User Guide

Ayla DSN Reservation Process

For Module Manufactures and OEM Admins using Black Box or White Box

Version: 2.0

Date Released: July 31, 2017

Document Number: AY006UDR3-2

Ayla Networks

Copyright Statement

© 2017 Ayla Networks, Inc. All rights reserved. Do not make printed or electronic copies of this document, or parts of it, without written authority from Ayla Networks.

The information contained in this document is for the sole use of Ayla Networks personnel, authorized users of the equipment, and licensees of Ayla Networks and for no other purpose. The information contained herein is subject to change without notice.

Trademarks Statement

Ayla™ and the Ayla Networks logo are registered trademarks and service marks of Ayla Networks. Other product, brand, or service names are trademarks or service marks of their respective holders. Do not make copies, show, or use trademarks or service marks without written authority from Ayla Networks.

Referenced Documents

Ayla Networks does not supply all documents that are referenced in this document with the equipment. Ayla Networks reserves the right to decide which documents are supplied with products and services.

Contact Information

Ayla Networks TECHNICAL SUPPORT and SALES

Contact Technical Support: https://support.aylanetworks.com
or via email at support@aylanetworks.com

Contact Sales: https://www.aylanetworks.com/company/contact-us

Ayla Networks REGIONAL OFFICES

GREATER CHINA
Shenzhen
Room 310-311
City University of Hong Kong
Research Institute Building
No. 8 Yuexing 1st Road
High-Tech Industrial Park
Nanshan District
Shenzhen, China
Phone: 0755-86581520

HEADQUARTERS
Silicon Valley
4250 Burton Drive, Suite 100
Santa Clara, CA 95054
United States
Phone: +1 408 830 9844
Fax: +1 408 716 2621

JAPAN
Wise Next Shin
Yokohama, 2-5-14
Shnyokohama, Kohokuku
Yokohama-shi, Kanagawa-ken
Yokohoma, 222-0033 Japan

EUROPE
London
30 Great Guildford St
London SE1 0HS
United Kingdom

TAIWAN
Taipei
5F No. 250 Sec. 1
Neihu Road, Neihu District
Taipei 11493, Taiwan

For a Complete Contact List of Our Offices in the US, China, Europe, Taiwan, and Japan:
https://www.aylanetworks.com/company/contact-us

Table of Contents

1 Introduction 1
1.1 Audience 1
1.2 Related Documentation 1
2 DSN Overview 2
2.1 Ayla Platform Module Categories 2
2.2 Ayla Platform OEM Types 2
2.3 Ayla Platform User Roles 3
2.4 OEM Dashboard, Factory Actions page 4
3 Reservation Process 5
4 Black Box 7
4.1 Black Box (module manufacturer) 7
4.2 Black Box (device manufacturer) 7
4.3 White Box Manufacturer 8

© 2017 Ayla Networks, Inc.

1 Introduction

Ayla DSN reservation allows module manufacturers to put aside DSN's for future use. This document describes the process of reserving and using reserves DSN's.

1.1 Audience

This document is written for module manufacturers and OEM Admins.

1.2 Related Documentation

OEM Dashboard User Guide (AY006UDB3)

© 2017 Ayla Networks, Inc.

2 DSN Overview

2.1 Ayla Platform Module Categories

Black box is fully-managed, Ayla-enabled module to be used as-is by the manufacturer. Some primary characteristics include:

- Available for embedded solutions
- Fastest time to market for OEMs
- No custom gateway or other forms of communication agent software (including QA required regardless of the type of end-device)
- Enabled with any microcontroller-based system with cloud connectivity

White box is a type of Ayla-enabled module that gives the OEM control of the device function design compared to the Black-Box. However, this leads to a development effort that is significantly longer for OEMs – and results in longer time to market. Some primary characteristics include:

- Available for embedded or LINUX solutions
- Ayla Cloud Agent is available as a library or source
- Well-equipped for applications with existing RTOS and networking
- Cloud Agent's modular design allows code for additional functions
- In certain situations, allows a reduced bill of material (BOM) cost

2.2 Ayla Platform OEM Types

Access to operations and module availability in Factory Actions is controlled by the Ayla platform OEM Type. The OEM Types are set by Ayla Professional Services for each OEM. Table 1 provides descriptions of the Ayla platform user types.

