Grandstream Networks, Inc.

GWN76xx Wi-Fi Access Points

Firmware Upgrade Guide

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INTRODUCTION

All Grandstream products' firmware are improved and updated on a regular basis. Latest firmware versions are available in http://www.grandstream.com/support/firmware under "**Wi-Fi Access Points**" section.

Published firmware versions in Grandstream official website have passed QA tests and included new enhancements implemented, reported issues fixes for better user experience; all changes are logged in Release Notes documents.

Grandstream recommends to read Release Notes document which may include special firmware upgrade notices and always keep your devices up-to-date by upgrading their firmware versions regularly.

GWN76xx can be deployed and used either in Standalone/Master mode or in Slave mode.

This document describes steps needed to upgrade GWN76xx firmware version and covers following scenarios:

- **Upgrade when GWN76xx is used in Standalone/Master Mode**

- **Upgrade when GWN76xx is used in Slave Mode**

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GWN76xx IN STANDALONE/MASTER MODE

A GWN76xx model can be upgraded via TFTP/HTTP/HTTPS by configuring the URL/IP Address for the TFTP/HTTP/HTTPS server and selecting a download method. Configure a valid URL for TFTP, HTTP or HTTPS; the server name can be FQDN or IP address.

Follow below steps to successfully upgrade your device:

1. Access GWN76xx web interface and navigate to **System Settings->Maintenance->Upgrade**.

2. In **Upgrade Via** dropdown list, select appropriate protocol (**HTTP, HTTPs** or **TFTP**).
   If using Grandstream server, select *HTTP*.

3. In **Firmware Server** field, enter the URL of the server where the firmware file is located.
   If using Grandstream server, enter "*firmware.grandstream.com*". To upgrade to beta firmware (if available) enter "*firmware.grandstream.com/BETA*".

4. Press **Save** button.

5. To start the upgrade, there are two options:
   a. Press **Upgrade Now** button to start upgrade immediately.
   b. Press **Reboot** button to restart the unit. GWN76xx will contact firmware server to start upgrade if option "*Check/Download New Firmware at Boot*" is enabled.

6. If a new firmware is available, GWN76xx will download the firmware file and start upgrade process.

Please refer to Firmware **Upgrade Settings** for advanced options.

Important:
- Please do not interrupt or power cycle the GWN76xx during upgrading process.
- During upgrade process GWN76xx LEDs will be blinking in green, and turn to solid green indicating successful firmware update. If firmware update fails, GWN76xx LEDs will be solid red.

Notes:
- Service providers should maintain their own firmware upgrade servers. For users who do not have TFTP/HTTP/HTTPS server, some free windows version TFTP servers are available for download from:
  http://www.solarwinds.com/products/freetools/free_tftp_server.aspx
  http://tftpd32.jounin.net
  End users can also choose to download a free HTTP server from http://httpd.apache.org/ or use Microsoft IIS web server.

- The latest firmware is available at http://www.grandstream.com/support/firmware. Unzip downloaded file and make the firmware file (*.bin) available in your firmware server.

