



TELIA OPERATOR SERVICE PLATFORM

OMA Sandbox REST API Guide

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Legal Information

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Revision History

Revision History

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Revision History

9.4	Copyright Year updated to 2020	February 14, 2020
9.4	Copyright Year updated to 2022	May 20, 2022
9.5	Updated the section 2.2 & 3.2 to include the details of Sender Name Whitelist, Sender Name Blacklist & Fraud Detection sandbox policies. Updated Copyright Year to 2023	

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Overview

1 Overview

This document describes Sandbox services provided for developers who wish to test their applications registered on the Telia Operator Service platform.

A Sandbox service is available for the following RESTful API:

- Payment Sandbox URI section [section 2.1](#)
- MT Messaging Sandbox URI section [3.1](#)
- MO Messaging Sandbox section [3.3](#)
- Refund Sandbox URI section [4.1](#)

1.1 References

General usage, example codes, error responses on validation, and policy enforcement that apply to the API service are referenced out to the following API Guides:

- API_Telia_OMA_Payment-REST
- API_Telia_OMA_Messaging-REST
- API_Telia_Refund_REST

1.2 Authentication

Operator Service Platform (OSP) supports one-way, server-side SSL, enabling HTTPS access sessions with a server-side certificate loaded on OSP. It does not support two-way SSL. Basic authentication is required for an application, using client credentials provided by OSP, as defined in HTTP RFC No. 1945, section 11 at <http://tools.ietf.org/html/rfc1945>. An Access Token, obtained by calling the OMA Autho4API Authorization Server, is required to pass in the Authorization header. The API is defined in API_Telia_OMA_OAuth_REST. There is no separate sandbox service for generating the access token. You must use the token obtained from the production server.

NOTE: Operator Service platform API's support chunked transfer coding (Resource ref: HTTP 1.1 specification: <ftp://ftp.isi.edu/in-notes/rfc2616.txt>) in line with HTTP 1.1 protocol.

Overview

1.3 Actual URI

The URI to use for each Sandbox method is listed in the respective section. The URI contains the {serverRoot} placeholder that varies depending on the deployment. These are available for you to view and copy from the Manage Endpoints page of the application on the Opaali Portal.

On the page, the serverRoot appears in the list of Enabled Endpoints per available service.

If the endpoint is shown as:

`https://api.opaali.telia.fi/sandbox/messaging/v1`

'api.opaali.telia.fi' is the value for {serverRoot} and the full URI for an outbound message request operation is:

`https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/{senderAddress}/requests`

The actual senderAddress should be URL encoded, as described in the following sections.

Payment Sandbox

2 Payment Sandbox

This section describes the Sandbox feature for Telia-OMA Payment service.

2.1 Payment Sandbox URI

You can reach the MT Payment Sandbox service on the Operator Service platform by the following URIs and HTTP operations:

Charge Amount

- POST

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amount>

Charge Amount Split

- POST

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amountSplit>

Reserve Amount

- POST

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amountReservation>

Get Reserved Amount

- GET

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amountReservation/{transactionId}>

Charge Reserved Amount

- POST

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amountReservation/{transactionId}>

Release Reserved Amount

- POST

<https://api.opaali.telia.fi/sandbox/payment/v1/{endUserId}/transactions/amountReservation/{transactionId}>

See section [1.3](#) for information on obtaining the actual {serverRoot} value for your application.

Payment Sandbox

{endUserId} must be a URL-escaped value prefixed by `tel:+`. Long numbers must be at least 9 digits in length including the country code. URL encoding for ‘:’ and ‘+’ are %3A and %2B respectively.

2.2 Canned Responses for Predefined Parameter Values

The table below lists the default endUserId configured in the Sandbox to return the respective expected results for the prescribed operations. Note the following principles:

- *endUserId* in the URI determines the response, where present. However, for ChargeAmountSplit transactions, the first *endUserId* in *endUserShare* in the body of the message is validated and must be the same as the one in the URI. The ones that follow may be any valid number.
- *transactionId* - when required in the URI for two-step charge scenarios, use the value returned in the preceding Reserve amount response. Where there are no preceding Reserve amount operation in the scenario, use any transactionId. Only in scenario No. 19 (unknown transactionId), use the specified value provided in the table.
- If invalid combinations of parameters are found, a general Service Exception, for example SVC0270-General Payment Error (failure to take payment) for an amountTransaction call with Operation type = "Reserved".

Scenario	endUserId / transactionId	Operation	Expected Result
1	tel:+35812345051	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	HTTP 201. Payment Operation successful As noted above, use the transactionId received in the Amount Reservation response, for subsequent calls.
2	tel:+35812345052	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	POL1000 – Charge amount and reserve amount POL 3106 – Charge Amount Split SVC0270 - Charge reserved amount and Release reserved amount Prepaid Subscriber with insufficient balance.

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
3	tel:+35812345053	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Service Exception: SVC0270 General Payment Error (failure to take payment)
4	tel:+35812345054	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3102 Subscriber barred.
5	tel:+35812345055	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL1002 Maximum transactions per interval (Charging Velocity)
6	tel:+35812345056	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3004 Maximum transactions allowed
7	tel:+35812345057	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount	Policy Exception: POL3007 Destination Blacklist is enforced.

