

Operation Manual for OutboxSMS





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Package Contents

The product package should contain the following items:

- OutboxSMS 1U rackmount server
- This manual
- WindowsXP install CD/DVD
- IPC board user's manual
- IPC board driver software disk
- IEC Mains power lead

Checklist

Mobile Network SIM Card

You must have a SIM card for a local (to you) mobile network provider, with credit (if it's a prepaid SIM card), or with an activated monthly account. Check the SIM card status by installing it in an unlocked mobile phone before fitting into OutboxSMS.

Wireless Reception

The OutboxSMS unit must be sited in a location with good mobile reception from your mobile network provider. Check this with a normal mobile phone before installing OutboxSMS.

If OutboxSMS is going to be located in an equipment room with poor mobile reception, Felltech Ltd can supply an external wall mounted antenna. Please contact Felltech sales for more information.

LAN

OutboxSMS only connects to networks that use the Internet Protocol (IP) as their primary networking protocol.

IP Address Configuration

OutboxSMS is shipped pre-configured with DHCP enabled. So, if the host network has a DHCP server, OutboxSMS will be assigned an IP address by the DHCP server.

Otherwise, OutboxSMS can be configured with a static IP address.

Email Server

OutboxSMS connects to email servers using the POP3 protocol to retrieve email, and the SMTP protocol to send email to the email server.

Power Supply

An approximate 1 metre power cable is supplied with the unit. OutboxSMS should be sited in easy reach of a power outlet. The power cable should NOT cross walkways, or be left to trail on the floor or provide a trip hazard.

OutboxSMS can accept a power supply voltage between 100Vac and 250Vac. The power supply auto-adjusts to the voltage range.

Hardware Installation

Installing SIM Card

A SIM card needs to be fitted to each internal GSM modem. The lid of the OutboxSMS server needs to be removed to access the internal modems.

SIM Fitting instructions:

1. Using a Philips (crosshead) screwdriver, remove the two screws indicated in the diagram ->
2. Once the screws have been removed, slide the lid towards the back and lift off.
3. The GSM modem is located at the top/middle left handside of the unit. On the top of each modem is a small access panel. Using a small Philips (crosshead) screwdriver, unscrew the screw holding down the access panel.
4. Lift off the access panel. This exposes the SIM card holder. Release the holder by pushing the metal latch to the left, then lift up the holder.
5. Then insert your SIM card into the holder, close and re-latch.
6. Replace the access panel, and re-fix the small screw.
7. Replace the lid by placing the lid back on the chassis, and sliding it forward. Ensure the screw holes line up.
8. Re-fit the two fixing screws in the lid.



Connecting OutboxSMS

LAN Port

The OutboxSMS server supports one type of Ethernet LAN connection: RJ45 shielded twisted pair (STP) cabling. The LAN port can support 10Mbit, 100MBit and 1GBit network speeds and auto-detects which connection speed is applied.

Antenna

OutboxSMS is usually supplied with a multiband adjustable knuckle whip antenna. This connects directly to OutboxSMS via an external SMA Female connector.

If OutboxSMS is sited in a poor reception location such as an equipment room, it is necessary to fit an external wall mounted antenna. This connects to OutboxSMS via the external SMA Female connector, in-place of the whip antenna.

Connecting Power

Plug the IEC connector end of the power cable into the power port on OutboxSMS and plug the other end into a wall power outlet.

Switch the power switch, next to the IEC port to the on position, then momentarily press the power push button on the front of the unit. The blue power LED on the front of the unit should light up, then the blue hard disk LED should flash sporadically, indicating that the operating system is booting up.

