# RFID Middleware
# API Manual

# V2.0

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|---|---|---|---|
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## Revision history

| Version | Revised contents | Reviser/Revision date |
|---------|------------------|----------------------|
| V1.0 | Origianl version | Yang Zhiqiang /2017.10.09 |
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# Contents

# 1 Instruction

## 1.1 Summary

This manual is used for middleware related interfaces in the Middleware Client development process .

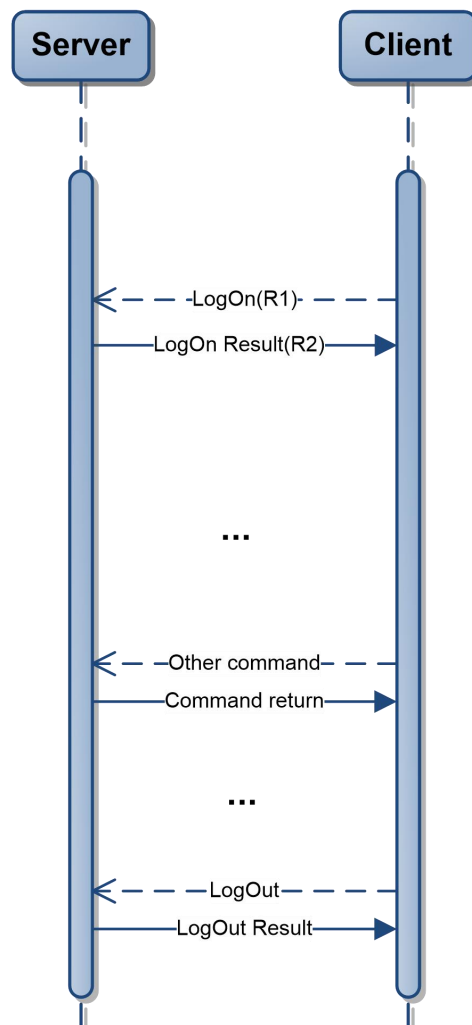## 1.2 Term

### 1.2.1 Middleware client

A software that uses middleware

### 1.2.2 UID

A unique ID generated by the middleware service, 16 bytes long (32 characters). UID is used for client to login main station system.

## 1.3 Interface interaction flow chart

### 1.3.1 Flow chart



## 2 Interface definition

## 2.1 JMSInterface Class

### 2.1.1 Summary

JMSInterface is in Interface Module of com.hopeland.middleware.message Package，encapsulated the JMS interface provided by middleware. It is used to provide JMS interface call between client and Middleware.If interface call failed , it will throw exception .

### 2.1.2  Field description

None

### 2.1.3  Interface specification

#### 2.1.3.1  Structure

| Function | public JMSInterface(String queue) |
|---|---|
| Parameter | queue： JMS Main queue |
| Return value | None |
| Remark | None |

| Function | public WebInterface(String url, String queue) |
|---|---|
| Parameter | url: Middleware Web Service URL， E.g"http://192.168.1.1/MiddleWare/" <br> queue： JMS Main queue |
| Return value | None |
| Remark | None |

#### 2.1.3.2  JMS Configuration

| Function | public boolean resetMainQueue(String queue) |
|---|---|
| Parameter | queue： JMS Main queue |
| Return value | true/false setup succeeded or failed |
| Remark | None |

| Function | public boolean resetURL(String url) |
|---|---|
| Parameter | url: Middleware Web Service URL， E.g"http://192.168.1.1/MiddleWare/" |
| Return value | true/false setup succeeded or failed |
| Remark | None |

#### 2.1.3.3  Login

| Function | public void logon(String uid) |
|---|---|
| Parameter | uid: Client UID |
| Return value | None |
| Remark | The UID used for login must be generated by middleware. |

#### 2.1.3.4  Logout

| Function | public void logout() |
|---|---|
| Parameter | None |
| Return value | None |
| Remark | Exit login status, that is disconnect the middleware service connection . |

### 2.1.3.5 Heartbeat

| | |
|---|---|
| **Function** | public void heart() |
| **Parameter** | None |
| **Return value** | None |
| **Remark** | Connection for maintaining client and middleware service |

### 2.1.3.6 Access device information

| | |
|---|---|
| **Function** | public List<DeviceInfo> getDevice(int id) |
| **Parameter** | id：Device ID，  Get all device information when passing -1 |
| **Return value** | Return device information list |
| **Remark** | The device information is defined by the interface specification |

### 2.1.3.7 Get task information

| | |
|---|---|
| **Function** | public List<TaskInfo> getTask(int id) |
| **Parameter** | id：Task ID,   Get all device information when passing -1 |
| **Return value** | Return device information list |
| **Remark** | The device information is defined by the interface specification |

### 2.1.3.8  Enforcement process

| | |
|---|---|
| **Function** | public void forceProcedure(String task, String procedure) |
| **Parameter** | task: Task name<br>procedure: procedure name |
| **Return value** | None |
| **Remark** | None |

## 3   ReportManager class

### 3.1.1  Summary

ReportManager is in Interface module of com.hopeland.middleware.message

Package，encapsulated the report callback management method. If the interface call

provided by ReportManager failed, it will throw an exception .

### 3.1.2  Field specification

None

### 3.1.3 Interface specification

### 3.1.3.1 Configure URI

| Function | public boolean setURI(String uri) |
|---|---|
| Parameter | uri：JMS Middleware URI， E.g "tcp://10.8.175.44:61616" |
| Return value | None |
| Remark | Configure message middleware URI |

### 3.1.3.2 Register report callback

| Function | public boolean regisertCallBack(String queue, ReportCallBack callBack) |
|---|---|
| Parameter | queue：JMS queue name<br>callBack：Report processing callback |
| Return value | true/false Login succeeded or failed |
| Remark | After the callback of the registration report, if there is a report message in the specified queue, and the callback is called and send report message to the application |

### 3.1.3.3 Remove all report callbacks

| Function | public void removeAllCallBack() |
|---|---|
| Parameter | None |
| Return value | None |
| Remark | None |

## 4 ReportCallBack interface

### 4.1.1 Summary

ReportCallBack is in Interface Module of com.hopeland.middleware.message

Package, is the specified callback interface for the registration report callback.

### 4.1.2 Field description

None

### 4.1.3 Interface specification

### 4.1.3.1 State report processing

| Function | void reportStatus(List<StatusReport> report) |
|---|---|
| Parameter | report：Status report list |
| Return value | None |
| Remark | Call the interface when the state report is in the message queue |

### 4.1.3.2 Message processing

| Function | void reportTag(List<TagReport> report); |
|---|---|
| Parameter | report：Tag report list |
| Return value | None |
| Remark | Call the interface when the message report is in the message queue |