

Managed IoT Connectivity Evaluation Pack

Quick Start Guide



Vodafone

Power to you

Welcome

to the world of global IoT

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Introduction

Welcome to the Managed IoT Connectivity Evaluation Pack Quick Start Guide

This Quick Start Guide will provide you with instructions on how to:

- get access and log on for the first time.
- manage your SIMs
- set up user accounts and contact details.
- send an SMS then view the status and responses.
- view the products available to your organisation
- run reports on usage and view alert configuration.
- use the diagnostics tools available you.

You can access the complete, standard service user guide by selecting **Support > Manual** in the Global M2M Portal. For more information, see the [Need More Help?](#) section.

Getting started

In the future, you can always change your password and security question in the Administration > My settings section

The password must be between 8 and 40 characters, have no spaces and contain characters from at least two of the four following: lower case characters (a-z), upper case characters (A-Z), numbers (0-9) and symbols ({ } : " < > ? [] ; \ ' , / ~ ! @ # \$ % ^ & * 0 _ + ` - = \ |).

The Global M2M Portal automatically logs you out after a security time-out of 15 minutes of no activity. You will need to log back in if this occurs.

Introduction to the Global M2M Platform

The Global M2M Platform provides you with the means to self-manage many aspects of your service through the Global M2M Portal. For example you can change the state of your SIMs, run reports, or manage your Service Profiles which are a group of settings. This Quick Start Guide gives you a simple overview of using the portal.

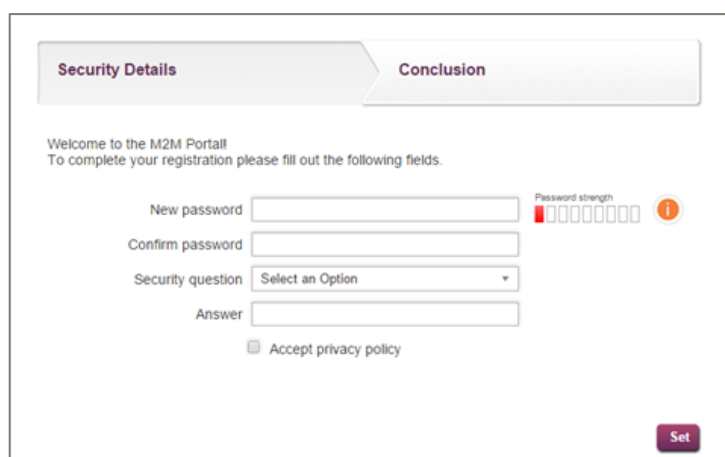
Accessing the Global M2M Portal

To access the portal you will need your Evaluation Pack account details. If you have not received these, please contact your Vodafone account manager.

Follow these steps to access the Global M2M Portal for the first time:

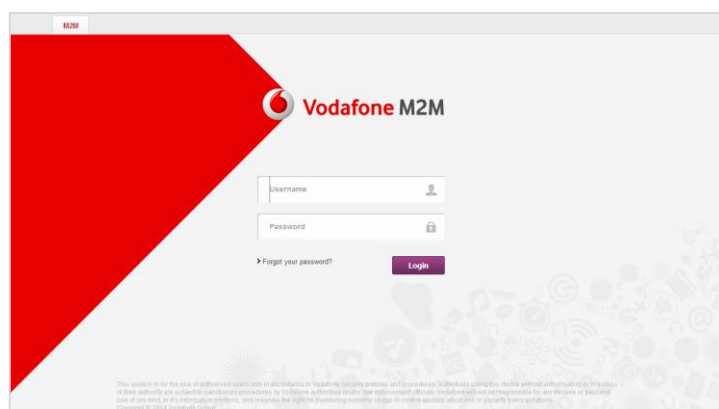
Step One

Upon creation of your account, you will receive a confirmation email.. Click on the link in this email, and you will be required to choose a password and a security question in order to complete your registration. Once you have successfully set your password and security question, you will automatically be returned to the Portal login screen.

The screenshot shows the 'Security Details' tab of the registration form. It includes fields for 'New password', 'Confirm password', 'Security question' (with a dropdown menu), and 'Answer'. There is a 'Password strength' indicator with a red bar and an information icon. A checkbox for 'Accept privacy policy' is at the bottom. A 'Set' button is in the bottom right corner.

