

# Vodafone IoT



## Technical Specifications

### Overview

Vodafone Global IoT (Previously called GDSP) is a global IoT connectivity service.

[SIMcontrol](#) offers Vodafone data roaming IoT SIMs as a fully managed data roaming solution for simple and easy global SIM deployments. It is available on standard internet breakout as well as customised APN options for larger deployments with custom data routing and VPN requirements.



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# 1. Vodafone Activation Process

## Standard Process

(Open internet, no custom routing)

- a. Open a SIMcontrol account online
- b. Order your Vodafone IoT SIMs from us.
- c. Request via a [support ticket](#) to have the Vodafone IoT network activated on your account.
- d. From the Rules tab, create a Usage Rule. Choose “Vodafone Global SIM” as the network when prompted.
- e. From the “SIMs” tab, add your SIMs. Choose “Vodafone Global SIM” as the network when prompted.
- f. If you need to test a SIM immediately, make sure it has some airtime available or load some manually.
- g. Update your device APN settings (see 3.)
- h. Boot up or restart device.
- i. After a [few minutes](#), check the SIM profile page to see if data sessions are showing.
- J. Fully test device connectivity prior to sending out to customers.

## 2. Billing

- a.** Monthly fees are billed against your account on the 1st of every month.
- b.** Data and SMS usage is billed against the SIM's airtime at a per-network rate. Current data price list per network per country can be supplied on request.
- c.** Different countries/networks have different data rates, and usage is billed on a per-use basis against the SIM's airtime balance.
- d.** The SIM needs to have a positive airtime balance for a connection to take place. We suggest a minimum airtime balance to cover at least 1 MB of data usage to ensure sessions are established.
- e.** The SIM's prepaid airtime does not expire.
- f.** SIM airtime balances are automatically monitored.
- g.** If a SIM's airtime balance is depleted, the SIM will not be able to connect. Use Usage Recharge Rules to automatically maintain a positive airtime balance. SIMs can also be loaded with airtime instantly (manually).
- h.** This ensures there are no billing surprises, as SIMs can only consume what you have allowed.

## 3. Vodafone APN Settings

### 3. Vodafone IoT APN Settings

APN name on device: **gdsp.flickswitch.co.za**

Username: 123

Password: 456

*Username and password need to be populated in order to be accepted, but it's not important what is used. We use username 123 and password 456 as a suitable filler.*

- Reboot device after changing APN settings.
- Each time you take a sim in/out of a device check APN settings as some devices may remove these or the sim may default to the wrong APN name.

### SMS: Configuration

- Mobile Receiving SMS: Device configuration SMS's can be sent to your device from the SIM detail screen on the SIMcontrol platform.
- Mobile Originating SMS: MO SMS not supported as default. Please enquire.

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## 4. Data Routing & Firewall Policy options

- a) Default APN data routing
  - i) Standard internet breakout
  - ii) Allows traffic to all destinations i.e. 0.0.0.0/0
- b) Custom APN options
  - i) Firewalling options: Whitelist outbound IP's (Please enquire)
  - ii) IPsec / VPN setup to customer network. (Please enquire)

## 5. SIM IP Management

### **a. Standard Configuration:**

- Fully managed IP service (with DNS provisioning) from a shared pool
- Dynamic Private IP addresses (not public IP's)

### **b. Custom Configuration Option:**

- Private IP Subnets (As per Solution Document)

VPN/IPsec required for server-initiated communications to SIMs. (Please enquire)

**Note:** External (public) SIM IP's are cloud (EC2) initiated - (Germany)

Websites & server firewalls will need to allow these IP's. Please test as some services may block traffic from these IP's.

## 6. Device Configuration Checklist

- Ensure device setting has data roaming enabled.
- Ensure APN name is updated on the device
- Ensure APN Username/Password fields are populated (see [“3. APN Settings”](#))
- Ensure spectrum chosen (2G/3G/LTE) is supported on local network(s). Request the latest spectrum coverage per country from us.
- Ensure the device firmware allows for at least 600 seconds of network connection before retrying the connection.