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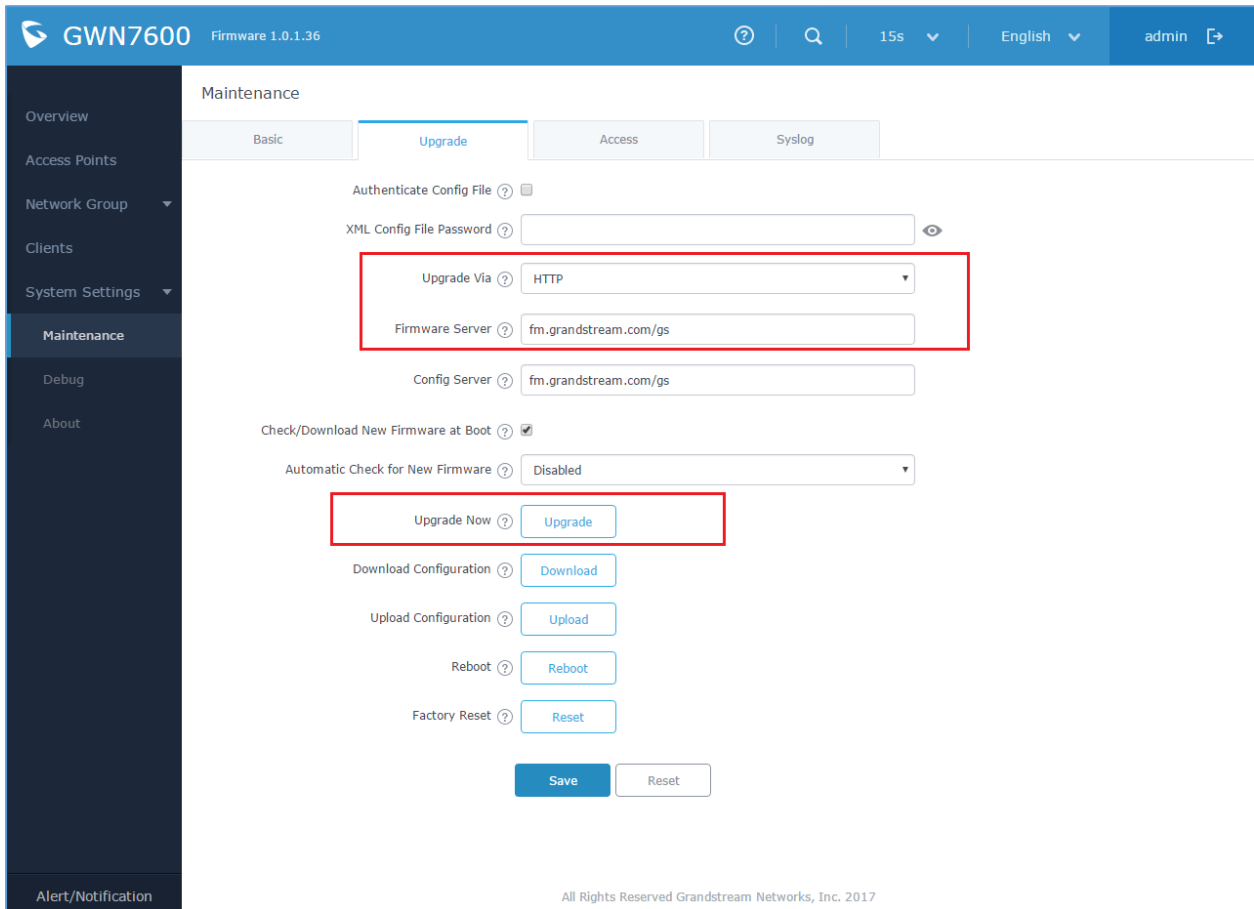
Figure 1: Maintenance Page

Upgrade Settings

Upgrade settings are available at GWN76xx web interface > **System Settings > Maintenance->Upgrade** and include following parameters:

Table 1: Network Upgrade Configuration

Upgrade Via	Allows to choose the firmware upgrade method: TFTP, HTTP or HTTPS.
Firmware Server	Defines the server path for the firmware server. Example: "firmware.grandstream.com"
Check/Download New Firmware at Boot	Allows the device to check if there is a new firmware in the configured firmware server at boot. If available, the device will download the firmware file at booting stage and reboot again to complete the upgrade process.
Automatic Check for New Firmware	Sets the value for automatic upgrade check interval, and it has 4 options: • **Disabled:** If selected, the device will never check for new firmware. The device can still be upgraded manually using "Upgrade Now" button.

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	• **Check at Every X Hours:** Choose a value in hours for the device to check periodically for a new firmware. • **Check at Hour of Day:** Set a value from 0 to 23 (hours) for the device to check at that time for a new firmware. For example, if set to 22, the device will check for a new firmware every day at 10 p.m. • **Check at Day of Week:** Set a value from 0 to 23 (hours) and choose a day from the dropdown list. The device will check at configured time and day for a new firmware.
Upgrade Now	Click on [Upgrade] button to begin the upgrade process immediately. **Note**: The device will reboot after downloading the firmware.

