CAPI Calls: How to use

Useful links

Name	Link
CAPI Swagger UI	https://api.ajax.systems/swagger-ui/#/
CAPI Swagger YAML	https://api.ajax.systems/api/swagger.yaml

Sync calls (REST)

CAPI exposes set of REST calls that allow to manage the data.

List of all the latest available calls is provided as Swagger UI page:https://api.ajax.systems/swagger-ui/#/

Also there is Swagger specification in YAML format the can be found here:https://api.ajax.systems/api/swagger.yaml

swagger-codegen

Swagger provides a tool that allows to generate a client for almost any programming language based on provided specification.

Link to the project:https://swagger.io/tools/swagger-codegen/

The command to generate basic Java client may look like:

Generate Java Client

```
swagger-codegen generate -i https://api.ajax.systems/api/swagger.yaml -l
java -o capi-java-client
```

This will generate a new project with different build systems provided - gradle, maven, sbt etc.

Async calls (events and state updates)

SQS

CAPI uses Amazon SQS (Simple Queue Service) for pushing events/updates information to the clients.

Integration queues

Here is a list of available for integration queues.

Queue Name	Region	Description
ajax-<name>-events-demo.fifo	eu-west-1	Events (alarms and other important notifications)
ajax-<name>-updates-demo.fifo	eu-west-1	State updates

Credentials

AWS AccessKey/SecretKey pair is used to access SQS. The values should be provided to the client by email.

> Keys rotation
> Please keep in mind that AccessKey/SecretKey pair may be rotated. New keys will be provided before the old ones get expired.

Subscription

There are few ways to subscribe to the SQS queue using Amazon official client library - Native and JMS.

Official code examples can be found here:

https://docs.aws.amazon.com/sdk-for-java/v1/developer-guide/examples-sqs.html

https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/code-examples.html

Native

There is a Java library that provides all the required functionality for receiving SQS messages from the queue.

1. Import the library to your project:

   pom.xml

   ```
   <!--
   https://mvnrepository.com/artifact/com.amazonaws/aws-java-sdk-sqs
   -->
   <dependency>
       <groupId>com.amazonaws</groupId>
       <artifactId>aws-java-sdk-sqs</artifactId>
       <version>_version_</version>
   </dependency>
   ```

   All the available versions can be found here -https://mvnrepository.com/artifact/com.amazonaws/aws-java-sdk-sqs
2. Use simple code snippet to start receiving messages:

   TestMessageReceiver.java

   ```
   public class TestMessageReceiver {
       public static void main(String[] args) {
           String region = "eu-west-1";
           // TODO: specify correct queue name
           String queueName = "ajax-<name>-events-demo.fifo";
   ```

```
        // Creating credentials from accessKey/secretKey pair
  // Use accessKey/secretKey values provided by Ajax
        BasicAWSCredentials credentials = new BasicAWSCredentials(
                "accessKey",
                "secretKey"
        );

        AWSStaticCredentialsProvider credentialsProvider = new
AWSStaticCredentialsProvider(credentials);
        AmazonSQS sqs = AmazonSQSClientBuilder.standard()
                .withCredentials(credentialsProvider)
                .withRegion(region)
                .build();

        // Getting queueUrl to connect
        String queueUrl = sqs.getQueueUrl(queueName).getQueueUrl();
        while (true) {
            ReceiveMessageRequest receiveRequest = new
ReceiveMessageRequest(queueUrl)
                    .withMaxNumberOfMessages(10)
                    .withWaitTimeSeconds(20);

            List<Message> messages =
sqs.receiveMessage(receiveRequest).getMessages();

            if (messages.isEmpty()) {
                continue;
            }

            System.out.println("Received messages: " + messages);

            // Deleting received and processed messages from the
queue
            List<DeleteMessageBatchRequestEntry> deleteEntries =
messages.stream()
                    .map(message -> new
DeleteMessageBatchRequestEntry(message.getMessageId(),
message.getReceiptHandle()))
                    .collect(Collectors.toList());

            DeleteMessageBatchRequest deleteRequest = new
DeleteMessageBatchRequest(queueUrl)
                    .withEntries(deleteEntries);
            List<BatchResultErrorEntry> failed =
sqs.deleteMessageBatch(deleteRequest).getFailed();

            // Checking if there is any issue with deleting
messages
            if (!failed.isEmpty()) {
                System.out.println("Failed to delete next messages:
```

```
" + failed);
            } else {
                System.out.println("Successfully deleted all the
messages.");
            }
            }
        }
    }
```

3. After running the code you should start seeing messages if any come to the queue.

JMS

Amazon also provides a way to work with SQS using JMS binding.

