MQTT DOWNGRADE

By Naveen PS

MQTT Downgrade

MQTT does QoS downgrade, which means that a message will be delivered with the lowest QoS value between the sender and the receiver. The message will be delivered at least once to the broker, which means that it may be delivered more than once.

When the original sender sends the message to the broker with QoS 1, the message may arrive multiple times at the broker, which means the broker could deliver this message to the (QoS 2) subscriber also multiple times. Since the time between the first QoS 1 message and the second can be very long (in case the original sender is offline after the original sending and so the re-delivery happens at a later point of time), exactly-once-guarantees would be very hard to guarantee on the broker side for the subscribers of the message.

In essence, make sure your client can handle duplicates if you can't make sure you only receive QoS 2 messages. You can e.g. use unique identifiers in your application payload for ensuring the message is isn't a duplicate on the business level.

MQTT clients don't connect directly to each other, instead, they subscribe to topics to receive messages.

To subscribe to a topic, the client must first send a SUBSCRIBE request to the broker. The SUBSCRIBE request can include multiple topics. The broker responds to the SUBSCRIBE request with a SUBACK (subscription acknowledged) response. Subscriptions also have a QoS setting which can be used to downgrade the QoS of the published message. In this case, the message is always published at the lower QoS setting.

THE END