# **RUT240 SMS Gateway**

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### Summary

The **SMS Gateway** service is used to set up various SMS related functions, such SMS control via HTTP Post/Get and automated operations such as Scheduled SMS, Email to SMS and SMS Forwarding to HTTP, Email, SMS.

This chapter of the user manual provides an overview of the SMS Gateway page for RUT240 devices.

# Post/Get

The **Post/Get Configuration** section is used to turn ON and configure SMS related post/get settings. When the function is enabled, it provides you with the possibility to perform SMS related action requests by writing them in the URL field of your web browser.

The figure below is an example of the Post/Get Configuration page and the table below provides information on fields contained in that page:

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns SMS post/get on or off.

User name string; default: **user1** 

Username used for authorization when sending post/get requests.

Password string; default: **user\_pass** Password used for authorization when sending post/get requests.

#### SMS Post/Get usage examples

Use a web browser or any other compatible software to send **HTTP POST/GET** strings to the router. The router must be connected to a GSM network when using the **Send SMS** feature. Below you will find a table with possible actions and examples on how to use them:

ActionPost/get URL examplesView mobile messages listhttp://192.168.1.1/cgi-bin/sms\_list?username=user1&password=user\_passRead mobile message to a grouphttp://192.168.1.1/cgi-bin/sms\_end?username=user1&password=user\_pass&number=003706000001&kext=testmessageSend mobile message to a grouphttp://192.168.1.1/cgi-bin/sms\_end?username=user1&password=user\_pass&number=003706000001&kext=testmessageView mobile message to to a grouphttp://192.168.1.1/cgi-bin/sms\_end?username=user1&password=user\_pass&number=003706000001View mobile message to to a grouphttp://192.168.1.1/cgi-bin/sms\_end?username=user1&password=user\_pass&number=013706000001Delete mobile messagehttp://192.168.1.1/cgi-bin/sms\_endete?username=user1&password=user\_pass&number=1

- **192.168.1.1** router's IP address, replace it with your <u>LAN IP</u> or <u>WAN IP</u> (when connecting remotely)
- SMS related post/get commands. Possible values are:
  - $\circ$  *sms\_list* view all SMS messages in storage
  - $\circ$  sms\_read read a single SMS message by specified SMS index (number)
  - sms\_send send an SMS message to specified number
  - sms\_total display SMS storage statistics
  - *sms\_delete* delete a single SMS message by specified SMS index (number)
- & separation symbol. After specifying the SMS command, other parameters must be separated by an *ampersand* (&) symbol
- username SMS POST/GET configuration user name
- **password** SMS POST/GET configuration password
- number SMS message index or (depending on context) recipient's phone number. SMS message indexes can be viewed with the *sms\_list* command.
  Correct phone number format is:
  - $\circ 00^{-1}$  number must be preceded by two zeros
  - <*country code*> the next following element is the number holder's country code
  - <*receivers\_number*> phone number of the recipient

For example, a valid number would be **0037012345678** (370 is country code and 12345678 is the receiver's phone number, all preceded by 00)

• text - SMS message text

### **Email to SMS**

**Email to SMS** is a function that connects to your email account and checks its inbox at the specified frequency. If it finds any new received emails with a specific subject (phone number in email subject), it sends the body of the email as an SMS message(s) to the recipient specified in the email subject field.

Important note: all POP3 server email messages from inbox will be deleted when using this

#### service.

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Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns Email to SMS on or off.
POP3 server	host   ip; default: <b>none</b>	Email service provider's POP3 server address (can be looked up online).
Server port	integer [065535]; default: <b>none</b>	Email service provider's POP3 server port (can be looked up online).
User name	string; default: <b>none</b>	Email account username, used in authentication when connecting to the email client.
Password	string; default: <b>none</b>	Email account password, used in authentication when connecting to the email client.
Secure connection (SSL)	yes   no; default: <b>no</b>	<b>SSL</b> is a protocol for transmitting private documents via the Internet. SSL uses a cryptographic system that uses two keys to encrypt data – a public key known to everyone and a private or secret key known only to the recipient of the message.
Max. email symbol count	integer; default: <b>160</b>	Limit of symbols that can be contained in the email body of text. Emails that contain more symbols than it is specified in this field will be ignored.
Check email every	time [1 minute to 15 days]; default: <b>1</b> <b>minute</b>	Email inbox check interval.

**Additional note**: you may have noticed that there is no option where you can specify the recipient's phone number. As mentioned earlier, **Email to SMS** doesn't forward all emails, just the ones that are meant to be forwarded. Only emails with the recipient's phone number in the subject will be forwarded to SMS.