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
		Release Reserved Amount	
8	tel:+35812345058	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3006 Destination Whitelist is enforced.
9	tel:+35812345059	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3103 Restricted due to Service Barring (Subscriber_Access_Status)
10	tel:+35812345060 Use any transactionId	Charge Amount Charge Amount Split Charge Reserved Amount	Policy Exception: POL0254 Charge Limit - Chargeable Amount Exceeded
11	tel:+35812345061	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL0008 Charging Allowed - this application is not allowed to use the Charging methods
12	tel:+35812345062 Use any transactionId	Charge Amount Charge Amount Split Charge Reserved Amount	Policy Exception: POL1001 Periodic Charge Threshold policy. Threshold exceeded
13	tel:+35812345063	Charge Amount	Policy Exception: POL3012

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			Amount Transaction Policy. Operation not allowed.
14	tel:+35812345064	Charge Amount Split	Policy Exception: POL0251 Amount Split Transaction Policy. Operation not allowed.
15	tel:+35812345065	Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3013 Amount Reservation Transaction Policy. Operation not allowed.
16	tel:+35812345066	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3014 Charge Currency Policy
17	tel:+35812345067	Charge Amount Split	Policy Exception: POL0250 Too many endUserIdentifiers
18	tel:+35812345068 Use any transactionId.	Charge Reserved Amount	Policy Exception: POL1000 Amount charged exceeds
19	Use the specific transactionId: abcdefgh-ijkl-mnop-qrst-uvwxyz654321 Use a valid endUserId not assigned to any other scenario	Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3204 Unknown transaction Id
20	tel:+35812345069	Charge Amount Charge Amount Split Charge Reserved Amount	Service Exception: SVC0009 Subscriber does not have a mobile certificate in strong authentication service side.

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<p>Sample Error Response:</p> <pre>{ "requestError": { "serviceException": { "messageId": "SVC0009", "text": "Strong authentication failure for subscriber %1.Reason is %2", "variables": ["tel:+35812345069", "Subscriber does not have a mobile certificate"] } } }</pre>
21	tel:+35812345070	Charge Amount Charge Amount Split Charge Reserved Amount	<p>Service Exception: SVC4000 Subscriber strong authentication fails due to timeout.</p> <p>Sample Error Response:</p>

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345070", "Subscriber authentication fails due to timeout"] } } }</pre>
22	tel:+35812345071	Charge Amount Charge Amount Split Charge Reserved Amount	Service Exception: SVC0009 Subscriber rejects strong authentication.

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<p>Sample Error Response:</p> <pre>{ "requestError": { "serviceException": { "messageId": "SVC0009", "text": "Strong authentication failure for subscriber %1. Reason is %2", "variables": ["tel:+35812345071", "Subscriber rejects strong authentication"] } } }</pre>
23	tel:+35812345072	Charge Amount Charge Amount Split Charge Reserved Amount	Service Exception: SVC4000 Subscriber enters wrong PIN-code for strong authentication request. <p>Sample Error Response:</p>

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345072", "Subscriber has entered wrong PIN-code"] } } }</pre>
24	tel:+35812345073	Charge Amount Charge Amount Split Charge Reserved Amount	Service Exception: SVC4000 Strong Identification endpoint not available

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<p>Sample Error Response:</p> <pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345073", "Strong Identification endpoint not available"] } } }</pre>
25	tel:+35812345074	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3018 Prepaid subscribers are not allowed for payment act subjected transactions. <p>Sample Error Response:</p>

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<pre>{ "requestError" : { "policyException" : { "messageId" : "POL3018", "text" : "Subscriber %1 Service Disabled.Reason is %2", "variables" : ["tel:+35812345074", "This subscriber type is not allowed for payment act subjected transactions"] } } }</pre>
26	tel:+35812345075	Charge Amount Charge Amount Split Reserve Amount Charge Reserved Amount Release Reserved Amount	Policy Exception: POL3017 Purchase limit exceeded for billing period Sample Error Response:

Payment Sandbox

Scenario	endUserId / transactionId	Operation	Expected Result
			<pre>{ "requestError": { "policyException": { "messageId": "POL3017", "text": "Subscriber %1 purchase limit exceeded for billing period", "variables": ["tel:+35812345075"] } } }</pre>
27	tel:+35812345076	Charge Amount Charge Amount Split Charge Reserved Amount	<p>Policy Exception: POL0252</p> <p>Subscriber tel:+35812345076 exceeded the maximum of mobile payment purchases allowed for given period</p> <p>Sample Error Response:</p> <pre>{ "requestError": { "policyException": { "messageId": "POL0252", "text": "Subscriber %1 exceeded the maximum of mobile payment purchases allowed for given period", "variables": ["tel:+35812345076"] } } }</pre>

Payment Sandbox

An example request where a subscriber is charged:

```
POST
https://api.opaali.telia.fi/sandbox/payment/v1/tel:+35812345051/transactions/amount
HTTP 1.1
Authorization: Bearer 4ba50412-9c7e-42e3-b1b4-a6b8ed75565b
Accept: application/json
Content-Type: application/json

{
  "amountTransaction": {
    "clientCorrelator": "10000",
    "endUserId": "tel:+35812345051",
    "paymentAmount": {
      "chargingInformation": {
        "amount": 8.99,
        "code": "TEST-012345",
        "currency": "EUR",
        "description": ["Default description"]
      }
    },
    "referenceCode": "REF-12345",
    "transactionOperationStatus": "Charged"
  }
}
```