Step two – Logging in

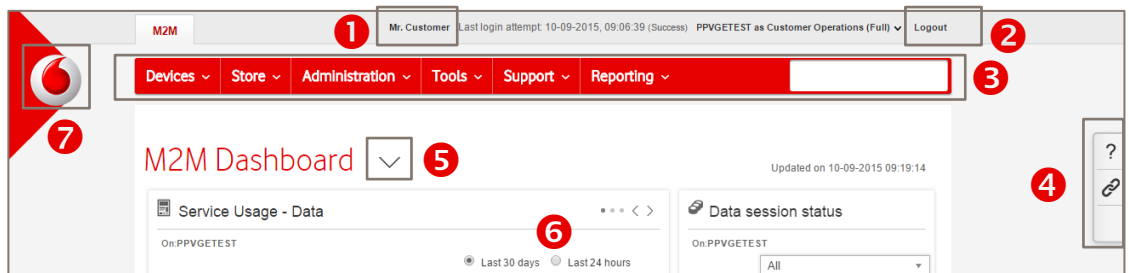
Enter your **Username** and **Password** (your username determines the access rights and the functionality available to you). Next, you will be asked to enter a code that will be sent to your mobile phone.

The screenshot shows the Vodafone M2M login page. It features the Vodafone logo and 'Vodafone M2M' text. There are input fields for 'Username' and 'Password'. A 'Login' button is at the bottom right. A 'Forgot your password?' link is next to the password field. The background has a red diagonal stripe and a pattern of small icons.

The **Home** page displays

Understanding the Home Page

The Home page provides you with quick access to all main components of the Global M2M Portal as well as the most frequently required or viewed data.



- 1 Your username**
From here you can set and manage Your Personal and System settings
Note: My settings can also be accessed through Administration
- 2 Logout**
To log out, select Logout in the top right corner of the screen.
You will also be automatically logged out of the Portal after a set period of inactivity.
- 3 Menu bar**
The Menu Bar is displayed at the top of all your Interface screens.
To reveal the submenus, hover over any 'tab' with your cursor

Devices	View and manage all your devices and diagnose problems
Store	Find details on and place orders for each of the products available for your organisation
Administration	Access to User accounts, Service profiles and Serving networks
Tools	Access to API information, Batch information and Event triggers
Support	Access to Support and help
Reporting	Access to reports, create new reports and download reports if required
- 4 the side bar**

?- Help	Access to online help guide and supporting documentation
Paperclip – links	Access to and creation of links; these provide a quick access to pages both inside and outside the Global M2M portal.
Checklist – Tasks	A shortcut to create tasks or view of the most recent tasks created by you or assigned to you
- 5 Edit widgets**
Allows to add, remove and edit the widgets
- 6 Widgets**
Each Widget provides quick view and quick access to information within the Global M2M Portal
Which widgets are available to you depend on your organisation's settings and your user role.
Click on the < and > arrows to navigate within the widget.
- 7 Vodafone Logo**
To return to the Home Page at any time, click on the Vodafone Logo

Managing your account

My Settings provides an overview of your account details. From here you can edit your own account details to define the activities, for example, high and rogue usage of devices, for which you want to receive automatic alerts.



Some information can only be changed by users with the appropriate access rights

Menu Path: *Username*

Manage your settings

You can access your details on the system by clicking on your **Username** at the top of the page.

Your user account consists of four areas:

- 1 Your **Personal** details
- 2 **System** – the basic set-up of your account on the system
- 3 **Security** – access and change your password and/or security questions
- 4 **Notifications** change any of the pre-set alerts that were loaded against the profile assigned to your account

Users who receive alerts do not need to have access to the Global M2M Portal. For example, alerts can be sent to a helpdesk email address.



To update any of the your settings, click on the **Edit** button next to the section you wish to edit

Creating an additional user

Menu Path: Administration>

To create a new user, click **Administration**

- 1 Click **Create user** in the dropdown screen
- 2 The **Create User** screen opens
Complete all the required fields
- 3 Click **Next**
The confirmation screen opens
- 4 Check the details you have entered
If you need to change any detail, click **Back** otherwise click **Create**
- 5 The **Conclusion** screen confirms the user has been created
To view the details set up for the new user, click **See user detail**

The Role you select from the dropdown list will determine the rights the user will have.

A full list of roles available, and associated rights are described in the User Guide,

Every time you create or update important information on the Portal, the confirmation screen will allow you to review the data entered before confirmation



As an Evaluation Pack user you don't have the right to create, edit or delete users.

Service Profiles

A Service Profile (SP) is the main point of configuration for your Managed IoT Connectivity service and controls the behavior of all SIMs under it. Service profiles can be created to have various service features attributed to them such as tariffs, thresholds, alerts and a service footprint. Any SIM you add to a service profile will inherit these features. SIMs can be moved between service profiles and can be edited throughout their lifecycle.

