

Messaging REST API (Browse)

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IBM® MQ v9.0.4 saw the introduction of the REST API for messaging which provided the POST and DELETE methods for sending and receiving messages respectively. IBM® MQ v9.1.3 extends the API to provide GET methods for browsing messages.

You can use the API to send, receive and browse IBM® MQ messages in text format. Applications can issue an HTTP POST to send a message to IBM® MQ, an HTTP DELETE to destructively get a message from IBM® MQ, or an HTTP GET to browse an individual message or message list from IBM® MQ.

Support is provided for several different HTTP headers which can be used to set or return common message properties.

For further information, see [Messaging using the REST API](#).

Messaging Security

The messaging REST API is fully integrated with IBM® MQ security. Users must be authenticated to the *mqweb* server and must be a member of the existing *MQWebUser* role. The necessary authorizations must also be granted to the destination queues. The *MQWebAdmin* and *MQWebAdminRO* roles are not applicable for the messaging REST API.

Disabling the Messaging REST API

The messaging REST API is enabled by default. For more information about enabling or disabling the messaging REST API, see [Configuring the messaging REST API](#).

Browsing a Message

You can use the HTTP GET method with the following URL resource to browse the next available message which matches any filtering criteria from the associated queue manager and queue.

`/messaging/qmgr/{qmgrName}/queue/{queueName}/message`

The method browses the next available message from the specified queue manager and queue, returning the message body in the HTTP response body. The message must have a format of MQSTR, and is received using the current user context (i.e. the issuer of the request). Incompatible messages are not browsed and an appropriate status code returned to the caller.

For further information about browsing messages with the REST API and the HTTP headers available, see the [GET](#) method in the [REST API resources](#) section of the KnowledgeCenter.

Browsing a Message List

You can use the HTTP GET method with the following URL resource to browse a list of available messages which matches any filtering criteria from the associated queue manager

```
/messaging/qmgr/{qmgrName}/queue/{queueName}/messagelist
```

Applications may iterate through the returned JSON array using the previous GET method (/messaging/qmgr/{qmgrName}/queue/{queueName}/message) to browse individual message content filtered by the message and/or correlation ID.

Examples

By default, a maximum of ten messages are returned in the message summary list. This can be changed by appending the `limit` parameter to the URL.

```
curl -X GET --header 'Accept: application/JSON' --header 'ibm-mq-rest-csrf-  
token: <your-csrf-token>'   
'https://localhost:9443/ibmmq/rest/v1/messaging/qmgr/xa/queue/TESTQ/message  
list?limit=100'
```

Status: 200

```
{["messages":[{"format":"MQSTR","messageId":"414d5120514d414445562020202020202020f8b14a5d250fc902"},"correlationId":"414d5120514d4144455620202020202020e993d45a2228c402"}],{"format":"MQSTR","messageId":"414d5120514d4144455620202020202020f8b14a5d250fc903"},"correlationId":"414d5120514d4144455620202020202020e993d45a2228c403"}],{"format":"MQSTR","messageId":"414d5120514d4144455620202020202020f8b14a5d250fc904"},"correlationId":"414d5120514d4144455620202020202020e993d45a2228c404"}]]}{"Cache-Control": "no-cache, no-store, must-revalidate", "Content-Language": "en-GB", "Content-Length": "394", "Content-Security-Policy": "default-src 'none'; script-src 'self' 'unsafe-inline' 'unsafe-eval'; connect-src 'self'; img-src 'self'; style-src 'self' 'unsafe-inline'; font-src 'self'", "Content-Type": "application/json; charset=utf-8", "Date": "Wed, 07 Aug 2019 11:57:29 GMT", "X-Content-Type-Options": "nosniff", "X-Powered-By": "Servlet/3.1", "X-XSS-Protection": "1;mode=block", "ibm-mq-total-browse-size": "3"}
```

The `ibm-mq-total-browse-size` response header can be used to determine whether the returned summary data contains all available messages. An application can subsequently iterate over the JSON array providing the required filtering parameters.

GET Request (message):

```
curl -X GET --header 'Accept: text/plain' --header 'ibm-mq-rest-csrf-token:
<your-csrf-token>'
'https://localhost:9443/ibmmq/rest/v1/messaging/qmgr/xa/queue/TESTQ/message
?messageId=414d5120514d41444556202020202020f8b14a5d250fc903'
```

GET Response (message):

Status: 200

Body: this is a text message

```
{
"Cache-Control": "no-cache, no-store, must-revalidate",
"Content-Language": "en-GB",
"Content-Length": "22",
"Content-Security-Policy": "default-src 'none'; script-src 'self' 'unsafe-
inline' 'unsafe-eval'; connect-src 'self'; img-src 'self'; style-src 'self'
'unsafe-inline'; font-src 'self'",
"Content-Type": "text/plain; charset=utf-8",
>Date": "Wed, 07 Aug 2019 12:10:18 GMT",
"X-Content-Type-Options": "nosniff",
"X-Powered-By": "Servlet/3.1",
"X-XSS-Protection": "1;mode=block",
"ibm-mq-md-expiry": "unlimited",
"ibm-mq-md-messageId": "414d5120514d414445562020202020f8b14a5d250fc903",
"ibm-mq-md-persistence": "nonPersistent",
"ibm-mq-md-replyTo": "REPLYQ@xa"
}
```