

Interacting with Devices Using IAP/MQ

In this section we will explore using the IAP/MQ API to interact with Lon Devices. To prepare for this section, you will need to have at least one FT 5000 /6050 EVB loaded with the image located in `..apps\Example Support Files\Multisensor_ImageFiles.zip` (this path is relative to where you cloned the [izot/smartsrver-iot github repo](#) on your computer). Use `nodetuil` to load the application image. This version of the application defaults to support external network management, and includes a visual response to the Wink command by flashing the blue LEDs at the bottom of the board.

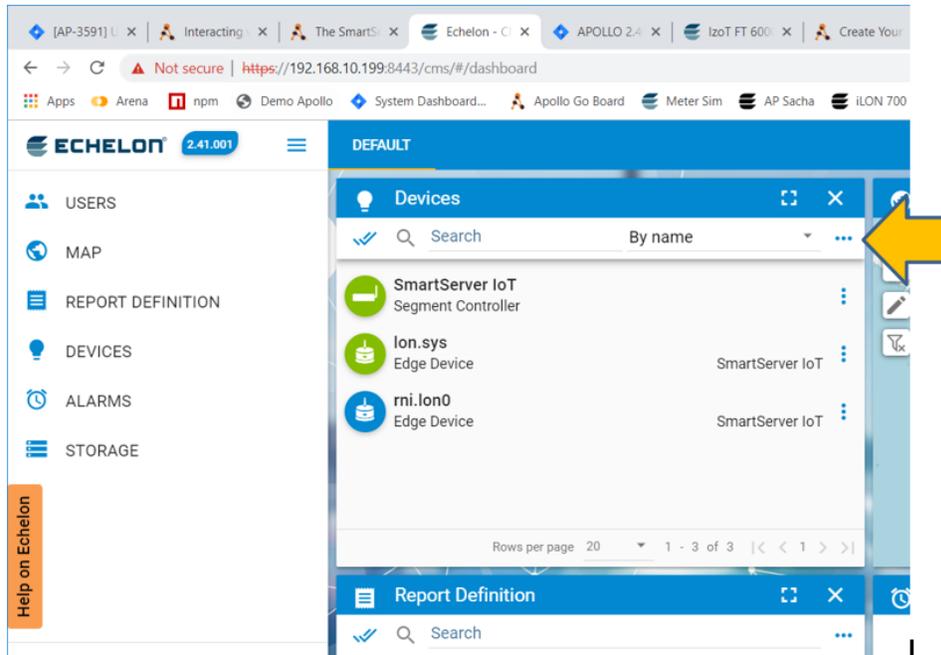
Prior to starting this exercise, you should use `nodeutil` to load the appropriate NDL file based on the target EVB board you have.

The following steps setup this program example and should be done first.

Provisioning the Multi Sensor Example

If you have a SmartServer IoT in factory fresh condition, you can skip this section. If you are unsure, take the time to run these steps.

1. Use `putty.exe` to connect to the SSH console as user `apollo`.
2. To clear the SmartServer database using the System Configuration page, follow the steps for **Resetting to Defaults Using the Configuration Page** (resetting the databases) in the [Resetting the SmartServer to Factory Defaults](#) section. Allow 10 minutes to initialize the SmartServer IoT.
3. Open a web browser and log in as user `apollo`. Return to the **Features** tab to enable features that were enabled before resetting the databases to defaults. To use the RNI interface with `Nodeutil`, enable the RNI feature, and then setup the RNI using the OpenLDV Lonworks Interfaces control panel applet. Use `Nodeutil` to load one or more FT 6050 EVB targets with the NDL images contained in the the `Mutisensor_ImageFiles.zip` archive referenced above.
4. Select the **CMS** tab.
5. Log in as the `apollo` user.
6. In the Device widget, select the action menu (...). See the following figure.



7. Select **Import device types** action. Click the **DROP FILE HERE** rectangle and navigate to the `Multisensor_Example.dtp` found in the folder `.. apps\Example Support Files\` or drag and drop the file.
8. Select **Create device** from the action menu, and fill out the 2-step dialog as depicted in the following screenshots. The **UID** field in the second screenshot must match the value of your target FT 6050 EVB. As an option, set the UID to `000000000000`, and when you select provision, press the service pin of your EVB.

Create device

Name*
MS-01

Device category*
Edge Device

Latitude*
0.001

Longitude*
0.001

CANCEL NEXT

Create device

UID
00d071100240

Integration method*
Manual assignment

Owner*
SmartServer IoT

Protocol*
LON

Device type*
FT 6000 EVB Multisensor

Asset Tag

Description

CANCEL BACK SAVE

9. Select the action menu for the device you just created, and select **Provision device**.
You should observe a burst of TX/RX activity on the U60, and after a short while, the service LED on the FT 6050 EVB should be off to indicate the device has been provisioned. You will also see the icon for the device change color from blue to green.
10. Select the action menu for the device you just provisioned, and select **Wink**.
You should observe the blue LEDs on the bottom edge of the board flashing in response to the Wink message.

You have now used the CMS to provision a device that has code to implement a response to a wink command.

Next Step

In the next section, you will learn how to write an application that will discover a provisioned device, and issue a wink command using the IAP/MQ API. Continue with [IAP/MQ Device Interaction Example](#).