ADVANCED
NETWORK DEVICES

Device Firmware Updates

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OVERVIEW

Updates to AND IP displays and speakers enable your mass notification system to take full advantage of the latest features and support network improvements. To download the firmware files, you will need to access the AND Customer Portal.

UPDATE PROCEDURES

For smaller scale installations, you can use IPClockWise or the device webpage to update firmware. For larger scale operations with configuration files, you can update firmware for all devices simultaneously using the configuration file.

Third-party software installations typically use the configuration file for AND IP devices. For additional guidance with Singlewire or Syn-Apps software, see procedures at the end of this section.

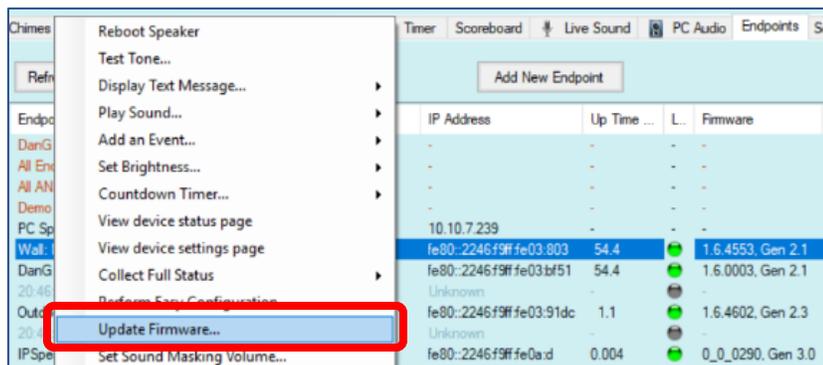### UPDATE USING DEVICE WEBPAGE (SINGLE DEVICE ONLY)

1. Open the device webpage.

   - Enter the IP address of the device into your browser (such as *http://10.10.3.4*), or double-click the device in the IPClockWise Endpoints list.

   - You can also access the device by its link-local IPv6 address, formatted as http://[fe80::2246:f9ff:feXX:XXXX], replacing the last 6 digits of the device MAC address for XX:XXXX (such as http://[fe80::2246:f9ff:fe03:ab12]/).

   - If you have Apple's Bonjour Services installed you may use the name of the device, which is based on its serial number, such as ***http://ipspeaker2046f9001234.local***. You can find the serial number imprinted on a sticker attached to the board.

2. Go to **Device Settings → Firmware**.

   - If the device webpage does not include *Device Settings*, the device most likely uses a configuration file. Refer to instructions below for configuration files.

   - Enter the new firmware file name as the *New Value* for *Main Firmware* (such as ips21_1_6_0004.bin). The revision of your board may have a different prefix, such as "ips20". Always use a firmware file with the proper prefix for your board. The "Running Version" field will give you the name of the currently running firmware, and thus the proper prefix for use with your device. The version of firmware is encoded into the file name after the prefix, and uses underscores instead of periods. For instance, "1_6_0004" signifies firmware version 1.6.0004.

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- For *Firmware Location*, enter a local TFTP or HTTP server from which to retrieve the firmware file. You can alternatively select the Advanced Network Devices public HTTP server via the top radio button selection. The device must have access to the Internet in order to use the public server.

- Click the *Save Firmware Changes* button. Verify the newly entered values appear correct in the *Stored Setting* column.

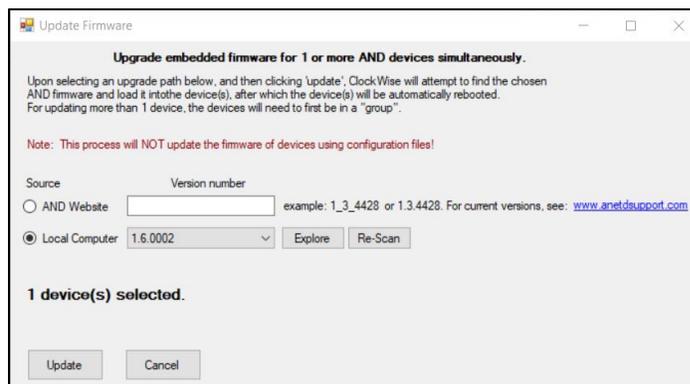3. Select *Reboot Now* to reboot the device and update the firmware.

CAUTION: Do not power off the device(s) during the update process. The update could take several minutes to download and install, depending on the amount of network traffic. See the *Verify Firmware Update* section at the end of this document for details.

UPDATE USING IPCLOCKWISE (SINGLE OR MULTIPLE DEVICES)

1. Right-click on the device or device group you want to update in the Endpoints list, and select *Update Firmware*.

2. Select *Local Computer* and the desired version from the drop-down list to use the firmware files included with IPClockWise. Or, select *AND Website*, and enter the desired version number listed on the AND Customer Portal (such as "1.6.0004" or "1_6_0004").

