

**Vodafone IoT  
SavinCom**



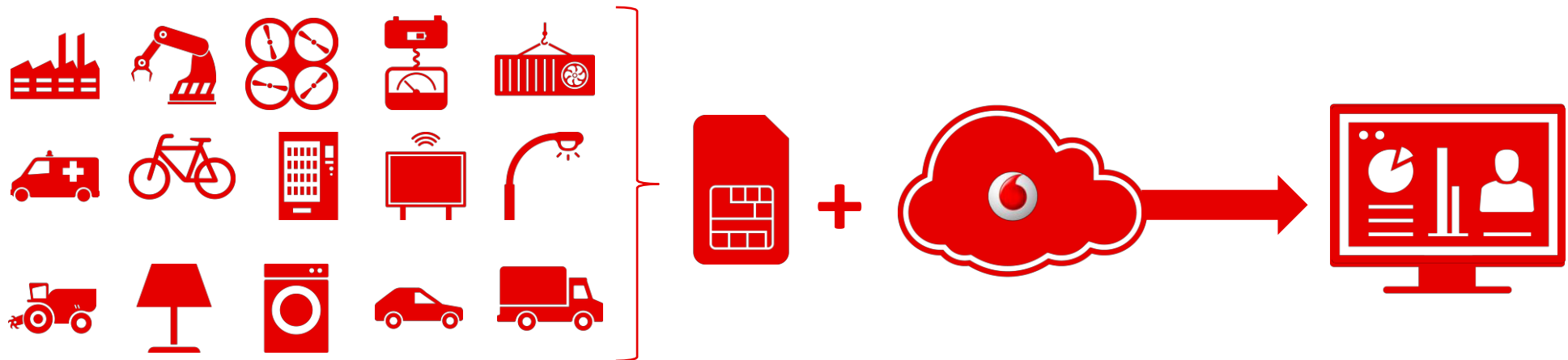
# Price List:

MB	Bundle Size	Band A/Target Price /SIM/month	Target OOB Price
1	<b>1MB</b>	£0.51	£0.25 Per MB
2	<b>2MB</b>	£0.53	£0.25 Per MB
3	<b>3MB</b>	£0.55	£0.25 Per MB
4	<b>4MB</b>	£0.56	£0.25 Per MB
5	<b>5MB</b>	£0.58	£0.25 Per MB
10	<b>10MB</b>	£0.65	£0.25 Per MB
20	<b>20MB</b>	£0.85	£0.25 Per MB
30	<b>30MB</b>	£1.23	£0.25 Per MB
40	<b>40MB</b>	£1.28	£0.25 Per MB
50	<b>50MB</b>	£1.33	£0.25 Per MB
100	<b>100MB</b>	£1.45	£0.25 Per MB
250	<b>250MB</b>	£2.71	£0.25 Per MB
500	<b>500MB</b>	£3.23	£0.25 Per MB
1024	<b>1GB</b>	£5.99	£0.25 Per MB
3072	<b>3GB</b>	£12.13	£6.25 Per GB
5120	<b>5GB</b>	£18.26	£6.25 Per GB
10240	<b>10GB</b>	£33.74	£6.25 Per GB
20480	<b>20GB</b>	£58.44	£6.25 Per GB
30720	<b>30GB</b>	£80.49	£6.25 Per GB
51200	<b>50GB</b>	£124.59	£6.25 Per GB



The Vodafone IoT offering is based on IoT connectivity to connect devices. This is provided by its robust, carrier-grade national mobile network.

In its simplest form, this means the provision of data SIMs tailored for use with IoT solutions. This is very similar in concept to data SIMs provided as a Mobile Broadband solution but with a number of significant differences. Click on each topic below to find out more.

