

RESTful Network API for Short Messaging

OMA-TS-REST_NetAPI_ShortMessaging-V1_0-20151023-C – 2015

- HTTP protocol binding (HTTP verbs), based on the similar API defined in [3GPP 29.199-4]
- Message Body Format: JSON, XML and application/x-www-form-urlencoded

//{serverRoot}/smsmessaging/{apiVersion}

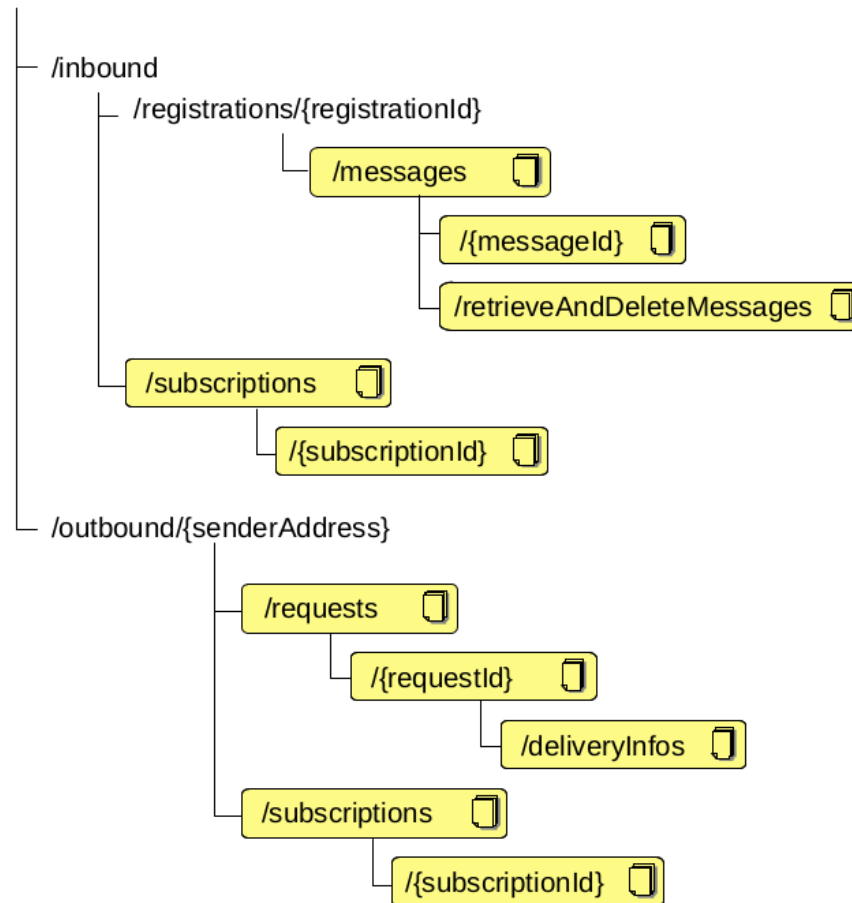
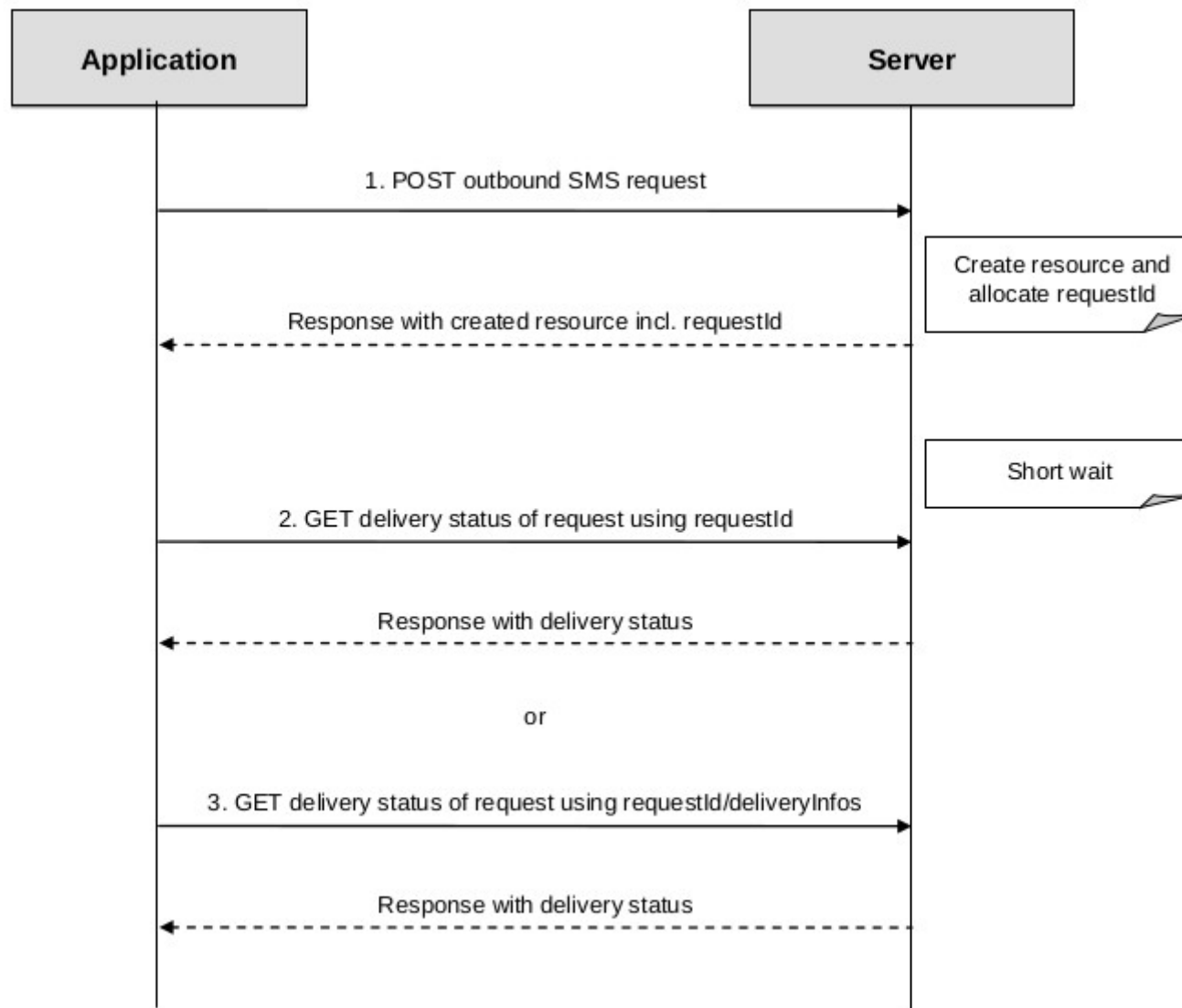
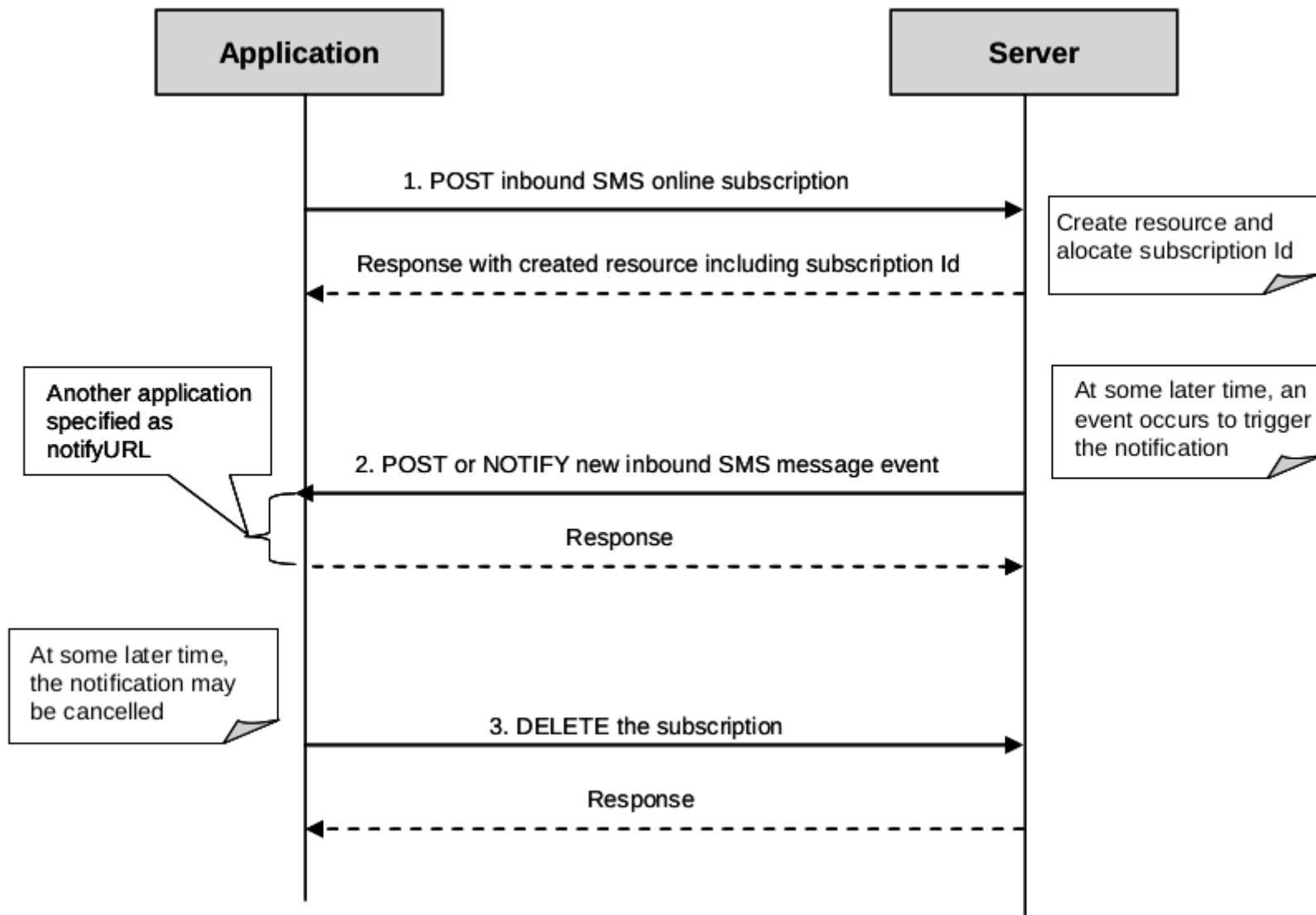