1. Import the library to the project:

pom.xml

```
<!--
https://mvnrepository.com/artifact/com.amazonaws/amazon-sqs-java-messaging-lib -->
<dependency>
    <groupId>com.amazonaws</groupId>
    <artifactId>amazon-sqs-java-messaging-lib</artifactId>
    <version>_version_</version>
</dependency>
```

All the available versions can be found here -https://mvnrepository.com/artifact/com.amazonaws/amazon-sqs-java-messaging-lib

2. Use simple code snippet to start receiving messages:

TestJmsMessageReceiver.java

```java
public class TestJmsMessageReceiver {
    public static void main(String[] args) throws Exception {
        String region = "eu-west-1";
        // TODO: specify correct queue name
        String queueName = "ajax-<name>-events-demo.fifo";

        // Creating credentials from accessKey/secretKey pair
  // Use accessKey/secretKey values provided by Ajax
        BasicAWSCredentials credentials = new BasicAWSCredentials(
                "accessKey",
                "accessKey"
        );
        AWSStaticCredentialsProvider credentialsProvider = new
AWSStaticCredentialsProvider(credentials);
        SQSConnectionFactory connectionFactory = new
SQSConnectionFactory(
                new ProviderConfiguration(),
                AmazonSQSClientBuilder.standard()
                        .withCredentials(credentialsProvider)
                        .withRegion(region)
        );

        SQSConnection connection =
connectionFactory.createConnection();
        Session session = connection.createSession(false,
Session.AUTO_ACKNOWLEDGE);
        Queue queue = session.createQueue(queueName);
        MessageConsumer consumer = session.createConsumer(queue);

        consumer.setMessageListener(message ->
System.out.println("Received message: " + message));

        connection.start();
    }
}
```

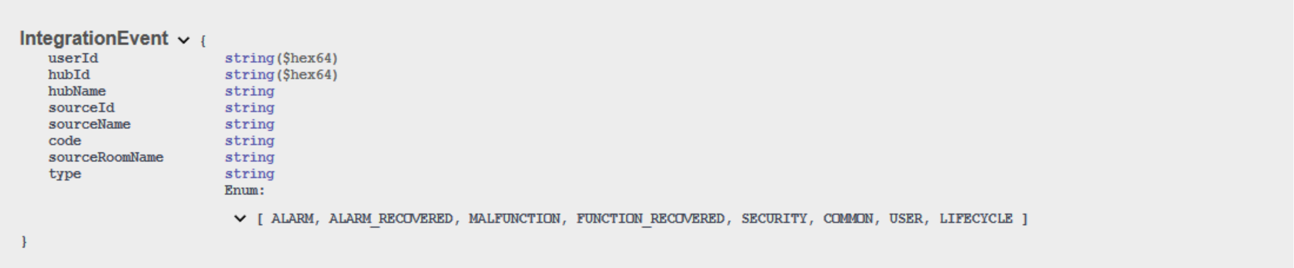
3. After running the code you should start seeing messages if any come to the queue.

Data Transfer Model

Messages in events/updates queues have application/json type. The models for those messages defined inswagger.yaml.

There are two models there:

1. IntegrationEvent - model that is published intoajax-{name}-events-prod.fifo queue.IntegrationEvent is async event with metadata which notify client about alarm/malfunction/arming or other types of events generated by hub that is associated with client service users



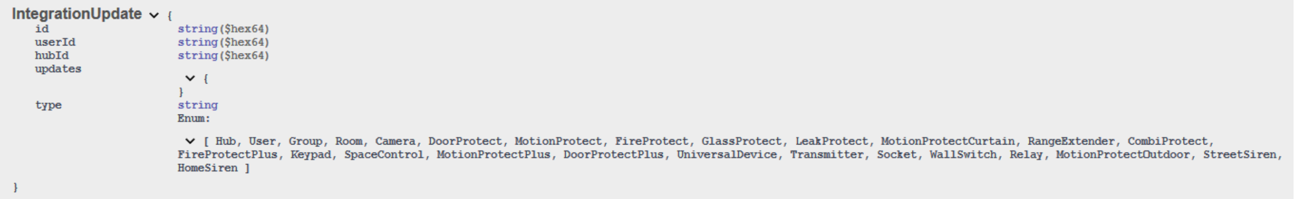
```
IntegrationEvent ⌄ {
   userId              string($hex64)
   hubId               string($hex64)
   hubName             string
   sourceId            string
   sourceName          string
   code                string
   sourceRoomName      string
   type                string
                       Enum:
                        ⌄ [ ALARM, ALARM_RECOVERED, MALFUNCTION, FUNCTION_RECOVERED, SECURITY, COMMON, USER, LIFECYCLE ]
}
```

