



M2M: EE Connectivity

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EE network and service access

Our M2M service gives you access to our mobile network, to facilitate communication between devices and application servers, as well as to IT platforms which manage the mobile subscriptions to deliver those mobile services. You'll be able to access our M2M service environment through a range of different access points targeted at user and machine-level interaction. EE management platform users have access to secure internet portals.

Machine-level interaction is facilitated by a range of application programming interfaces (APIs) which allow customer CRM and application servers to manage their accounts on EE systems.

Key access requirements on our service environment (Figure 1) are:

- our mobile data network
- the SMS delivery network
- our M2M service management platform
- EE location (Cell ID) databases

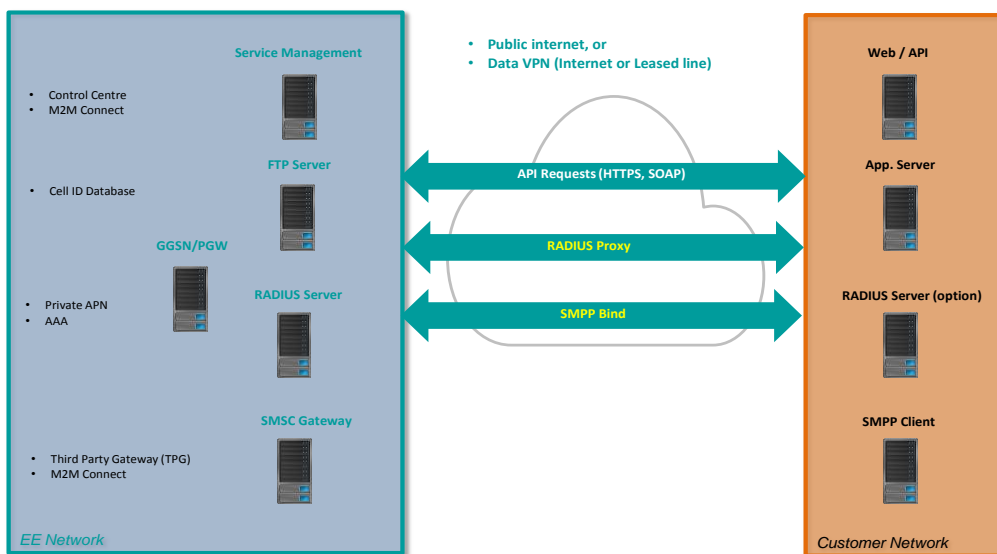


Figure 1: Customer Integration

Access to mobile data network

Customer access to our mobile data network supports:

1. application data delivery to customer devices
2. application data delivery to customer application servers
3. allocation of IP address management mechanisms
4. allocation of access, authentication and accounting mechanisms

Access to our mobile data network is facilitated by our Data VPN product portfolio, which supports a variety of functional combinations including:

- private or public connectivity via APN(s)
 - public: IPSec VPN tunnel over internet access
 - private: Ethernet or E1 leased lines
- customer or EE sourced CPE router
- EE or customer RADIUS authentication
- IP address allocation
- interconnect resilience
- multi-site deployments
- disaster recovery

Access to SMS delivery network Access from your data centres to EE's SMS network is required to support:

1. application data delivery to customer devices (MT-SMS)
2. application data delivery to customer application servers (MO-SMS)

Access to EE's SMS delivery network is primarily facilitated by our:

- Third Party Gateway (TPG)
- M2M Connect Service

For more limited SMS delivery, you can choose to use the EE M2M Control Centre platform, which you can access via web-based APIs. You'll be able to send SMS either individually or in bulk to update or control incumbent devices from the platform's web-based portal. Usage will be charged according to your M2M rate plan.

Third Party Gateway (TPG)

The TPG platform provides customer access through:

- a) XML service requests over HTTPS; or
- b) an SMPP interface running over a TCP connection wrapped inside an SSL channel for transport over the internet

There are limits configured for each customer (based on your individual contract) on the number of SMS-MT per second that can be issued:

- on the XML interface the TPG also informs customers asynchronously of events such as incoming SMS Delivery Reports and MO-SMS, which are notified either as a HTTPS posting to the third party webserver or via a scheduled FTP transfer to a third party FTP server. The information can either be one by one over HTTPS or in batch form both over HTTPS and FTP. the customers are identified by the submission of a SSL certificate
- on the SMPP interface v3.4/v5.0, session connections and bindings are facilitated to allow both individual and bulk MT-SMS and MO-SMS

M2M Connect

The M2M Connect gateway provides customer access on two levels:

1. customer administration through a HTTPS web portal
2. customer application server via a web services API. APIs are executed using WSDL functions via SOAP over HTTPS

Access to the M2M management platform

Customer access to EE's M2M management platform via APIs is required to support configuration and analysis of device activity and synchronisation with a customer IT solution. With our management platform, you'll be able to:

1. manage your account and users
2. manage your SIM service parameters
3. access SIM/device information
4. access SIM base service reports
5. access SIM base invoicing information
6. access business automation alert records
7. set up optional application data delivery to customer devices via SMS

You can also manage your service directly from our M2M service platform user portal.

You'll be able to access the APIs, an API Developer environment and a licence key specific to your account to ensure secure communication with the platform. APIs are executed using WSDL functions via SOAP or XML over HTTPS.

Function calls can be developed using your preferred coding environments, including Java, C#, Perl, PHP and Ruby. A sandbox environment is provided to assist testing before submission to the live platform.

Access to EE location databases

M2M applications that require access to Cell ID information from EE are handled through a separate request and a valid M2M contract. Once your contract has been validated, you'll be given a secure login account to an EE FTP server, where you can export the Cell ID database.

Contacts

For more information, contact our M2M sales team by calling **0800 079 0873** or emailing m2m@ee.co.uk.