UK Multi-Network IoT SIM

General Specification

This document is intended to give an overview of the BT UK Multi-Network IoT SIM. Further technical detail can be provided upon request. BT is continually evolving its IoT Service and reserves the right to amend this document. Please check any specific details prior to contracting.

Contents

1. About BT

BT is the UK's largest and most advanced digital communications company, delivering mobile and fixed communications services to consumers, businesses, government and the wholesale market.

We run the UK's biggest, fastest and most reliable mobile network, pioneering the UK's first superfast 4G mobile service in October 2012 and 5G in 2019. We serve over 30 million customers across our mobile, fixed and wholesale businesses and have the resources and expertise to deliver solutions for everyone.

BT has a heritage of innovation, and was born from two major mobile brands, Orange and T-Mobile, which joined forces in 2010. In 2016, EE was acquired by BT plc.

In the UK, our commitment to building Britain's best connected network means that the UK Multi-Network IoT SIM, our M2M/IoT proposition for solutions that always need to be connected wherever the location, will become an integral part of consumers' digital lives. Our technological capabilities, commercial innovation and service flexibility make us the leading choice to connect everything from cars to cameras and from smart meters to street lamps. BT's UK Multi-Network IoT SIM will primarily use EE, the UK's best network, and if EE is not available, will roam onto other UK mobile networks.

Internationally, our relationships with network operators around the globe allow us to develop propositions with new business partners to provide connectivity on a worldwide basis.

2. Propositions, Products and Services

As the UK's leading mobile service provider, BT are focused on providing the best connectivity and service experience to our M2M/IoT customers.

BT's UK Multi-Network IoT SIM facilitates flexible integration to the EE Network and delivers the best network performance necessary for M2M/IoT applications.

BT IoT includes SIM products manufactured specifically for M2M/IoT deployments, network coverage across the UK on the EE Network and other UK networks when the EE Network is not available, a management platform to control mobile connectivity and interconnect solutions to integrate the customer's own network.

BT's UK Multi-Network IoT SIM is delivered on multiple levels:

- Provision of a SIM estate management platform – BT IoT Portal
- Highly competitive commercial plans
- Delivery of self-care tools that allow efficient configuration, management and maintenance of connectivity solutions appropriate to your business needs
- Provision of a dedicated support organisation to assist you to establish and maintain a high quality of service to your customers and users.

Our goal is to be easy to do business with.

2.1 IoT specific solutions

BT's M2M/IoT solutions are based upon the following core elements which are described in more detail in the following sections:

- UK connectivity
- IoT SIM cards
- Customer connectivity plans and commercials
- BT's high capability, dedicated IoT platform, **BT IoT Portal** which provides you with sophisticated self-care for your IoT subscription base
- Dedicated IoT support

2.2 UK connectivity

When the UK Multi-Network IoT SIM is in the UK it will attempt to connect to the EE Network. When connected to the EE Network the SIM will remain connected. If connection to the EE Network is lost the SIM will attempt to connect to the EE Network.

Should the EE Network not be available, then the SIM will attempt to connect to other available UK networks.

Once a SIM is connected to an alternative UK network it will remain connected to that UK network until the EE Network is available, the device is rebooted or that network becomes unavailable. A network check is completed every 7 days after a SIM connects to a UK Network and if the network check discovers the EE Network is available, the SIM will automatically connect to the EE Network.

2.2.1 Steering

- We reserve the right to set the list of networks towards which the SIM will direct traffic ('**steering**') and the order or priority of which network is connected.
- You will not alter the steering in any way whatsoever. For the avoidance of doubt, it is a material breach of our agreement if you change or permit to be changed the HPLMN or the PLMN list or order or interfere in anyway with the SIM profile.
- To manage the steering we may use our SIM Update Service where we update the SIM remotely over the air (OTA) and you shall ensure that all Customer Equipment can receive an OTA update to manage the SIM profile.
- In the event that we notify you of a necessary change or rectification to the steering which requires an OTA update of the SIM, we may, at our discretion, suspend a Subscription's usage of the BT UK Multi-Network IoT SIM service on the other UK networks until the change or rectification has been completed.