Where:
userId - ajax user that is associated with your service
hubId - ajax hub that associated with the user
sourceId - id of the event source (device or other ajax entity)
sourceName - user-defined name ofthe event source e.g. "entrace door protect"
sourceRoomName - name of the room which contains source object, like "garage". Can be null if event source is not attached to room (like user or hub)
code - event code like "M_01_20" witch means "Door protect reed open". See APPENDIX A for event codes translation sample.
type - event type. Examples:
 ALARM, ALARM_RECOVERED - like door protect reed was opened/closed
 MALFUNCTION, FUNCTION_RECOVERED - like sensor battery low/ battery ok
 SECURITY - hub/group was armed/disarmed
 COMMON - like walls witch was on/of
 USER - like user was added/removed
 LIFECYCLE - like sensor/room, was added/removed
EXAMPLE

```
{ "userId" : "634FDCAF", "hubId" : "0000AE01", "hubName" :
"0000AE01", "sourceId" : "0000AE01", "sourceName" : "Pajama_Enota",
"type" : "FUNCTION_RECOVERED", "code" : "M_21_05", "sourceRoomName"
: null }
```

This information should be sufficient for your service to send notifications for clients instantly, or enrich/ignore it on your side.

2. IntegrationUpdate -model that is published intoajax-{name}-updates-prod.fifo queue. IntegrationUpdate indicates that hub associated with service user have an update.



```
IntegrationUpdate ⌄ {
   id                  string($hex64)
   userId              string($hex64)
   hubId               string($hex64)
   updates
                        ⌄ {
                       }
   type                string
                       Enum:
                        ⌄ [ Hub, User, Group, Room, Camera, DoorProtect, MotionProtect, FireProtect, GlassProtect, LeakProtect, MotionProtectCurtain, RangeExtender, CombiProtect,
                       FireProtectPlus, Keypad, SpaceControl, MotionProtectPlus, DoorProtectPlus, UniversalDevice, Transmitter, Socket, WallSwitch, Relay, MotionProtectOutdoor, StreetSiren,
                       HomeSiren ]
}
```

Where:
id - id of the updated object (device or other ajax entity)
userId - ajax user that is associated with your service
hubId - ajax hub that is associated with user
type - type of the updated object (hub, sensor, user etc.)
updates - what exactly was updated. structure of single update is field name and value. Like
 name:"new object name"
 or
 temperature:25
EXAMPLE:

```
{"type":"Hub","id":"0000AE01","updates":{"averageNoise":-82},"userI
d":"634FDCAF","hubId":"0000AE01"}
```

You can send this data to user if it's online, or mark that user's hub structure was changed and this will force user client to update all structure using https calls

It means that if there is a client or model classes generated from swagger.yaml then next code snippet helps to understand how to get model object from the message payload:

1. Native

MessageDeserialize

```
ObjectMapper objectMapper = new ObjectMapper()

.configure(DeserializationFeature.FAIL_ON_UNKNOWN_PROPERTIES,
false);

sqs.receiveMessage(receiveRequest).getMessages().forEach(message ->
{
    try {
        IntegrationEvent event =
objectMapper.readValue(message.getBody(), IntegrationEvent.class);
        System.out.println("Received event: " + event);
    } catch (Exception e) {
        System.out.println("Failed to process message " + e);
    }
});
```

2. JMS

JmsMessageDeserialize

```
ObjectMapper objectMapper = new ObjectMapper()

.configure(DeserializationFeature.FAIL_ON_UNKNOWN_PROPERTIES,
false);

consumer.setMessageListener(message -> {
    try {
        if (message instanceof TextMessage) {
            String payload = ((TextMessage) message).getText();
            IntegrationEvent event =
objectMapper.readValue(payload, IntegrationEvent.class);

            System.out.println("Received event: " + event);
        }
    } catch (Exception e) {
        System.out.println("Failed to process message " + e);
    }
});
```