- Module Manufacturer - A manufacturing organization producing Ayla-enabled, fully managed modules (also referred to as Black Box modules) for use by the Managed Module Device Manufacturer.
- Managed Module Device Manufacturer - An organization (typically manufacturing) with end-user devices or embedded gateways that are based on Ayla-enabled, fully managed modules (also referred to as Black Box modules).
- Linux Gateway Manufacturer - An organization (typically manufacturing) with Linux-based gateways that are based on Ayla's open gateway agent software framework.

© 2017 Ayla Networks, Inc.

2.3 Ayla Platform User Roles

Access to operations in factory actions is controlled by user roles. The user roles are set by the OEM admin for each OEM user.

These are the user roles available within the Ayla Platform:

OEM::ModuleManufacturer :

- Reserve the DSNs for Black Box module manufacture (click on Reserve button).
- Upload the manufacturing file (Upload Manufacture File button).

> **NOTE** To be granted this role, the Ayla Support staff must set the Ayla Platform OEM Type to Module Manufacturer for this OEM.

- Search for already manufactured device for the selected module.

OEM::ModuleOEMManufacturer (AKA Black Box Device Manufacturer):

- Upload the provisioning file (Upload Provision File button).
- Search for devices that belongs to the current OEM.

OEM::SoftwareOEMManufacturer (AKA White Box Device or Gateway Manufacturer):

- Reserve device for white box (Reserve button).
- Upload provisioning file (Upload Provision File button).
- Search for device belonging to the current OEM.

OEM::Admin:

- If OEM has Module Manufacturer attribute set, user with OEM::Admin role has the same access to Factory Actions as user with OEM::ModuleManufacturer role.
- If OEM does not have Module Manufacturer attribute set, user with OEM::Admin role has same access to Factory Actions as a user with OEM::ModuleOEMManufacturer or OEM::SoftwareOEMManufacturer role.

© 2017 Ayla Networks, Inc.

2.4 OEM Dashboard, Factory Actions page

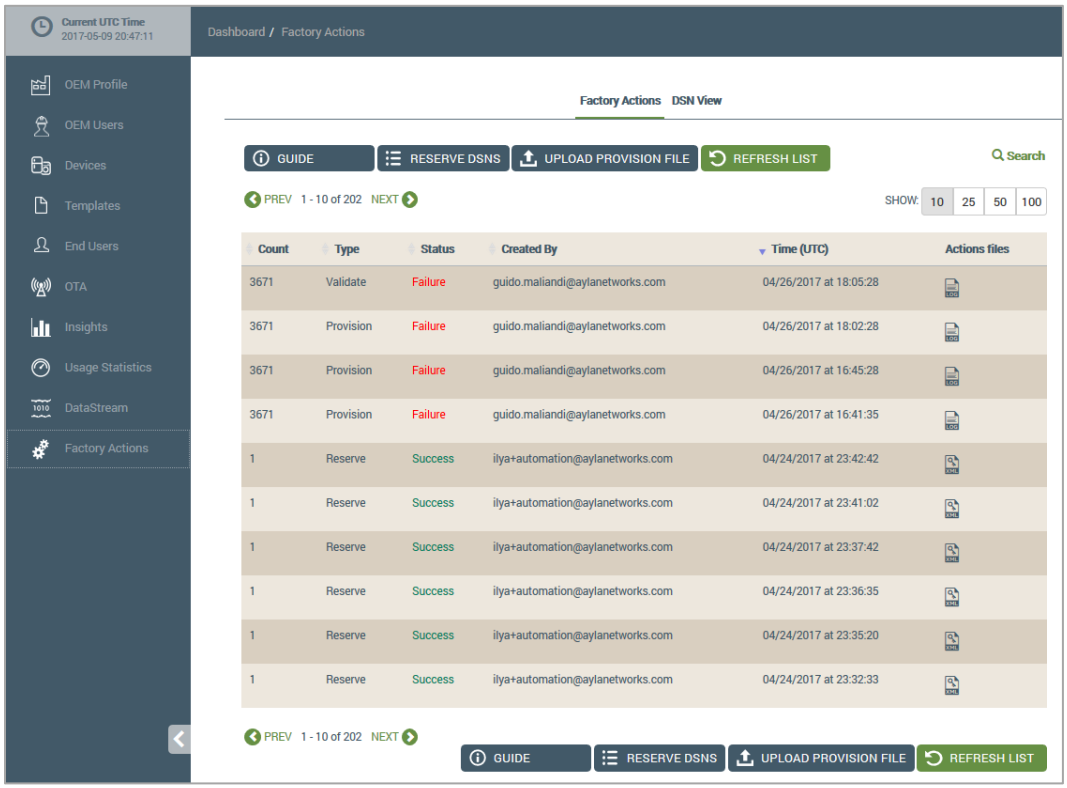


Table column description:

