIM was first attached to the plan (during the previous six months). For a Money or Usage plan, any balance you have left over from the previous six months is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming six months.</p>
Annually	<p>The plan is renewed at midnight on the morning of January 1 (yearly). The plan is renewed regardless of when the SIM was first attached to the plan (during the previous year). For a Money or Usage plan, any balance you have left over from the previous year is lost. For a Rate plan, (Data and SMS) usage limits are reset and start at zero for the coming year.</p>
One-Time	<p>The plan is not renewed and remains valid until all quotas are used up.</p>

### 6.13.1 Billing Cycles

When you attach SIMs to a plan, the SIMs are charged according to the renewal interval you configure. You can attach/detach Plans in the middle of a renewal interval. Follow the following example:

1. Attach SIM to Usage Plan with these attributes:

- Attach Date: January 3
- Data quota: 1 Gigabyte
- SMS quota: 200 SMS
- Cost: 20 USD
- Not Prorated
- Renewal Interval: Monthly

The SIM becomes active and can be used immediately according to the Billing Plan configuration at a cost of 20 USD for the rest of the month. The Billing Plan is renewed at midnight the morning of February 1 at a cost of 20 USD.

OR

1. Attach SIM to prorated Usage Billing Plan with these attributes:

- Attach Date: January 3
- Data quota: 1 Gigabyte
- SMS quota: 200 SMS
- Cost: 20 USD
- Prorated
- Renewal Interval: Monthly

The SIM becomes active and can be used immediately according to the Billing Plan configuration. The quotas are prorated according to the remaining time in the renewal interval. In the above example:

- The remaining interval is  $(31-3)/31$  or 90.3 percent of the interval.
  - The cost for this month is therefore 90.3 percent of 20 USD or 18.06 USD.
  - The Data quota is 90.3 percent of 1 Gigabyte or about 925 Megabytes.
  - The SMS quota is 90.3 percent of 200 SMS or 181 SMS messages.
2. Detach SIM from the Billing Plan on January 13.

**NOTE:** When you detach the SIM from the Billing Plan, all services are discontinued, and the SIM cannot be used until attached to another Billing Plan. All remaining balances are lost with no monetary compensation.

3. Attach SIM to another Billing Plan with these attributes:

- Attach Date: January 16
- Data quota: 2 Gigabyte
- SMS quota: 300 SMS
- Cost: 35 USD
- Renewal Interval: Monthly

The SIM becomes active at the full monthly cost of 35 USD and can be used immediately according to the Billing Plan configuration. The Billing Plan is renewed at midnight the morning of February 1 at a cost of 35 USD.

## 6.14 Availability Zones

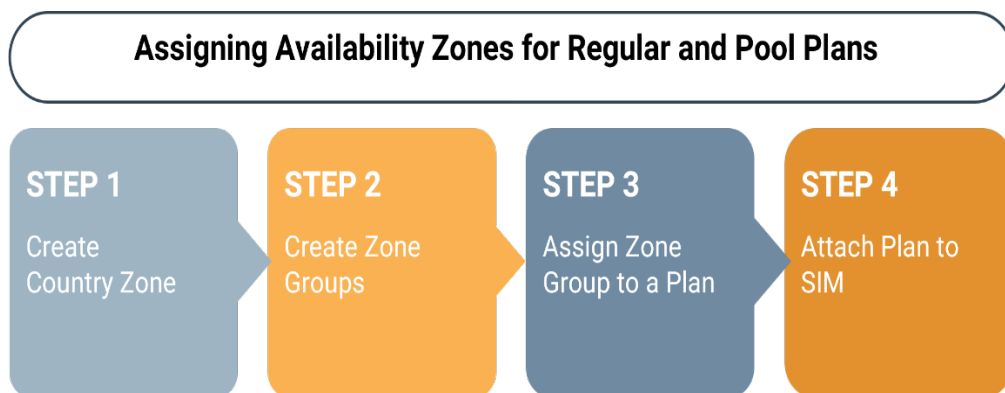
An Availability Zone limits the usage of one or more SIMs to a specific location by designating the country and operator.

**NOTE:** Availability Zones can be attached to both Regular and Pool plans.

A definition of the key availability terms is provided in this table.

Concept	Definition
Availability Zone	Limits the usage of one or more SIMs to a specific location by designating the country and operator. This ensures that the SIMs operate within predefined geographical boundaries and are tied to specific network operators for regulatory or operational purposes.
Country Zone	A grouping of SIMs or network services based on a particular country or set of countries. This allows connectivity and policy management to be optimized for specific regions, ensuring compliance with local regulations and pricing.
Zone Group	A collection of multiple zones, which could include Country Zones, grouped together to apply common rules, policies, or connectivity features. This simplifies network management across multiple locations or regions.

The stages required to implement Availability Zones are shown here.



**NOTE:** For Step 1 all countries are pre-defined in the system. The Create Country Zone procedure enables you to add to modify associated local Network Operators.

To implement Availability Zones, do these steps:

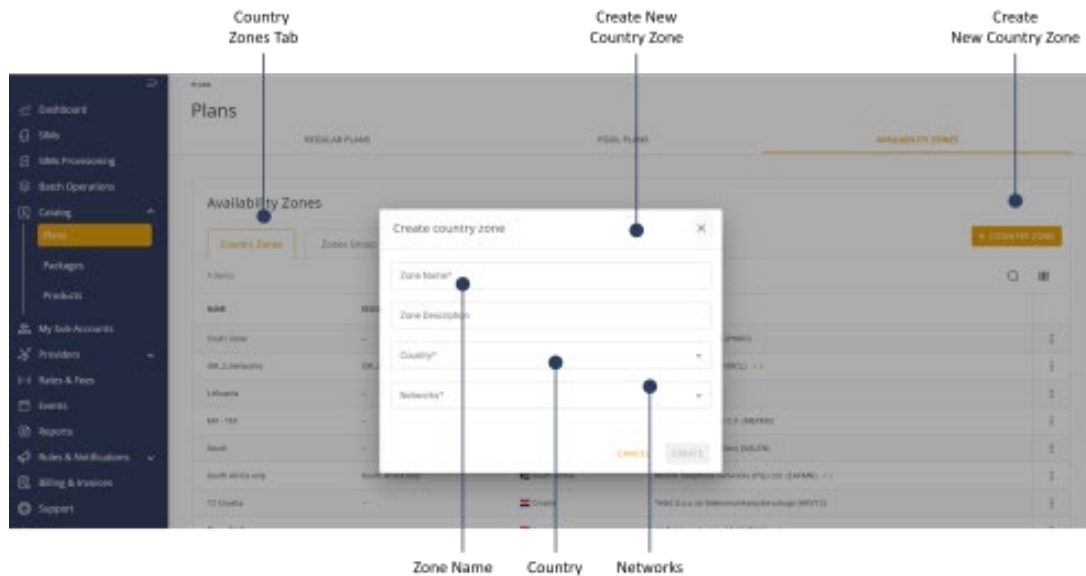
- **Step 1:** Create Country Zones
- **Step 2:** Create Zone Groups.

- **Step 3:** Assign Zone Group to a new or existing plan.
- **Step 4:** Attach the plan to a SIM.

### 6.14.1 Create Country Zones

An Availability Zone limits the usage of one or more SIMs to a specific location by designating the country and operator. Availability Zones can be attached to both Regular and Pool Plans.

A screen capture of the Country Zone page is shown here.



To create a Country Zone, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Availability Zones** tab.
3. Select the **Country Zones** tab.
4. Click **+Country Zone** to display the country zone properties dialog box.
5. Click **Zone Name** field and type a zone name.
6. Click the **Zone Description** field and type a zone description (optional).
7. Click the **Country** field and select a country from the list.
8. Click the **Network** field and select one or more available networks.
9. Click **Create** to display the Country Zone in the Availability Zones page.

**NOTE:** To attach this zone to a plan, you must first assign it to a Zone Group. You must do this even if there is only one Zone.



# Create Zone Groups

You must attach a Country Zone to a Zone Group to attach it to a plan. It is the Zone Group that is attached to a plan.

There are various Types of Zone Groups as described in this table.

Type of Zone Group	Description
Country Zones	These are predefined zones and include system configurations that cannot be changed by the user. The list comprises countries without specifying specific Network Operators. When you select a country, all operators within that country are included in the Zone Group
User Zone Group	These are custom zones created by users to meet specific connectivity needs. Users have full control to define these zones by specifying custom parameters such as countries, networks, and operators. This allows for more flexibility in managing SIM usage based on unique business or operational requirements.
Mixed Zone Group	A zone group can contain a mixture of System Country Zones and a User Defined Country Zones.

**NOTE:** You can attach a single Zone Group or multiple Zones to a plan.

A screen capture of the Zone Group page is shown here.



To create a Zone Group, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Availability Zones** tab.
3. Select the **Zones Group** tab.
4. Click **+Zones Group** to display the country zone properties dialog box.
5. Click **Zone Name** field and type a zone name.
6. Click the **Zone Description** field and type a zone description (optional).
7. Select on or more **Zones** from the list.
8. Click **Create** to display the Zone Group in the Availability Zones page.

**NOTE:** Now that you have created a Zone Group, you can attach it to a Plan. When a Zone Group is assigned to a Plan, SIM usage is limited to the country-operator pairings in the Zone Group.

### 6.14.2 Update Country Zone

You can edit the country zone information to reflect changes in network coverage and service details.

A screen capture of Edit Country Zone dialog box is shown here.

The screenshot shows a dialog box titled "Edit country zone Cost1 Zone". It contains four input fields, each with a callout letter (A, B, C, D) pointing to it from the left:

- A Zone Name**: Points to the "Zone Name\*" field, which contains the text "Cost1 Zone".
- B Zone Description**: Points to the "Zone Description" field, which contains the text "Last update august 20234".
- C Country**: Points to the "Country\*" dropdown menu, which shows "Israel" with a flag icon.
- D Networks**: Points to the "Networks\*" dropdown menu, which shows "Peletphone Communication Ltd. (ISRPL)".

At the bottom right of the dialog, there are two buttons: "CANCEL" and "UPDATE".

To edit the country zone, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Availability Zones** tab.
3. Select the **Country Zones** tab.

4. Scroll the table and click a row to display the **Edit Country Zone** dialog box.
5. Edit the **Zone Name**.
6. Add a **Zone Description** (optional).
7. Select a **Country** from the list.
8. Select a **Network** from the list.
9. Click **Update** to save the country zone settings.

### 6.14.3 Update Zone Group

You can update Zone Group information to make sure the group information is relevant as network needs change,

A screen capture of Edit Zone Group dialog box is shown here.

The screenshot shows a dialog box titled "Edit Zones Group APAC Roaming" with a close button (X) in the top right corner. The dialog contains four main input fields, each with a label and a pointer:

- A Zone Name**: Points to the "Zone Name\*" field, which contains the text "APAC Roaming".
- B Zone Description**: Points to the "Zone Description" field, which contains the text "APAC Roaming".
- C Select Zones**: Points to the "Select Zones\*" dropdown menu, which shows a list of options: "China System, Hong Kong System, Singapore System, Thailand Sy...".
- D Attached Plans**: Points to the "Attached Plans" field, which has an information icon (i) next to it.

At the bottom right of the dialog, there are two buttons: "CANCEL" (in orange) and "UPDATE" (in grey).

To edit the country zone, do these steps:

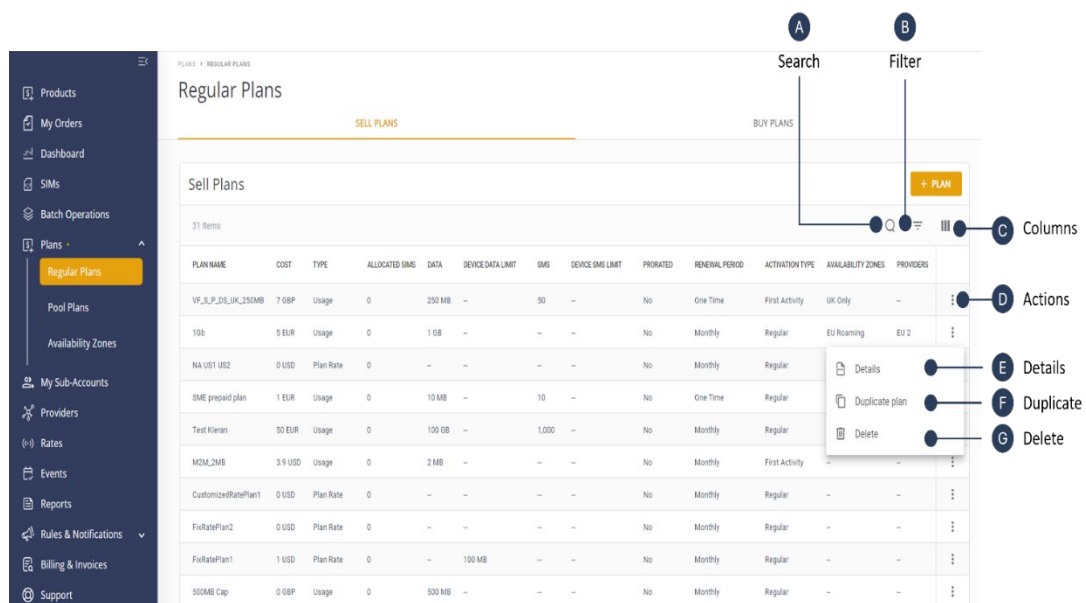
1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Availability Zones** tab.
3. Select the **Zone Group** tab.
4. Scroll the table and click a row to display the **Edit Zone Group** dialog box.
5. Edit the **Zone Name**.
6. Add a **Zone Description** (optional).

7. Select one or more **Zones** from the list.
8. Click **Update** to save the country zone settings.

## 6.15 Types of Plan Actions

All plans are displayed in a table that enables users to display and manage different connectivity plans.

A screen capture of the Plans table is shown here.



A description of the Plan actions is provided in this table.

	Action	Description
A	Search Plans	Enables you to quickly find specific plans by entering a full or partial plan name. Refer to "Search Plans" on page 134
B	Filter Table	Use the filter action to refine the displayed plans based on criteria, such as plan type, price range, renewal period, activation type, prorated or name of external parameter. Refer to "Filter Plans" on page 132.
C	Select Columns	Customize the table columns to show, hide and order specific data fields in the plans table.
D	Actions	Lists the actions for a specific plan displayed in the table (Details, Duplicate and Delete)
E	View Details	View detailed information about a selected plan. This includes information about plan costs, plan type, assigned SIMs, pricing, activation type, renewal period, availability zones and service providers. Refer to "View Plan Details" on page 129.

	Action	Description
F	Duplicate	Create a copy of an existing plan to replicate similar plans without starting from scratch. When a plan is duplicated, all plan attributes are copied over, allowing users to make any necessary adjustments to details such as rates, availability, or specific features before saving the new plan. Refer to "Duplicate Plan " on page 137.
G	Delete Plan	Remove out-dated or irrelevant plans from the system. Refer to "Delete Plan" on page 136.

### 6.15.1 Manage Plans

The Manage Plans tab is used to attach Multiple Plans to a SIM; the plans are attached one at a time to the SIM. You can also detach plans from a SIM, one at a time, from this tab. When you attach multiple plans to a SIM, the plans are prioritized. When a SIM is first attached to a Billing Plan, it has the lowest priority; then you can change the priority after you attach the Billing Plan. The priority order of the Billing Plans attached to a SIM enables tiered pricing. You can assign different Billing Plans to different SIMs in the same account. In other words, you can set different rates for different SIMs in the same account.

A screen capture of the Manage Plans tab is shown here:

**Note:** You can attach up to four plans per SIM.

To attach Plans to a SIM from the Manage Plans tab:

1. Go to the SIMs Info page and click **Manage Plans**. The Manage Plans tab is displayed. The Manage Plans tab shows the Billing Plan(s) that are now attached to the SIM.
2. Click **+ Plan A** to add a row showing the Sell Plan field. This indicates that you can only attach a Sell Plan to the SIM.
3. Click the **Sell Plan** field. A list of available plans appears.
4. Select a plan. The selected plan now appears in the Sell Plan field.
6. Click **Apply**. The plan is attached to the SIM in lowest priority.

To change the priority of the plans:

- Change the priority of the plans shown by drag-and-drop of each one into the desired position. The list is in descending priority order with the highest priority plan at the top.

To remove a plan from the list and then detach it from the SIM:

1. Select the plan you want to remove and then detach.
2. Click the **Delete** icon at the end of the table row with the plan you want to remove and detach from the SIM.
3. Click **Apply** to confirm the delete operation.
4. To detach the plan from the SIM, click **Apply**.

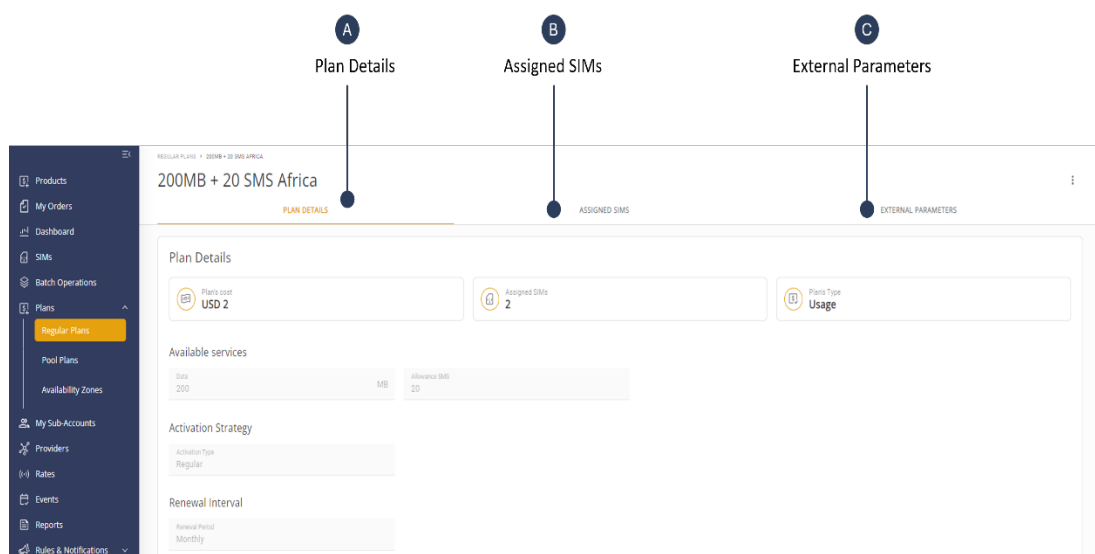
## 6.16 View Plan Details

The View Plan Info page provides a comprehensive overview of the selected plan.

To view the Plan Info page do these steps:

1. Select **Catalog | Plan** from the sidebar.
2. Select the **Regular** or **Pool Plans** tab. The Sell plans table is displayed (default).
3. Scroll the table and click a plan to display the **Plans Info** page.
4. Select the **Plan Details** tab to display the plan settings and parameters.
5. Select the **Assigned SIMs** tab to display a list SIMs attached to the selected plan.
6. Select the **External Parameters** tab to enter a parameter value.

A screen capture of the Plan Info page is shown here.



The Plan info page contains three tabs as described in this table.

Category	Description
Plan Details	Contains information about the plan type, cost, rates, activation strategy, renewal interval, availability zones and providers.
Assigned SIMs	Provides a comprehensive overview of all SIM cards linked to specific plans, enabling you to track and manage these SIMs.
External Parameters	Contains information about user-defined identifiers mapped with platform system entities such as Accounts, SIMs, and Plans, used for managing platform entities based on user-specific identifiers.

**NOTE:** The Plan Details tab is different for each type of plan because each plan has a different set of parameters and settings.

## 6.17 View Plan Instances

The Plan Instances tab contains a table with key information about how a selected plan is associated with a SIM card.

A screen capture of the Plan Instance table is shown here.



To view the Plan Instances table, do these steps:

1. Select **Catalog | Plan** from the sidebar.
2. Select the **Regular** or **Pool Plans** tab. The Sell plans table is displayed (default).

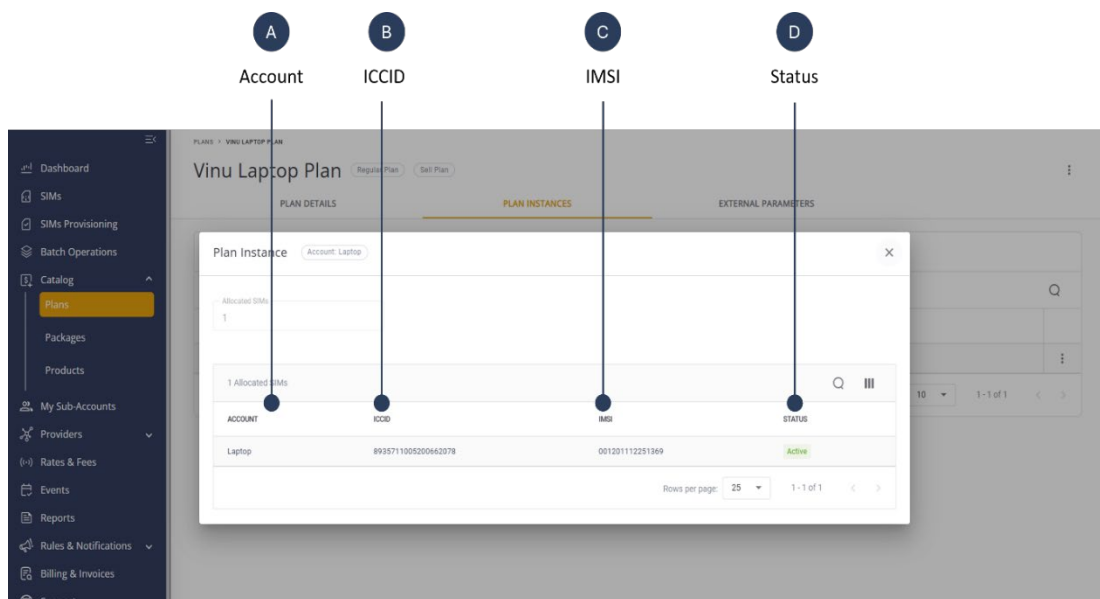
3. Scroll the Plan table and click a row to display the **Plan Info** page.
4. Select the **Plan Instance** tab to view the table of plan instance.

The Plan Instance table includes this information.

Column Label	Description
Account	Displays the name or identifier of the account associated with the plan.
Package	Details the specific package assigned to the account.
Allocated SIMs	Shows the number of SIM cards allocated under that plan.

Users can click on each instance (or row) in the table to open a Detailed Info dialog box.

A screen capture of the Instance Details dialog box is shown here.



The Instance Details dialog box displays this information:

Column Label	Description
No of Allocated SIMs	The total count of SIMs associated with that particular plan instance.
Account Name	he name of the account linked to the plan.
ICCID	The Integrated Circuit Card Identifier for each SIM.
IMSI	The International Mobile Subscriber Identity for network identification.
Status	Indicates the operational status of the SIM, such as active, suspended, or other relevant states.



## 6.18 Filter Plans

Use the filter action to refine the displayed plans based on criteria, such as plan type, price range, renewal period, activation type, prorated or external parameter values.

**NOTE:** The Filter tool is generic for all types of Regular and Pool Plans (both Buy and Sell Plans).

A screen capture of the Filter sidebar is shown here.

The screenshot displays the 'Regular Plans' section of the floLIVE interface. On the left is a navigation sidebar with options like Products, My Orders, Dashboard, SIMs, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports, Rules & Notifications, Billing & Invoices, Support, and Settings. The main area shows a table of 'Regular Plans' with columns: PLAN NAME, COST, TYPE, ALLOCATED SIMS, DATA, DEVICE DATA LIMIT, SMS, DEVICE SMS LIMIT, PRORATED, RENEWAL PERIOD, and ACTIVATION. A 'Filters' sidebar is open on the right, showing a search bar and a list of filters: Name (2), Plan Type, Renewal, Activation, Prorated, and External Parameters. The 'Plan Details' filter is selected, showing a list of plans with checkboxes for various options like 1Gb, 200MB + 20 SMS Africa, 200MB + 20 SMS EU, 5 Euro Data EU, 5 Euro Data WW, and 500 MB. The 'Plan Type' filter is also selected, showing a dropdown menu with options like Plan Type, Renewal Period, Activation Type, Prorated, and External Parameters. The 'Renewal' filter is selected, showing a dropdown menu with options like Renewal Period, Activation Type, Prorated, and External Parameters. The 'Activation' filter is selected, showing a dropdown menu with options like Activation Type, Prorated, and External Parameters. The 'Prorated' filter is selected, showing a dropdown menu with options like Prorated, External Parameters, and External Parameters. The 'External Parameters' filter is selected, showing a dropdown menu with options like External Parameters, Prorated, and External Parameters. The 'Clear All' button is located at the top right of the filters sidebar.

**NOTE:** All filter options in the Plans module are optional. However, users must select at least one filter from the various categories provided to initiate a search.

To filter the plan table, do these steps:

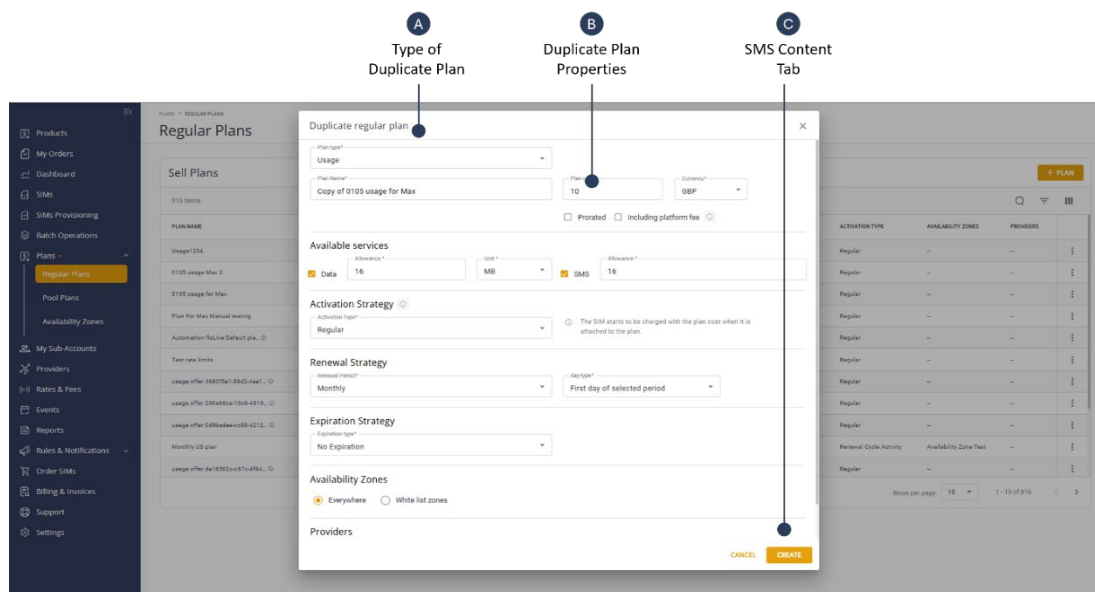
1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab to display the plans table.
3. Click the **Filter** icon to display the filter sidebar.
4. Click **Name** and select the relevant plan details.
5. Click **Plan Type** and select the relevant plan types.
6. Click **Renewal Period** and select the relevant renewal options.
7. Click **Activation Type** and select the relevant activation options.

8. Click **Prorated** and select one of these options:
  - Yes
  - No
9. Click **External Parameters** and select a parameter name from the list.
10. Click **Apply** to update the Plans table with the filtered data.

## 6.19 Duplicate Plan

You can duplicate a Regular and Pool Plans when you want to create a different plan with similar settings. When you create a duplicate plan the new file carries the same name as the original with the notation **Copy of.<original plan name>**.

A screen capture of the Duplicate Plan dialog box is shown here.



To duplicate a Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Scroll the table and click the **Actions** icon for a specific plan.
4. Select **Duplicate Plan** to display the Duplicate Plan properties dialog box.

**NOTE:** The Duplicate Plan dialog box contains different settings for Regular and Pool Plans

4. Modify the Duplicate Plan Properties as and click **Create**. The new plan is added to the Billing Plan table.

## Detach Plan

The Detach Plan action is available for:

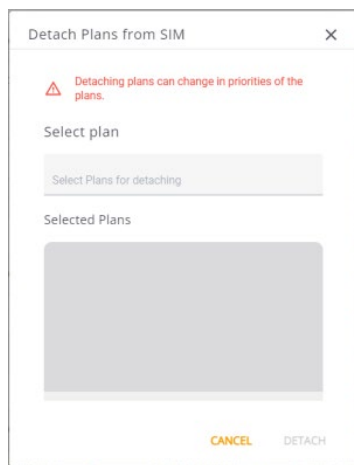
- Single SIMs from the SIMs table
- Multiple SIMs from the SIMs table

On the SIM Info page, plans are detached from a single SIM from the Manage Plans Tab.

To do the Detach plan action:

1. Invoke the Detach Plan action, as described above.

The Detach Plans to SIM dialog appears.



Detach Plans from SIM

2. Click the Select Plans for detaching field and select a plan(s) from the list.

The plans you select are displayed in the Selected Plans pane.

3. Click Detach.

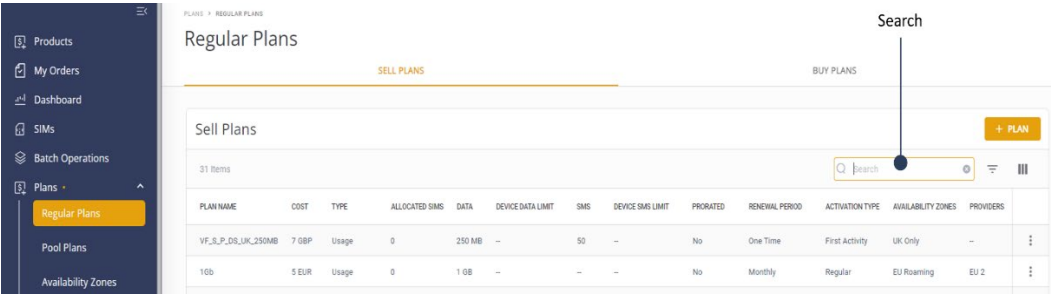
The selected plans are detached from the SIM(s).

Note: When you detach the SIM from all Billing Plans, all services are discontinued, and the SIM cannot be used until attached to a Billing Plan again. All remaining balances are lost with no monetary compensation.

## 6.20 Search Plans

The search feature enables you to quickly find specific plans by entering relevant keywords or identifiers. The search function is available for both Sell and Buy plans.

A screen capture of the Search function is shown here.



To search for a plan, do these steps:

1. Select **Catalog | Plan** from the sidebar.
2. Select the **Regular** or **Pool Plans** tab. The Sell Plans table is displayed (default).
3. Click the **Search** icon to display the Search box.
4. Type the full or partial name of existing plan and click **Enter**. The results are displayed in the Plans table.

**NOTE:** When using the Search feature, you must use either a full or partial plan name. The search is not case-sensitive, meaning that you do not need to match exact spelling or case to locate the desired plans.

## 6.21 View Assigned SIMs

The Assigned SIMs page provides a comprehensive overview of all SIM cards that are associated with specific plans. This page enables you to easily track and manage the SIMs associated with various plans,

A screen capture of the Assigned SIMS page is shown here.

Account

ICCID

IMSI

STATUS

ACCOUNT	ICCID	IMSI	STATUS
Smart Ltd.	8935711001000030012	310380561118000	Active
Smart Ltd.	8935711001000030871	001201111157957	Active
Smart Ltd.	8935711001078443972	001201111493417	Suspended
Smart Ltd.	8935711001000030343	--	Active
Smart Ltd.	8935711005200099917	--	Active
Smart Ltd.	8935711001000030350	222013090957950	Active
Smart Ltd.	8935711001000030863	001201111157127	Active
Smart Ltd.	8935711001000030292	222013090957954	Active

The Assigned SIMs table displays the information provided in this table.

Column Label	Description
Account	Identifies the user account linked to the assigned SIM.
ICCID	Shows the Integrated Circuit Card Identifier, which is a unique identifier for the SIM card.
IMSI	Displays the International Mobile Subscriber Identity, a unique number associated with the user's mobile network subscription.
Status	Indicates the current operational state of the assigned SIM, such as active or suspended.

To view the Assigned SIMs table, do these steps:

1. Select **Catalog | Plan** from the sidebar.
2. Select the **Regular** or **Pool Plans** tab. The Sell plans table is displayed (default).
3. Select the **Regular** or **Pool Plans** option from the sidebar menu. The plans table is displayed.
4. Scroll the SIMs table and click a row to display the **SIM Info** page.
5. Select the **Assigned SIMs** tab to view the table of assigned SIMs.

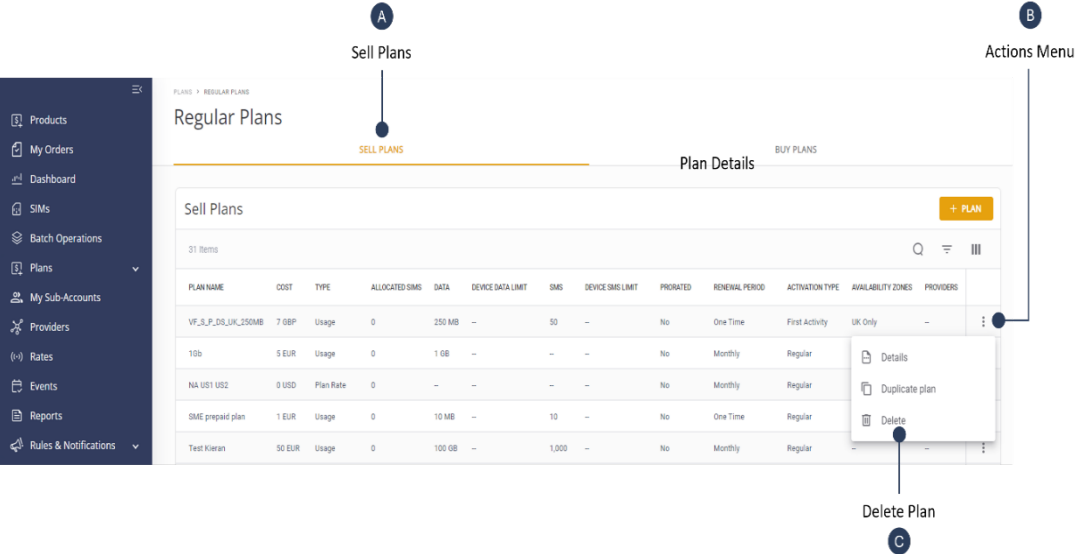
## 6.22 Delete Plan

In general, you should remove plans that are not used by your customers. It is recommended that you delete a plan in these circumstances:

- The plan is out-dated or has been replaced by a different plan.
- The plan contains errors or inaccurate information.
- The plan is not used or is no longer needed.

**IMPORTANT:** You can delete a plan when it is not attached to a SIM. If a plan is attached to a SIM card the delete function is disabled.

A screen capture of the Delete Plan feature is shown here.



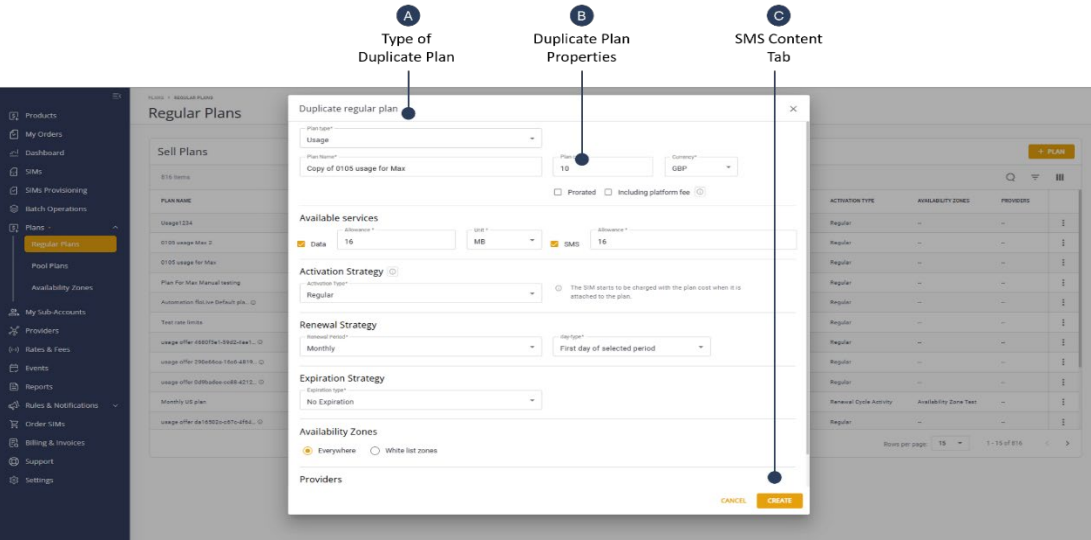
To delete a plan , do the steps:

1. Select **Catalog | Plan** from the sidebar.
2. Select the **Regular** or **Pool Plans** tab.
3. Select the **Sell Plans** tab and scroll the table to select the plan you want to delete.
4. Click the **Actions** icon and select **Delete**.
5. Click **Delete** when the confirmation message is displayed.

## 6.23 Duplicate Plan

You can duplicate a Regular and Pool Plans when you want to create a different plan with similar settings. When you create a duplicate plan the new file carries the same name as the original with the notation **Copy of.<original plan name>**.

A screen capture of the Duplicate Plan dialog box is shown here.



To duplicate a Plan, do these steps:

1. Select **Catalog | Plans** from the Navigation sidebar.
2. Select the **Regular Plans** or **Pool Plans** tab.
3. Scroll the table and click the **Actions** icon for a specific plan.
4. Select **Duplicate Plan** to display the Duplicate Plan properties dialog box.

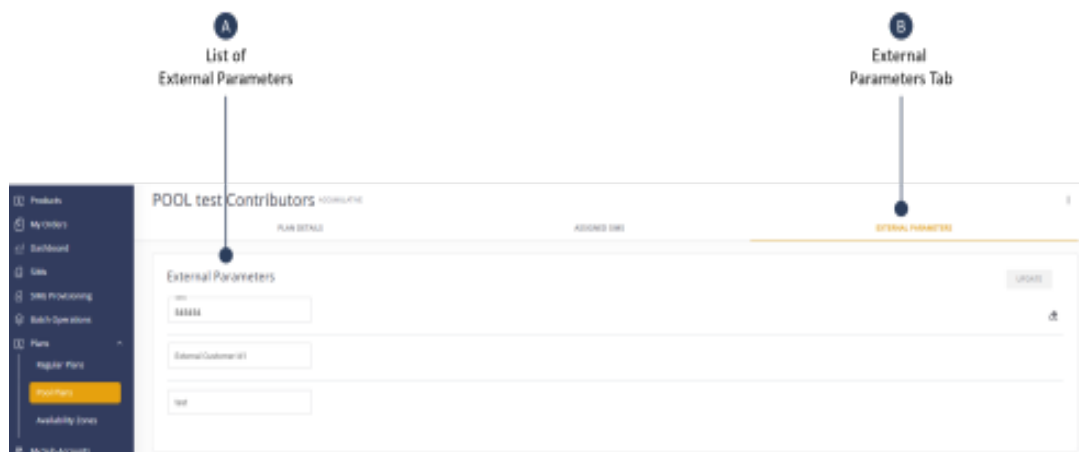
**NOTE:** The Duplicate Plan dialog box contains different settings for Regular and Pool Plans

4. Modify the Duplicate Plan Properties as and click **Create**. The new plan is added to the Billing Plan table.

### 6.23.1 Assign Value to External Parameters

This page displays the External Parameters defined for the selected Plan and is identical for all types of regular and pool plans.

An example of the External Parameters tab is shown here.



## 6.24 How Throttling Works

Throttling is a key feature that enables granular control over data usage. By setting rules and thresholds, administrators can automatically reduce the data speed of SIM cards when predefined limits are reached. This ensures fair use, prevents unexpected overage charges, and optimizes network resource allocation.

### 6.24.1 Key Concepts

A description of the key concepts related to throttling is provided in this table.

Term	Definition
API Throttling Control	Programmatic management of SIM throttling through API interactions.
CMP Throttling Method	Use of the CMP interface to set throttling usage and speed limits for SIMs.
Fair Use	Policies that define acceptable usage limits for "unlimited" data plans, often enforced through throttling.
IMSI Range Definition	Defining IMSI ranges helps identify subscribers, manage data usage, and organize accounts effectively.
PCRF	The Policy and Charging Rules Function is a critical component in managing policy decisions and charging rules for SIMs.
Multi-Plan	A configuration that allows an account to have multiple active data plans simultaneously, potentially with different rules, allowances, and throttling settings for each plan. Multi-plans are ordered and configured according to priority. The priority of the multi-plan determines which Overage Plan is activated when a depletion rule is triggered.
Overage Plan	An "Overage Plan" is a secondary data plan that automatically activates when a subscriber exceeds the data allowance of their primary plan (as defined by a Depletion Rule). This plan typically offers continued data access, but potentially at a reduced speed or with different pricing.
PCRF Rule ID	Identifiers used by the CMP and API Control Method to specify different throttling speeds.
Plan Depletion Rules	Rules that dictate what happens when a data plan quota is depleted activating an appropriate throttling action.
Plan Expiration Rules	Rules that dictate what happens when a data plan reaches its expiration date activating an appropriate throttling action.
Plan Priority Mechanism	The Plan Priority Mechanism uses the plan order to determine which "Overage Plan" is activated upon data depletion. When the primary plan's data allowance is exhausted, the subscriber is automatically transitioned to the next plan in the designated order.
Rules and Alerts	A service enabling users to define rules for monitoring periodic data usage related to specific plans.
SIM Throttling Control	Management of data speed based on user-defined thresholds to ensure adherence to plan usage allocation.
White-List Control	Enables user to access a specific URL or IP address even when data has been throttled. This function is often used for SIM top-up or for additional purchase of data plan.

## 6.24.2 Throttling Methods

The floLIVE SIM Throttling Control can be implemented using these methods:

- **CMP Method:** This method (a.k.a Threshold Throttling) offers a user-friendly interface to set usage limits for SIMs. When a specified threshold is met, data



speed is automatically reduced until the next reset (e.g. monthly plan renewal) or user self-top-up action.

- **API Control:** Enables programmatic management of SIM throttling through API interactions. This method requires more technical expertise but allows for greater flexibility and automation.