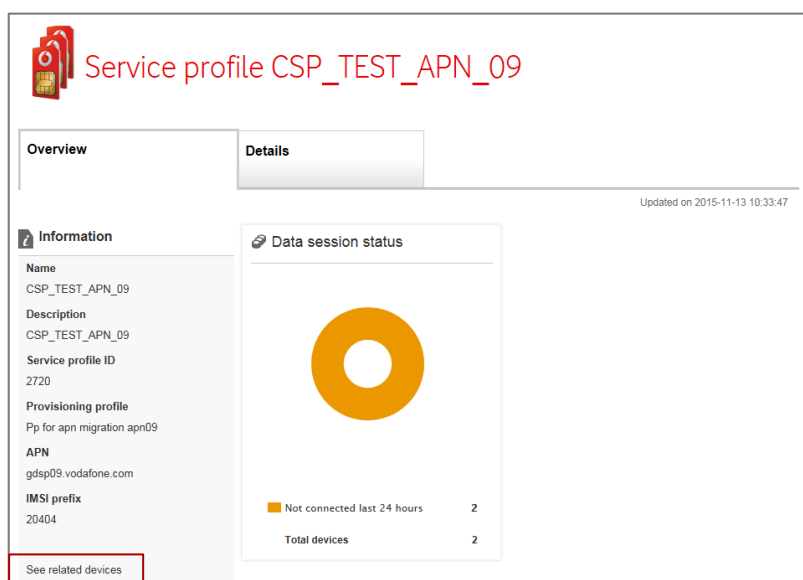
For evaluation purposes the Service Profile has been predefined, but a normal account would offer extensive flexibility.

Menu path: Administration > Service Profiles

The **Administration > Service profiles** tab allows you to view in detail each of the service profiles allocated to your account. The details tab provides a full overview of the configuration settings for the Service Profile regarding

- SIM and IMEI matching
- Connectivity Services
- Location Services

The **See related devices** link on the Overview tab allows you to access immediately a list of all SIMs within that specific Service Profile. You can also export this list to a file. You may wish to do this if you need to further analyze this information.



 For your Evaluation Pack, you are limited to only one service profile, but a regular account can have unlimited Service Profiles.

Managing SIMs

For evaluation purposes the SIM state model is limited to Active-Test for the duration of the evaluation period. Once the SIM-card has exhausted its service allocation it will automatically move to Active-Suspend state.

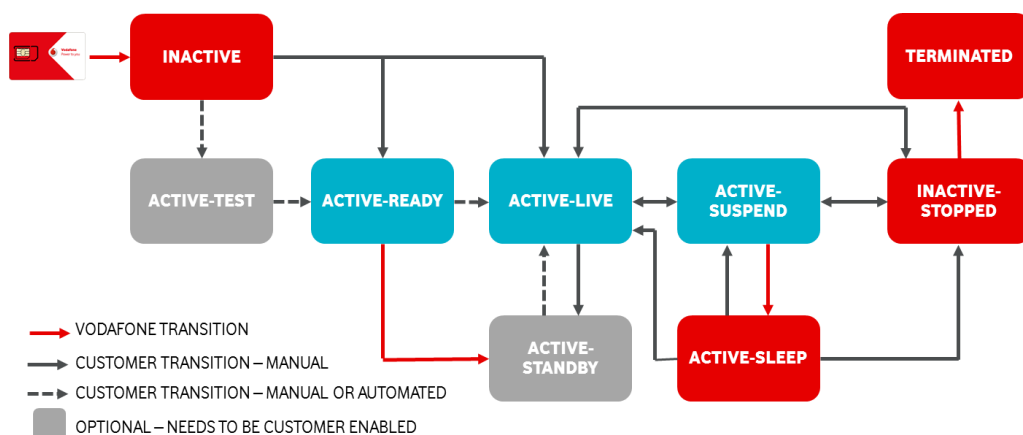
SIM State & Lifecycle Overview

SIM states supported by the Platform are:

- **Inactive** – No access to service and no charging
- **Inactive-Stopped** - Allows you to terminate SIMs that are no longer required in a controlled manner. SIMs in this state will automatically be moved to Terminated after 1 month. A notification will be sent 3 days before termination, and when termination complete
- **Active-Test** – Limited access to service for testing purposes. **Note:** SIM-cards provided as part of the Evaluation Pack will be in the Active.Test state during the evaluation period and cannot be changed.
- **Active-Ready** – Service is enabled but there is no charging (until the service is used)
- **Active Sleep** – Applies where service has been in Active Suspend for over 2 months Service
- **Active-Live** – Service and charging are fully enabled
- **Active-Standby*** – Service can be transitioned from live to stand-by. Active-Standby is an optional state
- **Active-Suspend** – Service is blocked but charging (for the SIM) continues. **Note:** When an Evaluation Pack SIM-card has exhausted its service allocation, it will move automatically to the Active-Suspend State
- **Terminated** – Both service and charging are ceased and SIM identity removed from network

The SIM state model

The SIM State is a core part of the Global M2M Platform design. SIMs progress through different states throughout their lifecycle to meet commercial, logistical and security requirements.



