

Client API Description

MQTT Client Overview

1. Subscribe to the **Message** topic `amq_topic/json-messages/[mac address]` with **qos1**.
2. After receiving and reading the message the client should send a MQTT acknowledgement to the server.
 - i. Stop here if `statusReady` is `SENT`
3. Send a MessageReport to the **MessageReport** topic `amq_topic/json-reports` with the status `DELIVERED` with **qos1**.
 - i. Stop here if `statusReady` is `DELIVERED`
4. Await user input
5. Send a MessageReport to the **MessageReport** topic `amq_topic/json-reports` with the status `ACKNOWLEDGED` with **qos1**.

Definitions

Status

The message has the following status internally in the Mobilaris Message Adapter:

Status	Description
NOT_SENT	Mobilaris Message Adapter has received the message
SENT	Mobilaris Message Adapter has verified that RabbitMQ has received and stored the message
DELIVERED	Mobilaris Message Adapter has received a MessageReport from the client with the state DELIVERED
ACKNOWLEDGED	Mobilaris Message Adapter has received a MessageReport from the client with the state ACKNOWLEDGED

StatusReady

The sender of the message can set the expected actions of a client with the `statusReady` field:

StatusReady	Description
SENT	No MessageReport expected from the client

StatusReady	Description
DELIVERED	The client is expected to send a MessageReport with state DELIVERED after successfully reading a message
ACKNOWLEDGED	The client is expected to send a MessageReport with state ACKNOWLEDGED after receiving user input

Receiving messages

Topic

Name	Topic	Example
Message Topic	amq_topic/json-messages/[Recipient/to ID]	amq_topic/json-messages/00:00:00:00:00:01

Format

```
{
  "id": 1,
  "groupMessageId": -1,
  "from": {
    "type": "MAC",
    "id": "00:00:00:00:00:00"
  },
  "to": {
    "type": "MAC",
    "id": "00:00:00:00:00:01"
  },
  "contentType": "text/plain",
  "subject": "Test AMQP message",
  "data": [84,69,83,84,32,84,69,83,84,32,84,69,83,84],
  "priority": "NO_PRIORITY",
  "status": "NOT_SENT",
  "statusReady": "ACKNOWLEDGED",
  "errorCode": 0,
  "createdTime": 1622706641452,
  "statusChangeTime": 1622706641452
}
```

Value	Type	Comment
id	64 bit integer	Server generated ID, used in message reports.

Value	Type	Comment
groupMessageId	64 bit integer	Indicates if message is part of a group message with multiple recipients, -1 means not part of group message.
from/type	String	Type of id from sender, valid values [NO_TYPE, USER, MAC, EMAIL, PHONENUMBER]
from/id	String	Representation of the specified ID type of sender
to/type	String	Type of id from receiver, valid values [NO_TYPE, USER, MAC, EMAIL, PHONENUMBER]
to/id	String	Representation of the specified ID type of receiver
contentType	String	The data content type. How to decode data. "text/plain" is the only one currently used, this text is encoded with UTF-8.
subject	String	Subject of message
data	Byte Array	Content of message
priority	String	Priority of message, valid values [NO_PRIORITY, LOW_PRIORITY, MEDIUM_PRIORITY, HIGH_PRIORITY, EMERGENCY_PRIORITY]. Messages from Mobiliris Emergency Support will have EMERGENCY_PRIORITY.
status	String	Status of message, valid values [NO_STATUS, NOT_SENT, SENT, DELIVERED, ACKNOWLEDGED]. See definitions for more info.
statusReady	String	Expected action for message, valid values [NO_STATUS, NOT_SENT, SENT, DELIVERED, ACKNOWLEDGED]. See definitions for more info.
errorCode	32 bit integer	0 means no error, see Error codes for more info.
createdTime	Unix timestamp (ms)	Time of message creation
statusChangeTime	Unix timestamp (ms)	Time of latest status update to message

Error codes

Value	Description
0	OK
1	Internal Error
100	Server publish failed, Rejected by RabbitMQ
101	Timeout when publishing to Rabbit MQ

Sending message reports

Topic

Name	Topic
Message Reports Topic	amq_topic/json-reports

Format

MessageReport JSON format

```
{
  "id": 1,
  "status": "DELIVERED"
}
```

Value	Type	Comment
id	64 bit integer	ID of the message the report is about
status	String	The status of the message, valid values [NO_STATUS, NOT_SENT, SENT, DELIVERED, ACKNOWLEDGED]. See definitions for more info