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UPR Scalenics を使用する

IoT firmware ¹⁾ を利用し、UPR Scalenics に接続してみます。



準備


開発者アカウントの取得


[オンラインサインアップ](#) のページで登録し、開発者アカウントを取得します。

設定

Scalenics の設定

[Management Console](#) から、さきほど取得した開発者アカウントでログインします。

 **Scalenics**

 connected with **SORACOM**

×

Management Console

SC00

.....

➡ Sign in

Console V1

Sign up

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Cancel

ログインしました。

The screenshot shows the Scalenics Management Console interface. The top header is green with the Scalenics logo, 'Management Console', and user information 'Get Help' and 'Logged in as: SCC'. The left sidebar contains navigation links: DASHBOARD, DEVICE, CHANNEL, STREAM, EVENT, SIMULATOR, PUBLISH, and ADMIN PROFILE. The main content area is titled 'Dashboard' and displays four summary cards: Device Registry (Usage/Max: 0/3, 0 Unmapped), Storage (Usage/Max: 0M/10M, 93 Avg. Obj Size(bytes)), Channels (Usage: 0, 9 Count(records)), and Events (Usage/Max: 0/3, 0 Unmapped). Below these cards is a 'Notification' section with tabs for Scheduled Maintenance, API Release, and Emergency Notification, and a message 'No maintenance plan scheduled.' The footer shows 'Copyright ©2015 SENSINICS,LLC' and a URL 'https://api.scalenics.io/console/console.php#'.

Scalenics Management Console

Get Help Logged in as: SCC

Last signed in: Thu Apr 20 10:04:46 2017

DASHBOARD

Dashboard

Device Registry

Usage/Max:

0 / 3

Detail:

Unmapped: 0

Storage

Usage/Max:

0M / 10M

Detail:

Avg. Obj Size(bytes): 93

Channels

Usage:

0

Detail:

Count(records): 9

Events

Usage/Max:

0 / 3

Detail:

Unmapped: 0

Notification:

Scheduled Maintenance API Release Emergency Notification

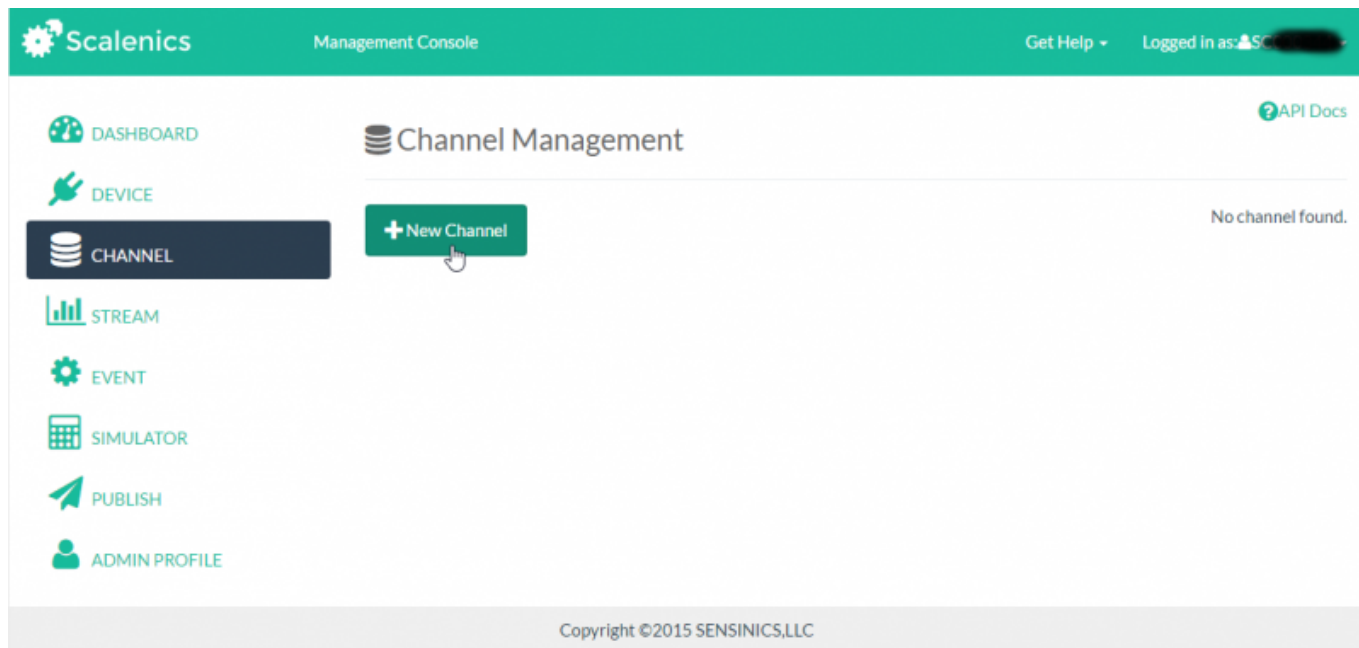
No maintenance plan scheduled.