Core Features

Tariffs and Data Aggregation

IoT vs MBB

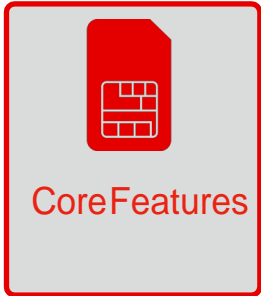
  

Data Usage, Billing & Alerts

Roadmap





The core features of the IoT solution are shown below.

- The SIM can only be used on the Vodafone UK network
- The SIM cannot roam onto overseas networks
- The customer is charged per SIM card, per month
- There is a range of monthly usage bundles from 1MB to 3GB
- Data aggregation is possible across IoT SIM cards which are under the same BAN, along with 80% and 100% usage notification
- Data Threshold Notifications can be set for each CTN along with Data Threshold CAPs

## Cost per SIM per month access



## Range of usage bundles



## Data aggregation

Pooling of data allowances across IoT SIMs under the same BAN



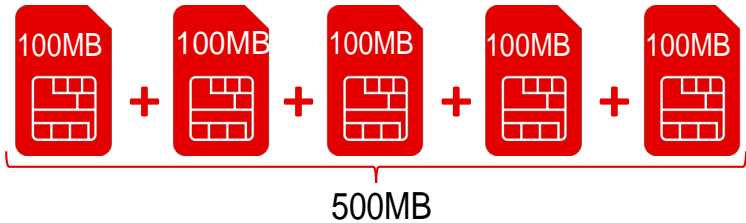
# Tariffs and Data Aggregation

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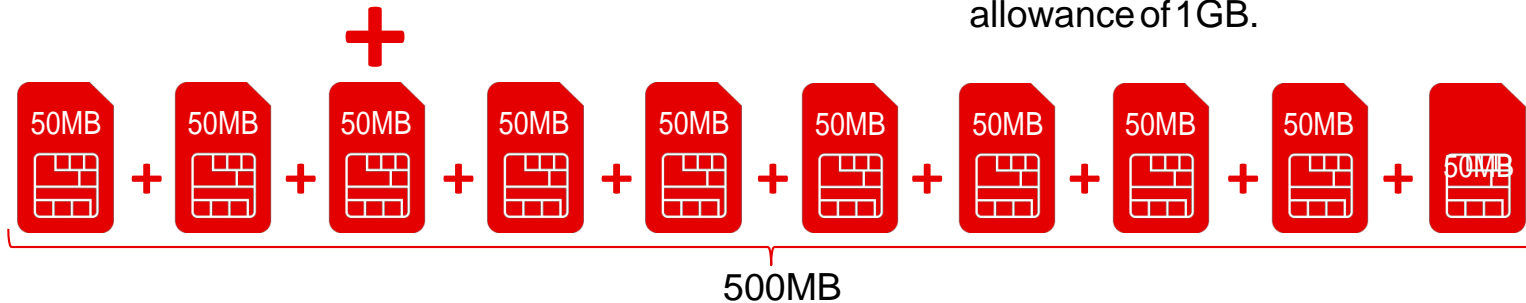


The tariff applied to each SIM can be one from any of the wide-range of tariffs available for IoT. Some IoT use cases may require only a small amount of data, for example, hourly positioning updates from a vehicle, whereas others, may require more. This is the reason we offer many options from 1MB to 3GB. The pricing associated with each tariff is shown in your Partner Catalogue. Please note that unused data cannot be carried forward to the following month.

Customers will automatically share data when connecting IoT SIMs under the same BAN.



For example, if a customer takes 5 x 100MB and 10 x 50MB IoT SIMs, their data will automatically aggregate providing a shared data allowance of 1GB.



You should advise customers to connect price plans that have the same Out of Bundle (OBB) data charging. If these are mixed and matched, the customer will be charged the highest rate, even if the majority of connections are on the lowest.