Payment Sandbox

An example of a successful response your application should receive:

```
HTTP/1.1 201 Created
accept: application/json
accept-encoding: gzip, deflate
authorization: Bearer 4ba50412-9c7e-42e3-b1b4-a6b8ed75565b
content-type: application/json; charset=UTF-8
location:
https://api.opaali.telia.fi/sandbox/payment/v1/tel%3A%2B35812345051/transactions/amount/65075a41-3dd5-44ba-8959-41bd6388c579
{
  "amountTransaction": {
    "endUserId": "tel:+35812345051",
    "paymentAmount": {
      "chargingInformation": {
        "description": [ "Default description" ],
        "currency": "EUR",
        "amount": 8.99,
        "code": "TEST-012345"
      },
      "totalAmountCharged": 8.99
    },
    "transactionOperationStatus": "Charged",
    "referenceCode": "REF-12345",
    "clientCorrelator": "10000",
    "resourceURL": "https://api.opaali.telia.fi/sandbox/payment/v1/tel%3A%2B35812345051/transactions/amount/1ce3bbdc-fa17-456f-b237-6d8f08ddf810
  }
}
```

3 Messaging Sandbox

This section describes the Sandbox feature for Telia-OMA Messaging service.

3.1 MT Messaging Sandbox URI

You can reach the MT Messaging Sandbox service on the Operator Service platform by the following URIs and HTTP operations:

- POST

`https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions`

- POST

`https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/{senderAddress}/subscriptions`

- POST

`https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/{senderAddress}/requests`

- GET

`https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/{senderAddress}/requests/{requestId}/deliveryInfos`

See section [1.3](#) for information on obtaining the actual {serverRoot} value for your application.

{senderAddress} must be a URL-escaped value prefixed by *tel:+* or *short:*. Long numbers must be at least 9 digits in length including the country code; short codes at least 3. URL encoding for ‘:’ and ‘+’ are %3A and %2B respectively.

For the GET operation, the *resourceURL* returned in the response to the relevant POST call must be used. It contains the relevant {serverRoot}, {senderAddress} and {requestId} values.

3.2 MT Canned Responses for Predefined Parameter Values

The table below lists the default parameters (address and registration ID) configured in the Sandbox to return the respective expected results for the prescribed operations.

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
1a	tel:+35812345000	POST outbound messaging request with receiptRequest/notifyURL of your application provided in the message body.	Successful response, with the resourceURL including the request ID; and a notification to your notifyURL indicating the deliveryStatus: DeliveredToTerminal
1b	n/a – subsequent to 1a	GET read messaging delivery status, using the resourceURL from a successful response, for the outbound messaging request call made to the Sandbox in scenario 1a.	Successful response with the deliveryStatus: DeliveredToTerminal
2a	tel:+35812345001	POST outbound messaging request with receiptRequest/notifyURL of your application provided in the message body.	Successful response, with the resourceURL including the request ID; and a notification to your notifyURL indicating the deliveryStatus: DeliveryImpossible
2b	n/a – subsequent to 2a	GET read messaging delivery status, using the resourceURL from a successful response, for the outbound messaging request call made to the Sandbox in scenario 2a.	Successful response with the deliveryStatus: DeliveryImpossible
3a	tel:+35812345002	POST outbound messaging request with receiptRequest/notifyURL of your application provided in the message body.	Successful response, with the resourceURL including the request ID.

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
3b	n/a – subsequent to 3a	GET read messaging delivery status, using the resourceURL from a successful response, for the outbound messaging request call made to the Sandbox in scenario 2a.	Successful response with the deliveryStatus: DeliveredToNetwork
4	tel:+35812345003	POST outbound messaging request.	Policy exception: POL3007 Address in Destination Blacklist.
5	tel:+35812345004	POST outbound messaging request.	Policy exception: POL3006 Address not in destination whitelist.
6	tel:+35812345005	POST outbound messaging request.	Policy exception: POL3003 Maximum transactions per interval exceeded.
7	tel:+35812345006	POST outbound messaging request.	Policy exception: POL3004 Exceeded maximum transactions allowed.
8	tel:+35812345007	POST outbound messaging request.	Policy exception: POL0003 Too many addresses specified.
9	tel:+35812345008	POST outbound messaging request.	Policy exception: POL3001 Message length too long.
10	tel:+35812345009	POST outbound messaging request.	Policy exception: POL3002 Message length too short.
11	tel:+35812345010	POST outbound messaging request.	Policy exception: SVC0283 Invalid notification request, as receiptRequest not set.
12	tel:+35812345011	POST outbound messaging request.	Policy exception: POL3009 Address in sender blacklist.

