

Front Gateway

Product Description for the connection
between the SMS gateway and customer



Applies to:
SMS Gateway Standard
SMS Gateway Proff
SMS Gateway PSK

Development Manual
v2.23 – 2020-03-09



Gateway – Interface Description

Front offers SMS Gateway with http-based interface. By sending HTTP-based commands, the customer can send and receive messages via the Front's message service / gateway to an end user's mobile or an application. The service requires the customer has a server with dedicated IP address



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User Info

Fill out and send this page to Front on fax +47 22 20 24 01, or send it via email to kontakt@fro.no. You can also register your user information on <http://www.fro.no>

Contact person:	
Name (First name, last name)	Phone (direct)
E-mail address	Mobile*
Company Information:	
Company Name / Organization	Organisation number
Address	
Postal code / place	e-mail address (for invoice)

Layout for Gateway:	
Customer's IP address for outgoing messages:	serviceid: (To be completed by Front)
Fromid / Sender text on outgoing messages (max. 11 characters):	URL Status (not required): http://
Complete this only out of Gateway Professional and Gateway PSK	
<input type="checkbox"/> We want to use the code word for submitting to 2401 (Norway). 	Requested codeword:
<input type="checkbox"/> SMS GATEWAY PSK: We want to be assigned PSK number (14 digits) for full two-way communication 	Number of extra PSK number: (a number included in contract)
URL for incoming SMS: http://	
If incoming messages Front has ability to notify customers if we fail to deliver a message. Front will try to deliver an incoming message to the client's URL three times. If we do not receive a confirmation from the customer on these tests will messages be queued and must be activated manually. We can send a notification to our customers if this were to occur, with a link which could even enable the queue when the error is corrected.	
Mobile number (s) for VARS delivery error:	E-mail address (es) for notification of delivery errors:

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1 Field Descriptions

1.1 GATEWAY STANDARD, PROFF AND PSK

Client IP address for outgoing messages

Front need the client IP address for identification and delivery of outgoing messages via our gateway to your Web server. Given the IP address must be a dedicated ip-address. If you wish to use a dedicated IP-address for testing in the first place, this is entered. One has the opportunity to change it to an IP-address for production at a later date, by sending us an email.

Fromid / Sender text on outgoing messages (max.11 characters)

Fromid is the text that appears as the sender on the recipients mobile phone. There may be a text or a number, and normally this will be the company name. Using text Fromid, there is a limit to the maximum 11 characters in the telecommunications network, and it will not be able to respond to the message recipient.

When we use a mobile number as Fromid the reciever can respond to the message back to the owner of the mobile subscription.

PSK customers have the opportunity to choose a PSK number as the Fromid. When the user replies to the message, the customer may recieve the reply directly in their IT systems, without having to use the codeword.

ServiceID

To be completed by Front. This is a customer number, customer must use to identify themselves with sending SMS messages to SMS gateway.

URL Status (not required):

If you need to verify the status of the message to the end user, you can register a URL where Front pushes recipient status of outgoing messages. We push status and a reference id to the Status Url. The status indicate whether the message has arrived the end user's cellphone or not. See the various status codes in section 2.3

1.2 GATEWAY PROFF AND PSK

Requested code word

In order to receive incoming SMS to a short code (2401) must have a registered identification code (code word) associated with its gateway. Code word is the first word in a text message that is sent to a central card number (2401) What comes after the code word is interpreted as text and has no effect on the identification of the customer who will receive the message. The data are continuously posted to the URL the customer wants to receive these messages. An example of an incoming message by using the identification code (code word) "FRONT" is:

"FRONT <Optional text>" sent to the short number 2401.

**PSK Number:**

PSK refers to your use of personal two-way communication (read more on www.fro.no). PSK replaces the traditional two-way communication using the code word (incoming) and the sender number (optional, outgoing).

Normally we use only one PSK number for full two-way communication. But you have the opportunity to associate with them any number of PSK number for use by different services and needs in their IT systems. Your PSK-numbers can be supplied as a consecutive number series.

URL for incoming SMS:

Incoming messages will be continually pushed to the URL of your choice. The data we push contains various information about the sender such as number, text and time of broadcast and code word. For Front to record the message as received in your system, you must print out the value "true" when you receive a message. Otherwise Front will not record the message as received and will try to resend the message three times before it is queued. Then the message must be manually restarted.

Mobile phone number and e-mail notification of delivery failure

If our server does not get in touch with your server for delivery of incoming messages, we will try to send the message to you three times. If we still do not receive contact after this message will lie inactive and you will receive an SMS and e-mail about this to the given contact information. It is possible to add multiple email addresses and / mobile phone number for notification.

Any message that is attempted to be sent in the wake of such an error will be stopped and put in a queue until the error is corrected. In the email sent, there is a URL to enable the queue again when the error is fixed. If you use the 'Resend' function in the email before their system is up and running again, the process will just repeat itself, and you will get a new e-mail with a new link to the r.



2 Parameter INDEX

2.1 OUTGOING MESSAGES

The following parameters can be used in URL:

Parameter	Description	Accepted values	Comment
serviceid	Server identifier	Unique customer ID	Required
phoneno	Telephone number for the recipient.	International phone number with country code 0047 99999999	Required
txt	The message being sent.	ASCII text.	Required. A message consists of 160 characters. If a message contains more, it counts as multiple SMS. Each SMS is then a length of 153 characters. Max is 1024.
fromid	Unique Sender ID	An assigned number / serial number of Front or assigned sender text, maximum 11 characters.	Required - Unique number to receive a response or text.
price	Premium messages	In Norwegian øre. NOK 1 to 100 Ex: NOK 1=100 / NOK 30 =3000 Must be activated by the Front! NOTE: Max 160 characters in the text	Not mandatory. When a valuation is set, Fromid will be "2401".

