New API

Version	Date	Description	Author
0.1	2014-12-25	First version	Nate
0.2	2015-1-22	Added user_id in send_sms request	Nate
0.3	2015-3-20	Added DELIVERED status in Send Sms Result	Nate
0.4	2015-4-24	1. Changed Send Sms request format, each number could include a user_id 2. Added an API for query current SMS in the waiting queue. 3. Added a parameter user_id in Query SMS result	Nate

Content

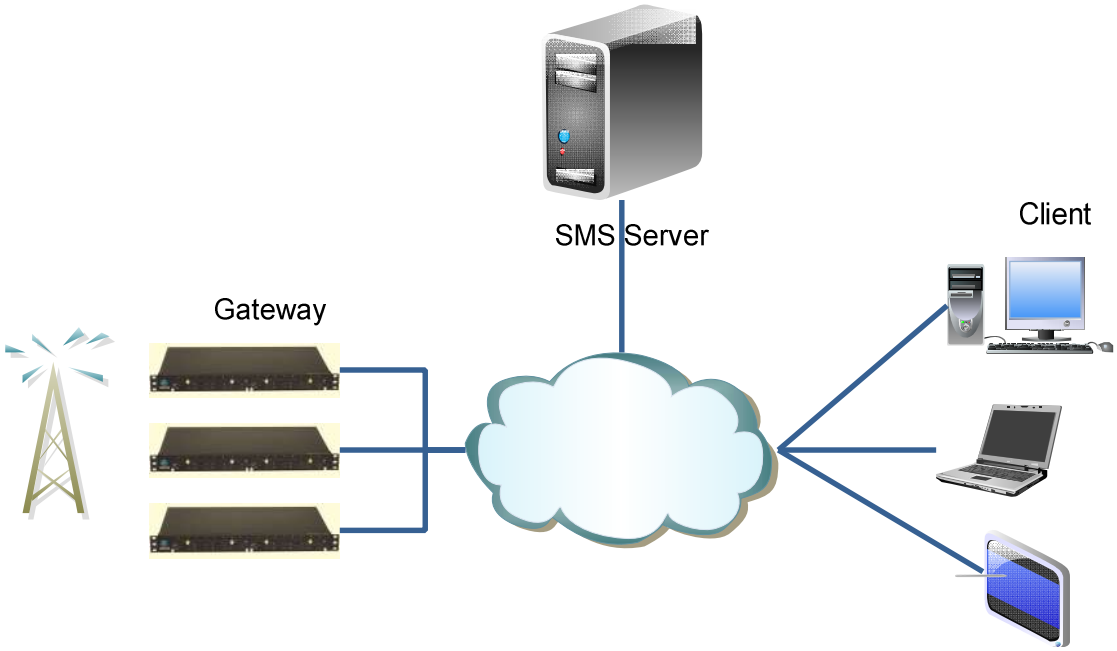
1 Introduction

1.1 Scenarios

1. A SMS server manages a lot of gateway through API. People can send and receive SMS through this Server.

2. A lightweight SMS Client communicates with gateway through API. People can use this application to send and receive SMS.

1.2 Network Topology



1.3 Features

- SMS and USSD
- Batch SMS
- SMS delivery status

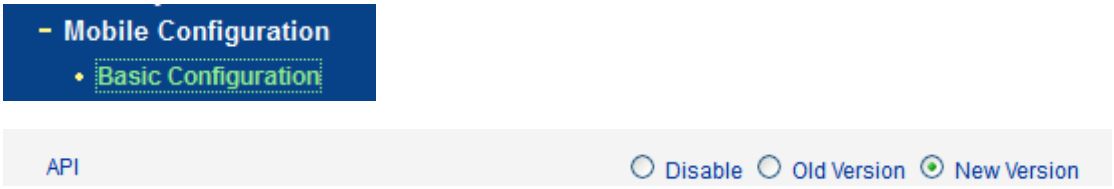
- Basic Information of Device

1.4 Basic Description

We try to make our API as simple as it could be. So we use HTTP for transport and use json as data format. Both of them are widely used and easy to implement.

1.5 Enable API

Please enable API before your further test. Please select Basic Configuration from the menu, and select New Version API. The gateway must use version 1102 or later version.



2. Send SMS

2.1 Request

```
POST http://gateway_ip/api/send_sms
```

2.2Request Parameters

Parameter	Type	Description
Required Parameter		
text	String	The content of SMS, support grammar like #param#
param	Array	Each element is an Object, which included : number: a digit string no more than 24 bytes text_param: an array of string, each element used to replace #param# in the **text** user_id: an integer greater than or equal 0. It is used to match send sms result.
Optional Parameter		
port	Array	Port array for sending. Each port should be an integer range from 0 to 31.
encoding	String	Could be "unicode" or "gsm-7bit". Default is "unicode".