3 UK Multi-Network IoT SIM Solution Elements

3.1 IoT SIMs (Subscriber Identity Modules)

BT has a portfolio of IoT-specific SIMs that are fully compliant with international standards and are applicable to the wide range of IoT applications deployed in current markets.

3.1.1 Specification and performance

BT's IoT SIMs are specially designed for use in demanding IoT applications. They are "ruggedized", have higher data capacity and greater heat resistance than "standard" SIMs. We supply 4G/5G IoT-specific SIMs as standard to ensure they can deliver the connectivity and reliability needed by IoT devices and applications.

BT can provide a list of IoT Accredited Devices. Such devices have undergone network assurance testing to confirm performance of the SIM and device against network protocols. Although we recommend you use an IoT Accredited Device, you must still complete your own end-to-end testing of your IoT solution to ensure that all hardware and software functions and does not interfere with the performance of the network. We recommend that your end-to-end testing includes testing your IoT solution in the actual environments you intend to deploy the IoT solution into, especially if they involve unusual operating circumstances. Examples of unusual operating circumstances would be:

- Embedding/setting SIM/devices in resin or concrete
- Operating in close proximity with sources of microwaves
- Frequent polling, i.e. every second

BT cannot guarantee access to the network as environmental conditions can have significant impact.

All of BT's SIMs specified for use in M2M and IoT applications have specifications which support as a minimum:

- Temperature range from -40˚ C to +105˚C
- Minimum guaranteed 500,000 write cycles at +25˚C
- Resistant to vibration
- Resistant to corrosion (saline environment, humidity)

Detailed specification of our IoT SIMs is available on request.

3.1.2 SIM portfolio

A range of physical form factors are available to meet device developer needs:

	2FF	**3FF**	**4FF**	**VQFN8**
Format	Card – 'Standard'	Card – 'Micro'	Card = 'Nano'	Surface mount chip – on request with 8 week lead time
Dimensions	15 x 25 mm	12 x 15 mm	8.8 x 12.3 mm	5 x 6 mm
Notes	Reinforced plastic supports more rigorous environmental conditions	Reinforced plastic supports more rigorous environmental conditions	Reinforced plastic supports more rigorous environmental conditions	Compatible with surface-mount "pick and place" production process SIM is soldered in the device

				Supports more rigorous automotive requirements in terms of environmental conditions (temperature, vibration, corrosion, shocks)

3.1.3 Packaging and delivery

For 2FF ,3FF or 4FF SIM cards:

- SIMs can be ordered in the quantities as set out below:
  - above 200 to a single address for delivery outside the UK,
  - above 50 to a single address within the UK.
- The SIM ICCID number is printed on the SIM card to facilitate SIM installation and management

For VQFN8 SIM chips:

- SIMs are delivered on reels of 5000 units (orders must be in multiples of 5000)
- A SIM reader is also required
- There is an 8-12 week lead time for these orders

SIMs can be ordered on the BT SIM management platform, BT IoT Portal, when available or via the M2M/IoT Support Team, and each order will be shipped directly to the customer specified delivery address.

BT is usually able to fulfil SIM orders within 7 working days apart from VQFN8 SIMs; for large orders, a longer lead time may be necessary.

SIM orders are subject to BT standard SIM ordering processes and terms, more detail can be provided on request.

3.2 UK Multi-Network IoT SIM supplier

- When a Subscriber attempts to make a call or receive a call in the UK the SIM will search for the EE Network but if the EE Network is not available the SIM will attempt to connect the device to another UK network.
- The call will be conveyed by the EE Network or the other UK network provider out of the UK to our BT IoT UK Multi-Network IoT SIM network supplier.
- Our UK Multi-Network IoT SIM network supplier will onward convey the call for termination using its interconnect arrangements.