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
13	tel:+35812345012	POST outbound messaging request.	Policy exception: POL3008 Address not in sender whitelist.
14	tel:+35812345013	POST outbound messaging request.	Policy exception: POL3005 HTTP Callback URL is specified, when HTTPS is required.
15a	Any correctly formatted address	POST outbound messaging request, without receiptRequest/notifyURL value in the body.	Successful response.
15b	n/a – subsequent to 15a	GET read messaging delivery status, using the resourceURL from a successful response, for the outbound messaging request call made to the Sandbox in scenario 15a.	Successful response with the deliveryStatus: DeliveryImpossible
16	tel:+35812345015	POST outbound messaging request, including the charging element.	Policy exception: POL3014 Charge currency other than the partner's own not allowed.
17	tel:+35812345016	POST outbound messaging request including the charging element.	Policy exception: POL0254 Charge amount in transaction exceeds max charge amount set.
18	tel:+35812345018	POST outbound messaging request.	Policy exception: POL3010 outboundMessageRequest not allowed.

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
19	f179dc70-ace8-4f35-9b5f-5ddd32bb2f6b	POST, retrieve and delete the inbound messaging request using the registration Id.	Policy exception: POL3015 Polling, InboundMessageRetrieveAndDelete is not allowed.
20	tel: +35812345019	POST outbound messaging request.	Policy exception: POL3103 Subscriber Service no longer active.
21	tel: +35812345020	POST outbound messaging request.	Policy exception: POL3102 Service Barred.
22	tel:+35812345021	POST outbound messaging request.	Policy exception: POL0008 Charging is not supported
23	tel:+35812345022	POST outbound messaging request.	Policy exception: POL1000 User has insufficient credit for transaction.
24	tel: +35812345023	POST outbound messaging request.	Policy exception: POL3101 Subscriber Not Found.
25	tel:+912233331027	POST outbound messaging request.	Policy exception: POL3105 Query/Response request expired.
26	tel:+912233331028	POST outbound messaging request.	Policy exception: POL3105 Push request expired,
27	tel:+912233331029	POST outbound messaging request.	Policy exception: POL3104 - Query/Response service not requested.
28	tel:+912233331030	POST outbound messaging request.	Policy exception: POL3104 Push service not requested,

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Scenario	Parameter	Operation	Expected Result
29	tel:+912233331031	POST outbound messaging request.	<p>Policy exception: POL3011 MMS not allowed.</p> <p>NOTE: Send MMS message to this number in order to get the desired response.</p>
30	tel:+912233331032	POST outbound messaging request.	<p>Policy exception: POL3016 MMS total attachment size exceeds.</p> <p>NOTE: Send MMS message to this number in order to get the desired response.</p>
31	tel:+912233331024	POST subscription request with given number in destinationAddresses field.	<p>Policy exception: POL3201 Invalid destination address,</p>
32	SEA	POST subscription request with given word in destinationAddresses field.	<p>Policy exception: POL3202 Keyword unavailable, SEA.</p>
33	AB,BC,CD	POST subscription request with given words in destinationAddresses field.	<p>Policy exception: POL3205 Too many keywords provided, AB,BC,CD</p>
34	3d321532-2345-4125-d343-8637c56c6c9g	POST deliveryReceiptSubscription request with given word in filterCriteria field.	<p>Policy exception: POL3203 Subscription already exists,</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
35	tel:+91223333103 3	POST outbound messaging request.	<p>Policy exception: POL3206 senderAddress does not match a configured short code for this application</p>
36	tel:+91223333103 4	POST outbound messaging request.	<p>Service exception: SVC0009 Subscriber does not have a mobile certificate in strong authentication service side.</p> <p>Sample error response</p> <pre>{ "requestError": { "serviceException": { "messageld": "SVC0009", "text": "Strong authentication failure for subscriber %1.Reason is %2", "variables": ["tel:+35812345069", "Subscriber does not have a mobile certificate"] } } }</pre>
37	tel:+91223333103 5	POST outbound messaging request.	<p>Service exception: SVC4000 Subscriber authentication fails due to timeout.</p> <p>Sample error response</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345070", "Subscriber authentication fails due to timeout"] } } }</pre>
38	tel:+91223333103 6	POST outbound messaging request.	<p>Service exception: SVC0009 Subscriber rejects strong authentication Sample error response</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC0009", "text": "Strong authentication failure for subscriber %1. Reason is %2", "variables": ["tel:+35812345071", "Subscriber rejects strong authentication"] } } }</pre>
39	tel:+91223333103 7	POST outbound messaging request.	<p>Service exception: SVC4000 Subscriber enters wrong PIN-code for strong authentication request. Sample error response</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345072", "Subscriber has entered wrong PIN-code"] } } }</pre>
408	tel:+91223333103	POST outbound messaging request.	<p>Service exception: SVC4000 Strong Identification endpoint not available</p> <p>Sample error response</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
			<pre>{ "requestError": { "serviceException": { "messageId": "SVC4000", "text": "Strong authentication failure for subscriber %1. Reason is %2.Try again later", "variables": ["tel:+35812345073", "Strong Identification endpoint not available"] } } }</pre>
41	tel:+91223333103 9	POST outbound messaging request.	<p>Policy exception: POL3018 Prepaid subscribers are not allowed for payment act subjected transactions</p> <p>Sample error response</p>