### 6.24.3 PCRF Throttling Engine

The Policy and Charging Rules Function (PCRF) is a core network module within the floLIVE platform. It dynamically enforces throttling policies based on predefined rules and subscriber profiles. When a throttling rule is triggered (via CMP Depletion or Expiration Rules), the PCRF receives a notification and adjusts the subscriber's data speed according to the defined PCRF Rule ID. This real-time decision-making mechanism ensures efficient network resource use and fair user experience.

**NOTE:** The move to the next plan is not done by the Depletion Rule. The move to the next plan is done automatically by the Multi-Plan priority settings mechanism.

### 6.24.4 PCRF Rule IDs

The system defined PCRF Rule IDs are listed in this table.

PCRF Rule ID	Speed	PCRF Rule ID	Speed
1	Unlimited: No throttling	14	2Mb/s
2	10Kb/s	16	3Mb/s
4	512Kb/s	18	5Mb/s
6	1Mb/s	20	7Mb/s
8	256Kb/s	22	10Mb/s
10	320Kb/s	24	20Mb/s
12	1.5Mb/s	26	100Kb/s

### 6.24.5 Throttling Rules

FloLIVE enforces throttling by implementation of two CMP rules:

- **Depletion Rule:** This rule triggers a PCRF action when a SIM card data usage plan is depleted. For more information refer to "Plan Depletion Rule" on page 220
- **Expiration Rule:** The rule triggers a PCRF action when a data plan reaches its expiration date (e.g. data plan valid for 30 days). For more information, refer to "Plan Expiration Rule" on page 222.

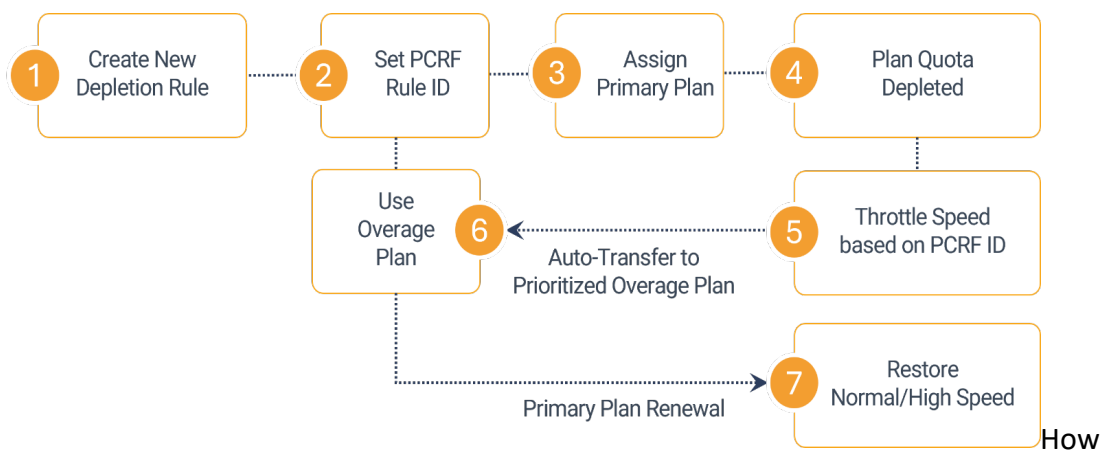
## 6.25 Plan Depletion

A description of how the Plan Depletion action works is provided in this table.

Feature	Description
Trigger	Triggered when the data usage of a specific data plan for a SIM card is depleted (e.g. the user used 1GB of data from a prepaid 1GB data plan.).
Focus	Data consumption.
Action	Triggers the PCRF module to start throttling.
Primary Use Case	Managing data usage within a specific allowance and transitioning users to a different plan after the allowance is exhausted.

**NOTE:** To implement a Plan Depletion action, refer to the "Plan Depletion Rule" on page 220.

A flowchart of the Plan Depletion process is shown here.



### Plan Depletion Works

The Plan Depletion action is implemented as follows:

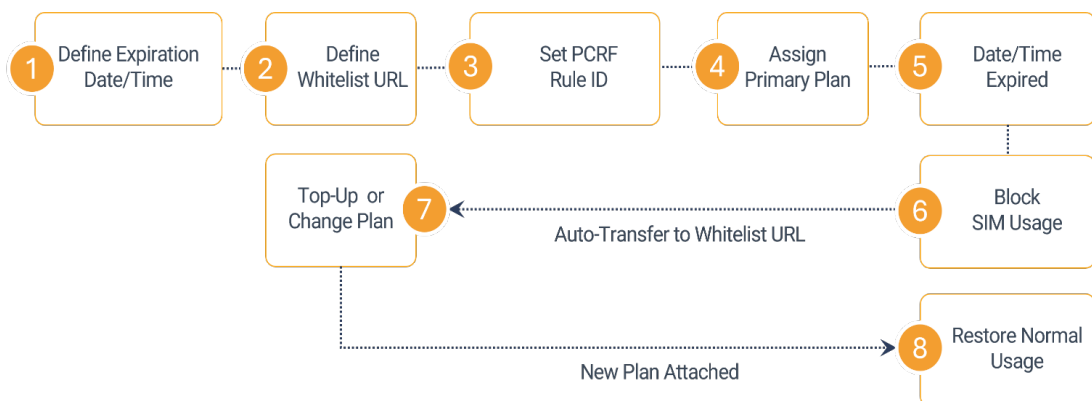
1. **Initial State:** A SIM is active with an assigned data plan and a Depletion Rule is set up within the CMP.
2. **Data Usage Monitoring:** The CMP continuously monitors SIM data usage.
3. **Plan Depleted:** When the SIM primary data usage plan is depleted as defined in the Depletion Rule a throttling action is activated based on the PCRF ID..
4. **Throttling Action:**
  - The CMP triggers throttling action.
  - The PCRF is notified and enforces the throttling speed associated with the configured PCRF Rule ID.

- The SIM's data speed is reduced.
  - The SIM is automatically transferred to the configured "Overage Multi-Plan" or similar prioritized plan.
5. **Continued Usage (Overage Multi-Plan):** The user continues to have data access, but potentially at a lower speed.

## 6.26 Plan Expiration

A description of how the Plan Expiration action works is provided in this table.

Feature	Description
Trigger	When a data plan reaches its expiration date.
Focus	Time-based.
Action	User is redirected to a whitelisted URL.
Primary Use Case	The purpose is to prompt users to renew or purchase new data plans when their current plan expires.



**NOTE:** To implement a Plan Expiration action, refer to the "Plan Expiration Rule" on page 222.

A flowchart of the Plan Expiration process is shown here.

The Plan Depletion action is implemented as follows:

1. **Initial State:** A SIM is active with a data plan and an Expiration Rule is set up within the CMP.
2. **Expiration Monitoring:** The CMP monitors the plan expiration date.
3. **Plan Expiration:** The plan reaches its expiration date.

#### 4. Rule Action:

- The CMP triggers the expiration action.
  - The SIM can only access a preconfigured whitelisted URL/IP address (e.g., used for purchasing new SIM data plan).
5. **User Action Required:** The user must take action on the whitelisted URL (e.g., renew the plan, purchase a new plan) to restore normal data service.

### 6.26.1 Throttling Scenarios

Multi-Plans can be configured to achieve different scenarios, along with the associated rules for managing data usage and expiration.

The three common scenarios include:

- One-Time Unlimited Fair-Use Scenario
- Monthly Renewal Unlimited Fair-Use Scenario
- Limited Usage Scenario

#### One-Time Unlimited Fair-Use Scenario

This example demonstrates a Multi-Plan setup for an "unlimited" data plan with a fair-use policy enforced through throttling.

An example of this scenario is provided in this table.

Multi Plans	
Plan 1 Usage Plan	<ul style="list-style-type: none"> <li>○ Cost: \$1</li> <li>○ Quota: 1GB</li> <li>○ Renewal Strategy: One-time</li> <li>○ Expiration: 30 days</li> </ul>
Plan 2 Account Rate	<ul style="list-style-type: none"> <li>○ Defines the rates for data usage after Plan 1 quota is exhausted</li> </ul>
Plan Rules	
Depletion Rule	<ul style="list-style-type: none"> <li>○ <b>Applies to:</b> Plan 1, PCRF Rule ID: 2</li> <li>○ <b>Action:</b> Enable throttling when Plan 1 1GB quota is depleted</li> </ul>
Expiration Rule	<ul style="list-style-type: none"> <li>○ <b>Applies to:</b> Plan 1, PCRF Rule ID: 100</li> </ul>

Multi Plans	
	<ul style="list-style-type: none"> <li>○ <b>Action:</b> Allow access to a whitelisted URL when Plan 1 expires</li> </ul>
How It Works	
<p>This setup provides an initial 1GB of high-speed data (Plan 1). When the 1GB is used, the connection is throttled (Plan Depletion Rule). After Plan 1 expires, the user is allowed to connect only to a whitelisted URL, likely to renew the plan (Plan Expiration Rule).</p>	

**NOTE:** The whitelist URL is automatically disabled when the SIM is attached to a new Plan.

### Monthly Renewal Unlimited Fair-Use Scenario

This example demonstrates a Multi-Plan setup for an "unlimited" data plan with a fair-use policy enforced through throttling.

An example of this scenario is provided in this table.

Multi Plans	
Plan 1 Usage Plan	<ul style="list-style-type: none"> <li>○ Cost: \$1</li> <li>○ Quota: 1GB</li> <li>○ Renewal Strategy: Monthly Renewal</li> </ul>
Plan 2 Account Rate	<ul style="list-style-type: none"> <li>○ Defines the rates for data usage after Plan 1 quota is exhausted</li> </ul>
Plan Rules	
Depletion Rule	<ul style="list-style-type: none"> <li>○ <b>Applies to:</b> Plan 1, PCRF Rule ID: 2</li> <li>○ <b>Action:</b> Enable throttling when Plan 1 1GB quota is depleted</li> </ul>
How It Works	
<p>This setup provides an initial 1GB of high-speed data (Plan 1). When the 1GB is used, the connection is throttled (Plan Depletion Rule). The connection automatically returns back to high-speed (i.e. PCRF Rule ID=1) at the start of the next renewal date of the primary plan (i.e. Plan 1).</p>	

### Limited Usage Scenario

This example demonstrates a Multi-Plan setup for a limited-usage data plan.

An example of this scenario is provided in this table.

Multi Plans	
Plan 1 Usage Plan	<ul style="list-style-type: none"> <li>○ Cost: \$1</li> <li>○ Quota: 1GB</li> <li>○ Renewal Strategy: One-time</li> <li>○ Expiration: 30 days</li> </ul>
Plan 2 Account Rate	<ul style="list-style-type: none"> <li>○ Defines the rates for data usage after Plan 1 quota is exhausted</li> </ul>
Plan Rules	
Depletion Rule	<ul style="list-style-type: none"> <li>○ <b>Applies to:</b> Plan 1, PCRF Rule ID: 100</li> <li>○ <b>Action:</b> Allow access to a whitelisted URL when Plan 1 1GB quota is depleted</li> </ul>
Expiration Rule	<ul style="list-style-type: none"> <li>○ <b>Applies to:</b> Plan 1, PCRF Rule ID: 100</li> <li>○ <b>Action:</b> Allow access to a whitelisted URL when Plan 1 expires.</li> </ul>
How It Works	
In this scenario, when the 1GB is used or Plan 1 expires, the user is allowed to connect only to a whitelisted URL (Plan Depletion and Plan Expiration Rule). The whitelisted URL action is the same if Plan 1 expired or reached its 1GB quota.	

**NOTE:** The whitelist URL is automatically disabled once the SIM is attached to a new Plan.

## 6.27 API Control Method

The API Control method enables programmatic management of SIM throttling through API interactions. This method requires support configuration for allocation of PCRF ID options and for access to specific tables governing throttling speed. With this method, users can set up notifications via HTTP push or email when usage limits are approached.

To implement the API Control method, make sure you fulfil these basic requirements:

1. **Prepare and Configure IMSI Ranges:** This step enables users to identify subscribers, manage data usage and apply different rules based on their usage or plans.

2. **Request for PCRF Configuration:** Contact floLIVE support to configure PCRF ID options essential for API control.
3. **Access PCRF Tables:** Utilize the tables provided by the support team to define throttling speed configurations. For example, PCRF ID=1 is high speed data, while PCRF ID=8 is low speed 256 Kb/s)
4. **Execute API Calls:** Use the appropriate API calls with the PCRF IDs provided to set up throttling per your requirements.
5. **Create Notification Rules:** Set rules for notifications, ensuring HTTP push is configured to trigger when thresholds are met.

Prepare and Configure IMSI Ranges: This step enables users to identify subscribers, manage data usage and apply different rules based on their usage or plans.

**TIP:** For more information, refer to the Modify Subscriber PCRF Settings API.

## 6.28 Package Guidelines

A Package is designed to contain one or multiple plans up to the maximum allowed for a single subscriber. Each package may contain these types of plans:

- **Regular Type Plans:** Usage, Money, Account Rate, Plan Rate.
- **Pool Type Plans:** The pool plans must be different.
- **Hybrid Plans:** Consists of both regular and pool plans.

Make sure you use these guidelines when you create a package.

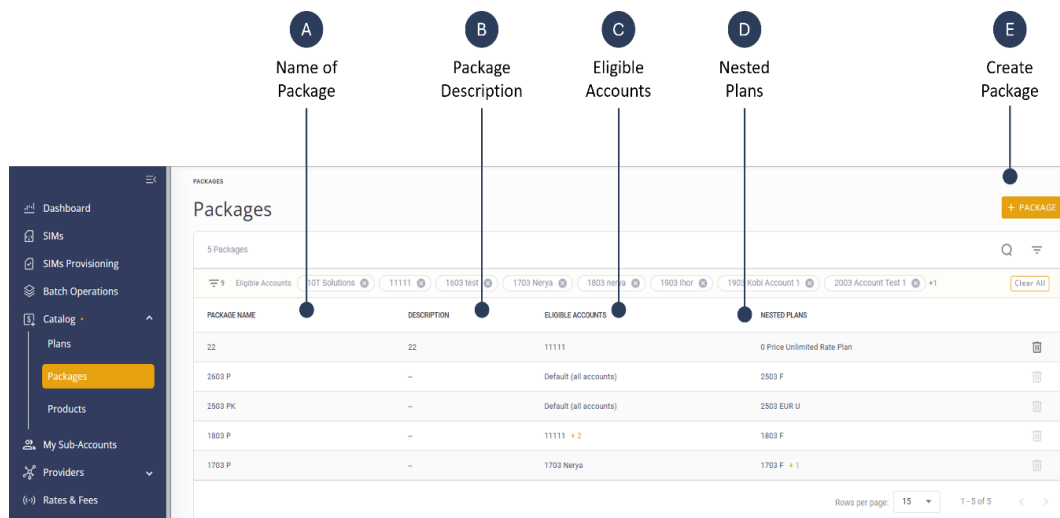
Action	Description
Package Creation	There are no restrictions regarding the number of Packages that you can create.
Package Deletion	A Package can only be deleted from the catalog if it is detached from the SIM. When you delete a Package, all included plans within the package are automatically removed.
Package Modification	<ul style="list-style-type: none"> <li>○ Name: When you set the Package Name, it cannot be changed.</li> <li>○ Description: Modifications to the Package Description can be performed at any time.</li> <li>○ Eligibility: Adjustments to the eligibility of sub-accounts can be made as needed.</li> </ul>

Action	Description
	<ul style="list-style-type: none"> <li>Nested Plans: The addition, removal, or priority changes of nested plans are permitted, provided that no SIM is currently attached to the Package.</li> </ul>

It is important to note these limitations when you attach a package to a SIM.

1. The sub-account is tagged as 'Allow customer to attach SIMs to Buy Plan/Package' by the parent account.
2. There is at least one Plan/Package marked as eligible for use by the sub-account.
3. A SIM may only be attached to either a Package or individual Plan(s) at any given time, but not both simultaneously.

A screen capture of the Packages page is shown here.



The Package page contains list of defined packages. For each package, the table displays the information described in this table.

Property	Description
Package Name	A short name to identify the package.
Package Description	A detailed free-text field that describes the package, the included plans, and terms. For example, "Onetime activation fee: \$1 + monthly \$2 including 1GB US only + \$1.5 for 500MB EU only and generic account rate for using in the rest of the world."
Eligible Accounts	Defines which sub-accounts can manage the package based on settings from the parent account. A package can be attached to any of these account options: all sub-accounts;



Property	Description
	multiple sub-accounts; a single sub-account or no sub-accounts.
Nested Plans	The specific plans incorporated within the Package.

## 6.29 Create New Package

You can create a Sell Package and attach to your sub-account SIMs, or enable your sub-accounts to Self-Attach the plans you create.

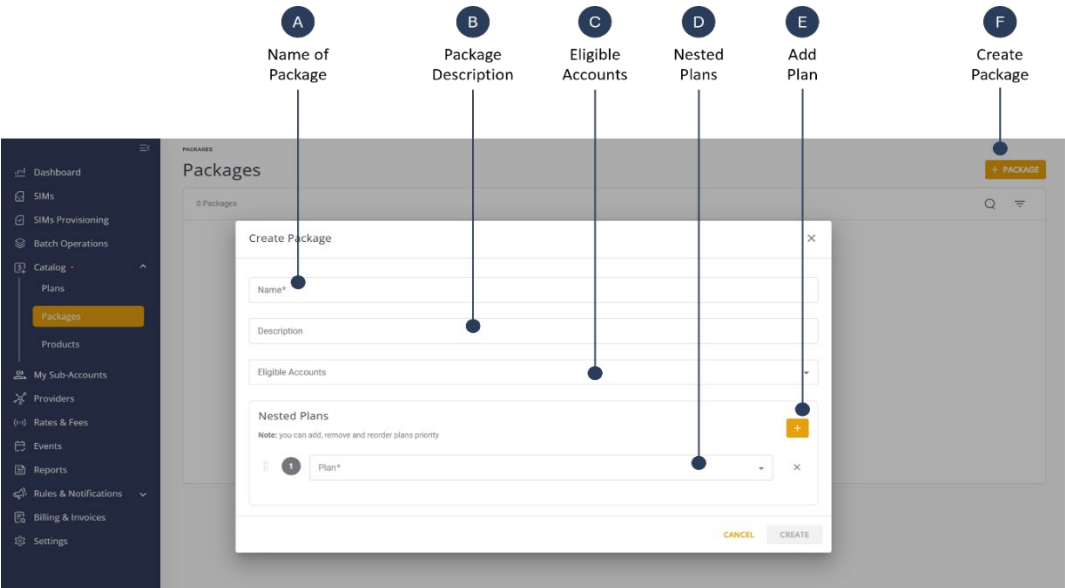
**NOTE:** There are no restrictions regarding the number of Packages that you can create.

To create a new package, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Click **+ Package** to display the Create New Package dialog box.
3. Type a **Name** for the new package.
4. Add a short **Description** for the new package.
5. Go to the **Nested Plans** group and click the **+** button.
6. Select one or more Plans to include in package.
7. Click **Create** to save package.

**NOTE:** You can add remove or reorder the plan priority in the **Nested Plans** group.

A screen capture of the Create New Package dialog box is shown here.



### 6.30 View Package Details

To view the package details, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Click a **Package** from the list to display the **Package Details** page.

The Package Details page displays the information described in this table.

Property	Description
Package Name	A short name to identify the package.
Package Description	A detailed free-text field that describes the package, the included plans, and terms. For example, “Onetime activation fee: \$1 + monthly \$2 including 1GB US only + \$1.5 for 500MB EU only and generic account rate for using in the rest of the world.”
Eligible Accounts	Defines which sub-accounts can manage the package based on settings from the parent account. A package can be attached to any of these account options: all sub-accounts; multiple sub-accounts; a single sub-account or no sub-accounts.
Nested Plans	The specific plans incorporated within the Package.

A screen capture of the Package Details page is shown here.

PACKAGES

5 Packages

Eligible Accounts: 101 Solutions, 11111, 1803 test, 1703 Nerya, 1803 nerya, 1903 Ithor, 1903 Nobi Account 1, 2003 Account Test 1, +1

PACKAGE NAME	DESCRIPTION	ELIGIBLE ACCOUNTS	NESTED PLANS
22	22	11111	0 Price Unlimited Rate Plan
2503 P	--	Default (all accounts)	2503 F
2503 PK	--	Default (all accounts)	2503 EUR U
1803 P	--	11111 + 2	1803 F
1703 P	--	1703 Nerya	1703 F + 1

Rows per page: 15 1 - 5 of 5

### 6.31 Assign Account Eligibility

The Assigned Accounts tab enables users to view the SIMs attached to a package per account.

To view the assigned accounts for a package, do these steps:

- 1. Select **My Sub-Accounts** from the sidebar menu.
- 2. Click a Sub-Account from the list to display the **Sub-Account Details** page.
- 3. Check the **Allow Customer to Attach SIMs to Buy Plan/Package** option.
- 4. Click **Update** to save sub-account settings.

An example screen capture of the Sub-Account Details page is shown here.

MY SUB-ACCOUNTS - parent\_account\_126737

parent\_account\_126737

ACCOUNT CONTACTS ADDRESSES BILLING & INVOICE EXTERNAL PARAMETERS

Account

Account Name\* parent\_account\_126737 Currency\* EUR

VAT Identification No

Count by Active\* IMSI Activity Indication\*

☒ Allow customer to attach SIMs to Buy Plan/Package

☐ Allow customer to lock SIM with a device (IMEI)

☐ Hide connectivity rates

☐ Connectivity Service Provider

☐ Display SIM account hierarchy ☐ Allow login on behalf

MFA ☐ Mandatory ☐ Enabled ☒ Disabled

UPDATE

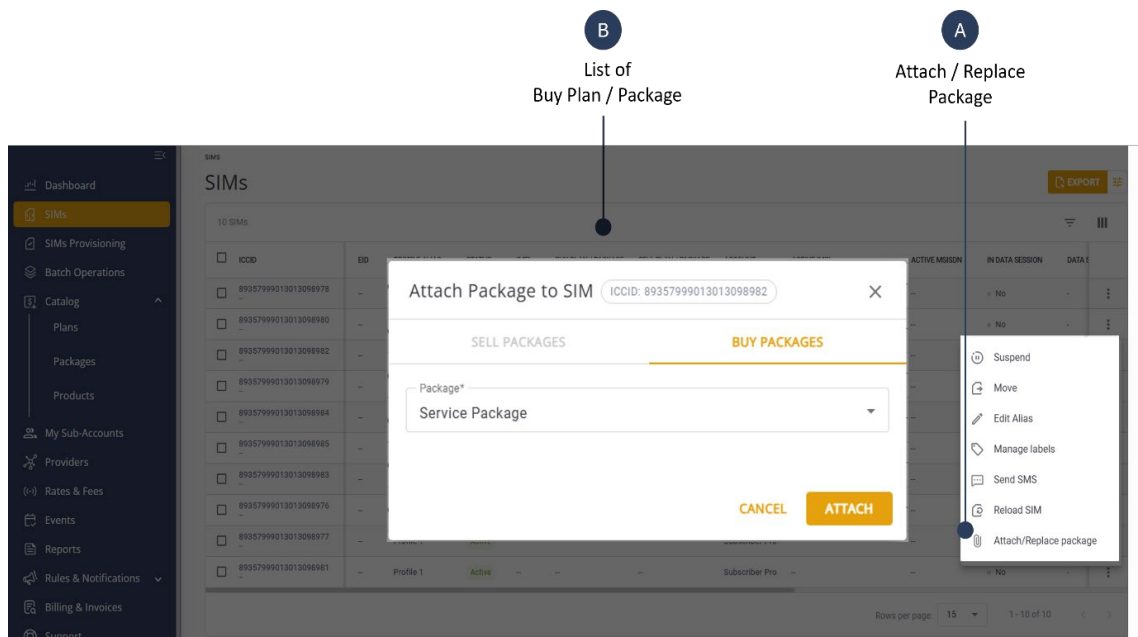
## 6.32 Self-Attach Buy Package

The Self-Attach Buy Packages feature enables sub-accounts to manage their SIM cards by attaching or detaching a Buy Package. The Buy Packages are originally created by the parent.

To Self-Attach a Buy Package, make sure these pre-conditions are met in full:

- The sub-account must be tagged as 'Allow customer to attach SIMs to Buy Plan/Package' by the parent customer.
- At least one Package must be marked as eligible for use by the sub-account.

A screen capture of the Self-Attach Package dialog box is shown here.



To Self-Attach a Buy Package, do these steps:

1. Select **SIMs** from the sidebar menu.
2. Select a SIM row listed in the table and click the **Action** menu on the right-side.
3. Click the **Attach/Replace** Package option.
4. Select the **Buy Packages** tab.
5. Select a **Package** from the list.
6. Click **Attach** to attach the package to the SIM.

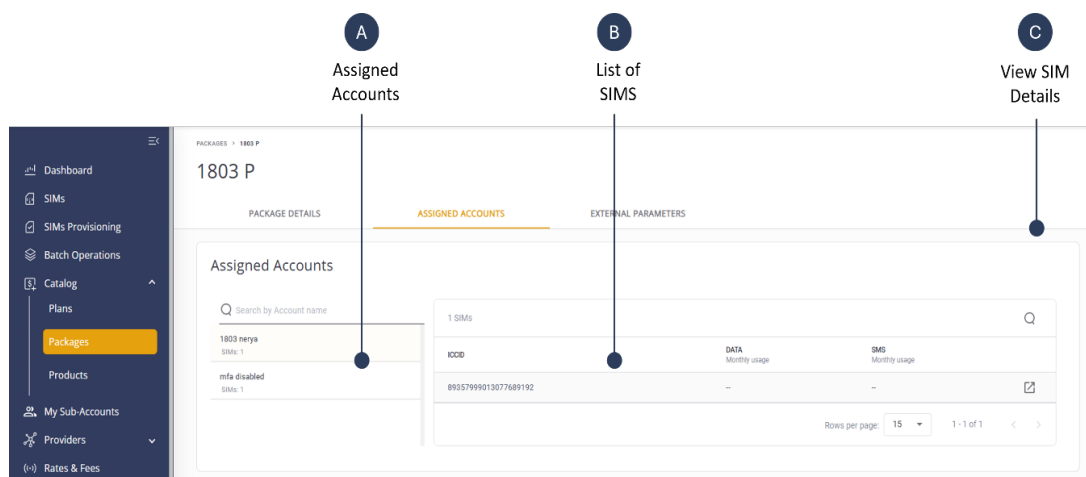
## 6.33 View Assigned Accounts

The Assigned Accounts tab displays a list of sub-accounts that use (assigned?) to the selected package. The package name is displayed at the top of the page. For each sub-account, a list of SIMs that are assigned to the associated package.

To view a list of assigned accounts, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Click a **Package** from the list to display the **Package Details** page.
3. Select the **Assigned Accounts** tab to display the accounts assigned to the selected package.

A screen capture of the Assigned Accounts tab is shown here.



## 6.34 Modify Package

You can modify the package description, eligibility of sub-accounts and make changes to the package content.

**NOTE:** You cannot change the Package Name

A screen capture the Edit Package Details page is shown here:

To edit a package, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.

2. Click a **Package** from the list to display the **Package Details** page.
3. Edit the package **Description**.
4. Select one or more **Eligible Accounts**.
5. To edit the list of Nested Plans, select these options:
  - Add Plan
  - Remove Plan
  - Change Priority
6. Click **Update** to save package details.

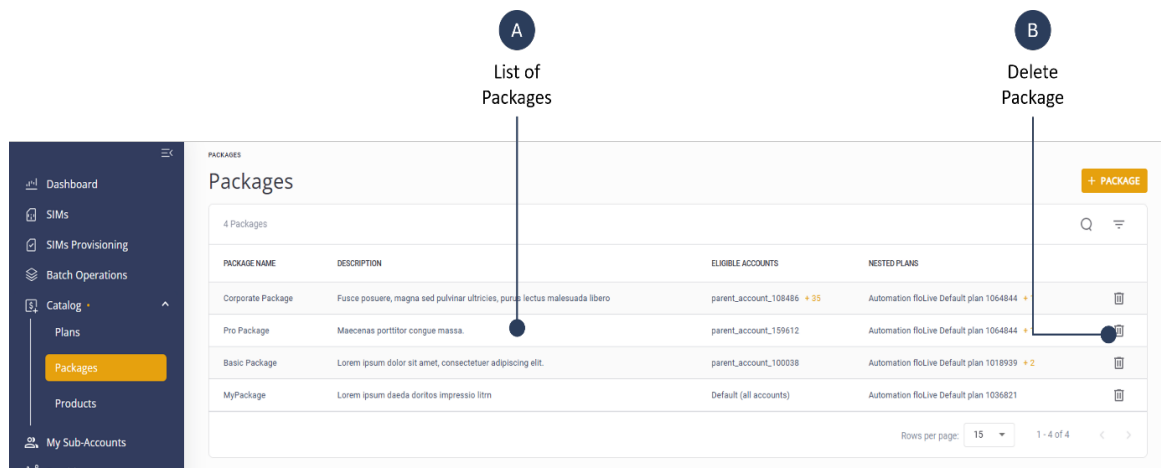
## 6.35 Delete Package

A Package can only be deleted from the catalog if it is detached from the SIM. When you delete a Package, all included plans are automatically removed from the package.

To delete a package, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Select a **Package** from the list and click the **Delete** on the right-side of the row.
3. Click **Delete** to remove package complete delete operation.

An example of the delete package screen is shown here.

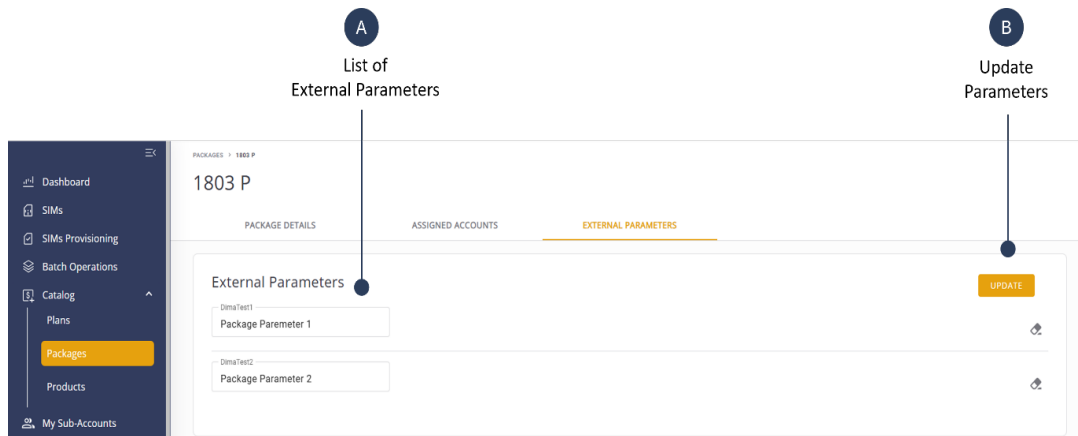


## 6.36 Edit External Parameters

To edit the external parameters for a package, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Click a **Package** from the list to display the **Package Details** page.
3. Select the **External Parameters** tab to display a list external parameters associated to the selected package.
4. Modify the appropriate parameter values.
5. Click **Update** to save the parameter values.

A screen capture of the External Parameters tab is shown here.



# 7 My Sub Accounts

The CMP Sub Account Module enables users to create and manage sub-accounts linked to a parent account. These sub-accounts enable customers to segment and delegate control over specific sets of SIM cards or connected devices.

The Sub-Accounts module contains a table that displays a comprehensive list of all sub-accounts defined within your account. This table serves as a centralized repository for managing and organizing sub-accounts, providing key details for easy reference and management.

Here is an example of the Sub-Account table.

MY SUB-ACCOUNTS

My Sub-Accounts

+ ACCOUNT

1057 Sub-Accounts

Q F ↺

ACCOUNT NAME	SUB ACCOUNTS	SIMS	
US Cellular Test Account	0	0	
0204 exp test nerya	0	20	
0204 nerya	0	4	
0304 pool exp test	0	20	
0404 nerya	0	20	

The Sub-Account table contains these columns:

Column Name	Description
Account Name	Displays the name of each sub-account, providing a clear identifier for easy recognition and reference.
Number of Sub-Accounts	Indicates the number of sub-accounts associated with each account. This count helps users gauge the level of segmentation and hierarchy within the account structure.
Number of SIMs	Specifies the total number of SIM cards associated with each sub-account. It provides insights into the scale and scope of connectivity resources managed under each sub-account.



The platform supports four account levels, root account and three sub-account levels below the root account. If your account is at sub-account level four, you cannot create a new sub-account of your own and the **+ACCOUNT** option is not displayed.

### 7.1.1 Basic Account Parameters

To create a new account, you need to define these parameters to identify the account.

- **Required:** Account Name, Currency, and account security settings
- **Optional:** VAT Identification, and Billing Cycle definition

### 7.1.2 Account Restrictions

When you create an account, you can apply these restrictions:

- **Allow customer to attach SIMs to Buy Plans:** This option enables the customer to attach SIMs to a Billing Plan created by the Parent account.
- **Display SIM account hierarchy:** This option is restricted to root and MNO accounts. When the parent account activates this option, the sub-account can view the complete SIM hierarchy from the new sub-account down (to a maximum fourth level). When the root account does **not** activate this option (default setting), the sub-account can only view the SIM hierarchy down one level to its child account level.

**NOTE:** When you create the new account, the system sets invoice configuration parameters to their default values.

## 7.2 Create Sub-Account

To create a new sub-account, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Click the **+ACCOUNT** button to display the Create New Account dialog box.
3. Type the new account name in the **Account Name** field.
4. Click on **Currency** and select the account default currency used to invoice this new account (Optional).
5. Type your tax number in the **VAT Identification No** field (Optional).
6. Click **Billing Cycle Definition** and select an item from the list.
7. Check one or more items to **Define a List of Eligible Billing Cycle Definitions**.

8. Enable **Allow Customers to Attach SIMs to Buy Plans** to allow this sub account to attach its SIMs to buy plans (Optional).
9. Check the **Hide Connectivity Rate** to hide the connectivity rates for this sub account (optional).
10. Check **Connectivity Service Provider** to enable these options:
  - Check the **Display SIM account hierarchy** checkbox to allow this new sub-account to view the SIM hierarchy from the SIM Info page.
  - Check **Allow Login on behalf** to enable an Administrator to login to the system and perform actions on behalf of others.
11. Select one of these Mufti Factor Authentication **MFA** options:
  - Mandatory: All sub-account user must use MFA Login method.
  - Enabled: All sub-account user may use the MFA Login method.
  - Disabled: MFA option is disabled for users of this sub-account.
12. Click **Save**. The new sub-account is created and its index card appears on the My Sub-Accounts page.

Here is a screen capture of the Create New Account dialog box.

Create New Account

VAF Identification No

Assign Billing Cycle Definition

Billing Cycle Definition\*

Define list of eligible billing cycle definitions

Eligible billing cycle definitions

☐ Allow customer to attach SIMs to Buy Plans

☐ Connectivity Service Provider

☐ Display SIM account hierarchy ☐ Allow login on behalf

MFA ☐ Mandatory ☐ Enabled ☐ Disabled

CANCEL SAVE

### 7.2.1 Add New Contact

To add a new contact, do these steps:

1. Select **My-Sub Account** from the sidebar menu.

2. Click an account in the table to display the account details page.
3. Select the **Contacts** tab.
4. Click the **+ Contact** button to display the Create New Contact page.
5. Enter information for all the contact fields and click **Create**.

Here is a screen capture of the Create New Contact page.

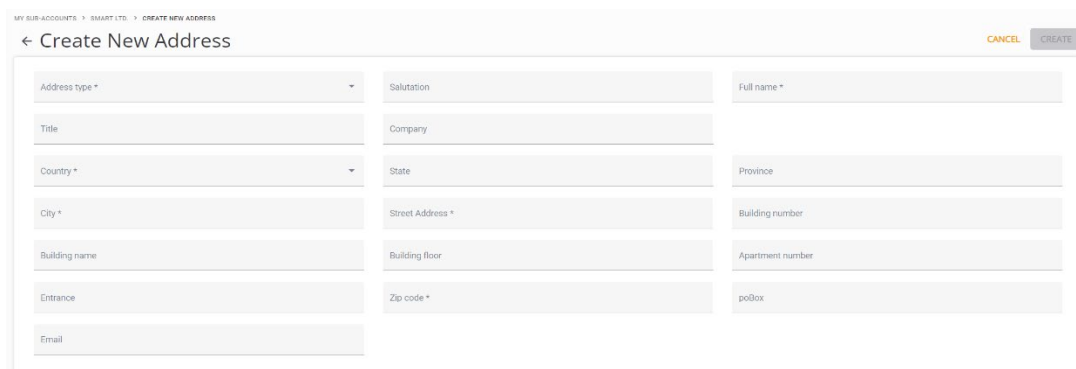


## Add New Address

To add a new address, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Click an account in the table to display the account details page.
3. Select the **Addresses** tab.
4. Click the **+ Address** button to display the Create New Address page.
5. Enter information for all the contact fields and click **Create**.

Here is a screen capture of the Create New Address page.



## Define Billing Cycle

The billing cycle refers to the period of time over which usage of SIM cards is measured for billing purposes. This ensures that customers are accurately billed for SIM usage. To define a billing cycle do these steps:

1. Select **My-Sub Account** from the sidebar menu.

2. Click an account in the table to display the account details page.
3. Select the **Billing & Invoice** tab.
4. Select the **Billing Cycle Definition** option.
5. Enter a **Name** for the billing cycle.
6. Specify the **Period Type** (monthly annually etc.).
7. Specify the **Start Day** of the billing cycle.
8. Select the **Invoice Format** (PDF or XML).
9. Specify the **Next Billing Cycle Date**.
10. Add a **Description** with additional information or comments (optional).
11. Click **Update** to save billing cycle.

All field denoted by an \* asterisk are mandatory.

Here is a screen capture of the billing cycle information page.

The screenshot shows the 'Billing & Invoice' section of the application. It features a header with the title 'Billing & Invoice' and an 'UPDATE' button. Below the header, there are two tabs: 'Billing Cycle Definition' (active) and 'Invoice Configuration'. The 'Billing Cycle Definition' tab contains several input fields: 'Name\*' with the value 'System BCD', 'Period Type' with the value 'ANNUALLY', 'Start Day' with the value '1', 'Invoice Format' with the value 'XML', and 'Next Billing cycle date' with the value '2023-12-07T00:00:00Z'. At the bottom, there is a large text area for 'Description'.

## Configure Invoice

To configure an invoice, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Click an account in the table to display the account details page.
3. Select the **Billing & Invoice** tab.

4. Select the **Invoice Configuration** option.
5. Select a **Delivery Method** (Email, Postal, EDI).
6. Specify the number of days in the **Payment Due After Invoice Issue**.
7. Specify the required **VAT** percentage.
8. Add additional information in the **Invoice Text** field.
9. Specify the **Device Cost**.
10. Select a **PDF Invoice** Template.
11. Select an **XML Invoice** Template.
12. Click **Update** to save invoice configuration.

**NOTE:** Any field denoted by an \* asterisk is mandatory.

Here is a screen capture of the Invoice Configuration page.

The screenshot shows the 'Billing & Invoice' section with an 'UPDATE' button in the top right. Below the title bar, there are two tabs: 'Billing Cycle Definition' and 'Invoice Configuration', with the latter being selected and highlighted in orange. The 'Invoice Configuration' section contains several input fields: 'Delivery Method\*' is a dropdown menu set to 'EMAIL'; 'Payment Due After Invoice Issued\*' is a text field with '90' and a 'DAYS' unit selector; 'VAT' is a text field with '0' and a '%' unit selector; 'Invoice Text' is a large text area; 'Device Cost\*' is a text field with '0' and a 'USD' unit selector; 'PDF invoice template' is a dropdown menu set to 'Default PDF'; and 'XML invoice template' is a dropdown menu set to 'Default XML'.

These default invoice configuration parameters are automatically defined when you create a new sub-account.

Parameter	Description
Charge by Active	<p>The designated Active device determines how the sub-account is being charged per SIM:</p> <ul style="list-style-type: none"> <li>IMSI: When the account charges a customer by an Active IMSI, the customer is charged according to the number of activated IMSIs.</li> <li>SIM: When the account charges a customer by an Active SIM, the SIM is charged uniformly, regardless of the number of IMSIs used (for example, SIMs that are using multiple IMSI profiles)</li> </ul> <p>Range: IMSI, SIM</p> <p>Default: SIM</p>
Activity Indication	<p>The sub-account is charged in one of these methods:</p> <ul style="list-style-type: none"> <li>Network Registration: The account charges a customer when a device is registered to the mobile network</li> <li>Data Activity: The account charges a customer when a device engages in any activity that consumes Data (including SMS messages)</li> </ul> <p>Range: Network Registration, Data Activity</p> <p>Default: Network Registration</p>
Device Cost	<p>The set cost (of ownership or of possession) of the device being charged (apart from usage charged by the Billing Plan)</p> <p>Range: Any integer or decimal value for Currency set in the account. For example: 1 USD, 300 RSD, 0.55327 EUR, 0.07 GBP</p> <p>Default: 0 &lt;Currency set in the Account</p>

## 7.3 Edit Sub-Account

To edit a Sub-Account do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Click an account listed in the Sub-Account table. The Sub-Account details are displayed.

### 3. Edit the Sub-Account details and click **Update**

Here is a screen capture of the Sub-Account Details page.

The screenshot shows the 'MY SUB-ACCOUNTS > OLGA1 34' breadcrumb at the top. Below it, the account name 'olga1 34' is displayed. A navigation bar contains tabs: 'ACCOUNT' (highlighted), 'CONTACTS', 'ADDRESSES', 'INVOICE CONFIGURATION', and 'EXTERNAL PARAMETERS'. The 'ACCOUNT' tab is active, showing a form with the following fields and options:

- Account Name \***: olga1 34
- Currency \***: USD (dropdown menu)
- VAT Identification No**: (empty field)
- Upload logo**: (circular icon with an upload arrow)
- ☒ Allow customer to attach SIMs to Buy Plans
- ☐ Display SIM account hierarchy

At the bottom right of the form are 'RESET' and 'UPDATE' buttons.

## Edit Contact

To edit a contact, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Scroll the list of accounts and click the **Options** icon for a selected account.
3. Click **Edit** to display the account details page.
4. Select the **Contacts** tab.
5. Edit the contact details and click **Save Changes**.

## Edit Address

To edit an address, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Scroll the list of accounts and click the **Options** icon for a selected account.
3. Click **Edit** to display the account details page.
4. Select the **Addresses** tab.
5. Edit the contact details and click **Save Changes**.