3.2.1 Bearers available via the UK Multi-Network IoT SIM

- **Packet switched data (PSD)**: Mobile applications usually use Packet Switched Data technology to transfer data from machines/modules to servers. You can either use a dedicated public APN for IoT or private APNs can be provided.
- **SMS**: Available on request. This offers true 'push' and can be used in its own right where the amount of data is relative small and for messaging, or used as a back-up for PSD. SMS has also historically been used for device wake up procedures.
- **Voice**: Available on request. Mainly used for alarm applications with IoT. Note: Integration with value added voice services (e.g. voicemail) is not supported.

Connections to these bearers can be made using BT IoT Portal.

In order to allow you to flexibly manage your SIM base, provision of service appropriate to the SIM lifecycle can be configured (and is further described in the following sections).

BT is focusing future investment on its 4G and 5G network. The EE network is evolving, and support for technology may be withdrawn with notice to customers.

3.2.2 4G and 5G -LTE service

To access 4G and 5G -LTE services, a 4G/5G enabled SIM Card and appropriate device is required:

- Access and use of the EE network, where available, is based on 4G-LTE Releases 8 and 9 of series 36 as implemented on the EE network
- Services are provided at QCI 8 (Quality of Service Class Identifier)
- We may provide 4G-LTE and 5G services using different spectrum frequency ranges.
- UK Multi-Network IoT SIM 4G-LTE and 5G-LTE is only available for data
- Data speeds are capped per SIM to 250 Mb/s upload and download speed.
- End users that are permitted to make voice calls on other bearers will drop back to a circuit switched bearer which is known as Circuit Switched Fall-Back (CSFB)
- Irrespective of whether LTE enabled equipment is being used, data services will not be available if voice and data services are used simultaneously
- Future evolutions of mobile network service are not within the scope of UK Multi-Network IoT SIM unless otherwise notified by BT

UK Multi-Network IoT SIM is offered on the basis that VoLTE is barred and we reserve the right to suspend or disconnect subscriptions which use VoLTE. If you require VoLTE, you must ask for pricing on this basis before contracting.

3.2.3 Consultancy services

Prior to and post contract signature, technical consultancy services may be provided to you on an ad-hoc basis to optimise the mobile communication solution.

Although BT's IoT offer doesn't cover device hardware and customer applications, these elements are vital to consider when defining the tailor-made proposal to ensure that the end-to-end solution functions correctly.

Our consultation can assist you in:

- Understanding your network integration requirements
- Assessment of coverage of your site(s) or your customer site(s)
- Assessment of network usage behaviour generated by the customer application(s)
- Defining a tailor-made offer based on required services and anticipated usage

3.3 SIM management platform

The BT IoT Portal allows you to manage your business, providing complete control and offering unrivalled flexibility from the beginning. It will support:

- ordering and allocation of SIMs - you can place orders for new SIMs, specifying the SIM type, quantity and delivery address
- automated or manual lifecycle management on a bulk or individual SIM basis. You can control the transition from inventory through activation to retirement, including periods of temporary suspension
- managing accounts and subscriptions (creation, activations, in-life and termination)
- generation of preliminary invoices
- investigation of SIM performance incidents

- management of user login accounts which provides a mechanism for access control to features and also facilitates an audit trail

Control of the SIM base can be achieved using a web-based, self-service interface or by your own CRM systems via BT IoT Portal APIs (to be introduced in later release). Where functionality required is not available, please contact the IoT Support team.

Full details of system functionality can be found in the User Guides and Specifications.

3.3.1 Web interface

The web interface is a secure web application by which you can access BT IoT Portal using a dedicated login and password. Access to the portal is simple as only an internet connection is required. Once authenticated with the unique login and password identities, your staff can proceed to manage its entire IoT base.

The web interface provides a complete solution for you to manage the features outlined within this document (and further detailed in relevant user guides). Each user is granted a predetermined role which grants them visibility and access to those functions appropriate to the tasks they need to execute and also provides checks and balances to maintain correct operational procedures.