- **Count** – A count of how many devices were included in the action
- **Name** – name of the action
- **Type** – type of action
- **Status** – result of action
- **Created By** – email of the individual that initiated this factory action
- **Time (UTC)** – date/time the factory action was started
- **Actions** – user action for this factory action

Button descriptions:

- GUIDE – displays Factory Actions Guide dialog box with button descriptions.
- RESERVE DSNS – Reserve a set of DSNs for manufacturing.
- Context (based on user role), one of these buttons will display:
  - UPLOAD PROVISION FILE – upload the device details set during the Manufacturing process at a Module Manufacturer OEM's site.
  - UPLOAD MANUFACTURING FILE – upload device details set during the Provisioning process at a OEM Manufacturer's site.

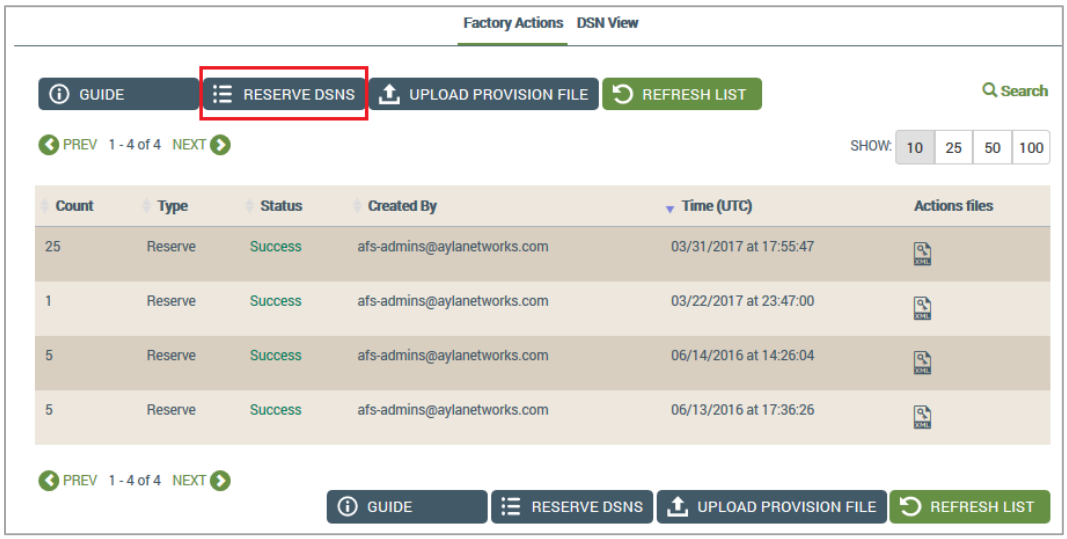
© 2017 Ayla Networks, Inc.

3 Reservation Process

The steps for module manufactures are shown below. Use the OEM Dashboard to complete these steps.

1. Log on to the OEM Dashboard.
2. On the OEM Dashboard Navigation Panel, click **Factory Actions**.

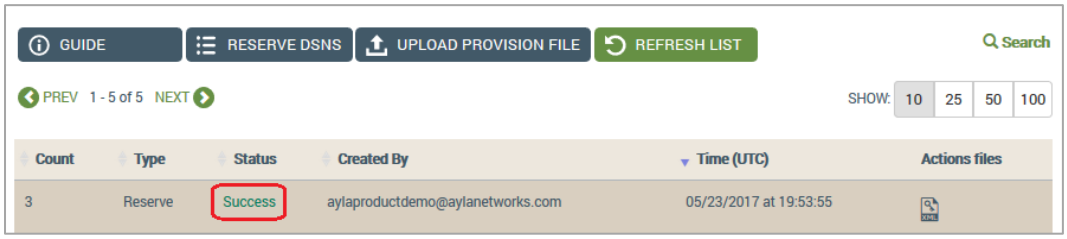
3. On the Factory Actions page, click **RESERVE DSNS**.