Messaging Sandbox

Scenario	Parameter	Operation	Expected Result
			<pre>{ "requestError": { "policyException": { "messageId": "POL3018", "text": "Subscriber %1 Service Disabled.Reason is %2", "variables": ["tel:+35812345074", "This subscriber type is not allowed for payment act subjected transactions"] } } }</pre>
42	tel:+912233331040	POST outbound messaging request.	<p>Policy exception: POL3017 Purchase limit exceeded for billing period</p> <p>Sample error response</p> <pre>{ "requestError": { "policyException": { "messageId": "POL3017", "text": "Subscriber %1 purchase limit exceeded for billing period", "variables": ["tel:+35812345075"] } } }</pre>

Messaging Sandbox

43	tel:+35812345024	POST outbound messaging request.	<p>Policy exception: POL3020, Sender Name Whitelist</p> <p>Sample Error response:</p> <pre>{ "requestError": { "policyException": { "messageld": "POL3020", "text": "The following policy error occurred: %1. Error code is %2.", "variables": ["Sender Name Whitelist", "3020"] } } }</pre>
44	tel:+35812345025	POST outbound messaging request.	<p>Policy exception: POL3019, Sender Name Blacklist</p> <p>Sample Error response:</p> <pre>{ "requestError": { "policyException": { "messageld": "POL3019", "text": "The following policy error occurred: %1. Error code is %2.", "variables": ["Sender Name Blacklist", "3019"] } } }</pre>
45	tel:+35812345026	POST outbound messaging request.	<p>Policy exception: POL0252, Subscriber tel:+35812345026 exceeded the maximum of mobile payment purchases allowed for given period</p> <p>Sample Error Response:</p> <pre>{ "requestError": { "policyException": { "messageld": "POL0252", "text": "Subscriber %1 exceeded the maximum of mobile payment purchases allowed for given period", "variables": ["tel:+35812345026"] } } }</pre>

Messaging Sandbox

Example JSON of outbound messaging request including charging elements:

```
POST
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/requests HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic
NWEwNmQyYWVlZGQ5ZDIyZGU3NjU4ZjY0YjAxNGFjNTU6XVU4Wk9jN3E=
Accept: application/json
{
  "outboundMessageRequest": {
    "address": ["tel:+35812345000"],
    "senderAddress": "tel: +447900000010",
    "outboundSMSTextMessage": {
      "message": "FN-PUSH-23 JSON - Charge insufficient balance"
    },
    "charging": {
      "description": ["Charge for FN-PUSH-23 Prepaid"],
      "currency": "EUR", "amount": "2.99"},
      "senderName": "Telia"
    }
}
```

Messaging Sandbox

Example JSON of outbound messaging response including charging elements:

```
Response-Code: 201
Content-Type: application/json
Location:
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/requests/b08700b5-dc23-4efa-86b5-08f11ffcbbe7c
{
  "resourceReference":
  { "resourceURL":
    "https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/requests/b08700b5-dc23-4efa-86b5-08f11ffcbbe7c" }
}
```

Example XML of outbound messaging request including charging elements:

```
POST https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/requests
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/xml
Authorization: Basic
NWEwNmQyYWVlZGQ5ZDIyZGU3NjU4ZjY0YjAxNGFjNTU6XVU4Wk9jN3E=
Accept: application/xml
<?xml version="1.0" encoding="UTF-8"?>
<msg:outboundMessageRequest
xmlns:msg="urn:oma:xml:rest:netapi:messaging:1">
<address>tel:+35812345000</address>
<senderAddress>tel: +447900000010</senderAddress>
<senderName>Telia</senderName>
<outboundSMSTextMessage>
<message>Charge for FN-PUSH-23 Prepaid</message>
</outboundSMSTextMessage>
<charging>
<description>Charge for POL-SMS-PREMIUM-03_XML</description>
<currency>EUR</currency>
<amount>2.99</amount>
</charging>
</msg:outboundMessageRequest>
```

Messaging Sandbox

Example XML of outbound messaging response including charging elements:

```
Response-Code: 201
Content-Type: application/json
Location: https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15
590/requests/b4bd5328-4abe-45d1-b241-d2e4ce61451a

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<common:resourceReference
xmlns:common="urn:oma:xml:rest:netapi:common:1">
<resourceURL>https://api.opaali.telia.fi/sandbox/messaging/v1/outbound
/15590/requests/b4bd5328-4abe-45d1-b241-d2e4ce61451a</resourceURL>
</common:resourceReference>
```

Example JSON request of Create Inbound Subscription, Returning the Location of Created

```
POST
https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Bearer b7ff9e3c-65ae-4cd6-a570-412a58a3b39c
Content-Length: 295
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

{"subscription": {
"callbackReference": {
"callbackData": "12345",
"notifyURL": "http://dev33:7080/NGW-NEW-
SIM/partner/sms/notification/listener/tpa"
},
"clientCorrelator": "e00ea48c-b51f-4a9d-9276-667d333c99da",
"criteria": "KEY8",
"destinationAddress": ["1695"],
"useAttachmentURLs": "true"
}}
```