## Billing & Invoice

To edit billing and invoice information for a sub-account, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Scroll the list of accounts and click the **Options** icon for a selected account.
3. Click **Edit** to display the account details page.
4. Select the **Billing & Invoice** tab.
5. Edit the billing and invoice details and click **Update**.

## 7.4 Delete a Sub-Account

You can only delete an account only if it does not contain any assigned SIMs.

To delete an account, do these steps:

1. Select **My-Sub Account** from the sidebar menu.
2. Scroll the table of accounts and click the **Trash** icon to delete the selected account.
3. Click **Delete** to confirm removal of the account.

## 7.5 Hide Connectivity Rate

This feature enables parent accounts to restrict access to the connectivity rates for certain sub-accounts. The need for this feature is because some Service Providers (SP) or Mobile Network Operators (MNO) offer only package plans to their sub-accounts and may not want to allow access to the connectivity rates view.

**NOTE:** When you hide the connectivity rate for an account, all child accounts inherit this limitation and cannot view the price of the connectivity rate.

### 7.5.1 How It Works

This hide connectivity rate is based on these principles:

- Parent Account Control: The parent account (e.g., "A") can choose to hide the option to access connectivity rates for its sub-accounts. In this case, sub-accounts will not be able to view the connectivity rates . The sub account is still able to access the rates module in order to allow the sub account available networks view.
- Cascade Effect: A process in which the creation of a new sub-account (e.g., "C") under an existing sub-account (e.g., "B") prevents the new sub-account from accessing connectivity rates. This effect ensures consistent access control throughout all levels of sub-accounts..

### 7.5.2 Hide Connectivity Rate for New Account

To hide connectivity rates for a new account, do these steps:

1. Select **My Sub-Accounts** from the sidebar menu.
2. Click the **+Account** button to display the Create New Account dialog box.
3. Scroll down and check the **Hide Connectivity Rate** check box.

Here is an example screen capture of the Hide Connectivity Rate Feature for a New Account

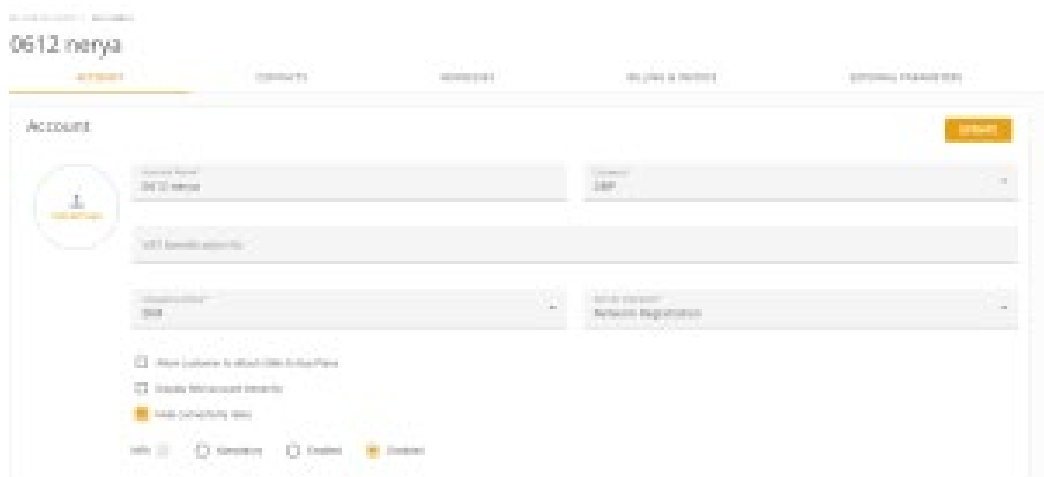


### 7.5.3 Hide Connectivity Rate for Existing Account

To hide connectivity rates for an existing account, do these steps:

1. Select **My Sub-Accounts** from the sidebar menu.
2. Scroll the table and select an account to display the **Account Details** page.
3. Select the **Account** tab.
4. Check the **Hide Connectivity Rate** option.

Here is an example screen capture of the Hide Connectivity Rate Feature for an Existing Account



## 7.6 Multi-Factor Authentication

Multi-factor authentication (MFA) is a security mechanism that requires users to provide two or more forms of verification before granting access to an account or system. This adds an extra layer of security beyond just a username and password, making it harder for unauthorized users to gain access.

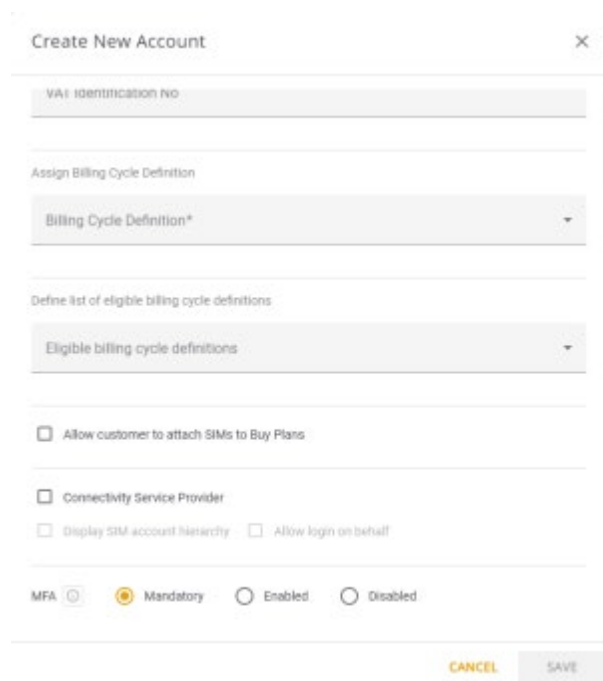
- **Enabled:** Users have the option to set up additional authentication methods for their accounts (in addition to username and password), but this is not mandatory.
- **Mandatory:** Users are required to set up and use additional authentication methods when creating a new account or accessing an existing one. This means that users cannot bypass the setup process for MFA; they must go through it to gain access.
- **Disabled:** When MFA is disabled, users are not prompted or required to set up additional authentication methods beyond the basic username and password.

## Setup MFA for New Account

To set up multi-factor authentication for new accounts, do these steps:

1. Select **Sub-Accounts** from the sidebar menu.
2. Click **+Account** to display the Create New Account dialog box.
3. Fill in the account details.
4. Scroll down and select one of these **MFA** options:
  - Mandatory
  - Enabled
  - Disabled
5. Click **Save** to update account in system.

Here is a screen capture of the MFA options.



The screenshot shows a 'Create New Account' dialog box with a close button (X) in the top right corner. The form contains several sections: 'VAT Identification No' with a text input field; 'Assign Billing Cycle Definition' with a dropdown menu labeled 'Billing Cycle Definition\*'; 'Define list of eligible billing cycle definitions' with a dropdown menu labeled 'Eligible billing cycle definitions'; a checkbox for 'Allow customer to attach SIMs to Buy Plans'; a checkbox for 'Connectivity Service Provider'; and two checkboxes for 'Display SIM account hierarchy' and 'Allow login on behalf'. At the bottom, there are four radio buttons for MFA: 'MFA' (unselected), 'Mandatory' (selected with a yellow dot), 'Enabled' (unselected), and 'Disabled' (unselected). At the very bottom of the dialog are 'CANCEL' and 'SAVE' buttons.

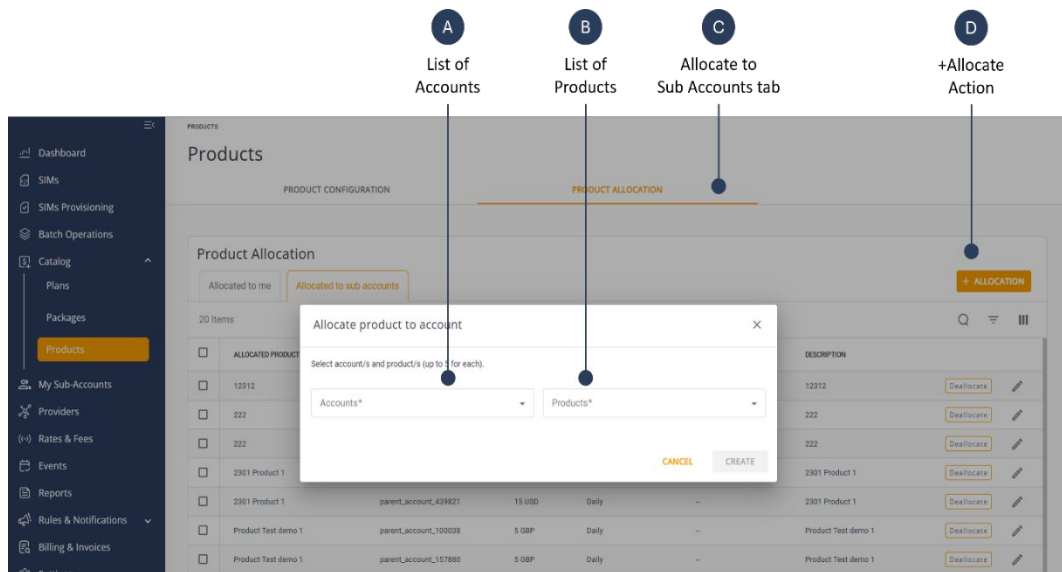
## 7.7 Allocate Products

To allocate a product to a sub-account, do these steps:

1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Allocation** tab.
3. Select the **Allocated to Sub-Accounts** tab.

4. Click **+Allocation** to display the **Allocate Product to Account** dialog box.
5. Select one or more accounts from the list of **Accounts**.
6. Select one or more products from the list of **Products**.
7. Click **Create** to allocate the selected products to the accounts.

A screen capture of the Allocate Product to Account dialog box is shown here.



## 7.8 Change Product Expiration Date

To change the product expiration date, do these steps:

1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Allocation** tab.
3. Select the **Allocated to Sub--account** tab. A list of allocated products is displayed.
4. Select a product from the list and click the **Edit** icon on the right-side of the table. The Edit Expiration dialog box is displayed.
5. Enter a new **Expiration Date** and click **Update**.

## 7.9 Configure a Product

To configure an existing product, do these steps:

1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Configuration** tab.

3. Click a product in the table to display the **Product Details** page.
4. Edit the **Account Product Name\*** field.
5. Edit the **Description** to provide information about this product.
6. Modify the **Account Product Cost** value.
7. Specify the **Account Product Currency\*** from the list of options.
8. Select a "Renewal Strategy" on page 119.
9. Select an "Expiration Strategy" on page 118.
10. Click **Update** to update the details in the product table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**TIP:** The Renewal and Expiration Strategy options are described in the Plan Management section.

A screen capture of the Configure Product page is shown here.

The screenshot shows the 'product-details' page with the following components:

- Account Product Name** (A): Input field with value '222'.
- Product Description** (B): Input field with value '222'.
- Account Product Cost** (C): Input field with value '2'.
- Account Product Currency** (D): Input field with value 'GBP'.
- Renewal strategy** (E): Dropdown menu with value 'Monthly'.
- Expiration Strategy** (F): Dropdown menu with value 'Expiration type'.
- UPDATE** button: Located in the top right corner of the 'PRODUCT-DETAILS' section.

## 7.10 Create New Product

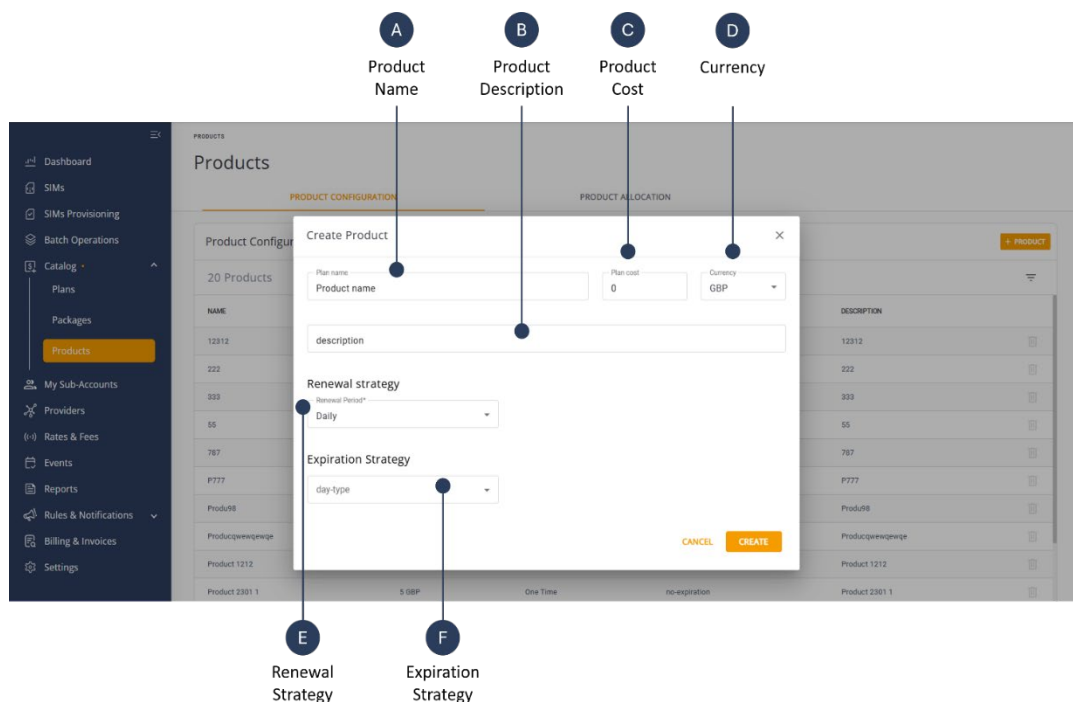
To create a new product fee to ensure ongoing, automatic payment for services, do these steps:

1. Select **Catalog | Products** from the sidebar menu.
2. Click **+ PRODUCT** to display the **Create New Product** dialog box.
3. Enter a name in the **Product Name\*** field.
4. Add a **Description** to provide information about this product.
5. Add the **Product Cost** value.
6. Specify the **Currency\*** from the list of options.
7. Select a "Renewal Strategy" on page 119.
8. Select an "Expiration Strategy" on page 118.
9. Click **Create** to display the plan in the plans table.

**NOTE:** Any step marked with an asterisk (\*) is mandatory and must be completed by selecting an appropriate option.

**TIP:** The Renewal and Expiration Strategy options are described in the Plan Management section.

A screen capture of the Create New Product dialog box is shown here.



## 7.11 De-Allocate Products

When you de-allocate a product from a sub-account, all recurring charges are canceled and the sub-account is no longer eligible to access and use product services.

To de-allocate a product fee for a sub-account(s), do these steps:

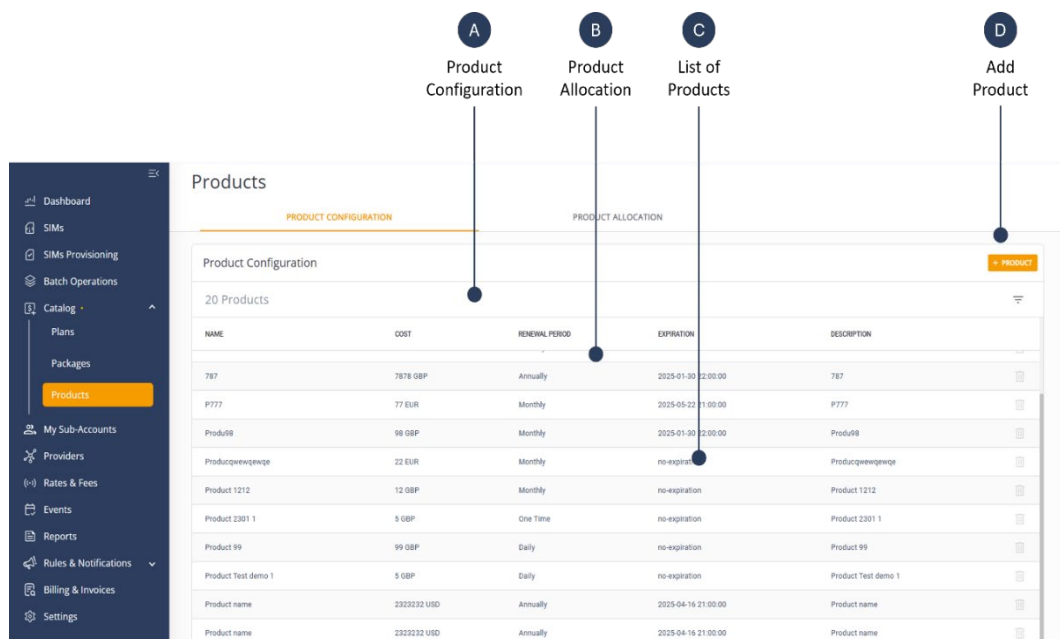
1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Allocation** tab.
3. Select the **Allocated to Sub--account** tab. A list of allocated products is displayed.
4. Select a product from the list and click the **De-allocate** button on the right-side of the table.
5. Click **De-allocated** to cancel product fee and use of service.

## 8 Products

The Product feature enables management of 'recurring charges' for various products across accounts (in contrast to a single one time payment). A recurring product (also referred to as product services) involves ongoing, automatic payment for services such as Access Point Name (APN), Virtual Private Network (VPN) and premium Service Level Agreements (SLAs) etc. Parent accounts can define one or more product fees for any of their sub-accounts to ensure they are charged appropriately for the services they consume.

**NOTE:** The product fee module enables users to view the products assigned to your account by the parent account and products associated to your sub-accounts.

A screen capture of the Products page is shown here.



### 8.1 Fee Attributes

A description of the recurring product fee attributes is provided in this table.

Attribute	Description
Name and Description	Clearly define the product with a name and a brief description to inform users of its purpose.
Recurring Type	Specify the frequency of the charge: Daily; Monthly ; Yearly
Cost and Currency	Set a price for the product per recurring cycle, including the applicable currency.
Expiration Time	Establish a time frame for the product's validity to ensure charges are applied appropriately.

## 8.2 Transactions

The system automatically generates a recurring transaction for each product charge. These transactions are included in monthly reports, invoices, and dashboards to provide visibility into account activity.

## 8.3 Functional Capabilities

A description of the product fee functional capabilities is provided in this table.

Feature	Description
Zero-Cost Products	Product fees may have a zero cost. This triggers a transaction and description without a monetary charge.
Cost Adjustments	Product costs can be modified at any given time for both increases and decreases.
Product Fee Reuse	A single product can be assigned to multiple sub-accounts to generate recurring charges across different account structures.

## 8.4 API Functionality

The floLIVE PublicAPI provides endpoints for managing products. Batch operations are available for attaching and detaching products to and from accounts.

## 8.5 View Allocated Products

The Product Allocation tab contains two options:

- **Allocated to Me:** Displays a list of products allocated to the user by the Parent Account.
- **Allocated to Sub-Accounts:** Displays a list of products allocated by the logged in user to one or more sub-accounts.

To view the Allocated Products to Me, do these steps:

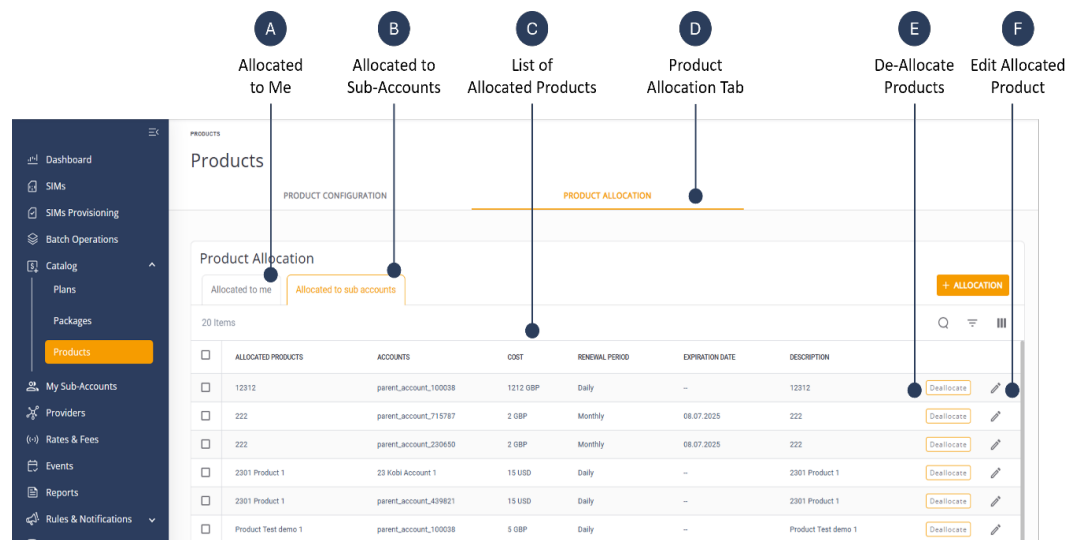
1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Allocation** tab.
3. Select the **Allocated to Me** tab. A list of allocated products is displayed.

To view the Allocated Products to Sub-Accounts, do these steps:



1. Select **Catalog | Products** from the sidebar menu.
2. Select the **Product Allocation** tab.
3. Select the **Allocated to Sub-Accounts** tab. A list of allocated products is displayed.

A screen capture of the Allocated Products page is shown here.

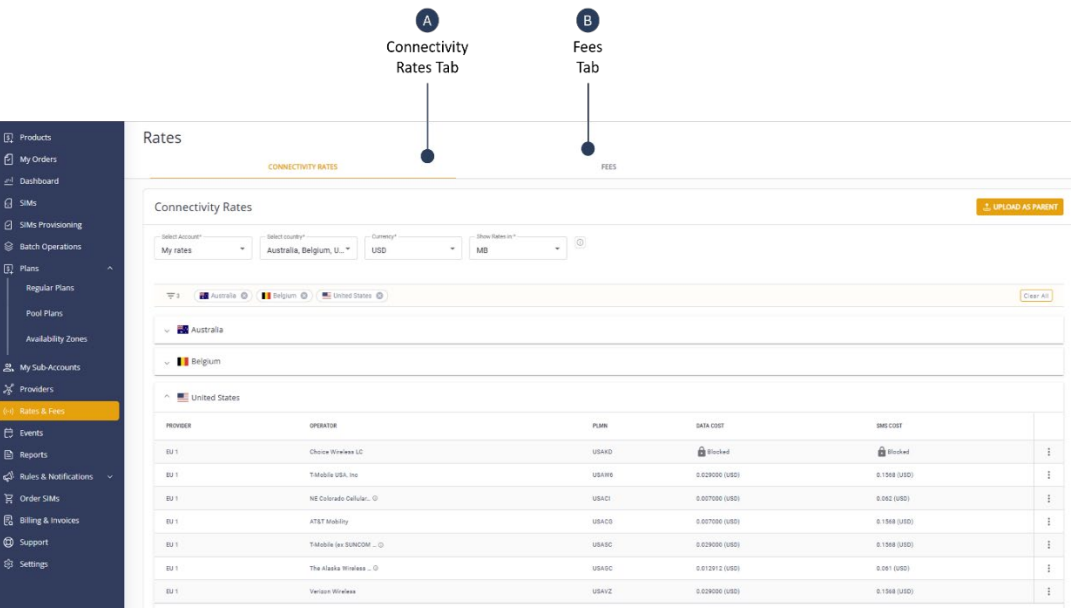


# 9 Rates and Fees

The Rates and Fees module enables operators and regular accounts to manage various pricing structures for connectivity services. This module consists of two tabs:

Tab Label	Description
Rates	View rates set by the parent account and create new rates for your sub-accounts.
Fees	View Access Fees and Surcharge Fees set by the parent account and create new fees for sub-accounts.

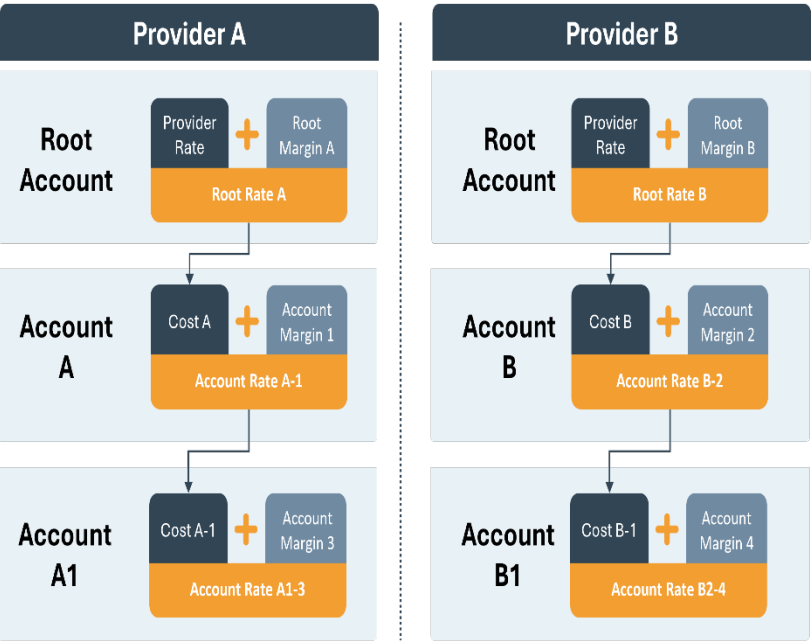
A screen capture of the Rates and Fees module is shown here.



## 9.1 Structure of Rates

Connectivity rates are structured hierarchically. The rate decks from higher-level accounts in the hierarchy are inherited by their corresponding child accounts.

A conceptual diagram of the rates hierarchy is shown here.



9.1.1 Rate Options for Child Accounts

There are two rate options that can be applied to child accounts as described in this table.

Rate Setting	Description
Cost + Markup (%) = Price	<p>Apply a fixed percentage markup to the cost price.</p> <p>Example: If the cost is \$1 and the markup is 10%, the final price will be calculated as follows: \$1 + 10% = \$1.10.</p>
Fixed Price	<p>Set a fixed price</p> <p>Example: A fixed rate might be set at \$1.30.</p>

9.2 View Parent Rates

The Connectivity Rates module initially opens to the unselected Connectivity Rates page:



## Connectivity Rates

Connectivity rates are defined as price per MB of data, with a scale of 6 digits. Connectivity rates are saved and used by the platform as price per KB of data, with a scale of 10 digits. The platform uses a rounding formula to convert the MB price to a KB price.

**EXAMPLE:** The price of \$0.000011 per MB is converted to \$0.0000000107 per KB. Used formula: `ROUND(0.000011/1024,10)`.

## View Country Connectivity Buy Rates in Parent Account

The parent account is your Buy Rates main account that contains the base Data and SMS rates (costs) that you pay to your Parent account. These rates are set by your Parent account and cannot be changed. The rates you pay are viewed by country. A Rates table displays the a list of Providers-Operators and specifies the Data and SMS costs you that you pay.

To view the connectivity rates for different countries, do these steps:

1. Select **Rates** from the sidebar menu.
2. Click Select Account and click **My Rates**. The entries below My Rates in the **Select Account** field are your customer sub-accounts.
3. Click Select Country and select one or more countries from the list. The My Rates table displays the connectivity Buy Rates for the selected countries. Scroll the Rates table and click a **Country** to expand the "[Country Rate Details](#)" on page 177.
4. Click **Currency** and select one of these options:
  - Original
  - USD
  - EUR
  - GBP

**NOTE:** The currency selector enables customers to choose the currency in which they view the connectivity rates. This feature is useful for international users (e.g. UK, EU, USA customers) who need to view rates in different currencies such as euros or pounds.

5. Click **Show Rates** to select Price Per Unit. The default display is per megabyte however, rates can also be displayed per KB when you select this option.

**IMPORTANT:** The My Rates view (parent account) shows the view-only Data and SMS connectivity rates (Data and SMS prices) you are paying for each Provider-Operator in the selected country.

## 9.3 View Sub-Account Rates

To view connectivity rates for different countries, do these steps:

1. Select the **Rates and Fees** from the sidebar menu.
2. Select the **Connectivity Rates** tab.
3. Click **Select Account** and select the relevant account.
4. Click **Select Country** and select one or more countries to display the associated rates.
5. Select the relevant **Currency**.
6. Scroll the table to view the connectivity rates per country and per Provider-Operator.

**TIP:** Expand the country label to display details for the selected country.

An example of the Connectivity Rates table is shown here.

^  Belgium					
PROVIDER	OPERATOR	PLMN	DATA COST	SMS COST	
TIS	Orange Belgium	BELMO	0.012986 (EUR)	0.1008494453 (EUR)	⋮
TIS	Proximus PLC	BELTB	0.002464 (EUR)	0.002464 (EUR)	⋮
Rows per page: 10 1 - 2 of 2 < >					

A description of the Country Rate Details is provided in this table.

Column Label	Description
Provider	IMSI provider alias (Provider 1, 2, etc.); all available IMSI providers in the selected country are listed. Each alias replaces a specific provider, as defined by each operator.
Operator	Local operator that the IMSI is roaming on
PLMN	The Public Land Mobile Network (PLMN) of the local operator
Data Cost (MB/KB)	The price you pay for 1MB/1KB of Data consumption from this Provider-Operator (read-only)

Column Label	Description
Data Price	The price you charge for 1MB/1KB of data consumption.
SMS Cost	The price you pay for 1 SMS message sent by this Provider-Operator (read-only)
SMS Price	The price you charge for 1 SMS message sent by this Provider-Operator
Change Status	Indicates the change in markup.

## 9.4 Country Rate Details

A description of the Country Rate Details is provided in this table.

Column Label	Description
Provider	IMSI provider alias (Provider 1, 2, etc.); all available IMSI providers in the selected country are listed. Each alias replaces a specific provider, as defined by each operator.
Operator	Local operator that the IMSI is roaming on
PLMN	The Public Land Mobile Network (PLMN) of the local operator
Data Cost (MB/KB)	The price you pay for 1MB/1KB of Data consumption from this Provider-Operator (read-only)
SMS Cost	The price you pay for 1 SMS message sent by this Provider-Operator (read-only)

Here is an example screen capture of the Country Rates table.



PROVIDER	OPERATOR	PLMN	DATA COST	SMS COST
TIS	Orange Belgium	BELMO	0.812986 (EUR)	0.1088434459 (EUR)
TIS	Proximus PLC	BELTE	0.803464 (EUR)	0.803464 (EUR)

## 9.5 Upload Connectivity Rates

Upload Rates allows an operator to import an Excel file containing connectivity rates to be charged a customer for local connectivity or for a customer who has roamed to another country or PLMN. The Excel file contains the rates of all services offerings, such as SMS volume and Data streaming.

**NOTE:** The rates imported apply to the provider root account. However, the connectivity rates of the Excel file are also applied to the operator's sub accounts.

The following is an example of an Excel file of connectivity rates that may be uploaded and applied:

1	Provider	Country	Operator	PLMN	smsOut	smsOutPriceType	dataMB	dataPriceType	Currency	gsms2g	gsms	urrl3g	l3g	changelIntervalData	changelIntervalVoice
2	Telecoms Italy Spa	Albania	Telecom Albania SA	ALBA	0.0217608	FIXED_PRICE	0.007794	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
3	Telecoms Italy Spa	Armenia	ARMTEL	ARMTEL	0.00916	FIXED_PRICE	0.011388	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
4	Telecoms Italy Spa	Armenia	VIVACELL MTS	ARMOS	0.02464	FIXED_PRICE	0.00034	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
5	Telecoms Italy Spa	Azerbaijan	AZECELL	AZEAC	0.00616	FIXED_PRICE	0.00433	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
6	Telecoms Italy Spa	Azerbaijan	VIVACELL	AZEBC	0.003446	FIXED_PRICE	0.001884	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
7	Telecoms Italy Spa	Bosnia	MT MOBILE COMMUN	BHMF	0.001690	FIXED_PRICE	0.001690	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
8	Telecoms Italy Spa	Bosnia	MOBILNA SRPSKE	BHMS	0.0024265	FIXED_PRICE	0.002426	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
9	Telecoms Italy Spa	Bosnia	SH TELECOM	BHPT	0.00806	FIXED_PRICE	0.00806	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
10	Telecoms Italy Spa	Belarus	MOBILE TELESYSTEM	BLMO	0.02464	FIXED_PRICE	0.011388	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
11	Telecoms Italy Spa	Belarus	MOBILE DIGITAL COMM	BLMO	0.02464	FIXED_PRICE	0.054884	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
12	Telecoms Italy Spa	Georgia	GEOSCELL	GEOSC	0.05232	FIXED_PRICE	0.020843	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
13	Telecoms Italy Spa	Georgia	VIMPELCOM	GEOMT	0.05232	FIXED_PRICE	0.011388	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
14	Telecoms Italy Spa	Croatia	CRICSTIAN TELC - HF	HRICM	0.0048975	FIXED_PRICE	0.004895	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec
15	Telecoms Italy Spa	Croatia	TELE2	HRFT2	0.0045028	FIXED_PRICE	0.00093	FIXED_PRICE	EUR	YES	YES	YES	YES	3 Mo	1 sec

Attribute	Description
Provider	IMSI provider alias (Provider 1, 2, etc.); in the selected Country. Each alias replaces a specific provider, as defined by each operator.
Country	The country where the sub-account is operating
Operator	Local operator that the IMSI is roaming on
PLMN	<p>Operator code (combining country and operator):</p> <ul style="list-style-type: none"> <li>When provided, the connectivity rate is applied to that specific operator</li> <li>When not provided, the connectivity rate is applied to the entire Country (including all operators within that Country)</li> </ul> <p>Note: Requires authorization.</p>
smsOut	<p>Rate charged for a single SMS messageRange: Decimal numerical value</p> <ul style="list-style-type: none"> <li>Mandatory if Data/MB is not provided</li> </ul>
smsOutPriceType	<p>Range:</p> <ul style="list-style-type: none"> <li>Percentage_Markup: Percentage markup value</li> <li>Monetary_Markup: Monetary markup value</li> <li>Fixed_Price: Monetary fixed amount</li> <li>Block(ed): Do not allow SMS service</li> </ul>
Data/MB	<p>Rate charged for 1 MB of data Range: Decimal numerical value</p> <ul style="list-style-type: none"> <li>Mandatory if smsOut is not provided</li> </ul>
dataPriceType	Range:

Attribute	Description
	<ul style="list-style-type: none"> <li>○ Percentage_Markup: Percentage markup value</li> <li>○ Monetary_Markup: Monetary markup value</li> <li>○ Fixed_Price: Monetary fixed amount</li> <li>○ Block(ed): Do not allow Data service</li> </ul>
Currency	<p>The payment currency</p> <ul style="list-style-type: none"> <li>○ Ignored if sms/dataPriceType is set at Percentage_Markup or Block</li> </ul>
gsm2g	Not active
gprs	Not active
umts3g	Not active
lte4g	Not active
chargeIntervalData	<ul style="list-style-type: none"> <li>○ Decimal numerical value:</li> <li>○ Units: KB units</li> <li>○ Default: 1 KB</li> </ul>
chargeIntervalVoice	<p>Decimal numerical value:</p> <ul style="list-style-type: none"> <li>○ Units: seconds</li> <li>○ Default: 1 second</li> </ul>

- The connectivity rates are defined by:
- IMSI provider
- Country
- Operator within each country
- PLMN

**NOTE:** Each country can have multiple operators and multiple PLMNs.

The connectivity rates are charged per service type and the currency of the transaction is also defined in the Excel file.



The Upload Rates functionality supports these features:

- Full upload that replaces all current rates
- Editing of specific PLMN rates without replacing other effective rates
- Deleting specific PLMN rates
- Block individual PLMN so that no SIM in the PLMN can be connected
- All uploads are effective immediately with no latency

To upload the Connectivity Rates Excel file:

1. Click Select **Account | Sub-Account**
2. Click the **Upload** button. The Upload IMSI Rates Sub-Account dialog is displayed.
3. Click **Upload Mode** and select the desired Upload action from the list:
  - **New/Update:** New rates that have been added to the Excel file, but not yet loaded into the system, are added. Existing rates whose values have been changed in the Excel file, but not yet updated in the system, are updated.
  - **Delete:** PLMN rates in the Excel file delete the same PLMN rates from the system; PLMN rates not in the Excel file are not deleted from the system.
  - **Full Upload:** Replace all existing system account rates with those in the Excel file. New PLMN rates that are in the Excel file, but not in the system, are added. PLMN rates that exist in both the Excel file and in the system are updated with the values in the Excel file. PLMNs with Fixed rates that are in the system, but not in the Excel file, are reset to the parent default rate + set markup.
4. Click **Select IMSI Provider** and select the relevant IMSI provider.
5. Browse or drag the Excel file into the Drag Your Files field and click **Upload**. The Excel file is uploaded, and the action is executed in the background. Viewing the changes in the UI can take up to 30 seconds.

**NOTE:** The Excel file is automatically validated when you upload it. An appropriate error message indicates any errors, for example, when you attempt to upload an Excel file with a PLMN that is not available to you.

## 9.6 Sub-Account Sell Rates

You can manage sub-account rates from Rate sheets for each sub-account. The rates are viewed per country and per Provide-Operator, as in the parent account Rate Sheet. The sub-

account Connectivity Rates page (and Country Rate sheets) enable you to set your markups from your base Data and SMS costs (as listed in the My Rates Rate sheet).

There are three markup level types:

- **Global Markup:** global markup for the entire sub-account, including all countries and all Providers-Operators in each country.
- **Country Markup:** a markup applied to all Providers-Operators of a single country; this markup overrides the sub-account Global markup settings for the selected country.
- **Single Provider-Operator:** a markup applied to a single Provider-Operator (in a single row of the country Rate sheet); this markup overrides the sub-account Global and Country markup settings for the selected Provider-Operator.

## 9.7 Sub-Account Global Markups

Sub-account Global markup applies to all a sub-account's countries and all Provider-Operators in those countries. This Global markup applies until you override it with (single) Country markups or (single) Provider-Operator markups.

To manage sub-account Global markups:

1. Click **Select Account | Sub-Account** The right side of the Connectivity Rates page header displays the Global markups for all countries and Providers-Operators in this sub-account. If no Global markups are in force, the page displays a Markup widget that enables you to define markups directly.
2. To define a Markup, click the down arrow next to the Markup display or the Markup widget. The **Set/Change Global Markups** action is displayed.
3. Click **Set/Change Global Markups**. The Set Global Markups dialog appears with current settings or empty if there are no Global Markups configured:
4. Click the **Data Markup** and **SMS Markup** fields to change their values as desired.

**NOTE:** Data Markup and SMS Markup are in percentage units above the base costs charged by the parent account.

5. Click **SAVE**. The Global markups for this sub-account are changed and the new markups are displayed on the right side of the Connectivity Rates header.

**TIP:** When you open the Rates sheets of each country, you will see that the Data Prices and the SMS Prices (you are charging) have now been adjusted to the new markup over the Data Cost and SMS Cost (that the parent account is charging you).

## 9.8 Sub-Account Country Markups

Sub-account Country markups are applied to all Provider-Operators within a country served by the sub-account. They are limited to a single country.

Sub-account Country markup settings override sub-account Global markups. Changing the markups of a single Provider-Operator within a country overrides the sub-account Country markups for that Provider-Operator only.

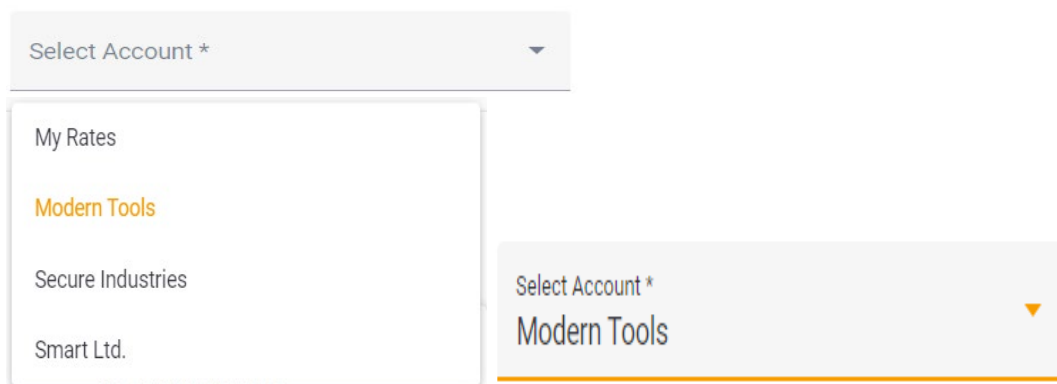
### 9.8.1 Sub-account Country Markups Options

The Set or change Country markup features has three options:

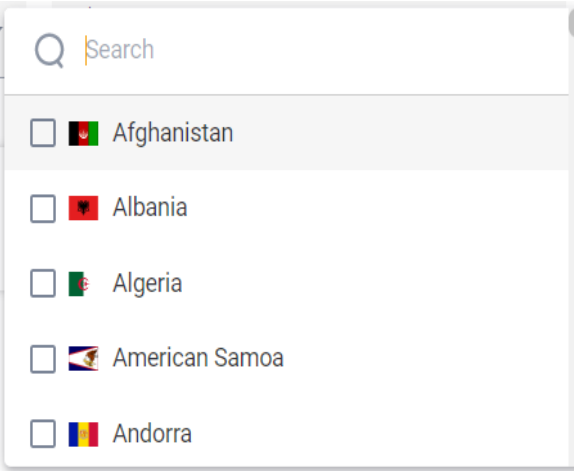
- % Markup: Percentage markup on top of parent account rates (your costs) applied to all Providers-Operators within this country
- Fixed price: Set a fixed price on Data (per megabyte) and SMS (per message) usage applied to all Providers-Operators within this country
- BLOCK: All Providers-Operators in this country are blocked and SIMs cannot consume any connectivity services
- Delete all Country markups: Removes all Country markups and single Provider-Operator markups within the country and reverts them to the sub-account Global markups (that apply in all countries)

### 9.8.2 Access Country Markups Settings

1. Click Select Account > <Sub-Account>:



2. Click Select Country and select the countries whose connectivity rates you want to view:



The Sub-account view shows the selected countries in the page header and the hidden Rate tables of the countries selected:



Sub-Account View with Hidden Rates Tables of Selected Countries

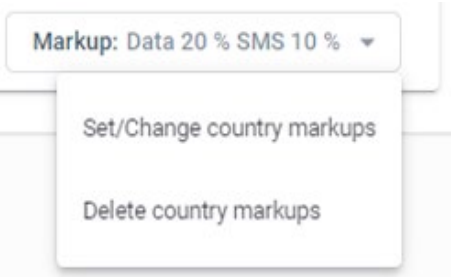
The right side of each Country header displays the Country markups currently in force in that country. By default, the Country markups inherit the sub-account Global markups.