Activating SIM Cards

The Global M2M Portal allows you to change the state of SIMs and activate SIM Cards online.



Your Evaluation Pack comes with pre-activated SIM Cards in Active-Test mode and changing the SIM state is not possible.

Finding SIMs

The **IMSI** works as a unique number that identifies the SIM card on the network. It allows access to the network and identifies the location of the device. The IMSI number is usually 15 digits long.

ICCID is unique for each SIM. In the portal, the ICCID can also be used for identification and tracking purposes and to label devices. Up to 20 characters are reserved for the ICCID. The coding of the ICCID is operator specific. The ICCID can become the primary identifier by hiding the IMSI.

You can use the ICCID or IMSI as a unique key.

Using the generic Search function



By using the generic Search function you can find SIM(s) based on their IMSI or ICCID number.

Enter the (first) digits of the IMSI or ICCID number of the SIM(s).


Select what to search for (in this case IMSI or ICCID number) and the corresponding SIM(s) will be displayed in a results table.

-- Select what to search for --

☒ IMSI
☐ ICCID
☐ Service profile
☐ Username

To sort the displayed results, click on the  icon

You can add additional column values by clicking on the  icon.

To export the search results in PDF, CSV or XML, select the **Export**  option above the results table.

Using Device Lists

The device list presents an overview of devices and SIMs. The list can be filtered using the search fields on the left side. The results list columns can be selected using the upper right corner arrow.

Each individual SIM is identified in the Global M2M Portal Portal by the **International Mobile Subscriber Identity (IMSI)** and/or the **Integrated Circuit Card Identifier (ICCID)**. In addition, it is also possible to provide a customer defined name for a device.

The Devices menu takes you to an overview list of your devices / SIMs where you can further filter and search. In addition to using the "All devices" in the Devices menu, you can also use the Global search field in the right side of the top menu. Searching for IMSI or ICCID will also take you to the Devices list.

Step One

Menu Path: Devices> All devices

Select Menu tab devices and then select All Devices. The following screen is showed.

Devices

Q Search

Results

Please use the search options on the left to search for devices

State

All

IMSI

ICCID

IMEI

Service Profile

All

> see more field options

> Clear fields Search

Step Two

Enter the search value(s) on the left of the screen.

Step Three

Click the Search button. Any SIMs that meets the entered criteria display (you may need to scroll down the page to view them all).

Groups

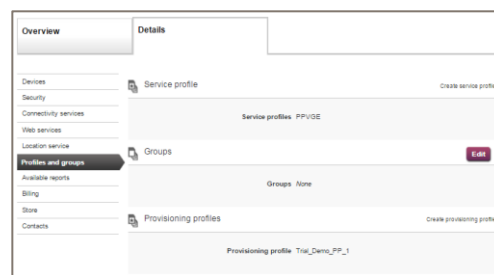
SIMs can also be assigned to Groups using batch file upload.

SIM Groups can be a useful management tool providing you with the ability to define and view groups of SIMs across or within a Service Profile but apply no configuration settings. Within your account you can define multiple SIM groups for organisational purposes e.g. to identify devices allocated to a specific geographic regions, to identify devices from the same manufacturer, make or model, etc.

Creating a Group

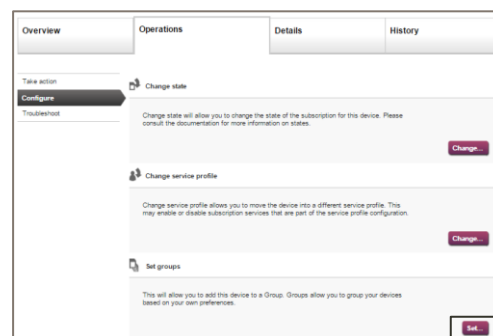
Menu Path: Administration > MyOrganisation

- 1 Select menu tab Details and then select Profiles and groups. The following screen is showed.
- 2 Click the Edit button and select + Add group
- 3 Enter a name and a description (optional) for the SIM Group. Note the name of the Group can only contain alphabetical characters, numbers and/or - _
- 4 Click the Save button. You will get on screen confirmation that the Group has been created.



Assigning SIMs to (a) Group(s)

- 1 Select a device (see Finding SIMs). Click on the IMSI number of the device to display the Device details screen.
- 2 Select menu Operations and the the Configure menu. You can assign the selected SIM to a Group by selecting the Set... button in the Set groups section.
- 3 The Groups drop down list will display all available Groups. Select one of the available Groups and click on the Set button.
- 4 The system will display a confirmation that the selected SIM is now assigned to the Group.