APPENDIX A

Event codes translation

Here is example of event codes translation for EN locale in json format but we can provide translations in big variety of languages and formats.
Placeholders are
%1 - event source object name (e.g. sensor name)
%2 - event room name
%3 - hub name{

```
"M_01_20": "%3$s: open, %1$s in %2$s",
    "M_01_21": "%3$s: closed, %1$s in %2$s",
    "M_01_22": "%3$s: external contact open, %1$s in %2$s",
    "M_01_23": "%3$s: external contact closed, %1$s in %2$s",
    "M_01_24": "%3$s: alarm is detected, roller shutter %1$s in %2$s",
    "M_01_25": "%3$s: connection lost, roller shutter %1$s in %2$s",
    "M_01_26": "%3$s: connection restored, roller shutter %1$s in %2$s",
    "M_02_20": "%3$s: motion detected, %1$s in %2$s",
    "M_02_21": "%3$s: no motion detected, %1$s in %2$s",
    "M_03_20": "%3$s: smoke detected, %1$s in %2$s",
    "M_03_21": "%3$s: no smoke detected, %1$s in %2$s",
    "M_03_22": "%3$s: temperature above the threshold value, %1$s in
%2$s",
    "M_03_23": "%3$s: temperature below the threshold value, %1$s in
%2$s",
    "M_03_24": "%3$s: hardware failure, %1$s in %2$s",
    "M_03_25": "%3$s: reset after hardware failure, %1$s in %2$s",
    "M_03_26": "%3$s: smoke chamber dirty, %1$s in %2$s",
    "M_03_27": "%3$s: smoke chamber clean, %1$s in %2$s",
    "M_03_28": "%3$s: low reserve battery charge, %1$s in %2$s",
    "M_03_29": "%3$s: reserve battery charged, %1$s in %2$s",
    "M_03_2A": "%3$s: rapid temperature rise detected, %1$s in %2$s",
    "M_03_2B": "%3$s: rapid temperature rise stopped, %1$s in %2$s",
    "M_03_2C": "%3$s: faulty detector %1$s in %2$s. Please, contact the
service center listed in the warranty card",
    "M_03_2D": "%3$s: the smoke chamber of %1$s in %2$s is OK",
    "M_04_20": "%3$s: glass break detected, %1$s in %2$s",
    "M_04_21": "%3$s: glass break detected (low frequency), %1$s in
%2$s",
    "M_04_22": "%3$s: external contact open, %1$s in %2$s",
    "M_04_23": "%3$s: external contact closed, %1$s in %2$s",
    "M_05_20": "%3$s: water leak detected, %1$s in %2$s",
    "M_05_21": "%3$s: no water leak detected, %1$s in %2$s",
    "M_05_22": "%3$s: %1$s moved in %2$s",
    "M_06_20": "%3$s: motion detected, %1$s in %2$s",
    "M_06_22": "%3$s: masking detected, check the %1$s in %2$s",
    "M_06_23": "%3$s: masking is not detected, %1$s in %2$s",
    "M_07_10": "Updaiting your %1$s firmware",
    "M_07_11": "The firmware of your %1$s has updated successfully",
    "M_07_20": "%3$s: external power failure, %1$s in %2$s",
    "M_07_21": "%3$s: external power restored, %1$s in %2$s",
    "M_08_20": "%3$s: motion detected, %1$s in %2$s",
    "M_08_21": "%3$s: glass break detected, %1$s in %2$s",
    "M_09_20": "%3$s: smoke detected, %1$s in %2$s",
    "M_09_21": "%3$s: no smoke detected, %1$s in %2$s",
    "M_09_22": "%3$s: temperature above the threshold value, %1$s in
%2$s",
    "M_09_23": "%3$s: temperature below the threshold value, %1$s in
%2$s",
    "M_09_24": "%3$s: hardware failure, %1$s in %2$s",
    "M_09_25": "%3$s: reset after hardware failure, %1$s in %2$s",
    "M_09_26": "%3$s: smoke chamber dirty, %1$s in %2$s",
    "M_09_27": "%3$s: smoke chamber clean, %1$s in %2$s",
    "M_09_28": "%3$s: reserve battery low, %1$s in %2$s",
    "M_09_29": "%3$s: reserve battery charged, %1$s in %2$s",