Configuring OutboxSMS

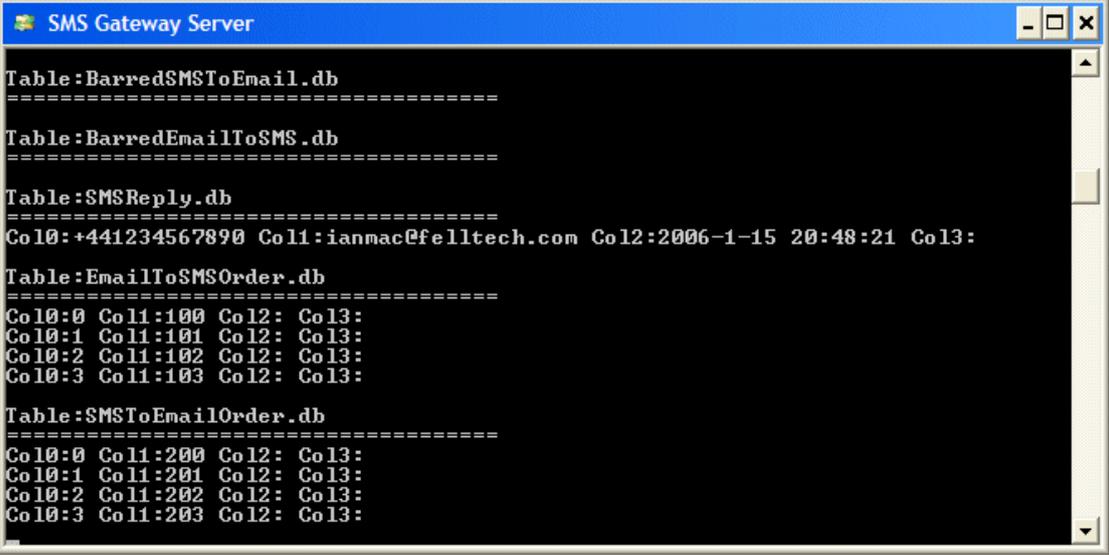
The OutboxSMS software is a multi-channel Email to SMS gateway system for the PC. It converts email messages into SMS text messages, then delivers the messages to mobile phones. It also converts SMS text messages into email messages and forwards them to recipients email inboxes. The software supports between one and four GSM modems for sending and receiving the SMS messages.

The software operates on the Windows 2000/XP operating system. It is configured and maintained from a Management Console.

OutboxSMS Gateway Server

Starting The Gateway Service

The OutboxSMS software is started by clicking Start->All Programs->Felltech->OutboxSMS Server.



```
SMS Gateway Server
-----
Table:BarredSMSToEmail.db
-----
Table:BarredEmailToSMS.db
-----
Table:SMSReply.db
-----
Col0:+441234567890 Col1:ianmac@felltech.com Col2:2006-1-15 20:48:21 Col3:
-----
Table:EmailToSMSOrder.db
-----
Col0:0 Col1:100 Col2: Col3:
Col0:1 Col1:101 Col2: Col3:
Col0:2 Col1:102 Col2: Col3:
Col0:3 Col1:103 Col2: Col3:
-----
Table:SMSToEmailOrder.db
-----
Col0:0 Col1:200 Col2: Col3:
Col0:1 Col1:201 Col2: Col3:
Col0:2 Col1:202 Col2: Col3:
Col0:3 Col1:203 Col2: Col3:
```

Configuring Modems

Installing Modems

1. Switch off the PC
2. Plug the GSM modem into one of the COM (9 pin serial) ports in the computer.
3. Connect the power supply to the modem.
4. Switch on the modem power supply and the Computer.

Email Server

To configure the email links, click on the Email Server Setup tab.

Felltech SMS Gateway Management Console

Modem Config | **Email Server Setup** | Message Routing

POP3 Email Server (For Email To SMS)

Server Address:

Server Port:

Login Name:

Password:

SMTP Email Server (Where To Send SMS To Email)

Server Address:

Server Port:

Enable Authentication

Login Name:

Password:

Update

Exit

POP3

Server Address . Either the URL or IP address of the POP3 server address.

Server Port . The internet port number to connect to on the POP3 server. Typically this is port 110

Login Name . The username used to login to the POP3 server

Password . The password corresponding to the login name on the POP3 server

SMTP

Server Address . Either the URL or IP address of the SMTP server address.

Server Port . The internet port number to connect to on the SMTP server. Typically this is port 25

Enable Authentication . If ticked, enables authentication information to be sent to the SMTP server

Login Name . The username used to login to the SMTP server

Password . The password corresponding to the login name on the SMTP server

Email To SMS Routing

When an email is received by the SMS Gateway, there are a number of routing rules applied to the message to try to determine where the message will be routed. The rules are applied one after the other. The order the rules are applied can be altered by adjusting the entries in the table on the Routing Options tab. However, the Barring rule is always applied first.

Routing Options

The Routing Options allows you to alter the order in which the routing rules are applied to the message.