SMS Management

Manage SMS Communication

Menu Path: Devices> SMS inbox

The **SMS inbox** screen allows you to:

- View SMS communications sent to and received from their devices,
- View SMS communication History between a SIM Card and the Global M2M Platform
- View SMS communication Details of an individually selected message
- Filter all SMS communications by date, IMSI or message type
- Use SMS management to send SMS with payload to a device which allows human interaction with devices for diagnostics (this will be dependent on devices that support this kind of interaction)

Sending an SMS message using the Device screen

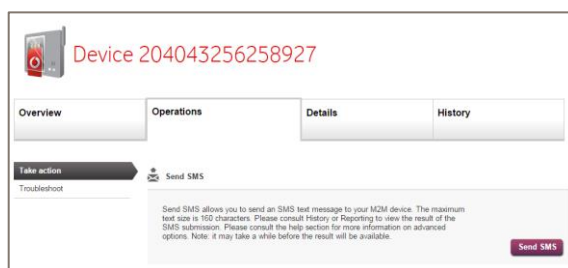
Menu path: Devices > All Devices

Step One

Filter the IMSI number you want to send a SMS message to using the search area on the left.

Step Two

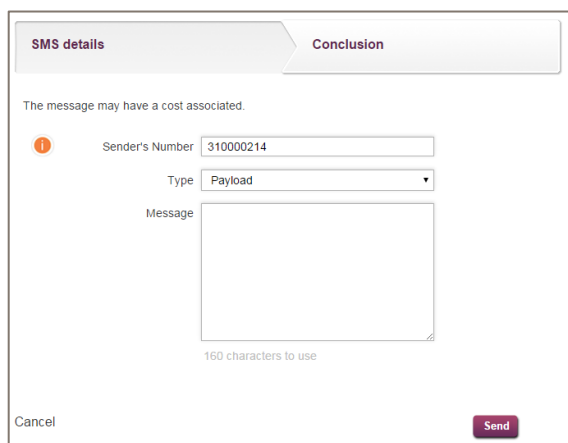
Select the correct IMSI number by clicking on one of the displayed IMSI numbers. The Device screen is showed.



Step Three

Select from the Operations tab the Take Action menu and click on the Send SMS button.

The SMS details screen is showed.



On the SMS Communication Details screen enter your message in the **Message** box and select the **Type** of message (Payload or Wake-up). In case you select Payload the Message box will disappear.

The **Sender's Number** box will already be pre-populated according to your configuration.

The message will be routed to your SIM based on the IMSI number selected, but the Sender's Number ensures routing to and from the Vodafone Global M2M platform.

Step Four

Click **Send** to send the message.

Viewing SMS messages

Menu Path: Devices> SMS inbox

Select the **SMS inbox** from the Devices menu bar to display the Manage SMS Communication screen

Set the Start Date and End Date using the calendar icons. You can also apply additional filters such as IMSI number or Direction (Sent or Received)

SMS Inbox

Search

IMSI: 204043256258871

Direction: All

Date: 2015-08-01 and 2015-11-01

Results

		Export
Sent at 2015-08-11 04:03:20	Type SMS Payload	✓ Success
IMSI 204043256258871		
Sent at 2015-08-11 03:50:44	Type SMS Payload	✓ Success
IMSI 204043256258871		
Sent at 2015-08-11 03:49:48	Type SMS Payload	✗ Failed
IMSI 204043256258871		

Clear fields Search

The following fields display:

- **Timestamp:** Time when the message was sent or received
- **Type:** the Category of the message
- **Status:** Delivery status of the message
- **IMSI:** The IMSI which sent the message

By clicking on the message, you get additional information on the message, i.e.

- **Body:** The content of the message
- **Encoding:** the type of encoding used for the message
- **The option to send a new SMS message to the IMSI number selected.**

Note: For detailed steps on how to send SMS-MO, please consult your device manual.



SMS Management is an optional feature of the Global M2M Platform which is enabled for the Evaluation Pack.

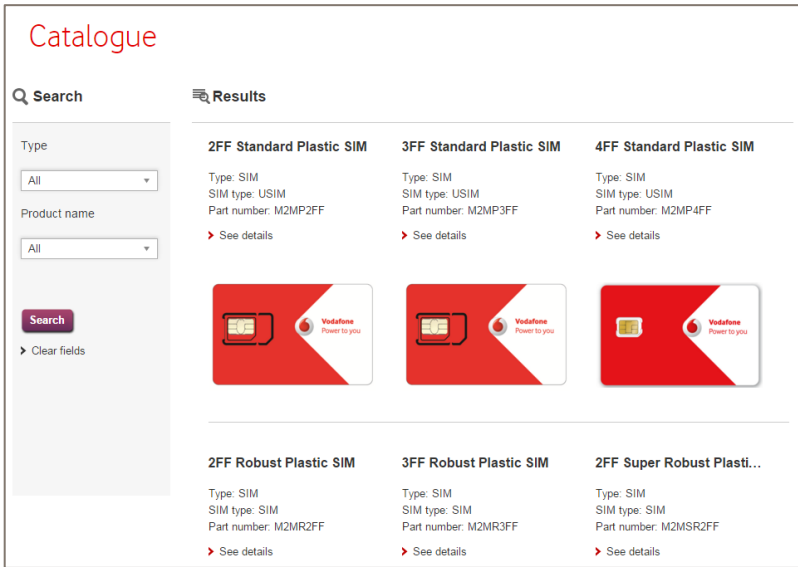
Store

The Store provides you two ways to order products, you can both view and order products available to your organisation through the product catalogue or got straight to the Orders section. The Store also allows you to look through previously placed orders (and forecasts).

