User Manual

# Ayla OEM Dashboard User Manual

Version: 3
Date Released: April 18, 2016
Document Number: AY006UDB3-3

Ayla Networks

## Table of Contents

# Introduction

This document provides information on how to use the Ayla OEM Dashboard. The OEM Dashboard allows you to manage your deployment of Ayla Connected products.

**NOTE:** The Ayla OEM Dashboard is in process of being updated. The functionality will remain the same but the interface may be slightly different.

## Audience

This document is written for all users of the Ayla OEM Dashboard. However, not all users have access to all views. You may find that you do not have access to some of the views described in this document. Access is determined by your company's policies. See page 7 for more information about roles and access.

## Customer Support

Support and customer documentation is located at http://support.aylanetworks.com

## Related Documentation

The following documents are referenced in this document; each document has a document name and a number in parenthesis. You can locate these documents at the Ayla support website using either the document name or number. If you do not find a document in your support site documents, contact your Customer Technical Lead or other Ayla support personnel.

- *Customizing Notification Messages* (AY006USE0)
- *OEM Roles and Privileges* (AY006UR3)
- *Cloud Templates User Guide* (AY006UTE3)
- *Host OTA Instructions App Note* (AY006USE4)

## Overview of the Ayla OEM Dashboard

The Ayla Networks Dashboard is provided to all OEM's. It provides a place to view users, devices, templates, and other information for review and updating. The Ayla Networks Dashboard is also called the OEM Dashboard.

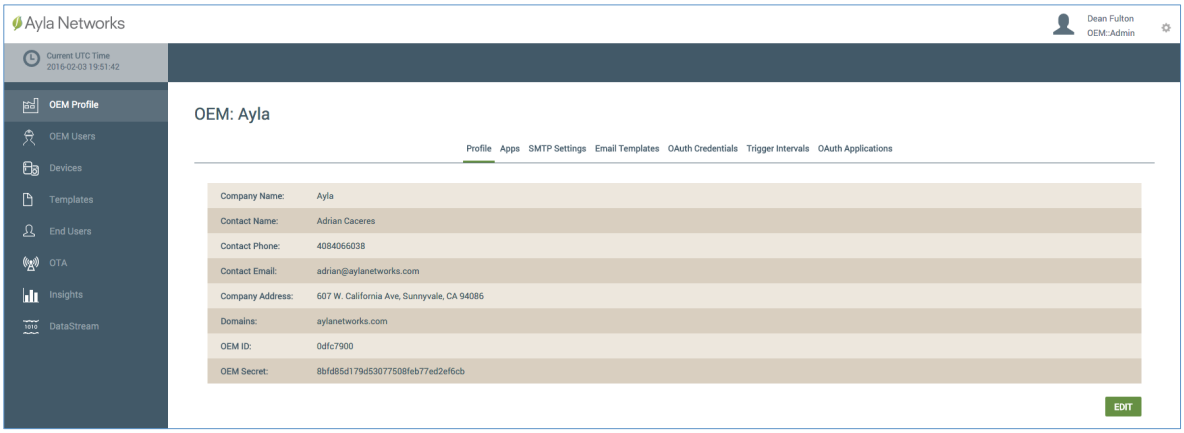


Figure 1 – OEM Dashboard

### How to Log In

1. Go to https://dashboardfield.aylanetworks.com
2. Enter the same credentials as those you used to get into the Developers Portal.

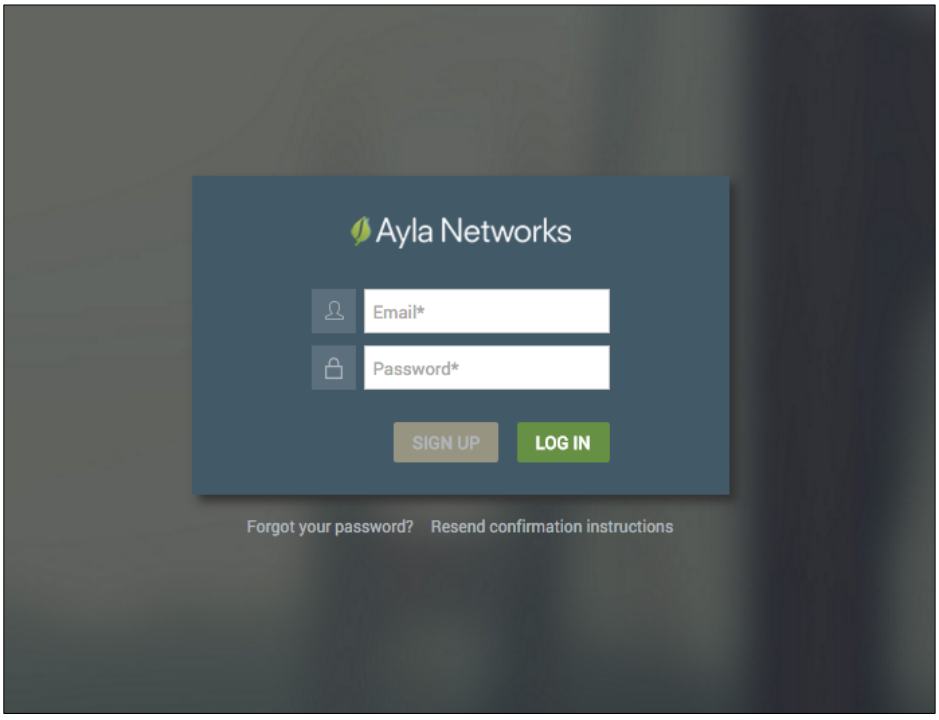


Figure 2 - OEM Dashboard Login

### The Ayla OEM Dashboard Interface

After logging on to the OEM Dashboard you see the navigation bar on the left side of the screen. The default view is the **Devices** view. It displays your name and role on the right top of the screen.

This document discusses the following sections listed in the navigation bar:

1. OEM Profile
2. OEM Users
3. Devices
4. Templates
5. End Users
6. OTA
7. Insights
8. DataStream

Each view has different related links within the chosen view. In some cases there are other actionable buttons such as Edit, Actions, or Search. In some cases, you can click on an active link and additional information and options opens.

**NOTE:** A Glossary is provided at the end of this document. Common terms found in the OEM Dashboard are defined in the glossary.

## Roles in the Ayla OEM Dashboard

OEM Dashboard Roles specify the access levels a user has to views. The OEM Roles and Privileges (AY006UR0) document provides complete information about roles. All users have access to devices registered to their account. The OEM roles and tasks they are allowed to perform are outlined below.

**OEM Admin**

- Create, update, or delete users and modify their privileges
- Access all public and OEM scope templates
- Only an admin can perform Host OTAs
- Access to all OEM devices

**OEM Staff**

- View all users and devices, but cannot make changes, read-only access
- Access all public and OEM scope templates

**OEM Developer**

- Access to all public and OEM scope templates
- Read and write access to their devices

**End User**

- Create, update, or delete their registered devices only, devices they own

# OEM Profile

Click the OEM Profile tab in the navigation bar to access the following views:

- Profile
- Apps
- SMTP Settings
- Email Templates
- OAuth Credentials
- Trigger Intervals
- OAuth Applications

Each of these views are shown and described below. Where applicable, directions for changing values are included.

## Profile Tab

The profile tab displays OEM specific information, such as Address, Name, Contact, Domains, OEM ID, and OEM Secret.

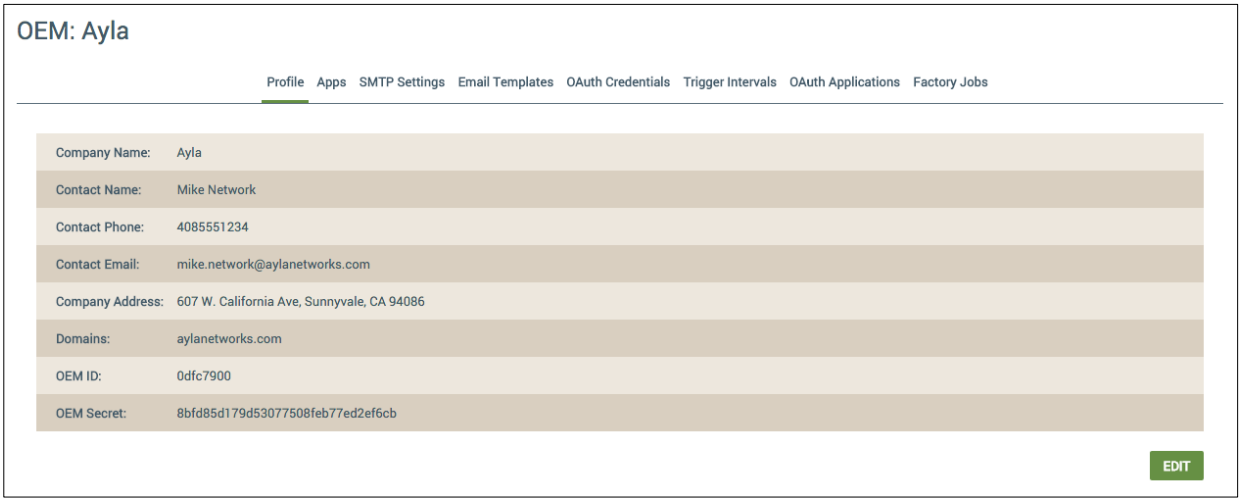


**Figure 3 – OEM Dashboard - Profile**

### Editing an OEM Profile

To edit a profile, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from menu on the left side of the screen.
3. Select the **Profile** tab.
4. Click the **Edit** button**.** The profile screen view changes allowing you to edit and change the information in your profile.

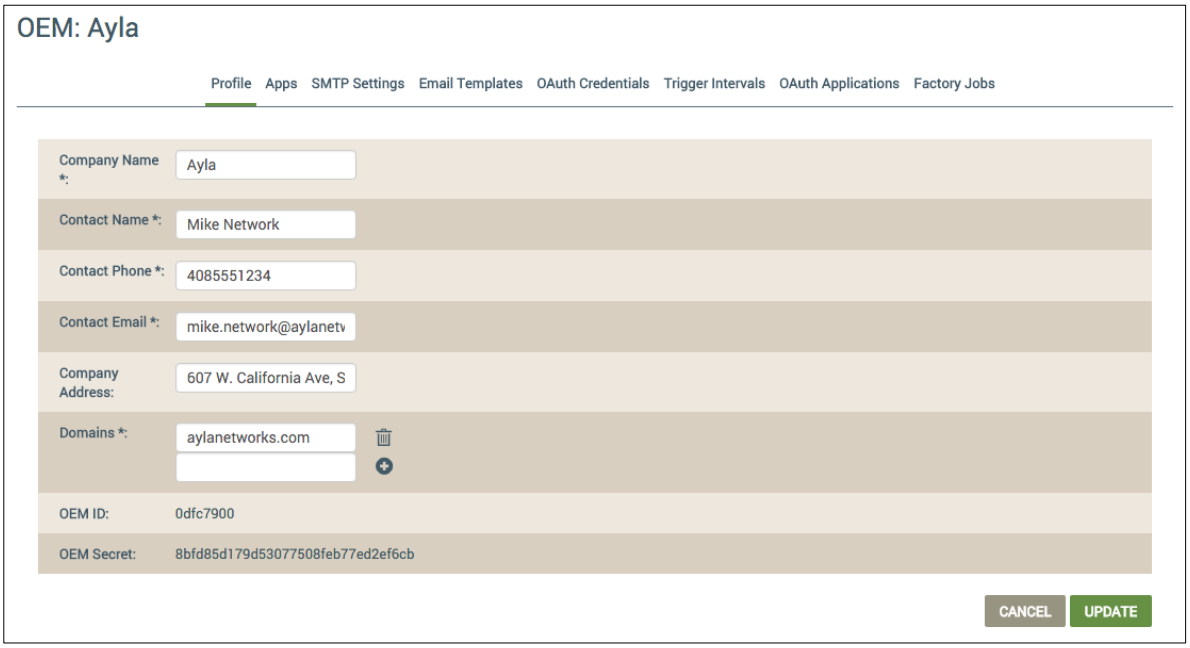


Figure 4 - OEM Dashboard – Edit Profile

**Note:** The OEM ID and OEM Secret are provide by Ayla and cannot be changed by the OEM.

5. Update your profile in the fields provided.
6. Click the **Update** button when you are done. You will receive a message displaying "Changes to your profile was successful."

## Apps

The Apps screen lists all your applications. Also included on the Apps screen are details about the Application Name, Application ID, Application Model and Application Secret.

### Creating New Applications

To create a new application, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from the menu on the left side of the screen.
3. Select the **Profile** tab.
4. Click the **Apps** button at the top of the OEM Profile menu. The Apps screen displays your applications, as shown in the below.

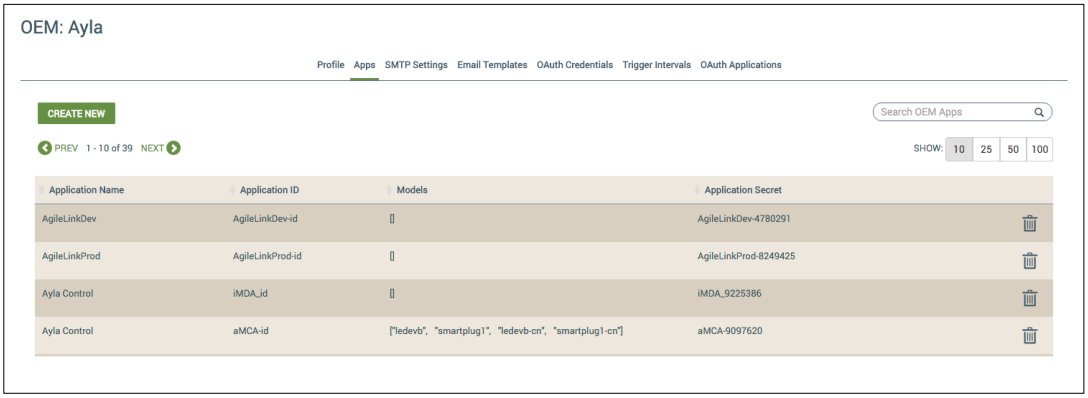


**Figure 5 – OEM Dashboard Apps**

5. Click the **Create New** button at the top of the screen. The Create New App dialog displays, as shown below.

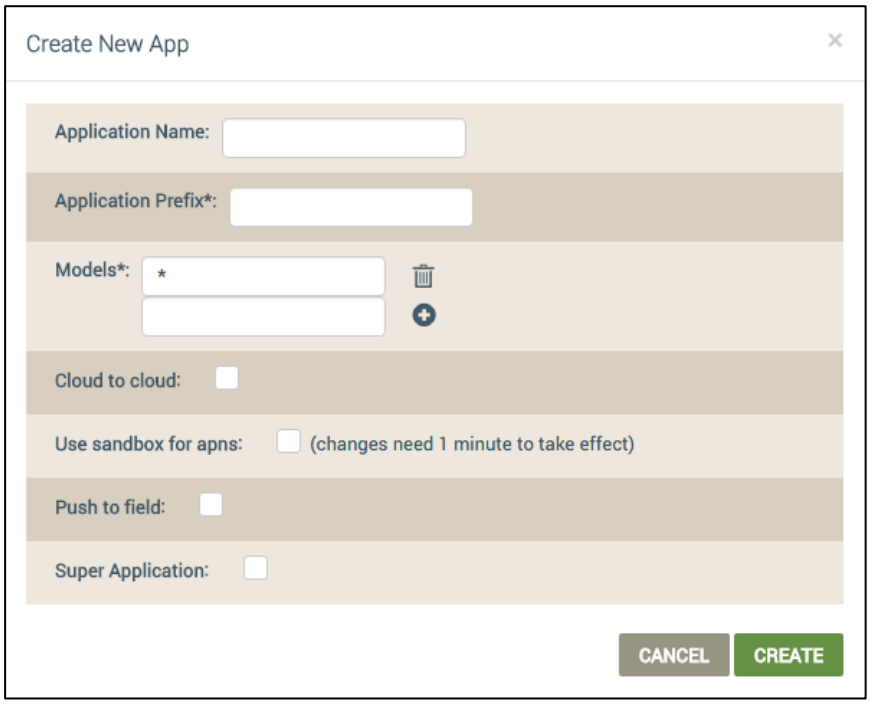


**Figure 6 – OEM Dashboard Create New Apps**

6. Enter the required information in the fields provided. If you want this new application to communicate with Ayla's cloud, select the **Cloud to cloud** check box.

7. Select the **Use the sandbox for apns (changes need 1 minutes to take effect)** – check if you want to connect to Apple's sandbox environment. Do not check if you want to use Apple's production service
8. Click the **Create** button to create your new app.

## SMTP Settings

SMTP settings ensure a proper connection with your SMTP server provider ensuring a correct delivery of your emails.

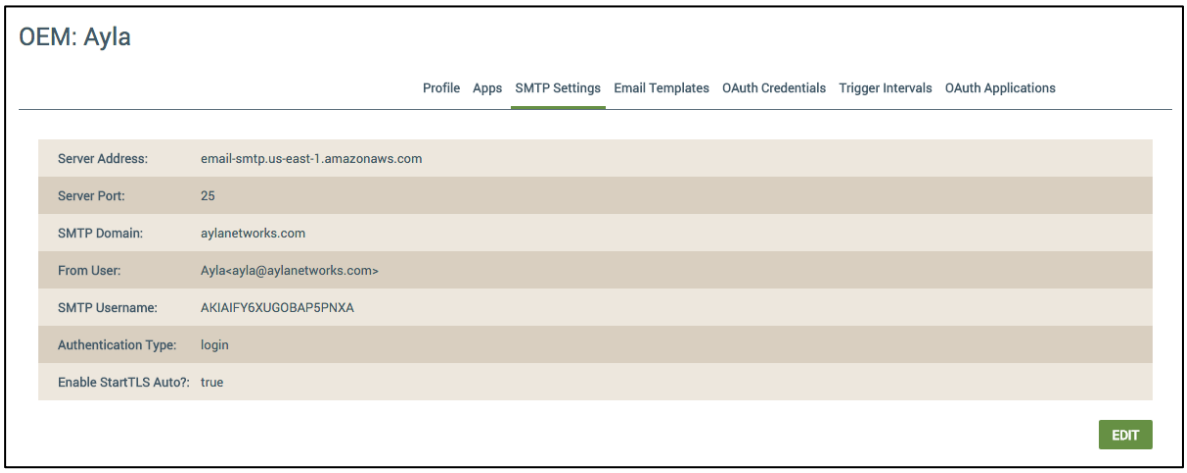


Figure 7 – OEM Dashboard SMTP Settings

### Creating New SMTP Settings

To create a new SMTP setting, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from menu on the left side of the screen.
3. Select the **Profile** tab.
4. Select the **SMTP Settings** tab.
5. Click the **Edit** button at the button of the screen. The following screen displays.

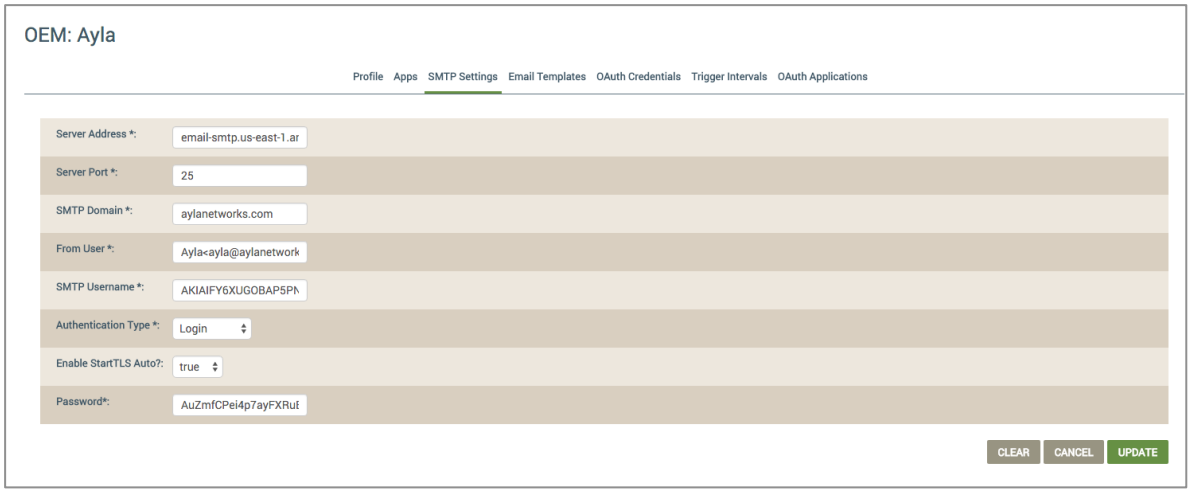


**Figure 8 – OEM Dashboard Edit SMTP Settings**

6. Enter your SMTP settings in the fields provided as shown in the figure above.

   **NOTE: SMTP Enable Start TLS Auto** applies TLS security automatically to the SMTP messages. If you choose to use your own security, select **False** from the drop down.

7. Click the **Update** button to save your settings or click the **Cancel** button.

## Email Templates

The Email Templates section displays a list of available templates. You can also add new Templates from this screen.

Clicking the **DOWNLOAD SAMPLE** button provides examples of icons and templates of messages sent to users.