Figure 1: Resource structure defined by this specification

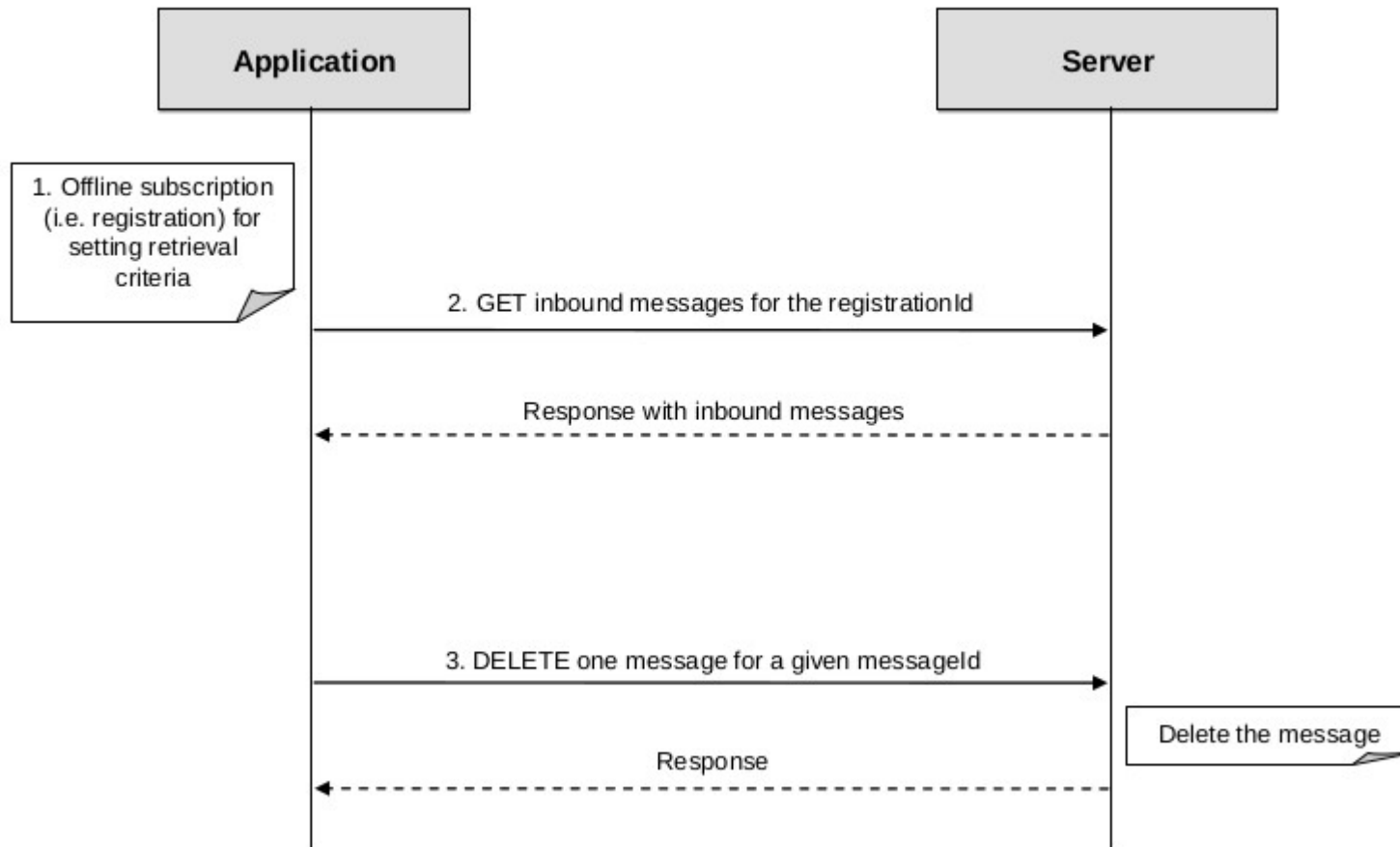
Scenario: Send SMS and check delivery status



Scenario: Inbound SMS message delivery (push mode)



Scenario: Inbound SMS message delivery (polling mode)



draft-becker-core-coap-sms-gprs-06

Mobile-Originating Mobile-Terminating (MO-MT) Scenarios: both CoAP endpoints are in devices in a cellular network

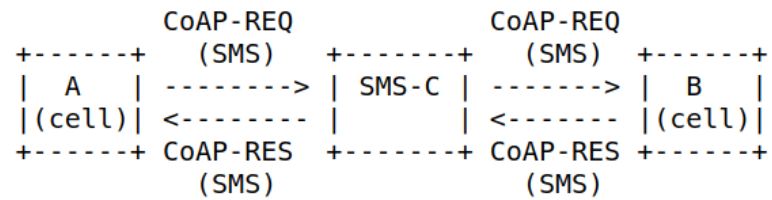


Figure 1: Cellular and Cellular Communication (only SMS-based)

Message Exchange

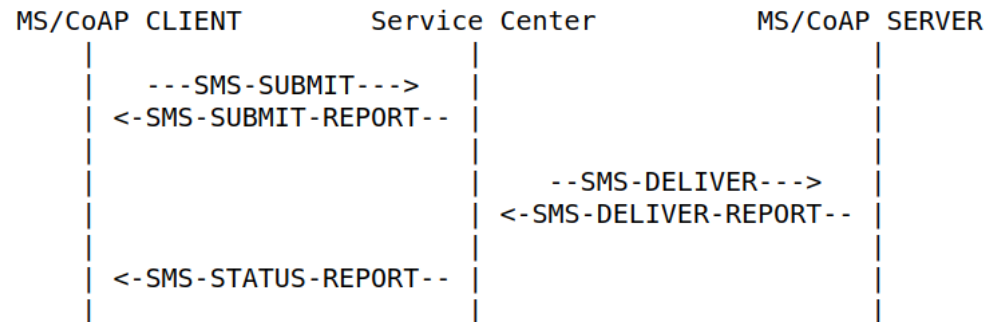
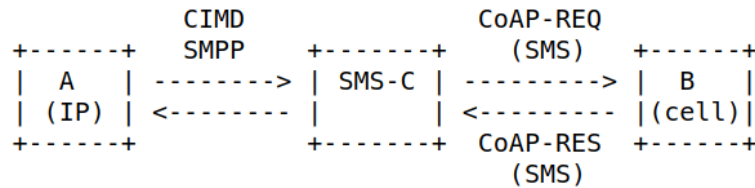