To view products available to your organisation

Menu Path: Store> All Products


The product catalogue will show a list of products in a thumbnail view. The list will show all the products that are available for you to order



Click on > See details to get more information on the product

To order products available to your organisation

More information on ordering products via the Global M2M Portal can be found in the Manual available online in the Support section.



As part of the Evaluation Pack you can view available products, but you can't order (or forecast) them.

Manage Events

Event triggers

Menu path: Tools>Event Triggers

The Event Triggers screen displays any events enabled for your account.

Managing Events is about configuring triggers to alert and take action when a predefined metric, such as Data Usage, reaches a predefined threshold, for example a defined number of Megabytes. While the event triggers are pre-configured within your Managed IoT Connectivity service, as a user, you are able to edit or delete a trigger as long as the "Customer Controlled" flag has been enabled by Vodafone.

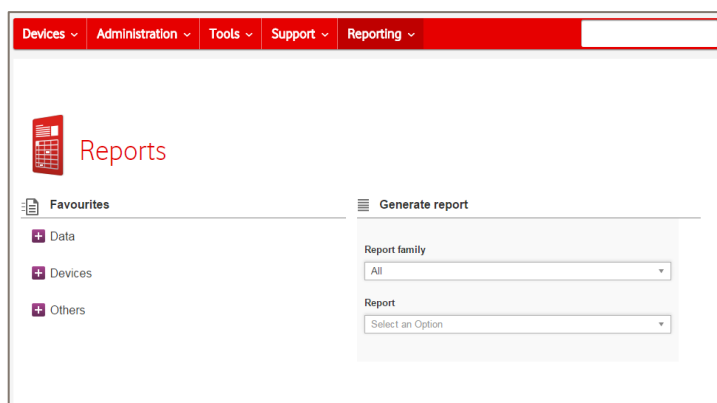


The ability to configure Event Triggers is an optional feature of the Global M2M Platform which has not been enabled for the Evaluation Pack.

Reporting

The Reporting section provides access to a number of reports that enable you to track, manage and increase efficiency across a range of assets for a range of business activities.

Menu Path: Reporting



All reports can be downloaded in *.csv, *.pdf and *.xml format.

You can organize your reports and add reports you use a lot to your favourites. By default, Vodafone will enable a few standard reports as part of your favourites.

To use one of your favourite reports

Step One

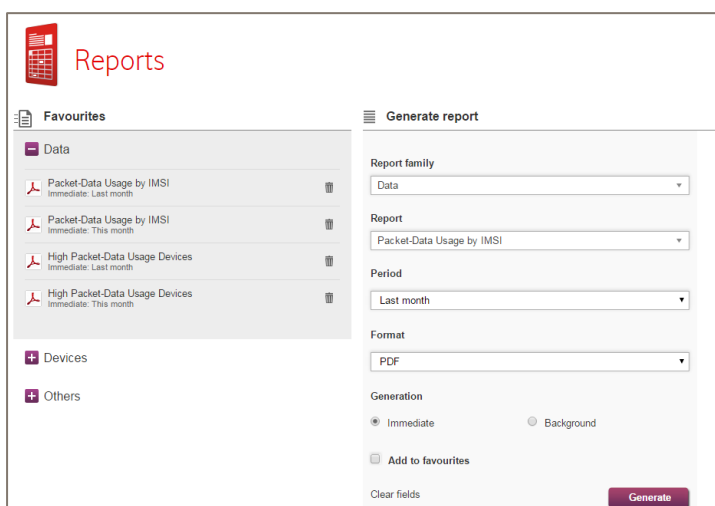
Click the [+] against the report section The reports under that section are revealed

Step Two

Click on Report name
The right hand screen opens up the Generate report

Step Three

Click Generate to generate the report as currently defined.



To change the reports details

Step One

Click the down arrow to reveal the dropdown list

Step Two

Select the required data input

Step Three

Click Generate. A call out message displays advising you that the report is generating The report automatically downloads. You can add the changed report to your Favorites by selecting the checkbox **Add to Favorites**.

Diagnostics

If a device is not working correctly, you are equipped with a range of tools to assist you with investigations and can be a first line of support.