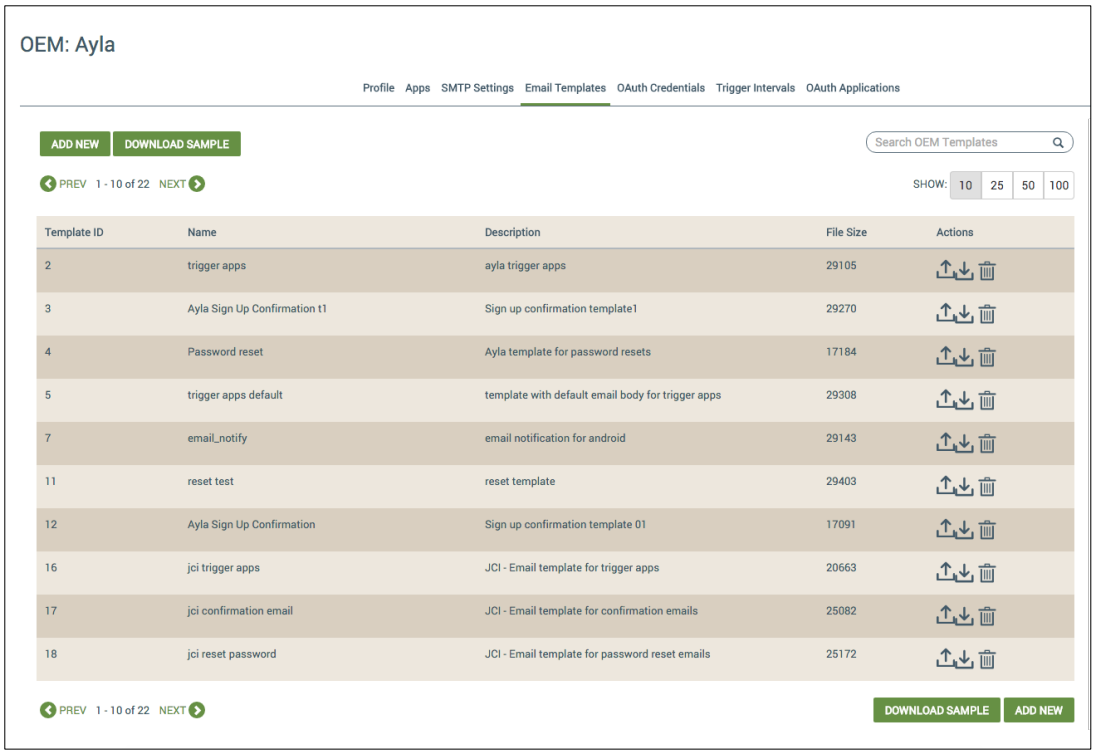


Figure 9 – OEM Dashboard Edit SMTP Settings

## Adding a New Email Template

To add a new email template, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from menu on the left side of the screen.
3. Select the **Profile** tab.
4. Select the **Email Templates** tab.
5. Click the **Add New** button located both at the top and button of the screen. The Create New Email Template dialog displays, as shown below.

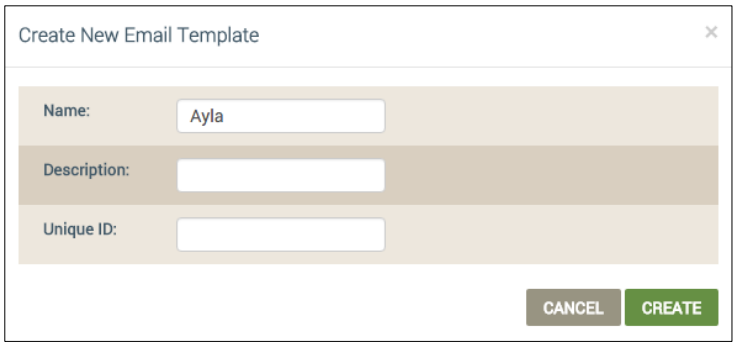


Figure 10 – OEM Dashboard Create New Email Template

6. Enter a unique name, description along with ID for your email template.
7. Click the Create button to create your new template.

**NOTE:** Template changes can take up to 10 minutes to complete. Although the template creation process may be less, please allow 10 minutes to pass before using the new email template.

## OAuth Credentials

The OAuth Credential screen allows you to **View** or **Create OAuth** Credentials for applications for clients.

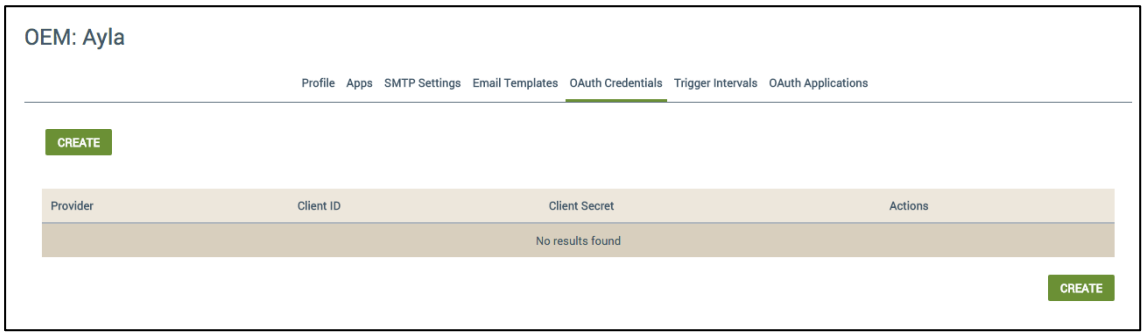


Figure 11 – OEM Dashboard – OAuth Credentials

### Creating New OAuth Credentials

To create new OAuth credentials, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from menu on the left side of the screen.
3. Select the **Profile** tab.
4. Select the **OAuth Credentials** tab.
5. Click the **Create** button located at the top and bottom of the screen.
   The **Create New External OAuth** dialog box opens, as shown in Figure 10:

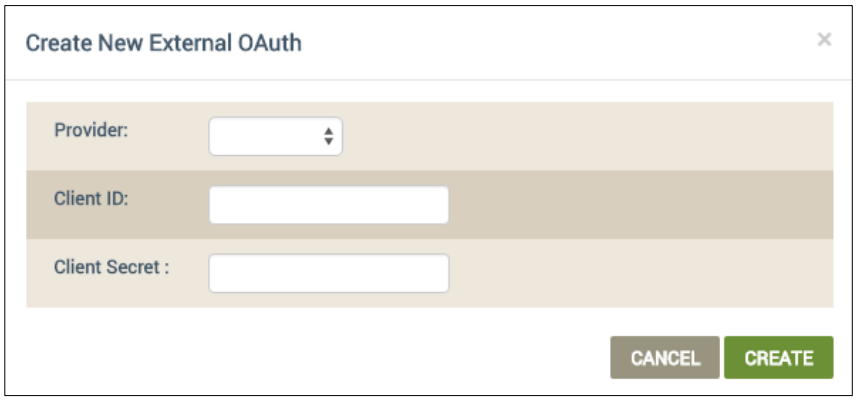


Figure 12 – OEM Dashboard – Create New External OAuth Credentials

6. Select the **Provider** from the drop down.
7. Enter the **Client ID** and **Secret** in the fields provided.
8. Click the **Create** button.

## Trigger Intervals

Below is a list of triggers. Triggers determine the time (in seconds) or how often the chosen messaging occurs.

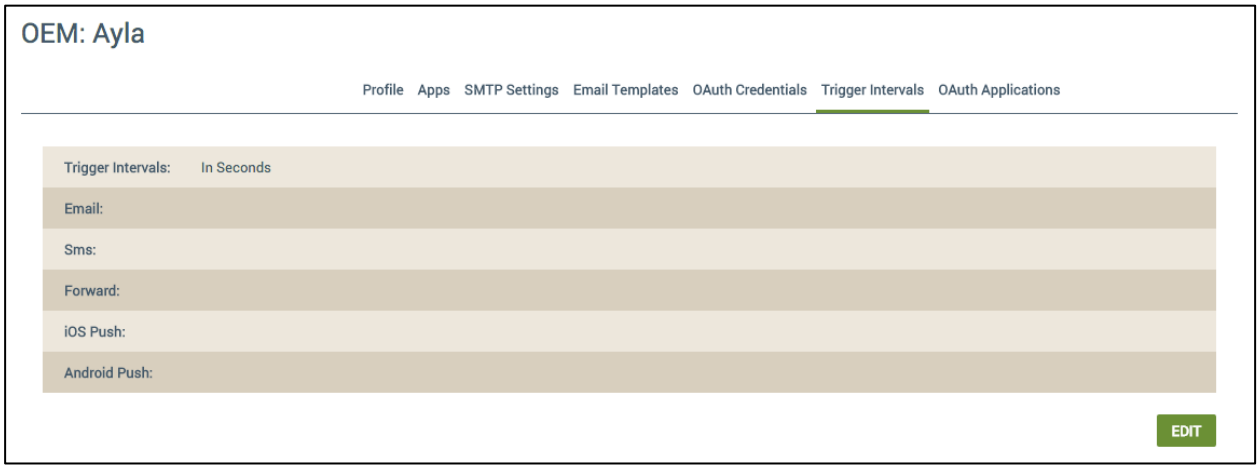


Figure 13 – OEM Dashboard Trigger Intervals

## Updating Trigger Levels

To create a new Trigger Intervals, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Profile** link from menu on the left side of the screen.
3. Select the **Profile** tab.
4. Select the **Trigger Intervals** tab.
5. In the form, select the trigger interval you wish to change.

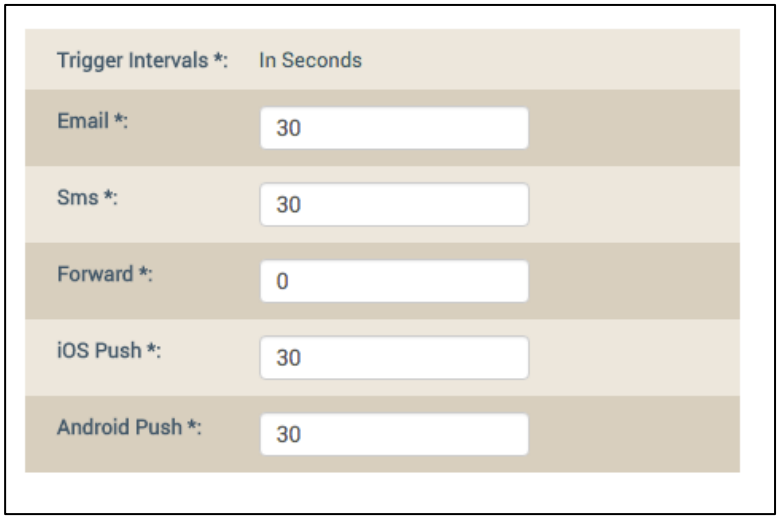


Figure 14 – OEM Dashboard – Updating Trigger Intervals

6. Delete the current values and enter the new values as needed.
7. Click the **Update** button to complete the changes.

## OAuth Application

The OAuth Application screen lists the authorized applications along with the redirect and revoke URI's. The redirect and revoke URI's are the location where the cloud will direct the user when their application is redirected or revoked. Using this screen you can also create new OAuth applications and delete existing ones.

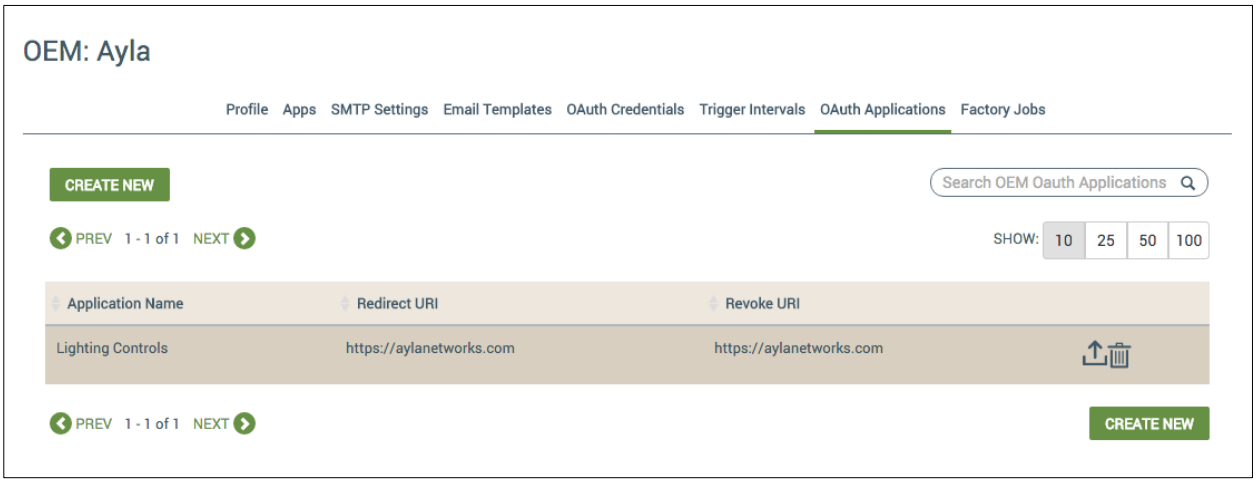


Figure 15 – OEM Dashboard – OAuth Applications

### How to add an OAuth Application

To add a new OAuth application, perform the following steps:

1. Click the **Add New** button at the bottom of the form.
2. Enter the required information – **Name**, **Redirect URI**.
3. Enter the **Revoke URI**, if required
4. Click the **Create** (or Cancel) button at the bottom of the form.

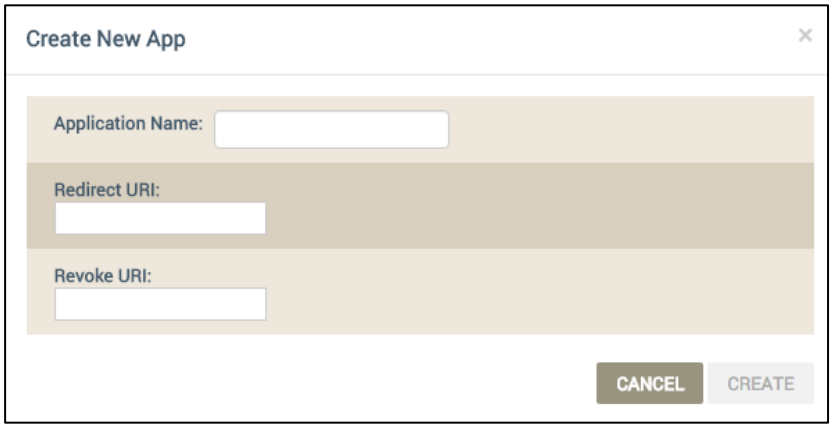


Figure 16 – OEM Dashboard – Create New OAuth Application

# OEM Users

**OEM Users** is a list of all OEM Users and their role or roles. For information about roles, see the section on Roles in the Ayla OEM Dashboard.


**Figure 17 – OEM Dashboard – Updating Trigger Intervals**

## Create an OEM User

To create an OEM user, perform the following steps.

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Users** link from menu on the left side of the screen.
3. Click the **Create OEM User** button. The **Create OEM User** dialog box opens, as shown in the figure below.

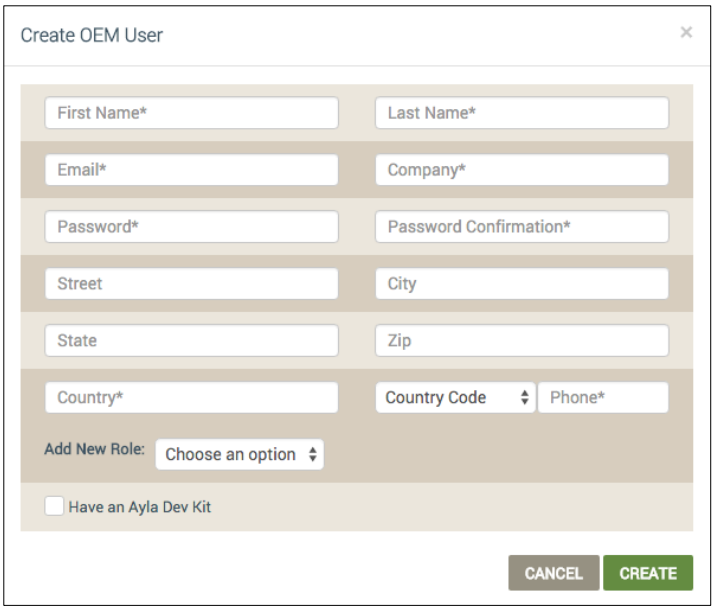


Figure 18 – OEM Dashboard – Create New OEM User

4. Complete the fields in the form.
5. Select the **Role** for the end user from the drop-down list.
6. Select the **Have an Ayla Dev Kit** check box, if applicable. The Ayla Dev Kit gives you a fast path to securely connect your product to Ayla's flexible cloud platform and application libraries. It allows you to quickly understand how you can connect and control any device using Ayla's AMAP application.

   **NOTE:** If the user has an Ayla Dev Kit, enter the Ayla Dev Kit number. The field for the number opens after you select the checkbox.


Figure 19 – OEM Dashboard – Add New Role

7. Click the **Create** (or **Cancel**) button.

## Delete an OEM User

To delete an OEM user, perform the following steps:

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Users** link from menu on the left side of the screen.
3. Click the **Create OEM User** button.
4. Select the user to delete, and click the **Trashcan** icon button in the users' row.


Figure 20 – OEM Dashboard – Delete Action Button

The delete confirmation dialog box displays, as shown below.

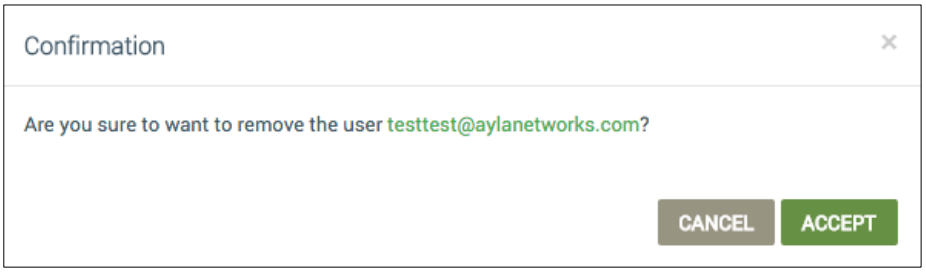


Figure 21 – OEM Dashboard – Delete Confirmation

5. Click the **Accept** button to confirm you want to delete this OEM user.
   The OEM user is deleted and a delete verification message is displayed.

## User Details

This screen lists the OEM user details. You can edit the users detail by clicking the **Edit** button.

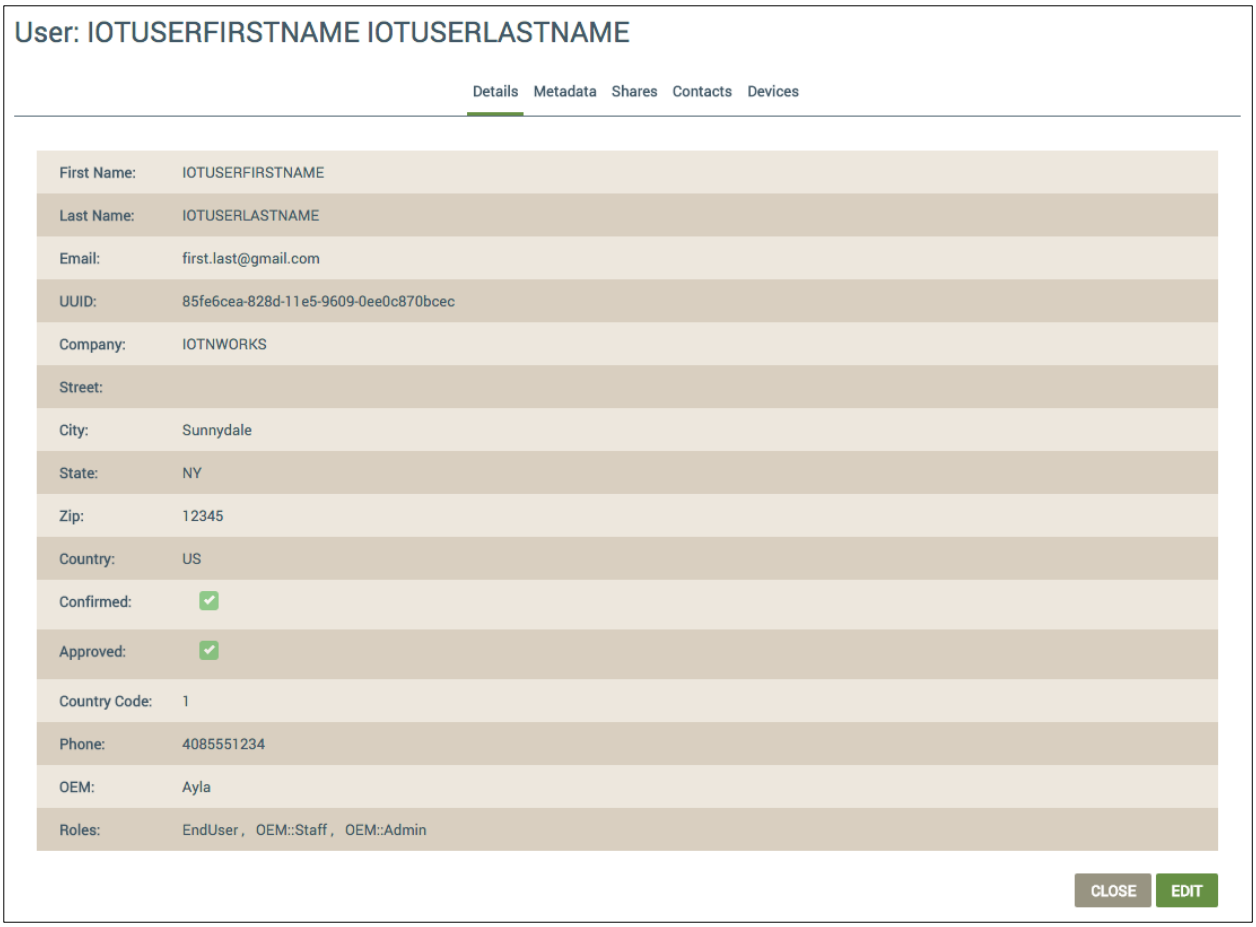


Figure 22 – OEM Dashboard – Delete Confirmation

At the top of this screen, there are three additional views for the user: Metadata, and Shares.

## Editing/Updating User's Detail

To update or edit a users detail, perform the following steps.

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Users** link from menu on the left side of the screen.
3. Click any of the users properties listed to display the users details. The users detail screen displays.