2.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 202, Request has been accepted, will process later. 400, Request format is not valid. 413, number over 128 or text over 1500 bytes 500, other error
sms_in_queue	Integer	Count of SMS waiting for processed.
task_id	Integer	You can stop this sending task by this ID later.

2.4 Example

Request:

```
curl -d
'{"text":"#param#","port":[2,3],"param":[{"number":"10086","text_
param":["bj"],"user_id":1},{"number":"10086",
"text_param":["ye"],"user_id":2}]}' -H "Content-Type:
application/json"  http://gateway_ip/api/send_sms
```

Please note that this example didn't include an username and password. Please include them in your own code.

Response:

```
{"error_code":202,"sms_in_queue":2,"task_id":2}
```

3. Query Send SMS Result

3.1 Request

POST http://gateway_ip/api/query_sms_result

3.2 Request Parameter

Parameter	Type	Description
Optional Parameter		
number	Array	A number array, which should not be over 32 numbers. Each number should not be over 24 bytes.
port	Array	Port array for sending. Each port should be an integer range from 0 to 31.
time_after	String	String like "YYYY-MM-DD HH:MM:SS"，query SMS record after this time.
time_before	String	String like "YYYY-MM-DD HH:MM:SS"，query SMS record before this time.
user_id	Array	user_id array, which used to match user_id in **Send Sms Request**

3.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 400, Request format is not valid. 413, size of number array over 32 500, other error

result	Array	Result Array，Each element include information below port: port for sending SMS number: destination number user_id: match with the send sms request time: sending time status: sending status, which could be, FAILED SENDING SENT_OK DELIVERED count: count of sms segment. A long SMS would be spitted to several segments to send. succ_count: count of sms segment sent successfully ref_id: the first reference id of this SMS, which is used to match SMS delivery status. **Reference id is range from 0 to 255. So it is just a reference id, it is recommended to match a SMS result and a delivery status by a combination of port, number and reference id, even take sending time into account.**

3.4 Example

Request：

```
curl -d '{"number":["12341234"], "port":[1,2,3],"user_id":[1,2]}' -H
"Content-Type: application/json"
http://gateway_ip/api/query_sms_result
```

Response：

```
{"error_code":200"result":[{"port":0,"user_id":1,"number":"12351"
,"time":"2014-12-21 12:06:01","status":"SENT_OK","count":3,
"succ_count":3, "ref_id":12}]}
```

4. Query SMS delivery status

4.1 Request

POST http://gateway_ip/api/query_sms_deliver_status

4.2 Request Parameter

Parameter	Type	Description
Optional Parameter		
number	Array	A number array, which should not be over 32 numbers. Each number should not be over 24 bytes.
port	Array	Port array for sending. Each port should be an integer range from 0 to 31.
time_after	String	String like "YYYY-MM-DD HH:MM:SS"，query SMS record after this time.
time_before	String	String like "YYYY-MM-DD HH:MM:SS"，query SMS record before this time.

4.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 400, Request format is not valid. 413, size of number array over 32 500, other error
result	Array	an Array of delivery status，each element include, port: port for sending SMS number: destination number time: time for sending SMS ref_id: reference id, used to match SMS send record status_code: status code is range from 0 to 255, 0, means received by peer, 32 ~ 63, temporary error 64~255, permanent error For more information about this code, please search "SMS Status Report"

4.4 Example

Request：

```
curl -d '{"number":["12341234"], "port":[1,2,3],
"time_after":"2014-12-12 19:29:19", "time_before":"2014-12-12
```

```
19:29:19"}' -H "Content-Type: application/json"
http://gateway_ip/api/query_sms_deliver_status
```

Response：

```
{"error_code":200"result":[{"port":0, "number":"12351",
"time":"2014-12-21 12:06:01","ref_id":12, "status_code":0},]}
```

5. SMS in the queue

5.1 Request

GET http://gateway_ip/api/query_sms_in_queue

5.2 Request Parameter

None

5.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 500: Other error
in_queue	Integer	count of SMS waiting to be sent

5.4 Example

Request：

```
http://gateway_ip/api/query_incoming_sms
```

Response：

```
{"error_code":200,"in_queue":0}
```

6. Receive SMS

6.1 Request

```
GET http://gateway_ip/api/query_incoming_sms
```

6.2 Request Parameter

Parameter	Type	Description
Optional Parameter		
incoming_sms_id	Integer	gateway will return incoming SMS which ID is greater than this value, default is 0.
flag	String	default is "unread", Optional value is, "unread", unread SMS, which will change to read after reading it by this API. "read", read SMS "all", both of unread and read.

6.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 500: Other error
sms	Array	SMS array, each of them include,

		incoming_sms_id: ID in gateway's database port: port received the SMS number: number of sender smsc: number of SMS center timestamp: receiving time text: content of the SMS
read	Integer	count of SMS have been read
unread	Integer	count of SMS unread.