## 7. Session Data & Update Frequency

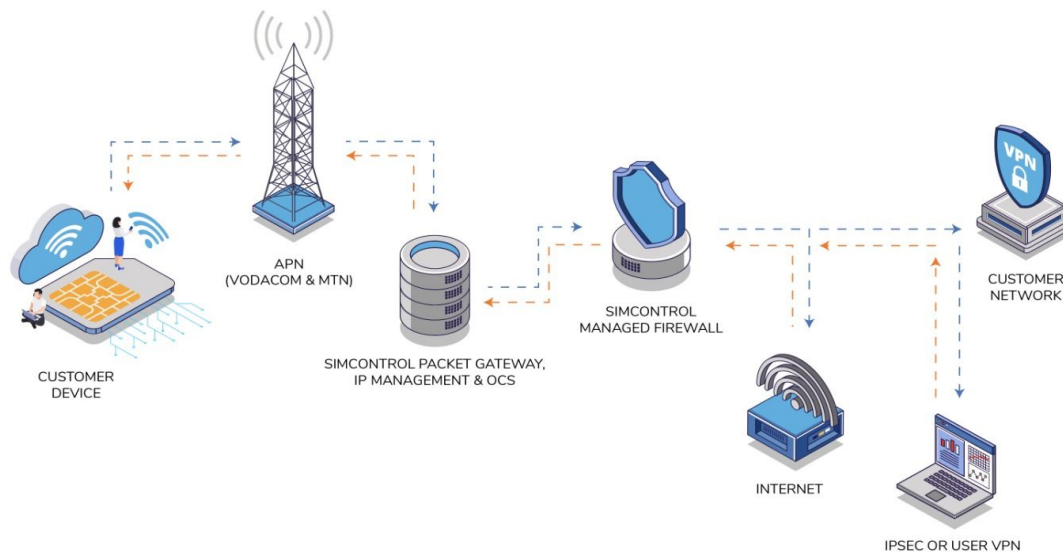
- The SIM will try to connect to those local networks allowed in a specific country (see country list).
- It will check for available airtime balance every 600 seconds.
- SIMs may allow up to 600 seconds of data flow before terminating session.
- Because of this, a small negative airtime balance may be shown if the SIM consumes data before terminating.
- If there is a session active but no data transfer for 24 hours, the session will be terminated.
- Last 7 days data session details are shown on the SIM profile screen.

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## 8. Troubleshooting

- Does your SIMcontrol account have funds available?
- Has the SIM been added to SIMcontrol? Did you choose “Vodafone Global SIM” as the network?
- Has airtime been loaded to the SIM and showing on the SIM’s airtime balance?
- Has the SIM been linked to a SIM Recharge Rule?
- Has the device been updated with the correct APN name?
- Are the APN username & password fields populated?
- Does the device settings have international roaming enabled?
- Does the device allow at least 90 seconds of network connection before retrying the connection?
- Test: Does the SIM work in a smartphone that has roaming enabled and APN set correctly?
- For further assistance please consult our [Help Desk](#)

## 9. Network Diagram



Exact network configuration will depend on individual custom setup.

# Frequently Asked Questions

### Do you keep SIM stock?

Yes, we keep SIM stock available in standard SIM format. SIM supply is usually within 3-4 working days. For orders over 500 SIMs please confirm shipping time. For Micro, Nano or embedded eSIM format, please contact us for lead times.

### Can I migrate any SIM to a Vodafone IoT SIM?

No, Vodafone IoT is a specific SIM that needs to be deployed.

### Does the prepaid airtime balance expire?

No. Once airtime has been loaded to an individual SIM it does not expire.

### Can a session be stopped from the platform?

Yes, data flow to the SIM can be stopped at any time from the SIM profile screen.

### How often does the SIM's airtime balance get monitored and recharged?

"Near real-time", but up to every 600 seconds.

### On which mobile spectrums will the SIM roam?

SIM's can roam on 2G, 3G or LTE spectrum, if available on the local network. Please ask us for the latest list of coverage per network per country.

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# Technical Support



Log a ticket with our [Help Desk](#)

**Or call: +27 (0)87 943 7222**