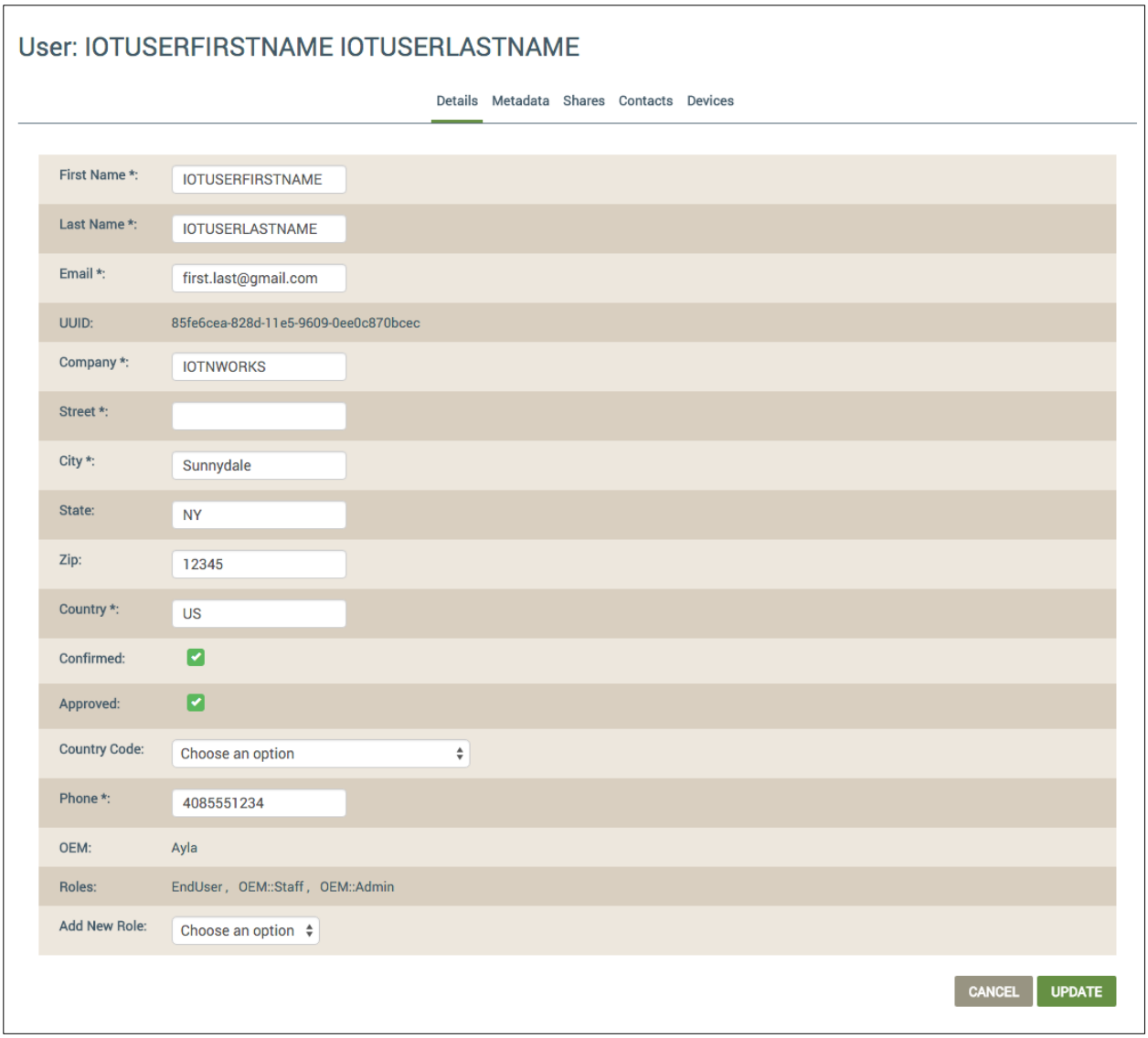


Figure 23 – OEM Dashboard – Delete Confirmation

4. Click the **Edit** button to change the users detail.
5. Change or modify the users details as needed.
   At the bottom of this form, you have the option of adding a role to the user. To add a role, click the **Add New Role** check box and select from the drop-down menu, as shown below.
6. Click the **Update** (or **Cancel**) button to save your changes.

## User Meta Data

Meta Data includes the **User Key**, **Value**, when **Created**, and when last updated.

### View User Metadata

1. Launch the Ayla OEM Dashboard.
2. Select the **OEM Users link** from menu on the left side of the screen.
3. Click the **Metadata** tab in the User view. The User Meta Data is displayed, as shown below.

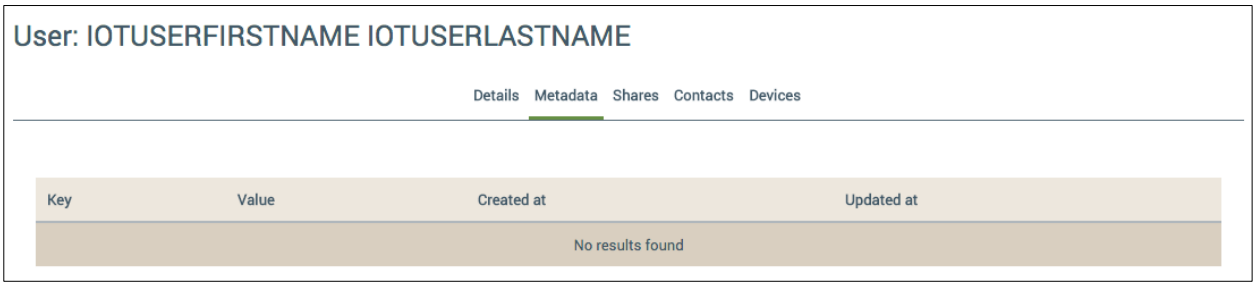


Figure 24 – OEM Dashboard – User Metadata

## OEM User Share

User Shares is a list of users sharing a resource. A resource can be a device or a service.

### View User Shares

To view user shares, perform the following steps:

1. Launch the OEM Dashboard and select **OEM Users** from the menu on the left side of the screen.
2. Select an **OEM User** from the list of OEM Users. The users detail screen displays.
3. Click the **Shares tab** at the top of the screen to display a list of the user's shares accounts, as shown in the figure below.

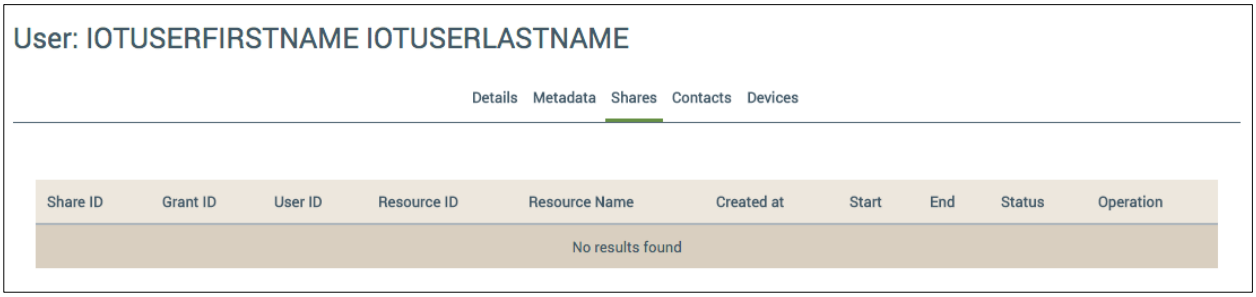


Figure 25 – OEM Dashboard – User Share

## OEM User Contacts

User Contacts is used to store the info about the user and also provide high-level notification management. Ayla contracts contain the standard address book information. In addition it contains the property members for managing the delivery notifications. A contact may be a registered owner of the device or someone the owner wants to send notifications on errors that occur.

### View OEM User Contacts

To view OEM user contacts, perform the following steps:

1. Launch the OEM Dashboard and select **OEM Users** from the menu on the left side of the screen.
2. Select an **OEM User** from the list of OEM Users. The users detail screen displays.
3. Click the **Contacts tab** at the top of the screen to display a list of the user's contacts, as shown in the figure below.

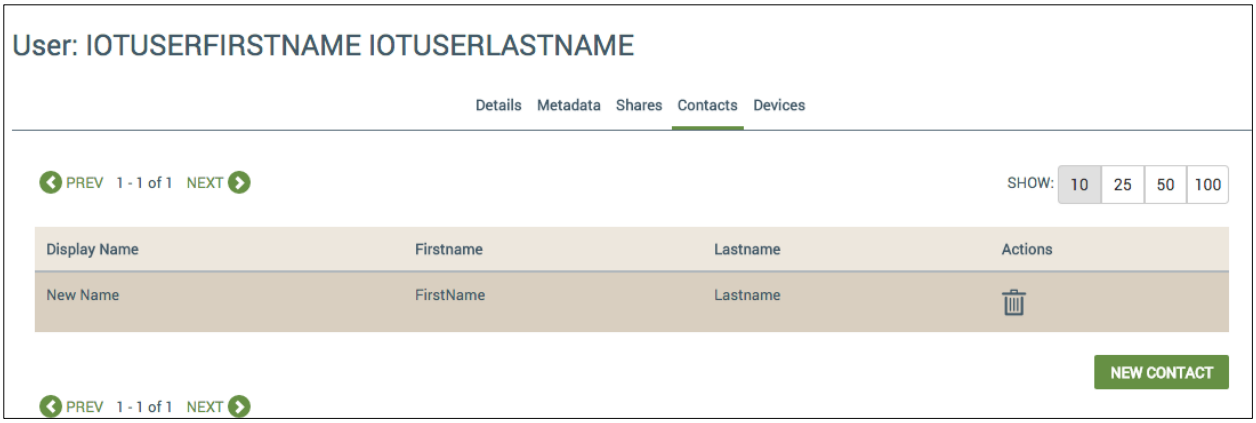


Figure 26 – OEM Dashboard – View OEM User Contacts

### Create a New Contact

You can create new OEM contact information for all your users from the OEM dashboard.
To create user contacts, perform the following steps:

1. Launch the OEM Dashboard and select the **OEM Users** from the menu on the left side of the screen.
2. Select an **OEM User** from the list of OEM Users. The users detail screen displays.
3. Click the **Contacts tab** at the top of the screen to display a list of the user's contacts.
4. Click the **New Contact** button at the bottom of the screen. The New Contact screen displays, as shown in the figure below.

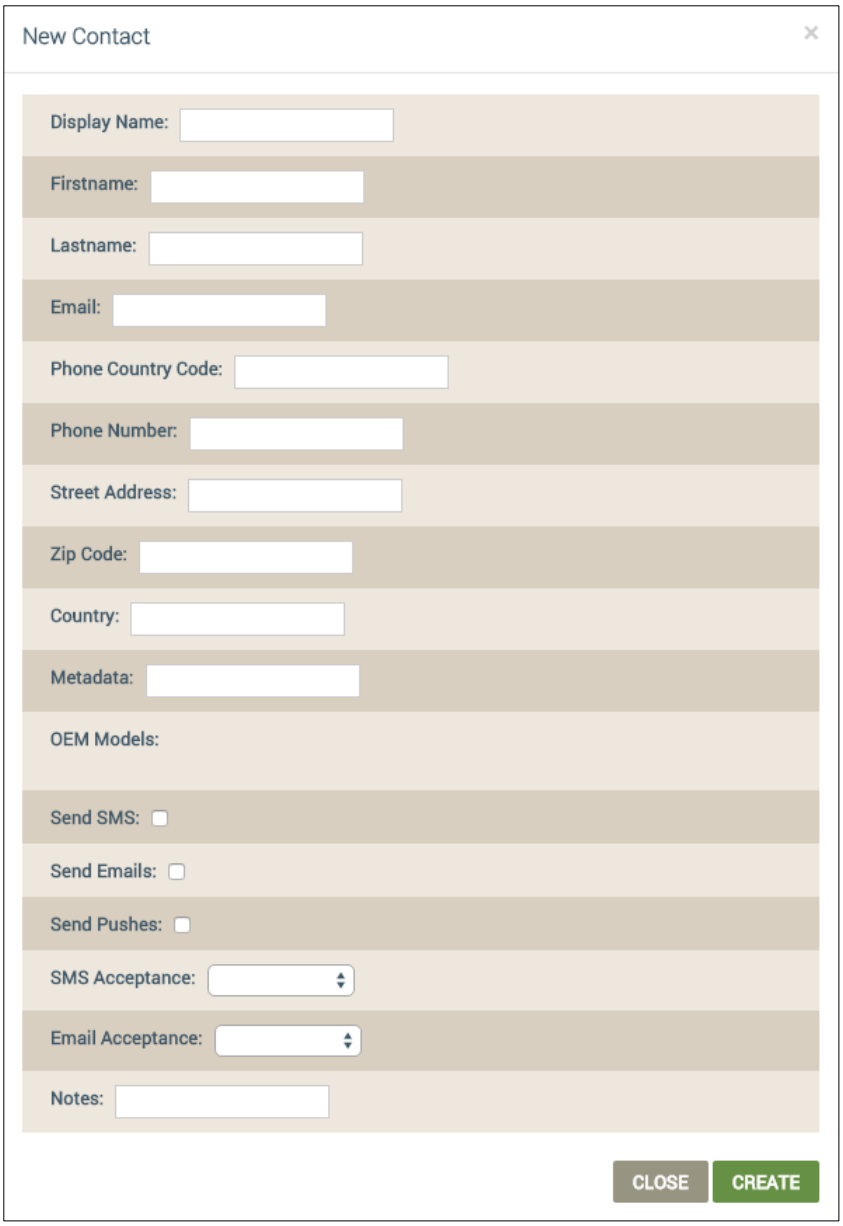


Figure 27 – OEM Dashboard – Delete Confirmation

5. Enter the required information in the fields provided. For the SMS and Email Acceptance categories, select one of the following options:
    - Not Required
    - Required
6. Click the **Create** button, to add a new contact to the users contact list.

## Devices

Selecting **Devices** in the navigation bar displays a list of the registered devices, as shown below. The first displays the first 10 devices. You can change the number of devices displayed using the **Show** option.

You can use the **Devices** section to perform the following activity:

- View/Search for Devices by device or groups
- Create/Edit/Delete Device Groups
- Map Devices

### Device Search

To search for devices, perform the following steps:

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen. The list of registered devices displays, as shown in Figure 28.

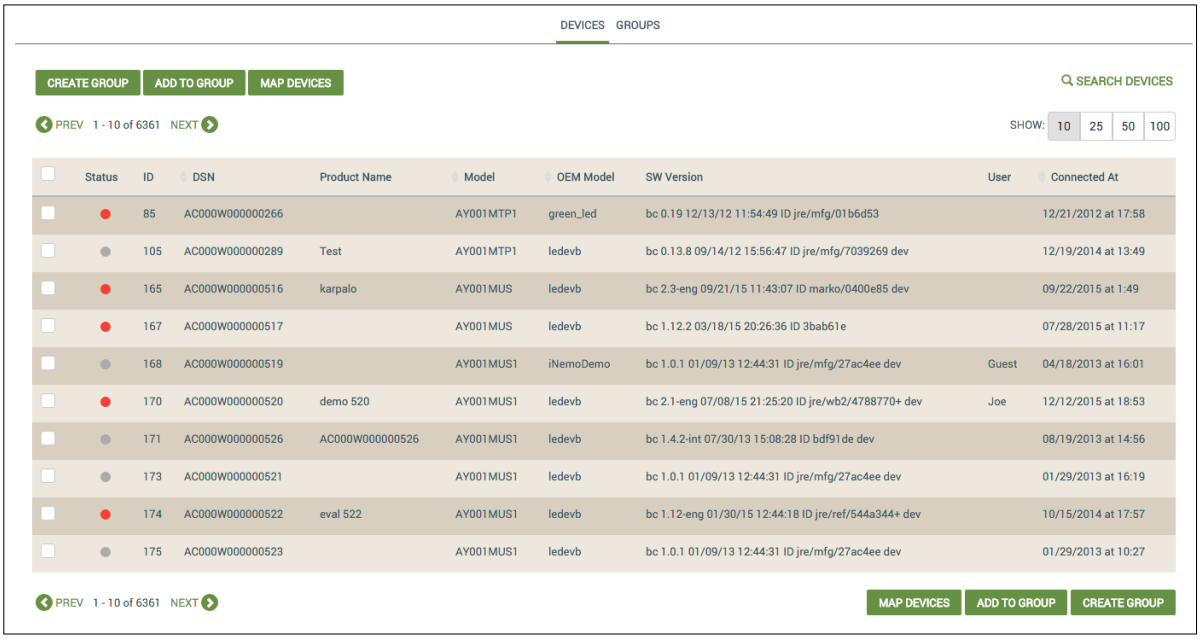


Figure 28 – OEM Dashboard OEM Devices

**Device Search Headings**

- **Status -** Red icon = device is off / Green icon = device is on / Gray icon = device is in the process of coming up
- **DSN** – the DSN of the device. The DSN is the Device Serial Number.
- **Product Name** – the name of the product, as you have named it.
- **Model** – the product model of the device
- **SW Version** – the software version of the device.

- **User** – the name of the user associated with the device
- **Connected At** - The time the device connected

2. Click the **Search Devices** link at the top of the screen. The Search dialog displays. From this screen you can conduct searches by Device or Properties.

### To Search By Device

1. Select the **By Device** tab to search for device by their properties. The following dialog box displays.

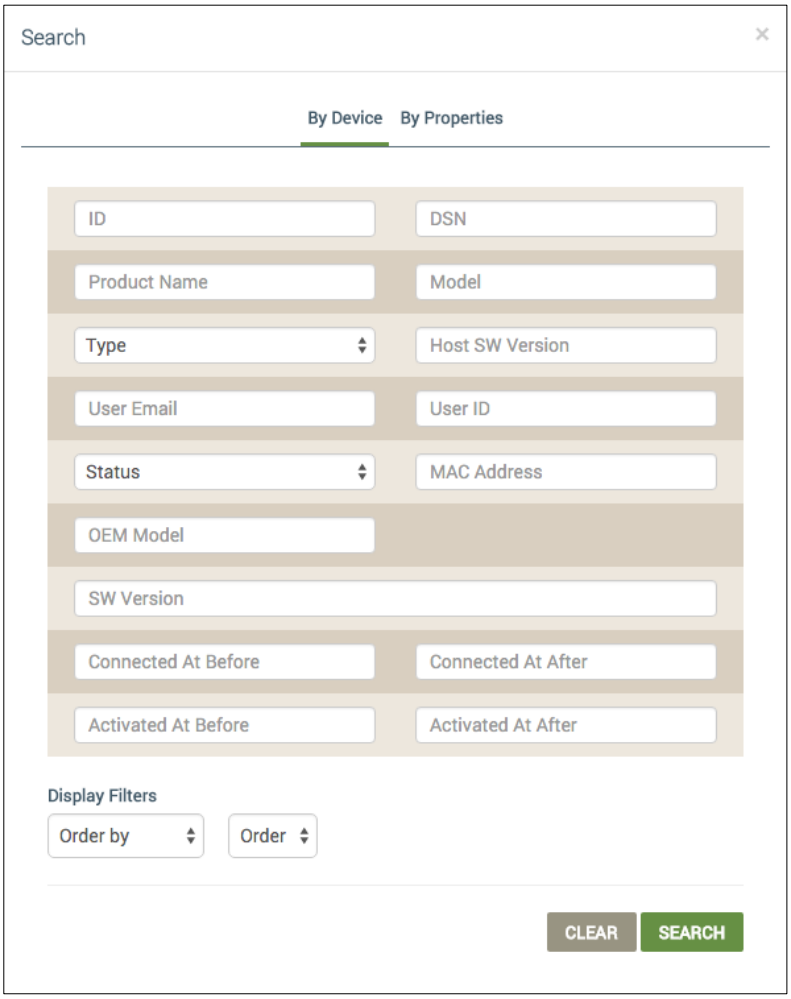


Figure 29 – OEM Dashboard OEM Devices – Search By Device

2. Enter the device information in the fields provided for the devices you want to search.
3. Click the **Search** button to start your search. The search results open with the list of devices.

### To Search By Properties

1. Select the **By Properties** tab to search for device by their properties.

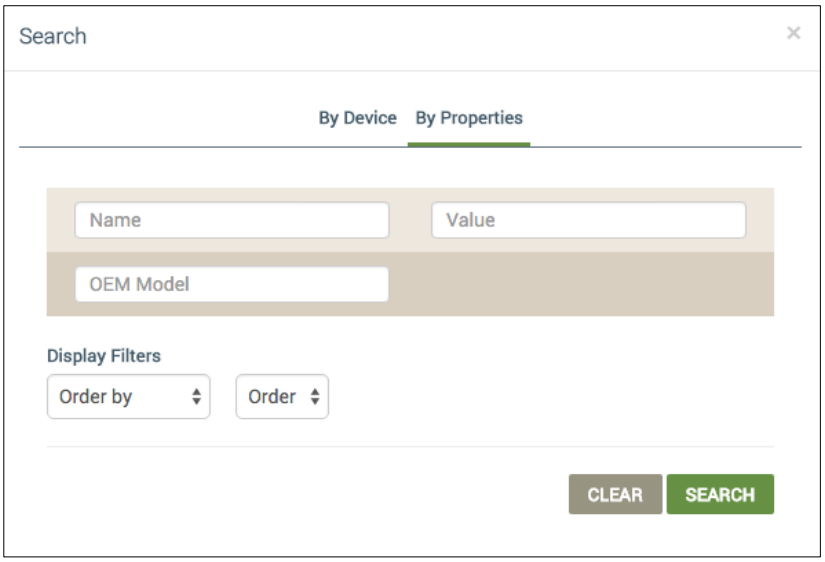


Figure 30 – OEM Dashboard OEM Devices – Search By Properties

2. Enter the device information in the fields provided for the devices you want to search. First enter the property **Name** and then the corresponding **Value**.
3. Click the **Search** button to start your search. The search results open with the list of devices.

## Creating Groups

To a create group for devices, perform the following steps:

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen. The list of registered devices displays.
2. Select all the devices you want to add to the new group by placing a checkmark in the box next to the device listing.
3. Click the **Create Group** button to create your group. The Create Group dialog displays, as shown in Figure 23.