## RULES

- The customer must nominate a Lead CTN for data aggregation
- Only 1 x Leader can be nominated
- Customers will be charged out of bundle rates when their shared data allowance is exceeded
- The Leader will incur all charges incurred by the Group) i.e. out of bundle for excess data usage
- Any text messages used will be charged to the CTN that made them
- A maximum of 20,000 connections can take advantage of Data Aggregation

Bundle Size
1MB
2MB
5MB
10MB
20MB
50MB
100MB
250MB
500MB
1GB
3GB





## IoT vs MBB

In some cases traditionally, you may have supported IoT-type use cases with a data SIM and often one on a Mobile Broadband (MBB) tariff. However, MBB is designed for different use cases and there are significant reasons why the IoT SIMs and tariffs should be used as part of an IoT solution.

### Tariff Options

Mobile Broadband tariffs have only a small number of increments in terms of the amount of data included in each plan. Often the amount of data included is far higher than that required for most IoT use cases. The IoT tariffs enable you to better tailor a solution to your customer's needs.

IoT
Bundle Size
1MB
2MB
5MB
10MB
20MB
50MB
100MB
250MB
500MB
1GB
3GB

### MBB

~~2GB~~  
~~5GB~~  
~~15GB~~  
~~30GB~~  
~~50GB~~

### Service



Where support or a service issue cannot be resolved independently, customers or Partners can contact the IoT dedicated support team directly. Knowing that the customer is utilising IoT tariffs rather than MBB tariffs, speeds up the resolution and improves customer care ratings.

### Complex Opportunities



The opportunities for IoT connection sales are large and within many of these there is the opportunity to cross-sell other IoT services. Where there are larger, more complex IoT projects, Vodafone can support with its vast experience, large team and related IoT solutions. This specialised support is not available for MBB tariffs.

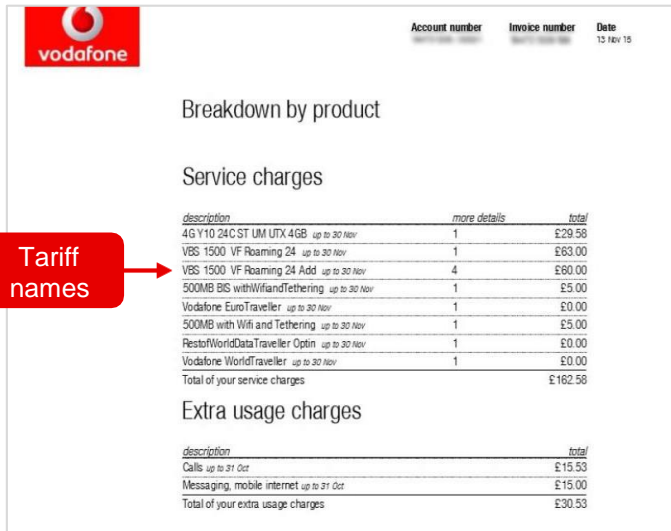




With the IoT Local SIM solution, you can check the amount of data being used by each SIM, along with any out-of-bundle usage on the itemised bill. If a customer is regularly using out-of-bundle data, then their IoT use case should be reviewed and consideration made for a more appropriate IoT tariff.

The billing for IoT takes the same format as billing for mobile voice and data. The bill provides details by mobile connection and tariff type and itemises the activity of each SIM. For data usage, the amount used per transaction is also shown.

The tariff name for IoT takes the form of: **LVM2M10MB = IoT 10MB Aggregated Data**



Account number: [redacted] Invoice number: [redacted] Date: 13 Nov 15

### Breakdown by product

#### Service charges

description	more details	total
4G Y10 24 GST UM UTX 4GB up to 30 Nov	1	£29.58
VBS 1500 VF Roaming 24 up to 30 Nov	1	£63.00
VBS 1500 VF Roaming 24 Add up to 30 Nov	4	£60.00
500MB BIS with Wifi and Tethering up to 30 Nov	1	£5.00
Vodafone Euro Traveller up to 30 Nov	1	£0.00
500MB with Wifi and Tethering up to 30 Nov	1	£5.00
RestoWorldDataTraveller Optim up to 30 Nov	1	£0.00
Vodafone WorldTraveller up to 30 Nov	1	£0.00
<b>Total of your service charges</b>		<b>£162.58</b>