Country Header with its Markups

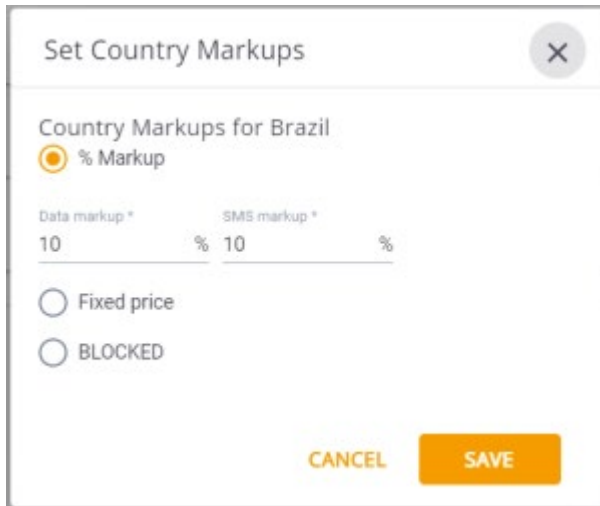
3. Click the Down arrow next to the Markup display.

The **Set/Change country markups** action appears.



4. Click **Set/Change country markups**.

The Set Country Markups dialog appears:

The image shows a 'Set Country Markups' dialog box for Brazil. At the top, it says 'Set Country Markups' with a close button (X). Below that, it says 'Country Markups for Brazil'. There are three radio buttons: '% Markup' (which is selected), 'Fixed price', and 'BLOCKED'. Under the '% Markup' option, there are two input fields: 'Data markup \*' with a value of '10' and 'SMS markup \*' with a value of '10'. Both fields have percentage symbols to their right. At the bottom, there are two buttons: 'CANCEL' and 'SAVE'.

Set Country Markups Dialog

The Set Country Markups dialog box contains the three Set/Change options.

To set or change Country % Markup:

1. Select % Markup (if necessary).
2. Click the Data Markup and SMS Markup fields to change their values as desired. You can use the spin arrows.

The new markups you set override those of the sub-account Global markups and are applied to all Providers-Operators in this country (only).

3. Click SAVE.

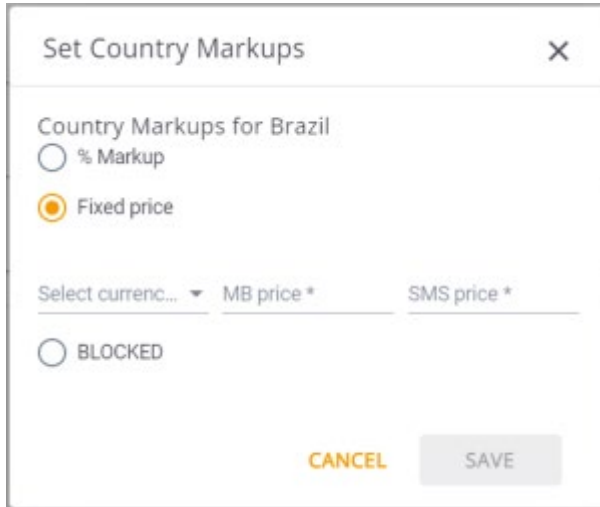
The Country markups for this country are changed and the new markups appear in the Markup indicator on the right side of the Country header.

When you open the Rates table of this country, you will see that the Data Prices and the SMS Prices (you are charging) of all Providers-Operators in the country have now been adjusted to reflect the new markups over the Data Cost and SMS Cost (that the parent account is charging you).

To set or change Country markup to a Fixed Price:

1. Select Fixed price.

The Fixed Price fields for Data and SMS usage appear:



The dialog box is titled "Set Country Markups" with a close button (X) in the top right corner. Below the title, it says "Country Markups for Brazil". There are three radio button options: "% Markup", "Fixed price" (which is selected), and "BLOCKED". Below these options, there are two input fields: "Select currency..." with a dropdown arrow, and "MB price \*" and "SMS price \*" with text input fields. At the bottom, there are two buttons: "CANCEL" in orange and "SAVE" in a light gray box.

Fixed Price Fields in the Set Country Markups Dialog

2. Select the currency and the (Data) MB price and the (per message) SMS price.

These fixed prices override the Global Markups of the parent-account and are applied to all Providers-Operators in this country (only).

3. Click SAVE.

The sub-account Country markups for this country are changed to fixed prices, which appear in the Markup indicator on the right side of the Country header:

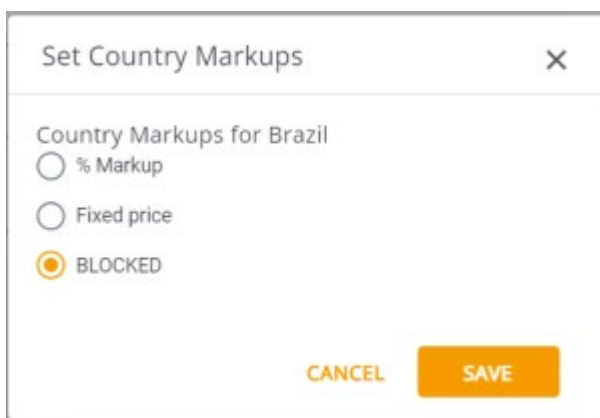


A rounded rectangular box containing the text "Fixed :Data €0.04999168 SMS €0.02".

When you open the Rates table of this country, you will see that the Data Prices and the SMS Prices (you are charging) have now been changed to the fixed price for all Providers-Operators in the country.

To block all Providers-Operators in this country:

1. Select BLOCKED.



The dialog box is titled "Set Country Markups" with a close button (X) in the top right corner. Below the title, it says "Country Markups for Brazil". There are three radio button options: "% Markup", "Fixed price", and "BLOCKED" (which is selected). At the bottom, there are two buttons: "CANCEL" in orange and "SAVE" in an orange box.

## BLOCKED option in the Set Country Markups Dialog

Warning: There is no request for confirmation when you initiate BLOCK. The process of blocking all Providers-Operators in this country is immediately initiated when you click SAVE in the next step.

### 2. Click SAVE.

All Providers-Operators in this country are blocked and lose their connectivity.

Note: When you click SAVE, the process of blocking all Providers-Operators in the selected country can take upwards of 15 seconds.

The **BLOCK** indicator appears on the right side of the Country Rates table header. When you open the Rates table of this country, you will see that the Data and SMS Cost and Price columns indicate that all Providers-Operators in this country have been blocked and have lost their connectivity.

## Restoring Connectivity to a Blocked Country

You can restore connectivity to a blocked country with two methods:

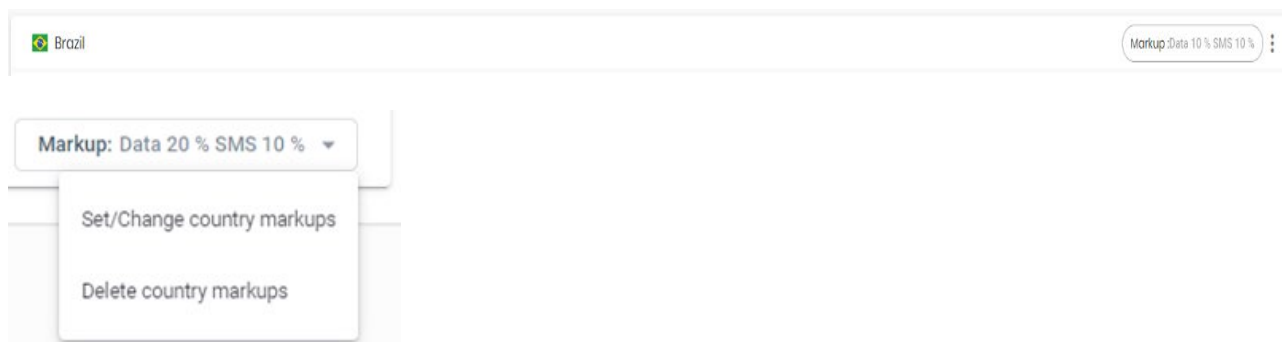
- Set/Change Country Markups and set either % Markup or Fixed price for the country, as described above
- Delete country markups: Restore Global Country markups to all Provider-Operators in this country, as will be described below

## Delete (Sub-Account) Country-Markups

**NOTE:** Deleting markups restores the Global markups for this country by removing all Country markup settings and all override settings of single Providers-Operators within the country.

To delete Country markups, do these steps:

1. Click the icon next to the Markup display in the Country header and select Delete Country Markups:



The Delete the Markup confirmation message appears:



Delete the Markup Confirmation Message

Warning: There is no Undo when you delete the Country markups.

2. Click SAVE.

All Providers-Operators in this country are blocked and lose their connectivity.

**NOTE:** When you click SAVE, the process of deleting all Country markups and restoring the sub-account Global markups can take upwards of 15 seconds.

The sub-account Country markups indicator now shows the sub-account Global markup settings.

When you open the Rates table of this country, you will see that the Data and SMS Price columns indicate that all Providers-Operators in this country now are set to the (sub-account) Global markup settings.

## 9.9 Sub-Account Single Provider-Operator Markups

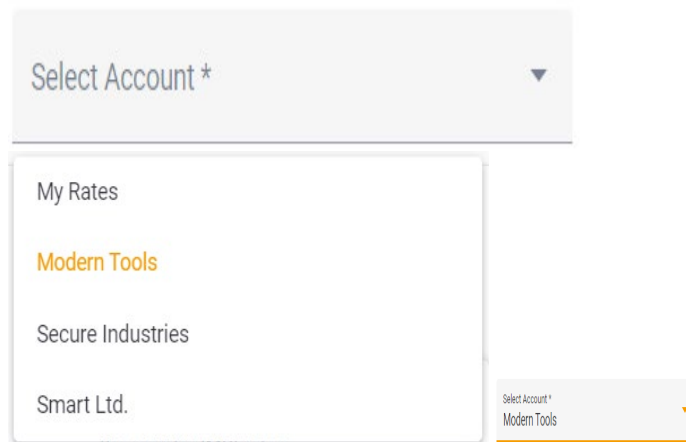
Sub-account single Provider-Operator markups are applied to only one Provider-Operator within one country. Sub-account Provider-Operator markup settings override sub-account Country markups for this Provider-Operator only.

Managing single Provider-Operator markups has these options:

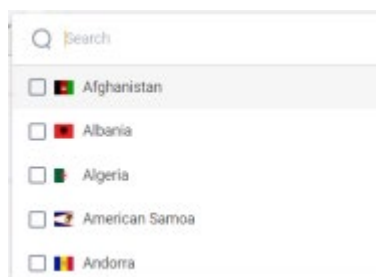
- Set or change Provider-Operator markups has three options:
  - % Markup: Percentage markup on top of parent account rates (your costs) applied to this Providers-Operator only
  - Fixed price: Set a fixed price on Data (per megabyte) and SMS (per message) usage applied to this Provider-Operator only
  - Block: All SIMs of this Provider-Operator are blocked and cannot connect

1. Access Single Provider-Operator Markups Settings.
2. Select My-Sub Account from the sidebar menuClick Select Account > <Sub-Account>:





2. Click Select Country and select the countries whose connectivity rates you want to view:



The Sub-account view shows the selected countries in the page header and the hidden Rate tables of the countries selected:



### Sub-Account View with Hidden Rates Tables of Selected Countries

- Click on a country to expand its Rates table.

The Rates table of the selected country appears:


[illegible]

## Sub-Account View with Expanded Rates Table of One Country

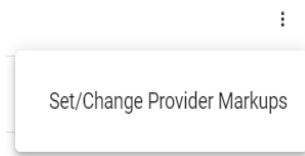
Attribute	Description
Provider	<p>IMSI provider alias (Provider 1, 2, etc.); all available IMSI providers in the selected country are listed.</p> <p>Each alias replaces a specific provider, as defined by each operator.</p>
Operator	Local operator that the IMSI is roaming on
PLMN	The Public Land Mobile Network (PLMN) of the local operator.
Data Cost (MB/KB)	The rate that your parent account is charging you for 1MB/1KB of Data consumption for this Provider-Operator (read-only)
Data Price (MB/KB)	<p>The price that this Provider-Operator (your customer) is paying you for 1MB/1KB of Data consumption</p> <p>Equals Data Cost + (Data) Markup or Fixed Price</p>
SMS Cost	The rate that your parent account is charging you for 1 SMS message sent for this Provider-Operator (read-only)
SMS Price	<p>The price that this Provider-Operator (your customer) is paying you for 1 SMS message</p> <p>Equals SMS Cost + (SMS) Markup or Fixed Price.</p>
Change Status	<p>Displays the change you made for this Provider-Operator:</p> <ul style="list-style-type: none"> <li>○ Directly in the UI, as described below</li> <li>○ When you Upload an Excel file (<a href="#">Uploading Connectivity Rates with an Excel File</a>) with this change using the Add/Update upload option</li> </ul>

Show Rates in: ☒ MB ☐ KB 

Notice that the default Rate display is per MB: . Click the desired button to show the Rates per MB or per KB.

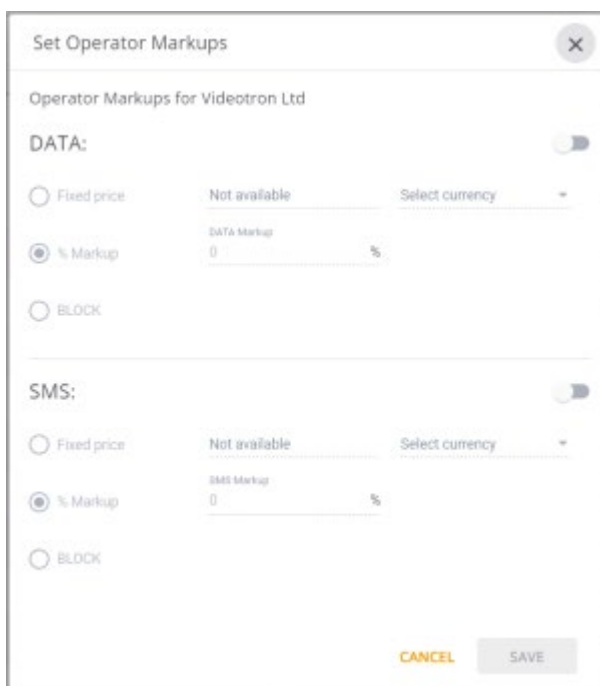
- Click the  icon on the right side of the Provider-Operator for which you want to set markups.

A list of actions appears.



- Click **Set/Change Provider Markups**.


The Set Operator Markups dialog appears with Data and SMS markup settings disabled:



The Set Operator Markups dialog box separates Data and SMS markup configurations, each with the three options. The procedure is the same for both.

To set or change Provider-Operator markup to a Fixed Price:

- Activate Data and/or SMS markup configuration by toggling them Active.

Range: Inactive , Active 

Default: Inactive

The fields become active.

- Select Fixed price.

The Fixed price fields become activated.

Set Operator Markups

Operator Markups for Videotron Ltd

DATA:

☒ Fixed price MB Price \* Select currency \* USD

☐ % Markup Not available

☐ BLOCK

SMS:

☒ Fixed price Price \* Select currency \* USD

☐ % Markup Not available

☐ BLOCK

CANCEL SAVE

Set Operator Markups Dialog with Active Fixed Price Fields (Data and SMS)

3. Do the following:

- For Data, select the (Data) MB price and the currency
- For SMS, select the SMS price (per message) and the currency.

These fixed prices override the sub-account Country markups and are applied only to this Provider-Operator.

4. Click SAVE.

The Provider-Operator markups are changed in the background to fixed prices.

Note: You must close and then reopen the Country Rates table to view the changes.

5. Close and then reopen the Rates table.

When you close and reopen the Rates table of this country, you will see that the Data Prices and the SMS Prices (you are charging) have now been changed to the fixed price for this Provider-Operator.

To set or change Provider-Operator % Markup:

1. Activate Data and/or SMS markup configuration by toggling them Active.

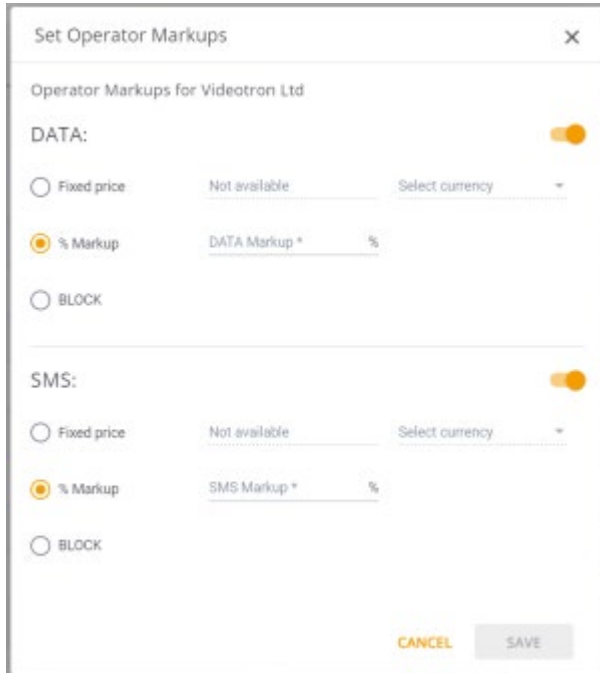
Range: Inactive , Active

Default: Inactive

The fields become active.

2. Select % Markup.

The % Markup field becomes activated:



The image shows a dialog box titled "Set Operator Markups" with a close button (X) in the top right corner. The subtitle is "Operator Markups for Videotron Ltd". The dialog is divided into two sections: "DATA:" and "SMS:". Each section has a toggle switch on the right, both of which are turned on (orange). Under the "DATA:" section, there are three radio button options: "Fixed price" (inactive), "% Markup" (active, highlighted with a yellow circle), and "BLOCK" (inactive). The "% Markup" option is selected, and next to it is a text field labeled "DATA Markup \*" with a percentage sign (%) to its right. The "Fixed price" option has a "Not available" status and a "Select currency" dropdown. The "SMS:" section has identical options and a text field labeled "SMS Markup \*" with a percentage sign (%). At the bottom of the dialog are two buttons: "CANCEL" (orange) and "SAVE" (grey).

Set Operator Markups Dialog with Active % Markup Fields (Data and SMS)

3. Do the following:

- For Data, select the DATA Markup field to change its value as desired
- For SMS, select the SMS Markup field to change its value as desired

You can use the spin arrows.

The new markups you set override those of the sub-account Country markups and are applied only to this Provider-Operator.

4. Click SAVE.

The Provider-Operator markups are changed in the background.

Note: You must close and then reopen the Country Rates table to view the changes.

5. Close and then reopen the Rates table.

When you close and reopen the Rates table of this country, you will see that the Data Prices and the SMS Prices (you are charging) have now been changed for this Provider-Operator.

To block this Provider-Operator:

1. Activate Data and/or SMS markup configuration by toggling them Active.

Range: Inactive , Active



Default: Inactive

The fields become active.

2. Select BLOCK.

Set Operator Markups

Operator Markups for Videotron Ltd

DATA:

☐ Fixed price Not available Select currency ▼

☐ % Markup Not available

☒ BLOCK

SMS:

☐ Fixed price Not available Select currency ▼

☐ % Markup Not available

☒ BLOCK

CANCEL SAVE

BLOCK option in the Set Operator Markups Dialog

Warning: There is no request for confirmation when you initiate BLOCK. The process of blocking this Provider-Operator is immediately initiated when you click SAVE in the next step.

3. Click SAVE.

This Provider-Operator is blocked and loses its connectivity.

Note: When you click SAVE, the process of blocking the Provider-Operator can take upwards of 15 seconds.

Note: You must close and then reopen the Country Rates table to view the change.

4. Close and then reopen the Rates table.

When you close and reopen the Rates table of this country, you will see that the Data and SMS Cost and Price columns of this Provider-Operator indicate that the Provider-Operator has been blocked and has lost its connectivity.

### Restoring Connectivity to a Blocked Provider-Operator

To restore connectivity to a blocked Provider-Operator:

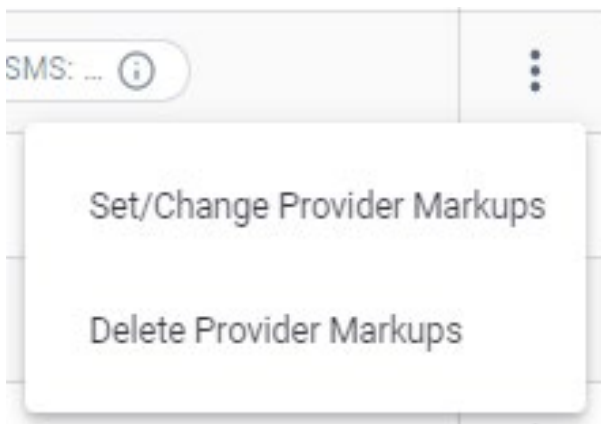
- Do Set/Change Provider Markups and set Data/SMS % Markup or Fixed price for this Provider-Operator, as described above

### Delete Markups of a Single Provider-Operator

Deleting markups of a Single Provider-Operator restores the Country markups for this provider.

To delete Single Provider markups:

1. Click the icon next to the Markup display in of a Single Provider in the table and select Delete Provider Markups:



The Delete the Markup confirmation message appears:



Delete the Markup Confirmation Message

2. Click SAVE.

This Providers-Operator is blocked and loses its connectivity.

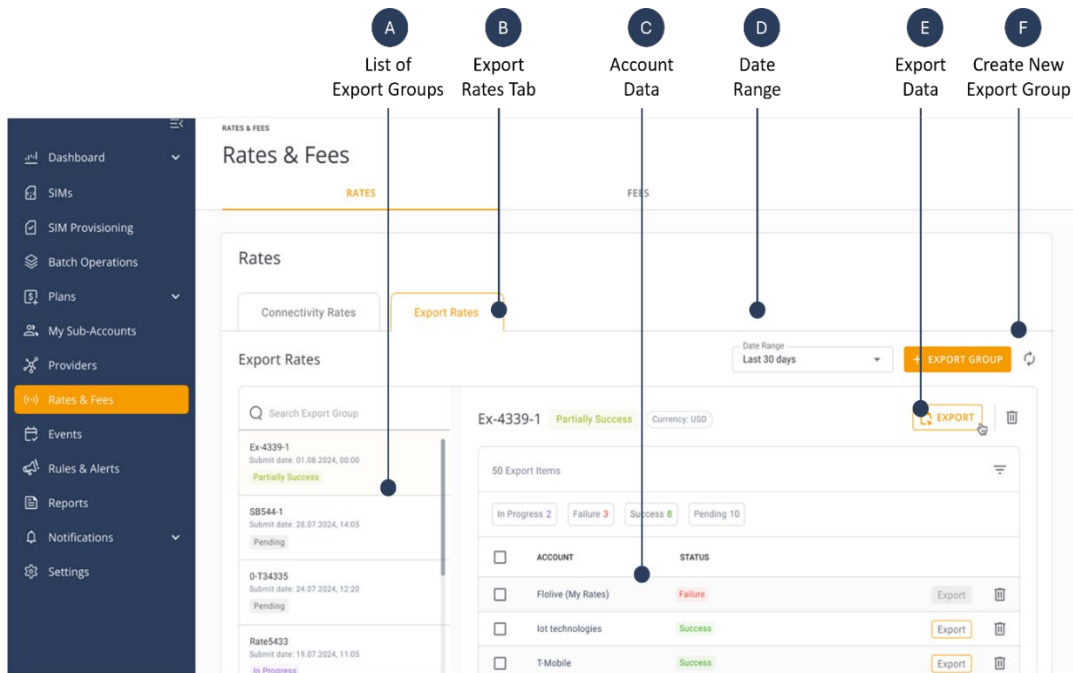
## 9.9.1 Export Rate Data Features

The Export Rate data feature enables customers to export Buy and Sell Rates per sub-account for analysis or record-keeping.

A description of the Export Rate Data features is provided in this table.

Aspect	Details
Available Export Types	<ul style="list-style-type: none"> <li>Buy Rates (created by parent account)</li> <li>Sell Rates (per sub-account for child accounts)</li> </ul>
Content of Exported File	<ul style="list-style-type: none"> <li>Finalized rates after markups (global, country, fixed)</li> <li>Blocked rates marked with indicator</li> <li>Rates blocked by parent are excluded</li> </ul>
Data Columns in Export	Provider, Country, Local Operator, PLMN, Currency, Data Cost, Data Price, SMS Cost, SMS Price, Margin (%), Margin Type
File Format and Naming	<ul style="list-style-type: none"> <li>Format: Excel/CSV</li> <li>Name includes account name and creation date (e.g., floLIVE_20220501.csv)</li> </ul>
Historical Data Export	Users can export historical files based on effective dates
Special Indicators	Blocked rates are marked; rates blocked by parent are not included in export

A screen capture of the Export Rates interface is shown here.



A description of the Export data fields is provided in this table.



Concept	Description
List of Export Groups	Displays a list of saved export configurations that specify how and what data to export.
Export Rates Tab	The dedicated section in the CMP Portal where users configure and initiate the export of buy or sell rates.
Account Data	A list of the accounts included in the Export Rate Group.
Export Status	Indicates whether an export job is pending, in progress, successfully completed, or failed.
Date Range	The specific period of time to filter historical rate export files..
Export Data Button	The user interface element that, when clicked, triggers a download file operation
Create New Export Group	An option that allows users to submit a request to start export rate generation for one or more accounts . When the file is ready, the status is changed to Success and the export rate file(s) can be downloaded.

### 9.9.2 Create Export Group

To create an Export Group of Rate Data, do the steps:

1. Select **Rates & Fees** from the sidebar menu.
2. Select the **Export Rates** tab.
3. Select a **Date Range** from the list of options.
4. Click the **+ Export Group** button.
5. Enter a name for the group in the **Export Group Name** field.
6. Select one or more customers from the **Accounts** field.
7. Select the appropriate **Currency** option.
8. Click **Create** to display the new group in the Export Rates tab.

### 9.9.3 Export Account Data in Export Group

To export the rate data for specific accounts included in an Export Group, do the steps:

1. Select **Rates & Fees** from the sidebar menu.
2. Select the **Export Rates** tab.
3. Select an **Export Group** in the left panel.
4. Select a **Date Range** from the list of options.
5. Select one or more accounts from the list in the right panel.
6. Click the **Export** button in the right panel to export the date for selected accounts.

**TIP:** You can select the **Export** button in the right top area of the table to export all account rates in a single ZIP file.

### 9.9.4 Delete Export Rate Group

To delete an Export Group, do these steps:

1. Select **Rates & Fees** from the sidebar menu.
2. Select the **Export Rates** tab.
3. Select an **Export Group** in the left panel.
4. Click the **Delete** button in the right panel to remove the Export Group.

### 9.9.5 Delete Account from Export Group

To delete one or more accounts from an Export Group, do these steps:

1. Select **Rates & Fees** from the sidebar menu.
2. Select the **Export Rates** tab.
3. Select an **Export Group** in the left panel.
4. Select a **Date Range** from the list of options.
5. Select one or more accounts from the list in the right panel.
6. Click the **Delete** button in the right panel to remove the selected accounts from the Export Group.

## 9.10 View Platform Fees

You can view the fees assigned for each active IMSI on the SIM card. This enables you to align your billing with the various charges of different IMSI providers.

There are two types of platform fees as described in this table.

Type of Fee	Description
Access Fee	A monthly payment for usage of an active IMSI. The Access Fee price may vary depending on the IMSI Service Provider.
Surcharge Fee	An additional monthly fee made by a network provider on top of the Access Fee. Surcharge fees may differ per country and per network provider.

**NOTE:** You can transfer the Access Fee across your entire account structure by adding a markup rate (%) or fixed charge to the Access Fee set by your parent account.

A screen capture of the Fees table is shown here.

The screenshot shows the 'Rates & Fees' section of the floLIVE interface. Annotations A through H point to specific elements:

- A:** Points to the 'Account' dropdown menu.
- B:** Points to the 'Provider' dropdown menu.
- C:** Points to the 'Fee Table' header.
- D:** Points to the 'Provider' column header.
- E:** Points to the 'Fee Type' column header.
- F:** Points to the 'Fee Cost' column header.
- G:** Points to the 'Fee Price' column header.
- H:** Points to the 'Country' column header.

The 'Fees' table displays 7 fees. The table structure is as follows:

PROVIDER	FEE TYPE	FEE COST	FEE PRICE	COUNTRY	OPERATOR	PLAN	MARKUP
EU 1	Access Fee	0.09 USD	-	-	-	-	-
EU 4	Surcharge Fee	0.03 USD	-	USA	Verizon	US6012	Fixed 0 USD
EU 4	Surcharge Fee	0.1 USD	-	USA	T-Mobile USA	US6006	Fixed 0 USD
India 1	Access Fee	-	-	-	-	-	-
LATAM 2	Surcharge Fee	0.1 USD	-	USA	T-Mobile USA	US6006	Fixed 0 USD
LATAM 2	Access Fee	0.07 USD	-	-	-	-	-
Z1	Access Fee	-	-	-	-	-	-

To view sub-account fees, do these steps:

1. Select **Rates & Fees** from the sidebar menu.
2. Click the **Fees** tab to display the Fees table.
3. Select an **Account\*** from the list of accounts.
4. Select one or more **Providers\*** from the list.
5. Use the Filter to select the **Fee Type**.
  - Access Fee
  - Surcharge Fee
6. Select one or more items from the **Country** list.
7. Click **Apply** to update the Fees table.

## 9.11 Set Platform Fees

You can set the Access Fee and Surcharge Fees for your sub-accounts by adding a markup percentage or fixed price per active IMSI. This feature enables you to align your billing strategy with the charges set by different IMSI providers and network operators.

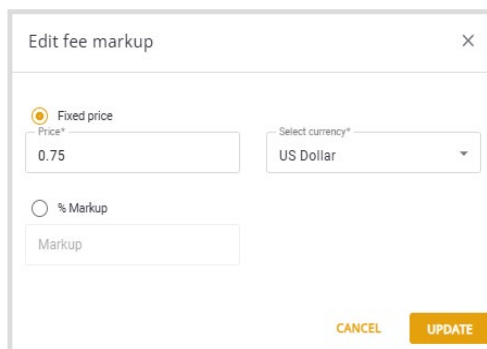
To set the platform fees for a sub-account, do these steps.

1. Select **Rates & Fees** from the sidebar menu.
2. Click the **Fees** tab to display the Fees table.
3. Select an **Account\*** from the list of accounts.
4. Select one or more **Providers\*** from the list.
5. Select a Provider listed in the Fees table.

**NOTE:** Make sure you select the appropriate Access Fee or Surcharge Fee when select the provider row.

6. Click the provider row **Actions** control and select **Edit Fee Markup**.
7. Specify the **Fee Markup** details:
  - a. **Fixed Price:** Specify the price and currency.
  - b. **% Markup:** Specify the markup percentage.
8. Click **Update** to update the Fees table. The new fee is now updated for the selected account.

An example screen capture of the Edit Fee Markup is shown here.



## 9.12 Exclude Platform Fees

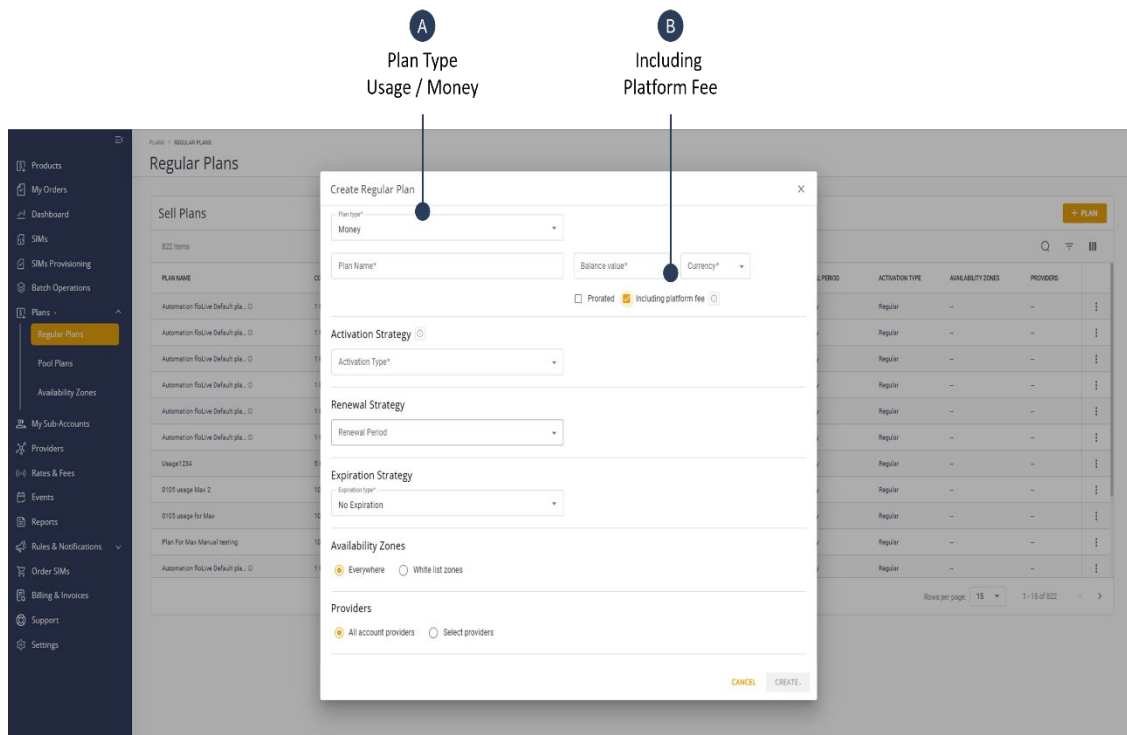
In some cases you may want to exclude the platform fees from your billing transactions. This is done by selecting the “Including Platform Fee” option when you create regular usage and money plans.

To exclude the platform fee, do these steps:

1. Navigate to the **Plan Management** module.
2. Click **+Plan** to display the Create New Plan dialog box.
3. Select a Regular Usage or Money plan in the **Plan Type** field.
4. Check the **"Including Platform Fee"** option.
5. Define all the Create New Plan settings and click **Create**.

**IMPORTANT:** When you check the Including Platform Fee option, you cannot edit or update this option after the plan has been assigned to one or more SIMs.

A screen capture of the "Including Platform Fee" option is shown here.



## 10 Events Module

The Events module displays an aggregated view of all Core network signalling events for all SIMs. The Events module includes these features:

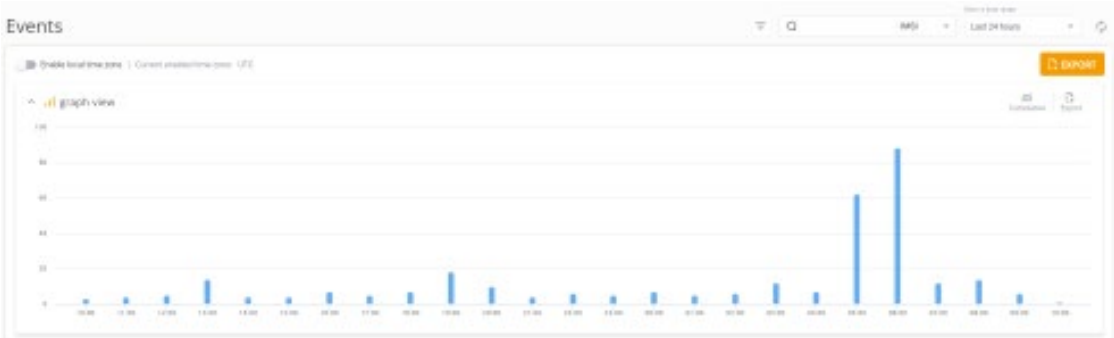
- **Events Timeline:** The timeline provides a consolidated and chronological view of all core network signalling events and enables users to understand the sequence and frequency of event to identify patterns, trends, and irregularities in network activity.
- **Events Table:** Provides a detailed record of all relevant activities, network events and transactions, for monitoring, analysis, and troubleshooting purposes.

An example of the Events Table is shown here.

	ACCOUNT	DATE ↓	ICCID	VLR	EID	IMSI	MMSDN	ACTION
▼	IoT Technologies	27.02.24, 06:29:21	8935711001000031358	—	—	278773000019702	3564000219702	GGSA
▼	IoT Technologies	27.02.24, 06:29:18	8935711001000031358	—	—	278773000019702	3564000219702	GGSA
▼	IoT Technologies	27.02.24, 06:29:03	8935711001000031358	—	—	278773000019702	3564000219702	GGSA
▼	IoT Technologies	27.02.24, 06:27:59	8935711001000030327	—	—	278773000153550	3564000353550	GGSA
▼	IoT Technologies	27.02.24, 06:27:44	8935711001000031358	—	—	278773000019702	3564000219702	GGSA
▼	IoT Technologies	27.02.24, 06:26:59	8935711001000030327	—	—	278773000153550	3564000353550	GGSA

**TIP:** The Events Table includes a useful tool-tip for each of the column headings.

An example of the Events Timeline is shown here



10.1 Event Parameters

The Event table provides a comprehensive overview of all core network signaling events for SIMs managed within the system. This table serves as a valuable reference for analyzing and troubleshooting network events, identifying patterns, and understanding the status and performance of SIMs within the connectivity management system.

A description of the event table parameters is provided in this table.

Attribute	Description
Account	The account to which the IMSI belongs.
Action	Event action (e.g., registration, authentication).
APN	Access Point Name.
Called	Called party number.
Charge ID	Charging ID.
Code	Event error code (e.g., 0 for success, ### for error).
Core Network	Name of the core network.
DCNR	Dual-Connectivity with New Radio (DCNR) field indicates a connection to a 5G network alongside the 4G network.
Diagnostic	Not applicable.
Direction	Not applicable.
Date	Timestamp indicating the date and time of the event, adjusted to the local time zone.
EID	eUICC ID (Embedded Universal Integrated Circuit Card Identifier) of the SIM.
ICCID	ICCID (Integrated Circuit Card Identifier) of the SIM.
IMEI	International Mobile Equipment Identity of the device modem.
IMSI	International Mobile Subscriber Identity of the SIM.

Attribute	Description
IP	IP address allocated by the Packet Data Network Gateway (PGW).
Location	Location information, including Mobile Country Code (MCC) and Mobile Network Code (MNC).
MME	Mobility Management Entity address.
MSISDN	Mobile Station International Subscriber Directory Number assigned to the IMSI.
Node	Core network node that generated the event (e.g., HLR Registration, HLR/HSS, VLR, SMSC, SCP, USSD, API, GGSN/PGW).
NSAPI	Network Service Access Point Identifier code.
Reason	Error reason code.
RAT	Radio Access Technology.
Routing Number	Routing number.
SCCP	Signaling Connection Control Part.
SGSN	Serving GPRS Support Node address.
SIM (Subscriber) Alias	Displays a SIM assigned Alias name for easier identification of the device.
Status Type	Not applicable.
UPF C	IP address of the used User Plane Function (UPF) "Control Plane".
UPF U	IP address of the used User Plane Function (UPF) "User Plane".

## 10.2 View Events

To view the Events Table and the Events Timeline, do these steps:

1. Select **Events** from the sidebar Menu.
2. Go to the **Search** bar and select one of these identifiers:
  - IMSI
  - MSISDN
  - ICCID



- EID
3. Select a **Timeframe** option:
    - Last Hour
    - Last 24 Hours
    - Last 7 Days
    - Custom
  4. Click **Customize Columns** to select the event table columns and reorder the table display.
  5. Click **Enable Local Timezone** to display local events times.
  6. Click the **Graph View** bar to display the Timeline panel.
  7. Click the **Filter** panel to filter events by the different categories. Select the Event table columns and click **Apply**.

**NOTE:** All Events are registered in the system at UTC 0 time standard, regardless of their actual location around the globe. When the Enable Local Timezone option is enabled, the event timestamp you see in your browser is adjusted to your browser/PC local time. For example, if your browser is in London in the UK, the Event timestamp is adjusted to UTC +1 when displayed in your browser.

## 10.3 Filter Events

To filter the event table, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click the **Filter** control on the page header.
3. Select each of the filter tabs to specify the appropriate parameters.
4. Click **Apply** to update the Event Data table.

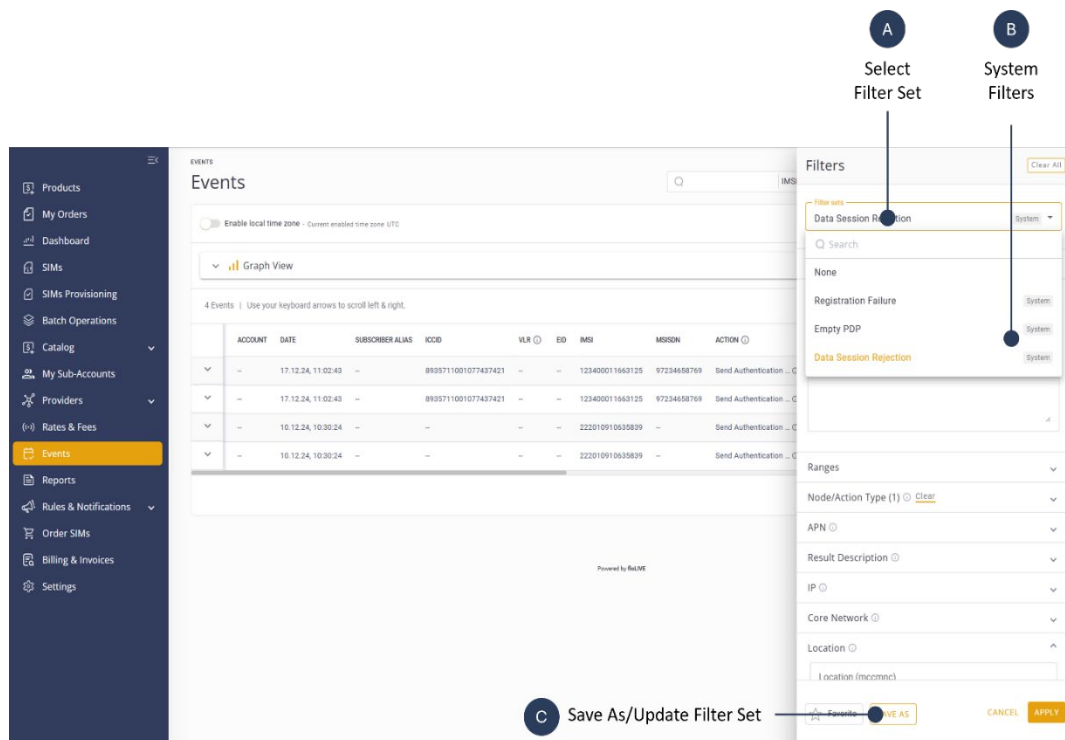
**NOTE:** For more information refer to "Event Parameters" on page 202

## 10.4 Create Filter Sets

Users can mark and save frequently used Filter Sets. The CMP Portal supports two types of Filter Sets:

- **System Filter Set:** Predefined system filters help users to quickly identify common problems like empty sessions and billing rejections.
- **Custom Filter Set:** Users can create, edit, delete, and save custom filters to improve workflow efficiency. Filters can be created for personal use or made visible for use by other users in your organization.