3.3.2 API interface

In addition to the web interface, BT IoT Portal will be accessible through IT Interfaces (APIs). You can manage your business using your own IT systems interfaced directly with BT IoT Portal APIs. When using the APIs, you take on the responsibility for managing the current state of your subscriptions at all times.

Example functions that can proceed via the APIs include:

- querying of SIM attributes individually or in bulk

- querying of SIM session information
- configuration of SIM attributes (states, plans, etc.)
- reset device
- retrieve usage information
- retrieve invoices
- create and manage user accounts

Full details of API function calls will be contained within the API Integration documentation.

3.3.3 SIM lifecycle

The manner in which SIMs are utilised can vary depending upon the product lifecycle. To assist optimal configuration of services, the UK Multi-Network IoT SIM will reflect and account for typical SIM 'states', provisioning services and adjust billing appropriate to applicable conditions. Examples of such states include:

- Activated – the SIM is fully activated with all services defined within the UK Multi-Network IoT SIM contract and usage will be charged accordingly
- De-Activated – the SIM is suspended (temporarily) from accessing communication services and will not generate chargeable usage. Subject to contractual terms, you may be billed for subscription type charges
- Retired – the SIM has been retired from active use. After a predefined period, SIMs will be purged from the EE network

The current 'state' of the SIM can be controlled manually, via zero-touch provisioning flows or through business automation rules (which are explained in the following sections).

3.3.4 Communication services

BT IoT Portal will provision and control the communication services that each account and subscription can access throughout the SIM lifecycle, enabling solutions to be tailored to your needs. Specifically the communication plan will address the following:

- Bearer services that can be used for transfer of information between the customer application server and device (and vice versa) e.g. packet switched data (PSD), SMS, voice.
- Access point names (APNs) which allow access between EE's mobile network and a customer's private network. This will support both public and private configurations
- IP address management - whether static or dynamically allocated for UK Multi-Network IoT SIM

Allocation of communication services appropriate to your deployments will be agreed in the UK Multi-Network IoT SIM contract.

3.3.4.1 Private APNs

Private APNs are available to transmit customer mobile data via a private secure link to the customer's network or between mobile devices.

Various configurations are available depending on the customer's requirements; GRE/IPSEC tunnel or private ethernet circuit to the customer's LAN, with single or dual options available for resiliency. Device to device connectivity without the need of the internet or a corporate network connection is also available. If internet access is required, this can be provided via the customer's LAN or BT.

Both fixed and dynamic IP addressing are available, with either BT or the customer providing the APN security typically via RADIUS servers to authenticate the subscriber and allocate IP addresses.

Real-time billing (Diameter-based via Gy Interface) can be used to limit/monitor subscriber data usage, or an offline CDR based billing option is available.

3.3.5 Rating and billing

Invoices (before local taxation) will be published for all accounts on the IoT Portal for each billing period.

Rounding of usage activity (that is applied prior to rating) will be configured to comply with regulatory guidelines and confirmed by contract.

Invoices will provide the following information:

- Subscription charges
- Usage charges
- Activation charges
- Other charges (including but not limited to contractual commitment variances)
- Discounts where applicable

Final invoices, including local taxation, will typically be emailed to you within 10 business days following the end of the billing cycle.

3.3.6 Reporting

The following elements will be generated for viewing in a later release:

- Customer Account details
- Financials and Invoicing
- Subscription attributes, changes and charges
- Usage
- SIM states and changes

Information that is reported through the portal UI and results exported in both CSV and Excel formats for further data analysis.

3.3.7 Diagnostics and troubleshooting

At various stages of its life, a device may encounter problems which will be reflected in the service usage attributed to the allocated SIM. BT IoT Portal is uniquely positioned to monitor such events and will provide tools to alert you, provide insight into a SIMs recent activity and to isolate potential problems for further investigation to be offered in a later release.