Device Screen

The SIM Search function can be used as a diagnostic tool to isolate the details for a single SIM. By clicking on the SIM in the overview table, its details can be investigated to help analyse issues.

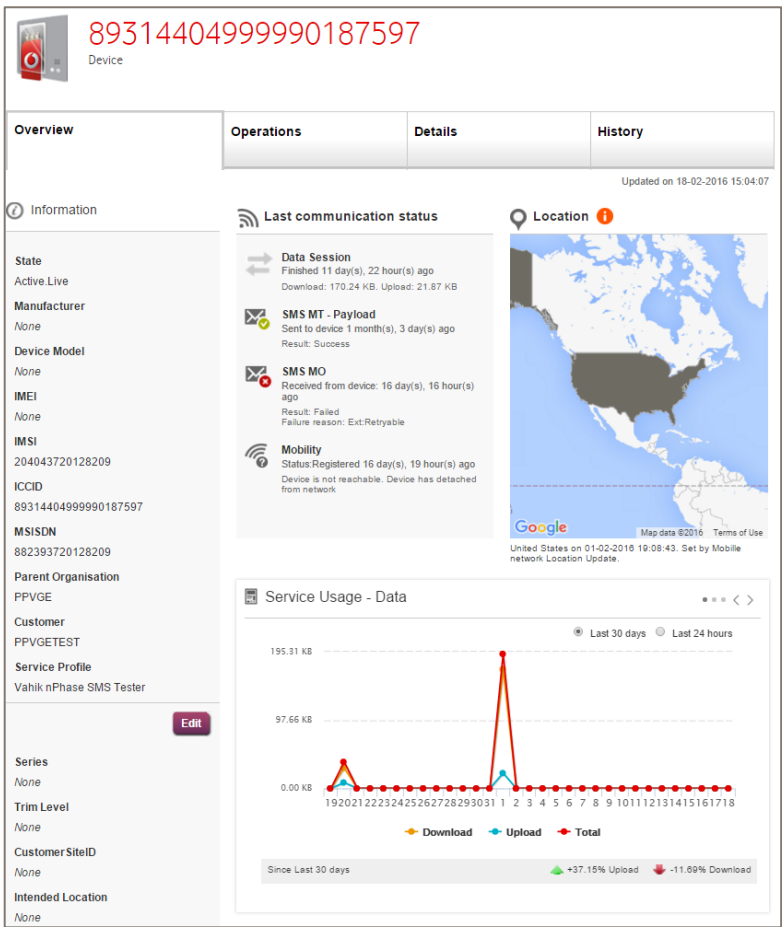
To view the Device Screen:

Step One

Search for the SIM using the generic search function or using Device Lists (see Finding SIMs). If the SIM is part of a list of results, click on the relevant IMSI number.

Step Two

The Device details screen will display.



Step Three

Check the Last communication status information on screen.

Step Four

You can use the Diagnosis capability to narrow down possible issues with your connectivity.

In the Device details screen select Menu tab > **Operations**. Then select **Troubleshoot** from the left menu bar and **Diagnose connectivity**.

Overview	Operations	Details	History
Take action Configure Troubleshoot	<div> Collect summary </div> <p>Collect summary allows you to choose device information to export to a file.</p> <p>Collect...</p> <div> Diagnose connectivity </div> <p>Diagnose connectivity helps you to analyse the cause of issues with this device.</p> <p>Diagnose...</p>		

The result of the Diagnosis tests will be displayed

Overview	Operations	Details	History
Take action Configure Troubleshoot	<div>Diagnose connectivity</div> <div> Device SIM state: Active.Test Currently active IP address is correct Data in both directions Mobility status: assumed idle. </div> <div> Diagnose connectivity result <p>The M2M device has an active data session with APN ppinternetd.gdsp for 1 hour(s), 16 minute(s) that started at 2016-01-26 14:28:45. The IP address is 10.27.73.203. The device has used 590.82 KB data in the uplink and 409.31 KB data in the downlink. The M2M device is registered. The mobile network used is: Vodafone Italy. The M2M device is however not providing a recent location update. The last location update was 1 hour(s), 19 minute(s), 0 second(s) ago. It is assumed to be in idle state. This may not indicate an issue but possibly could also indicate a sudden power down, loss of coverage or similar - before the applicable network timers. It is advised to retry the diagnostic tool in a later stage to get an updated status.</p> </div> <div> Export Go to operations </div>		

In this case the device is assume idle.

Step Five

An SMS message can also be sent to the device to test basic GSM connectivity. Use the **Send SMS** command in the **Operations** tab to send a message to the device (see SMS Management).

Managing your Evaluation Pack usage

As your Managed IoT Connectivity Evaluation Pack comes with a pre-defined usage limit, the SIMs will be automatically moved to Active-Suspend state, and will not be useable anymore, once one of the pre-define usage limits have been reached.

