

AMQP - Readers

Asset publishes on AMQP broker

AuthN `<model_name>/<asset_name>` -

User `pass: sha1(<asset_name> + SEED)`

Seed Seed is defined in **miimeti.conf** using variable: `DEVICE_AUTH_HASH_SEED` default SEED value is `miimeti`

AuthZ device 'A' can only publish on its readers, if device 'A' has to publish on readers associated with device 'B'; it has to be declared in **miimeti.conf** using variable

`MIIMETIQ_RELAY_TO_RELATED_ASSET` and they have to be related using `miimeti.types.related_asset`

Required to restrict with the variable in `AMQP_AUTHZ_RESTRICTED_MODELS` in **miimeti.conf** the listed devices if they should only publish and subscribe data of itself or it related assets

AMQP - Readers (cont)

Instrument type required to be connected to AMQP CL exchange is:
`miimeti.types.instrument.connection_layer`

Exchange `cl.<model-name>.<asset name>`

Topic `miimeti.ds.reader.<type>.<model_name>.<device_id>.<reader_path>`

AMQP - Reader - Example

```
DEVICE_AUTH_HASH_SEED = 'miimeti'
authn: u: generator/54282d2405ec -
p: sha1( 54282d2405ec + miimeti)
exchange:
cl.generator.54282d2405ec
topic:
miimeti.ds.reader.integer.generator.54282d2405ec.engine.running_hours
payload:
{
'task': 'async',
'id': '627727b5-1bd1-4fdf-9348-d453dfa17841',
'args':
['generator.54282d2405ec.engine.running_hours 1412525558.01 128'],
'kwargs': {}
}
```

MQTT - Readers

AuthN Same as amqp authn

Topic `miimeti/ds/reader/<type>/<asset_model>/<asset_name>/<reader_path>`

Payload `<asset_model>.<asset_name>.<reader_path> <ts><value>`

MQTT - Readers - Example

AuthN: Same as amqp authn

Topic: `miimeti/ds/reader/integer/generator/my_generator-1/engine/running_hours`

Payload: `DG2014-1P.device-30-Shanghai.engine.oil_temp 1412525558.01 128`

MQTT - Writers - Example

AuthN Same as amqp authn

Topic `miimeti/ds/writer/boolean/DG2014-1P/device-30-Shanghai/generator/power`

Payload `{ "value": true, "correlation_id": "ef1ha567e" }`

MQTT - Writers

AuthN Same as amqp authn

Topic `miimeti/ds/writer/<type>/<asset_model>/<asset_name>/<writer_path>`

Payload `{ "value": <value>, "correlation_id": <uuid.without.dashes> }`

MQTT - Writers - Feedback

AuthN Same as amqp authn

Topic miimetiqls/writer_results/<asset_model>/<asset_name>/<correlation_id>

Payload { "status": "OK", "any": "something" }

MQTT - Writer Feedback - Example

AuthN Same as amqp authn

Topic miimetiqls/devices/generator/my_generator-1/engine/power

Payload { "status": "Failed", "any": "anything" }

AMQP - Writer

Asset subscribes to AMQP broker

Exchange cl.<model-name>.<asset name>

Topic to be subscribed or where to publish: miimetiqls.writer.<type>.<model_name>.<asset_id>.<writer_path>

Payload { 'task': 'async', 'id': <uuid>, 'args': [{"value": <value>}], 'kwargs': {} }

AMQP - Writer - Example

Authn: u: --- / p: ---

Exchange:

Topic: miimetiqls.writer.boolean.6-diesel_generator_schema.5609022ee7e466125aa1c032.generator.power

Payload:

```
{
  'task': 'async',
  'id': <uuid>,
  'args': [{"value": <value>}],
  'kwargs': {}
}
```

Writers Rest Push

User submit a writer value in REST API

URL: http://api.miimetiqlocal/assets/6-diesel_generator_schema/5609022ee7e466125aa1c032/generator/power/send

Required headers Content-Type: application/json
Access-Token: <session token>

Payload '{"value": <value>'

Send writer

```
curl -X POST -H "Access-Token: $TOKEN" -H "Content-Type: application/json" -d '{"value": true}'
http://api.dg.miimetiqlm2mcloudfactory.com/assets/DG2014-1P/55fa029670b5516cc5ca701f/generator/power
```

Payload reporting an OK:

```
{
  "status": "SUCCESS",
  "result": {
    "status": "OK",
    "any_field": "any_value", # not required, customer
  },
  "task_id": <uuid>
}
```

Writers feedback

Asset publish a message to AMQP broker

Exchange celeryresults

Topic correlation_id.replace('-', '')



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Payload reporting a fail

```
{
  "status": "SUCCESS",
  "result": {
    "status": "KO",
    "any_field": "any_value", # not required, customer
  },
  "task_id": <uuid>
}
```

Request a token

```
TOKEN=$(curl -X POST -d '{"username": "admin",
"password": "admin"}' -H 'Content-Type:
application/json'
http://api.dg.miimetiqa2mcloudfactory.com/authn/login | jq .token)
```



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