Figure 31 – OEM Dashboard OEM Devices – Creating Groups

4. Enter a **Name** for the group.
5. Click the **Create** button. Your new group is added to the list.

## Editing Groups

To edit a group of devices, perform the following steps:

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen. The list of registered devices displays.
2. Click the **Groups** tab to display the list of group.
3. Select the group you want to edit by clicking the group name. The group dialog box displays, as shown below where you make changes to the group.

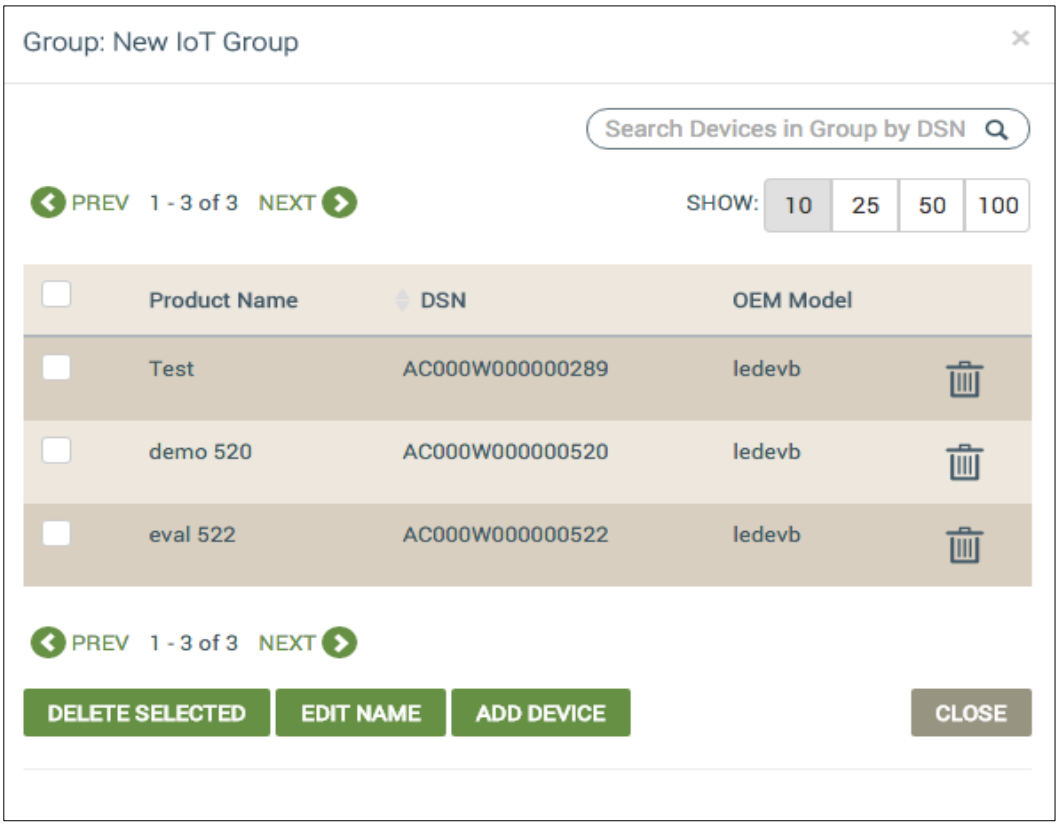


Figure 32 – OEM Dashboard OEM Devices – Editing New Group

4. Select the devices you want to modify from the group by placing a checkmark in the box next to the device **Product Name.**
5. Click the **Delete Selected** button. Alternately, you can also click the **trashcan** icon to delete a device.
6. Click the **Add Device** button to add devices to your existing group.
7. Click the **Close** button when you are done.

## Mapping Devices

You can view the geographic locations of your devices using this feature. When you select one of the locations, (pins on the map), the details of the device is displayed.

To map devices, perform the following steps:

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen. The list of registered devices displays.
2. Click the **Devices** tab to display the list of group.
3. Click the **Map Devices** button at the top of the screen. A map of your device location displays.

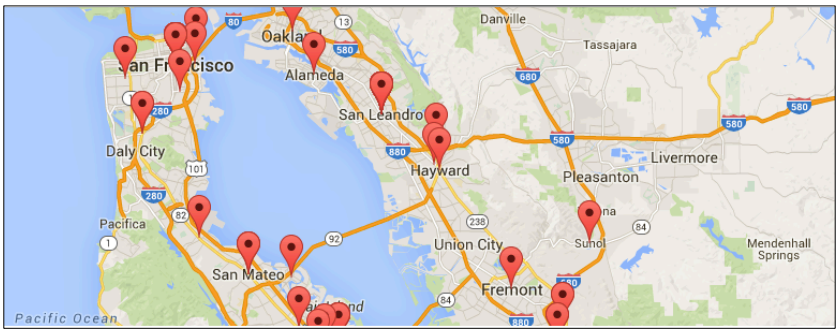


Figure 33 – OEM Dashboard OEM Devices – Mapping Devices

4. Select one of the devices displayed on the map to display more details about the device. The following screen displays.

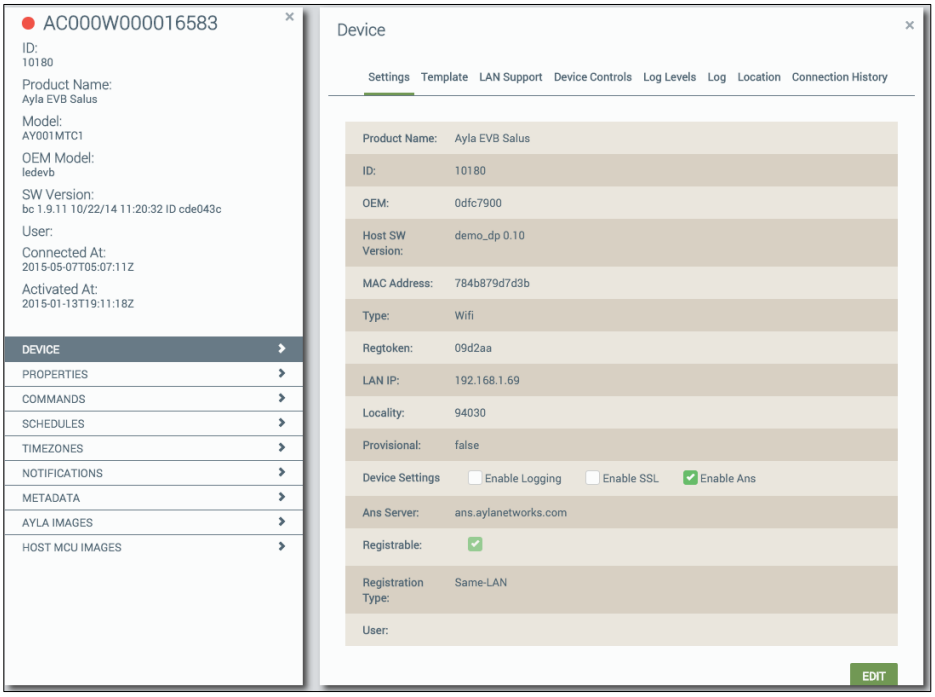


Figure 34 – OEM Dashboard OEM Devices – Mapping Devices Details

The Device details links are in the top left side of the device view. The following links are available:

- Settings
- Templates
- LAN Support
- Device Controls
- Log Levels
- Log
- Connection History

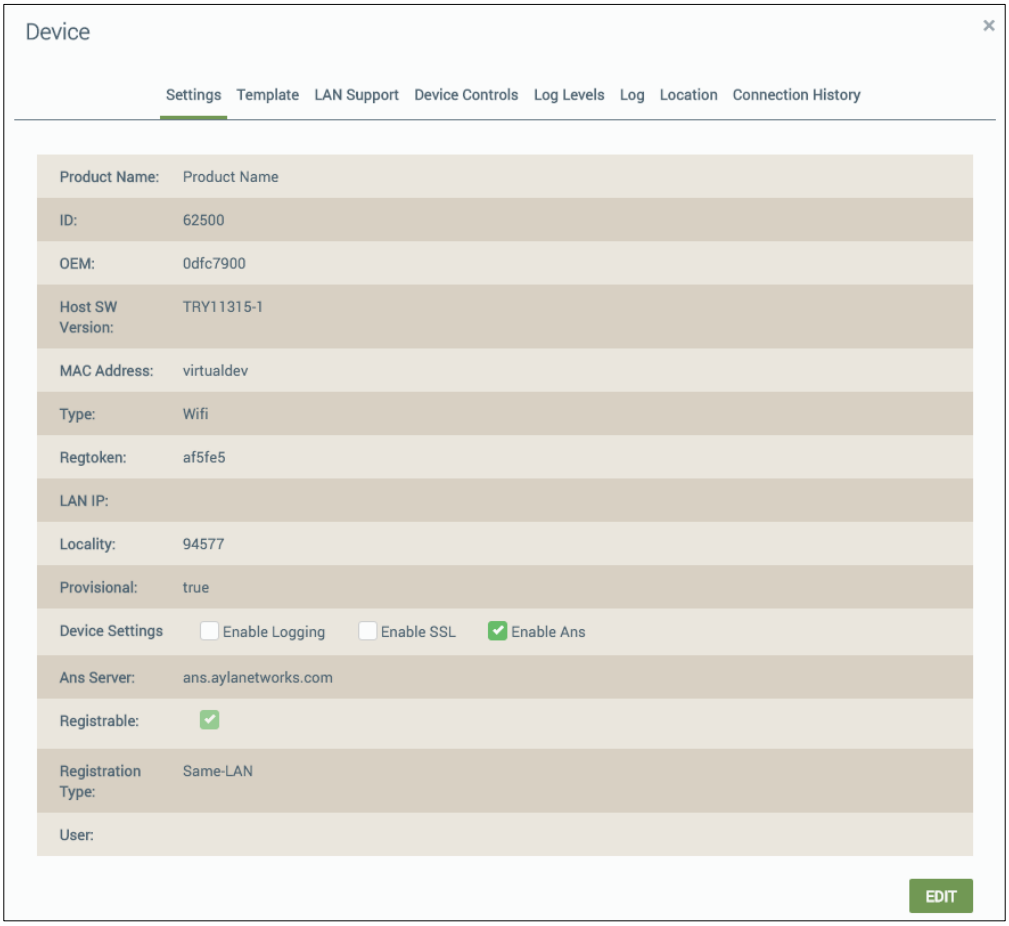


**Figure 35 – OEM Dashboard OEM Devices – Mapping Devices**

## Updating Setting

To update your device settings, perform the following steps:

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **Edit** button to modify the device settings, the following screen displays.

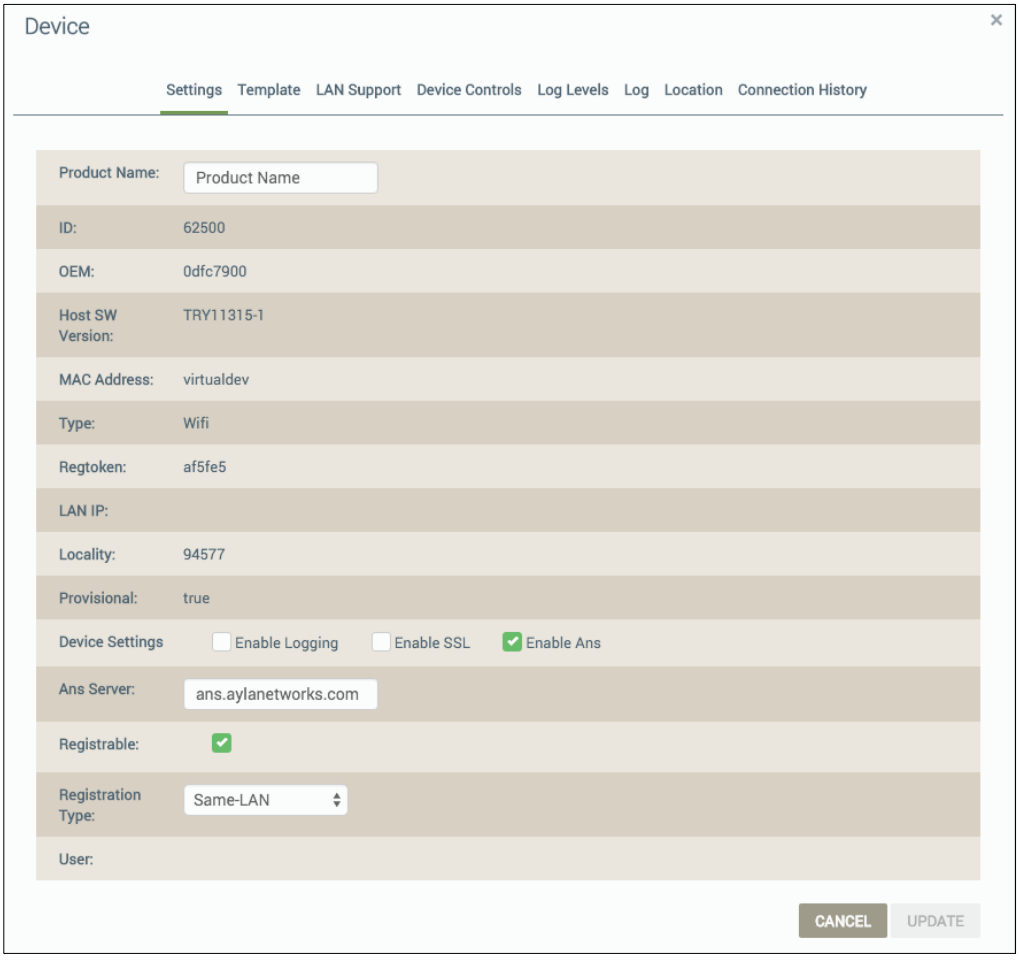


Figure 36 – OEM Dashboard OEM Devices – Updating Settings

## Template

The device template displays information about the template associated with this device. Using this screen you can view properties and change the template associated with a device.

### Changing the Device Template

To change the device template, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the Devices listed. The device details screen displays.
3. Click the **Template** button to view template settings.
4. Click the **Edit** button the following screen displays.

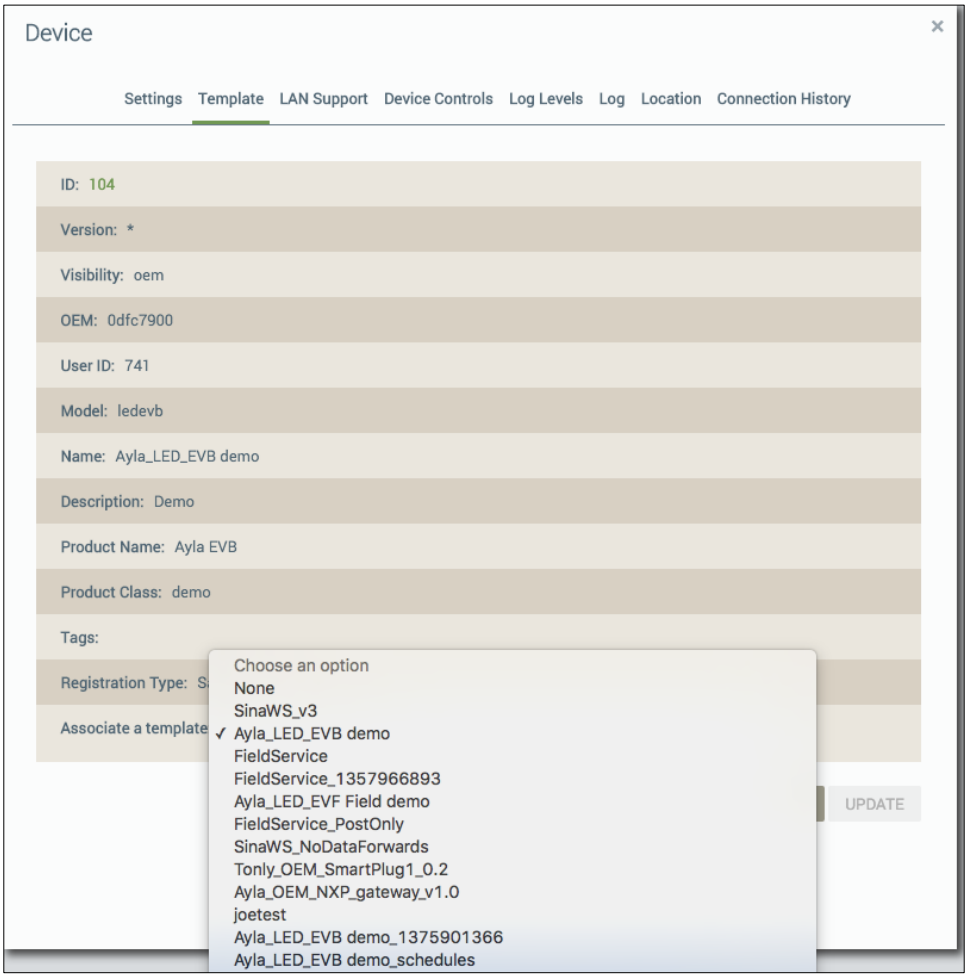


Figure 37 – OEM Dashboard OEM Devices – Templates

5. Choose one of the available templates from the drop down to associate with your device.
6. Click the **Update** button to assocate the selected template with your device.

## LAN Support

LAN Support provides local communications between applications and devices when they are both on the same Wi-Fi network. Enabling LAN support applications provides the following:

- Mobile apps will automatically use Local network when nearby.
- Much faster mobile to device control.
- Reduced latency for all LAN Mode Enabled (LME) APIs.
- Direct property/connection status updates from the device, polling for device properties is not required.
- Secure communications between applications and modules.
- Session management for applications.
- Automatically route traffic to the device or the cloud.

### Enabling LAN Support

To enable LAN support, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the Devices listed. The device details screen displays.
3. Click the **LAN Support** button, the following screen displays.

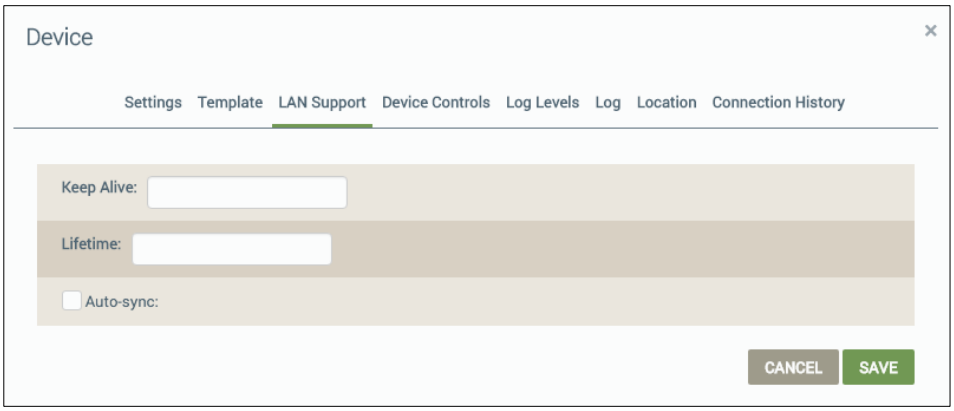


Figure 38 – OEM Dashboard OEM Devices – LAN Support

4. Enter the **Keep Alive** information in the field provided. Keep Alive is the UDP keep alive beacon time which is how often the mobile app has to send a heartbeat to the module to keep the session alive; otherwise the device will terminate the session.
5. Enter the **Lifetime** information in the field provided. The Lifetime option is the time in seconds that the unique LAN-paring keys are valid. When the pairing expires, the device and the mobile app need to reconnect to the cloud before they are given a new set of LAN keys.
6. Click the **Save** (or Cancel) button.

## Device Controls

The Device Controls tab provides the various options to send certain commands to the device. For example, using the devices controls toggling the device **Setup Mode** button will keep the device on Setup Mode.

### *View/Update Device Setup Modes*

To view/update device setup modes, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the Devices listed. The device details screen displays.
3. Click the **Device Controls** button, the following screen displays.

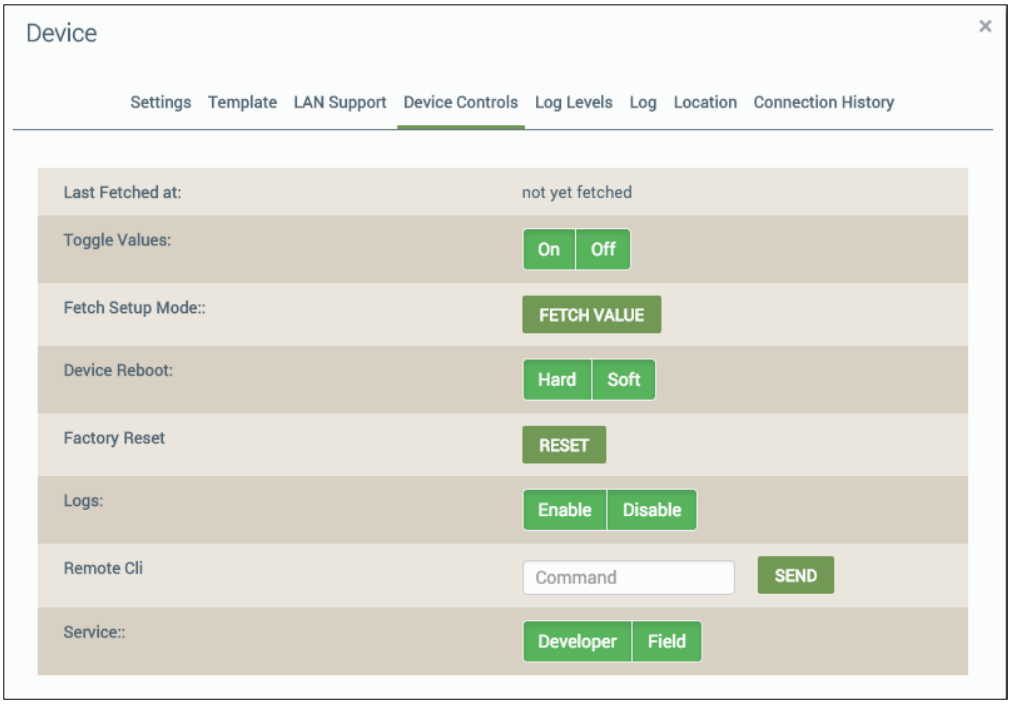


Figure 39 – OEM Dashboard OEM Devices – Device Controls

4. Use this screen to change or modify your device controls. The table below lists the available settings and options.

Table 1. OEM Dashboard OEM Devices – Device Controls

| Setting | Option |
|---|---|
| Toggle Value | **On** or **Off** |
| Fetch Setup Mode | Sends email with the value |
| Device Reboot | **Hard** reboot or **Soft** reboot |
| Factory Reset | Reset |
| Logs | Enable or Disable |
| Remote Cli | Command |
| Service | Developer or Field |

## Log Levels

Log levels specifies what log information is stored for a specific device. You can access and edit log levels for your devices by selecting the device and then clicking the **Log Levels** tab.