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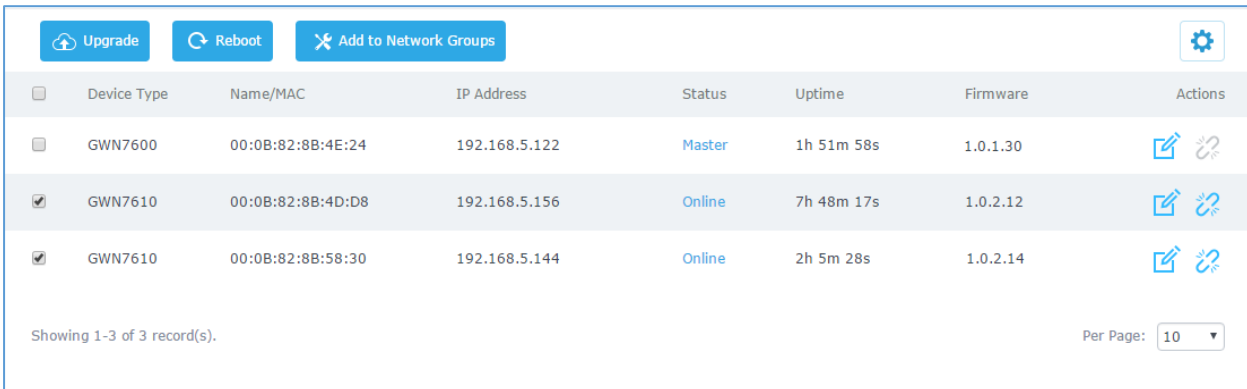
GWN76xx IN SLAVE MODE

When the GWN76xx is being paired as slave using another GWN76xx access point acting as controller, it is possible to upgrade paired access points from the controller GWN76xx.

To upgrade a slave access point, log in to the GWN76xx acting as Master Controller and go to **Access Points.** User can then upgrade slave GWN76xx access points in batch mode or upgrade a single slave access point.

Batch Upgrade

When having multiple Paired Access Points, giving the ability to upgrade multiple devices from the same model at once to the same firmware, this can be helpful in medium and large deployments where Master/Slave Architecture is used.
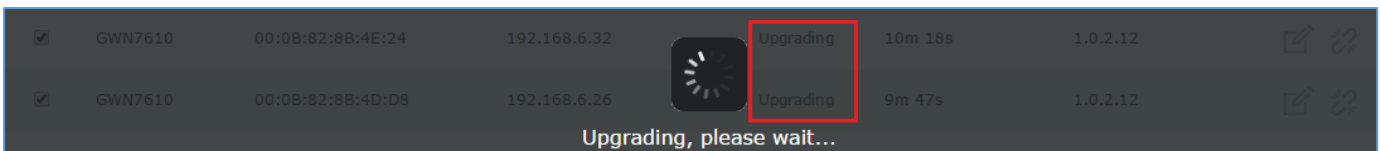
Figure 2: Access Points

Make sure that firmware server path is set correctly under Maintenance, check the desired APs to upgrade, and click on ![Upgrade] button to upgrade the selected paired access points. The units will download automatically the firmware from the configured server path, and reboot afterwards to finish upgrade process.

The status of the devices will show "Upgrading", wait until it finishes and reboots, then they will appear online again.

Figure 3: Upgrading Status

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Important:

- The Master Access Point cannot be upgraded using batch upgrade method even if selected.
- Make sure to select Access Points with the same model when doing batch upgrade, as each model has its own firmware version.
- Please do not interrupt or power cycle the GWN76xx during upgrading process.
- During upgrade process GWN76xx LEDs will be blinking in green, and turn to solid green indicating successful firmware update. If firmware update fails, GWN76xx LEDs will be solid red.

Single Upgrade

Instead of upgrading multiple units at once, it is possible to perform an upgrade to a single paired access points if needed, by clicking on [edit icon] next to the paired device to access its configuration page, and click on

Upgrade to upgrade the device.

Make sure that firmware server path is set correctly under **System Settings > Maintenance->Upgrade** before starting upgrade process.

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Figure 4: Device Configuration

The status of the device will show "Upgrading", wait until it finishes and reboots, then it will appear online again.

Figure 5: GWN76xx Upgrading

Important:

- Please do not interrupt or power cycle the GWN76xx during upgrading process.

- During upgrade process GWN76xx LEDs will be blinking in green, and turn to solid green indicating successful firmware update. If firmware update fails, GWN76xx LEDs will be solid red.

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