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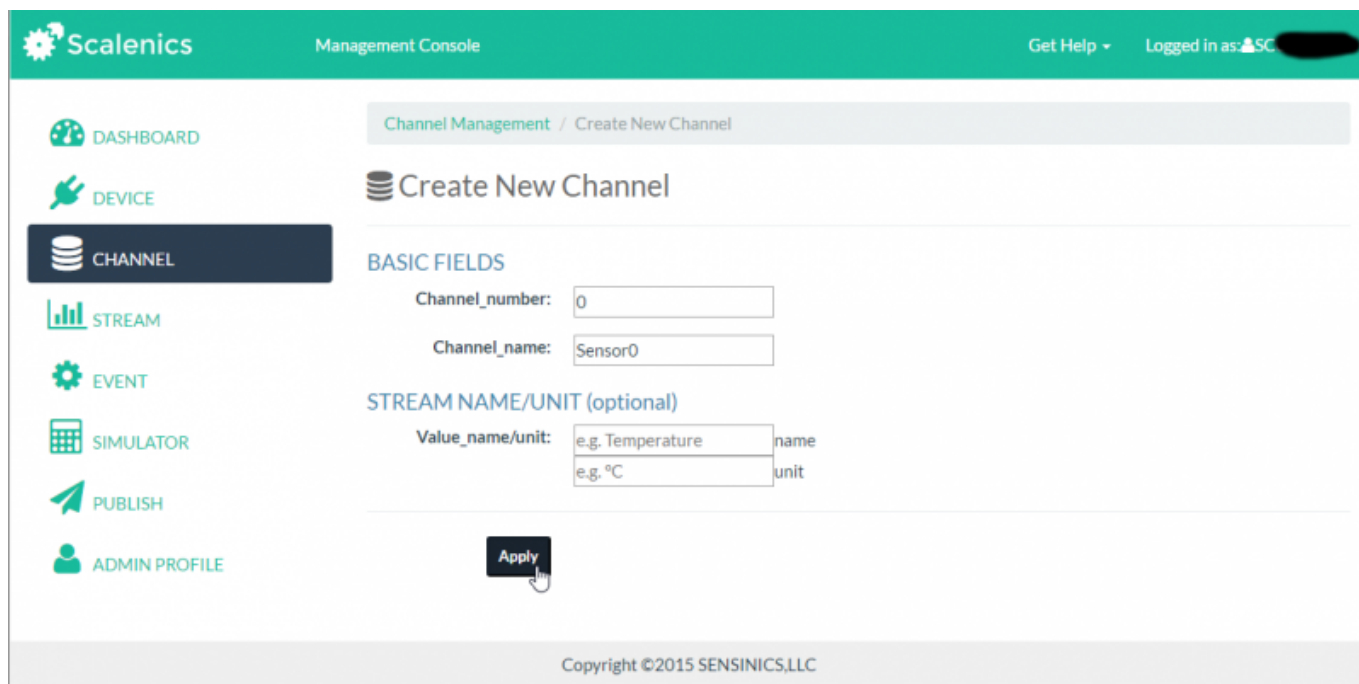
<https://api.scalenics.io/console/console.php#>