Correct phone number format is:

- 00 number must be preceded by two zeros
- <*country\_code*> the next following element is the number holder's country code
- <receivers\_number> phone number of the recipient

For example, a valid number would be **003700000000** (370 is country code and 00000000 is the receiver's phone number, all preceded by 00).

# **Scheduled SMS**

**Scheduled SMS** allows you to set up the router to periodically send SMS messages to a specified number. Scheduled messages are managed in rule form. Therefore, to configure a new Scheduled Message, we must first create a rule. To create a new rule, type in a phone number in the **Phone number** field located in the Scheduled Messages Configuration section and click the **Add** button located next to it.

After this you will be redirected to the **Scheduled Messages Configuration** window where you can configure all parameters related to the rule. Once you save the configuration, you will be redirected back to the Scheduled SMS page, where you will see your new rule in the **Messages To Send** section:

The figure below is an example of the **Scheduled Messages Configuration** window and the table below provides information on the field contained in that window:

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Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns the rule on or off.
Recipient's phone number	phone number; default: <b>none</b>	Phone number of the recipient that will receive the scheduled messages.
Message text	string; default: <b>none</b>	The message that will be sent.
Message sending interval	time; default: <b>Day, hour 1,</b> minute 1	The frequency at which scheduled messages will be sent.

### **Auto Reply**

**Auto reply** is a function that responds to received SMS messages with a user defined automatic response. The figure below is an example of the Auto Reply section and the figure below provides information on the fields contained in that section:

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Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns Auto Reply on or off.
Reply SMS Utilities rules	yes   no; default: <b>no</b>	When enabled, the router will also reply to messages that trigger <u>SMS Utilities</u> rules.
Don't save received messages	yes   no; default: <b>no</b>	When enabled, the router deletes all received SMS messages.
Message text	string; default: <b>none</b>	Text that will be sent in the automatic response.
Mode	Everyone   Listed numbers; default: <b>Everyone</b>	Indicates whether the router should reply to messages from all recipients or just the specified numbers.
Recipient's phone number	phone number; default: <b>none</b>	Phone number(s) that will trigger Auto Reply. To add multiple numbers, click the symbol. This field becomes visible if the chosen <i>Mode</i> is "From listed numbers only".

### **SMS Forwarding**

The **SMS Forwarding** tab contains three sections:

- <u>SMS Forwarding To HTTP</u>
- <u>SMS Forwarding To SMS</u>
- SMS Forwarding To Email

Each of which can be used to set up forwarding of incoming SMS message to either HTTP, email or

#### **SMS Forwarding To HTTP**

The **SMS Forwarding To HTTP** function forwards received SMS messages to HTTP by using either Post or Get methods. The figure below is an example of the SMS Forwarding To HTTP section and the table below provides information on the configuration fields contained in that section:

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns SMS Forwarding To HTTP on or off.
Forward SMS Utilities rules	yes   no; default: <b>no</b>	When checked, the router will also forward SMS Utilities rules. By default router will not forward SMS messages which are SMS Utilities rules.
Use HTTPS	yes   no; default: <b>no</b>	Check to use the HTTPS protocol instead of HTTP.
Encode message text to Base64	yes   no; default: <b>no</b>	Message text will be encoded to a Base64 string. Enable this to preserve Unicode characters in the message text.
HTTPS Certificate verification	Ignore   Verify; default: <b>Ignore</b>	Indicates whether the server's certificate will be ignored or verified.
Method	Post   Get; default: <b>Get</b>	Defines the HTTP transfer method.
URL	host   ip   host:port   ip:port; default: <b>none</b>	URL or IP address to which the messages will be forwarded. By default, the router forward messages to the default HTTP port (port 80). To specify a different port add a <b>colon</b> (:) symbol followed by the port number (for example, 192.168.1.1:81).
Number value name	string; default: <b>none</b>	Name to assign the sender's phone number value in query string.
Message value name	string; default: <b>none</b>	Name to assign the message text value in query string.
Extra data pair 1 / Extra data pair 2	string; default: <b>none</b>	Transfers extra information through the HTTP request. Enter variable name on the left field and its value on the right. For example, when using the Post method, one may enter some static information about the device, like 'Router name' on the left and 'RUT240' on the right. This can also be utilized when using the Get method to request data from an HTTP server.
Mode	All messages   From listed numbers; default: <b>All</b> <b>messages</b>	Specifies whether all messages should be forwarded or only those received from specific numbers.
Sender's phone number	phone number; default: <b>none</b>	Phone number(s) that will qualify for forwarding. To add multiple numbers, click the symbol. This field becomes visible when the "Mode" field value is set to 'From listed numbers'.