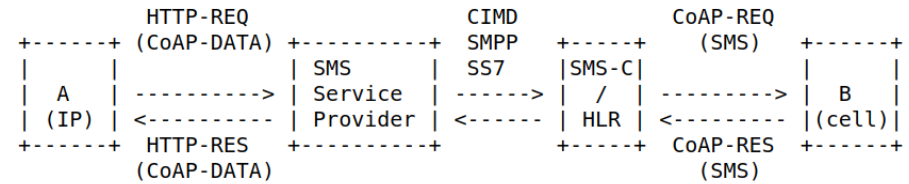
Figure 6: CoAP Messages over SMS

draft-becker-core-coap-sms-gprs-06

Mobile-Terminating (MT) Scenarios: only the CoAP server is in a cellular network

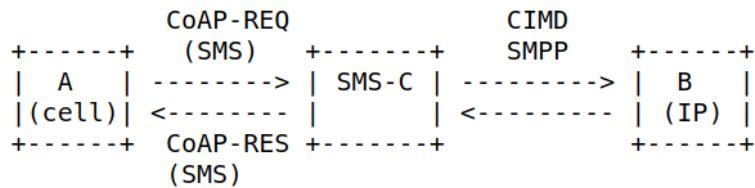


IP and Cellular Communication

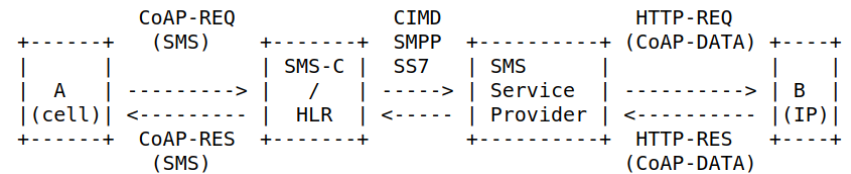


IP and Cellular Communication (using an SMS Service Provider)

Mobile-Originating (MO) Scenarios: where the CoAP client is in the cellular network.



Cellular and IP Communication



IP and Cellular Communication (using an SMS Service Provider)

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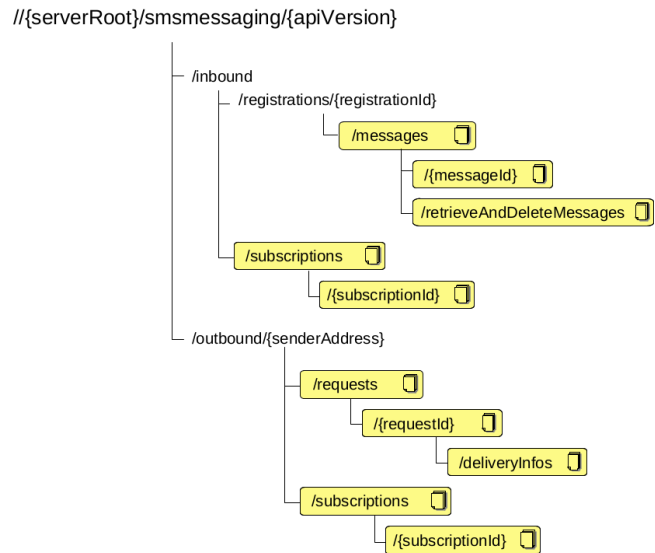


Figure 1: Resource structure defined by this specification

Purpose:

- To allow client to periodically poll for inbound messages (based on a provisioning step configuration)
- To allow client to manage subscriptions for inbound messages
- To allow server to notify client about inbound messages
- To allow client to send messages and obtain delivery status for messages
- To allow client to manage subscriptions for outbound message delivery status
- To allow server to notify client about outbound message delivery status