A screen capture of the Filter Set options is shown here.

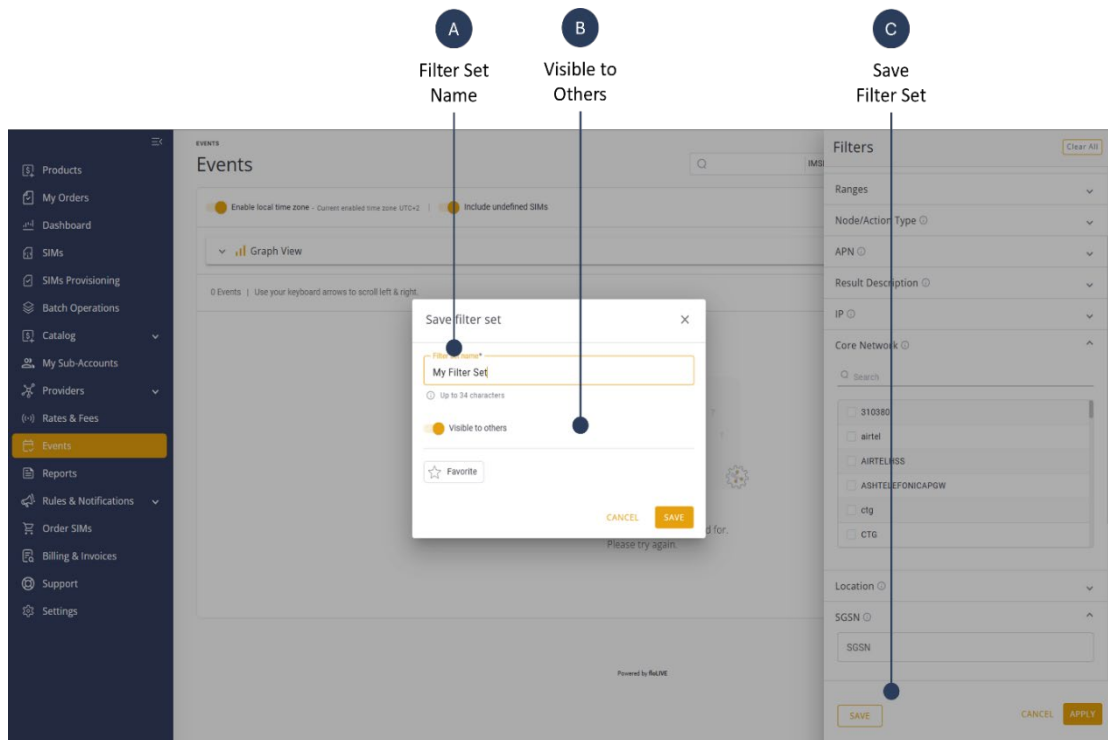


### 10.4.1 Create Filter Set

To create a new filter set, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click the **Filter** icon to display the Filter sidebar.
3. Select one or more filters to include in your Filter Set.
4. Click **Save** to display the Save Filter Set dialog box.
5. Enter a **Filter Set Name**.
6. Select the **Visible to Others** toggle button (optional). Filters that are marked as visible to others are displayed with special icon.
7. Select the **Favorite** option to add this filter to your favorite filter list (optional).
8. Click **Apply** to save Filter Set.

A screen capture of Save Filter Set dialog box is shown here.



### 10.4.2 Update Filter Set

To update a Filter Set, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click the **Filter** icon to display the Filter sidebar.
3. Select a **Filter Set** from the list.
4. Select one or more filters to include in your Filter Set.
5. Click **Update** to update the Filter Set.

**TIP:** Click **Save As** and enter a name to create a new Filter Set.

## 10.5 Export Events

This feature enables users to export signalling event data to an external CSV file. There are two options to export the data displayed in the SIMs table:

- **Export Displayed Columns:** Export data from the table containing only the columns currently visible. It allows users to tailor their exports to include only the information currently displayed in the table.

- **Export Displayed and Hidden Columns:** Export data from the table, including both the columns currently displayed and any hidden columns. It provides users with a comprehensive export of all available data columns, ensuring no information is omitted from the exported dataset.
- **Export Affected IMSI:** Export a distinct list of SIMs that generated any event for the specified time period and filter set. i.e. the exported list shall display each SIM once.

**NOTE:** If the events table has a larger number of events than can be exported into a single file, an appropriate message is displayed. You may need to re-filter the events table to reduce the table content and obtain finer granularity.

## Export Event Table

To export Table events to a csv file, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click **Customize Columns** and select the columns you want to display in the events table.
3. Click **Save** to update the SIMs table.
4. Click **Export Options** and select one of these options:
  - a. Export Displayed Columns:
  - b. Export Displayed and Hidden Columns
  - c. Export Affected IMSI
5. Click **Export** to save the csv file to your local disk.

## Export Event Chart

To export an event chart to a csv file, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click the **Graph View** bar to display the Timeline panel.
3. Click **Export** to save the events timeline to a csv file on your local disk.

**NOTE:** You can export a maximum of 10,000 events for each export operation.

## 10.6 Customize Event Table

Users can customize the view by selecting which columns are displayed and in which order. This convenient feature enables focus on the specific information they need.

To customize the data table columns, do these steps:

1. Select **Events** from the sidebar Menu.
2. Click **Customize Columns** on the table header to display a list of columns.
3. Check one or more columns you want to display in the event table.
4. Grab the icon on the right side of the column list.
5. Drag the selected column up or down as desired.
6. Repeat Steps 4-5 for each of the selected columns.
7. Click **Save** to update event data table.

A screen capture of the Customize Columns dialog box is shown here.



# 11 Rules and Notifications

The Rules and Notifications module enables users to create customized rules to monitor SIM card activities and send notifications when certain conditions are met. This module helps ensure effective management of data and SMS usage across accounts.

An example of the Rules and Notifications module is shown here.

A Rule Name	B Rule Type	C Binding Type	D Apply On	E Notification Type	F Rule Status	G New Rule
Country Change - 10...	SIM Monitoring	Account	IoT Technologies	EMAIL	true	01/02/2025
Inactivity SIM 8935...	Inactivity	SIM	893571100100030012	EMAIL	true	01/02/2025
First A 8935711001...	First Event	SIM	893571100100031168	EMAIL + 1	true	11/01/2024
IMEI Change IoT	SIM Monitoring	Account	IoT Technologies	EMAIL	true	01/02/2025
Smart Usage 80 per...	Usage	Account	Smart Ltd.	EMAIL	true	01/02/2025
First activity (IoT)	First Event	Account	IoT Technologies	EMAIL	true	24/10/2022
Money 10 USD rule	Money	SIM	893571100100030863	HTTP	true	02/02/2025
80% wallet used	Rate	Account Aggregation	Smart Ltd.	EMAIL + 1	true	01/02/2025
IMEI lock	SIM Monitoring	Account	IoT Technologies	EMAIL	true	01/02/2025
IMEI Change Smart	SIM Monitoring	Account	Smart Ltd.	EMAIL	true	01/02/2025
80% wallet reached	Rate	Sell Plan	test TD rate	EMAIL + 1	true	01/02/2025

A description of the table columns is provided in this table.

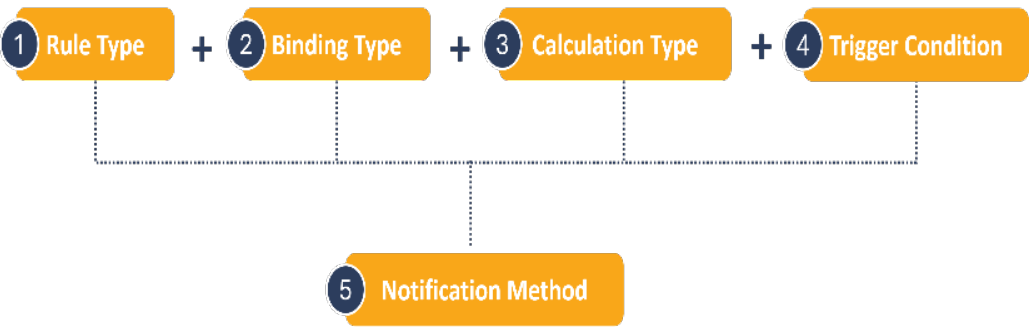
Column	Description
Rule Name	The name assigned to the notification rule when it was created.
Rule Type	The category of the rule, indicating its specific function (e.g., Pre-paid, Money).
Active	Indicates whether the rule is currently active (enabled) or suspended (disabled).
Binding Type	The scope of application for the rule, which can be Account, SIM, Sell Plan, Buy Plan, etc.
Apply On (Account)	The specific account to which the notification rule is applied, often the user's main account or a sub-account.
Notification Type	The method of notification which can include Email or HTTP Push API.

## 11.1 Rule Settings

The process of creating a new rule involves several steps to define the rule settings. The rule settings include:

- **Rule Type:** Choose from 8 different rule types.
- **Binding Type:** Determine the scope of application for the rule.
- **Calculation Method:** Set a threshold to determine when the rule is applicable
- **Trigger Conditions:** Specify a value to trigger a notification
- **Notification Method:** Set the type of method that is generated.

The process of creating a new rule is shown here.



A screen capture of the Rule Settings dialog box is shown here.

Labels in the image:

- A: Rule Type
- B: Binding Type
- C: Calculation Type
- D: Rule Details
- E: Apply On
- F: Notify When
- G: Notifications

### 11.1.1 Rule Types

Users can create different types of rules as described in this table.

Rule Type	Description
Usage	Applies to SIMs attached to a Usage Plan. Tracks data and SMS consumption for accounts or SIMs; SIM pre-paid balance of data and SMS services.
Money	Applies to SIMs attached to a Money Plan. Monitors account balances and spending limits and tracks the SIMs pre-paid money balance.
Rate	Applies to SIMs attached to an Account Rate Plan. Monitors usage or costs consumption associated with various services to prevent overspending.
Plan Rate	Applies to SIMs attached to Plan Rate. Notifications are based on usage for specific plans.
First Event	Generates notifications on the first instance of SIM activity.
Pool	Monitors usage across a group of SIMs linked to a shared plan (i.e. Pool Plan).
Inactivity	Notifies users regarding SIMs that have not shown activity within a defined period.
SIM Monitoring	Monitors SIM-specific activities and notifications for changes such as device attachment, country change, etc.

### 11.1.2 Binding Types

Each rule must have a binding type to determine its application scope. A description of the various binding types is provided in this table.

Binding Type	Description
Account	Applies to all SIM members of the account.
SIM	Targets a specific individual SIM.
Account Aggregation	Tracks the total usage for all SIMs allocated to a specific account.
Sell Plan	Links the rule to all account SIMs attached to a specific sell plan created for customers.
Buy Plan	Applies the rule to all account SIMs attached to a specific plan created by the user parent account.

### 11.1.3 Calculation Type

The calculation type (or method) defines the rule monitoring type. The calculation metrics vary based on the combination of Rule Type and Binding Type.

A description of the calculation types is provided in this table.

Calculation Type	Description
Fixed	Generates a notification when usage reaches a user-defined threshold.
Percentage	Generates a notification when usage falls below a specified percentage of the total prepaid service quota.



Calculation Type	Description
Accumulative	Tracks cumulative usage over time, generating notifications based on total consumption.
Money	Monitors monetary spending and triggers notifications when spending reaches a threshold.
Service	Monitors service usage (e.g., SMS or data) and triggers notifications based on predefined conditions.

#### 11.1.4 How Rules are Triggered

The "Apply On" setting and the "Notify When" setting work in sequence to define how and when a rule triggers a notification, but they have distinct roles:

- **Apply On:** This setting defines the specific population target (account/SIM/Plan etc ) based on the selected binding type. The condition related to that entity must be met for the rule to become active. This condition usually involves a metric and a threshold or other criteria.
- **Notify When:** This setting defines the threshold type. It determines the exact threshold level to trigger this rule notification. For example notify when SIM pre-paid usage plan left balance fallen to 20%.

The "Apply On" setting establishes the precondition for a notification. The "Notify When" setting specifies the exact value this precondition is satisfied. The rule only triggers a notification if the "Apply On" condition is met, and the "Notify When" conditions are also fulfilled.

For example, consider a rule with these settings:

- **Rule Type:** Data Usage
- **Apply On:** SIM: Monthly pre-paid Plan with 5 GB.
- **Notify When:** When Data left balance fallen below 100MB.

In this scenario, the rule monitors the monthly data usage of all account SIM cards. The "Apply On" setting defines the precondition account name. The "Notify When" setting defines the service type as "Data" and "Remaining Balance" is set to 100 MB.

**IMPORTANT:** Both "Apply On" and "Notify When" are necessary to fully define the rule monitoring behavior.

#### 11.1.5 Usage Rules

The Usage Rule Type allows users to create notifications based on the usage of data or SMS services associated with accounts and SIMs. This type of rule is useful for monitoring service consumption and to receive a notification when the SIMs pre-paid balance is about to run out.

## Binding Types

The available binding types for Usage Rules are described in this table.

Binding Type	Description
Account	This rule applies to all members under the selected account, allowing for collective usage monitoring. Notifications are generated when the pre-paid balance of Data or SMS services in an account has fallen to or is below a threshold you set.
SIM	This rule applies to a specific SIM within the account, enabling detailed tracking of individual SIM usage. The Usage-SIM combination generates notifications when the pre-paid balance of that single SIM has fallen to or is below a threshold you set.
Sell Plan	This rule applies to a specific plan created for customers, enabling monitoring of usage for all SIMs linked to this sell plan. The Usage-Sell Plan combination generates notifications when the pre-paid balance of Data or SMS services in any of the SIMs associated with the plan has fallen to or is below a threshold you set.
Buy Plan	This rule applies to a specific plan created by the parent account, and enables monitoring of usage for all SIMs linked to this buy plan. The Usage-Buy Plan combination generates notifications when the pre-paid balance of Data or SMS services in any of the SIMs associated with the plan has fallen to or is below a threshold you set.

## Calculation Type

The calculation types for Usage Rules are described in this table.

Calculation Type	Description
Fixed	Notifications are triggered when the SIM pre-paid plan remaining balance reaches the defined threshold value.
Percentage	Notifications are triggered when SIM pre-paid plan remaining balance reaches a specified percentage value.
Accumulative	Used for SIM Automatic Throttling control based on the SIM data usage.

### 11.1.6 Money Rules

The Money Rule Type allows users to create notifications based on the remaining balance and spending activity associated with accounts and SIMs. This type of rule is useful for monitoring financial thresholds and to receive notifications when the SIM pre-paid money balance is about to run out.

#### Binding Types

The available binding types for the Money rule are described in this table.

Binding Type	Description
Account	This rule applies to all members under the selected account, allowing for collective financial monitoring. Notifications are generated when the pre-paid money balance in the account has fallen to or is below a threshold you set.
SIM	This rule applies to a specific SIM within the account, enabling detailed tracking of the individual SIM's balance. The Money-SIM combination generates notifications when the pre-paid money balance of that single SIM has fallen to or is below a threshold you set.
Sell Plan	This rule applies to a specific plan created for customers, enabling monitoring of the money balance for all SIMs linked to this sell plan. The Money-Sell Plan combination generates notifications when the pre-paid money balance in any of the SIMs associated with the plan has fallen to or is below a threshold you set.
Buy Plan	This rule applies to a specific plan created by a parent account, and enables monitoring of the money balance for all SIMs linked to this buy plan. The Money-buy Plan combination generates notifications when the pre-paid money balance in any of the SIMs associated with the plan has fallen to or is below a threshold you set.

#### Calculation Type

The calculation types for Money Rules are described in this table.

Calculation Type	Description
Fixed	Notifications are generated when the money balance reaches a defined threshold.
Percentage	Notifications are triggered when the percentage of the total prepaid money deposit reaches a defined threshold.

Calculation Type	Description
Accumulative	Used for SIM Automatic Throttling control based on the SIM data usage.

### 11.1.7 Rate Rules

The Rate Rule Type allows users to generate notifications based on the spending and service usage associated with accounts and SIMs. This type of rule is essential for monitoring expenses and ensuring that usage remains within set thresholds.

#### Binding Types

The available binding types for Rate Rules are described in this table.

Binding Type	Description
Account	Applies to all members under the selected account, allowing for collective financial and consumption monitoring. The rule generates notifications when the money spent, or services (Data or SMS) used, reaches or exceeds a threshold you set.
Account Aggregation	Generates notifications when the aggregated money spent, or services (Data or SMS) used, reaches or exceeds a threshold you set. In other words, the expenditures (money or service volume) are summed (aggregated) across all members of the selected account, and when the account exceeds the threshold, the rule generates the notification.
Sell Plan	Generates notifications when the money spent, or services (Data or SMS) used, in any SIM in your child account(s) that you attached to an account rate plan reaches or exceeds a threshold you set.
SIM	Generates notifications when money spent, or services (Data or SMS) used, reaches or exceeds a threshold you set on a single designated SIM.
Buy Plan	Generates notifications when the money spent, or services (Data or SMS) used, in any SIM in your account(s) that you attached to an account rate plan reaches or exceeds a threshold you set.

#### Calculation Type

The calculation types for Rate Rules are described in this table.

Calculation Type	Description
Money	Notifications are generated when the total money spent reaches a defined threshold.
Service	Notifications are triggered when the usage of specific services (e.g., SMS, Data) reaches a defined limit.
Accumulative	Used for SIM Automatic Throttling control based on the SIM data usage.

### 11.1.8 Plan Rate Rules

The Plan Rate Rule Type allows users to generate notifications based on the fixed costs and usage of data and SMS services associated with specific plan.

#### Binding Types

The available binding types for Plan Rules are described in this table.

Binding Type	Description
Account	Applies to all members under the selected account and generates notifications when Data or SMSs reach or exceed a set threshold.
Account Aggregation	Generates notifications based on aggregated spending or service usage across all members of the selected account. It ensures that the totals do not exceed defined thresholds across all SIMs in the account.
Sell Plan	Applies to a specific plan created for customers. Notifications are generated when the money spent or services used in any of the SIMs associated with the plan exceed defined limits.
Buy Plan	Generates notifications when the money spent, or services (Data or SMS) used, in your main account or child account(s) that your Parent account attached to a plan, reaches or exceeds a threshold you set.
SIM	Applies to a specific SIM within the account. Notifications are generated when the aggregated money spent or services used by that single SIM reach or exceed a threshold you set.

#### Calculation Type

The calculation types for Plan Rate Rules are described in this table.

Calculation Type	Description
Money	Notifications are generated when the total money spent reaches a defined threshold..
Service	Notifications are triggered when the usage of specific services (e.g., SMS, Data) reaches a defined limit.
Accumulative	Used for SIM Automatic Throttling control based on the SIM data usage.

### 11.1.9 First Event Rules

The First Event Rule Type allows users to create notifications that trigger upon the first occurrence of activity from new SIM cards. This type of rule is particularly useful for monitoring any initial usage events and ensuring proper onboarding of new services.

#### Binding Types

The available binding types for the First Event Rules are described in this table.

Binding Type	Description
Account	Generates a notification when any new SIM for a designated account invokes an event for the first time. This allows for monitoring of new activity within the entire account.
Sell Plan	The First Event-Sell Plan combination generates a notification when any new SIM in your child account(s) that you attached to a plan you created invokes an event for the first time. This helps track initial events for new SIMs in your custom plans.
Buy Plan	The First Event-Buy Plan combination generates a notification when any new SIM in your main account, that your Parent account attached to a plan, invokes an event for the first time. This monitors new SIM activations within specified plans.
SIM	The First Event-SIM combination generates a notification when one new SIM invokes an event for the first time, focusing on the individual activity of each new SIM.

#### Calculation Type

The calculation types for First Event Rules are described in this table.

Calculation Type	Description
First Event	A notification is triggered by the first instance of usage activity on the selected account or SIM. This provides visibility into new account or SIM behavior as they begin to utilize services.

### 11.1.10 Pool Plan Rules

The Pool Plan Rule Type allows users to create notifications based on the usage of data or SMS services associated with accounts and SIMs. This type of rule is useful for monitoring service consumption and avoiding unexpected over-use.

#### Binding Types

The available binding types for Pool Plan Rules are described in this table.

Binding Type	Description
Sell Plan	This rule applies to all members under the selected account. Notifications are generated when the pre-paid balance of Data or SMS services in a specified Sell Pool Plan reaches a defined threshold.
Buy Plan	This rule applies to all members under the selected account. Notifications are generated when the pre-paid balance of Data or SMS services in a specified Buy Pool Plan an account reaches a defined threshold.

#### Calculation Type

The calculation types for Pool Plan Rules are described in this table.

Calculation Type	Description
Fixed	Notifications are generated when the pool remaining balance reaches a defined threshold.
Percentage	Notifications are generated when the pool pre-paid balance reaches a specified percentage of the total prepaid service quota.

### 11.1.11 Inactivity Rules

The Inactivity Rule Type enables users to generate notifications when a SIM or multiple SIMs within an account remain inactive for a specified duration of time.

## Binding Types

The available binding types for Inactivity Rules are described in this table.

Binding Type	Description
SIM	Generates a notification when the duration of inactivity of a selected individual SIM has reached a threshold.
Account	Generates a notification when the duration of inactivity of any SIM in a selected account has reached a defined threshold.
Sell Plans	Generates a notification when the duration of inactivity of any SIM attached to a specified Sell Plan has reached a defined threshold.
My Plans	Generates a notification when the duration of inactivity of any SIM attached to a selected Parent Buy Plan has reached a defined threshold.

## Inactivity Type

The inactivity types for Inactivity Rules are described in this table.

Calculation Type	Description
Network Inactivity	Generates notifications when a SIM has shown no activity at all for the set time threshold, indicating complete inactivity in terms of network usage (e.g. SIM registration, update location).
Usage Consumption Inactivity	Generates notifications when a SIM has shown no usage activity for the set time threshold, focusing specifically on service consumption inactivity, such as data or SMS.

### 11.1.12 SIM Monitoring Rules

This rule monitors different aspects of SIM card activity. The rules provide notifications based on IMEI changes, IP address changes, IMSI switch , IMEI lock status and initial IMEI registration and SIM visited country change.

## Binding Types

The available binding types for SIM Monitoring are described in this table.



Binding Type	Description
SIM	Applies to individual SIM Cards. This rule is triggered when the monitoring status of a SIM card changes.
Account	Applies to an account with one or more SIM card. This rule is triggered when the monitoring status of a SIM card changes.

## Monitoring Types

The SIM Monitoring types are described in this table.

Monitoring Type	Description
IMEI Initial	This rule triggers when the SIM card IMEI (International Mobile Equipment Identity) is first registered or detected by the system. This is typically useful for initial device provisioning or tracking.
IMEI Change	This rule triggers when the SIM card IMEI changes. This is highly unusual and could indicate a SIM swap or tampering. It triggers a notification if this happens.
IMEI Locked	This rule triggers when the SIM card is automatically locked (i.e. suspended) due to the Lock to First IMEI. This is highly unusual and could indicate a device swap or tampering.
IP Change	This rule triggers when the IP address associated with the SIM card changes.
IMSI Change	This rule triggers when the IMSI (International Mobile Subscriber Identity) associated with the SIM card changes.
Country Changes	This rule triggers when the SIM card connected country is changed.

## 11.2 Plan Depletion Rule

The Plan Depletion Rule automatically triggers a PCRF action when data consumption for a plan is depleted. This rule enables users to control data usage, preventing unexpected overages and ensuring a consistent user experience.

**NOTE:** For more information about Plan Depletion, refer to "How Throttling Works" on page 138.

The Create New Depletion Rule settings are shown here.

The screenshot shows the 'Create/Update rule' dialog box with the following fields and callouts:

- A** Rule Type: Points to the 'Rule type\*' dropdown menu, which is set to 'Plan Depletion'.
- B** Binding Type: Points to the 'Binding type\*' dropdown menu, which is set to 'Sell Plan'.
- C** Plan Type: Points to the 'Plan type' dropdown menu, which is set to 'Usage'.
- D** Rule Name: Points to the 'Rule Name\*' text input field, which contains 'Throttling 1'.
- E** Rule Description: Points to the 'Rule Description' text input field, which contains 'Throttling 1'.
- F** Apply On Account: Points to the 'Account Name\*' dropdown menu, which is set to 'IoT Technologies'.
- G** Apply On Plan: Points to the 'Plan Name\*' dropdown menu, which is set to '1GB DR'.
- H** Activate PCRF Rule: Points to the 'Add PCRF rule' checkbox, which is checked.
- J** PCRF Rule ID: Points to the 'PCRF Rule ID\*' text input field, which contains '10'.
- K** Add Notification: Points to the '+ NOTIFICATION' button in the 'Notifications' section.

At the bottom right of the dialog box are 'CANCEL' and 'CREATE' buttons.

To create a new Depletion Rule, do these steps:

1. Select **Rules & Notifications | Rules** on the sidebar menu to display the Rules screen.
2. Click **+Rule** to display the Create/Update Rule dialog box.
3. Select **Depletion Rule** from the list in the **Rule Type** field.
4. Select **Sell Plan** from the **Binding Type** field.
5. Select **Usage** from the **Plan Type** field.
6. Enter a **Rule Name** in the Rule Details group.
7. Enter a **Rule Description** in the Rule Details Group (optional).
8. Select an **Account Name** from the list displayed in the **Apply On** group.
9. Select an **Plan Name** from the list displayed in the **Apply On** group.
10. Check the **Add PCRF Rule** option.
11. Add a system value in the **PCRF Rule Field**.
12. Go to the **Notify When** Group and do these actions:

- a. Select a **Service Type**.
  - b. Enter an appropriate value in the **Remaining Balance** field.
13. Go to the **Notifications Group** and do these actions:
  - a. Select a **Notification Type**.
  - b. Select a **Notification Channel**.
14. Click **Create** to activate the rule.

## 11.3 Plan Expiration Rule

Plan Expiration means the data plan has ended. When this happens, access to data is blocked and users are redirected sent to a specific white-list url location where they can add more data or choose a new plan.

**NOTE:** For more information about Plan Depletion, refer to "How Throttling Works" on page 138.

The Create New Expiration Rule settings are shown here.

The screenshot shows the 'Create/Update rule' dialog box with the following fields and callouts:

- A** Rule Type: Points to the 'Rule type\*' dropdown menu.
- B** Binding Type: Points to the 'Binding type\*' dropdown menu.
- C** Plan Type: Points to the 'Plan type' dropdown menu.
- D** Rule Name: Points to the 'Rule Name\*' text input field.
- E** Rule Description: Points to the 'Rule Description' text input field.
- F** Apply On Account: Points to the 'Account Name\*' dropdown menu.
- G** Apply On Plan: Points to the 'Plan Name\*' dropdown menu.
- H** Activate PCRF Rule: Points to the 'Add PCRF rule' checkbox.
- J** PCRF Rule ID: Points to the 'PCRF Rule ID\*' text input field.
- K** Add Notification: Points to the '+ NOTIFICATION' button.

The dialog box contains the following sections:

- Rule Details:** Includes 'Rule Name\*' and 'Rule Description' fields.
- Apply On:** Includes 'Account Name\*' and 'Plan Name\*' dropdown menus.
- Notifications:** Includes a '+ NOTIFICATION' button.

At the bottom right, there are 'CANCEL' and 'CREATE' buttons.

To create a new Depletion Rule, do these steps:

1. Select **Rules & Notifications | Rules** on the sidebar menu to display the Rules screen.
2. Click **+Rule** to display the Create/Update Rule dialog box.
3. Select **Expiration Rule** from the list in the **Rule Type** field.
4. Select **Sell Plan** from the **Binding Type** field.
5. Select **Usage** from the **Plan Type** field.
6. Enter a **Rule Name** in the Rule Details group.
7. Enter a **Rule Description** in the Rule Details Group (optional).
8. Select an **Account Name** from the list displayed in the **Apply On** group.
9. Select an **Plan Name** from the list displayed in the **Apply On** group.
10. Check the **Add PCRF Rule** option.
11. Add a system value in the **PCRF Rule Field**.
12. Go to the **Notify When** Group and do these actions:
  - a. Select a **Service Type**.

- b. Enter an appropriate value in the **Remaining Balance** field.
13. Go to the **Notifications Group** and do these actions:
  - a. Select a **Notification Type**.
  - b. Select a **Notification Channel**.
14. Click **Create** to activate the rule.

## 11.4 Create Rule

Before you begin this procedure, make sure you refer to the information provided in the "Rule Settings" on page 209 section.

To create or update a rule, do these steps:

1. Select **Rules & Notifications | Rules** on the sidebar menu to display the Rules screen.
2. Click **+Rule** to display the Create/Update Rule dialog box.
3. Select a rule from the list in the **Rule Type** field.
4. Select the appropriate **Binding Type** from the list.
5. Select the appropriate **Calculation Type** from the list.
6. Enter a **Rule Name** in the Rule Details group.
7. Enter a **Rule Description** in the Rule Details Group.
8. Select an Account and Plan name from the list displayed in the **Apply On** field.
9. Go to the **Notify When** Group and do these actions:
  - a. Select a **Service Type**.
  - b. Enter an appropriate value in the **Remaining Balance** field.
10. Go to the **Notifications Group** and do these actions:
  - a. Select a **Notification Type**.
  - b. Select a **Notification Channel**.
11. Click **Create** to activate the rule.

**NOTE:** Refer to "Rule Settings" on page 209 for a detailed description of the Rule Type, Binding Type, Calculation Method and Trigger Conditions.

## 11.5 Edit Rule

To edit a rule, do these steps:

1. Select **Rules & Notifications | Rules** on the sidebar menu to display the Rules screen.
2. Select the **Action** menu for a Rule displayed in the table and click **Edit**.
3. Enter a **Rule Name** in the Rule Details group.
4. Enter a **Rule Description** in the Rule Details Group.
5. Go to the **Notifications Group** and do these actions:
  - a. Select a **Notification Type**.
  - b. Select a **Notification Channel**.
6. Click **Update** to save the rule settings.

**NOTE:** Refer to "Rule Settings" on page 209 for a detailed description of the Rule Type, Binding Type, Calculation Method and Trigger Conditions.

## 11.6 Delete Rule

To delete a Rule, do these steps:

1. Select **Rules & Notifications | Rules** on the sidebar menu to display the Rules screen.
2. Select the **Action** menu for a Rule displayed in the table and select the **Delete** option.
3. Click **Delete** when the message dialog is shown.
4. Click **Yes** to complete the delete operation

## 11.7 Notification Channels

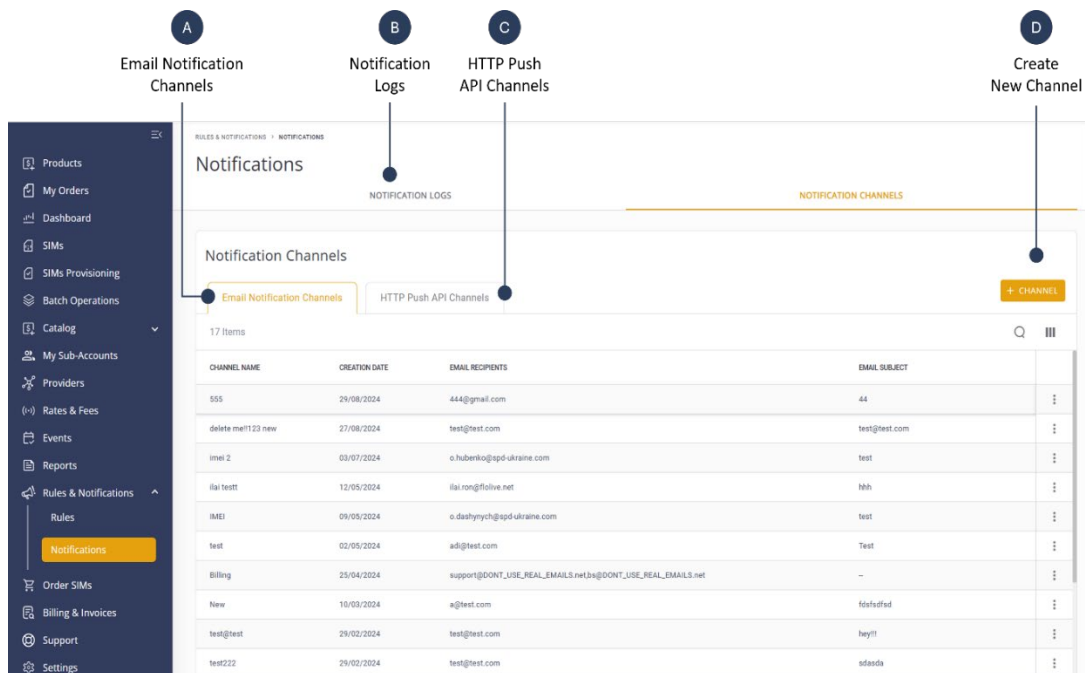
The Notification module defines how the CMP portal communicates events resulting from a triggered rule. There are two methods of communication:

- **Email Channel:** Sends email notifications when a rule is triggered. Configuration requires specifying recipient email address.

- **HTTP Push API Channel:** Sends notifications as HTTPS POST requests to a specified URL. Configuration requires specifying the target URL and potentially authentication details.

**NOTE:** Each rule can have multiple notifications, each using a single channel (email or HTTP). You can mix email and HTTP notifications within a single rule.

A screen capture of the Notification module is shown here.



### 11.7.1 Create Notification Channel

User can create two types of notification channels:

- **Email Channel:** Sends email notifications when a rule is triggered. Configuration requires specifying recipient email addresses. **HTTP Push API Channel:** Sends notifications as HTTP POST requests to a specified URL. Configuration requires specifying the target URL and potentially authentication details.

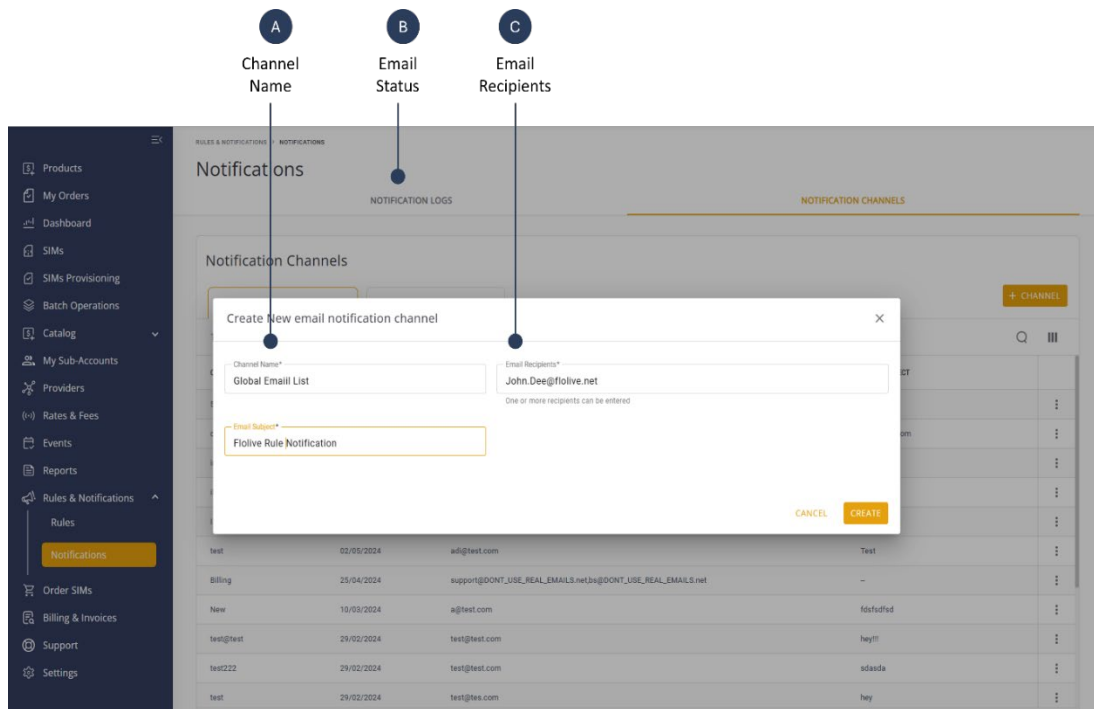
#### Create Email Notification Channel

To create a new Notification Email Channel, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the **Notification Channels** tab.
3. Select the **Email Notification Channels** tab.
4. Click **+Channel** to display the Create New Email Notification dialog box.

5. Enter a **Channel Name** field.
6. Specify one or more **Email Recipients**.
7. Enter an **Email Subject** in the Email Subject field.
8. Click **Create** to create the new email notification channel.

A screen capture of the Create New Email Channel dialog box is shown here.



A description of the Email Notification fields is provided in this table.

Attribute	Description
Channel Name	A descriptive name to identify the Notification Channel.
Email Recipients	A list of one or more applicable email recipients. Multiple email recipients are separated by a comma (,)
Email Subject	The subject of the email that is displayed from this channel.

### Create New HTTP Push API Notification Channel

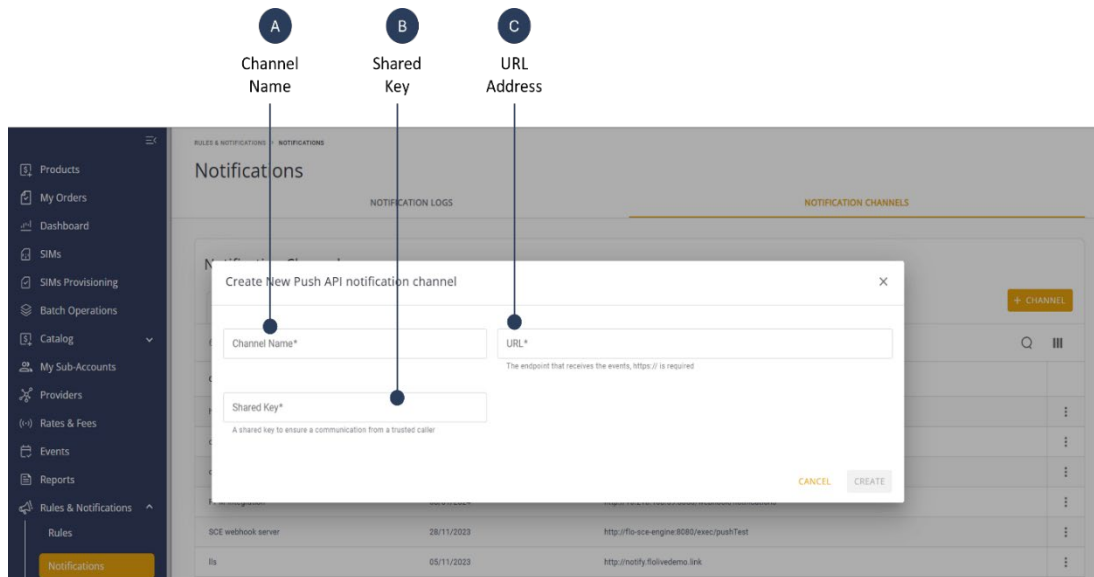
To create a new Notification Email Channel, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the **Notification Channels** tab.
3. Select the **HTTP Push API Channel** tab.



4. Click **+Channel** to display the Create New Email Notification dialog box.
5. Enter a **Channel Name** field.
6. Enter a **Shared Key** to define a trusted communication source
7. Enter a **URL** that serves as the endpoint for receiving event.
8. Click **Create** to activate the new notification channel.

A screen capture of the Create HTTP Push API Channel dialog box is shown here.



A description of the HTTP Push API Notification fields is provided in this table.

Attribute	Description
Channel Name	A descriptive name to identify the Notification Channel.
URL	The target URL for the notification; only one URL is allowed per HTTP Notification Channel
Shared Key	A shared key to ensure communication only with a trusted caller; the shared key is acting as a public key to match the connection between a trusted caller (that is, the platform) into the customer URL. To authenticate the message (API + content) coming from the other side (i.e. from the CMP platform), you set the Shared Key value on the portal (as described in the following procedure) and then validate that the message is received with same key.

#### HTTP Push API Notification Content Payload

A description of the HTTP Push API parameters is provided in this table is provided in this table.

Parameter	Description
notificationId	The system-generated ID assigned to the notification.
notificationSource	The Rules and Notifications module where the triggering rule was created.
actionName	The Rule type-Binding type combination (e.g., FirstEventAccount).
ruleName	The name of the rule that triggers the notification.
notificationName	The name given to the notification.
userDescription	The optional description provided for the rule.
accountId	The ID of the account containing the rule.
accountName	The name or alias of the account containing the rule.
iccid	The ICCID of the SIM that triggered the notification.
payload	The container of the push notification content.
body	The notification body; parameters vary by rule type/binding type.
notificationDescription	The message content of the push notification.
subscriberId	The ID of the subscriber receiving the notification.
threshold	The rule defined threshold.
simimsi	The list of IMSIs of the SIM (subscriber).
signature	The system-generated signature verifying the "body" response parameters.
usedImsi	The IMSI of the SIM that triggered the notification.

**NOTE:** The HTTP API Push Notification parameters are common for all Rule type-Binding type combinations. However, the "body" parameters may vary between rules.

### 11.7.2 View Notification Channels

The Notification Channels table contains a detailed list of all Email and HTTP Push notifications channels.

## View Email Notification Channels

To view the Email Notification Channels, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the **Notification Channels** tab.
3. Select the **Email Notification Channel** tab.

A screen capture of the Email Notification Channel screen is shown here.

The screenshot shows the 'Notification Channels' interface. At the top, there are two tabs: 'Email Notification Channels' (selected) and 'HTTP Push API Channels'. A '+ CHANNEL' button is in the top right. Below the tabs, a table lists 17 items. The table has columns: CHANNEL NAME, CREATION DATE, EMAIL RECIPIENTS, EMAIL SUBJECT, and a vertical ellipsis menu. Callouts A, B, and C point to the first three columns respectively.