    "M_09_2A": "%3$s: rapid temperature rise detected, %1$s in %2$s",
    "M_09_2B": "%3$s: rapid temperature rise stopped, %1$s in %2$s",
    "M_09_2C": "%3$s: faulty detector %1$s in %2$s. Please, contact the
service center listed in the warranty card",
    "M_09_2D": "%3$s: the smoke chamber of %1$s in %2$s is OK",
    "M_09_30": "%3$s: Carbon monoxide () detected, %1$s in %2$s",
    "M_09_31": "%3$s: Carbon monoxide (CO) level is OK, %1$s in %2$s",
    "M_0A_20": "%3$s: Disarmed using %1$s",
    "M_0A_21": "%3$s: Armed using %1$s",
    "M_0A_22": "%3$s: Night mode activated using %1$s",
    "M_0A_23": "%3$s: Panic button pressed on %1$s",
    "M_0A_24": "%3$s: unsuccessful arming attempt using %1$s",
    "M_0A_25": "%3$s: unsuccessful Night mode activation attempt using
%1$s",
    "M_0A_26": "%3$s: the system has been armed with malfunctions using
%1$s",
    "M_0A_27": "%3$s: Night mode activated with malfunctions using
%1$s",
    "M_0A_28": "%3$s: Night mode deactivated using %1$s",
    "M_0A_29": "%3$s: %2$s has been disarmed using %1$s",
    "M_0A_2A": "%3$s: %2$s has been armed using %1$s",
    "M_0A_2D": "%3$s: %2$s has been armed with malfunctions using %1$s",
    "M_0A_2E": "%3$s: %2$s unsuccessful arming attempt using %1$s",
    "M_0A_2F": "%3$s: %2$s has been disarmed using %1$s",
    "M_0A_30": "%3$s: Attempt to break the password on %1$s",
    "M_0A_31": "%3$s: Disarmed using %1$s",
    "M_0A_32": "%3$s: Night mode deactivated using %1$s",
    "M_0B_02": "%3$s: %1$s battery charged",
    "M_0B_03": "%3$s: low battery level in %1$s",
    "M_0B_20": "%3$s: Disarmed using %1$s",
    "M_0B_21": "%3$s: Armed using %1$s",
    "M_0B_22": "%3$s: Night mode activated using %1$s",
    "M_0B_23": "%3$s: Panic button pressed on %1$s",
    "M_0B_24": "%3$s: unsuccessful arming attempt using %1$s",
    "M_0B_25": "%3$s: unsuccessful Night mode activation attempt using
%1$s",
    "M_0B_26": "%3$s: the system has been armed with malfunctions using
```

```
%1$s",
    "M_0B_27": "%3$s: Night mode activated with malfunctions using
%1$s",
    "M_0B_28": "%3$s: Night mode deactivated using %1$s",
    "M_0B_29": "%3$s: %2$s has been disarmed using %1$s",
    "M_0B_2A": "%3$s: %2$s has been armed using %1$s",
    "M_0B_2D": "%3$s: %2$s has been armed with malfunctions using %1$s",
    "M_0B_2E": "%3$s: %2$s unsuccessful arming attempt using %1$s",
    "M_0D_20": "%3$s: motion detected, %1$s in %2$s",
    "M_0E_20": "%3$s: motion detected, %1$s in %2$s",
    "M_0E_21": "%3$s: no motion detected, %1$s in %2$s",
    "M_0F_20": "%3$s: open, %1$s in %2$s",
    "M_0F_21": "%3$s: closed, %1$s in %2$s",
    "M_0F_22": "%3$s: external contact open, %1$s in %2$s",
    "M_0F_23": "%3$s: external contact closed, %1$s in %2$s",
    "M_0F_24": "%3$s: alarm is detected, roller shutter %1$s in %2$s",
    "M_0F_25": "%3$s: connection lost, roller shutter %1$s in %2$s",
    "M_0F_26": "%3$s: connection restored, roller shutter %1$s in %2$s",
    "M_0F_30": "%3$s: shock detected by %1$s in %2$s",
    "M_0F_31": "%3$s: tilt detected by %1$s in %2$s",
    "M_0F_32": "%3$s: the accelerometer of the %1$s in %2$s room doesn't
work properly. Please, contact the service center listed in the warranty
card",
    "M_0F_33": "%3$s: the accelerometer of the %1$s in %2$s is OK",
