Adtran

Custom Firmware for SDGs

The following article discusses custom firmware for Adtran's Service Delivery Gateway (SDG) products. Topics include an overview of custom firmware, benefits, how to request a custom firmware, and unit behavior when upgrading or factory defaulting the SDG:

- *Overview and Benefits of Custom Firmware*
- *How to Request Custom Firmware*
- *Upgrading a Unit that has Custom Firmware*

Overview and Benefits of Custom Firmware

Custom firmware is a configuration generated by Adtran for SDG products that contains settings and preferences specific to a customer. Custom firmware for SmartOS SDGs is referred to as Custom Definition Template (CDT) firmware. Custom firmware for devices running PlumeOS is referred to as CusDef firmware.

Broadcom and SmartOS (CDT) Firmware

Broadcom and SmartOS custom firmware streamlines the Internet Service Provider's (ISP's) ability to turn-up and manage a customer's SDG. The ISP's default settings are configured into the custom firmware/CDT. As a result, when a subscriber factory defaults their unit, the ISP's default settings are restored instead of Adtran factory default settings. In addition, the subscriber is able to specify preferences such as custom color scheme, Point-to-Point Protocol over Ethernet (PPPoE) credentials, Automatic Configuration Server (ACS) credentials, and more. SDGs can be flashed with custom software prior to shipping from Adtran, making installation as simple as plug and play. In addition, since custom firmware is configured with the ISP's default settings, factory defaulting the unit will restore the ISP default settings instead of Adtran default settings.

PlumeOS (CusDef) Firmware

Custom firmware for PlumeOS is limited to a build with generic PPPoE credentials and regional builds to configure the unit power settings in a defined way for a specific region. The PPPoE build specifies the username as **autoconfig** and the password as **management**. Customers will need to configure these credentials in their PPPoE server initially and then change them to the desired credentials on first inform to the ACS. Custom builds for ACS credentials are not needed if a customer is using the activation server.

How to Request Custom Firmware

The process to request custom firmware is different depending on whether you are requesting Broadcom/Smart OS or PlumeOS custom firmware. Requests for Broadcom/SmartOS custom firmware are submitted by opening a ticket with Adtran support. PlumeOS generic CusDef builds are available for download on the Adtran Support Community (ASC). If a customer thinks they need a custom PlumeOS build, they will need to work with their sales engineer (SE) to submit a request to Adtran.

Broadcom and SmartOS

Custom Broadcom firmware and SmartOS CDTs are requested by opening a support ticket with Adtran. The support ticket can be opened by the customer or by the SE on behalf of a customer. The following information should be provided in the ticket:

1. Specify whether the request is for **custom firmware** (Broadcom) or a **CDT** (SmartOS)
2. The version of code for which the custom software is to be created
3. The customer's shipping distributor
4. A description of the custom settings the customer would like included in the build and/or a configuration with the custom settings. Examples of custom settings include:
   - Custom colors
   - PPPoE username/password credentials
   - ACS credentials

Upon receiving the ticket, the support team will evaluate the custom firmware/CDT request to ensure that the requested settings are possible. After the firmware has been built, support will send the file to the customer for verification and testing. The finalized version of firmware will be posted to the customer's My Customer Dashboard (MCD) on the Adtran Support Community (ASC).

> **NOTE:** *Distributors will have access to the custom firmware/CDT on their customer's MCD. When a customer orders new units, the distributor will flash these products with the applicable custom firmware/CDT prior to shipping them to the customer.*

PlumeOS

Generic builds for PlumeOS are located in the software download section in the ASC at the following URL:

https://supportcommunity.adtran.com/t5/PlumeOS-Software/ct-p/PlumeOS

In the rare case where a customer needs a PlumeOS custom build beyond what is provided with the generic PPPoE or regional builds, they should work with their SE to submit a request for the custom build.

Upgrading a Unit that has Custom Firmware

Broadcom and SmartOS

Upgrading or making configuration changes to the firmware for SDGs with custom Broadcom or CDT firmware is an easy process. Once Adtran has built custom firmware for a customer, a new version is automatically built each time Adtran releases new generally available (GA) firmware. The updated custom firmware is available by request and as long as a customer upgrades their units with the appropriate files, the custom settings will not be erased. If configuration changes are needed, Adtran can incorporate the changes into the latest available build and post the software to the customer's MCD.

> **NOTE:** *It is not necessary to upgrade the SDGs with the new build every time a new GA is released.*

PlumeOS

Upgrading a device with a CusDef for PlumeOS requires the same custom build to be used. This means that a customer cannot simply upgrade their PlumeOS device with the latest GA build without removing their custom settings. When an upgrade or configuration change is needed, the customer should work with their SE.