CHANNEL NAME	CREATION DATE	EMAIL RECIPIENTS	EMAIL SUBJECT	
555	29/08/2024	444@gmail.com	44	⋮
delete me!!123 new	27/08/2024	test@test.com	test@test.com	⋮
imei 2	03/07/2024	o.hubenko@spd-ukraine.com	test	⋮
ilal testt	12/05/2024	ilal.ron@fjolive.net	hhh	⋮
IMEI	09/05/2024	o.dashmych@spd-ukraine.com	test	⋮
test	02/05/2024	adi@test.com	Test	⋮
Billing	25/04/2024	support@DONT_USE_REAL_EMAILS.net;bs@DONT_USE_REAL_EMAILS.net	-	⋮

A description of the Email Notification columns is provided in this table.

Attribute	Description
Channel Name	The name you gave the Notification Channel when you created it
Creation Date	The date you created the channel
Email Recipients	All Email recipients you listed in the channel when you created it; each channel can have multiple email recipients (separated by a comma ,)
Email Subject	The subject of the email(s) that are sent using this Email channel

## View HTTP Push API Channels

To view the HTTP Push API Channels, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the **Notification Channels** tab.

### 3. Select the **HTTP Push API Channel** tab.

A screen capture of the HTTP Push API Channel screen is shown here.

The screenshot shows the 'Notification Channels' interface. At the top, there are two tabs: 'Email Notification Channels' and 'HTTP Push API Channels'. A yellow box highlights the 'HTTP Push API Channels' tab. To the right of the tabs is a '+ CHANNEL' button. Below the tabs, it says '6 Items'. A table with 4 columns is displayed: 'CHANNEL NAME', 'CREATION DATE', 'URL', and an empty column. The table contains 6 rows of data. Labels A, B, and C are placed above the table with lines pointing to the 'CHANNEL NAME', 'CREATION DATE', and 'URL' headers respectively.

CHANNEL NAME	CREATION DATE	URL	
http test	02/05/2024	https://demo.com	⋮
qqq	13/03/2024	https://qqq	⋮
delete test	10/03/2024	http://notify.floivedemo.link	⋮
PPM-integration	08/01/2024	http://10.210.103.59:8080/webhook/notifications	⋮
SCE webhook server	28/11/2023	http://flo-sce-engine:8080/exec/pushTest	⋮
lis	05/11/2023	http://notify.floivedemo.link	⋮

To view the HTTP Push API Notification Channels Table

1. From the Navigation Bar, click **Notification Channels**. The Notification Channels table appears showing all Email Channels by default.
2. Click the **HTTP PUSH API CHANNELS** tab. The HTTP Push API Notification Channels table is displayed in the table:

A description of the HTTP Push API Channels is provided in this table.

Attribute	Description
Channel Name	The name you gave the Notification Channel when you created it
Creation Date	The date you created the channel
URL	The URL you defined as the target destination for this Notification Channel; each HTTP Notification Channel can have only one URL destination

## 11.8 Edit Notification Channels

To edit a Notification Channel, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the appropriate **Notification Channel** tab:
  - a. Email Notification Channel

- b. HTTP Push API Channel.
3. Click the **Actions** icon from the list of notifications displayed in the table.
4. Click **Edit** to display the Edit Notification dialog box.
5. Update the notification settings and click **Apply**.

## 11.9 Delete Notification Channel

To delete a Notification Channel, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the appropriate **Notification Channel** tab:
  - a. Email Notification Channel
  - b. HTTP Push API Channel.
3. Click the **Actions** icon from the list of notifications displayed in the table.
4. Click **Delete** to display the Delete Notification dialog box.
5. Click **Delete** to remove selected notification channel.

## 11.10 View Notification Logs

The Notification Logs provide a detailed history of all notifications sent by the CMP portal. This log allows you to track the success or failure of notifications, review the details of generated notifications, and identify any issues with notification delivery.

To view the Notification Log table, do these steps:

1. Select **Rules & Notifications | Notifications** on the sidebar menu to display the Rules screen.
2. Select the **Notification Logs** tab.
3. Select an appropriate time frame in the **Creation Date** field.
4. Select a log item from the table to display the **Log Details** dialog box.

A screen capture of the Notification Log table is shown here.

Notification Type	Notification Source	Action Name	Account Name	ICCID Identifier	Delivery Status	Notification Timestamp	Delivery Timestamp	Next Retry Time
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130139147271	Pending	29/10/2023 14:09:02	--	--
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130139147271	Success	29/10/2023 14:09:35	29/10/2023 14:09:39	--
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130143903890	Pending	30/10/2023 08:48:10	--	--
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130139147271	Success	30/10/2023 09:51:04	30/10/2023 09:51:28	--
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130143903890	Pending	30/10/2023 10:49:16	--	--
EMAIL	Rules and Alerts	First Event Account	floLive	999839990130143903890	Failure	30/10/2023 10:55:45	30/10/2023 10:55:45	--
EMAIL	Rules and Alerts	First Event Account	ila3110	8935712124160576265	Success	31/10/2023 14:44:15	31/10/2023 14:44:23	--
EMAIL	Rules and Alerts	First Event Account	floLive	8935712124160576265	Success	31/10/2023 14:44:16	31/10/2023 14:44:23	--
EMAIL	Rules and Alerts	First Event Account	ila3110	8935712124160576265	Pending	31/10/2023 17:05:46	--	--
EMAIL	Rules and Alerts	First Event Account	ila3110	8935712124160576265	Pending	31/10/2023 17:35:04	--	--

A description of the Notification Log table columns is provided in this table.

Column Name	Description
Notification Type	Specifies the method used to deliver the notification (e.g., Email, HTTP Push API).
Notification Source	Identifies the system or module that generated the notification (e.g., Rules and Notifications module).
Action Name	The name of the action or event that triggered the notification (as defined in the rule).
Account Name	The name of the account associated with the triggered event.
ICCID Identifier	The ICCID of the SIM card involved in the event.
Delivery Status	Indicates whether the notification was successfully delivered (e.g., Success, Failed, Pending).
Notification Timestamp	The exact time the notification was generated by the system.
Delivery Timestamp	The exact time the notification was delivered to its destination (email inbox or API endpoint).
Next Retry Time	The time of next notification attempt, if applicableThe date the notification record was created in the system's log.

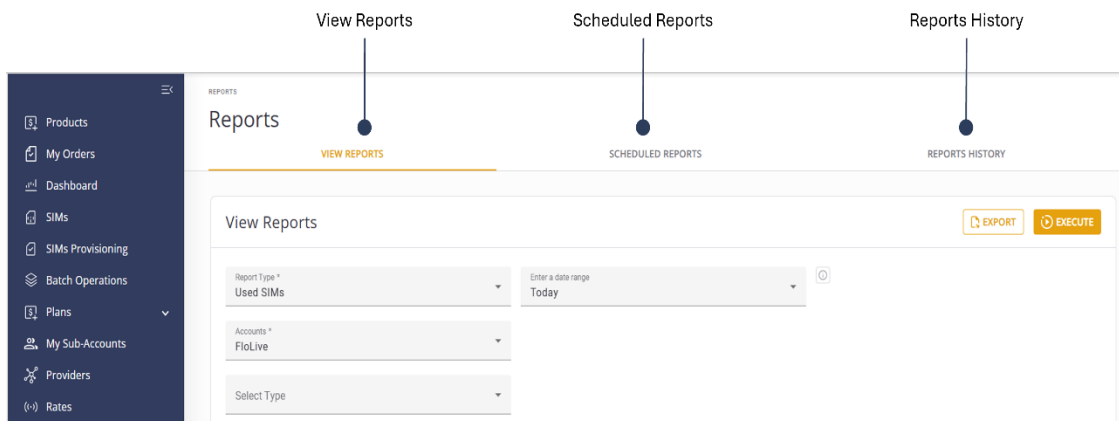
## 12 Reports

The Reports module enables users to generate a wide range of reports generated by the SIM Connectivity Management Platform (CMP). These reports offer detailed insights into SIM usage, transactions, charges, and growth metrics, that help users to manage connectivity resources efficiently.

The Reports module has three separate sections.

Section	Description
View Reports	Provides users with immediate access to a wide range of different report types generated by the system.
Scheduled Reports	Provides users with the capability to automate the generation and delivery of reports at specified intervals without requiring manual intervention.
Reports History	Enables users to access and review previously generated reports. This feature serves as a centralized repository for historical data, facilitating analysis, auditing, and reference purposes.

A screen capture of the View Reports homepage is shown here.

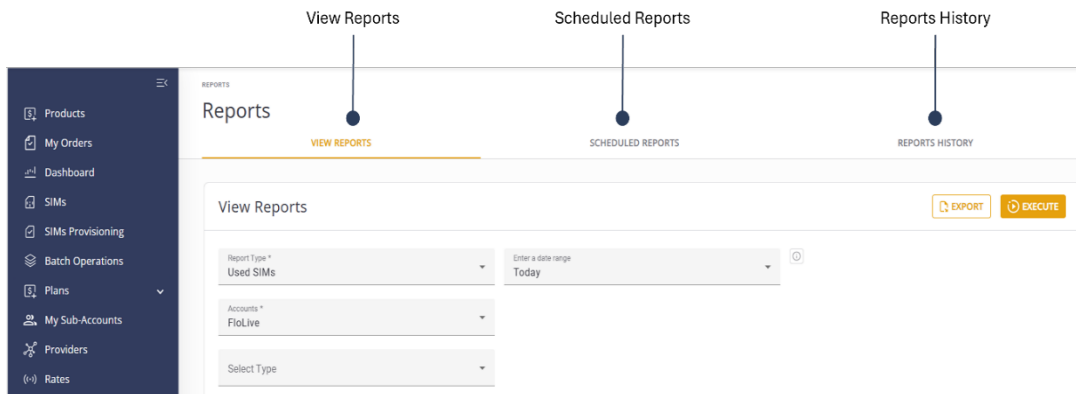


### 12.1 Report Types

The View Reports tab enables users to generate various types of reports based on these selection criteria:

- Reports Type
- Account
- SIM Identifier
- Date Range

A screen capture of the View Reports homepage is shown here.



The View Reports tab enables user to generate these report types.

Report Name	Description
Used SIMs	Shows the number of connected SIMs and IMSIs per customer based on a set of selected filters and timeframe.
In-Use SIMs	Shows a list of connected SIMs and IMSIs per customer based on a set of selected filters and timeframe.
Charges DR Records	Contains details of all prepaid charges made by a sub-account for a specified timeframe.
Summary Report	Shows summarized customer charges and usages based on country, network, provider, and amount for each type of service.
Transaction DR Records	Contains details of all transactions including top-ups, debit, and credit events for a selected customer for a specified timeframe.
Usage DR Records	Displays detailed usage transactions of data and SMS per SIM and customer during a specified timeframe.
Usage Per Account	Displays the usage of data and SMS per account during a specified timeframe.
Usage Summary Per SIM	Displays summary information relating to usage of data and SMS per SIM for a specified timeframe.
Monthly Usage Growth	Compares the number of SIMs/IMSIs and their service (Data, SMS) usage volumes between two selected months.
Customer Summary Report	Contains a monthly summary breakdown of all direct sub-account charges and usages.
Account Products	Shows a list of 'recurring charges' for various products assigned to a selected account.
4G Registration without Data Session	Displays all SIMs that have been successfully registered to the network but failed (or did not open) a data session and as such are suspected as failed to connect SIMs.



The CMP uses the 1024 Unit Converter to convert data usage values. Thus, for example:

- 1 GB (gigabyte) is converted to 1024 MB (megabyte)
- 1 MB is converted to 1024 KB (kilobyte), and so on.

### 12.1.1 In-Use SIMs Report

The Used SIMs report displays the total number of active SIMs/IMSIs for the sub-account during a specified time period.

A screen capture of the Used SIMs report is shown here.

The screenshot shows the 'Reports' section of the floLIVE interface. On the left is a sidebar menu with options like Products, My Orders, Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports (highlighted), Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main area is titled 'Reports' and has tabs for 'VIEW REPORTS' (active), 'SCHEDULED REPORTS', and 'REPORTS HISTORY'. Under 'VIEW REPORTS', there are filters for 'Report Type' (set to 'Used SIMs'), 'Accounts' (set to 'FloLive'), and 'Date Range' (set to 'Last 12 Months'). There are 'EXPORT' and 'EXECUTE' buttons. Below the filters, the report title 'Used SIMs' is shown with the date range 'Jun 10th 2023 - Jun 10th 2024'. A table displays the results with columns 'ACCOUNT', 'USED SIMS', and 'USED IMSIS'. The table has one row for 'FloLive' with values 471759 and 498156. At the bottom right, it shows 'Rows per page: 50' and '1 - 1 of 1'.

ACCOUNT	USED SIMS	USED IMSIS
FloLive	471759	498156

To generate a Used SIMs report, do the steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Used SIMs** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type**.
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days

- e. Month-to-date
  - f. Custom
7. Click **Execute** to generate the report.
  8. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

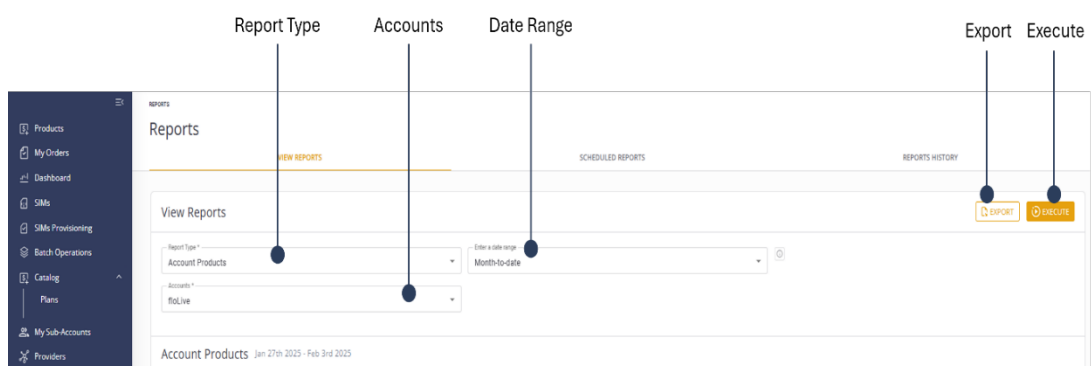
A description of the report parameters is provided in this table.

Attribute	Description
Account	The account holding the Active SIMs and IMSIs
Used SIMs	The total number of Used SIMs in the Account and the Account's sub-accounts
Used IMSIs	The total number of Used IMSIs in the Account and the Account's sub-accounts

### 12.1.2 Account Products Report

The Account Products Reports shows a list of 'recurring charges' for various products assigned to a selected account.

A screen capture of the In Accounts Product report is shown here.



A description of the applicable report fields is provided in this table.

Field Name	Description
Offer	A unique identifier for the Product.
Offer Name	The name of the Product associated with the account
Original Charge	The amount charged to the account on a regular basis (monthly, quarterly, etc.) for the product.

Field Name	Description
Original Currency	The currency used for charging the account.
Next Charge Date	The upcoming date when a charge will be made.
Charge Date	The specific date when a charge is made for an account.
Account ID	A unique identifier for the Account.
Account Name	The name of the account associated with the product charge.
Charge Type	Type can be an allowance or renewal

To generate an Account Products report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Account Products** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
6. Click **Execute** to generate the report.
7. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

### 12.1.3 Charges DR Records Report

The Charges DR Records Report details all prepaid charges made by a selected sub-account during a specified time period.

A screen capture of the Charges DR Records report is shown here.

The screenshot displays the 'Reports' section of the floLIVE application. The left sidebar contains a menu with options like Products, My Orders, Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports (highlighted), Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main area shows the 'View Reports' tab with filters for Report Type (Charges DR Records), Accounts (FloLive), Date Range (Last 12 Months), System Labels (automation\_system\_label\_110069, automation\_system...), and User Labels (00test, 0102\_test\_nerya, 0206\_root, 0506\_root, 0906\_r...). The report title is 'Charges DR Records' for the period 'Jun 10th 2023 - Jun 10th 2024'. Below the title, it indicates '77603 Items'. A table of subscriber data is shown with columns: SUBSCRIBER ID, ICCID, EID, OFFER, OFFER NAME, ORIGINAL CHARGE, ORIGINAL CURRENCY, STATUS, and RECURRING TYPE. The table contains four rows of data.

Report Type: Charges DR Records

Accounts: FloLive

Date Range: Last 12 Months

System Labels: automation\_system\_label\_110069, automation\_system...

User Labels: 00test, 0102\_test\_nerya, 0206\_root, 0506\_root, 0906\_r...

Charges DR Records Jun 10th 2023 - Jun 10th 2024

77603 Items

SUBSCRIBER ID	ICCID	EID	OFFER	OFFER NAME	ORIGINAL CHARGE	ORIGINAL CURRENCY	STATUS	RECURRING TYPE
fffb966d-a81f-49f4-9ccc-987de73a48e9	8935711550000117690	--	6d229d12-c7df-489c-8572-b8733ec8ef88	FloLive - default rate plan	0	GBP	OK	Monthly
fffb0d3c-f70e-4209-a35f-0195811905d7	8935711550000045701	--	6d229d12-c7df-489c-8572-b8733ec8ef88	FloLive - default rate plan	0	GBP	OK	Monthly
ff77e15b-be85-49ff-a94b-5c79ae6eed0e	8935711550000096654	--	6d229d12-c7df-489c-8572-b8733ec8ef88	FloLive - default rate plan	0	GBP	OK	Monthly
ff33f9c-a52b-4fe9-8fb4-4106f34be4d7	89972191400000002919	--	6d229d12-c7df-489c-8572-b8733ec8ef88	FloLive - default rate plan	0	GBP	OK	Monthly

SIM Identifier: SUBSCRIBER ID

Report Table: Table with 9 columns and 4 rows of data.

To generate a Charges DR Records report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Charges DR Records** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type** (optional).
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
7. Select the appropriate **System Labels** (optional).
8. Select the appropriate **User Labels** (optional).
9. Click **Execute** to generate the report.

10. Click **Export** to download the report in .csv format.

To edit the report, modify the report filters and click **Execute** again.

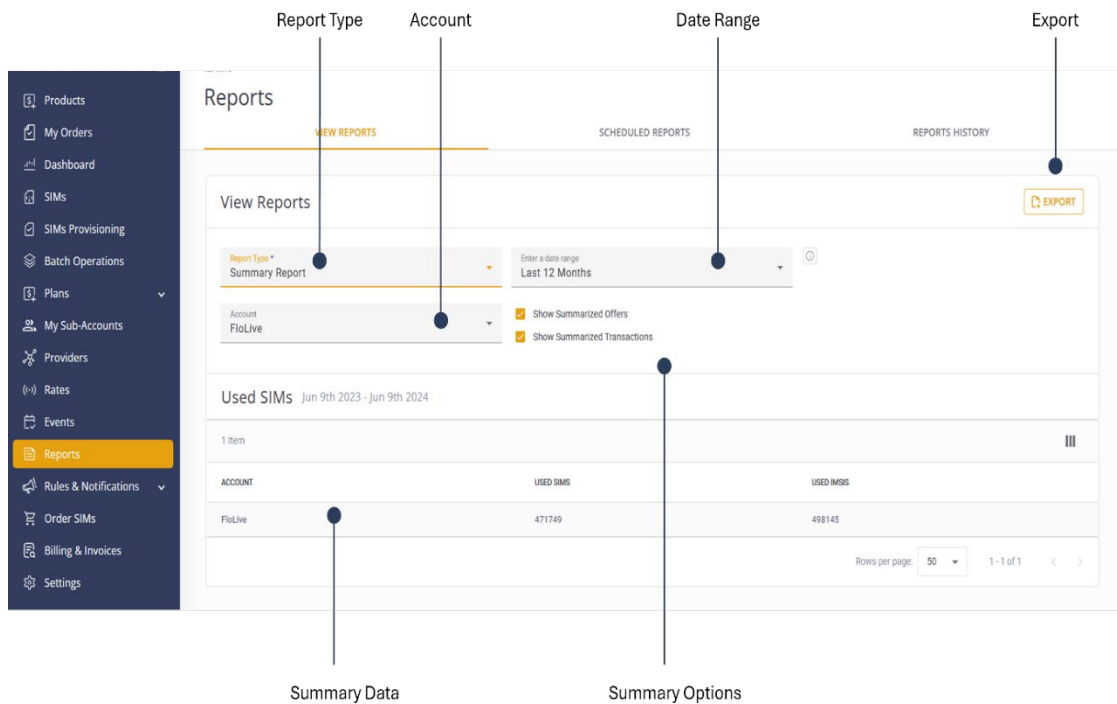
A description of the report parameters is provided in this table.

Attribute	Description
Subscriber ID	The subscriber on whose SIM the transaction was performed
ICCID	The SIM ICCID the transaction was performed on
EID	The SIM EID (eUICC ID) the transaction was performed on
Offer	The offer ID number on which the charge is based
Offer Name	The offer (Billing Plan) name
Original Charge	The first charge amount on the SIM
Original Currency	The currency of the Original Charge
Status	The status of this charge, for example, OK
Recurring Type	How often the charge is repeated, for example, Daily, Weekly, etc.
Next Charge Date	The next date the charge will be applied
Charge Date	The date this charge was applied
Account ID	The account ID of the SIM on which the charge was applied
Account Name	The account name attached to the Account ID
Account Currency	The currency that the SIM account is managed in
Account Charge	The charge amount based on the Account Currency
Charge Type	The charge type, such as ALLOWANCE
Labels	Label(s) that you have attached to this SIM
System Label	System Label(s) that are attached to this SIM

### 12.1.4 Summary Report

The Summary Report is generated in MS Excel format and contains detailed information relating to a specific account over a defined period of time. The Summary report can be generated for a parent account and for each sub-account down to one level.

A screen capture of the Summary Report is shown here.



A description of the default summary report is provided in the following tables.

#### Customer Information

Attribute	Description
Customer	The customer that you are generating the Summary Report for
Address	The customer address
Report Period	The report period in full 24-hour period in the format: yyyy-mm-dd 00:00 to yyyy-mm-dd 23:59. The report is produced over full days only.
Currency	The currency such as USD or GBP
Contact	The customer contact.

#### Usage Data

Attribute	Description
Country	The country for the specific aggregated usage (Data or SMS)
Network	The network (PLMN code) for the specific aggregated usage
Provider	The provider of the services being used
Service	The service charged for Range: Data, SMS
Usage (MB/SMS)	The volume of the service usage: For Data service, the volume is in MB. For SMS service, the volume is in number of messages
Unit Price	The price of each unit (MB or SMS) being used
Amount	The total charge in the currency denoted [(Usage)(Unit Price)]
Currency	The charge currency

Attribute	Description
SMS Data Total	Usage column shows the sum of service usage in the invoice period. Amount column shows the total charge for service in the invoice period
Usage Total	Amount column: The total charge for all services over the invoice period

## Transactions

Attribute	Description
Country	The country for the specific aggregated usage (Data or SMS)
Network	The network (PLMN code) for the specific aggregated usage
Provider	The provider of the services being used
Service	The service charged for. Range: Data, SMS
Usage (MB/SMS)	The volume of the service usage. For Data service, the volume is in MB. For SMS service, the volume is in number of messages
Unit Price	The price of each unit (MB or SMS) being used
Amount	The total charge in the currency denoted $[(\text{Usage})(\text{Unit Price})]$
Currency	The charge currency
Data Total	Usage column shows the sum of service usage in the invoice period. Amount column shows the total charge for service in the invoice period
Usage Total	Amount column: The total charge for all services over the invoice period

## Plan Charges: Summarized Offers

Attribute	Description
Plan name	Lists the billing plans by which the devices are being charged
Quantity	The quantity of this plan charged
Amount	The total charged for all transactions under this plan
Currency	The charge currency
Plan charges total	The total amount being charged on these plans
Total Charge to Customer	<p>The Amount column provides the sum of the charges in the denoted currency from:</p> <ul style="list-style-type: none"> <li>○ Usage table Amount column</li> <li>○ Plan charges Amount column</li> <li>○ Transactions: Amount column</li> </ul>

### 12.1.5 Customer Summary Report

Contains a summary breakdown of all direct sub-account charges and usages.

A screen capture of the Customer Summary report is shown here.

The screenshot displays the 'Reports' section of the floLIVE interface. On the left is a sidebar menu with 'Reports' selected. The main content area is titled 'Reports' and includes a 'View Reports' tab. Below this tab are filters for 'Report Type' (set to 'Customers Summary'), 'Accounts' (set to 'IMEI, Imei testing'), and 'Date Range' (set to 'Last 30 Days'). To the right of these filters are 'EXPORT' and 'EXECUTE' buttons. Below the filters is a table titled 'Customers Summary' for the period 'Jun 22nd 2024 - Jul 22nd 2024'. The table has 10 columns: CUSTOMER, CURRENCY, ACTIVE DEVICE, TOTAL USAGE, TOTAL SMS, ACTIVE DEVICE CHARGE, CONNECTIVITY CHARGE, PLAN CHARGES, TRANSACTIONS CHARGES, and TOTAL CHARGE. There are 2 items in the table, both showing zero values for all metrics. The first row is for 'IMEI' and the second for 'Imei testing'. At the bottom right of the table, there is a 'Rows per page' dropdown set to 25 and a pagination indicator '1 - 2 of 2'.

To generate a Customer Summary report, do the steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Customer Summary** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom



6. Click **Execute** to generate the report.
7. Click **Export** to download the report in .csv format.

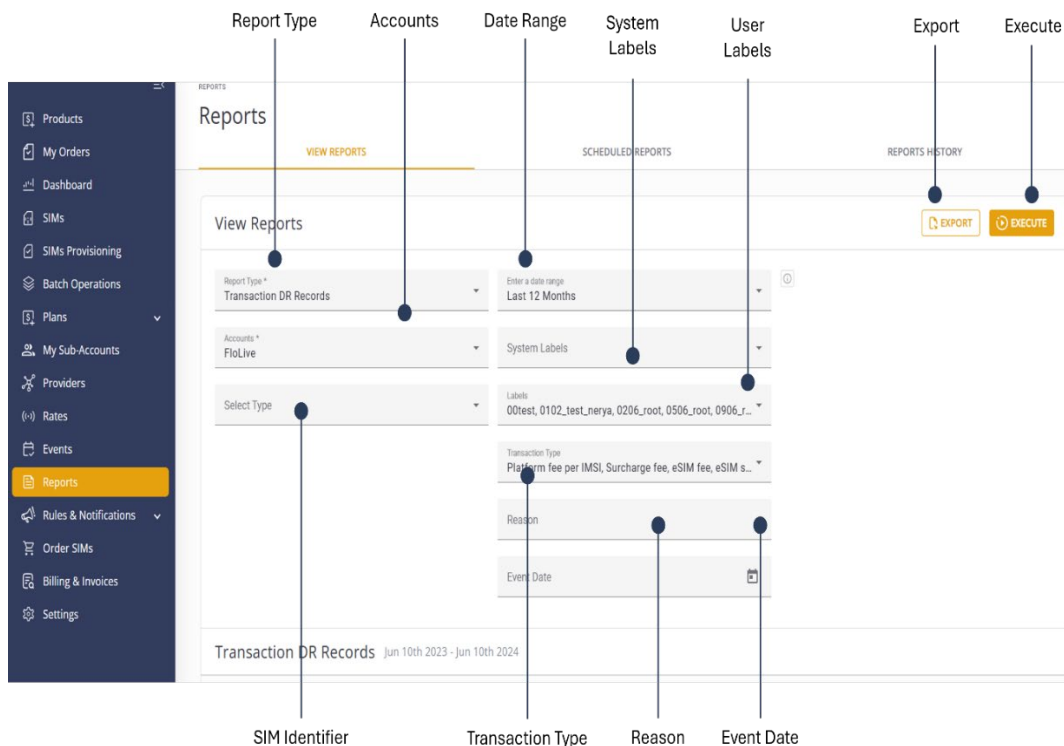
**NOTE:** To edit the report, modify the report filters and click **Execute** again.

A description of the report parameters is provided in this table.

Field	Description
Customer Name	The name of the sub-account customer.
Currency	The account's currency.
Active Device	The number of active devices (IMSI or SIM) according to account settings.
Total Usage	The total data usage for the account.
Total SMS	The total SMS MO usage for the account.
Active Device Charge	Calculated as the number of devices multiplied by the device cost, according to account settings.
Connectivity Charge	The total charge for account connectivity, including data and SMS costs.
Plan Charges	Charges for the account plans.
Transactions Charges	Charges for account TDR transactions.
Total Charge	The sum of device charges, connectivity charges, plan charges, and transaction charges.

### 12.1.6 Transaction DR Records Report

The Transaction DR report details all the transactions including top-up, debit and credit events for a selected customer during a specified time period. A screen capture of the Transaction DR report is shown here.



To generate a Transaction DR report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Transactions DR Records** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type**.
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
7. Select the appropriate **System Labels**(optional).
8. Select the appropriate **User Labels**(optional).
9. Select the **Transaction Type** from the list of options.

- a. Platform Fee Per IMSI
  - b. Surcharge Fee
  - c. eSIM Fee
  - d. eSim Swap Fee
  - e. Manual Adjustment
  - f. Internal Balance Transfer
10. Select the **Reason** from the list of options.
- a. No Reason
  - b. Network Activity
  - c. Discount
  - d. Rates Adjustment
  - e. Refund
  - f. Credit
  - g. Shipment Cost
  - h. Order Cost
  - i. Debt
  - j. Select an **Event Date**.
11. Select an **Event Date**.
12. Click **Execute** to generate the report.
13. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

A description of the report parameters is provided in this table.

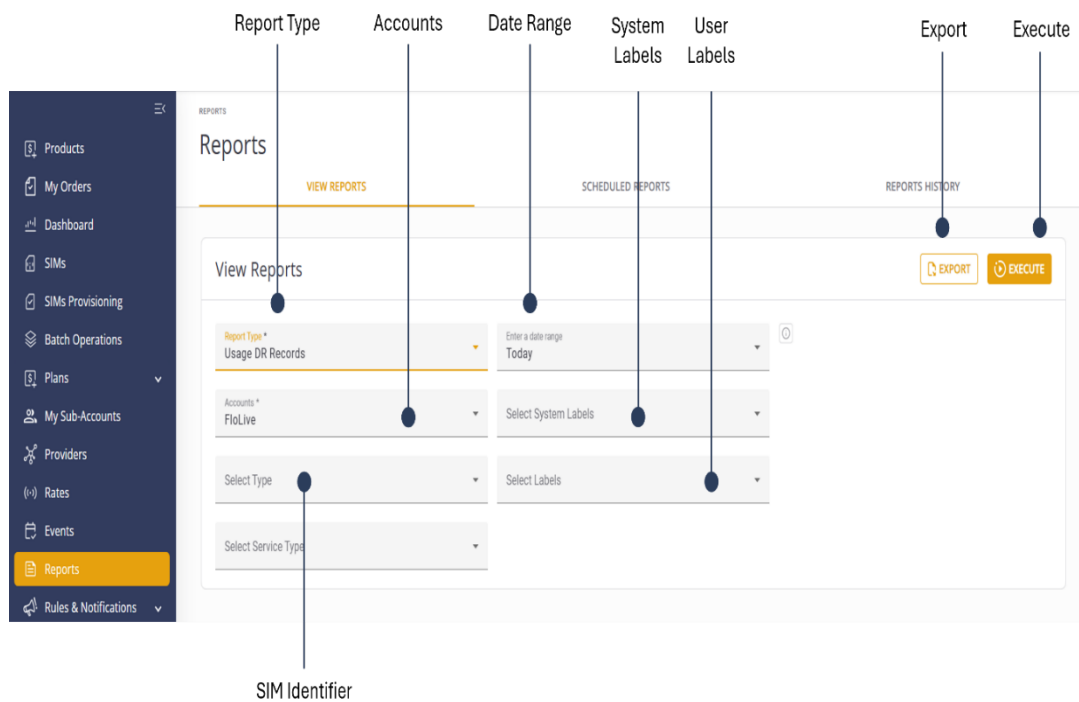
Attribute	Description
ICCID/EID	The SIM ICCID or EID the transaction was performed on
Transaction ID	Automatically generated ID for this transaction
Type	The type of top-up performed on this transaction

Attribute	Description
Operation	The action performed on this transaction (Credit or Debit)
Amount	The monetary amount of this transaction
Currency	The currency of the monetary amount
Subscriber ID	The subscriber on whose SIM the transaction was performed
Transaction Date	The date of the transaction
Account ID	The account ID of the SIM on which the transaction was performed
Account Name	The account name attached to the Account ID
Labels	Label(s) that you have attached to this SIM
System Labels	System Label(s) that are attached to this SIM

### 12.1.7 Usage DR Records Report

The Usage DR Records Report details the SMS and data usage for a selected sub-account during a specified time period.

A screen capture of the Charges DR Records report is shown here.



To generate a Usage DR Records report, do the steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Usage DR Records** from the list.
4. Select one or more **Accounts** to include in the report.

5. Select a **SIM Identifier Type**.
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
7. Select the appropriate **System Labels** (optional).
8. Select the appropriate **User Labels** (optional).
9. Click **Execute** to generate the report.
10. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

A description of the report parameters is provided in this table.

Attribute	Description
Account	The account containing the SIM that generated this CDR/DR
Start Time End Time	The start time and end time of the service usage invoked and that generated this CDR/DR. Format: yyyy-mm-dd HH:MM:SS (24-hour format)
ICCID/IMSI/MSISDN/EI D	The SIM ID
Service	The service used. Range: SMS, Data
Quantity	The usage volume, without the unit of measurement
Quantity Unit	<p>The unit of measurement of the Quantity, for example:</p> <ul style="list-style-type: none"> <li>○ SMS for an SMS message</li> <li>○ MB for data usage volume</li> </ul>
Charge/Charge Unit	Charge amount/Currency
Country	Country where the service was used
Network	The network in which the service was used
Session ID	An ID that can be used to search for this service session

Attribute	Description
Plan Name	The name of the Billing Plan attached to this Account
Plan Type	The Billing Plan type: <ul style="list-style-type: none"> <li>○ Regular: Rate, Money or Usage</li> <li>○ Pool</li> </ul>
Labels	Label(s) that you have attached to this SIM
System Labels	System Label(s) that are attached to this SIM
UE IP V4	The IP address allocated to the device
APN	APN used by the device

### 12.1.8 Usage Summary Per SIM

The Usage Summary Per SIM Report details the SMS and data usage for a selected SIM during a specified time period. This type of report offers both Basic and Detailed view modes.

**NOTE:** This report type has 2 variations including Basic and Detailed view modes.

A screen capture of the Usage Summary Per SIM report is shown here.

The screenshot displays the floLIVE Reports interface. On the left is a sidebar menu with options: Products, My Orders, Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports (highlighted), Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main area is titled 'Reports' and contains a 'View Reports' section. This section has several filters: Report Type (set to 'Usage summary per SIM'), Accounts (set to 'FloLive'), Date Range (set to 'Today'), System Labels (set to 'Select System Labels'), User Labels (set to 'Select Labels'), and a dropdown for 'Select basic/detailed report' (set to 'Basic'). Below the filters, the report title 'Usage summary per SIM' is shown for the period 'Jun 18th 2024 - Jun 18th 2024'. A table lists 35 items with columns: ACCOUNT, START TIME, END TIME, ICCID, EID, TOTAL SESSION, DATA QUANTITY, SMS QUANTITY, LABELS, and SYSTEM LABELS. Two rows of data are visible for 'FloLive' accounts. At the bottom, labels identify parts of the interface: 'SIM Identifier' points to the ACCOUNT column, 'Service' points to the START TIME column, 'Report Data' points to the EID column, and 'Basic /Detailed Report' points to the dropdown menu.

To generate a Usage Summary Per SIM report, do the steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Usage Summary Per SIM** from the list.

4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type**.
6. Select a Data or SMS **Service Type**.
7. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
8. Select the appropriate **System Labels** (optional).
9. Select the appropriate **User Labels** (optional).
10. Click **Execute** to generate the report.
11. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

A description of the report parameters is provided in this table.

Attribute	Description
Account	The account containing the SIM that generated this CDR/DR
Start Time End Time	The start time and end time of the service usage invoked and that generated this CDR/DR Format: yyyy-mm-dd HH:MM:SS (24-hour format)
ICCID/IMSI/MSISDN	The SIM ID
Country	Country where the service was used
Provider	The IMSI provider of SIM services
Network	The network in which the service was used
Total Session	The total number of grouped CDR/DR generated
Data Quantity	The volume of data usage (MB) by this SIM
SMS Quantity	The number of SMS messages sent by this SIM
Plan Name	The name of the Billing Plan attached to this SIM
Plan Type	The Billing Plan type, Regular or Pool
Labels	Label(s) that you have attached to this SIM

### 12.1.9 Usage Per Account

The Usage Per Account report displays the usage of data and SMS per account during a specified time period. The report includes breakdown per day, provider, country, network and service type.

A screen capture of the Usage Per Account report is shown here.

The screenshot displays the 'Usage Per Account' report interface. The sidebar menu on the left includes options like Products, My Orders, Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports (highlighted), Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main content area shows the 'View Reports' tab selected. Filters include Report Type (Usage Per Account), Accounts (FloLive), Date Range (Last 12 Months), Service Type (Data), and Select Type. The report title is 'Usage Per Account Jun 10th 2023 - Jun 10th 2024'. Below the title, a table shows 122 items. The table columns are ACCOUNT, EID, DATE, PROVIDER, COUNTRY, NETWORK, NUM OF IMSI, SERVICE, QUANTITY, QUANTITY UNIT, CHARGE, CHARGE UNIT, and PLAN NAME. The first three rows of data are as follows:

ACCOUNT	EID	DATE	PROVIDER	COUNTRY	NETWORK	NUM OF IMSI	SERVICE	QUANTITY	QUANTITY UNIT	CHARGE	CHARGE UNIT	PLAN NAME
FloLive	89471561407625387082299449726715	2024-06-10	EU 1	Latvia	LVALM	1	Data	1	MB	0.0049493	GBP	Subscriber F
FloLive	-	2024-06-10	EU 1	Israel	ISRCL	1	Data	3	MB	0.20914975	GBP	Subscriber F
FloLive	89471561407625973690497897048544	2024-06-10	EU 1	Israel	ISRCL	1	Data	4	MB	0.27886633	GBP	Subscriber F

To generate a Usage Per Account report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Usage Per Account** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type** (optional).
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday
  - c. Last 7 Days



- d. Last 30 Days
  - e. Month-to-date
  - f. Custom
7. Select the appropriate **Service Type** (optional).
  8. Click **Execute** to generate the report.
  9. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

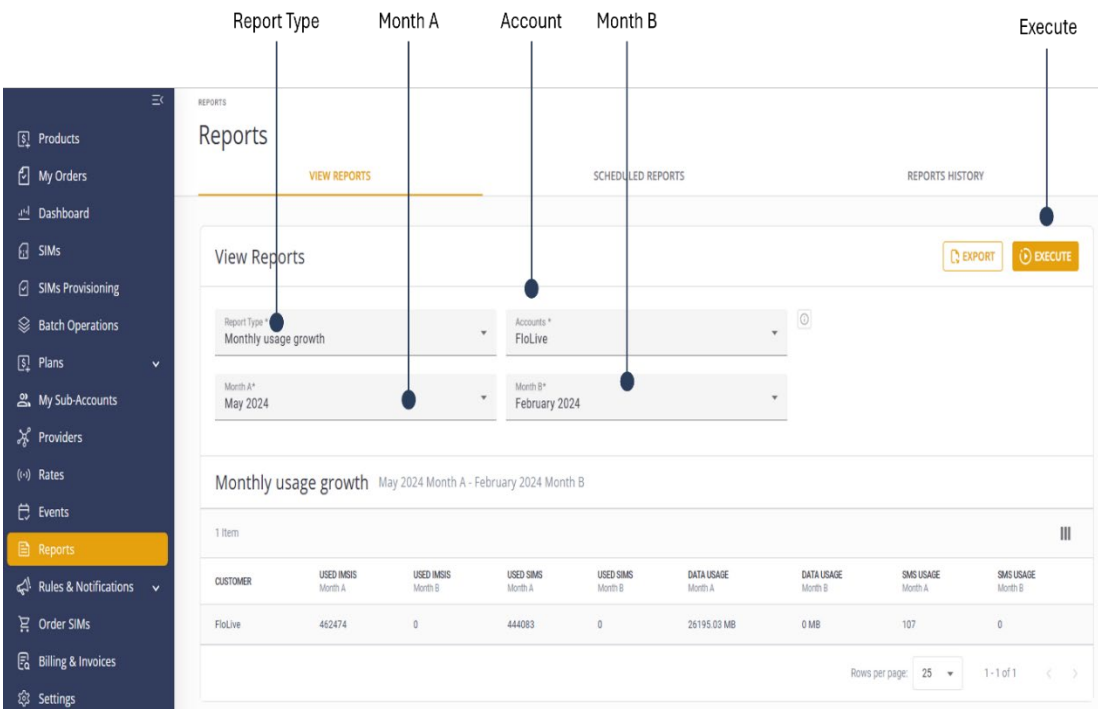
A description of the report parameters is provided in this table.

Attribute	Description
Account	The account in which the service usage was invoked
EID	The EID (eUICC SIM ID) if the usage was recorded on an eUICC SIM
Date	The date the service usage was invoked
Provider	The provider who supplied the service
Country	Country where the service was used
Network	The network in which the service was used
Num of IMSIs	The number of SIMs included in this daily report for this account
Service	The service used Range: SMS, Data
Quantity	The usage volume, without the unit of measurement
Quantity Unit	The unit of measurement of the Quantity, for example: SMS for an SMS message MB for data usage volume
Charge/Charge Unit	Charge Amount/Currency
Plan Name/Plan Type	The Billing Plan Name and Type attached to this account
Parent name	The parent account of this account

### 12.1.10 Monthly Usage Growth

The Monthly Usage Growth report compares usage between two different months.

A screen capture of the Monthly Usage Growth report is shown here.



To generate a Monthly Usage Growth report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **View Reports** tab.
3. **Report Type** and select **Monthly Usage Growth** from the list.
4. Select one or more **Accounts** to include in the report.
5. **Month A** and select a start date.
6. **Month B** and select an end date.
7. Click **Execute** to generate the report.
8. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

**NOTE:** When you select the month, the report displays month-to-date data, that is, from the first day of the month to the current date (the day you generate the report).

A description of the report parameters is provided in this table.