    "M_11_20": "%3$s: alarm is detected, %1$s in %2$s",
    "M_11_21": "%3$s: recovered after alarm, %1$s in %2$s",
    "M_11_22": "%3$s: alarm is detected, %1$s in %2$s",
    "M_11_26": "%3$s: %1$s was moved in %2$s",
    "M_12_20": "%3$s: %1$s disabled in %2$s, overheated",
    "M_12_21": "%3$s: Temperature is OK, %1$s in %2$s",
    "M_12_22": "%3$s: %1$s enabled in %2$s",
    "M_12_23": "%3$s: %1$s disabled in %2$s",
    "M_12_28": "%3$s: %1$s disabled in %2$s, maximum voltage threshold
reached",
    "M_12_29": "%3$s: %1$s disabled in %2$s, minimum voltage threshold
reached",
    "M_12_2A": "%3$s: Voltage is OK, %1$s in %2$s",
    "M_12_2C": "%3$s: Relay for %1$s in %2$s is not responding. Please
run a signal strength test.",
    "M_13_20": "%3$s: motion detected, %1$s in %2$s",
    "M_13_22": "%3$s: masking detected, check the %1$s in %2$s",
    "M_13_23": "%3$s: masking is not detected, %1$s in %2$s",
    "M_13_24": "%3$s: external power failure, %1$s in %2$s",
    "M_13_25": "%3$s: external power restored, %1$s in %2$s",
    "M_14_20": "%3$s: %1$s was moved in %2$s",
    "M_14_21": "%3$s: external power failure, %1$s in %2$s",
    "M_14_22": "%3$s: external power restored, %1$s in %2$s",
    "M_1E_20": "%3$s: %1$s disabled in %2$s, overheated",
    "M_1E_21": "%3$s: Temperature is OK, %1$s in %2$s",
    "M_1E_22": "%3$s: %1$s enabled in %2$s",
    "M_1E_23": "%3$s: %1$s disabled in %2$s",
    "M_1E_24": "%3$s: %1$s disabled in %2$s, short circuit",
    "M_1E_25": "%3$s: %1$s disabled in %2$s, maximum current threshold
reached",
    "M_1E_26": "%3$s: %1$s disabled in %2$s, user-defined maximum
current threshold reached",
    "M_1E_27": "%3$s: Power usage is OK, %1$s in %2$s",
    "M_1E_28": "%3$s: %1$s disabled in %2$s, maximum voltage threshold
reached",
    "M_1E_29": "%3$s: %1$s disabled in %2$s, minimum voltage threshold
reached",
    "M_1E_2A": "%3$s: Voltage is OK, %1$s in %2$s",
    "M_1E_2C": "%3$s: Socket for %1$s in %2$s is not responding. Please
run a signal strength test.",
    "M_1F_20": "%3$s: %1$s disabled in %2$s, overheated",
    "M_1F_21": "%3$s: Temperature is OK, %1$s in %2$s",
    "M_1F_22": "%3$s: %1$s enabled in %2$s",
    "M_1F_23": "%3$s: %1$s disabled in %2$s",
    "M_1F_24": "%3$s: %1$s in %2$s hasn’t switched off. The relay
stopped functioning. Disconnect electrical appliances and replace the
WallSwitch.",
    "M_1F_25": "%3$s: %1$s disabled in %2$s, maximum current threshold
reached",
    "M_1F_26": "%3$s: %1$s disabled in %2$s, user-defined maximum
current threshold reached",
    "M_1F_27": "%3$s: Power usage is OK, %1$s in %2$s",
    "M_1F_28": "%3$s: %1$s disabled in %2$s, maximum voltage threshold
reached",
    "M_1F_29": "%3$s: %1$s disabled in %2$s, minimum voltage threshold
reached",
    "M_1F_2A": "%3$s: Voltage is OK, %1$s in %2$s",
    "M_1F_2C": "%3$s: WallSwitch for %1$s in %2$s is not responding.
Please run a signal strength test.",
    "M_21_00": "%1$s: external power failure",
    "M_21_01": "%1$s: external power restored",
    "M_21_02": "%1$s: battery low",
    "M_21_03": "%1$s: battery charged",
    "M_21_04": "%1$s: lid open",
    "M_21_05": "%1$s: lid closed",
    "M_21_06": "%1$s: GSM signal level poor",
    "M_21_07": "%1$s: GSM signal level OK",
    "M_21_08": "%1$s: radio-frequency interference level is high",