### Editing Log Levels

To view or update log levels, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the Devices listed. The device details screen displays.
3. Click the **Log Levels** button, the following screen displays.

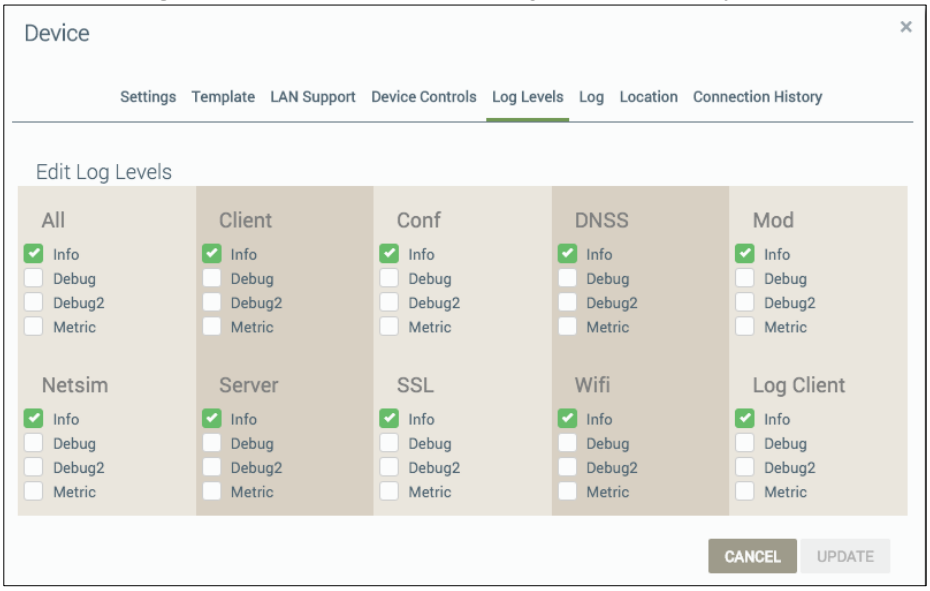


Figure 40 – OEM Dashboard OEM Devices – Log Levels

4. Edit Log Levels as desired with log levels:
    a. **Info** – general messages (not errors or warnings)
    b. **Debug** – more detailed information as well as warnings and errors
    c. **Debug2** - lower level detailed information as well as warnings and errors
    d. **Metric** – data on connections and internal performance information

Table 2. OEM Dashboard OEM Devices – Log Levels

| Log Levels | Description |
|---|---|
| All Log Levels | Default for all other categories |
| Client | Device to service and mobile LAN Agent logs |
| Conf | Configuration logs |
| DNSS | DNS and mDNS server logs |
| Mod | Logs not include in other logs |
| Netsim | Not applicable – no longer supported |
| Server | Internal web server logs |
| SSL | SSL or TLS logs |
| Wi-Fi | Wi-Fi logs |
| Log Client | Logs sent to the server |

5. Click the **Update** (or Cancel) button at the bottom of the form.

## Logs

Users can access and download the logs under from the Logs tab to their local destination.
**NOTE**: Ayla does not provide any current FTP options to access or send logs.

### Searching and Accessing Logs

To search and access logs, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **Log** button, the following screen displays.

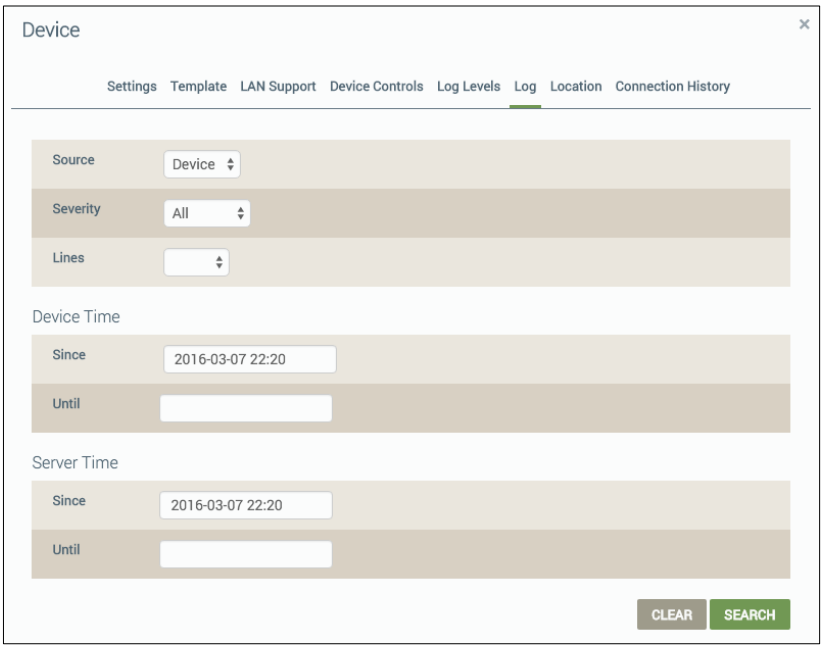


Figure 41 – OEM Dashboard OEM Devices – Log

Table 3. OEM Dashboard OEM Devices – Log

| Settings | Option | Description |
|---|---|---|
| Source | Device/Mobile | The source where the data |
| Severity | All/Warning/Info/Error | This is the severity filter you can set when obtaining log data |
| Lines | 50/100/500/1000/5000 | The number lines to display in each log |
| Device time | Since/Until | The time period you can specify in your request for log data |
| Server time | Since/Until | The time period you can specify in your request for log data |

4. Click the **Clear**, **Search**, or **Refresh** button.

### Searching Logs

To search for logs, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **Log** tab from the top of the screen, the following screen displays.

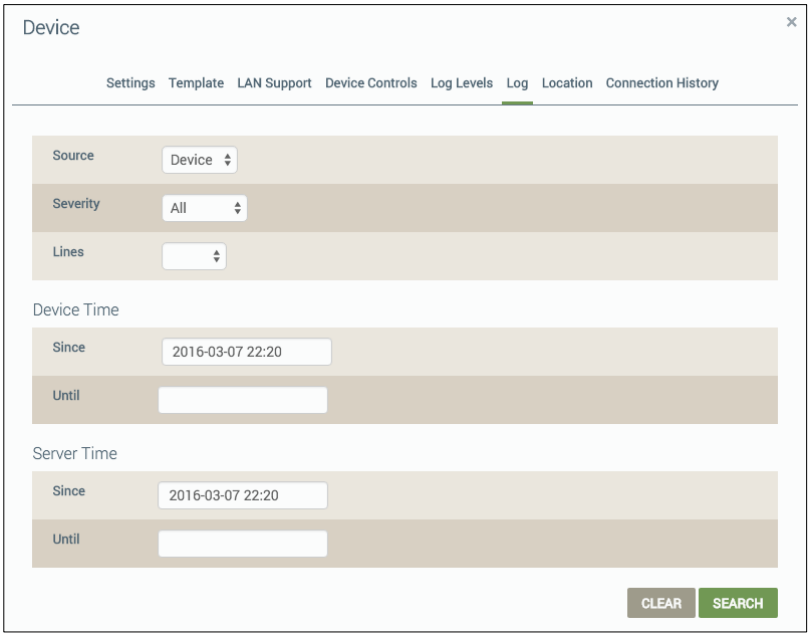


Figure 42 – OEM Dashboard OEM Devices – Log

Table 3. OEM Dashboard OEM Devices – Log

| Settings | Option | Description |
|---|---|---|
| Source | Device/Mobile | The source where the data |
| Severity | All/Warning/Info/Error | This is the severity filter you can set when obtaining log data |
| Lines | 50/100/500/1000/5000 | The number lines to display in each log |
| Device time | Since/Until | The time period you can specify in your request for log data |
| Server time | Since/Until | The time period you can specify in your request for log data |

4. Click the **Clear**, **Search**, or **Refresh** button.

## Location

The location tab shows the location of your device on a map. See Mapping Devices on page 29.

To view device locations, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **Location** button, the following screen displays.

   **Note:** If your device or devices are offline the map is will not display any points.

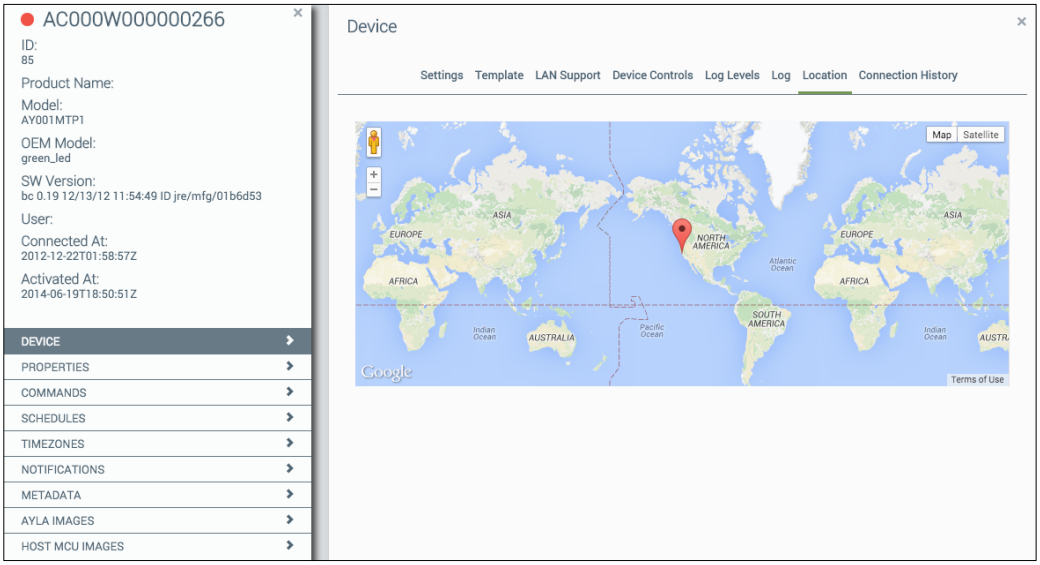


**Figure 43 – OEM Dashboard OEM Devices – Mapping Devices Location**

## Connection History

The connection history tab shows a list of the connection event time in UTC and the status of the device.

To view connection history, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **Connection History** button, the following screen displays.

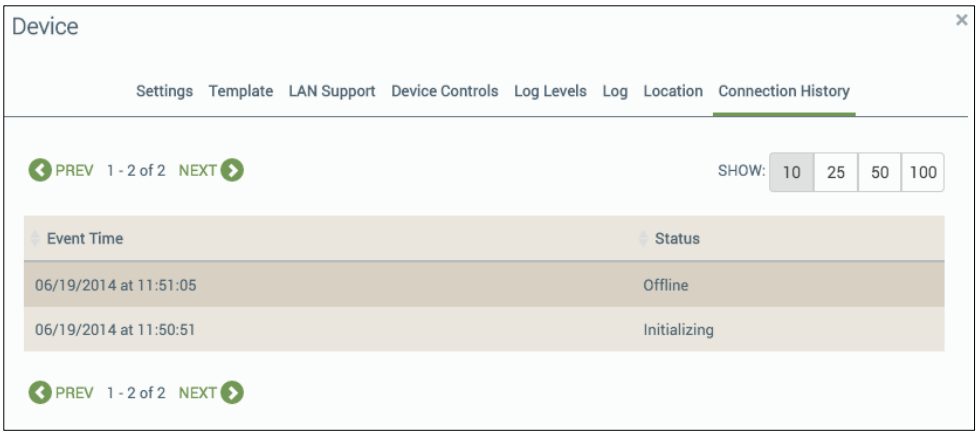


Figure 44 – OEM Dashboard OEM Devices – Connection History

## Additional Devices Views

You can access additional device views using the menu options listed on the left side of the devices details screen, as shown in the figure below.

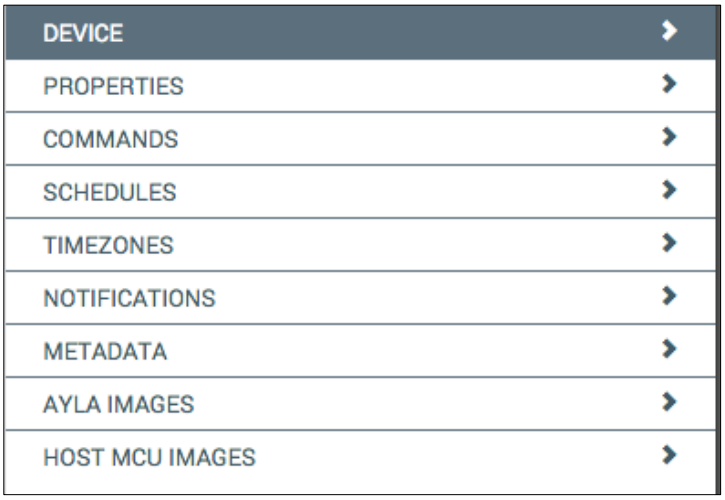


Figure 45 – OEM Dashboard - OEM Devices – Additional views

### Properties

The Properties screen allows you to view all the properties associated with a device. Using this screen you can also create new properties.

To view the detail properties of your device, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.

2. Click one of the devices listed. The device details screen displays.
3. Click the Properties link. The Properties details page displays as shown in the figure below.

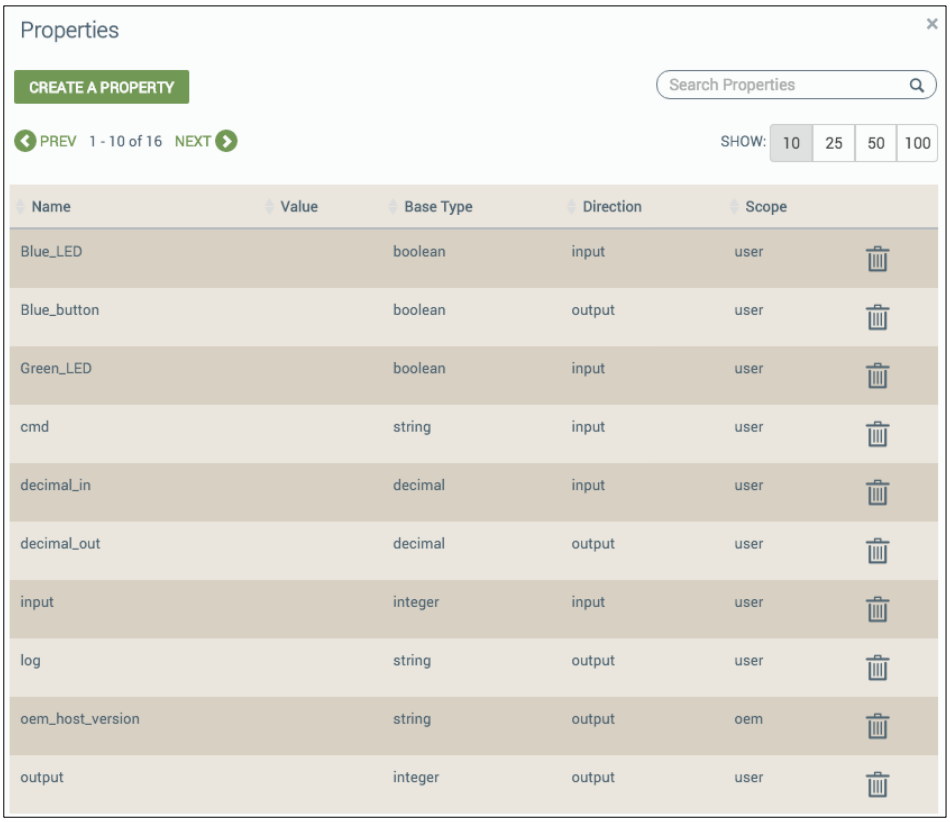


**Figure 46 – OEM Dashboard OEM Devices – Connection History**

You can view all the properties configured for your device from this screen. Selecting the device property displays details about the property.

### *Create a New Property*

To create a new property, perform the following steps.

1. On the **Devic**es, Properties view, click the **Create a Property** button at the bottom left side. The **New Property** form opens, as shown in Figure 38.

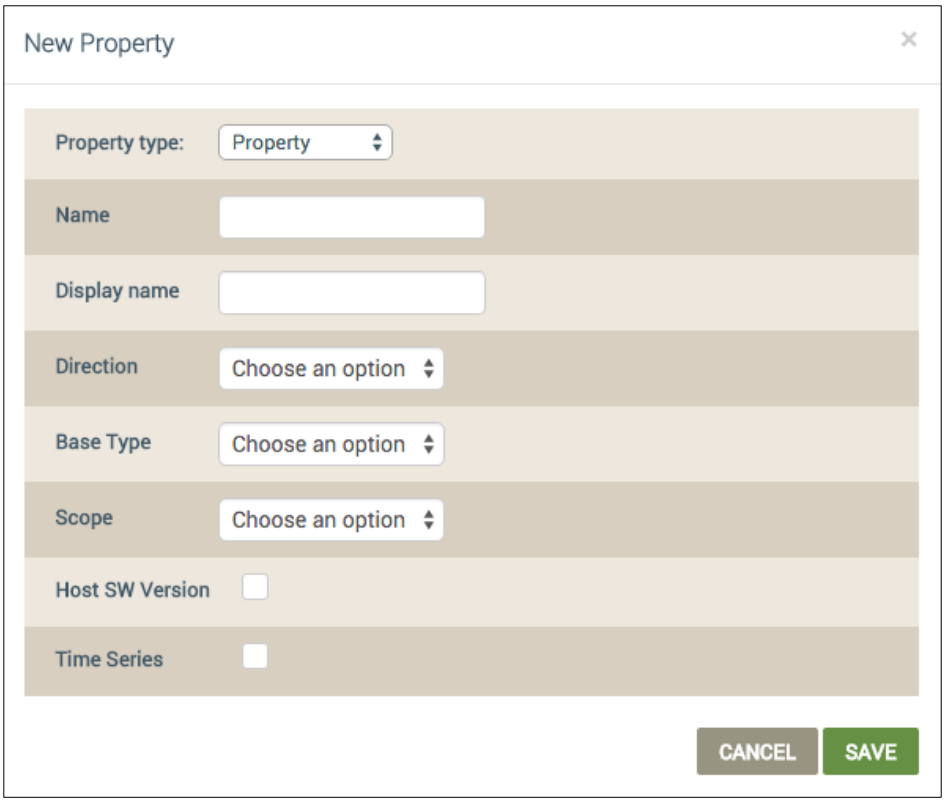


Figure 47 – OEM Dashboard OEM Devices – New Property

2. Enter the **Name** and **Display name**.
3. Select the **Direction, Base Type** and **Scope** using the options in the drop down menus.

   The **Direction** is the "Upload/Download" direction of property coming from device or the user of the device. The Base Type is the data type of property associated with your connectivity type. The base property type displayed as an Integer, String and Boolean. Connectivity Type options are **data point ACK**, **connectivity**, and **registration**. The **Scope** defines who is allowed to see the property.

4. Check the **Host SW Version** checkbox, if desired. This is the host software associated with a specific device. Checking Host SW version indicates if ADS should treat their property as the Host MCU software version.
5. Check the **Time Series** checkbox, if desired. Checking the **Time Series** option helps queue the datapoints when the device goes offline. When the device comes back online ADS will send all the datapoints to the device.
6. Click the **Save** (or Cancel) button.

## Commands

You can use this screen to view all commands that were sent to the device. From this screen you can use the **PREV** and **NEXT** buttons to page through the list of commands or remove commands using the **DELETE ALL** button.

To access the commands options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **COMMANDS** tab located in menu options on the devices detail screen. The following screen displays.

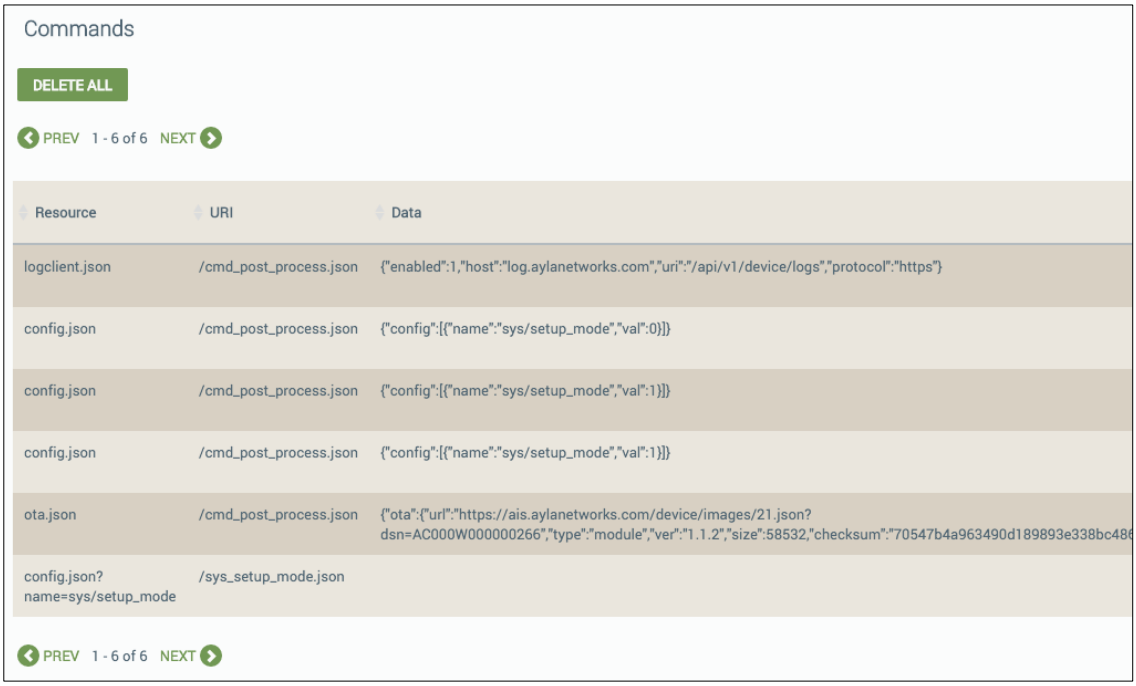


Figure 48 – OEM Dashboard OEM Devices – Commands

### *Deleting All Commands*

To delete all commands, click the **Delete All** button.