Attribute	Description
Customer	The account holding the Active SIMs and IMSIs
Used IMSIs Month A	The total number of Used IMSIs in the Customer Account in Month A (the end comparison month)
Used IMSIs Month B	The total number of Used IMSIs in the Customer Account in Month B (the start comparison month)
Used SIMs Month A	The total number of Used SIMs in the Customer Account in Month A
Used SIMs Month B	The total number of Used SIMs in the Customer Account in Month B
Data Usage Month A	The total Data usage volume used by the Customer Account in Month A
Data Usage Month B	The total Data usage volume used by the Customer Account in Month B
SMS Usage Month A	The total SMS volume used by the Customer Account in Month A
SMS Usage Month B	The total SMS volume used by the Customer Account in Month B

## 12.2 First Time Activated

The First Time Activated SIMs report provides customers with a list of SIMs activated for the first time during a specified reporting period. The report helps customers identify newly activated SIMs to facilitate internal business actions such as invoicing and notifications.

**NOTE:** Only SIMs activated for the first time within the defined period are included in the report. For example, a SIM activated on 10/1/24 will appear in a report covering 1-31/1/24 but not in 1-31/2/24.

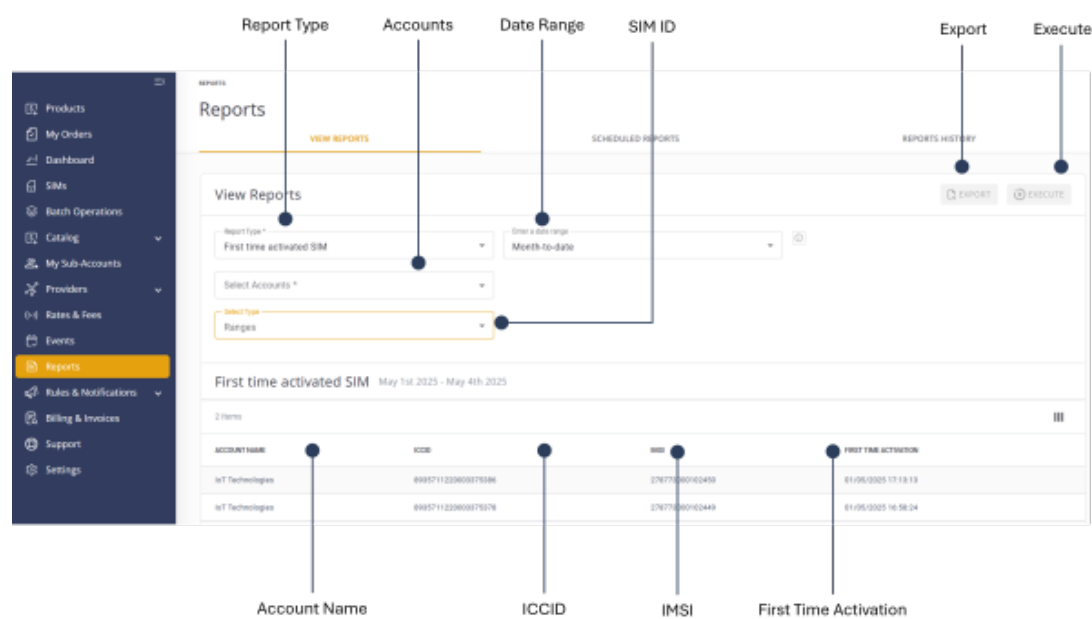
To generate a First Time Activated SIMs report, do these steps:

1. Select **Reports** from the sidebar menu.
2. Select the **View Reports** tab.
3. Go to the **Report Type** field and select **First Time Activated Reports** from the list.
4. Select one or more **Accounts** to include in the report.
5. Select a **SIM Identifier Type** (optional).
6. Select a **Date Range** option:
  - a. Today
  - b. Yesterday

- c. Last 7 Days
  - d. Last 30 Days
  - e. Month-to-date
  - f. Custom
7. Select the appropriate **Service Type** (optional).
  8. Click **Execute** to generate the report.
  9. Click **Export** to download the report in .csv format.

**TIP:** To edit the report, modify the report filters and click **Execute** again.

A screen capture of the First Time Activated Reports is shown here.



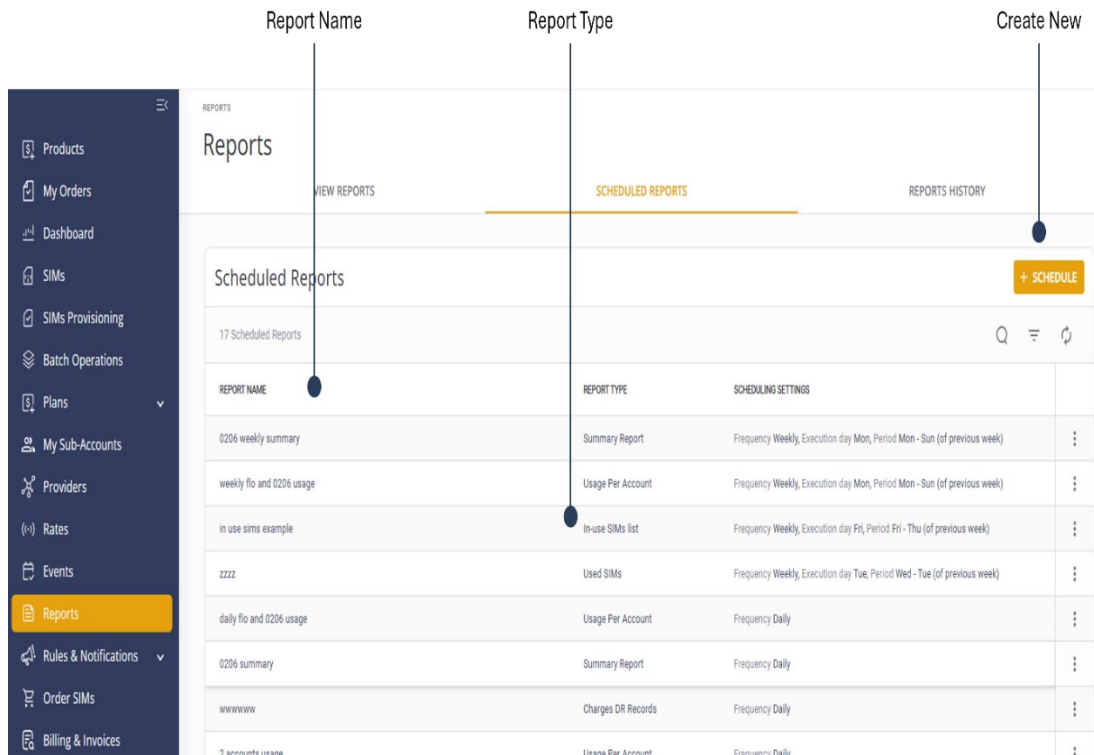
A description of the report parameters is provided in this table.

Attribute	Description
Account	The account in which the service usage was invoked
Date	The date the service usage was invoked
ICCID/IMSI	The SIM ID

## 12.3 Scheduled Reports

Account users can create automated reports to run periodically on the system. Each scheduled report requires a Report Name, a Report Type, and Scheduling setting.

A screen capture of the View Reports homepage is shown here.



### 12.3.1 Scheduling Frequency

A definition of the scheduling frequency concepts is provided in this table.

Report Type	Details
Daily Reports	Generated every day at a specified time. These reports provide a daily overview of data and ensure up-to-date information is available on a daily basis.
Weekly Reports	<p>These reports summarize data on a weekly basis, offering insights over a 7-day period.</p> <ul style="list-style-type: none"> <li>○ <b>Execution Day:</b> The specific day of the week (e.g., Monday, Wednesday) on which the report is generated.</li> <li>○ <b>Start Day Period:</b> The initial day from which the weekly reporting period begins (e.g., the first Monday of the reporting</li> </ul>

Report Type	Details
	period). These reports summarize data on a weekly basis, offering insights over a 7-day period.
Monthly Reports	<p>These reports aggregate data on a monthly basis, providing a comprehensive view over a 30-day period.</p> <ul style="list-style-type: none"> <li>○ <b>Execution Date:</b> The specific day of the month (e.g., 5th, 15th) on which the report is generated.</li> <li>○ <b>Start Date Period:</b> The initial date from which the monthly reporting period begins (e.g., the 1st of the month). These reports aggregate data on a monthly basis, providing a comprehensive view over a 30-day period.</li> </ul>

### 12.3.2 Create Scheduled Report

To create a scheduled report, do these steps:

1. Select **Reports** from the sidebar Menu.
2. Select the **Scheduled Reports** tab and click **+Schedule**.
3. Type a **Report Name**.
4. Select a **Report Type**.
5. Enter the required information for the selected Report Type.
6. Specify the **Scheduling Settings**:
  - Daily: Report is generated for the selected day.
  - Weekly: Select a Start Day to specify the report period and an Execution Day on which the report is generated.
  - Monthly: Select a Start date to specify the report period and an Execution Date on which the report is generated.
7. Set the **Frequency** and **Execution Date** for weekly and Monthly periods.
8. Click **Apply** to set Scheduling Settings
9. Click **Create** to generate a scheduled report. The report is added to the Scheduled Reports table.
10. Click **Reports History** to view all generated automated reports.

## 12.4 Reports History

The Reports History module serves as a central archive for all users automated reports generated by the system. The Reports History module enables users to access, search filter, and export historical report data. Each report is listed as a table entry containing detailed information as well as options for users to delete or export the report data.

A screen capture of the Reports History page is shown here.

Report Table

Search Report

Filter Panel

Export Report

Delete Report

CREATION DATE	TIME (UTC)	REPORT NAME	REPORT TYPE	STATUS
10.06.2024	10:00	29 daily - Usage summary per SIM detailed - filter by ICCID 999839990130148611822	Usage summary per SIM detailed	Success
10.06.2024	06:00	29 daily transaction - filter by SL automation_system_label_138251	Transaction DR Records	Success
10.06.2024	06:00	29 daily in-use SIMs list - filter by IMSI (222010228911102)	In-use SIMs list	Success
10.06.2024	06:00	29 daily charges - filter by user_label 29_2	Charges DR Records	Success
10.06.2024	06:00	29 daily used sim - filter by ICCID (999839990130148611822)	Used SIMs	Success
10.06.2024	06:00	29 daily Usage summary per SIM basic - filter by ICCID 999839990130148611822	Usage summary per SIM basic	Success
10.06.2024	06:00	29 daily usage - filter by service type - sms	Usage Per Account	Success
10.06.2024	12:00	zzzz	Used SIMs	Success
10.06.2024	12:00	0206 weekly summary	Summary Report	Success

### 12.4.1 Filter Reports

To filter the reports table, do these steps:

1. Select **Reports** from the sidebar menu.
2. Select the **Reports History** tab to display a list of reports.
3. Click the **Filter** icon to display the filter options.
4. Select a **Creation Date**.
5. Select a **Report Type**.
6. Select the report **Status**.
7. Click **Apply** to display the results in the Report History table.

### 12.4.2 Search Report

To search for a report, do these steps:

1. Select **Reports** from the sidebar menu.
2. Select the **Reports History** tab to display a list of reports.

3. Click the **Search** icon to display the search box.
4. Type a Report Name and click the **Refresh** icon to display the results in the reports table.

### 12.4.3 Export Report

To export a report, do these steps:

1. Select **Reports** from the sidebar menu.
2. Select the **Reports History** tab to display a list of reports.
3. Navigate to a report listed in the table and click **Export**.

**TIP:** The report data is exported to a csv and located in the Downloads folder on your computer.

### 12.4.4 Delete Report

To delete a report, do these steps:

1. Select **Reports** from the sidebar menu.
2. Select the **Reports History** tab to display a list of reports.
3. Navigate to a report listed in the table and click the **Delete** icon.
4. Click **Yes** to confirm deletion of the selected report.

**IMPORTANT:** The platform automatically deletes old reports from the system. It is strongly recommended that you regularly export and locally archive all of the required reports to your local archive (each month).

## 12.5 Data Retention Policy

The data retention policy is as follows:

- Available Data: Six months after being recorded, data is archived and requires a special request from Platform Customer Support to be retrieved.
- Archived Data: 24 months after being recorded, data is deleted permanently from the archive and can no longer be retrieved.

## 12.6 Data-Retention Categories

There are three categories of data retention:



- **Available Data (Online Data)** : Historical data that is available and can be retrieved and viewed directly from the Portal and Public API interfaces.
- **Archived Data (Offline Data)**: Historical data that is not available from the Portal and Public API interfaces; this data can be retrieved by a formal request to the platform Customer Support team.
- **Deleted Data**: Data that has reached its retrieval expiration date and has therefore been deleted permanently from the CMP databases and can no longer be retrieved.

## 12.7 Data Archiving

The data-retention policy is applicable for all Detail Records (DRs) and for the data used to create the reports generated by the system.

## 12.8 Recommendations for Retaining Data

It is strongly recommended that you regularly export and locally archive all of the required reports of your accounts and sub-account`s. It is recommended that perform this activity on a monthly basis.

## 13 Providers Module

---

Use the Providers module to assign (IMSI) providers to sub-accounts (customers) or to detach providers from a sub-account.

NOTE: You need Admin permissions to access the Provider module features.

### 13.1 Guidelines

These guidelines explain how the Providers module works.

- The Parent account of a target sub-account owns and manages all available providers.
- Allocation of all providers is at the discretion of the Parent account. The Parent account can allocate any or all providers to each one of its sub-accounts.
- Each account can allocate only those providers allocated to it by its Parent account to its child accounts.
- When a new provider is added to the system, it is not automatically added to existing sub-accounts.
- When a new provider is added, you need to allocate it to one or more existing sub-accounts (refer to "Allocate Providers to Sub-Accounts" on page 268).
- A newly created sub-account will, by default, be allocated all its Parent account's available providers.

**IMPORTANT:** A provider that is allocated to a sub-account cannot be de-allocated from that sub-account by its Parent account until the sub-account de-allocates that provider from its sub-accounts.

### 13.2 Auto-Assignment

The auto-assignment feature is enabled by default. When a new sub-account is created at any level (Parent, sub-account level 1, child accounts level 2 or below), the creator's allocated providers are automatically assigned to it. When the Parent account creates a new sub-account, its providers are automatically allocated to the new account.

### 13.3 Self Upload of Buy Rates

The Self-Upload feature allows sub-accounts to upload their own Buy Rates for a specific provider.

### 13.3.1 Default State

By default, this feature is turned off and must be activated by the Parent account.

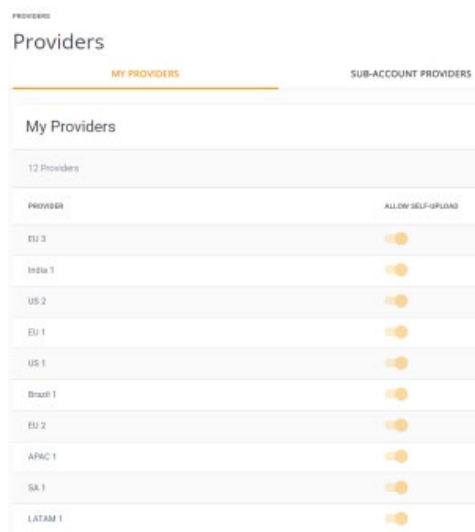
- **When activated:** Sub-accounts (Level 2) associated with the provider can upload their own Buy Rates.
- **When not activated:** Sub-accounts can only view Buy Rates provided by their Parent account (Level 1) and cannot upload their own rates. This is further explained under Parent Account Rates (Buy Rates).

### 13.3.2 Guidelines:

- The Self-Upload feature is available only to authorized users.
- Only a Parent account can activate this feature for its sub-accounts.
- The feature is restricted to second-level sub-accounts (Level 2). Parent accounts (Level 1) cannot use this feature for themselves or for third-level sub-accounts.

## 13.4 Providers Page

The Providers page opens to the **My Providers** tab, which contains a list of providers available to the account you are now logged into. If you are the Parent account, then you own all providers and can allocate all or any of them to your sub-accounts (customers). The following figure shows an example Parent Account Providers page opened to the **My Providers** tab.



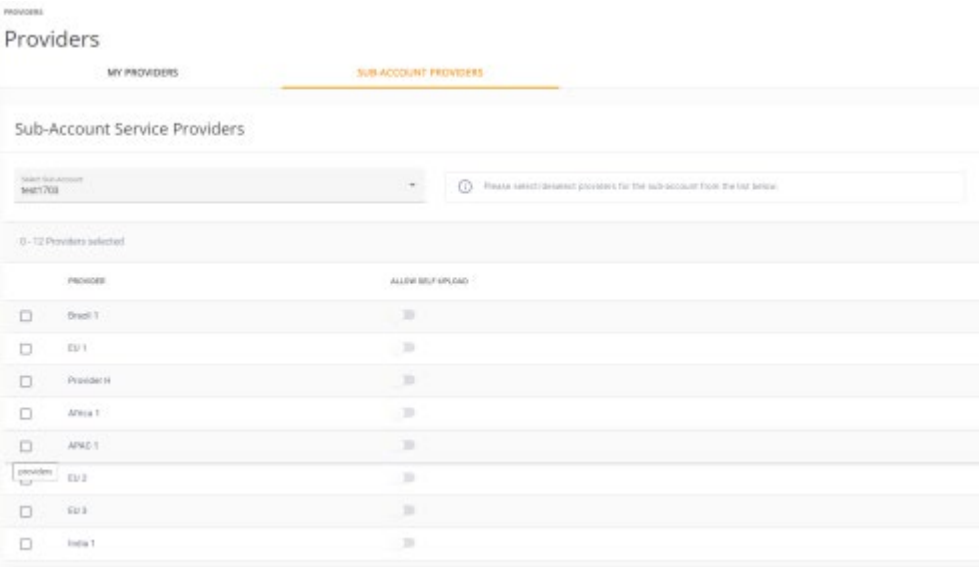
Providers Module Initial Page: Parent Account

Attribute	Description
My Providers Table	Lists all providers available to the current account and that can be allocated to this account's sub-accounts.

Attribute	Description
Provider (Column)	Lists all providers available to this account and that can be allocated to sub-accounts using the functionality of the <b>Sub-Account Providers</b> tab (see "Allocate Providers to Sub-Accounts" on page 268)
Allow Upload Self-	This toggle is not applicable to a Parent account and the On setting cannot be changed in the My Providers tab, but only in the Sub-Account Providers tab described below.

Sub-Account Providers Tab

The Sub-Account Providers tab provides the functionality that allows the current account (the account that you are logged into) to allocate providers to its sub-accounts. The following figure shows the Sub-Account Providers tab of the Parent Account with a selected sub-account.



Providers Page of Parent Account, Sub-Account Providers Tab—Provider List: Example

Attribute	Description
My Providers Table	Lists all providers available to the current account and that can be allocated to this account's sub-accounts.

Attribute	Description
Select Sub-Account Field	Select the sub-account that you are allocating Providers to.
Provider (Column)	Lists all providers available to this account and that can be allocated to the selected sub-account (in the Select Sub-Account field); select (check box) of all providers you want to allocate ("Allocate Providers to Sub-Accounts" on page 268)
Allow Self-Upload	<p>When activated, this option allows a sub-account (of the Parent account) with an allocated Provider to upload the Buy Rates for that provider (<a href="#">Self-Upload</a>)</p> <p>Default: turned off</p> <p>This toggle is reserved for second-level sub-accounts (sub-accounts of the Parent account) and is available only to authorized sub-accounts (such as MNOs) ("Self-Upload" on page 272)</p>

To open the Providers page of the Parent account:

1. Log into the Parent account.
2. From the Navigation pane, click **Providers**.

The Providers page of the Parent Account opens to the **My Providers** tab, which shows all available providers in the system, all or any of which the Parent Account can allocate to its sub-accounts.

Notice that **Allow Self-Upload** is enabled and grayed out for all providers in the Parent account.

PROVIDERS

Providers

MY PROVIDERS

SUB-ACCOUNT PROVIDERS

My Providers

12 Providers

PROVIDER	ALLOW SELF-UPLOAD
EU 3	<input checked="" type="checkbox"/>
India 1	<input checked="" type="checkbox"/>
US 2	<input checked="" type="checkbox"/>
EU 1	<input checked="" type="checkbox"/>
US 1	<input checked="" type="checkbox"/>
Brazil 1	<input checked="" type="checkbox"/>
EU 2	<input checked="" type="checkbox"/>
APAC 1	<input checked="" type="checkbox"/>
SA 1	<input checked="" type="checkbox"/>
LATAM 1	<input checked="" type="checkbox"/>

Providers Page of Parent Account, My Providers Tab: Example

3. Click the **Sub-Account Providers** tab.

The **Sub-Account Providers** tab opens to a blank table. It is used by the Parent account to allocate Providers to its sub-accounts. When you select a sub-account, all the providers that the Parent account has to allocate appear.

PROVIDERS

Providers

MY PROVIDERS

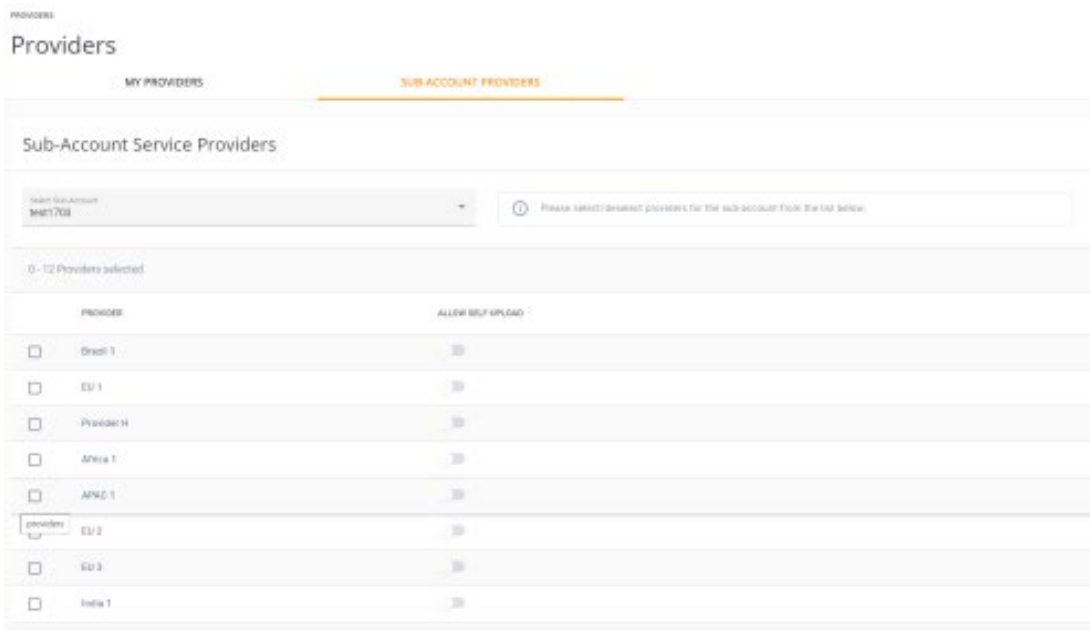
SUB-ACCOUNT PROVIDERS

Sub-Account Service Providers

Select Sub-Account

Please Select a sub-account.

Providers Page of Parent Account, Sub-Account Providers Tab—Empty: Example



Providers Page of Parent Account, Sub-Account Providers Tab—Provider List: Example

## Providers Page Operations

This topic describes how to open the Providers page and access its functionality; it uses the Parent account Providers page as an example.

For allocating providers and see how this allocation is integrated into the Connectivity Rates module, "Allocate Providers to Sub-Accounts" on page 268 and "Integration of Allocated Providers into the Connectivity Rates Module" on page 270.

For de-allocating a provider, "Allocate Providers to Sub-Accounts" on page 268.

For the Self-Upload feature, "Self-Upload" on page 272.

To access Providers-Page functionality (using Parent account example):

1. Assume you are logged in as the Parent account.
2. From the Navigation pane, click **Providers**.

The Providers page of the Parent Account opens to the **My Providers** tab, which shows all available providers in the system, all or any of which the Parent Account can allocate to its sub-accounts.

Notice that **Allow Self-Upload** is enabled and grayed out for all providers in the Parent account.

Providers

MY PROVIDERS

SUB-ACCOUNT PROVIDERS

My Providers

12 Providers

PROVIDER	ALLOW SELF-UPLOAD
EU 3	<input checked="" type="checkbox"/>
India 1	<input checked="" type="checkbox"/>
US 2	<input checked="" type="checkbox"/>
EU 1	<input checked="" type="checkbox"/>
US 1	<input checked="" type="checkbox"/>
Brazil 1	<input checked="" type="checkbox"/>
EU 2	<input checked="" type="checkbox"/>
APAC 1	<input checked="" type="checkbox"/>
SA 1	<input checked="" type="checkbox"/>
LATAM 1	<input checked="" type="checkbox"/>

Providers Page of Parent Account, My Providers Tab: Example

3. Click the **Sub-Account Providers** tab.

The **Sub-Account Providers** tab opens to a blank table. It is used by the Parent account to allocate Providers to its sub-accounts. When you select a sub-account, all the providers that the Parent account has to allocate appear.

Providers

MY PROVIDERS

SUB-ACCOUNT PROVIDERS

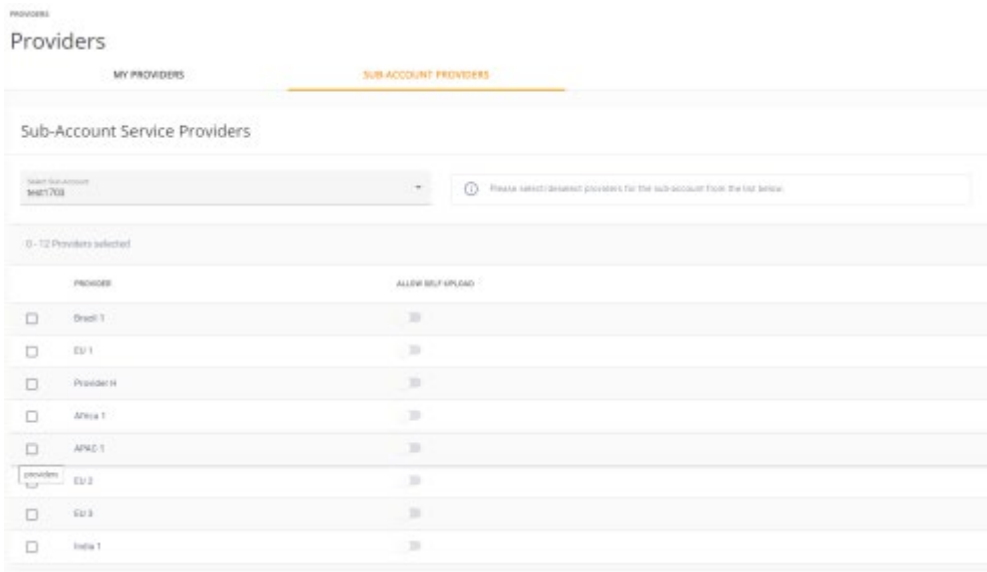
Sub-Account Service Providers

Select Sub-Account

Please Select a sub-account

Providers Page of Parent Account, Sub-Account Providers Tab—Empty: Example





Providers Page of Parent Account, Sub-Account Providers Tab—Provider List: Example

## 13.5 Allocate Providers to Sub-Accounts

### Guidelines

The guidelines for allocating Providers to sub-accounts are listed in "Providers Module" on page 261.

This procedure begins with the Parent account, which owns all Providers and can allocate any or all of them to any of its sub-accounts (customers).

Use this procedure for de-allocating providers also. De-allocating a provider [is described below](#).

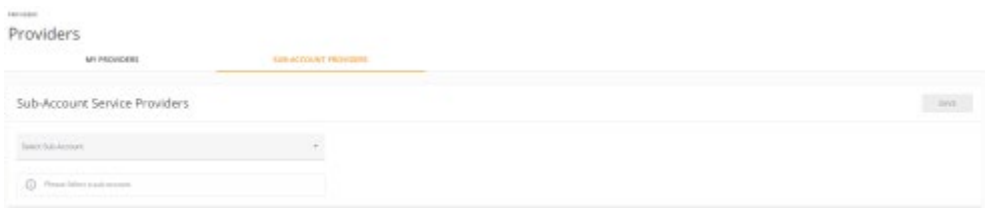
To allocate providers to sub-accounts:

1. From the Navigation Bar, click **Providers**.

The Providers page opens to the My Providers tab, which shows a list of all available providers in the Provider column of the My Providers table ("Providers Page" on page 262

2. Click the **Sub-Account Providers** tab.

The Sub-Account Providers tab contains the functionality for allocating Providers to sub-accounts ("Providers Page" on page 262

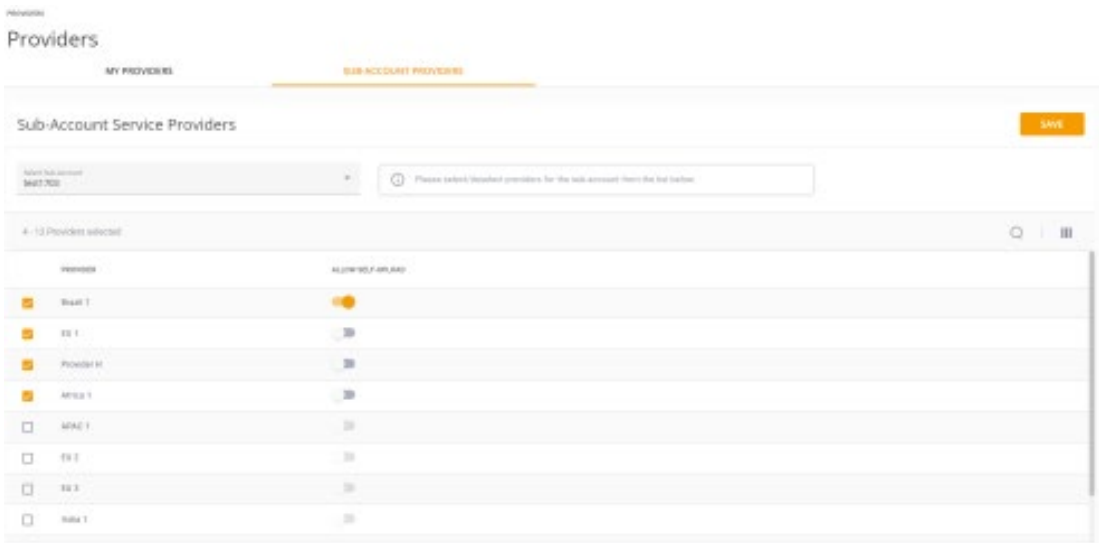


Providers Page Initial Sub-Account Providers Tab

- Click the **Select Sub-Account** field and select the sub-account you want to allocate Providers to from the list.

A list of available providers appears ("Providers Page" on page 262).

- Select all those providers you want to allocate to the selected sub-account.



Providers Page Sub-Account Providers Tab with Selected Providers

- [Optional, Parent Account Only] Turn on the **Allow Self-Upload** toggle (default is turned off) for any selected provider if you want to allow the selected sub-account to upload Buy rates for that provider in the Connectivity Rates module.

This toggle is used only for first-level sub-accounts of the Parent account and only for authorized users, such as MNOs.

- Click **Save**.

All providers that you selected are now authorized for the selected sub-account. These allocated providers are integrated into the Connectivity Rates module. Only these allocated providers appear in the Rates tables of the sub-account ("Integration of Allocated Providers into the Connectivity Rates Module" on page 270).

To de-allocate providers from the selected sub-account:

You can remove a provider only if it is not used by any lower-level sub-accounts.

1. From the Navigation Bar, click **Providers**.
2. Click the **Sub-Account Providers** tab.
3. Deselect (remove the check mark from the check box) of the provider(s) you want to remove.
4. Click **Save**.

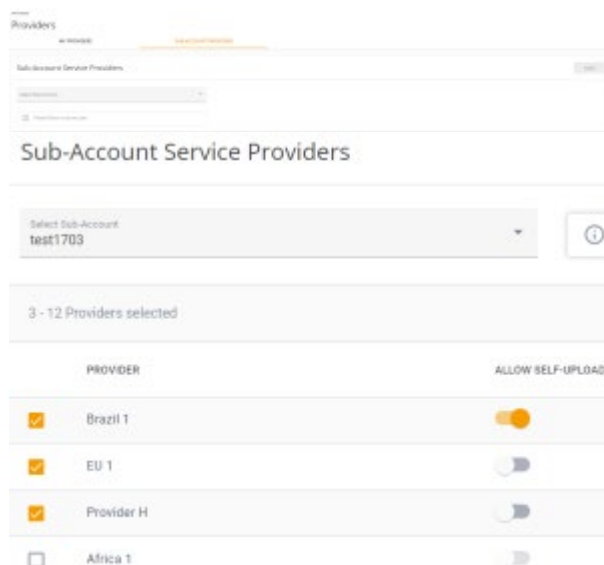
## Integration of Allocated Providers into the Connectivity Rates Module

Once you allocate providers to a sub-account, only these providers appear in all Rates tables of this sub-account in the Connectivity Rates Module.

This topic presents an example of integrating Parent-account Provider allocation into the Connectivity Rates module.

The following figure shows an example of the providers allocated by the Parent Account to sub-account **test1703**:

- Brazil 1
- EU 1
- Provider H



Providers Page: Parent Account Allocation of Providers to a Sub-Account from the Sub-Account Providers Tab

To view integration of these allocated providers in the Connectivity Rates module:

- 1. Assume that you are the user that owns the selected sub-account **test1703** with the allocated providers.
- 2. From the Navigation Bar, click the **Providers** tab.

The Providers page opens to the My Providers tab, which shows those providers allocated to your account, **test1703**, by your Parent account; you can now allocate these providers to your customers and upload Sell Connectivity Rates for these providers.



Providers Page: Sub-Account with its Allocated Providers in the My Providers Tab

- 3. From the Navigation Pane, click **Connectivity Rates** and open the Rates table for any sub-account-Country combination, as described in "Sub-Account Single Provider-Operator Markups" on page 187 .

You will see that only those providers allocated to you appear in the Rates table, as shown in the following example:

CONNECTIVITY RATES

## Connectivity Rates

Select Account \*  
test1703\_3

Select country \*  
Afghanistan, United Kingdom

2 Afghanistan United Kingdom

^ Afghanistan

PROVIDER	OPERATOR	PLMN	DATA COST (MB)
Provider H	MTN Afghanistan	AFGAR	0.006475776 (EUR)
Provider H	Afghan Wireless Comm...	AFGAW	0.11409408 (EUR)
Provider H	Emirates Telecommuni...	AFGEA	0.112852992 (EUR)
Provider H	Telecom Development ...	AFGTD	0.111611904 (EUR)

^ United Kingdom

PROVIDER	OPERATOR	PLMN	DATA COST (MB)
Provider H	Hutchison 3G UK Limi...	GBRHU	0.002555904 (EUR)
Provider H	Jersey Airtel Limite...	GBRAJ	0.004534272 (EUR)

Connectivity Rates Table Showing Allocated Providers for a Selected Country

## 13.6 Self-Upload

Self-Upload is activated per provider (default is turned off). When activated, the sub-account that has this provider allocated to it can upload its own Buy rates for that provider.

Without this feature activated, the sub-account can only view Buy Rates provided by its Parent account and not use its own Buy Rates. This functionality is described in "View Parent Rates " on page 174

### Guidelines

The Self-Upload functionality is limited to authorized users only.

Self-Upload can be implemented only by an authorized Parent account.

The Parent account can activate the feature only for second-level sub-accounts (where the Parent account is Level 1 and the sub-account is Level 2).

## Activating Self-Upload

The Self-Upload functionality allows Parent accounts of type Mobile Network Operator (MNO) that own their own IMSI to set and upload their own IMSI providers connectivity rates.

You must be an authorized user to activate Self-Upload for a provider when allocating that provider to a sub-account. See also "Allocate Providers to Sub-Accounts" on page 268

To activate Self-Upload (performed by Parent account):

1. From the Navigation Bar, click **Providers** and do the following:.
1. Click the **Sub-Account Providers** tab.
2. Select the sub-account you are allocating providers to.
3. Select (check box) providers to be allocated to the sub-account.

The Self-Upload toggle is activated for all selected providers:

PROVIDER	ALLOW SELF-UPLOAD
<input checked="" type="checkbox"/> Brazil 1	<input type="checkbox"/>
<input checked="" type="checkbox"/> EU 1	<input type="checkbox"/>
<input checked="" type="checkbox"/> Provider H	<input type="checkbox"/>
<input type="checkbox"/> Africa 1	<input type="checkbox"/>

2. Activate the Allow Self-Upload toggle for the relevant provider(s):

PROVIDER	ALLOW SELF-UPLOAD
<input checked="" type="checkbox"/> Brazil 1	<input checked="" type="checkbox"/>

3. Click **Save**.

The Self-Upload feature is activated for the selected providers. Now, the sub-account can upload Buy rates for this provider in the Connectivity Rates module.

## 13.7 How to Self-Upload Buy Rates

The sub-account can upload Buy Rates for the provider allocated to it (when Self-Upload privileges are activated).

**TIP:** The uploading of rates is done in the " Rates and Fees" on page 173

To upload Buy Rates for an allocated provider, do these steps:

1. Click **Connectivity Rates** on the navigation sidebar.
2. Select **My Rates** from the Select Account field.
3. Click **Upload as Parent** . A dialog box for uploading rates by Excel file is displayed.
4. A dialog for uploading rates by Excel file appears
5. Click the **Upload Mode** and select the appropriate Upload action:
  - **New/Update:** New rates in the Excel file are added, and existing rates with changes are updated once loaded into the system.
  - **Delete:** Enables sub-accounts to remove uploaded Buy Rates for a provider when Self-Upload is activated.
  - **Full Update:** Replaces all existing account rates with those in the Excel file: New PLMN rates are added, existing rates are updated, and rates not in the Excel file are removed.
6. Click **Select IMSI provider** and select a Provider with Self-Upload privileges. A dialog for uploading rates by Excel file is displayed.
7. Browse or drag the Excel file into the Drag Your Files field and click **Upload..**

**NOTE:** When the Excel file is uploaded you can sell these rates to your customers.

## 14 Billing & Invoices

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This module enables users to make manual billing adjustments for account transactions and download account invoices to track payments .

- Billing Adjustments: Make precise adjustments to billing by account or by ICCID to correct billing discrepancies, apply discounts, make refunds or adjust charges as needed.
- Invoices: Access, search and download invoices per account in PD or XML format.

There are two methods to perform billing adjustments:

- Manual Adjustment: Involves adjustment for a sub account via the portal interface.
- Batch Operation: Handles multiple entries simultaneously via upload of a csv file

### 14.1 Invoice Module

The Invoices Module enables you to view and download all generated account invoices and monthly reports directly from the CMP portal.

The Invoices Module includes these files:

- Monthly usage report (in CSV or Excel format)
- Monthly invoice in (PDF format)

#### Invoice Table

The default list of invoice is My Account, that is the account you are currently logged into. By default, any invoices that have been uploaded previously are listed in the table in descending order of the Upload Date. However, you can sort the table by Upload Date or by Invoice Name.

#### Account Invoices

Click the Account list to choose any account you have access to and display the invoices that have been uploaded to the account selected; if no invoices have been uploaded, the No Data Found message appears.

#### Search for Invoice

You can search the table by Invoice Name only. The Search mechanism can find invoices with a partial name entry. The Search engine is not case sensitive.



## Download Invoice

To download an invoice for an account, do these steps:

1. Select **Billing & Invoices** from the sidebar menu.
2. Click the **Invoices** tab.
3. Select an **Account** to display a list of invoices.
4. Scroll the list of invoices and click the **Download** icon to save invoice to computer.

To download multiple invoices, select the checkbox for each row and click the Download button displayed at the top of the page.

Make sure you make a regular monthly backup of all invoices and reports and files download to a local drive.

Here is a screen capture of the Invoices screen.

The screenshot shows the 'Billing & Invoices' interface. A sidebar on the left contains a menu with items like Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports, Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main area is titled 'Billing & Invoices' and has two tabs: 'BILLING ADJUSTMENTS' and 'INVOICES'. The 'INVOICES' tab is active. Below the tabs, there's a section for 'Invoices' with a dropdown menu for 'Account' (currently showing 'olga1 34'). Below this, it says '27 Invoices'. A table lists invoices with columns: INVOICE NAME, INVOICE NUMBER, INVOICE PERIOD, CREATION DATE, TAXABLE AMOUNT, TAX AMOUNT, TOTAL AMOUNT, INVOICE FORMAT, and STATUS. The table contains several rows of test and real invoices. At the top right of the table, there is an 'UPLOAD' button. At the bottom right of the table, there is a 'Download' button. Three numbered annotations are present: 1. 'Select Account' points to the account dropdown. 2. 'List of Invoices' points to the table. 3. 'Download' points to the download icon in the status column of the table.

	INVOICE NAME	INVOICE NUMBER	INVOICE PERIOD	CREATION DATE	TAXABLE AMOUNT	TAX AMOUNT	TOTAL AMOUNT	INVOICE FORMAT	STATUS
<input type="checkbox"/>	TEST19022024.pdf	--	-	19.02.2024	--	--	--	PDF	Success
<input type="checkbox"/>	TEST19022024.xlsx	--	-	19.02.2024	--	--	--	XLIX	Success
<input type="checkbox"/>	Invoice-B-20230101(2).pdf	132	01.02.2024 - 01.03.2024	15.02.2024	0	0	0	PDF	Success
<input type="checkbox"/>	NEW-Invoice-A-20230101 (2)(5).xlsx	131	01.02.2024 - 01.03.2024	15.02.2024	0	0	0	XLIX	Success
<input type="checkbox"/>	NEW-Invoice-A-20230101 (2)(4).xlsx	130	01.02.2024 - 01.03.2024	15.02.2024	0	0	0	XLIX	Success
<input type="checkbox"/>	Invoice_LIA2023-107224(1).pdf	129	01.02.2024 - 01.03.2024	15.02.2024	0	0	0	PDF	Success
<input type="checkbox"/>	NEW-Invoice-A-20230101 (2)(3).xlsx	128	01.02.2024 - 01.03.2024	14.02.2024	0	0	0	XLIX	Success

## 14.2 View Transaction Details

When a billing adjustment via batch operation is complete, it is recommended you verify the updated data in the Transaction Details report. To display the transaction details, do these steps:

1. Select **Reports** from the sidebar menu.
2. Report Type and select **Transaction DR Records**.

3. Select an Account and enter the Report parameters.
4. Click **Execute** to update the Transaction DR Records table.
5. Scroll the page and review the batch operation data in the Transaction DR Record) table.

Here is a screen capture of the Transaction DR Records for an example billing adjustment.