This example will atempt to explain how to use the data fields in SMS forwarding to HTTP configuration. The fields in question are *Number & Message value name* and *Extra data pair 1 & 2* fields. The figure below is the configuration we'll be using for this example:

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If you configure the router as seen in the image above and send an SMS message to the router containing the text *Hello!*, from the number +37000000000, the specified server should reiceve an encoded query string that looks like this:

```
Sender=%2B3700000000&Text=Hello%21&Name=RUT240&Code=RUT240%2006E000
```

The & symbol separates the key-value pairs, while certain characters (like +, ! and the *space* symbol) are encoded in UTF-8. When decoded it might look something like this:

Sender: +37000000000 Text: Hello! Name: RUT240 Code: RUT240 06E000

#### **SMS Forwarding To SMS**

The **SMS Forwarding To SMS** function forwards received SMS messages to one or several other phone numbers. The figure below is an example of the SMS Forwarding To SMS section and the table below provides information on the configuration fields contained in that section:

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns SMS Forwarding To SMS on or off.
Forward SMS Utilities rules	yes   no; default: <b>no</b>	When checked the router will also forward SMS Utilities rules. By default router will not forward SMS messages which are SMS Utilities rules.
Add sender's number	yes   no; default: <b>no</b>	Adds the original sender's number to the forwarded message.
Mode	All messages   From listed numbers; default: <b>All messages</b>	Specifies whether all messages should be forwarded or only those received from specific numbers.
Sender's phone number	phone number; default: <b>none</b>	Phone number(s) that will qualify for forwarding. To add multiple numbers, click the symbol. This field becomes visible when the "Mode" field value is set to 'From listed numbers'.
Recipient's phone number(s)	phone number; default: <b>none</b>	Phone number(s) to which messages are going to be forwarded to. To add multiple numbers, click the symbol.

The **SMS Forwarding To Email** function forwards received SMS messages to one or several email addresses. If this service is enabled and configured correctly, when the router receives an SMS message it will automatically login to the specified email account and send the text message as an email to another specified recipient(s).

The figure below is an example of the SMS Forwarding To Email section and the table below provides information on the configuration fields contained in that section:

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Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns SMS Forwarding To Email on or off.
Forward SMS Utilities rules	yes   no; default: <b>no</b>	When checked the router will also forward SMS Utilities rules (the default action is to not forward SMS messages that are SMS Utilities rule).
Add sender's number	yes   no; default: <b>no</b>	Adds the original sender's number to the forwarded message.
Subject	string; default: <b>none</b>	Text that will be inserted into the email's Subject field.
SMTP server	host   ip; default: <b>none</b>	Your email service provider's SMTP server address. If you don't know this address, you can look it up online.
SMTP port	integer [065535]; default: <b>none</b>	Your email service provider's SMTP server port. If you don't know the port number, you can look it up online.
Secure connection	yes   no; default: <b>no</b>	Enables the use of cryptographic protocols. Enable only if your SMTP server supports SSL or TLS.
User name	string; default: <b>none</b>	Your email account's login user name.
Password	string; default: <b>none</b>	Your email account's login password.
Sender's email address	email address; default: <b>none</b>	The address that will be used to send emails from.
Recipient's email address	email address; default: <b>none</b>	The address(es) to which incoming SMS messages will be forwarded. To add multiple addresses, click the symbol.
Mode	All messages   From listed numbers; default: <b>All messages</b>	Specifies whether all messages should be forwarded or only those received from specific numbers.
Sender's phone number	phone number; default: <b>none</b>	Phone number(s) that will qualify for forwarding. To add multiple numbers, click the symbol. This field becomes visible when the "Mode" field value is set to 'From listed numbers'.

### **SMPP**

**Short Message Peer-to-Peer** (**SMPP**) is a protocol used for exchanging SMS messages between Short Message Service Centers (SMSC) and/or External Short Messaging Entities (ESME). The figure below is an example of the SMPP section and the table below provides information on the configuration fields contained in that section:

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns SMPP on or off.
User name	yes   no; default: <b>admin</b>	User name used for authentication on the SMPP server.
Password	string; default: <b>admin01</b>	Password used for authentication on the SMPP server.
Server port integer [065535]; default: 7777		SMPP server port.