Messaging Sandbox

Example JSON response of Create Inbound Subscription, Returning the Location of Created

```
HTTP/1.1 201 Created
Accept-Encoding: gzip,deflate
Authorization: Bearer b7ff9e3c-65ae-4cd6-a570-412a58a3b39c
Content-Type: application/json
Date: Tue, 09 Aug 2016 05:58:50 GMT
Location:
https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions
/1e009a7a-b287-402b-ac00-6b3cf029f34a
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
Transfer-Encoding: chunked
Server: Operator Service Platform

{
  "resourceReference" : {
    "resourceURL" : "
https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions
/1e009a7a-b287-402b-ac00-6b3cf029f34a"
  }
}
```

Messaging Sandbox

Example XML request of Create Inbound Subscription, Returning the Location of Created

```
POST
https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/xml
Authorization: Bearer b7ff9e3c-65ae-4cd6-a570-412a58a3b39c
Content-Length: 482
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
<?xml version="1.0" encoding="UTF-8"?>
<msg:subscription xmlns:msg="urn:oma:xml:rest:netapi:messaging:1">
<callbackReference>
<notifyURL>http://dev33:7080/NGW-NEW-
SIM/partner/sms/notification/listener/tpa</notifyURL>
<callbackData>12345</callbackData>
</callbackReference>
<destinationAddress>1695</destinationAddress>
<criteria>KEY7</criteria>
<clientCorrelator>2db0e334-7086-4d3e-87df-
858eee51c8f0</clientCorrelator>
<useAttachmentURLs>true</useAttachmentURLs></msg:subscription>
```

Example XML response of Create Inbound Subscription, Returning the Location of Created

```
HTTP/1.1 201 Created
Accept-Encoding: gzip,deflate
Authorization: Bearer b7ff9e3c-65ae-4cd6-a570-412a58a3b39c
Content-Type: application/xml
Date: Tue, 09 Aug 2016 05:56:28 GMT
Location:
https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/subscriptions
/1dbe105c-07ab-4999-9ad0-a220a0f138ec
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
Content-Length: 295
Server: Operator Service Platform
```

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```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<common:resourceReference
xmlns:common="urn:oma:xml:rest:netapi:common:1">

<resourceURL>https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/
subscriptions/1dbe105c-07ab-4999-9ad0-a220a0f138ec</resourceURL>
</common:resourceReference>
```

Example JSON request for Create Outbound Delivery Notification Subscription and Return Location of the Created Resource

```
POST
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Bearer c0852a69-3b64-4679-bf7e-6165dadff7c2
Content-Length: 303
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

{"deliveryReceiptSubscription":
{
  "callbackReference":
  {"notifyURL": "http://dev33:7080/NGW-NEW-
SIM/partner/sms/notification/listener",
  "callbackData": "45678_call back data"
  },
  "filterCriteria": "15590",
  "clientCorrelator": "ded841d6-54c7-4e5e-90a7-630eacf69b9",
```

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Example JSON response for Create Outbound Delivery Notification Subscription and Return Location of the Created Resource

```
HTTP/1.1 201 Created
Content-Type: application/json
Date: Tue, 09 Aug 2016 06:35:47 GMT
Location:
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions HTTP/1.1

Transfer-Encoding: chunked
Server: Operator Service Platform

{
  "resourceReference" :
  {
    "resourceURL" :
    "https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions/ec520833-c2da-4417-82df-f88c46615914"
  }
}
```

Example XML request for Create Outbound Delivery Notification Subscription and Return Location of the Created Resource

```
POST
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/xml
Authorization: Bearer b4a64aa3-aee7-44af-a45c-46b4679bda95
Content-Length: 424
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

<?xml version="1.0" encoding="UTF-8"?>
```

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```
<msg:deliveryReceiptSubscription  
xmlns:msg="urn:oma:xml:rest:netapi:messaging:1">  
<callbackReference>  
<notifyURL>l</notifyURL>  
<callbackData>22222_partner1</callbackData>  
</callbackReference>  
<filterCriteria>15590</filterCriteria>  
<clientCorrelator>b8674b34-09fa-4754-a74b-  
9e8a122c1906</clientCorrelator>
```

Example XML response for Create Outbound Delivery Notification Subscription and Return Location of the Created Resource

```
HTTP/1.1 201 Created  
Content-Type: application/xml  
Date: Tue, 09 Aug 2016 06:33:40 GMT  
Location:  
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions/ec520833-c2da-4417-82df-f88c46615914  
  
Content-Length: 301  
Server: Operator Service Platform  
  
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<common:resourceReference  
xmlns:common="urn:oma:xml:rest:netapi:common:1">  
    <resourceURL>  
        "https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/15590/subscriptions/ec520833-c2da-4417-82df-f88c46615914"  
    </common:resourceReference>
```

Messaging Sandbox

3.3 MO Messaging Sandbox

Messaging Sandbox service on the Operator Service platform works by setting up a notification from the Portal while the application is in Sandbox status, and making an outbound message request from an MSISDN to a short code number.

When OSP receives this request to send a message to a short code, it starts the notification, as though receiving an MO message from the MSISDN for the application. You receive the notification at the specified Callback URL.

The steps to set up a notification from the Opaali Portal, including the steps to register a short code and keyword on the platform, are described in the *Appendix to the OMA Messaging REST API Guide*.