## Schedules

The schedules tab allows you to create schedules. You can create new schedules as well as make changes to current schedules. Schedules are used to manage your device activity.

To view the device schedule options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.

2. Click one of the devices listed. The device details screen displays.
3. Click the **SCHEDULES** tab located in the menu options on the devices detail screen. The following screen displays.

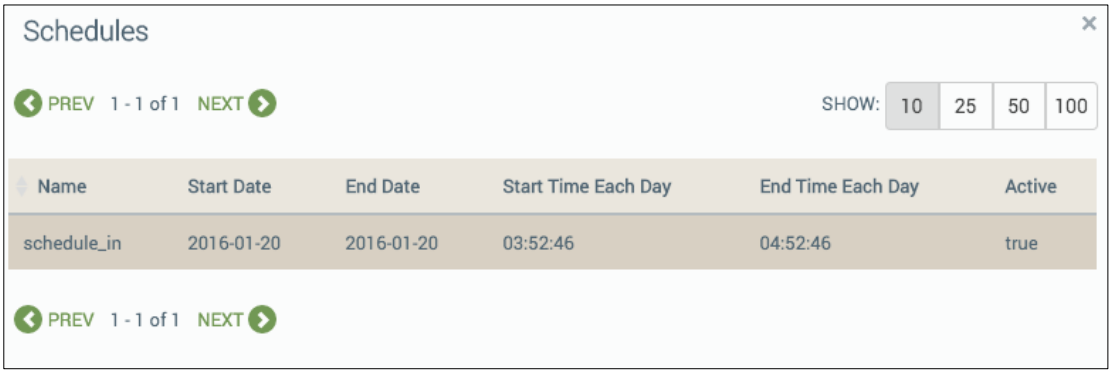


Figure 49 – OEM Dashboard OEM Devices – Schedules

## TImeZones

You can use the following screen to view all timezones assigned to your devices.

To access the device timezones options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **TIMEZONES** tab located in the menu options on the devices detail screen. The following screen displays.

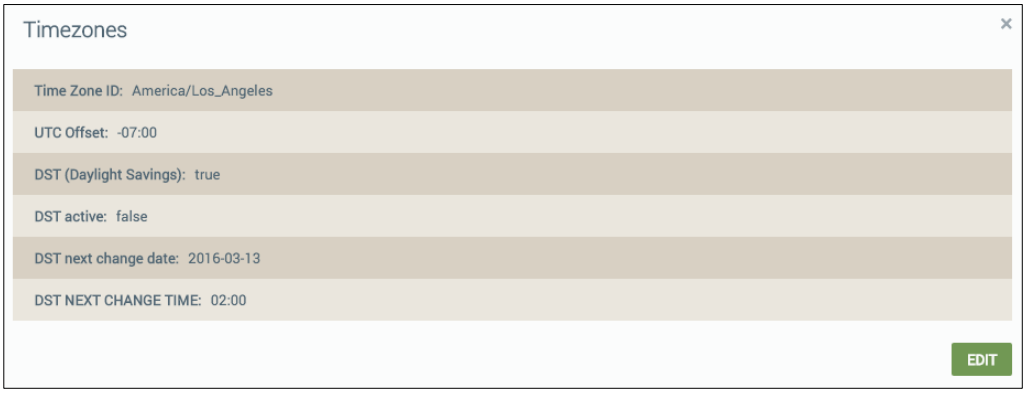


Figure 50 – OEM Dashboard OEM Devices – Time Zones

You can use the **Edit** button at the bottom of the screen to change the Timezones parameters.

## Editing TimeZones

You can change the timezones parameters to reflect the geographic locations of your devices.

To edit timezones, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed to display the device details.
3. Click the **TIMEZONES** tab located in the menu options on the devices detail screen.
4. Click the **Edit** button. The following screen displays where you can change Timezones parameters.

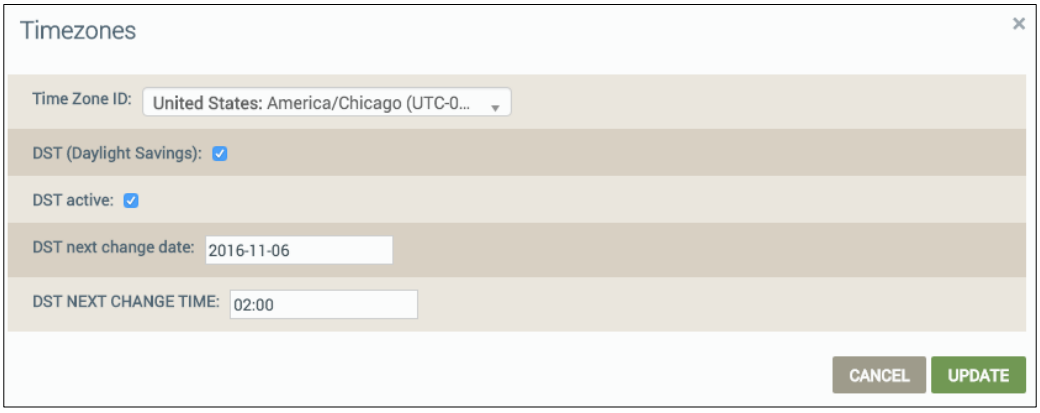


Figure 51 – OEM Dashboard OEM Devices – Edit Time Zones

5. Edit the **Time Zone ID** and **DST** (Daylight Saving Time) parameters.
6. Click the **Update** button to save your Timezones changes.

## Notifications

Notifications provide you with a list of all notification types, their threshold, URL and a Username. The notification you set here is based on the devices activity that you wish to monitor.

You can use this screen to view all notifications. Ayla allows proactive OEM and User defined alerts like Email, SMS, iOS Push, and Android Push including the ability to insert dynamic data into notifications.

To access and view device notification options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **NOTIFICATION** tab located in the menu options on the devices detail screen. The following screen displays.

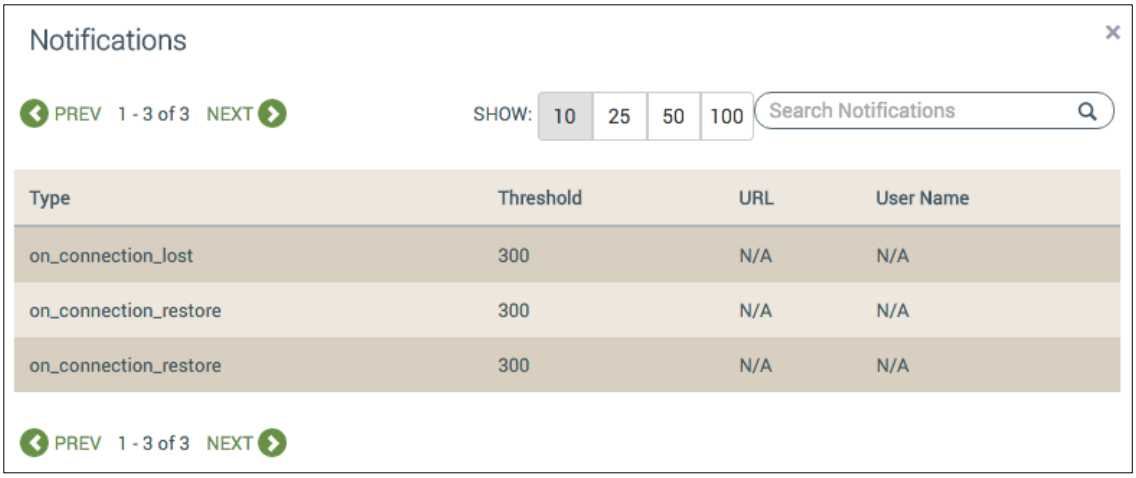


Figure 52 – OEM Dashboard OEM Devices – Notifications

## Metadata

You can use the following screen to view Metadata. Metadata can be used by the Host MCU to accentuate each datapoint update. The metadata can be useful by providing additional debug, trace or other information.

To access and view a devices' metadata, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.

3. Click the **METADATA** tab located in the menu options on the devices detail screen. The following screen displays.

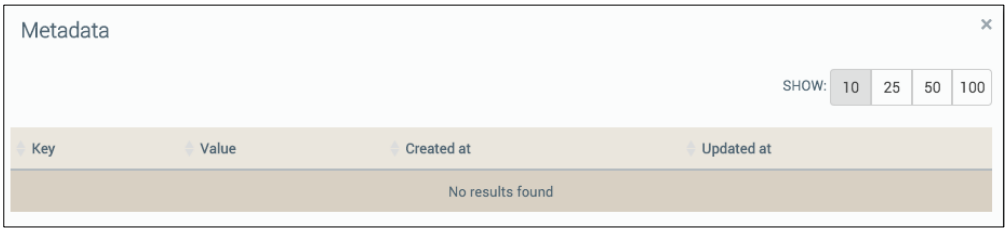


Figure 53 – OEM Dashboard OEM Devices – Metadata

## Ayla Images

Using the Ayla Images You can use the following screen to view Ayla images. Using this screen users can **View**, **Search** and **Deploy** Ayla configured images. Ayla images are the actual firmware loaded on Ayla modules.

To access the Ayla Images, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **AYLA IMAGES** tab located in the menu options on the devices detail screen. The following screen displays.

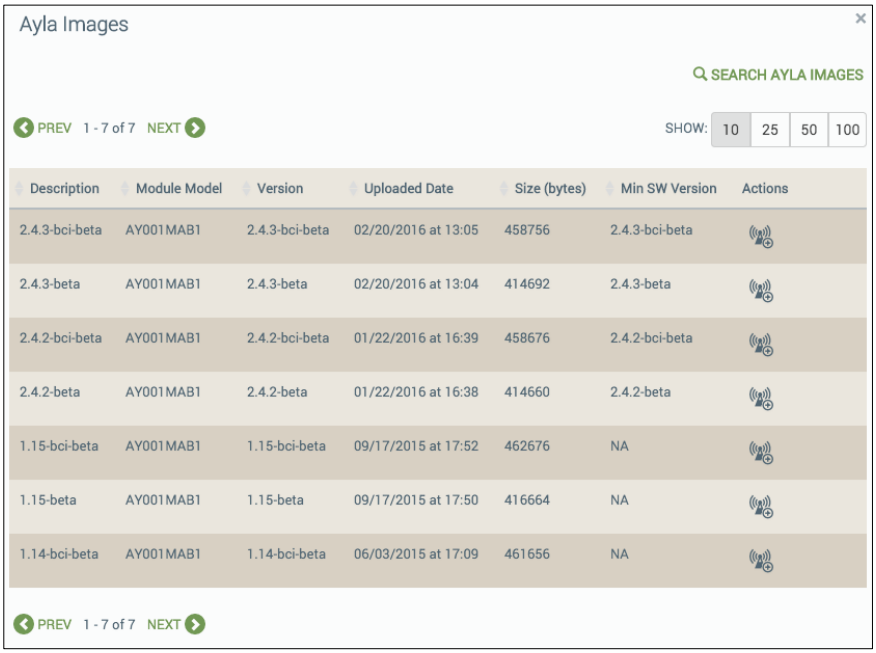


Figure 54 – OEM Dashboard OEM Devices – Ayla Images

## Host MCU Images

Host MCU Images are images that are deployed and communicates directly with Ayla enabled Wi-Fi modules. Using the Host MCU Images screen you can view details about the MCU Host Images, deploy images or download a MCU Host Image.

To access the host MCU images options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **HOST MCU IMAGES** tab located in the menu options on the devices detail screen. The following screen displays.

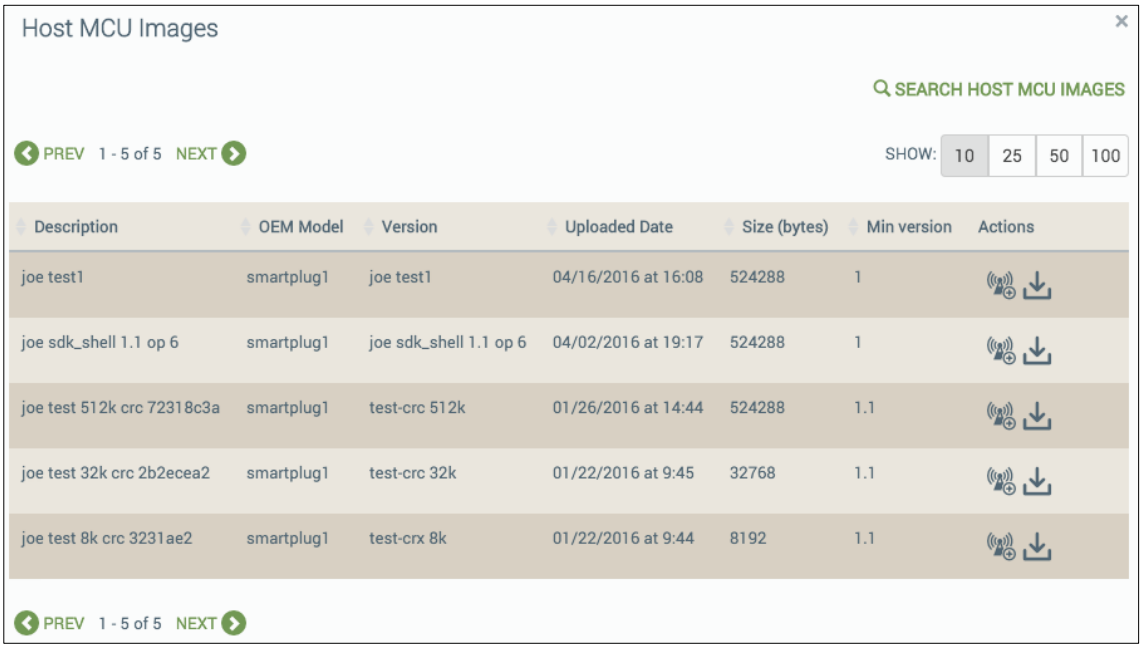


**Figure 55 – OEM Dashboard OEM Devices – MCU Images**

To edit Host MCU images, click one of the images from the list to display that specific image details and then click the **EDIT** button on the details page. The Host MCU images screen displays, as shown in the figure below.

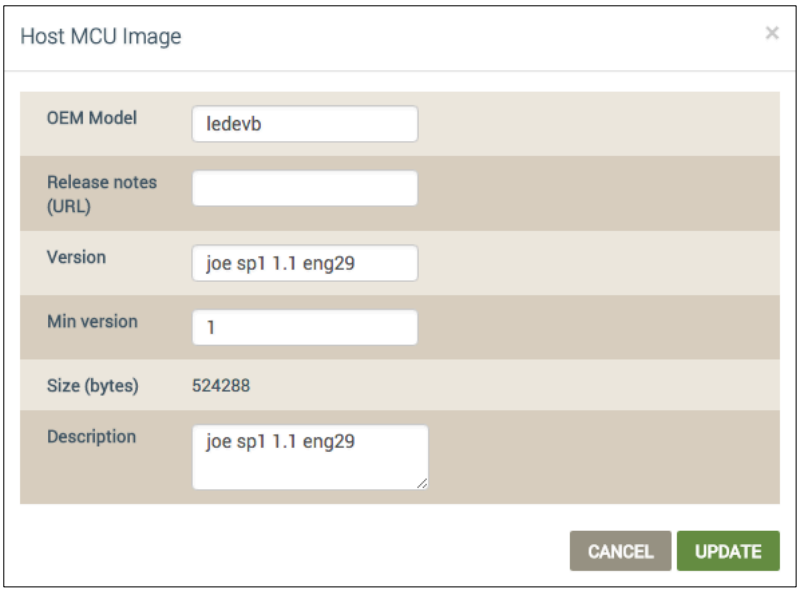


Figure 56 – OEM Dashboard OEM Devices – Edit MCU Image

## Nodes

If you are deploying Ayla's platform gateway you can view the nodes associated with the gateway.

To access the Nodes options, perform the following steps.

1. Launch the OEM Dashboard and select **Devices** from the menu on the left side of the screen.
2. Click one of the devices listed. The device details screen displays.
3. Click the **NODES** tab located in the menu options on the devices detail screen. The following screen displays.

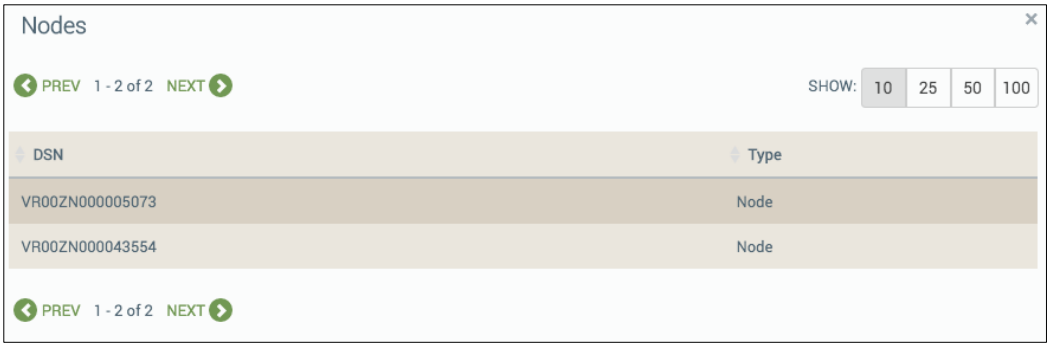


Figure 57 – OEM Dashboard OEM Devices – MCU Images

## End Users

The **End Users** section allows you to view registered users, search for users based on the users name or device and create new users. When you access the End Users screen, information for the ten (10) users displays. You can change the number users you wish to display by selecting one of the options listed under the **SEARCH END USER** link.

### Searching End Users

Using the **Search End Users** link you search for end user based on their name or a device registered and assigned to them.

To search for end users based on a **name**, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click the **SEARCH END USERS** button, the following screen displays.

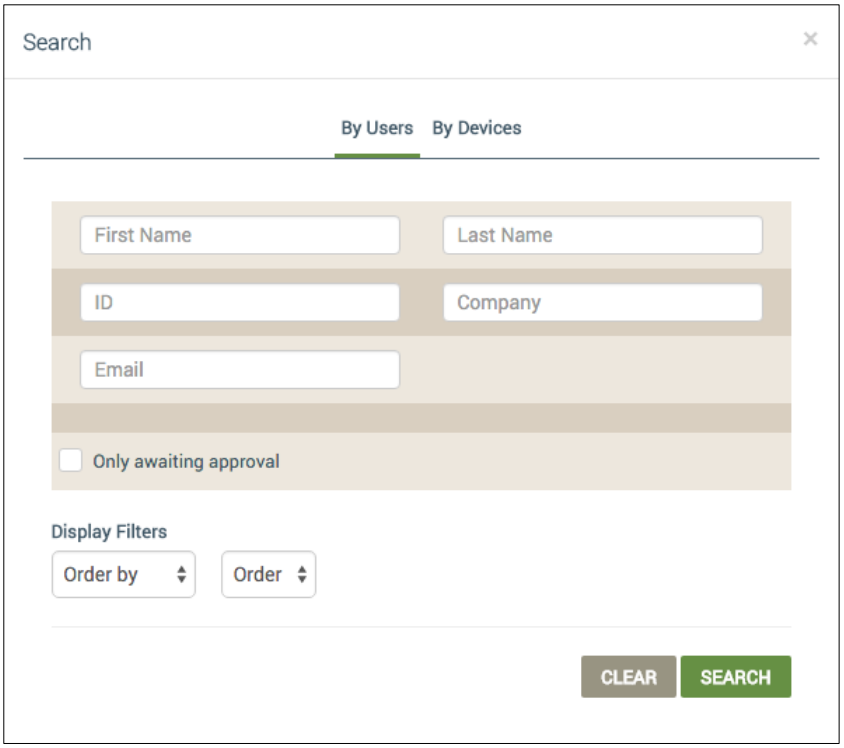


Figure 58 – Search End Users – By Users

3. Under the **By Users** tab, enter the users detailed information in the fields provided. The database ID is created for the OEM user. The **ID** is a unique identifier that associates a device with a specific user.
4. Using the **Display Filters,** specify the order you would like to have your results displayed.

5. Click the **Search** button to complete your search.

To search for end users based on **devices**, perform the following steps.

1. Click the **SEARCH END USERS** button.
2. Click the **By Devices** tab, the following screen displayed.

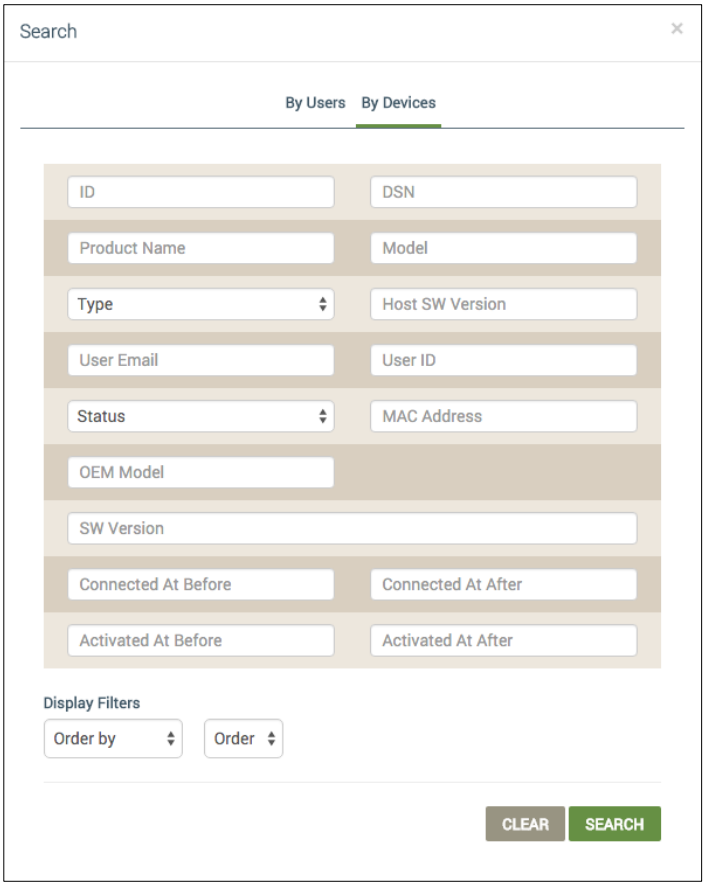


Figure 59 – Search End Users – By Devices

3. Enter the users detailed information in the fields provided.
4. Using the **Display Filters** specify the order you would like to have your results displayed.
5. Click the **Search** button to complete your search.
   The following screen is an example of the results returned and the list of devices registered to the user.