Email To SMS Routing Tables

Routing Options | Route By To Address | Route By Subject | Barred From Email

| Id | Route Type |
|----|------------------------------------|
| 0 | Route By To Address (Parse Number) |
| 1 | Route By To Address (Table Lookup) |
| 2 | Route By Subject (Parse Number) |
| 3 | Route By Subject (Table Lookup) |

Move Up

Move Down

Action if the message can't be routed

Action: Forward The Message To Email Address

Address To Send Unrouted Email: unrouted@felltech.com

Action if the message is barred

Action: Return The Message To The Sender

Address To Send Barred Email: bob.fairbairn@thechelsea.co.uk

Ok

Route By To Address (Parse)

The OutboxSMS gateway software examines the To address of the email to see if there is a telephone number in the address. For instance, the OutboxSMS will extract the telephone number 01434380000 from the following email address:-

01434380000@felltech.com

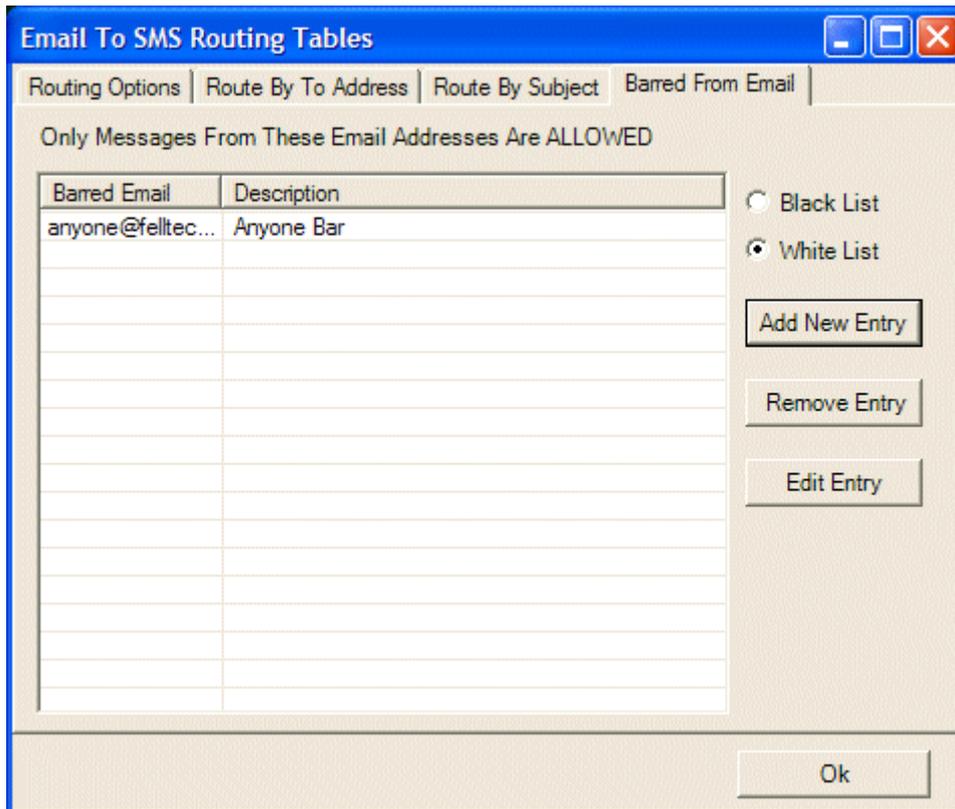
- or -

Alan McLauchlan+01434380000@felltech.com

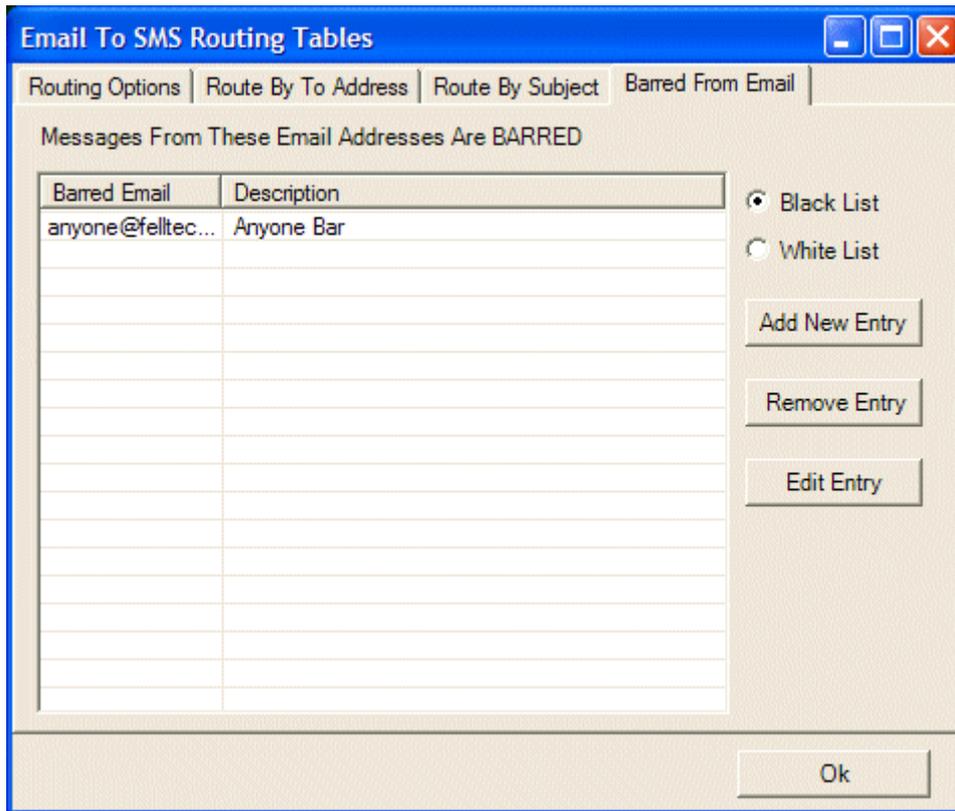
Barred From Email

The OutboxSMS gateway software tries to match the email From address to an entry in the Barred From Email table. If it matches, the resulting action it takes depends if it is configured as a Whitelist or a Blacklist table.

If it is configured as a Whitelist: The message will be allowed through. Only addresses in the Whitelist are allowed to be routed.



If it is configured as a Blacklist: The message will be barred. Only addresses NOT in the Blacklist are allowed to be routed.



Action if can't be routed

If the message can't be matched to any of the above rules, it is handled according to the settings in this section. This is configured on the %Routing Options+tab. The options available are:-

1. Place message in the %Error+folder
2. Return the message to the sender
3. Forward the message to email address

Action if barred

If the message is barred by either the %Whitelist+or %Blacklist+test, it is handled according to the settings in this section. This is configured on the %Routing Options+tab. The options available are:-

1. Place message in the %Barred+folder
2. Return the message to the sender
3. Forward the message to email address

SMS To Email Routing

Route By 'From' Tel