チャネルの作成

まず、デバイスのデータストリームを蓄積する時系列データベースである **チャネル** を作成します。



The screenshot shows the 'Channel Management' page in the Scalenics Management Console. The left sidebar contains navigation links: DASHBOARD, DEVICE, CHANNEL (selected), STREAM, EVENT, SIMULATOR, PUBLISH, and ADMIN PROFILE. The main content area has a '+ New Channel' button and the text 'No channel found.' The top header includes the Scalenics logo, 'Management Console', 'Get Help', and 'Logged in as: SC'. The footer contains the copyright notice 'Copyright ©2015 SENSINICS,LLC'.



The screenshot shows the 'Create New Channel' page in the Scalenics Management Console. The left sidebar is the same as the previous page. The main content area has a breadcrumb 'Channel Management / Create New Channel' and the title 'Create New Channel'. Below the title, there are two sections: 'BASIC FIELDS' and 'STREAM NAME/UNIT (optional)'. The 'BASIC FIELDS' section contains two input fields: 'Channel_number' with the value '0' and 'Channel_name' with the value 'Sensor0'. The 'STREAM NAME/UNIT (optional)' section contains a table with two rows: 'Value_name/unit' with 'e.g. Temperature' and 'name', and 'Value_name/unit' with 'e.g. °C' and 'unit'. At the bottom of the form is an 'Apply' button. The footer contains the copyright notice 'Copyright ©2015 SENSINICS,LLC'.

BASIC FIELDS	
Channel_number:	0
Channel_name:	Sensor0

STREAM NAME/UNIT (optional)	
Value_name/unit:	e.g. Temperature name
Value_name/unit:	e.g. °C unit

Channel_number を 0, Channel_name を “Sensor0” として作成してみます。

The screenshot shows the Scalenics Management Console interface. The top header is green with the Scalenics logo, 'Management Console', 'Get Help', and 'Logged in as: SC'. The left sidebar contains navigation links: DASHBOARD, DEVICE, CHANNEL (selected), STREAM, EVENT, SIMULATOR, PUBLISH, and ADMIN PROFILE. The main content area is titled 'Channel Management' and features a '+ New Channel' button. Below the button is a table with columns: CHANNEL, CHANNEL_NAME, STREAM, and LAST_UPDATE. The table contains one row with the value 'Sensor0' under CHANNEL_NAME. The bottom of the page has a footer: 'Copyright ©2015 SENSINICS,LLC'.