The steps to simulate MO Messaging are as follows:

1. Access the Opaali Portal.
2. Request for a short code to be assigned to your application. See steps described in the *Appendix in the OMA Messaging REST API Guide*.
3. Set up a *Push* notification from the Opaali Portal, using:
 - Short code - any valid short code registered and assigned to the application
 - Keyword – any valid keyword created for the application
 - CallbackURL - your notification listening address, which is mandatory when you select the Push Notification method when setting up the notification

3.3.1 MO SMS Sandbox

After completing configurations described in 3.3 section, send an outbound message request with the following parameters:

- address: the short code set for the notification
- message: the keyword text set for the notification
- senderAddress: any MSISDN - in the URI and in the body

You should receive a success response to the request. Then, you should also receive the notification to your listening address. See examples of the request, response and notification messages below.

An example section of the request:

HTTP Method: POST



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```
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/tel%3A
%2B35812345000/requests
Content-Type: application/json
Accept: application/json
Authorization: Basic
YjE1ZWNkZGJhNGI2OGMxOWNiNzVlYzdjYmEyYjUwOWU6KzRsSTFLN28=
{"outboundMessageRequest": {
"address": ["12345"],
"outboundSMSTextMessage": {
"message": "votea"
},
"senderAddress": "tel: +447900000010"
}
}
```

An example of a success response your application receives:

```
Response-Code: 201
Content-Type: application/json
Location:
https://api.opaali.telia.fi/sandbox/messaging/v1/outbound/tel%3A
%2B35812345000/requests/18ec42e9-d1d2-4731-aa5f-90327a357c8d

{
"resourceReference" : {
"resourceURL" :
"http://api.opaali.telia.fi/sandbox/messaging/v1/outbound/tel%3A
%2B35812345000/requests/4e8b69ba-2b21-4a5b-b2ac-bdf354f2ea2d"
}
```

An example of the message your Callback URL receives, notifying that an MO message has arrived for your application. After sending, the notification is removed from the database.

```
{
"inboundMessageNotification" : {
"inboundMessage" :{
"destinationAddress" : "12345",
```

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```
"senderAddress" : "tel: +447900000010 ",  
"dateTime" : "2015-04-21T08:56:12.585+0000",  
"resourceURL" :  
"https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/registration  
s/24dbff15-986d-485a-82db-b3f4a8053f12/messages/241",  
"messageId" : "241",  
"inboundSMSTextMessage" :  
{ "message" : "votea"  
}  
}  
}  
}  
}
```

3.3.2 MO MMS Sandbox

After competing configurations described in 3.3, send an outbound MMS request with the following parameters:

- address: the short code set for the notification
- subject: the keyword text set for the notification
- senderAddress: MMS MO attachment type is chosen based on the sender address. Therefore please use bellow senderAddress in order to get desired attachment type.

Use <tel:+447900000010> for image/jpeg attachment type

Use <tel:+447900000020> for image/gif attachment type

Use <tel:+447900000030> for video/mp4 attachment type

Use <tel:+447900000040> for text/plain attachment type

You should receive a success response to the request. Then, you should also receive the notification to your listening address. See examples of the request, response and notification messages below.

An example section of Outbound Message Requests (MMS MT):

```
POST https://  
api.opaali.telia.fi/sandbox/messaging/v1/outbound/15591/requests  
HTTP/1.1  
Accept-Encoding: gzip,deflate  
Content-Type: multipart/form-data; boundary="----  
=_Part_0_21567300.1471928208746"
```

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```
MIME-Version: 1.0
Authorization: Bearer 63fadf33-c36e-4d04-a3b0-ed11dcb98e0f
Accept: application/json
Content-Length: 871
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

-----=_Part_0_21567300.1471928208746

Content-Type: application/json; name=mmsSend1.json
Content-Transfer-Encoding: binary
Content-Disposition: form-data; name="mmsSend1.json";
filename="mmsSend1.json"

{
    "outboundMessageRequest": {
        "senderAddress": "tel:+447900000010",
        "address": [
            "15591"
        ],
        "outboundMMSSMessage": {
            "priority": "High",
            "subject": " the keyword text set for the notification "
        }
    }
}

-----=_Part_0_21567300.1471928208746

Content-Type: text/plain; charset=UTF-8; name=readme.txt
Content-Transfer-Encoding: binary
Content-Disposition: form-data; name="readme.txt";
filename="readme.txt"
```

Example for inboundMessageNotification, Notification Format (Notify Client – Request)

```
POST
https://<hostname>:<port>/<application notification endpoint> HTTP/1.1
Content-Type: application/json; charset=UTF-8
```

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```
Accept: application/json
Host: <hostname>:<port>
Transfer-Encoding: chunked

{
  "inboundMessageNotification" : {
    "inboundMessage" : {
      "destinationAddress" : "15591",
      "senderAddress" : "tel:+447900000010",
      "dateTime" : "2015-08-01T09:50:43.000+0000",
      "resourceURL" :
"https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/registration
s/5033233e-7516-496a-be38-c24c07269cb4/messages/1047",
      "messageId" : "1047",
      "inboundMMSMessage" : {
        "subject" : " REG whether ",
        "priority" : "Normal",
        "attachment" : [ {
          "contentType" : "image/jpeg",
          "link" : {
            "rel" : "attachment",
            "href" :
"https://api.opaali.telia.fi/sandbox/messaging/v1/inbound/registration
s/5033233e-7516-496a-be38-c24c07269cb4/messages/1047/attachments/1049"
          }
        }
      }
    }
  }
}
```

There is one notification for every MMS received matching the notification criteria.