Specific capability includes:

- An application which provides detailed visibility of a SIM's network activity including for example - connection establishment, access location
- Ability to activate and reactivate SIM remotely

3.4 Dedicated IoT support

BT IoT Portal is a self-service platform and provides you with the ability to provision, monitor and diagnose SIM estate behaviour without recourse to BT. **It is expected that this should and will be your first level of incident management.** If you require a bespoke support package this may be available subject to agreed terms.

In the event that you do require additional BT assistance, we have an established and dedicated IoT support team to assist with all Iot activities. The aim is to provide a direct interface at the technical level for all operational matters through the IoT Support team, and a contractual and management interface through the Account Manager (and Service Manager where allocated by contract).

- The support model is team-based, providing contingency and resilience
- The IoT Support team is the first point of contact for support, and is responsible for identifying and engaging the appropriate BT resources (second-level support)

3.4.1 First level support

- The IoT Support Team provides first-level support, and referral to second level support where required. The IoT Support Team has direct access to network and IT diagnostic tools to resolve common faults and agents have full access to all support platforms and tools.
- Access to the IoT Support Team is via e-mail and phone. During business hours (defined as 08:00-18:00 Monday to Friday UK local time, excluding statutory holidays) the IoT Support Team is the single point of contact for your support requests. Outside these hours, you will be given a dedicated out of hours number to call. An IoT Support Team representative will aim to contact you within 30 minutes to assess and assign an appropriate priority level to the incident. High priority incidents will be processed immediately; lower priority level incidents will be assigned for next working day investigation. In all cases and at all times the support language used is English.
- Emails sent to the IoT Support team during business hours are processed on the day received. Emails received outside of these hours are processed during the next working day; hence urgent outages should be notified via phone.

3.4.2 Second level support

The IoT Support Team will engage with BT's Technology Operation Centre and Customer Service Interface team and external support teams to request second-level support from its internal operations teams, suppliers and partners as required.

All incidents impacting the BT/EE network, or services provided by the network, are assigned an incident priority. This priority reflects the impact and urgency of the incident and drives resolution times and call out periods[1].

[1] For further information on SLAs and incident priorities, please refer to the UK Multi-Network IoT SIM Support Model

Troubleshooting tickets are raised for all incidents that require second-level support to assist management and performance tracking.

- Second-level support is provided by the following key technology operations:
- BT Network Operations
- BT IT Operations
- BT Roaming Operations
- Roaming Partner Operations
- Platform/Product Partner Operations

3.4.3 IoT service management

- Service Management is responsible for all operational escalations
- The Incident Management Centre, part of the Service Management Centre, is responsible for progress and tracking of all trouble shooting tickets until resolution

4 Devices

4.1 Device standards

Devices used with BT's UK Multi-Network IoT SIM should comply with ETSI, 3GPP and GSMA international standards for mobile networks technologies deployed by BT (and other mobile operators).

4.2 Device choice

When determining your device solution, you should complete full testing of devices to ensure no disruption occurs to the network. Market availability of proven modems and modules can simplify this process, however the complete device design should demonstrate appropriate behaviour. Some considerations on designing for device behaviour is captured within the IoT Developers Guide (available on request).

When procuring devices, you should also consider evolution of the network. We recommend that devices are selected which can be updated over the air and which utilise software that can be updated for use with future network generation standards. BT is not under any circumstance liable for devices and loss of connection due to network evolution.

5 Device best practice

5.1 Auto-retry

It is important that devices do not have auto-retry enabled as this can cause unnecessary load on the network. Some modem vendors provide commands that keep re-trying in the event of error or failure, for example, when trying to do a GSM registration, or GPRS attach, or PDP context activation. Often the modem re-try is done without due consideration of the reason for the error or failure and in the cases where there is a valid reason, an aggressive auto-retry can overload the network. Depending upon the IoT service, no communication request by the IoT device application should ever be re-tried indefinitely – the request should eventually timeout and be abandoned.

If a device is not able to control time-out re-try attempts then Auto-retry should always be switched off.