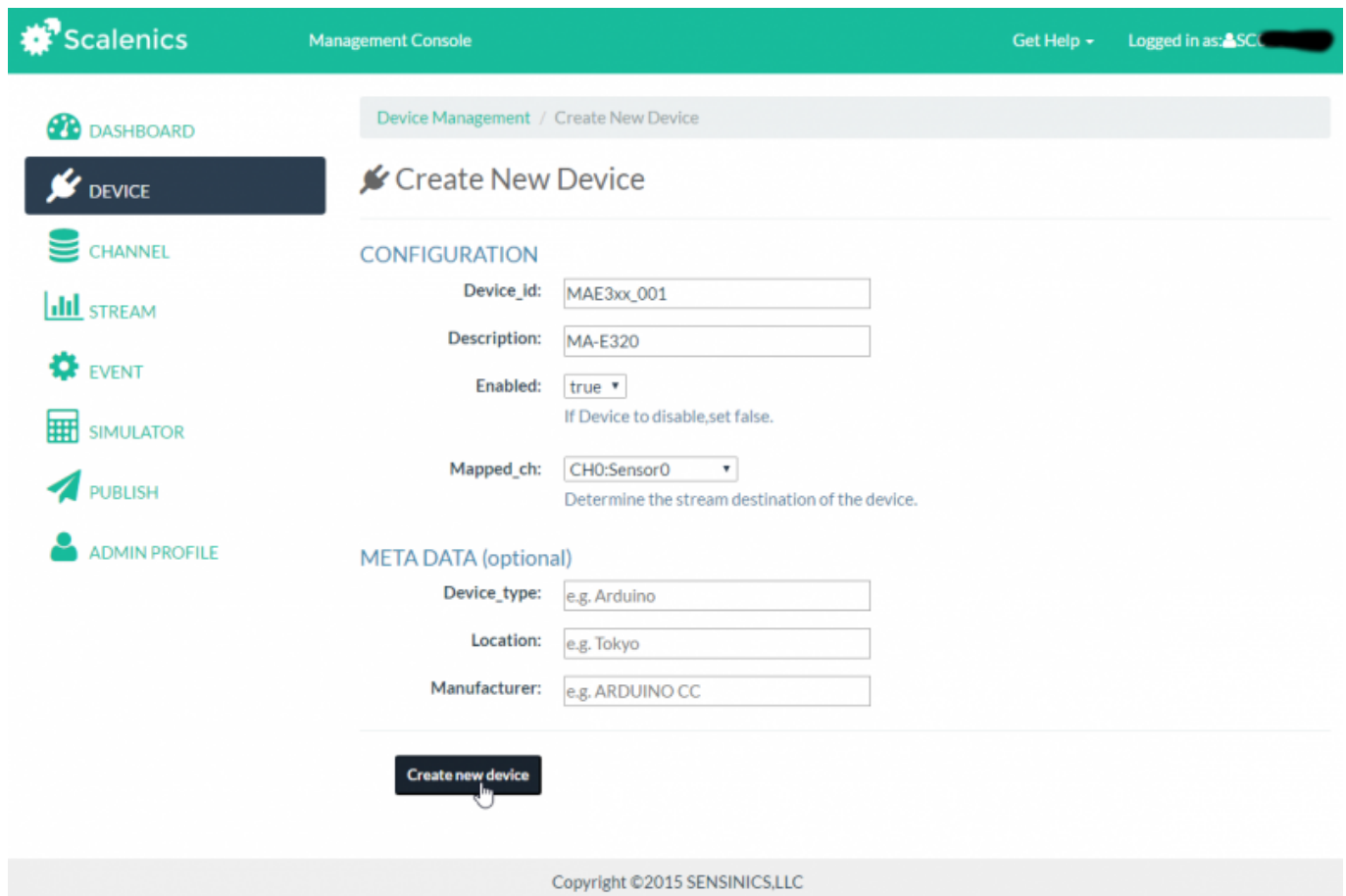
CHANNEL	CHANNEL_NAME	STREAM	LAST_UPDATE
0	Sensor0	-	Not arrived

作成されました。

デバイスの作成

デバイスを作成します。

The screenshot shows the Scalenics Management Console interface with the 'Device Management' page selected. The top header is green with the Scalenics logo, 'Management Console', 'Get Help', and 'Logged in as: SC'. The left sidebar contains navigation links: DASHBOARD, DEVICE (selected), CHANNEL, STREAM, EVENT, SIMULATOR, PUBLISH, and ADMIN PROFILE. The main content area is titled 'Device Management' and features a '+ New Device' button. Below the button, it says 'No Device found.' The bottom of the page has a footer: 'Copyright ©2015 SENSINICS,LLC'.



Scalenics Management Console

Get Help ▾ Logged in as: SC [REDACTED]

DASHBOARD

DEVICE

CHANNEL

STREAM

EVENT

SIMULATOR

PUBLISH

ADMIN PROFILE

Device Management / Create New Device

Create New Device

CONFIGURATION

Device_id:

Description:

Enabled: ☒
 If Device to disable,set false.