4 Refund Sandbox

This section describes the Sandbox feature for Telia Refund service.

4.1 Refund Sandbox URI

You can reach the MT Refund Sandbox service on the Operator Service platform by the following URI and HTTP operation:

Refund Sandbox URI

```
POST https://api.opaali.telia.fi/sandbox/refund/v1/{endUserId}/request
```

{endUserId} must be a URL-escaped value prefixed by *tel:+*. Long numbers must be at least 9 digits in length including the country code. URL encoding for ‘:’ and ‘+’ are %3A and %2B respectively.

4.2 Canned Responses for Predefined Parameter Values

The table below lists the default endUserID configured in the Sandbox to return the respective expected results for the refund operation.

Scenario	endUserId	Operation	Expected Result
1	tel:+35812345080	refundTransaction	Policy exception: POL0014 text: Refund is not supported
2	tel:+35812345081	refundTransaction	Policy exception: POL3014 text: Only Partner's own currency allowed

Refund Sandbox

3	tel:+35812345082	refundTransaction	Policy exception: POL0255 text: The amount exceeds the operator limit for a single refund
4	tel:+35812345083	refundTransaction	Policy exception: POL3101 text: Subscriber %1 is not found. Error code is POL3101
5	Any valid number	refundTransaction	HTTP 201. Refund Operation successful

An example json request where a subscriber is refunded:

```

POST
https://api.opaali.telia.fi/sandbox/refund/v1/tel:+912244441004/requests HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic
NGQ4MDEzMmQ4MDU0ZTdmZjBhYzdhYzJlZmNlNTd1Y2E6X3FMRyxDZjM=
Content-Length: 325
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
Expect: 100-continue

{
    "refundTransaction": {
        "endUserId": "tel:+912244441004",
        "clientCorrelator": "ffbd59fc-0ab2-4be4-8430-6eb9fdabc35",
        "refundAmount": {
            "amount": 10,
            "description": ["Sample text for the refund information"],
            "currency": "EUR" },
        "senderAddress": "15590",
        "vatPercentage": "24"
    }
}

```

Refund Sandbox

An example of a successful response your application should receive:

```
HTTP/1.1 201 Created
content-type: application/json
date: Mon, 05 Nov 2018 09:32:54 GMT
expect: 100-continue
location:
https://api.opaali.telia.fi/sandbox/refund/v1/tel%3A%2B912244441004/re
quest/d0efb540-ecac-4b56-a4be-4bafa87f8861
server: Jetty(7.6.7.v20120910)
Content-Length: 172

{
  "resourceReference" : {
    "resourceURL" :
"https://api.opaali.telia.fi/sandbox/refund/v1/tel%3A%2B912244441004/r
equest/d0efb540-ecac-4b56-a4be-4bafa87f8861"
  }
}
```

An example xml request where a subscriber is refunded:

```
POST
https://api.opaali.telia.fi/sandbox/refund/v1/tel:+912244441004/requs
t HTTP/1.1
Accept-Encoding: gzip,deflate
Authorization: Basic
NGQ4MDEzMmQ4MDU0ZTdmZjBhYzdhYzJlZmNlNTd1Y2E6X3FMRyxDZjM=
content-type: application/xml
accept: application/xml
Content-Length: 486
Host: api.opaali.telia.fi
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
Expect: 100-continue

<?xml version="1.0" encoding="UTF-8"?>
<common:refundTransaction
xmlns:common="urn:oma:xml:rest:netapi:common:1">
<endUserId>tel:+912244441004</endUserId>
```

Refund Sandbox

```
<refundAmount>
<description>Refund Sandbox</description>
<currency>EUR</currency>
<amount>1.2</amount>
</refundAmount>
<senderAddress>15590</senderAddress>
<clientCorrelator>8afe92bd-c12c-4d07-9a82-
bee9fcc3fdd0</clientCorrelator>
<vatPercentage>1</vatPercentage>
</common:refundTransaction>
```

An example of a successful xml response your application should receive:

```
HTTP/1.1 201 Created
accept: application/xml
content-type: application/xml
date: Mon, 05 Nov 2018 10:00:11 GMT
expect: 100-continue
location:
https://api.opaali.telia.fi/sandbox/refund/v1/tel%3A%2B912244441004/re
quest/dec47bc6-d017-49db-a1ff-db889f68b7bc
server: Jetty(7.6.7.v20120910)
Content-Length: 307

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<common:resourceReference
xmlns:common="urn:oma:xml:rest:netapi:common:1">
    <resourceURL>https://api.opaali.telia.fi/sandbox/refund/v1/tel%3A%
2B912244441004/request/dec47bc6-d017-49db-a1ff-
db889f68b7bc</resourceURL>
</common:resourceReference>
```

End of Document