5.2 GSM/GPRS attach

Prior to establishing a GPRS session, a device / subscriber should first register with the GSM network as GPRS is enabled by a network overlay on top of a standard GSM network. A modem registers separately with the GSM network (i.e. registers with the MSC) and the GPRS network (i.e. registers with the SGSN, also known as GPRS Attach). Although it is possible to register only on the GPRS network (i.e. perform GPRS Attach without GSM registration), most modems are configured to register for GSM and GPRS.

GSM registration should take place, then GPRS registration.

5.3 Network registration

You should ensure that any application (on the modem) gives the modem sufficient time to register onto the network before starting to send or receive data. If using a timer to determine GSM registration success, you should allow at least 5 minutes. Typically the registration will happen faster than this, but there are various factors which can cause this to be extended. A timer of 5 minutes should allow for any factors.

Modem applications should leave at least 5 minutes before re-trying network registration.

5.4 Network selection

Our network provider will select which UK network providers the service will connect.

5.5 Device management

Some operators continuously monitor IoT device behaviour from within their networks and will request temporarily disablement of the subscriptions associated with IoT devices if they are creating abnormally high levels of signalling or data load on the network. If the IoT device continues to perform inefficiently, impact the network and other users of the network, the network operator may request to permanently disable the subscription associated with the problematic device. The device must be able to be switched off or switched networks.

5.6 Preferred PDP context sessions

If data is to be passed more frequently than once every hour, the device should maintain a single PDP context session rather than a separate context for each burst of data. If this isn't possible then aggregation of CDRs will usually be deployed.

5.7 Long data sessions

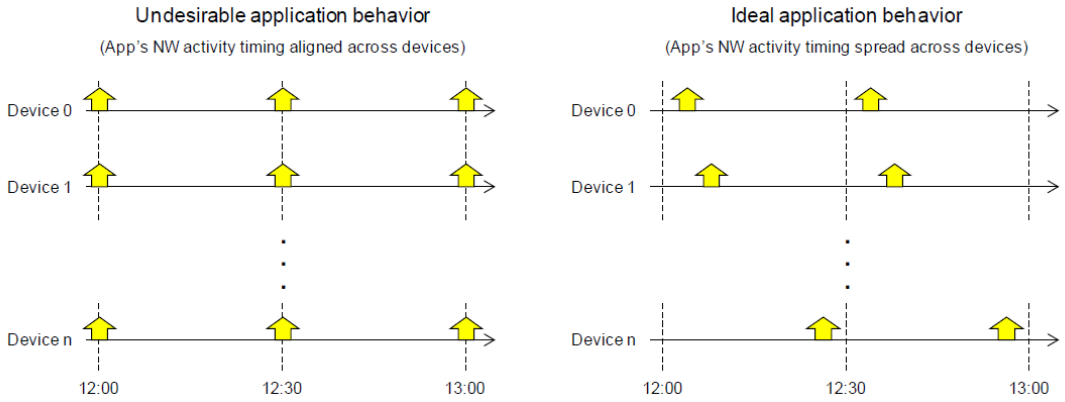
If data is to be passed less frequently than once every eight hours, use a new PDP context for each transmission.

5.8 Avoiding aggressive behaviour

In the event of failure to connect to the networks, it is important that the modem application does not repeatedly attempt to gain access to the network. Instead, it should recognise that it has been denied and back-off from connecting accordingly. Below is an outline of some basic re-try rules that we recommend.