In order to view the current usage on each of the SIMs in your Evaluation Pack you can select to download a report providing you with an overview of the usage per SIM from the start date of your trial.

Menu Path: Reporting

Step One

On the right of the screen click the down arrow to reveal the dropdown list. Select Report Family – Data, Report – Packet Data Usage by IMSI.

Step Two

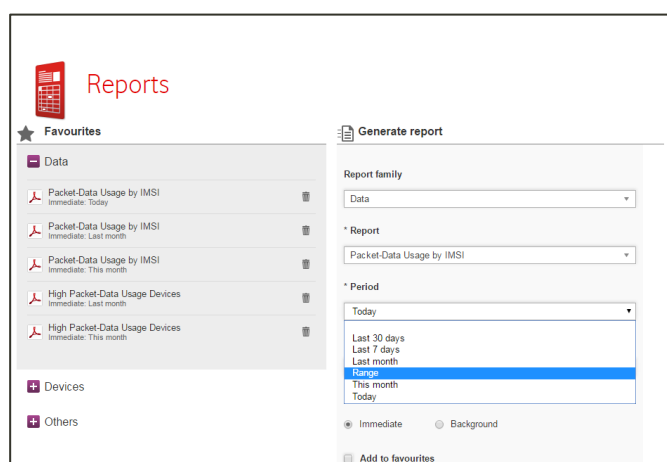
In the period drop down menu select Range. You will be prompted to enter two dates – enter the start date of your trial and the current date to get a usage report for the ongoing trial.

Select the report type.

Step Three

Click Generate. A call out message displays advising you that the report is generating The report automatically downloads. You can add the changed report to your Favorties by selecting the checkbox **Add to Favorites**.

The report will present you with current usage statistics for all of the SIMs in your Evaluation Pack.



IoT Device settings

Below you can find an overview of all the relevant settings for your Evaluation Pack.

SIM card settings

PIN code: [blank]

Note: Do not set PIN on Vodafone Global SIM cards. PUK codes (PIN Unlock Key) are not available.

Packet Data settings

APN: internet4gd.gdsp

Username: web (not required, may be left blank)

Password: web (not required, may be left blank)

TCP/IP and UDP settings

The IP address is dynamically assigned from a private series

The assigned IP address is not reachable from the internet as service enters the internet through a Network Address Translation Server. All IP Data sessions must be originated by the mobile device. Routable public IP address assignment is not available.

SMS settings

Short code: 310000202

This is also known on the Vodafone Global M2M Platform as the "Sender's Number". This short code should be used for all messages sent to the mobile device (MT - Mobile Terminate) or from the mobile device (MO - Mobile Originated).

SMS is within a private environment and only available between the Vodafone Global M2M Platform Web Interface and the Global SIM. SMS messages sent from or to a traditional cell phone SIM will not be received by the Global SIMs.

For production services, SMS messages can be sent and received using Web Service APIs, or optionally, an SMPP bind. Please contact your Vodafone IoT Solution Architect for more information on how to enable SMS for your IoT application.

Need more help ?

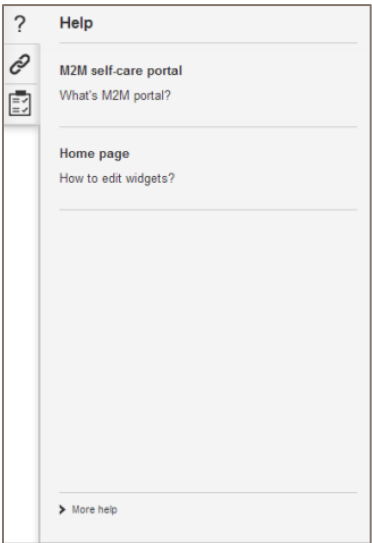
Online help

Using the side bar

You can access an online help guide and supporting documentation from the side bar **? - Help**

The help panel will have contextualised information about the page where you are. The information on this panel will reside on the help navigation item.

If a page does not have help information associated with it, the panel will refer to the online guide with more information for the frequently asked questions. The information visible on help panel should be the same for all users. On the homepage, for example, the help will have information about the Global M2M Portal, how to use it and how customise the homepage.



Using the Support menu

Menu path: Support > Help

The online guide provides more information for most frequently asked questions.

Manuals

Menu path: Support > Manual

You can download the current Global M2M Portal User Guide located under **Support > Manuals**. This guide provides more detailed information; tips and workflows related to the most common activities performed using the Global M2M Portal.



Note that you will see a number of features not available in your Evaluation Pack account due to user role restrictions. A trial account with full Administrative rights is available. Speak to your Vodafone Account Executive for more information.

iot.vodafone.com

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