The OutboxSMS gateway software examines the %From+telephone number of the inbound SMS message, then tries to match the telephone number to an entry in the %Route By From Tel+table. If it matches, the message will be routed to the corresponding email address in the table.

To add an entry to the table:-

- 13) Open the OutboxSMS Management Console, and select the %Message Routing+tab.

The OutboxSMS gateway software tries to match the message from telephone number to an entry in the **Barred From Telephone Number** table. If it matches, the resulting action it takes depends if it is configured as **Whitelist** or a **Blacklist** table.

If it is configured as a **Whitelist**: The message will be allowed through. Only addresses in the **Whitelist** are allowed to be routed.

If it is configured as a **Blacklist**: The message will be barred. Only addresses NOT in the **Blacklist** are allowed to be routed.

Action if can't be routed

If the message can't be matched to any of the above rules, it is handled according to the settings in this section. This is configured on the **Routing Options** tab. The options available are:-

4. Place message in the **Error** folder
5. Return the message to the sender
6. Forward the message to email address

Action if barred

If the message is barred by either the **Whitelist** or **Blacklist** test, it is handled according to the settings in this section. This is configured on the **Routing Options** tab. The options available are:-

4. Place message in the **Barred** folder
5. Return the message to the sender
6. Forward the message to email address

Main File Inventory

Main Executable Files

| | |
|----------------------|---|
| SMSGatewayServer.exe | Main OutboxSMS server executable |
| SMSGatewayMC.exe | OutboxSMS Management Console executable |

MC To Server Link Files

| | |
|---------------------------|---|
| SMSManagement.dll | The COM object used by the Management Console to communicate with the OutboxSMS server process. |
| SMSManagementPS.dll | |
| Interop.SMSManagement.dll | The .NET COM adapter |

RPC Portmap Files

| | |
|-------------------|--|
| ftportmap_exe.exe | User executable version of the Felltech RPC Portmap service. The MC uses RPC to communicate with the OutboxSMS server. |
| ftportmapd.exe | Windows Service version of the Felltech RPC Portmap service. The MC uses RPC to communicate with the OutboxSMS server. |
| ftrpcinfo.exe | This program reports information on the status of the portmap service. |