- **GSM / GPRS Registration Failures** - It is acceptable for an application to reboot the modem in case of GSM registration failure or in case of GPRS Attach failure due to transient reasons or due to no network available, but no more frequently than once every 5 minutes, and no more than 4 times in succession. Additional reboots may occur at 30 minutes, 60 minutes, and then every 60 minutes;
- **SMS Failure** - It is acceptable for an application to re-try in case of SMS failures. Initial re-tries may be attempted no more frequently than once every 30 seconds and no more than 4 times in succession. Additional re-tries may occur at 15 minutes, 30 minutes, and then every 60 minutes;
- **PDP Context Failures** - It is acceptable for an application to re-try in case of PDP Context Activation failures. Initial re-tries may be attempted no more frequently than once every minute and no more than four times in succession. Additional re-tries may occur at 15 minutes, 30 minutes, and then every 60 minutes;
- **No Traffic / Server Down** - When a device is unable to send/receive data to/from a server, it is recommended that the data connection is verified by attempting to reach a known good or public server. Alternatively, it is acceptable for an application to reset the data connection by deactivating and re-activating the PDP Context. However, resets should not be attempted more frequently than once every minute and no more than four times in succession. Additional re-tries may occur at 15 minutes, 30 minutes, and then every 60 minutes;

- **Synchronous Actions** - The device application or backend server should not be designed such that network activities (GSM Registration, GPRS Registration, PDP Context Activation, and reception/transmission of data) are synchronised. In the event of server or network anomalies, such behaviour can overstress network elements, for example, a tracker or monitoring service with a large deployment all trying to transmit data at the same time of day, rather than staggering the start times. The illustration below provides a pictorial representation of the behaviour expected for device activity



5.9 SIM card subscription termination

If the Subscription associated with an IoT Device is to be placed in a temporarily inactive state (i.e. the Subscription is to be disabled for a fixed period of time), the IoT Service Provider should first ensure that the IoT device is temporarily disabled to restrict the device from trying to register to the network once the SIM is disabled. Before the SIM and Subscription associated with the IoT device is changed to a permanently terminated state, you must ensure that the device is permanently disabled to stop the device from trying to register to the network once the SIM is permanently disabled.

5.10 New IoT device launch

Before you connect a new device type, you must complete the form below and return to us. You may not connect that device type until you have received our written consent to do so.

Customer Contact Information					
Business contact			Technical Contact		
Name	**[Insert Contact Name]**		Name	**[Insert Contact Name]**	
Desk Phone	**[Insert Number]**		Desk Phone	**[Insert Number]**	
Mobile Phone	**[Insert Number]**		Mobile Phone	**[Insert Number]**	
Email Address	**[Insert Email Address]**		Email Address	**[Insert Email Address]**	
Product Information					
Device Information			Modem Information		
Manufacture	**[Insert Information]**		Manufacture	**[Insert Information]**	
Model	**[Insert Information]**		Model	**[Insert Information]**	
H/W version	**[Insert Information]**		H/W version	**[Insert Information]**	
S/W version	**[Insert Information]**		S/W version	**[Insert Information]**	
FCC Id IC Id	**[Insert Information]**		FCC Id IC Id	**[Insert Information]**	
CE Number	**[Insert Information]**		CE Number	**[Insert Information]**	
PTCRB/GCF TAC	**[Insert Information]**		PTCRB/GCF TAC	**[Insert Information]**	
Product Behavioural Information					
Primary Usage Model			**[Insert Information]**		
Detailed description of product			**[Insert Information]**		
Communication (Voice, SMS, Packet data)			**[Insert Information]**		
GSM Registration/deregistration frequency			**[Insert Information]**		
GPRS Registration/deregistration frequency			**[Insert Information]**		
Data Session Activation/deactivation rate			**[Insert Information]**		
GSM registration timer (before it attempts)			**[Insert Information]**		
If GSM fails, what's the re-try frequency			**[Insert Information]**		
If GPRS fails, what's the re-try frequency			**[Insert Information]**		
if PDP fails what's the re-try frequency			**[Insert Information]**		
Communication initiated from (server, device or both)			**[Insert Information]**		
What are the keep alive conditions			**[Insert Information]**		
Can the device application be updated over the air.			**[Insert Information]**		
What operating system do you use for your application			**[Insert Information]**		

Device power requirement (Battery/xx V)		**[Insert Information]**
APN setting / Changing instructions		**[Insert Information]**
Instructions on how to access AT commands		**[Insert Information]**
Non standard behaviour		**[Insert Information]**
Additional Information		**[Insert Information]**