6.4 Example

Request:

```
http://gateway_ip/api/query_incoming_sms?flag=all
```

Response:

```
{"error_code":200, "sms":[{"incoming_sms_id":1, "port":2, "number":
"123456789","smsc":"+8613800123456","timestamp":"2014-12-09
17:11:18","text":"This is a test"},],"read":1, "unread":0}
```

7 Send USSD

7.1 Request

POST http://gateway_ip/api/send_ussd

7.2 Request Parameter

Parameter	Type	Description

Required Parameter		
text	String	content to send, should not be over 60 bytes. if command is "send", text should not be empty。 if command is "cancel", text may be empty.
port	Array	Port array for sending. Each port should be an integer range from 0 to 31.
Optional Parameter		
command	String	could be "send" or "cancel", default is "send"

7.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 202, Request has been accepted. 400, lack of text while command is "send" . 500, other error
result	Array	result array, each element include port, port to send USSD status, a number could be 200, sent ok 486, busy, for example, sending SMS 503, not available for sending USSD

7.6 Example

Request：

```
curl -d '{"port":[1,2,3],"command":"send","text":"*125#"}' -H
"Content-Type: application/json"  http://gateway_ip/api/send_ussd
```

Response：

```
{"request_id":1, "error_code":202, "result":[{"port":0,
"status":503},{"port":1, "status":503},{"port":2, "status":200}]}
```

8. Receive USSD reply

8.1 Request

GET http://gateway_ip/api/query_ussd_reply

8.2 Request Parameter

Parameter	Type	Description
Required Parameter		
port	Array	Port array for querying USSD reply. Each port should be an integer range from 0 to 31.

8.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 400, Request format is not valid.

		500, other error
reply	Array	reply array, each element include port: port for receiving USSD reply text: USSD reply

8.4 Example

Request：

```
http://gateway_ip/api/query_ussd_reply?port=1,2,3
```

Response：

```
{"error_code":200, "reply":[{"port":1, "text":" "},{"port":2, "text":
"Test…"},{"port":3, "text": ""}]}
```

9. Stop SMS Task

9.1 Request

GET http://gateway_ip/api/stop_sms

9.2 Request Parameter

Parameter	Type	Description
Required Parameter		
task_id	Integer	task id, correspond with task_id in the response of send SMS request.

9.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, task has bee stop. 404, task not found 500, other error

9.4 Example

Request：

```
http://gateway_ip/api/stop_sms?task_id=1
```

Response：

```
{"error_code":200}
```

10. Get Information of Device

10.1 Request

GET http://gateway_ip/api/get_port_info

10.2 Request Parameter

Parameter 名	Type	Description
Required Parameter		

info_type	Array	An array of string, each element cloud be a string as below, type, imei, imsi, iccid, number,reg
Optional Parameter		
port	Array	Port array for query. Each port should be an integer range from 0 to 31.

10.3 Response Parameter

Parameter	Type	Description
error_code	Integer	Possible code, 200, Request has been processed. 400, Request format is not valid. 500, other error
info	Array	info array according to the query. port: type: could be GSM, CDMA, WCDMA, or UNKNOWN when type is not recognized. imei: IMEI of this port imsi: IMSI of the SIM card on this port iccid: ICCID of the SIM card on this port number: the mobile number of this SIM card reg: register state of this port, could be

		POWER_OFF NO_SIM PIN_REQUIRE PUK_REQUIRE UNREGISTER SEARCHING_NETWORK REGISTER_OK UNKNOWN

10.4 Example

Request：

```
http://gateway_ip/api/get_port_info?port=1,2,3&info_type=imei,imsi,iccid,smsc,type,number,reg
```

Response：

```
{"error_code":200, "info":[{"port":1, "type":"WCDMA","imei":"863070017005173","imsi":"","iccid":"","smsc":"","number":"","reg":"NO_SIM",},{"port":2, "type":"GSM","imei":"358967042917201","imsi":"460016529802215","iccid":"89860114840400428150","smsc":"+8613010868500","number":"","reg":"REGISTER_OK",},{"port":3, "type":"GSM","imei":"358967042917201","imsi":"","iccid":"","smsc":"","number":"","reg":"NO_SIM",}]}
```

11. Suggestion for sending SMS

1. port parameter is optional in sending SMS request. If you don’t need to send

SMS through specific port, this parameter is not necessary.

2. user_id in sending SMS request is recommened. It’s used to match result with request.

3. It takes about 5 to 8 seconds to send a SMS. So it is suggest querying result 8 seconds after sending.

4. If user_id is in the send SMS request, user_id will be included in the SMS result.

5. SMS delivery status will be received by gateway in unspecific time. It is better to query delivery status after SENT_OK is returned. For a long SMS, for example, with a number “123456”, ref_id 0, totally sent by 3 parts, the ref_id of each part will be 0, 1, 2. And at least 3 delivery status will be received, each with ref_id 0, 1 or

6. curl is an open source software. Please visit http://curl.haxx.se/ for more information.