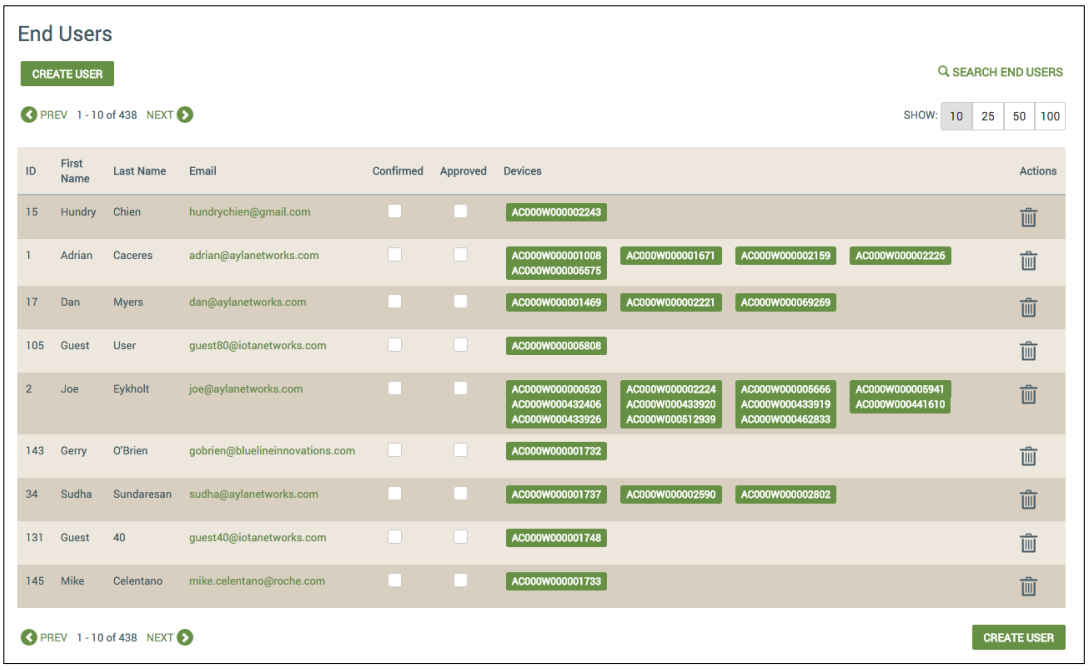


Figure 60 – OEM Dashboard – End Users

6. Click any devices listed to show the details for that particular device, as shown below.

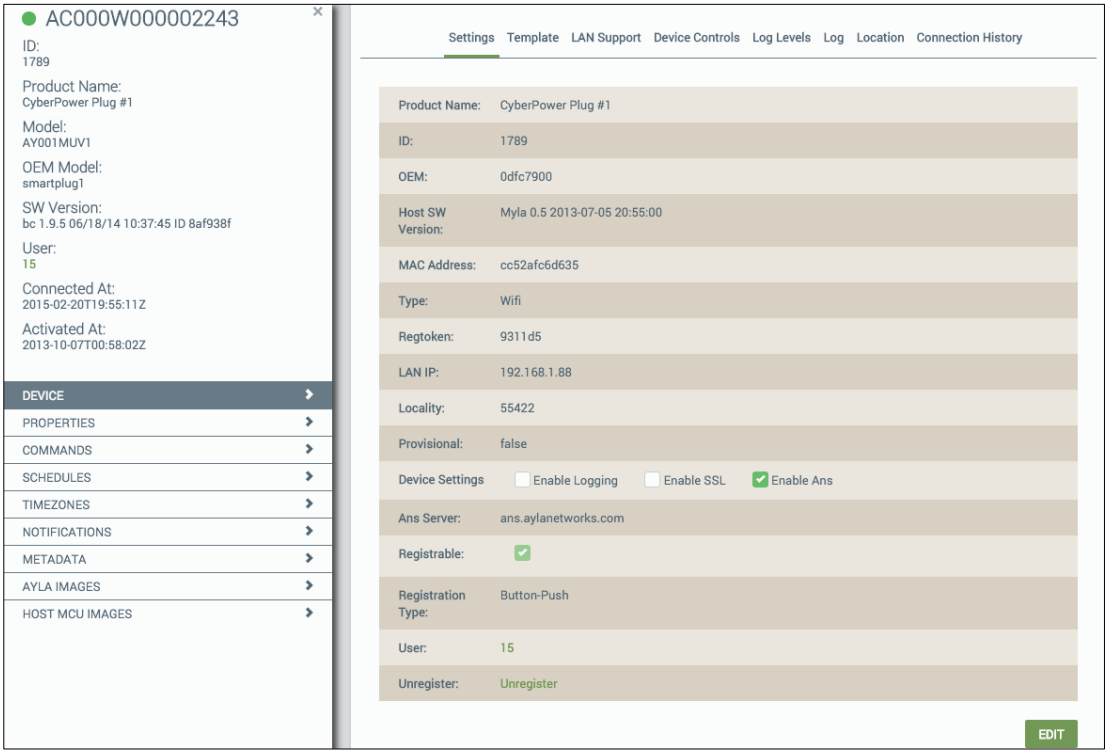


Figure 61 – OEM Devices – Settings

## End User Details

You can view details about your end users from this screen by clicking the users name or email The User Details section provides information on the users Metadata, Shares, Contacts and Devices.

To view end users metadata details, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click a users name, or email to display the users details. The following screen displays.

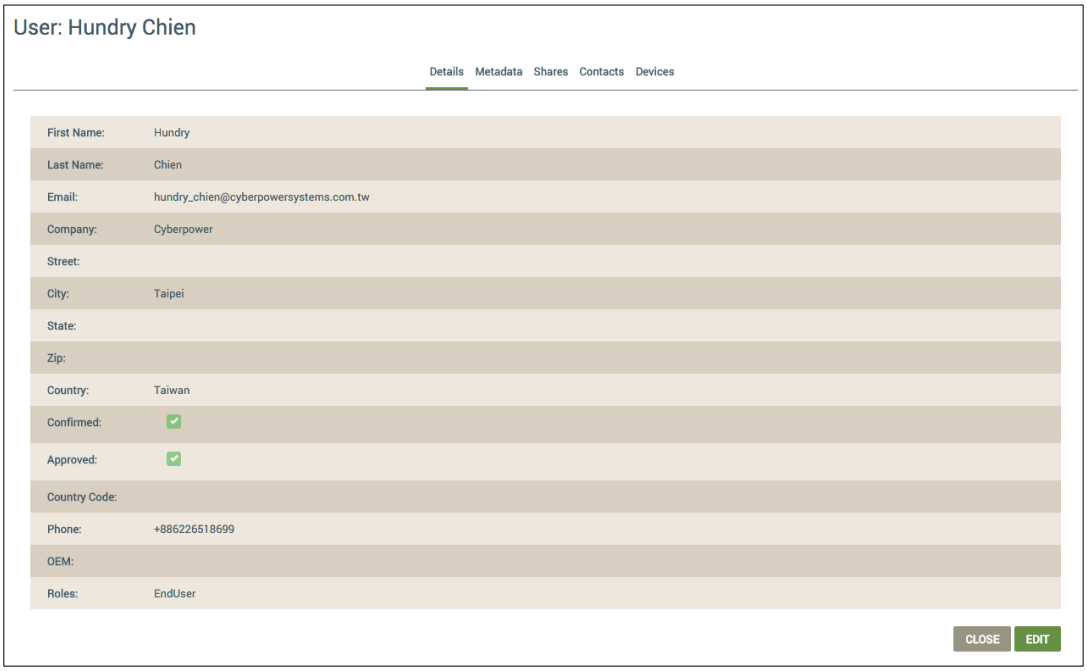


Figure 62 – End User Details

## End User Metadata

You can view metadata details about your end users from this screen by clicking the users name or email.

To view end users details, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click a users name, or email to display the users details.
3. Click the **Metadata** tab, the following screen displays.

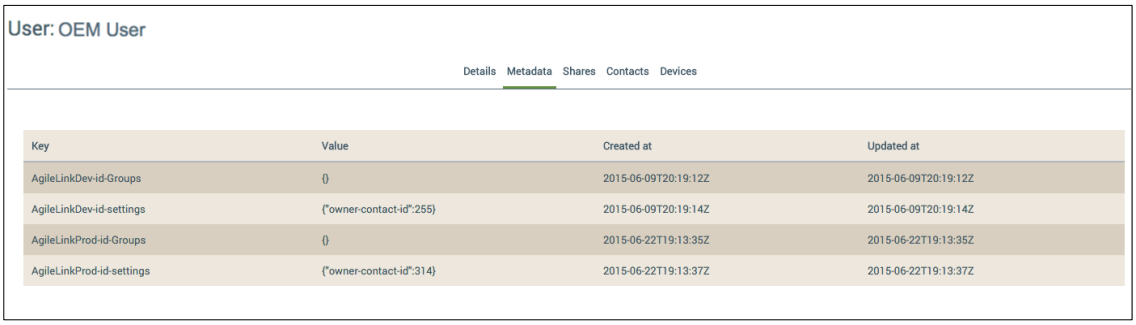


Figure 63 – End Users – Metadata

User Metadata shows the Key, Value, Created at (date), and Updated at (date).

## End User Shares

End User Shares is where OEM's can configure the devices shared by the registered user to others. For example, members of a family can share a device. Hotel guests can get shares on the devices in their room. Selecting the **Shares** tab opens the **End Users Share** view.

To view end users shares, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click a users name, or email to display the users details.
3. Click the **Shares** tab, the following screen displays.

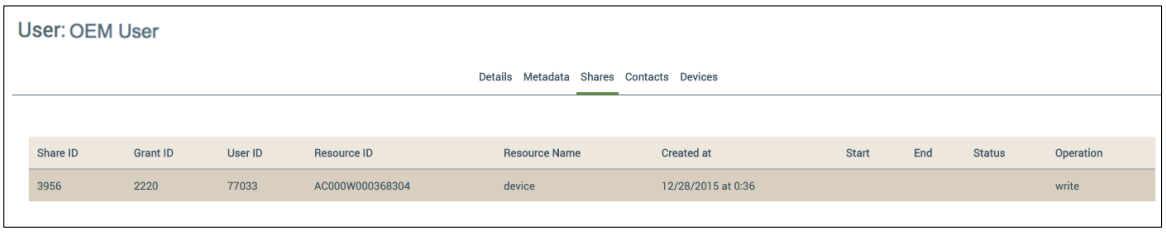


Figure 64 – OEM Dashboard End Users – Shares

The end user shares view includes the following information.

Table 4. OEM Dashboard End Users – Shares

| Share Label | Share Label Description |
|---|---|
| Share ID | The ID of the device being shared |
| Grant ID | The ID of the OEM granting use of the shared device |
| User ID | The ID of the user authorized to share this device |
| Resource ID, | The property ID of the device |
| Resource Name | The Name of the device being shared |
| Created at (date) | The date the share process was created |
| Start (date) | The start date the device being shared |
| End (date) | The end date of the device being shared |
| Status | The current status of the device. On/Off |
| Operation | The action that the user |

## End User Contacts

Clicking Contacts opens the End Users Contacts view.

To view end users contacts, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click a users name, or email to display the users details.
3. Click the **Contact** tab, the following screen displays.

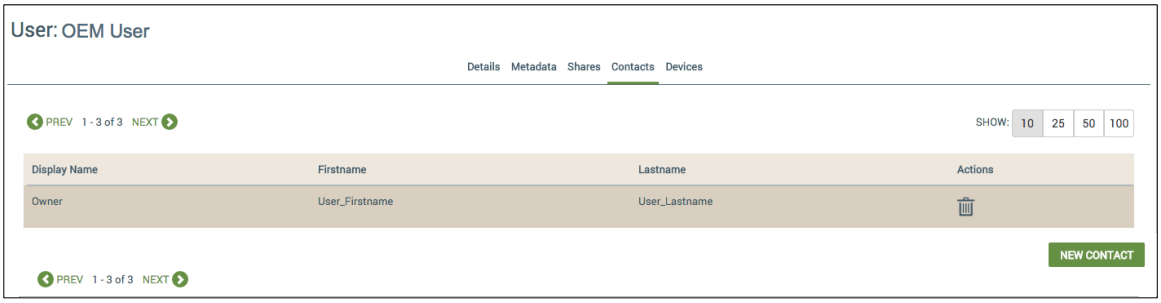


Figure 65 – OEM Dashboard – End User Contacts

User Contacts data shows the **Display Name, Firstname, Lastname**, and **Actions**.

## End User Devices

Click on a device in the Devices column to open the details of the device.

To view end users devices, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click a users name, or email to display the users details.
3. Click the **Devices** tab, the following screen displays.

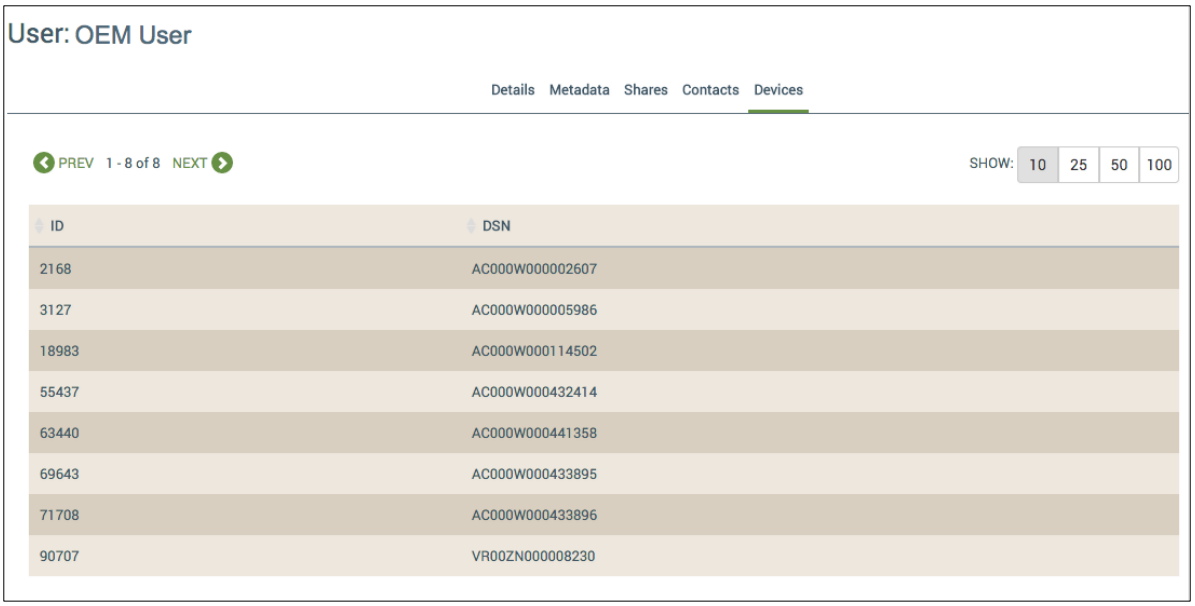


**Figure 66 – OEM Dashboard – Devices**

User Devices data shows the ID and DSN information.

## Create a new End User

You use the OEM dashboard to create new end users

New users you create are added the list of users displayed in the dashboard. When you create new end users you can assign privileges to users, which can provide access and control over specific devices.

To view end users shares, perform the following steps.

1. Launch the OEM Dashboard and select **End Users** from the menu on the left side of the screen.
2. Click the **Create User button**, the following screen displays.

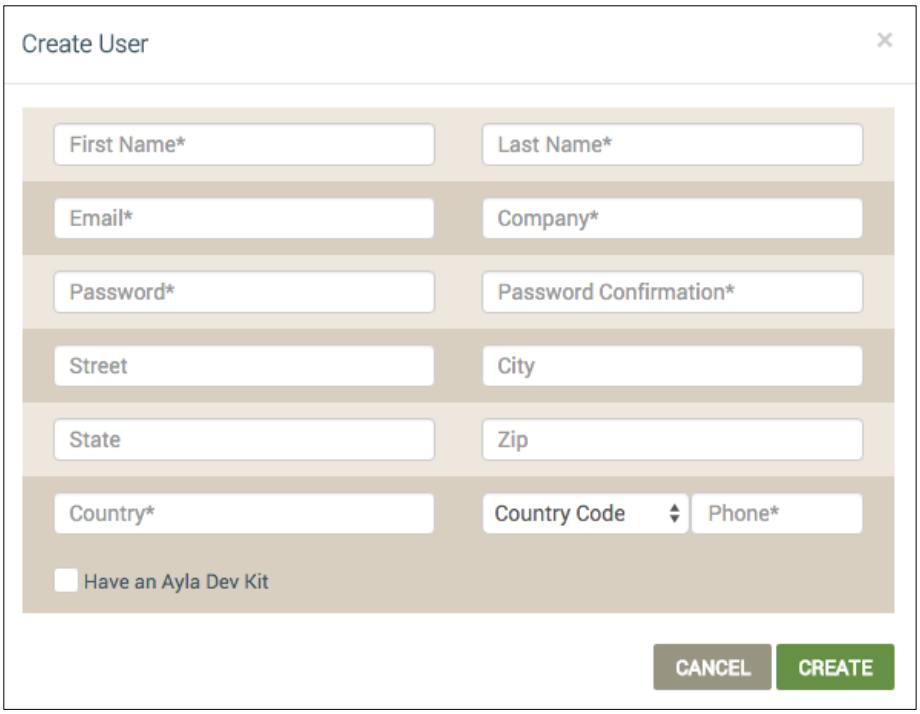


Figure 67 – OEM Dashboard –Create New End User

3. Enter the user's information in the fields provided.
4. Click the **Create** button, to create a new user. The new user is added to the list of end users.

## OTA

OTA is a solution to update images in both the Wi-Fi module and the product solution. This may be required due to necessary updates in the communications protocol, improvements in the transport or security service, or for product functionality improvements.

The Ayla OEM Dashboard allows you to perform OTA management tasks, such as create, update and track all OTA images (firmware updates) in developer and field environments. This is available for module software, application MCU, and Linux firmware updates. You can typically create a group of devices and then have OTA jobs for those groups.

Suggested practices for moving from the Developers Portal to the OEM Dashboard are listed below:

- Test on the Developer Environment - Any new OTA firmware update needs to be tested in the developer environment.
- Ramp up on Field Environment - Start with 5-10% of field devices with an OTA job, then wait until the job is complete and make sure all the devices, which are online, have successfully updated to new firmware version.
- Complete Deployment on Field Environment
- Update all other field devices in blocks of 100-1000 devices.
- Make sure each job is successful for each OTA job.

The following sections discuss the functionality of each operation.

## Ayla Images

You can view details about Ayla Images from this screen by clicking the users name or email. To view end users details, perform the following steps.