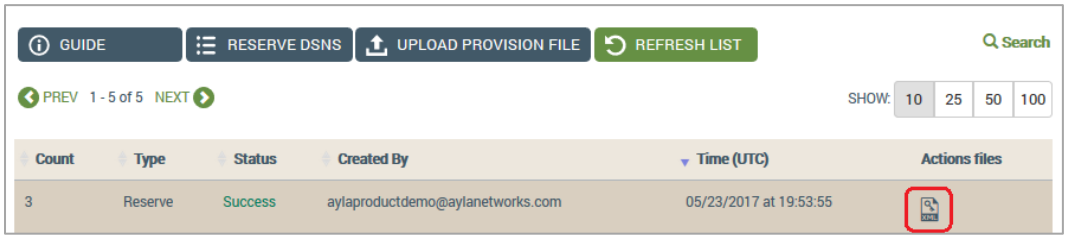
4. On the Reserve Devices dialog box:

   a. Select from the **Model** drop-down list.
   b. Directly enter (or use up-down arrows to select the quantity).
   c. Click **SUBMIT**.

The new reservation shows in the list of Factory actions when it is completed. You can download the XML file after the Status is **Success**.



5. In the Actions files column, click the **Download an XML file** icon.



6. The XML file contains the new DSNs for association with the devices, during the manufacturing process,

4 Black Box

4.1 Black Box (module manufacturer)

1. On the table listing, click **UPLOAD MANUFACTURE FILE**.

This shows the Upload Manufacture File dialog box.

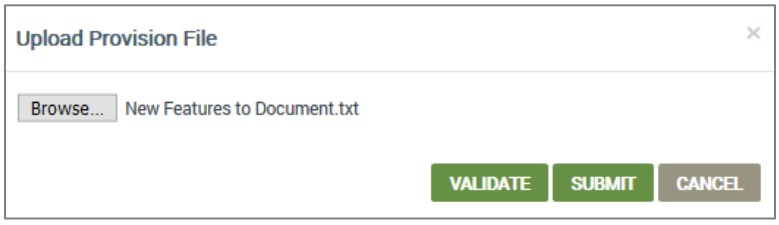
2. Click **Browse** to locate and select the file.
3. Click **VALIDATE** (this inspects the file to ensure correct information and formatting).
4. If there are errors found, collect the upload file.
5. When validated, click **SUBMIT**.

NOTE SUBMIT can also be selected without validation. Any DSNs with errors will not be uploaded into the Ayla platform. Any errors will be shown in the log file found under the Actions column. The DSN entries in the upload file that cased the error can be corrected and uploaded. Any successful DSN entry should be removed or they will receive errors as duplicates.

4.2 Black Box (device manufacturer)

1. On the table listing, click **UPLOAD PROVISION FILE**.

This shows the Upload Provision File dialog box.



2. Click **Browse** to locate and select the file.
3. Click **VALIDATE** (this checks the file to ensure correct information and formatting).
4. If there are errors found, collect the upload file.
5. When validated, click **SUBMIT**.

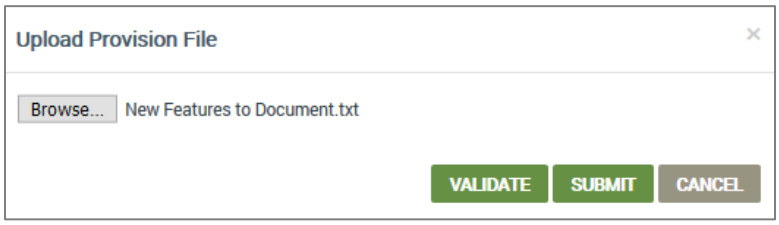
© 2017 Ayla Networks, Inc.

NOTE SUBMIT can also be selected without validation. Any DSNs with errors will not be uploaded into the Ayla platform. Any errors will be shown in the log file found under the Actions column. The DSN entries in the upload file that cased the error can be corrected and uploaded. Any successful DSN entry should be removed or they will receive errors as duplicates.

4.3 White Box Manufacturer

1. On the table listing, click **UPLOAD PROVISION FILE**.

This shows the Upload Provision File dialog box.



2. Click **Browse** to locate and select the file.
3. Click **VALIDATE** (this checks the file to ensure correct information and formatting).
4. If there are errors found, collect the upload file.
5. When validated, click **SUBMIT**.

NOTE SUBMIT can also be selected without validation. Any DSNs with errors will not be uploaded into the Ayla platform. Any errors will be shown in the log file found under the Actions column. The DSN entries in the upload file that cased the error can be corrected and uploaded. Any successful DSN entry should be removed or they will receive errors as duplicates.

4250 Burton Drive, Santa Clara, CA 95054
Phone: +1 408 830 9844
Fax: +1 408 716 2621

© 2017 Ayla Networks, Inc.