#### Extra usage charges

description	total
Calls up to 31 Oct	£15.53
Messaging, mobile internet up to 31 Oct	£15.00
<b>Total of your extra usage charges</b>	<b>£30.53</b>

Tariff names

### Messaging, mobile internet continued

time	number or description	more details	normal cost	you pay
15:03	077447	1 text	0.150	0.000 ✓
-	077447	2 texts	0.300	0.000 ✓
-	077447	3 texts	0.450	0.000 ✓
-	077447	5 texts	0.750	0.000 ✓
-	077447	3 texts	0.450	0.000 ✓
<b>Tue 6 Oct</b>				
-	*BLACKBERRY	88.325KB	0.000	0.000 ✓
-	077447	4 texts	0.600	0.000 ✓
10:32	077447	1 text	0.150	0.000 ✓
11:20	077447	1 text	0.150	0.000 ✓
-	077447	15 texts	2.250	0.000 ✓
11:59	077447	1 text	0.150	0.000 ✓
-	077447	3 texts	0.450	0.000 ✓
-	077447	2 texts	0.300	0.000 ✓
-	077447	7 texts	1.050	0.000 ✓
-	077447	5 texts	0.750	0.000 ✓
-	077447	2 texts	0.300	0.000 ✓
18:27	077447	1 text	0.150	0.000 ✓
-	077447	2 texts	0.300	0.000 ✓
18:30	077447	1 text	0.150	0.000 ✓
<b>Wed 7 Oct</b>				
-	*BLACKBERRY	115.599KB	0.000	0.000 ✓
-	077447	3 texts	0.450	0.000 ✓
-	077447	2 texts	0.300	0.000 ✓
11:32	077447	1 text	0.150	0.000 ✓
14:00	077447	1 text	0.150	0.000 ✓
-	077447	3 texts	0.450	0.000 ✓
15:07	077447	1 text	0.150	0.000 ✓
<b>Thu 8 Oct</b>				

Data usage per SIM is recorded in kilobytes (KB), along with the type of data.

### Breakdown for these mobiles follow.

## 07 [redacted]

#### Service charges

VBS 1500 VF Roaming 24	£63.00
<i>For the period 1 Nov to 30 Nov</i>	
500MB with Wifi and Tethering	£5.00
<i>For the period 1 Nov to 30 Nov</i>	

#### Extra usage charges up to 31 Oct

Calls	£7.60
Messaging, mobile internet	£0.00
<b>Total for 07</b>	<b>£75.60</b>

*This would be £90.72 including VAT*

on VBS 1500 VF Roaming 24

- ▶ Vodafone Business Sharer Lead with 1500 minutes and Vodafone Roaming (VBS 1500 VF Roaming 24)
- ▶ You share your minutes with other mobiles.

Summary by SIM





Usage notifications are traditionally sent by text message but due to the nature of IoT, it's not always possible for the connecting devices to receive or display them (for example, IoT SIM cards may be used for vehicle tracking devices).

Therefore, there is an email notification option for IoT customers which is triggered by one or more SOC's added to the Leader CTN. You must make it clear to customers, that if an email notification SOC is not opted for then they will not receive data notification text messages as these will go to the devices directly.

The email notifications will be copies of the text messages. Two options are available for the content of the email notifications:

SOC code	System Description	Description
EMAIL_PER	Email Notify Per Message	The nominated email address (Leader CTN) will receive email data notifications at 80% & 100% exhaustion of the aggregated total. It will also receive notifications for all aggregated CTNs if they have CTN level thresholds set (see Data Thresholds on the next page).
EMAIL_DAY	Email Notification Daily	The nominated email address (Leader CTN) will receive an email which summarises the previous day's copy of 80% & 100% exhaustion notifications of the shared data messages. This will include any messages sent to users at CTN level who have thresholds set.