Database Files

| | |
|---------------------|---|
| BarredEmailToSMS.db | Contains all the barred email addresses for the email to SMS direction. |
| BarredSMSToEmail.db | Contains all the barred telephone numbers for the SMS to email direction. |
| EmailSubject.db | Contains all the subject field matches for the email to SMS direction. |
| EmailToSMSOrder.db | Contains the order that rules are applied for messages in the email to SMS direction. |
| FromTel.db | Contains the from telephone number matches for messages in the SMS to email direction. |
| SMSReply.db | Holds all the email address / telephone number pairs of all messages sent in the email to SMS direction. These are used to route SMS replies. |
| SMSToEmailOrder.db | Contains the order that rules are applied for the messages in the SMS to email direction. |
| SMSToken.db | Contains the tokens for matching to the first word of an inbound SMS message. For messages in the SMS to email direction. |
| ToEmailAddress.db | Contains the to field address matches for messages in the email to SMS direction. |
| ToTel.db | Contains the to telephone number matches for messages in the SMS to Email direction. |

Configuration File

| | |
|-------------|--|
| sms_svr.cfg | The main OutboxSMS configuration file. |
|-------------|--|

Maintenance

Starting/Stopping Gateway

To start the OutboxSMS server software, click Start->All Programs->Felltech->OutboxSMS Server. This will start the server

To stop the OutboxSMS server software, highlight the OutboxSMS window by clicking it. Then press **Alt+F4** on the keyboard.

Starting/Stopping Portmapper

Open the **Control Panel** by clicking Start->Control Panel. Click on the **Administrative Tools** icon, then click the **Services** icon, this will open the Services Management Console. Look in the list for **Felltech ONC/RPC Portmapping Service**

To stop the service, right click on the entry, then select **stop** from the pop-up menu.

To start the service, right click on the entry, then select **start** from the pop-up menu.

Message Folders

POP3Error
POP3Inbox

Incoming email message files are placed in this folder by the POP3 part of the OutboxSMS software.

SMSTextError

If an error occurs with the message when sending the SMS, the message file is placed in this folder.

SMSTextInbox

Incoming SMS message files from the mobile network are placed in this folder by SMS receiver part of the OutboxSMS software.

SMSTextOutbox

SMS messages to go out are placed in this folder. The SMS send part of the OutboxSMS software picks up the message from this folder sends the message, then places it in the SMSTextSent folder.

SMSTextSent

Sent SMS message files are placed in this folder by the OutboxSMS software.

SMTPError

If an error occurs when an email message is sent using the SMTP service. The message that caused the error is placed in this folder.

SMTPOutbox

Email messages that are to be sent using the SMTP method are placed in this folder.

SMTPSent

Email messages that have been successfully sent by the SMTP method are placed in this folder.

Log File

The log file contains a trace of all the activity in the OutboxSMS gateway software.

CDR Format

There is a one line entry in the CDR log per message leg transaction. The message delimiter is the %+(pipe) symbol.

| | |
|---------------|---|
| Date/Time | Format yyyy-mm-dd hh:mm:ss |
| Direction/Leg | This indicates what direction the message is passing through the OutboxSMS gateway. <ul style="list-style-type: none">• %Outbound SMS+• %SMTP Outbound Email+• %Inbound SMS+• %POP3 Inbound Email+ |
| From Address | Full RFC822 specification email address or telephone number. |
| To Address | Full RFC822 specification email address or telephone number. |

Email To SMS Example

When the email message arrives at the OutboxSMS gateway an entry is put in the CDR log as follows:-

```
2006-02-26 11:56:02|POP3 Inbound Email|+Ian McLauchlan+  
<ianmac@felltech.com>|<sms.gateway@felltech.com>
```

This indicates a message from an email address to the email address of the OutboxSMS gateway.

The message is then routed out to a mobile phone number. When this happens successfully, another entry is put in the CDR log as follows:-

```
2006-02-26 11:56:03|Outbound SMS|+Ian McLauchlan+  
<ianmac@felltech.com>|+447900494550
```

There is a difference in the outbound routed message entry, the `fromqaddress` is marked as the original sender's email address, but the `toqaddress` is the final destination mobile telephone number.

SMS To Email Example

When the SMS message arrives at the OutboxSMS gateway an entry is put in the CDR log as follows:-

```
2006-02-26 11:56:02|Inbound SMS|+447900494550|+44123456789
```

This indicates a message from the sender's mobile telephone number to the telephone number of the OutboxSMS gateway.

The message is then routed out to a recipient's email address. When this happens successfully, another entry is put in the CDR log as follows:-

```
2006-02-26 11:56:03|SMTP Outbound Email|+447900494550|+Ian McLauchlan+  
<ianmac@felltech.com>
```

There is a difference in the outbound routed message entry, the `fromqaddress` is marked as the original sender's mobile telephone number, but the `toqaddress` is the final destination email address.