    "M_21_09": "%1$s: radio-frequency interference level is OK",
    "M_21_0A": "%1$s: Hub is offline. Check mobile signal strength and
the Ethernet port",
    "M_21_0B": "%1$s: Hub is online again",
    "M_21_0C": "%1$s: turned off",
    "M_21_10": "%1$s: updating firmware...",
    "M_21_11": "%1$s: firmware updated",
    "M_21_12": "%1$s: Malfunction!",
    "M_21_13": "%1$s: connection to the monitoring station is lost.
Check mobile signal strength and the Ethernet port on the Hub",
    "M_22_00": "%3$s: Disarmed by %1$s",
    "M_22_01": "%3$s: Armed by %1$s",
    "M_22_02": "%3$s: Night mode activated by %1$s",
    "M_22_03": "%3$s: %1$s pressed the panic button",
    "M_22_07": "%3$s: new user %1$s has been added",
    "M_22_08": "%3$s: user %1$s has been removed",
    "M_22_09": "%2$s has allowed access to the hub settings to %1$s
(%4$s) for %3$s hours",
    "M_22_0A": "%2$s has allowed a permanent access to the hub settings
to %1$s (%4$s)",
    "M_22_0B": "%2$s has denied access to the hub settings to %1$s
(%4$s)",
    "M_22_0D": "PRO user has requested access to the hub settings",
    "M_22_24": "%3$s: unsuccessful arming attempt by %1$s",
    "M_22_25": "%3$s: unsuccessful Night mode activation attempt by
%1$s",
    "M_22_26": "%3$s: the system has been armed with malfunctions by
%1$s",
    "M_22_27": "%3$s: Night mode activated with malfunctions by %1$s",
    "M_22_28": "%3$s: Night mode deactivated by %1$s",
    "M_22_29": "%3$s: %2$s has been disarmed by %1$s",
    "M_22_2A": "%3$s: %2$s has been armed by %1$s",
    "M_22_2D": "%3$s: %2$s has been armed with malfunctions by %1$s",
    "M_22_2E": "%3$s: %2$s unsuccessful arming attempt by %1$s",
    "M_22_2F": "%3$s: %2$s has been disarmed by %1$s",
    "M_22_31": "%3$s: Disarmed by %1$s",
    "M_22_32": "%3$s: Night mode deactivated by %1$s",
    "M_23_08": "%3$s: new group %1$s has been added",
    "M_23_09": "%3$s: group %1$s has been removed",
    "M_24_08": "%3$s: room %2$s has been added",
    "M_24_09": "%3$s: room %2$s has been removed",
    "M_25_08": "%3$s: new camera %1$s has been added",
    "M_25_09": "%3$s: camera %1$s has been removed",
    "M_26_00": "%3$s: lid open, %1$s in %2$s",
    "M_26_01": "%3$s: lid closed, %1$s in %2$s",
    "M_26_20": "%3$s: alarm is detected, %1$s in %2$s",
    "M_26_21": "%3$s: recovered after alarm, %1$s in %2$s",
    "M_26_22": "%3$s: alarm is detected, %1$s in %2$s",
    "M_26_23": "%3$s: external contact is shorted out, %1$s in %2$s",
    "M_26_24": "%3$s: external contact is OK, %1$s in %2$s",
    "M_ABS_00": "%3$s: lid open, %1$s in %2$s",
    "M_ABS_01": "%3$s: lid closed, %1$s in %2$s",
    "M_ABS_02": "%3$s: battery charged, %1$s in %2$s",
    "M_ABS_03": "%3$s: low battery, %1$s in %2$s",
    "M_ABS_04": "%3$s: connection lost, %1$s in %2$s",
    "M_ABS_05": "%3$s: connection restored, %1$s in %2$s",
    "M_ABS_06": "%3$s: synchronization failure, %1$s in %2$s",
    "M_ABS_07": "%3$s: synchronization OK, %1$s in %2$s",
    "M_ABS_08": "%3$s: %1$s has been added successfully",
    "M_ABS_09": "%3$s: %1$s has been removed",
    "M_ABS_10": "Updaiting your %1$s firmware",
    "M_ABS_11": "The firmware of your %1$s has updated successfully",
    "M_ABS_12": "%3$s: %1$s in %2$s has detected a malfunction",
    "M_ABS_13": "%1$s turned off"
}
```