If you use firmware file(s) that did not come with IPClockWise, copy the file(s) to the IPClockWise directory using the *Explore* button first, select the *Re-Scan* button, and then select that version from the updated drop-down list.

3. Click *Update*. The device or device group will automatically reboot and update the firmware. You can now close the *Update Firmware* window using the standard Windows close button at the top right.

CAUTION: Do not power off the device(s) during the update process. The update could take several minutes to download and install, depending on the amount of network traffic. See the *Verify Firmware Update* section at the end of this document for details.

UPDATE USING A CONFIGURATION FILE (SINGLE OR MULTIPLE DEVICES)

1. Place the new firmware file(s) in the same directory as the device configuration file(s).

2. Open the device configuration file (*IPSpeaker.cfg* or similar) for editing in a simple text editor.

3. Locate and edit (or add if not listed in the configuration file) the *Firmware* file information:

```
<Firmware20 file="ips20_1_6_0004.bin"/>
<Firmware21 file="ips21_1_6_0004.bin"/>
<Firmware23 file="ips23_1_6_0004.bin"/>
<Firmware30 file="ips30_0_0_0290.bin"/>
```

WARNING: If you have already configured the devices individually using their on-board settings via the web page interface, the new common device configuration file will replace those previous settings. Please record all individual settings per device, so you can create the proper configuration file without a loss of settings.

4. Save the changes to the configuration file, and reboot the device(s) to update the firmware.

CAUTION: Do not power off the device(s) during the update process. The update could take several minutes to download and install, depending on the amount of network traffic. See the *Verify Firmware Update* section at the end of this document for details.

UPDATE USING SINGLEWIRE INFORMACAST

1. Place the speaker firmware file(s) in the same directory as the speaker configuration file(s) on the InformaCast server:

In Windows: C:\Program Files (x86)\SingleWire\InformaCast\webapp\resources\
In Linux: /usr/local/singlewire/InformaCast/web/resources/

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2. Locate and edit (or add if not listed in the configuration file) the *Firmware* file information:

```
<Firmware20 file="ips20_1_6_0004.bin"/>
<Firmware21 file="ips21_1_6_0004.bin"/>
<Firmware23 file="ips23_1_6_0004.bin"/>
<Firmware30 file="ips30_0_0_0290.bin"/>
```

3. Reboot the speakers and they will update to the desired firmware release.

CAUTION: Do not power off the device(s) during the update process. The update could take several minutes to download and install, depending on the amount of network traffic. See the *Verify Firmware Update* section at the end of this document for details.

UPDATE USING SYN-APPS SA-ANNOUNCE

To use the server for this purpose, you must place a configuration file and the new firmware file(s) on the Syn-Apps web server.

1. Log into the Syn-Apps software server.

2. Add the following directory to the local disk (usually "C:") if it does not already exist:

```
C:\Inetpub\wwwroot\ipspeaker
```

3. Copy the AND firmware binary file(s) to this directory (e.g., *ips21_1_6_0004.bin*).

4. Copy or create a common device configuration file in the same directory named *IPSpeaker.xml*. The configuration file should include the proper firmware filename(s) in the following tags:

```
<Firmware20 file="ips20_1_6_0004.bin"/>
<Firmware21 file="ips21_1_6_0004.bin"/>
<Firmware23 file="ips23_1_6_0004.bin"/>
<Firmware30 file="ips30_0_0_0290.bin"/>
```

> **WARNING: If you have already configured the devices individually using their on-board settings via the web page interface, the new common device configuration file will replace those previous settings. Please record all individual settings per device, so you can create the proper configuration file without a loss of settings.**

Make sure the configuration file includes the Syn-Apps server tag as follows:

```
<Servers auto-syn-apps-opt-72="1" >
</Servers>
```

If your installation requires individual settings for each device, copy or create the aggregate device configuration file in the same directory (e.g., *AllSpeakers.xml*).

5. Save the changes to the configuration file(s), and reboot the device(s) to update the firmware.

CAUTION: Do not power off the device(s) during the update process. The update could take several minutes to download and install, depending on the amount of network traffic. See the *Verify Firmware Update* section at the end of this document for details.

VERIFY FIRMWARE UPDATE

- If using a configuration file, the device will probe the network for the updated configuration file when rebooted. Once found, the device will automatically reboot again in order to start the update process.

- For devices with a display, the message *Retrieving Firmware* will display while the file downloads, followed by the message *Writing Flash* during the firmware install.

- After the update completes, the device will automatically reboot again. A boot beep will sound when the device has acquired an IP address and is ready for use.

- Use the *Endpoints* list in IPClockWise or the appropriate device list in any third-party software platform to verify that the firmware version has updated.

- You can also manually check the *Main Firmware* version listed on the device *Home* or *Device Status* webpages to verify complete installation of the new firmware version.

- If the device does not show the new version, check the bottom of the device *Non-Volatile Log* page (such as http://10.10.3.4/log) for error messages.