Purpose: To allow client to periodically poll for inbound messages (based on a provisioning step configuration)

Resource	URL Base URL: <code>http://{serverRoot}/smsg essaging/{apiVersion}</code>	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Inbound SMS message requests for a given registration	/inbound/registrations/{registrationId}/messages Note: Used by clients that periodically poll for incoming messages. Retrieval criteria have to be provisioned in advance.	InboundSMSMessageList	Read one or more messages from gateway storage	no	no	no
Inbound SMS message retrieve and delete using registration	/inbound/registrations/{registrationId}/messages/retrieveAndDeleteMessages	InboundSMSMessageList (used for POST response) InboundSMSMessageRetrieveAndDeleteRequest (used for POST request)	no	no	Pops one or more messages from the gateway storage (removes it if successful)	no

Resource	URL Base URL: <code>http://{serverRoot}/smsg essaging/{apiVersion}</code>	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Inbound SMS message for a given registration	/inbound/registrations/{registrationId}/messages/{messageId}	InboundSMSMessage	Read one message from gateway storage	no	no	Delete one message from gateway storage. Note: Messages are automatically deleted after a certain time.

Purpose: To allow client to manage subscriptions for inbound messages

Resource	URL Base URL: http://{serverRoot}/smsg essaging/{apiVersion}	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Inbound SMS message subscriptions	/inbound/subscriptions	SubscriptionList (used for GET) Subscription (used for POST) common:ResourceReference (optional alternative for POST response)	Read all active subscriptions	no	Create new message subscription	no

Resource	URL Base URL: http://{serverRoot}/smsg essaging/{apiVersion}	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Individual inbound SMS message subscription	/inbound/subscriptions/{su bscriptionId}	Subscription	Read individual subscription	no	no	Removes subscription and stops corresponding message notifications

Resource	URL Base URL: http://{serverRoot}/smsmessaging/{apiVersion}	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Individual inbound SMS message subscription	/inbound/subscriptions/{subscriptionId}	Subscription	Read individual subscription	no	no	Removes subscription and stops corresponding message notifications

Purpose: To allow client to send messages and obtain delivery status for messages

Resource	URL Base URL: http://{serverRoot}/smsg essaging/{apiVersion}	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Outbound SMS message requests	/outbound/{senderAddress} /requests	OutboundSMSMessageRequ estList (used for GET) OutboundSMSMessageRequ est (used for POST) common:ResourceReference (optional alternative for POST response)	Read all pending outbound message requests	no	Create new outbound messages request	no
Outbound SMS message request and delivery status	/outbound/{senderAddress} /requests/{requestId}	OutboundSMSMessageRequ est	Read a certain sent SMS message, including the deliveryStatus	no	no	no
Outbound SMS message delivery status	/outbound/{senderAddress} /requests/{requestId}/delive ryInfos	DeliveryInfoList	Read delivery status for the individual outbound message	no	no	no

Purpose: To allow client to manage subscriptions for outbound message delivery status

Resource	URL Base URL: http://{serverRoot}/smsg essaging/{apiVersion}	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Outbound SMS message delivery notification subscriptions	/outbound/{senderAddress}/subscriptions	DeliveryReceiptSubscriptionList (used for GET) DeliveryReceiptSubscription (used for POST) common:ResourceReference (optional alternative for POST response)	Read all outbound SMS subscriptions	no	Create new delivery receipt subscription	no
Individual outbound SMS message delivery notification subscription	/outbound/{senderAddress}/subscriptions/{subscriptionId}	DeliveryReceiptSubscription	Read an individual outbound SMS subscription	no	no	Remove subscription and stop corresponding delivery receipt notifications

Purpose: To allow server to notify client about outbound message delivery status

Resource	URL <specified by the client>	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Client notification about outbound SMS message delivery status	<specified by the client when outbound request is submitted>	DeliveryInfoNotification	no	no	Notifies client about delivery status of outgoing requests	no

References:

- <http://openmobilealliance.org/release/ShortMessREST/>
- <https://tools.ietf.org/html/draft-becker-core-coap-sms-gprs-06>