The screenshot shows the 'Reports' section of the floLIVE interface. A sidebar on the left contains navigation links: Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports (highlighted), Rules & Notifications, Order SIMs, Billing & Invoices, and Settings. The main area is titled 'Reports' and has tabs for 'VIEW REPORTS', 'SCHEDULE REPORTS', and 'REPORTS HISTORY'. Under 'VIEW REPORTS', there are filters for Report Type (Transaction DR Records), Accounts (fff, final pcm, My Account, fadfdsfdf, gdfgdf, gfdghdf...), System Labels (\_NERYA\_, \_NERYA\_1\_, \_NERYA\_2\_, \_NERYA\_3\_, automat...), Select Type, Transaction Type (Manual Adjustment), Reason (Credit, Debt, Discount, Dragons, Network Activity, Order...), and Event Date. There are 'EXPORT' and 'EXECUTE' buttons. Below the filters, the 'Transaction DR Records' table is shown for the period 'Apr 11th 2023 - Apr 11th 2024'. The table has 11 columns: ICCID, EID, TRANSACTION ID, TRANSACTION TYPE, REASON, OPERATION, QUANTITY, EVENT DATE, ORIGINAL UNIT AMOUNT, and UNIT AMOUNT. It contains 5 rows of data, all of which are 'Manual Adjustment' transactions.

Numbered callouts in the image:

- 1. Transaction DR Records (points to the 'Transaction DR Records' filter)
- 2. Billing Adjustment (points to the 'Manual Adjustment' transaction type)
- 3. Execute (points to the 'EXECUTE' button)
- 4. Billing Adjustment Details (points to the first row of the Transaction DR Records table)

ICCID	EID	TRANSACTION ID	TRANSACTION TYPE	REASON	OPERATION	QUANTITY	EVENT DATE	ORIGINAL UNIT AMOUNT	UNIT AMOUNT
893571148252195130	--	640d6cfc-0502-4688-8a84-2359d1cd6697	Manual Adjustment	Shipment Cost	Debit	1	2024/03/25	3	3
--	--	6a604f36-234e-476a-876f-143e05a59b3f	Manual Adjustment	Discount	Credit	1	2024/03/24	-5	-5
--	--	5f7b6b04-aa00-4b04-a0f4-edbe929da9f	Manual Adjustment	Shipment Cost	Debit	3	2024/03/26	5	5
--	--	e9fd0201-548b-43d5-aa13-065eb1df68	Manual Adjustment	Shipment Cost	Debit	2	2024/03/25	5	5

## 14.3 Invoice Email Notification

This feature enables customers to receive an email notification to an email address associated with the account when the billing cycle is complete and an invoice is generated.

To create an Email Notification when an invoice is created, do these steps:

1. Select **My Sub-Accounts** from the sidebar menu.
2. Click the **Addresses** tab to create a new address or select an existing address from the list.
3. Select **Shipping** from the Address Type.
4. Enter the **Email** address in the email field and click **Save Changes**.
5. Select the **Billing & Invoice** tab.
6. Select **Invoice Configuration** from the Billing & Invoice sub-menu.
7. **Invoice Notification** and select **True**.

8. **Notification Method** and select **Email**.
9. Click **Update** to save changes.

A screen capture of the Email Notification settings is shown here.

MY SUB-ACCOUNTS > PUBLIC CREATE ACCOUNT 12817

public create account 12817

ACCOUNT CONTACTS ADDRESSES **BILLING & INVOICE** EXTERNAL PARAMETERS

Billing & Invoice UPDATE

Billing Cycle Definition Invoice Configuration

Payment Due After Invoice Issued\* 90 DAYS VAT 0 %

Invoice Text

Device Cost\* 0.25 USD

Invoice Notification\* True Notification Method\* EMAIL

False XML invoice template Default XML

True

## 14.4 Manual Adjustment

To make a manual billing adjustment for an account, do these steps:

1. Select **Billing & Invoices** from the sidebar menu.
2. Click the **Billing Adjustments** tab.
3. Select one of these options:
  - a. By Account
  - b. By ICCID
4. Select an **Account** from the list.
5. Enter a billing adjustment **Amount**.. Use a negative amount for refund or credit.
6. Select the applicable account **Currency**.
7. Enter the billing adjustment **Quantity**.
8. Select one of these **Reason** options:
  - a. Network Activity

- b. Discount
  - c. Rate Adjustment
  - d. Refund
  - e. Credit
9. Add additional information in the **Description** field (optional).
  10. Enter the billing adjustment **Event Date**.
  11. Click **Create** to execute the billing adjustment.

When the billing cycle is complete, the billing adjustment is displayed in the invoice.

Here is a screen capture of the Billing Adjustment screen.

The screenshot shows the 'Billing & Invoices' section of the floLIVE interface. The left sidebar contains a navigation menu with options: Dashboard, SIMs, SIMs Provisioning, Batch Operations, Plans, My Sub-Accounts, Providers, Rates, Events, Reports, Rules & Notifications, Order SIMs, Billing & Invoices (highlighted), and Settings. The main content area is titled 'Billing & Invoices' and has two tabs: 'BILLING ADJUSTMENTS' (active) and 'INVOICES'. The 'Billing Adjustments' form includes a 'CREATE' button in the top right. It has two radio buttons: 'By Account' (selected) and 'By ICCID'. Below these are input fields for 'Account\*', 'Amount\*', 'Currency\*', 'Quantity\*', and 'Total'. A note states: 'Use negative amount for refund / credit'. There are also fields for 'Reason\*', 'Description', and 'Event Date\*'. A dot points to the 'Event Date\*' field with the label 'Account / ICCID Details'.

Billing Adjustments

Invoices

Invoices

Billing & Invoices

BILLING ADJUSTMENTS

Billing Adjustments

CREATE

☒ By Account ☐ By ICCID

Account\*

Amount\* Currency\* Quantity\* Total

Use negative amount for refund / credit

Reason\* Description

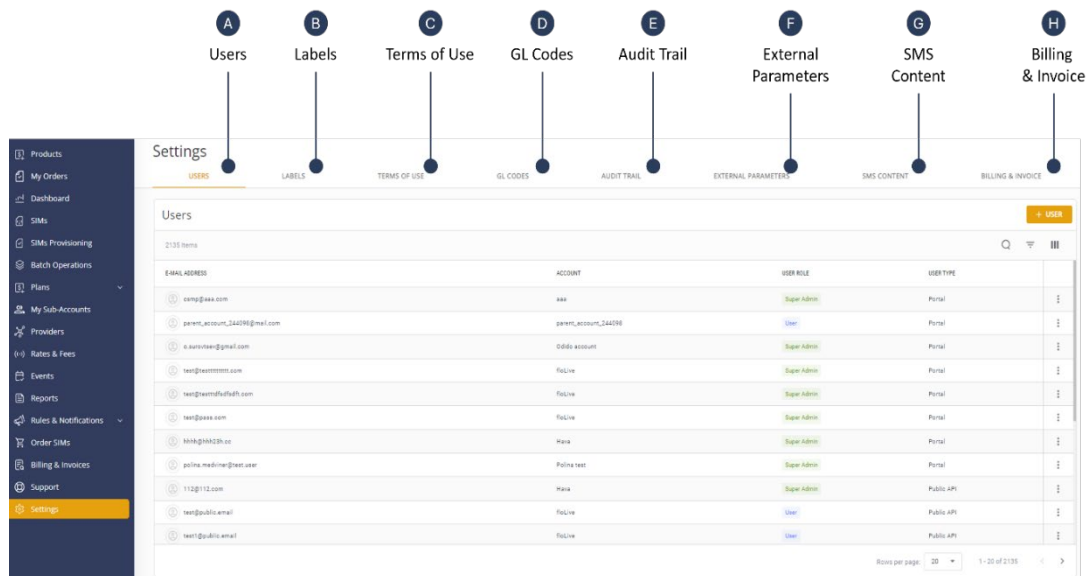
Event Date\*

Account / ICCID Details

# 15 System Settings

The Settings module serves as a centralized hub for managing essential configurations and administrative tasks. This module contains various sub-modules, each displayed in a separate tab.

Here is a screen capture of the Settings module.

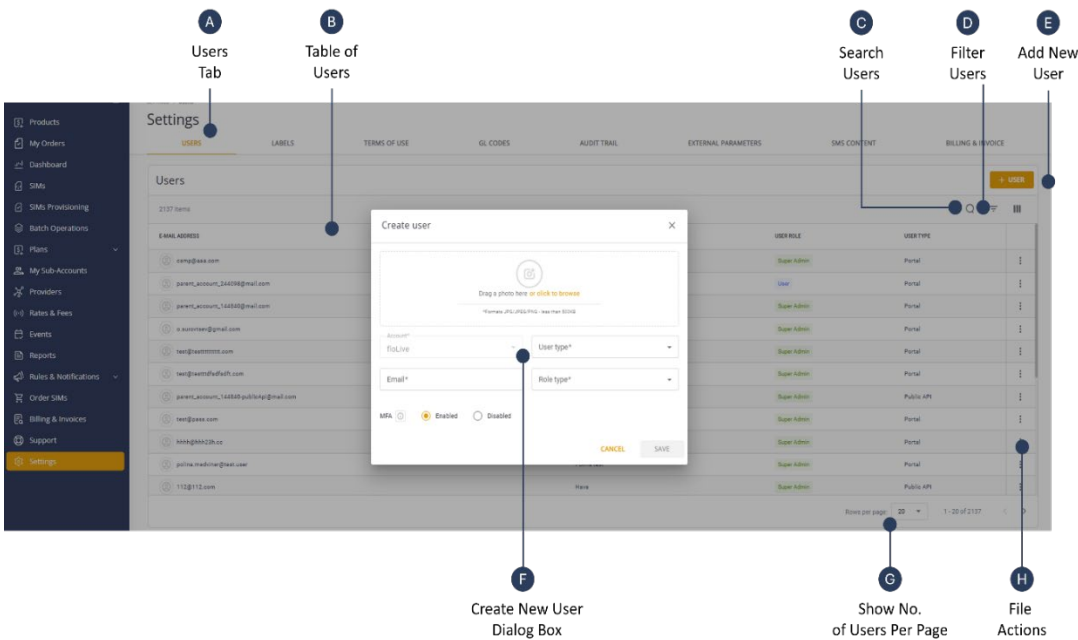


A description of the Settings module functions is provided in this table.

Sub-Module	Description
Users	Manage user accounts, roles, passwords and permissions within the system.
Labels	Define and organize labels for categorizing SIMs and plans.
Terms of Use	Upload, download or delete legal agreements that users must accept to use SIM services.
GL Codes	Manage General Ledger codes for financial tracking and reporting.
Audit Trail	View all actions and changes made by users based on specified time frame.
External Parameters	Define External Parameter names to enable batch integrations and data exchange for per account, SIM, plan, product and package.
SMS Content	Manage SMS message templates for customer notifications and communication.
Billing and Invoice	Manage billing processes and invoice generation for customers.

## Display List of Users

The Users table provides a list of all defined user accounts in the system. A screen capture of the Users table is shown here.



You can perform these actions on the table contents:

Action	Description
Filter	Filters the grid based on account, role or type.
Search	Search for a specific user.
Rows per Page	Display control of how many rows to display.
Page Navigation	Previous and Next arrows to scroll between pages.
Action Control	Enables users to edit, login on behalf or delete users
Add New User	Creation a new user account in the system.

To display the list of users, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Users** tab to display a list of users.
3. Scroll the table of users and select the **Actions** control on the appropriate row.
4. Use the **Search** control to find a user account defined in the system.

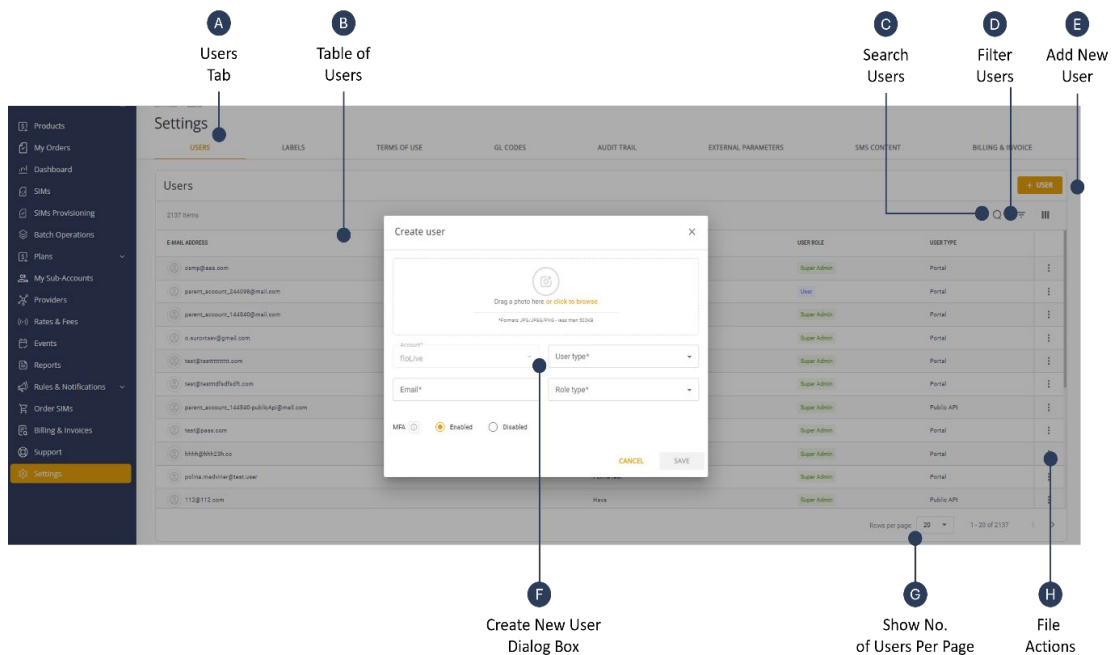
5. Use the **Filter** control to refine list of users displayed in table.

### 15.1.1 Add New User

To add a new user, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Users** tab to display a list of users.
3. Click **+ User** and to display the Add User dialog box.
4. Select one of these options:
  - a. My Account
  - b. Sub-accounts
5. Select an **Account** from the list.
6. Select an appropriate **User Type**:
  - a. **Public API**: Direct access to the floLIVE CMP PublicAPI.
  - b. **Portal**: Access to the floLIVE CMP Portal.
7. To add an avatar, drag and drop an image file in the specified area (optional).
8. Enter a valid **Email** address.
9. Select an appropriate **Role Type**:
  - a. Super admin
  - b. Support
  - c. User
  - d. Read only
10. Enable Multifactor Authentication **MFA** if required.
11. Click **Save** and then click **Confirm** create a new User.

A screen capture of the Create New User dialog box is shown here.



## Edit User Profile

To edit a user profile, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Users** tab to display a list of users.
3. Scroll the table of users and select the **Actions** control on the appropriate row.
4. Click **Edit** to display the user profile dialog box.
5. Upload a user **Photo** or **Avatar** image.
6. Select the user **Role Type**.
7. Click **Save** to update the user Profile.

## Delete a User

To delete a user, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Users** tab to display a list of users.
3. Scroll the table of users and select the **Actions** control on the appropriate row.
4. Click **Delete** to display the Delete User dialog box.
5. Click **Delete** to confirm the Delete operation.



## 15.2 Manage Labels

A label is a descriptive identifier assigned to a SIM card defined in Connectivity Management Platform. Labels are used to categorize and organize SIMs based on specific attributes, such as usage type, customer group, or plan. By applying labels, users can group similar SIMs together make it easier to manage and locate SIM cards in the system.

**NOTE:** Labels are typically limited to a single word without spaces and can only consist of alphanumeric characters. This naming convention ensures consistency and clarity in identification.

### 15.2.1 Create a Label

To create a label, do these steps:

1. Select **Settings** from the sidebar navigation menu.
2. Select the **Labels** tab to display the labels table.
3. Click the **+Label** button to display the Add Label dialog box.
4. Type a new **Label Name**.
5. Click **Apply** to define the label in the system.

**TIP:** You can assign labels to a SIM directly from the SIMs Table or from the SIMs Info page. Assigned labels are automatically updated in the Labels table.

### 15.2.2 Edit a Label

To edit a label, do these steps:

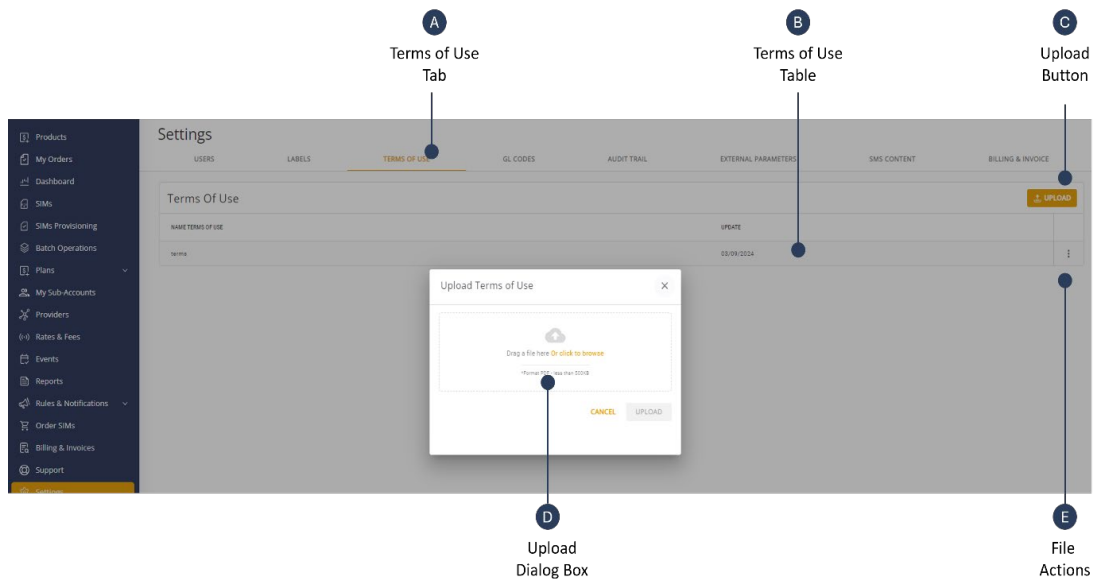
1. Select **Settings** from the sidebar navigation menu.
2. Select the **Labels** tab to display the labels table.
3. Scroll the table and selects the Actions control for a selected label.
4. Enter a **New Label Name** and click **Apply**.

## 15.3 Upload Terms of Use

The Terms of Use agreement module enables you to perform these actions:

- Upload a new or replace an existing Terms of Use of Service agreement
- Delete the current Terms of Use agreement
- Download the current Terms of Use agreement

A screen capture of the Terms of Use agreements table is shown here.



### 15.3.1 Upload Terms Of Use Agreement

When you upload a new Terms of Use agreement, all your new and existing sub-account users are required to accept the new terms.

**NOTE:** You are required to upload the Terms of Use agreement in PDF format.

To upload a new Terms of Use agreement, do these steps:

1. Select **Settings** from the navigation sidebar menu.
2. Select the **Terms of Use** tab.
3. Click **Upload** to display the upload message box.
4. Click **Yes** to confirm overwrite of the existing Terms of Use agreement.

**Note:** If this is the first time you are uploading a Terms of Use agreement, the overwrite message is not displayed.

5. Place your PDF file in the **Upload Terms of Use** dialog box.
6. Click **Upload** to replace the existing file. The file is uploaded and a Success message is displayed at the bottom of the page.

**IMPORTANT:** Make sure all your sub-account users, both new and existing) accept the new Terms of Use agreement. Download

### 15.3.2 Download Terms of Use Agreement

To download the Terms of Use agreement, do these steps

1. Select **Settings** from the navigation sidebar menu.
2. Select the **Terms of Use** tab.
3. Click the **Actions** control located on the right side of the table row.
4. Click **Download** to save a copy of the PDF file to your computer.

### 15.3.3 Delete Terms of Use Agreement

To delete a Terms of Use agreement, do these steps:

1. Select **Settings** from the navigation sidebar menu.
2. Select the **Terms of Use** tab.
3. Click the **Actions** control located on the right side of the table row.
4. Click **Delete** to remove the PDF file from the table.
5. Click **Yes** to confirm the delete operation.

## 15.4 Assign GL Codes

General Ledger (GL) codes are alphanumeric identifiers used to track business activities related to SIM configurations and plans for specific sub-accounts. GL activity codes refer to activating, charging, and topping up SIMs. These codes are essential for accounting processes and are utilized by the platform to generate summary reports.

### 15.4.1 Types of GL Codes

There are 3 types of GL Codes:

- **Recurring Fees:** Typically monthly charges.
- **Usage Fees:** Charges for data and SMS usage.
- **Adjustment Fees:** Charges include as top-ups, Platform fee per IMSI, Surcharge Fee, eSIM fee; eSIM swap Fee or Manual Adjustment
- **Products:** Automatic recurring charges for various product services across accounts..

### 15.4.2 GL Code Naming Conventions

Ensure that the GL code name adheres to these rules:

- Alphanumeric characters only

- No spaces or special characters.
- Underline ( \_ ) is allowed.
- No character limit on length.

### 15.4.3 Guidelines for Using GL Codes

Make sure you implement these guidelines when you use GL codes.

Category	Description
GL Code Definition	GL codes can be defined per charge type within each sub-account. Codes must be unique within their definition. A validation message is provided if a violation occurs.
Account Hierarchy	Each account can define its GL codes independently. Sub-accounts can create their own GL codes for child accounts.
Specificity	More specific GL code definitions override general definitions. For example, attaching a GL code to a specific sell plan makes it more specific than one attached to all sub-accounts.
Limitations	You cannot apply the GL Code to a Sell plan that has already has another GL Code assigned to it.

### 15.4.4 Define GL Code

To define a GL Code do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **GL Codes** tab to display a list of GL Codes.
3. Click the **+Code** button to display the Create GL Code options.
4. Select a **\*Sub-Account** from the list.
5. Select a GL Code type:
  - Recurring Fees
  - Usage Fee
  - Adjustment Fee
  - Product
6. Select a **Sub Type\*** if applicable.
7. Type a **Code Name\***
8. Click **Create** to update the system with the new GL Code.

15.4.5 Set GL Code Options

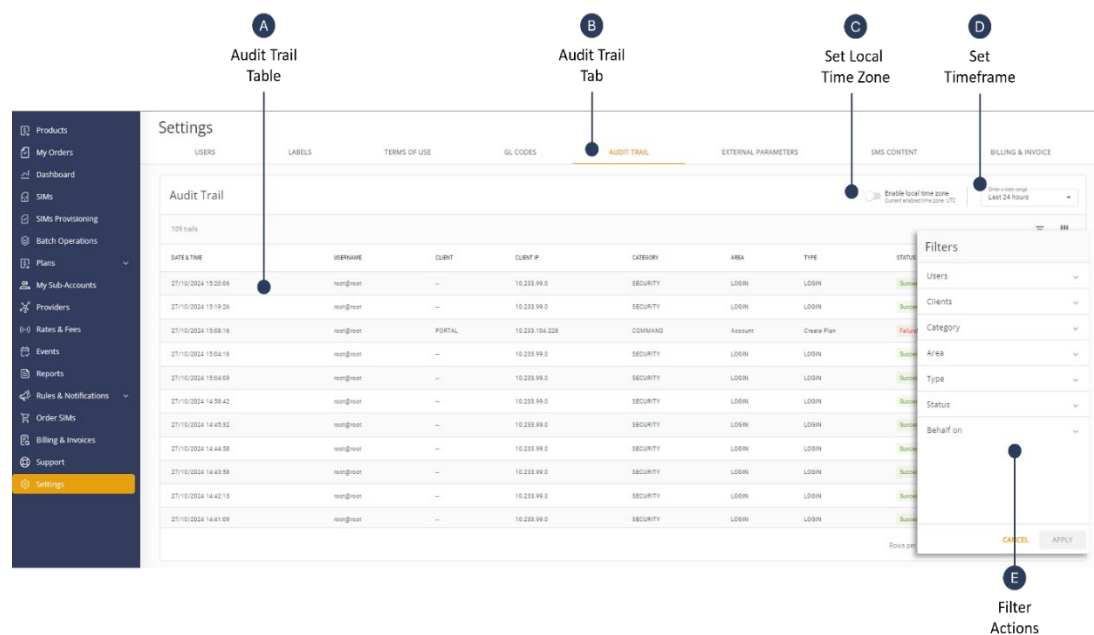
To set GL Code options, do these steps:

- 1. Select **Settings** from the sidebar menu.
- 2. Select the **GL Codes** tab to display a list of GL Codes.
- 3. Scroll the GL Code table and click the **Actions** control for the selected row.
- 4. Click **Edit** to display the GL relevant options
- 5. Update the GI Code options as required.
- 6. Click **Update** to set GL Code settings

15.5 Audit Trail

The Audit Trail provides a comprehensive log that captures all actions performed by platform users (both portal users and API Users). Users can apply specific filters to retrieve relevant audit information based on the selected criteria. This functionality is vital for monitoring user activities, ensuring accountability, and maintaining compliance with internal policies and regulations.

A screen capture of the Audit Trail is shown here.



A description of the Audit Trail table columns is provided in this table.

Name	Description
Date & Time	The timestamp of the action.
Username	The user who performed the action
Client	The client of the account on which the action was performed.

Name	Description
Client IP	The client IP.
Category	The activity category.
Area	The subject area of the action.
Type	The activity type performed.
Status	Success or Failure of the action.
Behalf on	The user on whose behalf the action was performed.

### 15.5.1 Filter Audit Trail

To filter the audit trail table, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Audit Trail** tab to display the audit trail table.
3. Click the **Filter** control to display the filter sidebar.
4. Select one or more **Users** to display user activities.
5. Select one or more **Client** type activities.
6. Select one or more **Category** activities.
7. Select one or more **Area** activities.
8. Select one or more **Type** activities.
9. Select the type of **Status** activity.
10. Select the **Behalf On** user activities.
11. Click **Apply** to update Audit Trail table display.

### 15.5.2 Set Time Frame

To set the Audit Trail timeframe, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Audit Trail** tab to display the audit trail table.
3. Use the **Filter** control and click **Apply** to refine the audit trail activities.
4. Select the appropriate **Time Frame**:
  - Last 24 hours
  - Last 7 days
  - Last 30 Days
  - Custom Dates

5. Select the appropriate **Local Time Zone**:

- UTC
- Browser local time zone

**NOTE:** All timestamps are set to UTC time by default. To set the timestamp to your local time zone, turn on the **Enable local time zone** toggle:

## 15.6 Manage External Parameters

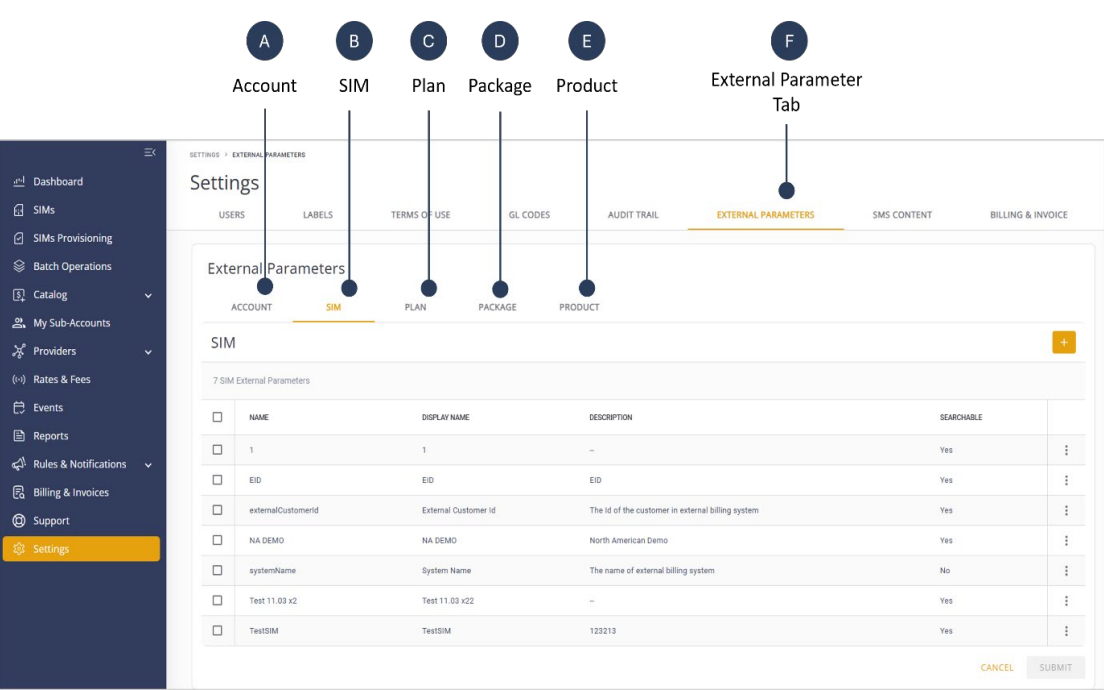
External Parameters connect your external system identifiers with the CMP system and enable management of platform entities such as Accounts, SIMs, and Plans using your own external IDs. The platform utilizes these parameters to generate summary reports, replacing original entity identifiers with your external IDs. Additionally, External Parameters facilitate mapping between platform entities and IDs from your external systems, including customer CRM and ERP systems.

### 15.6.1 External Parameter Guidelines

Use these guidelines when you create and assign external parameters.

- External Parameters can be searched in the portal UI.
- Each External Parameter has a user-defined name.
- You can define these External Parameters for each platform entity: Account, Plan, SIM, Product and Package.
- Each account in the hierarchy can define and use its own set of External Parameters for sub-accounts.

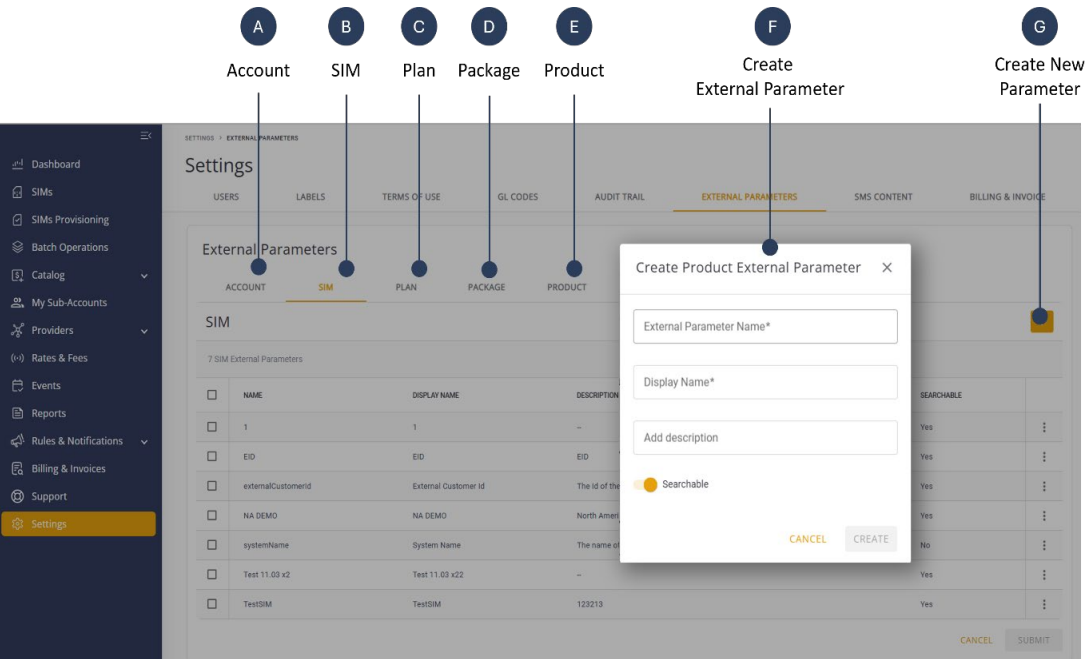
A screen capture of the External Parameters screen is shown here:



## 15.7 Create External Parameter

An external parameter is a user-defined identifier that is mapped to platform entities such as Accounts, SIMs, Plans, Products and Packages. External parameters play a crucial role in organizing and categorizing accounts, plans and assigned SIMs.

A screen capture of the Parameter page is shown here.



**NOTE:** Select the appropriate sub-category in Step 3 to create an external parameter.



To create an External Parameter, do these steps:

1. Select **Settings** from the sidebar navigation menu.
2. Select the **External Parameters** tab to display the External Parameters table.
3. Select one of the appropriate sub-categories:
  - Account
  - SIM
  - Plan
  - Product
  - Package
4. Click the **+** sign on the header. The Create Account External Parameter dialog box is displayed.
5. Type an **External Parameter Name\***.
6. Type a **Display Name\*** for the external parameter.
7. Add a description for the external parameter (optional)
8. Check the **Searchable** option to display the parameter in the system search results..
9. Click **Create** to update the Account External Parameter table.
10. Click **Submit** to update system.

## 15.8 Assign External Parameter Values

After creating External Parameter types for your entities (Account, SIM, Plan), you must set their values in the respective modules.

**NOTE:** When you assign values, the external parameters are activated.

### 15.8.1 Assign External Parameter Value to Account

To assign an external parameter value to an Account, do these steps:

1. Select **My Sub-Accounts** from the sidebar menu.
2. Select an account from the table to display the Account Details page.
3. Select the **External Parameters** tab.
4. Type a value in the parameter input field.

5. Repeat **Step 4** to assign values to other parameters.
6. Click **Update** to activate the external parameter with the assigned value.

**NOTE:** When an external parameter is assigned a value, the value is displayed in the parameter input box.

### 15.8.2 Assign External Parameter Value to SIM

To assign an external parameter value to a SIM, do these steps:

1. Select **SIMS** from the sidebar menu.
2. Select a SIM from the table to display the SIM Details page.
3. Select the **External Parameters** tab.
4. Type a value in the parameter input field.
5. Repeat **Step 4** to assign values to other parameters.
6. Click **Update** to activate the external parameter with the assigned value.

**NOTE:** When an external parameter is assigned a value, the value is displayed in the parameter input box.

### 15.8.3 Assign External Parameter Value to Plan

To assign an external parameter value to a Regular or Pool Plan, do these steps:

1. Select **Regular Plans** or **Pool Plans** from the sidebar menu.
2. Select a plan listed in the **Sell Plans** tab.
3. Select the **External Parameters** tab.
4. Type a value in the parameter input field.
5. Repeat **Step 4** to assign values to other parameters.
6. Click **Update** to activate the external parameter with the assigned value.

**NOTE:** When an external parameter is assigned a value, the value is displayed in the parameter input box.

### 15.8.4 Assign External Parameter Value to Product

To assign an external parameter value to a Product, do these steps:

1. Select **Catalog | Products** from the sidebar menu.
2. Select a product listed in the **Product Configuration** tab.

3. Select the **External Parameters** tab.
4. Type a value in the parameter input field.
5. Repeat **Step 4** to assign values to other parameters.
6. Click **Update** to activate the external parameter with the assigned value.

**NOTE:** When an external parameter is assigned a value, the value is displayed in the parameter input box.

### 15.8.5 Assign External Parameter Value to Package

To assign an external parameter value to a Package, do these steps:

1. Select **Catalog | Packages** from the sidebar menu.
2. Select a package listed in the **Product Configuration** tab.
3. Select the **External Parameters** tab.
4. Type a value in the parameter input field.
5. Repeat **Step 4** to assign values to other parameters.
6. Click **Update** to activate the external parameter with the assigned value.

**NOTE:** When an external parameter is assigned a value, the value is displayed in the parameter input box.

## 15.9 Edit External Parameters

You may need to edit External Parameters to keep them accurate and relevant. This includes changing names, fixing mistakes, or updating values to reflect system or process changes. Keeping these parameters accurate helps you manage your accounts, SIMs, and plans effectively.

**IMPORTANT:** When edit an External Parameter name, it becomes deactivated for the entities it is assigned to. You must then redefine a value for it again to reactivate it.

To edit an external parameter, do these steps:

1. Select **Settings** from the sidebar navigation menu.
2. Select the **External Parameters** tab to display the External Parameters table.
3. Select a sub-category to display the associated external parameter properties.

- Account
  - SIM
  - Plan
  - Package
  - Product
4. Scroll the external parameter table and click the **Actions** control for the selected row.
  5. Click **Edit** to display the external properties dialog box.
  6. Type an **External Parameter Name\***.
  7. Type a **Display Name\*** for the external parameter.
  8. Add a description for the external parameter (optional).
  9. Click **Edit** to update external parameter table.
  10. Click **Submit** to update system.

## Search for External Parameters

You can only search for External Parameters that were classified **Searchable** when you created them.

The search for external parameters is done by using the Filter function for each type of parameter.

- **Account:** Go to the My Sub Accounts page and select External Parameters from the Filter tab.
- **SIM:** Go to the SIMS page and select External Parameters from the Filter tab.
- **Plan:** Go to the Plan page and select External Parameters from the Filter tab.
- **Package:** Go to the Package page and select External Parameters from the Filter tab.
- **Product:** Go to the Product page and select External Parameters from the Filter tab.

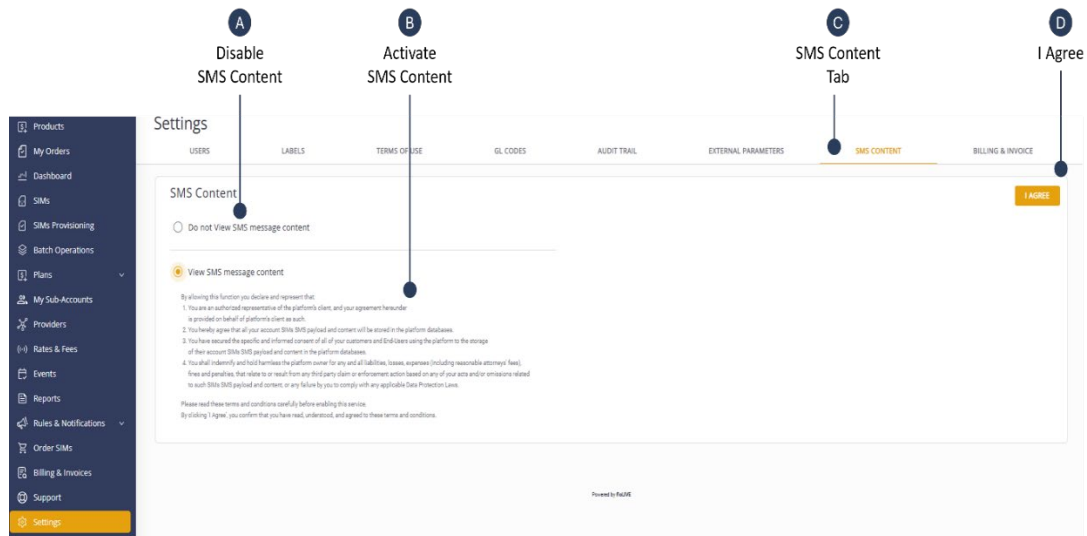
## 15.10 Display SMS Content

Super Admin users have the ability to set up the system to display SMS content in the Events table.

There are two states for the View SMS Message Content feature:

- **Disabled (Default):** Users do not have access to the SMS binary file in the Events table.
- **Activated :** Users can view the SMS binary file displayed in the Events table.

A screen capture of the View SMS Content settings is shown here.



To display the SMS Content in the Events table, do these steps:

1. Select **Settings** from the navigation sidebar menu.
2. Select the **SMS Content** tab.
3. Check the **View SMS Message Content** option.
4. Click **I Agree** to update system.

**NOTE:** Users can now view SMS messages in the Events Table on the Events Page

## 15.11 Device Operations

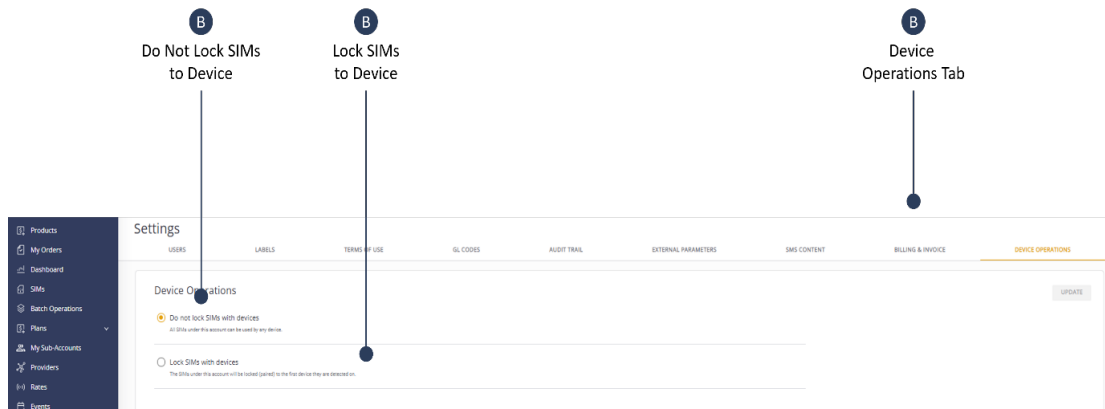
This feature enables users to lock and unlock a SIM based on the associated International Mobile Equipment Identity (IMEI). When the lock function is enabled, the SIM card can only be used with a specific device. If the SIM card is used for a different device, the system automatically suspends the relevant subscriber.

The SIM Lock feature supports these capabilities:

- **Lock SIM to IMEI:** Upon initial detection of an IMEI associated with a SIM card, the system automatically locks the SIM to that device. This ensures that the SIM is tied to a specific device, enhancing security and preventing unauthorized usage. Refer to

- **Unlock SIM:** Customers can unlock the SIM and transfer it to a new device. When the system detects a new IMEI associated with the SIM, it “unpairs” the previous device and automatically locks the SIM to the new device.

A screen capture of the Device Operations screen is shown here.



### 15.11.1 Lock All Account SIMs to IMEI

This feature enables users to lock and unlock all account SIMs based on the associated International Mobile Equipment Identity (IMEI). When the lock function is enabled, the SIM cards can only be used with a specific device. If the SIM cards are used for a different device, the system automatically suspends the relevant subscribers.

To lock all account SIMs to an associated IMEI, do these steps:

1. Select **Settings** from the sidebar menu.
2. Select the **Device Operations** tab.
3. Select **Device Operations** to display the SIM lock dialog box.
4. Check the **Lock SIMs with Device** option. All SIMs will be locked paired to the first detected.
5. Click **Update** to lock SIMs to the associated device.

The system locks ("pairs") the subscriber to the first used IMEI. If the SIM is used in another IMEI (a different device) then the system suspends the subscriber.

Here is a screen capture of the lock all account SIMs option.