Mapped_ch:
 Determine the stream destination of the device.

META DATA (optional)

Device_type:

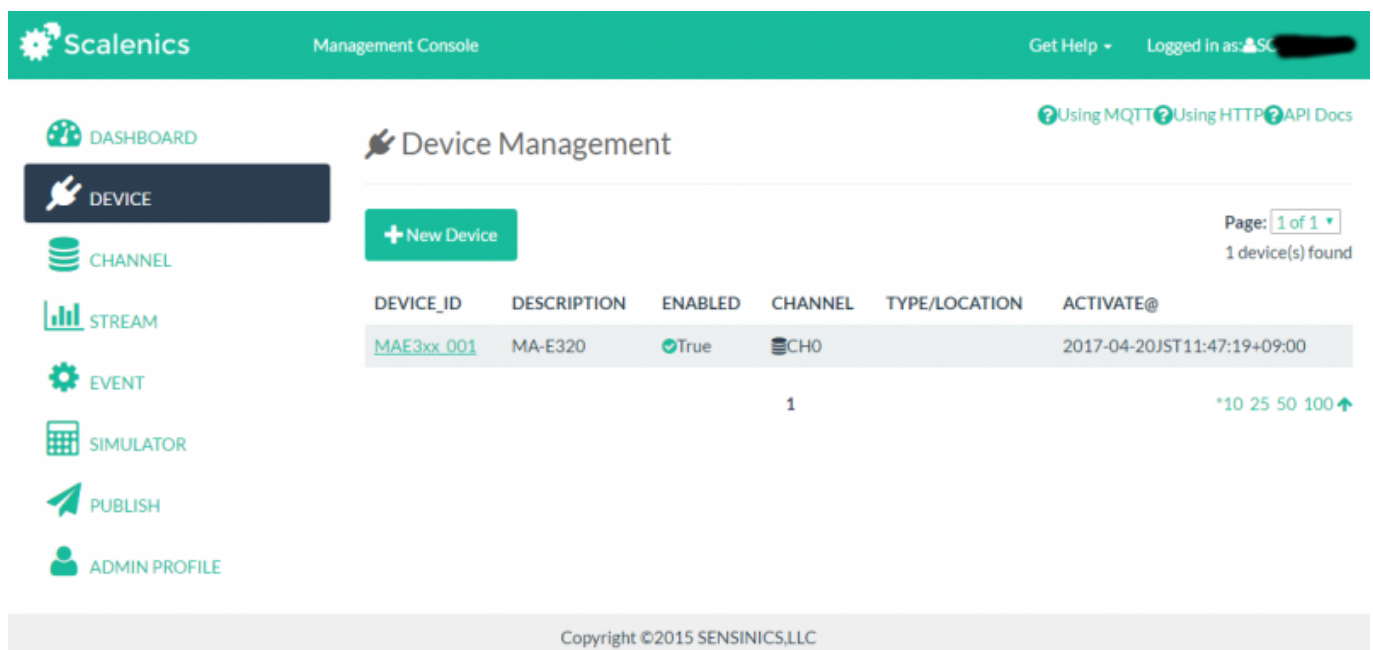
Location:

Manufacturer:

Create new device

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Device_id に “MAE3xx_001” とし、さきほど作成したチャンネルをマップしておきます。



Scalenics Management Console

Get Help ▾ Logged in as: SC [REDACTED]

DASHBOARD

DEVICE

CHANNEL

STREAM

EVENT

SIMULATOR

PUBLISH

ADMIN PROFILE

Device Management

+ New Device

Page: 1 of 1 ▾
1 device(s) found

DEVICE_ID	DESCRIPTION	ENABLED	CHANNEL	TYPE/LOCATION	ACTIVATE@
MAE3xx_001	MA-E320	True	CH0		2017-04-20JST11:47:19+09:00

1

*10 25 50 100 ↑

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作成されました。

Device Token の取得

MQTT(S) でデータを送信する際に必要となりますので、ADMIN PROFILE の画面を表示し Device Token を控えておきます。

ADMIN PROFILE

USER INFORMATION

Username: SC0...