URL example of an outgoing text message:

<http://www.pling.as/psk/push.php?serviceid=1234&phoneno=004799999999&fromid=26114123450000&txt=Text+that+is+send>

The order of the parameters has no significance. Table for conversion of special characters available on <http://www.pling.as/biscape.html>



2.2 DELIVERY STATUS OF OUTGOING PUSH MESSAGES

By sending the message, our gateway return a response to the URL you submit. This response consists of an "error code" number and a reference "ID" that is unique

Error code	Description
errorcode=0	OK (Message is sent)
errorcode=1	Illegal mobile number
errorcode=2	Message sent from illegal IP address
errorcode=3	Invalid fromid
errorcode=4	Illegal value SMS
errorcode=5	No remaining SMS messages on account
errorcode=6	Not access to valued SMS
errorcode=7	Your account has been blocked by Front
errorcode=8	serviceid is blank / parameter is missing
errorcode=9	phoneno is blank / missing parameter
errorcode=10	txt is blank / missing parameter
errorcode=11	fromid is blank / missing parameter
errorcode=12	Illegal mobile number valued SMS
errorcode=13	Invalid password
errorcode=14	The message is too long (max 1024 characters)
errorcode=15	The premium message is too long (max 160 characters). Only relevant for premium messages (price > 0)
errorcode=16	The message contains an invalid character. The message can only contain the following characters: 0-9 a-z æøåöäöäéüü .,!/@"' - :;%()<>= \$£¥&?*+ space, newline
errorcode=17	Duplicate message. Message with same fromid, phoneno and txt has been sent within the last 120 seconds.

Sample response: "ErrorCode=0, ID=145099"

2.3 RECIPIENT STATUS FOR OUTGOING PUSH MESSAGES

Status of sent messages will be continually posted to the URL that you wish to receive on. The service is not compulsory, but for those who desire it.

Parameter	Description	Legal Values	Comment
status	New status on SMS	-1, 4, 5	See below
origid	ID Reference Number	Same number as confirmation ID when the message was sent	Unique number for each text message

Sample status: <http://www.customer.no/sms/?status=4&origid=145099>

Status -1:

The message is received by the carrier but not delivered to the mobile phone. Note: this status can come after status 4 if the message is delivered immediately.

Status 4:

The message has been received by the recipient's mobile phone. It is not known whether the recipient has read the message



Status 5:

The message has failed. In most cases this is due to that sending a message to a mobile phone number not in use. May also occur due to operational errors among telecom operators.

Lack of status means that the message is on its way. The most common reason for not attaining the status is that the recipient has turned off his cell phone, or located in an area without coverage. It happens that one does not get any status even if the message is actually delivered.

2.4 OUTBOUND MESSAGES – BULK

To send a text message to multiple recipients, use an HTTP Post to the following URL: https://www.pling.as/psk/push_bulk.php

The request body must be a valid JSON document (<http://json.org>) with the following structure:

Parameter	Description	Allowed values	Comment
serviceid	Server identifier	Unique customer ID	Required; number
phoneno	Recipients' mobile numbers.	International telephone number with country code. 0047 99999999	Required; string array
txt	Message text to be sent	0-9 a-z æøåöäöäéúü .,/!@"' - : ; % () < > = \$ £ ¥ & ? * + space, newline	Required. A message consists of 160 characters. If a message contains more, it counts as multiple SMS. Each SMS is then a length of 153 characters. Max is 1024.
fromid	Unik avsender ID	An assigned number / serial number from Front or assigned sender text, maximum 11 characters.	Required; string

Example request:

```
{
  "serviceid": 1234,
  "phoneno": ["004799999999", "004799999998"],
  "txt": "The message to be sent",
  "fromid": "My Company"
}
```

The server will accept the request as long as there is at least one valid recipient and the other parameters are valid.



The server responds with HTTP status code 201 (created) if the message has been accepted. All other status codes indicate that the message was not accepted, and the message will not be sent. The response body includes an error code, description and lists with any invalid or duplicate mobile numbers as a JSON document.

Example response body:

```
{
  "errorcode": 0,
  "description": "OK",
  "invalidPhoneno": [],
  "duplicatePhoneno": []
}
```

Please note that the response does not include a reference number (ID) for the messages that will be sent. Bulk messages are therefore not appropriate to use if one desires delivery status of the outbound messages. (see §2.2 - 2.3).

2.5 INCOMING MESSAGES (ONLY GATEWAY PROFF and PSK)

The following parameters are used for incoming messages:

Parameter	Description
fromid	Short number is sent to
phonenr	Telephone number sent from
txt	The text of the message
time	Time message was received, unix code
countnr	A counting function that counts the number of received messages per customer. This can be used to investigate whether there is a lack incoming SMS etc.
code	Identification Code (code word identified at short number where used)

Example of an incoming URL:

<http://www.customer.no/innkommende/?fromid=123450000&phonenr=004799999999&txt=This+is+a+test&time=1077181484&countnr=157&code=>



3 Document History

v2.20 (2016-19-06): OUTBOUND MESSAGES – BULK added.

v2.21 (2017-03-15): DELIVERY STATUS OF OUTGOING PUSH MESSAGES updated with correct max length for errorcode 14. Errorcode 15 and 16 added.

v2.22 (2017-03-15): Duplicate message check. New SMS Gateways will be configured with a duplicate message check. Information about errorcode 17 added.

v2.23 (2020-03-09): Increased maximum length for message text to 1024 characters.