1. Launch the OEM Dashboard and select **OTA** from the menu on the left side of the screen.

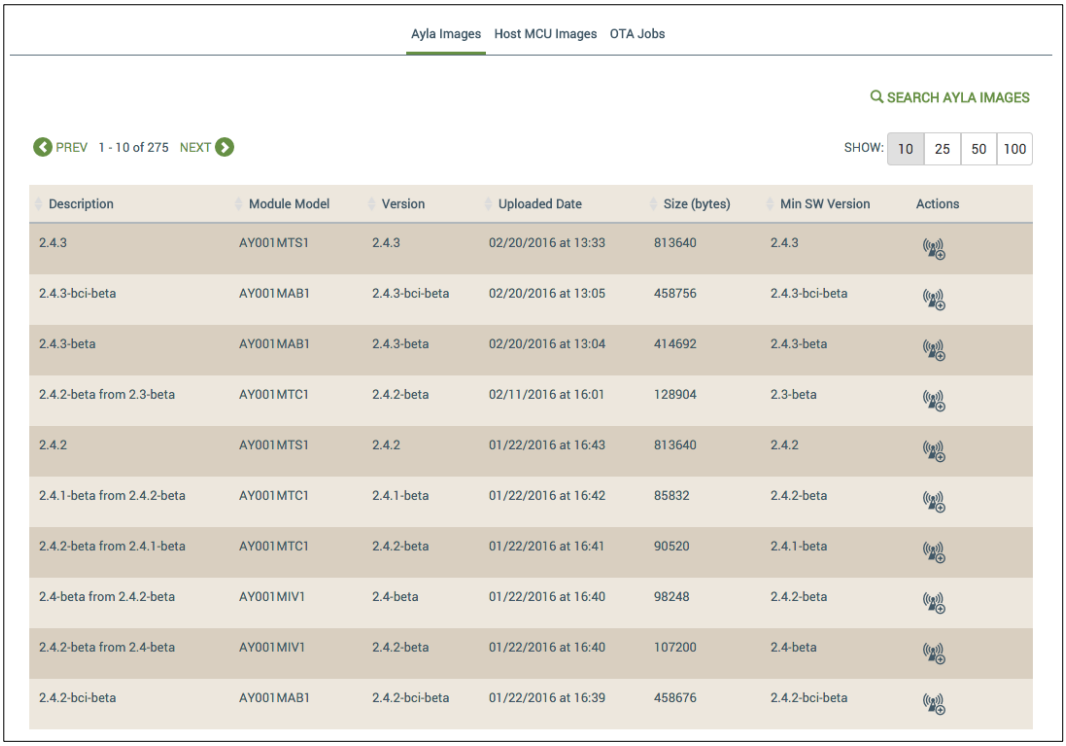


**Figure 68 – OTA – Ayla Images**

**Table 5. OTA – Ayla Images**

| Ayla Images Category | Descriptions |
|---|---|
| Description | |
| Module Model | Enter the OEM Model associated with the Ayla Images. |
| Version | Enter the Ayla Image version number. |
| Uploaded Date | The date and time of the Host MCU image was uploaded. |
| Size (Bytes) | The size of the Host MCU image. |
| Min SW Version | The minimum version number of Host MCU Image. |
| Actions | The types of actions you can perform on the Host MCU Image. |

2. Click one of the model numbers to display the Ayla Image details. The following figure displays.

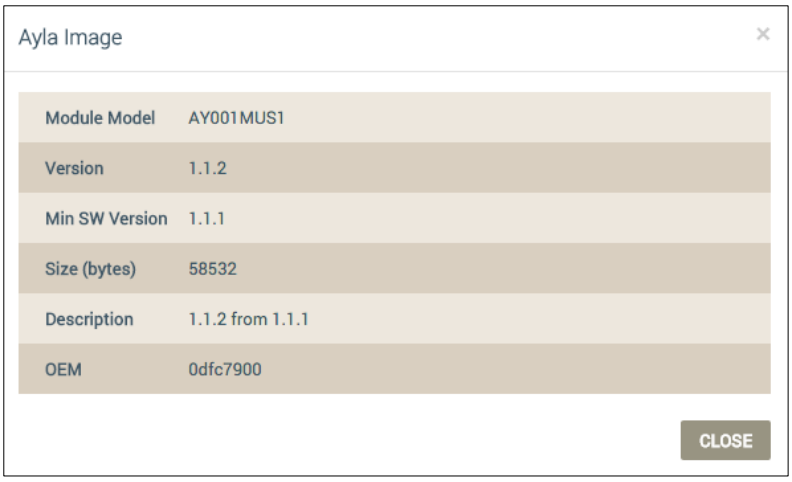


Figure 69 – OTA – Ayla Images Details

**NOTE:** You can only view Ayla developed images. You cannot make any changes to Ayla images from the OEM Dashboard.

## Host MCU Images

The Host MCU image sends and receives name/value pairs between the MCU and the Ayla Device Service (ADS). Names are called properties. Values are called data points.


Figure 70 – OEM Dashboard – Host MCU Images

## How to update a Host Application

### *Preparing the Host OTA*

1. In the Ayla developer website (https://developer.aylanetworks.com) choose one of the following:
   - Clone an existing template and update the version of the template

   - OR -
   - Define a new template for your device
2. In the new/updated template, define a template property that tracks the **Host SW Version** of the device.
3. Check the flag **Host SW Version** for the property. Make sure that the property is **OEM** scope.
4. Update the **Host Application Software version** (oem_host_version) to the new version. This associates the new /updated template with the device.
5. If you have made any changes to the properties then update the **Host Application Software** as well.

## Starting an OTA Job

To start an OTA job for Ayla and Host MCU images, perform the following steps.

**NOTE**: You have to create a group of device prior to starting any OTA job.

1. Launch the OEM Dashboard and select **OTA** from the menu on the left side of the screen.
2. Click the **OTA Jobs** tab, the following screen displays.

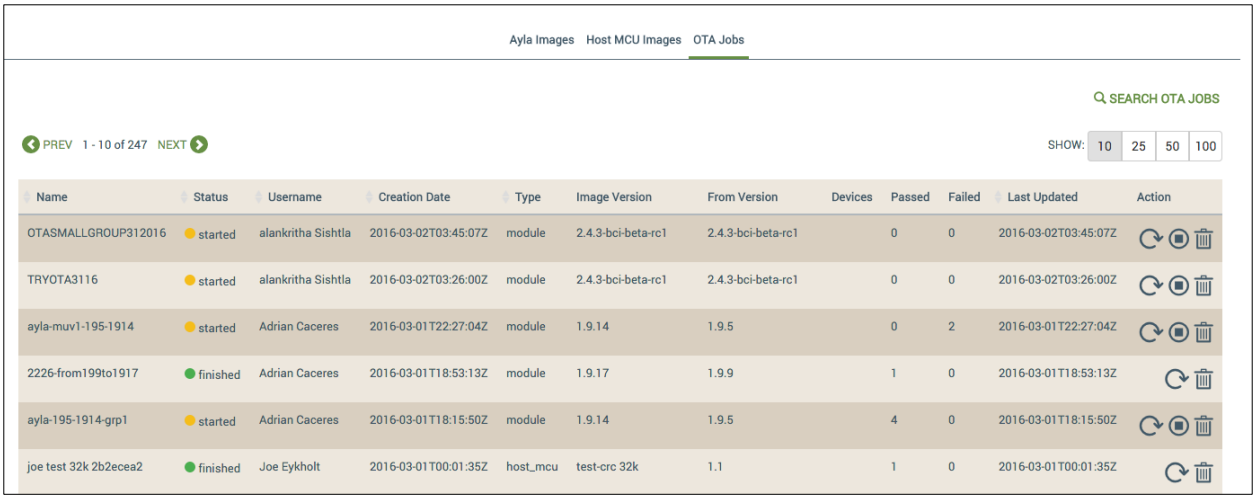


**Figure 71 – OEM Dashboard – OTA Jobs**

**Table 6. OTA – OTA Jobs**

| OTA Jobs Fields | Description |
|---|---|
| Name | Device Group Name |
| Status | The status of your OTA job |
| Username | The name of the user who own the devices |
| Creation Date | The date the OTA job was created |
| Type | The type of OTA job scheduled to run |
| Image Version | The version of the image associated with a specific OTA job |
| From Version | The version image you are upgrading from |
| Devices | Devices that associated with the OTA job |
| Passed | The number of OTA Jobs that passed |
| Failed | The number of OTA Jobs that failed |
| Last Updated | The time and date of the |
| Action | The actions you can perform on your OTA job<br>Options are:<br>• Refresh<br>• Cancel OTA Job<br>• Delete OTA Job |

3. Use the **Search OTA Jobs** field to search for a group of devices you want to include in your OTA job.
4. Click the **Refresh** icon to start your job.

## Creating a New Host MCU Image

To create a new MCU host image, perform the following steps:

1. Launch the OEM Dashboard and select **OTA** from the menu on the left side of the screen.
2. Click the **Host MCU Images** tab.

3. Click the **Create** button at the top of the screen. The following screen displays.

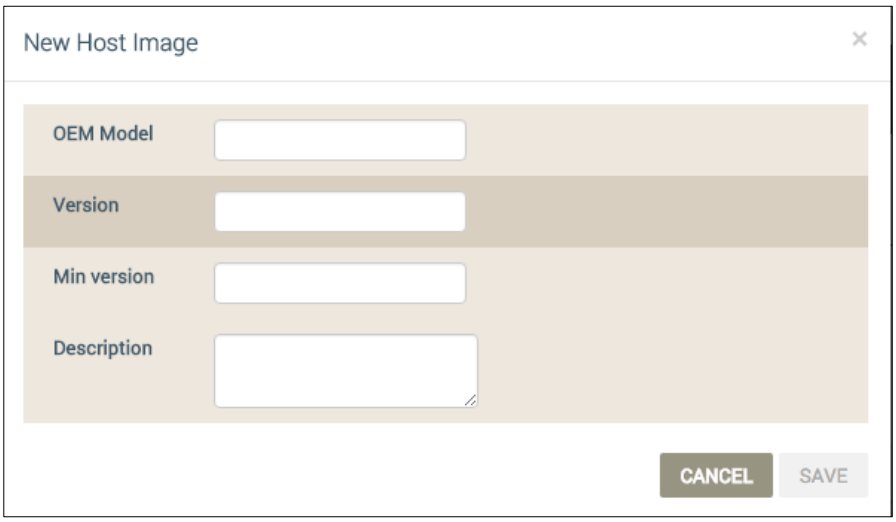


Figure 72 – OEM Dashboard – New Host Image

4. Click on the **OTA** menu, and go to the **Host MCU Images** tab. Choose an image for the OTA or add a new host image follow the directions below:

    a. Click **Add.**
    b. Complete the required information in the pop-up.
    **c.** Click **Create.**
    **d.** In the list of images, select the radio button for the image you want to deploy.
    **e.** Click **Upload**.
    **f.** Upload the image.

5. In the list of images, **select** the radio button for the image you want to deploy.

6. In **Deploy to Group** choose the group to which the OTA must be pushed and click **Create Job**.

7. When you are ready to start the OTA push click **Start**.

8. You can observe the process and look at the progress of individual devices in the OTA group.

## Host MCU OTA

### Perform the MCU OTA

To start an OTA on Host MCU Image, perform the following steps.

1. Launch the OEM Dashboard and select **OTA** from the menu on the left side of the screen.
2. Click the **Host MCU Images** tab.
3. In the OEM Dashboard, go to the **Devices** tab.

4. Create a group of devices based on the search criteria provided. The search criteria require a model.

5. Click **Actions** to create the OTA group. You can also add it to an existing OTA group, if you want.

6. Click on the **OTA** menu, and go to the **Host MCU Images** tab.

7. In the list of images, **select** the radio button for the image you want to deploy.

   **IMPORTANT!** *If you want to go to more than one version, you must include all releases from your current version to the version you want. For example if you want to go to version 3 and you are at version 1, you will go from version 1 to version 2 and then from version 2 to version 3 (1.0 -> 2.0 -> 3.0).*

8. In **Deploy to Group** choose the group to which the OTA must be pushed and click **Create Job**.

9. When you are ready to start the OTA push click **Start**.

You can observe the process and look at the progress of individual devices in the OTA group.

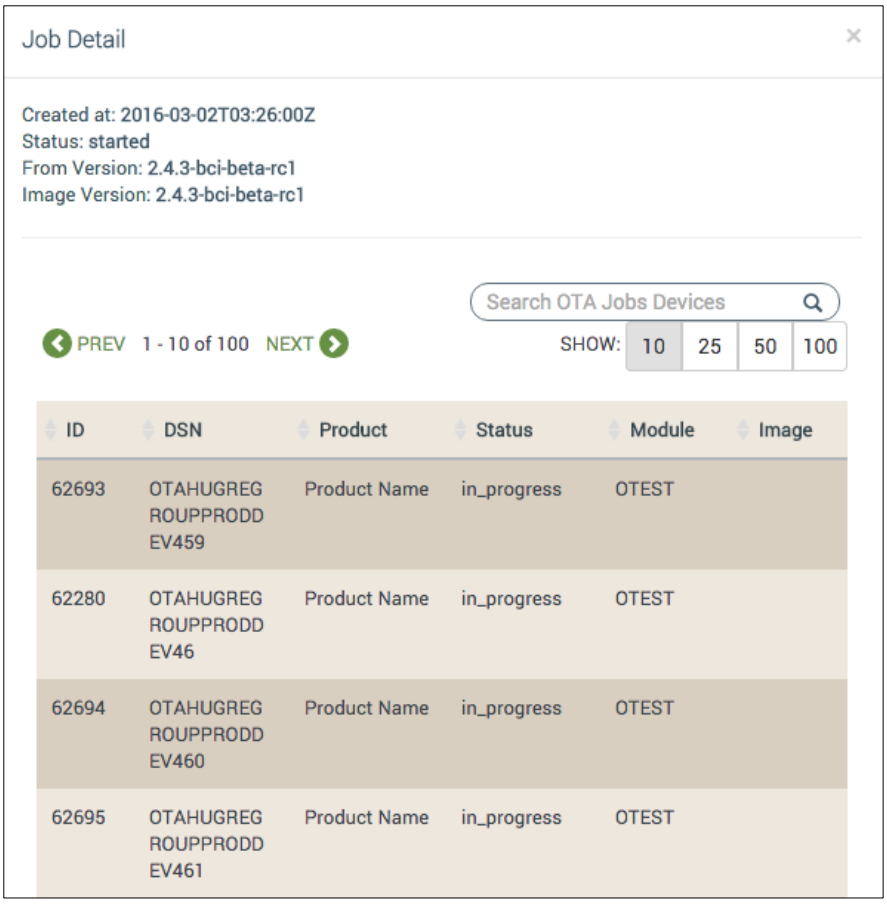


Figure 73 – OTA – Job

# DataStream

DataStream (DSS) enables the OEM to create, update, or delete subscriptions for data that occurs in the Ayla Platform using a REST API. The OEM can configure Role Based Access Controls (RBAC) to restrict which data transmitted externally to partners. For more information on DSS refer to Ayla Single Sign-On (SSO) (AY006USS6-2) users guide.

## Data Streams Subscriptions

To view subscribed data streams, perform the following steps.

1. Launch the OEM Dashboard and select **DataStream** from the menu on the left side of the screen. The DataStream subscription screen displays.
2. Click a users ID or name to display the users details, as shown in Figure 61.

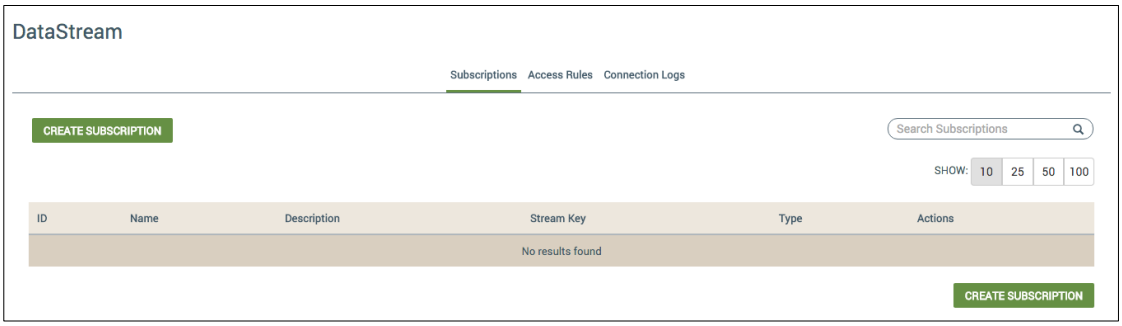


**Figure 74 – OEM Dashboard – Viewing Data Streams**

You can use this screen to perform the following tasks.

- View and create new subscriptions
- View and create access rules
- View connection logs

## Creating a New Subscription

To create a new subscription, perform the following steps.

1. Launch the OEM Dashboard and select **DataStream** from the menu on the left side of the screen. The DataStream screen displays.
2. Click the **Create Subscription button.** The following screen displays.

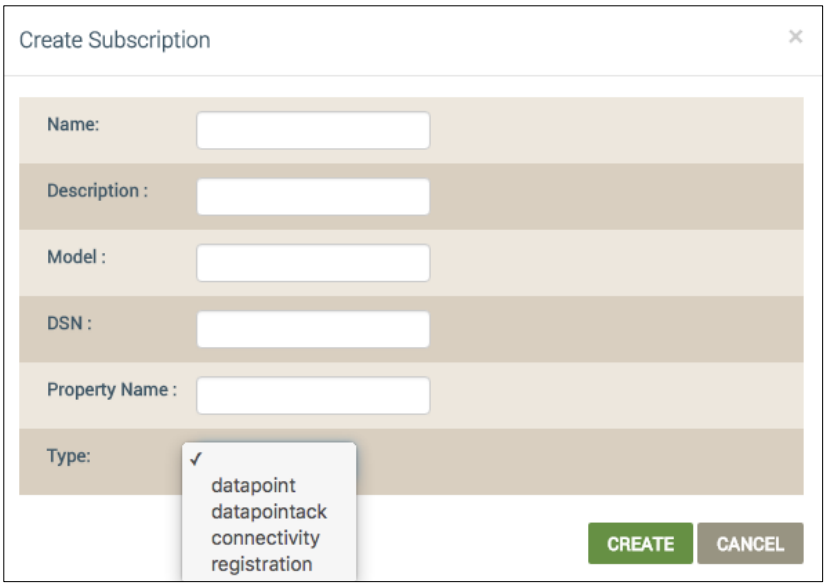


Figure 75 – OEM Dashboard DataStream – Create Subscription

3. Enter the information requested in the fields provided.
4. Select the subscription type, from the drop down. DSS supports four event types:
   - Connectivity
   - Registration
   - Datapoint
   - Datapointack (Available for generic gateway and Linux Whitebox)
5. Click the **Create** button to create your new subscription. For more information on DSS refer to Ayla Single Sign-On (SSO) (AY006USS6-2) users guide.

## Access Rules

OEM's can create access rules to specify which users can receive and review DataStream subscriptions. Access rules can be created for specific user roles and subscription types.

To create access rules, perform the following steps.

1. Launch the OEM Dashboard and select **DataStream** from the menu on the left side of the screen. The DataStream screen displays.
2. Click the **Access Rules tab.** The following screen displays.

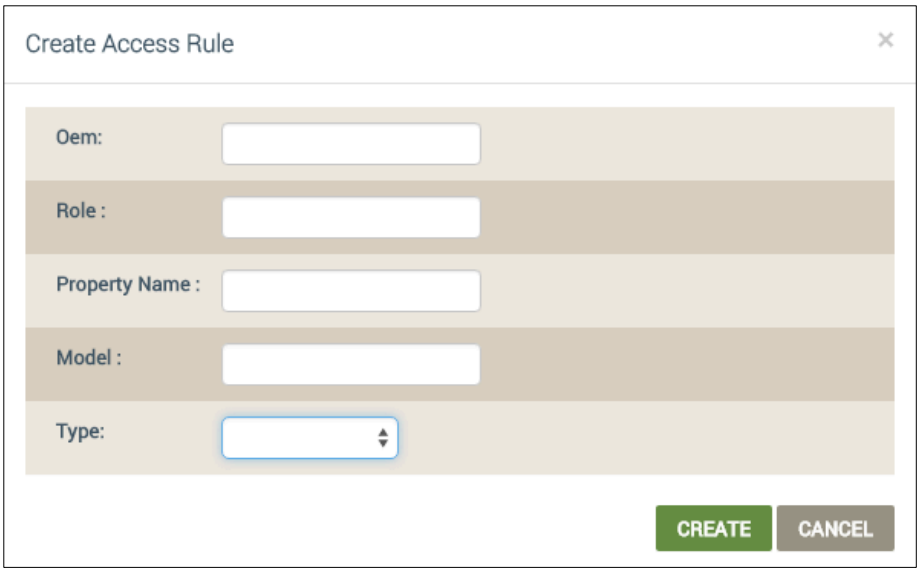


Figure 76 – OEM Dashboard DataStream – Create Access Rule

3. Enter the information requested in the fields provided.
6. Select the subscription type, from the drop down. DSS supports four event types:
   - Connectivity
   - Registration
   - Datapoint
   - Datapointack (Available for generic gateway and Linux Whitebox)
4. Click the **Create** button, to create your new access rule.

## Connection Logs

To view connection logs, perform the following steps.

1. Launch the OEM Dashboard and select **DataStream** from the menu on the left side of the screen. The DataStream screen displays.
2. Click the **Connection Logs tab.** The following screen displays.

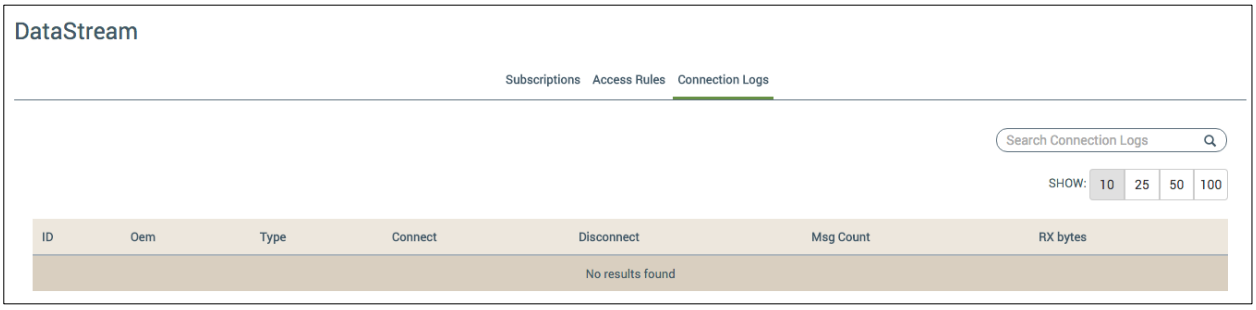


Figure 77 – DataStream – Connection Logs

Table 7. OTA – DataStream – Connection Logs

| DataStream | Description |
|---|---|
| ID | The Ayla assigned ID provided to the user after signing up for a Data Stream account. |
| Oem | The name of OEM associated with a specific connection logs. |
| Type | DSS supports four event types:<br>• Connectivity<br>• Registration<br>• Datapoint<br>• Datapointack (Available for generic gateway and Linux Whitebox) |
| Connection | The time and date this device was connected. |
| Disconnect | The time and date this device was disconnected. |
| Msg Count | The number of messages that are sent. |
| RX bytes | The number of bytes sent. |

# Glossary

**Cloud templates**
Ayla Networks' predefined cloud templates that are designed to reduce the work requirement for a customer to create a product.

**Developer Portal**
Ayla's Developer Portal is used to setup, register developer kits and define the details of a product

**Host MCU**
The product's MCU that communicates directly with Ayla enabled Wi-Fi module.

**Properties**
Cloud defined values that when aggregated define what and how product features and functionality are experienced by the end user.

**RBAC**
Role Based Access Control framework is a process that establishes role-based access to users.

**Wi-Fi Module**
A Wi-Fi module is a hardware component that has an MCU containing the Ayla agent and Wi-Fi component used to allow connectivity to Ayla's Cloud Services.

**DSS**
DSS enables the OEM to create, update, or delete subscriptions for data that occurs in the Ayla Platform using a REST API. The OEM can configure Role Based Access Controls (RBAC) to restrict which data transmitted externally to partners.