User_alias:

Console Password: New Password
 Confirm Password

Email1: e-mail of 1

Email2: e-mail of 2
(NOTE)Email1,Email2 use Event notification

Organization: your organization

Locale(Timezone): (UTC+09:00) Asia/Tokyo
(NOTE)Please re-login after changing the locale.

Subscription: Developer(1-Month Trial)
[Purchase Subscription](#)

TOKEN INFORMATION

API Token: 2CF5FB20...

Device Token: 67FEC0CF...

For resetting token, you can use [Token Management](#)

MQTT ACLs/AUTH

Allowed MQTT Topic: 67FEC0CF.../#

MQTT Auth: mqtt://SC0...@api.scalenics.io:1883
(Secure) mqtt://SC0...@api.scalenics.io:8883

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32文字の16進数になっています。

MA-E3xx の設定

ルート証明書の取得

Scalenics の MQTT ブローカのサーバ証明書はグローバルサインにてサインされていますので、[こちら](#) からダウンロードし、適当な場所に置いておきます。
/etc/ssl/globalsign_rootcert.cer という名前で置いてみました。

FluentD の設定

FluentD でデータを送信するための設定をします。

今回は、“sensors.\[**” というタグのデータをそのまま Scalenics に送信する設定にしてみます。

[fluent.conf](#)

```
<source>
  type forward
</source>

<match sensors.**>
  type mqtt
  host api.scalenics.io
  port 8883
  topic_rewrite_pattern "(.+)"
  topic_rewrite_replacement
"67FExxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx/json/MAE3xx_001"
  ssl true
  username SC00xxxx
  password 67FExxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  ca_file /etc/ssl/globalsign_rootcert.cer
</match>
```

“**password**” は Device Token を設定します。

topic は “<DEVICE_TOKEN>/json/<DEVICE_ID>” という形式にする必要がありますのでtopic_rewrite の機能によりタグ全体を書き換える設定にしています。

動作確認

FluentD を起動し、FluentD にデータを送って Scalenics へ送信されるか確認してみます。

```
user1@plum:~$ echo '{"temperature" : 26.1}' | fluent-cat sensors.temperature
user1@plum:~$ echo '{"temperature" : 26.0}' | fluent-cat sensors.temperature
```

STREAM の画面を見えます。

The screenshot shows the UPR Scalenics Management Console interface. On the left is a sidebar with navigation links: DASHBOARD, DEVICE, CHANNEL, STREAM (highlighted), EVENT, SIMULATOR, PUBLISH, and ADMIN PROFILE. The main area is titled 'Stream' and shows data for 'CH0:Sensor0'. It includes a range selector with 'Start' and 'End' timestamps, a 'find' button, and a 'Reset' button. Below the range selector are buttons for '-1 hour' and '+1 hour'. There are three tabs: 'Table', 'Chart(numeric-only)', and 'JSON Raw Data'. The 'Table' tab is active, displaying a table with two columns: 'TIME' and 'Value'. The table contains two rows of data. At the bottom right of the table area, it says '2 datapoints found.' and a 'Reset' button with a '1 hour' dropdown.

TIME	Value
2017-04-20T14:26:58+0900	["temperature":26.1,"time":1492666017]
2017-04-20T14:27:31+0900	["temperature":26,"time":1492666050]

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さきほどのデータが送信されていることが確認できました。

1)

v2.7.0α4 以降

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Permanent link:

https://ma-tech.centurysys.jp/doku.php?id=mae3xx_ope:upr_scalenics:start

Last update: **2017/04/20 16:48**