The email address chosen to receive notifications must be set up at CTN level within Gemini-Libra.

Partners are not be able to do this themselves on iServe and need to contact the dedicated IoT support team.



The nominated email address must be agreed with the customer and is usually one owned by an operational or billing function. It is often different to the email address allocated at BAN level, this is usually used for contractual purposes.

- Only the nominated email address (attached at CTN level to the Lead number) will receive the email notifications
- Only one email address can be assigned to the Leader CTN

If the Lead Connection is disconnected: the last enabled connection within the Data Aggregation will be assigned 'Lead Connection' status.







To give you even more control over the IoT SIM cards, you have the option to add a Data Threshold SOC at CTN level. This provides an additional round of notifications at the chosen level. Data Threshold SOCs give more control & flexibility – when the threshold is met, you can either opt to increase the data allowance or work internally to understand why excess data is being used.

**Forexample:** A customer has 10 IoT SIMs at 1GB per connection. The customer knows that one SIM card always ends up using more data than the others therefore they opt to apply the Sharer Threshold 1GB (THR\_1GB) SOC to this CTN – this will trigger a dedicated email notification to confirm this CTN has exhausted its allowance.

Customers may also opt for Threshold CAPs, which means those SIM cards can be barred as soon as they reach their threshold limit. This is a simple way to prevent out of bundle data charges but has the downside of lost connectivity – customers must be aware of this when opting for the Threshold CAP.

Data threshold SOCs are to be added at CTN level – they are relevant to individual CTNs only.

For example, if you add a data threshold CAP to the Leader CTN, this will bar that individual CTN, not the account.

Data threshold SOCs are only available for price plans on 250MB or above the threshold SOC would not be applicable on any plans lower than this. Smaller thresholds will be introduced as the product develops.

If a customer chooses not to set a data threshold, the Leader CTN would still receive the 80% & 100% exhaustion notifications for the group.

SOC Code	Threshold available	MB Size
THR_250MB	Sharer Threshold 250MB	250
THR_500MB	Sharer Threshold 500MB	500
THR_1GB	Sharer Threshold 1GB	1000
THR_2GB	Sharer Threshold 2GB	2000
THR_3GB	Sharer Threshold 3GB	3000
THR_4GB	Sharer Threshold 4GB	4000
THR_5GB	Sharer Threshold 5GB	5000
THR_8GB	Sharer Threshold 8GB	8000
THR_10GB	Sharer Threshold 10GB	10,000
THR_20GB	Sharer Threshold 20GB	20,000
THR_50GB	Sharer Threshold 50GB	50,000
THR_75GB	Sharer Threshold 75GB	75,000
THR_100GB	Sharer Threshold 100GB	100,000
THR_125GB	Sharer Threshold 125GB	125,000
THR_150GB	Sharer Threshold 150GB	150,000
SOC Code	Threshold CAPs available	MB Size
CAP_250MB	Sharer Threshold 250MB CAP	250
CAP_500MB	Sharer Threshold 500MB CAP	500
CAP_1GB	Sharer Threshold 1GB CAP	1000
CAP_2GB	Sharer Threshold 2GB CAP	2000
CAP_3GB	Sharer Threshold 3GB CAP	3000
CAP_4GB	Sharer Threshold 4GB CAP	4000
CAP_5GB	Sharer Threshold 5GB CAP	5000
CAP_8GB	Sharer Threshold 8GB CAP	8000
CAP_10GB	Sharer Threshold 10GB CAP	10,000
CAP_20GB	Sharer Threshold 20GB CAP	20,000
CAP_50GB	Sharer Threshold 50GB CAP	50,000
CAP_75GB	Sharer Threshold 75GB CAP	75,000
CAP_100GB	Sharer Threshold 100GB CAP	100,000
CAP_125GB	Sharer Threshold 125GB CAP	125,000
CAP_150GB	Sharer Threshold 150GB CAP	150,000

