



Glensound

Keeps Working



RAVENNA

AES67 & ST 2110 built-in

Glensound

RAVENNA/AES67 quick-start guide

Getting started with Glensound's RAVENNA/AES67 products

Contents

Introduction	1
Device management.....	2
Accessing the device.....	2
Ways to access the management interface	2
The management interface.....	2
Making audio streams.....	3
Receiving audio streams	4
Aneman audio network manager	5
Downloading and installing Aneman	5
Using Aneman	5
Updating device RAVENNA firmware	7
Ways to access the firmware update page.....	7
Updating firmware.....	7
Recovering device with unknown IP address	9
Useful links.....	10

Introduction

This document provides a quick introduction to using Glensound RAVENNA/AES67 devices.

Glensound RAVENNA/AES67 enabled devices natively support the following protocols and features:

- RAVENNA
- AES67
- SMPTE ST2110-10, ST2110-30 (Full conformance up to and including Level C and Level CX - when device supports higher than 48kHz)
- ST2022-7 (Seamless protection switching)
- NMOS IS-04 (Discovery)
- NMOS IS-05 (Routing)
- TR-1001 (System Environment and device behaviour)
- Full remote control from a web browser

Document changelog

V.1 Initial release	17/11/22
V1.1 Included 2110-30 conformance level	03/02/23
V1.3 Fixed mistake	09/01/25
V1.4 Added unknown IP recovery guide	01/07/25

Device management

Accessing the device

Tools needed:

- Glensound RAVENNA device connected to a network
- PC connected to the same network
- A web browser

Ways to access the management interface

- Using the device DNS name

```
http://<device name><_serialnumber>.local/advanced
```

Example Vittoria DR serial number 001 with RAVENNA module in slot B:

```
http://vittoria_b_001.local/advanced
```

- With a static IP address

Example for unit with a static IP address:

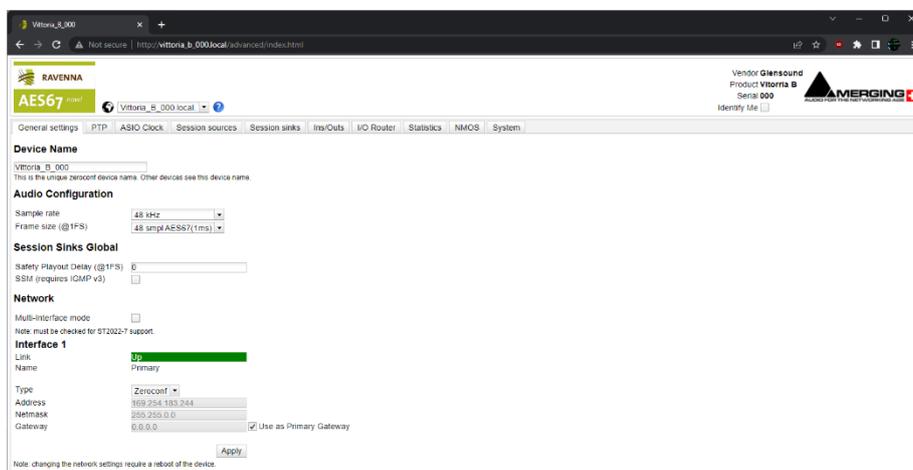
```
http://192.168.0.1/advanced
```

- Using Aneman (Audio network manager)

See [page 5](#)

The management interface

Glensound use Merging Technologies ZMAN modules to implement the RAVENNA/AES67 solution.



This is the default device home page.

This web interface can control all aspects of the network audio settings as well as creating and managing audio streams between devices.

For a complete guide to using the web interface please visit:

<https://merging.atlassian.net/l/cp/Nu7GMDoh>

Making audio streams

Navigate to 'Session sources' page

Select 'create session' button

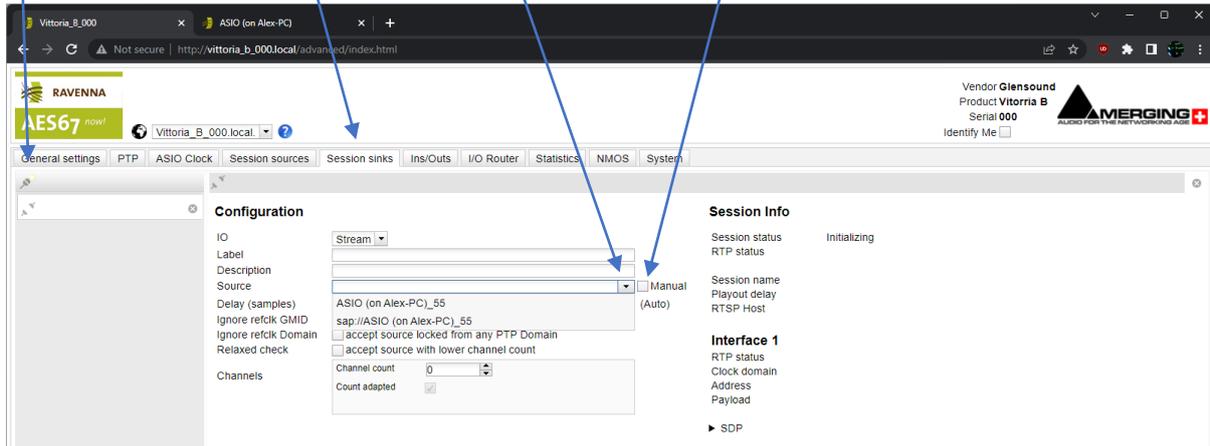
Input desired stream configuration

Select audio channels to send

The screenshot shows the 'Session sources' configuration page for a session named 'Vittoria_B_000_1'. The interface includes a navigation menu at the top with options like 'General settings', 'PTP', 'ASIO Clock', 'Session sources', 'Session sinks', 'Insi/Outs', 'I/O Router', 'Statistics', 'NMOS', and 'System'. The 'Session sources' page is active, showing a configuration form for a session. The form includes fields for 'Enabled' (checked), 'IO' (Stream), 'Name' (Vittoria_B_000_1), 'Description', 'Output Interface(s)' (Interface 1), 'Auto-unicast' (unchecked), 'Address' (239.1.183.244), 'Address sec', 'TTL' (15), 'Payload Type' (98), 'Codec' (L24), 'Frame size (samples)' (48), 'DSCP' (34 (AF41)), and 'Ref/CIK PTP traceable' (unchecked). Below these fields is a 'Channel count' dropdown set to 8 and a 'Channels' table. The table has 8 columns (1-8) and 14 rows (Vittoria CH 1-14). The 'Vittoria CH 1' row has a checked checkbox in column 1. The 'CH 2' row has a checked checkbox in column 2. The 'CH 3' row has a checked checkbox in column 3. The 'CH 4' row has a checked checkbox in column 4. The 'CH 5' row has a checked checkbox in column 5. The 'CH 6' row has a checked checkbox in column 6. The 'CH 7' row has a checked checkbox in column 7. The 'CH 8' row has a checked checkbox in column 8. The 'CH 9' row has a checked checkbox in column 9. The 'CH 10' row has a checked checkbox in column 10. The 'CH 11' row has a checked checkbox in column 11. The 'CH 12' row has a checked checkbox in column 12. The 'CH 13' row has a checked checkbox in column 13. The 'CH 14' row has a checked checkbox in column 14. At the bottom of the page, it says 'The URL of the SDP of this session is http://vittoria_b_000_local/by-id/1'.

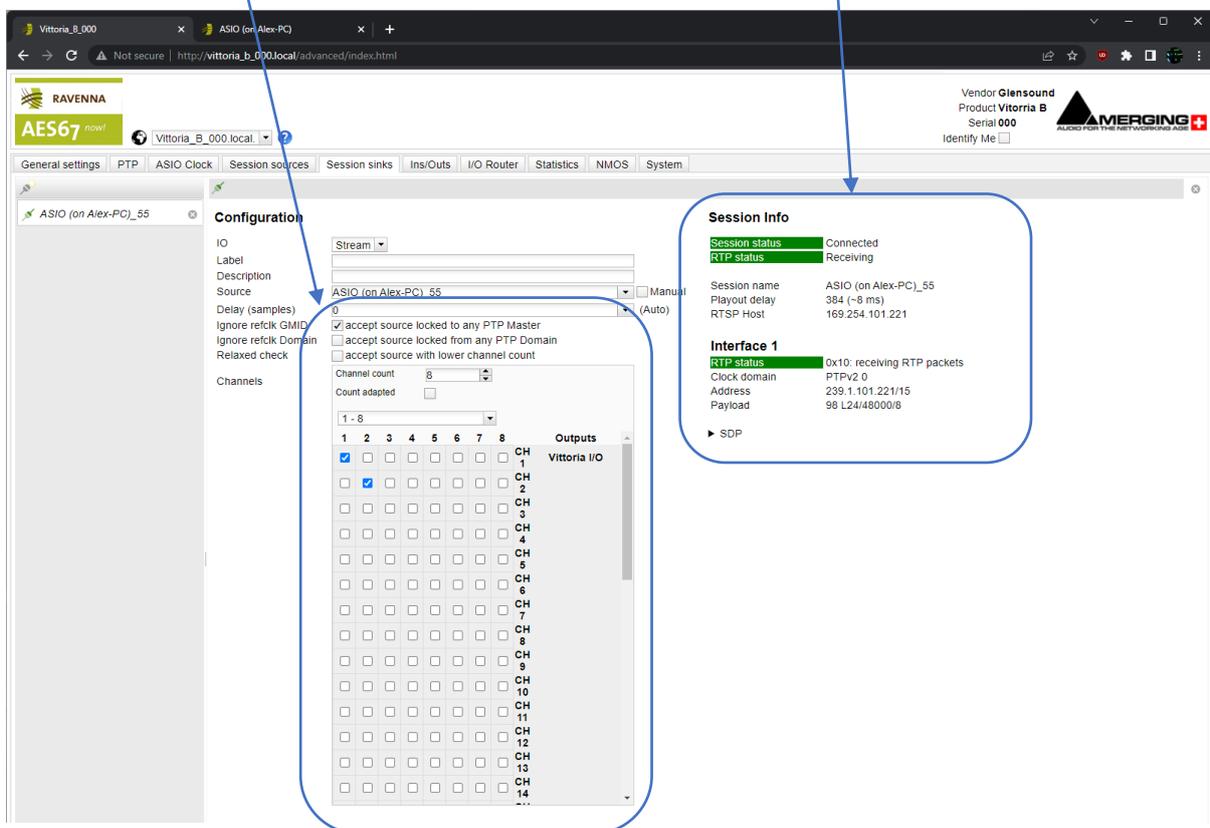
Receiving audio streams

- Select 'create session sink' button
- Navigate to 'Session sinks' page
- Select stream from drop down menu
- Select 'Manual' to manually input address and SDP descriptors



Set and configure where network audio stream is mapped to local device audio

Session info



Aneman audio network manager

Whilst Glensound's RAVENNA/AES67 devices can be entirely controlled from the web page they are also fully supported in Aneman.

Aneman is a software tool for easily managing RAVENNA/AES67 networks (similar to Dante controller).

Downloading and installing Aneman

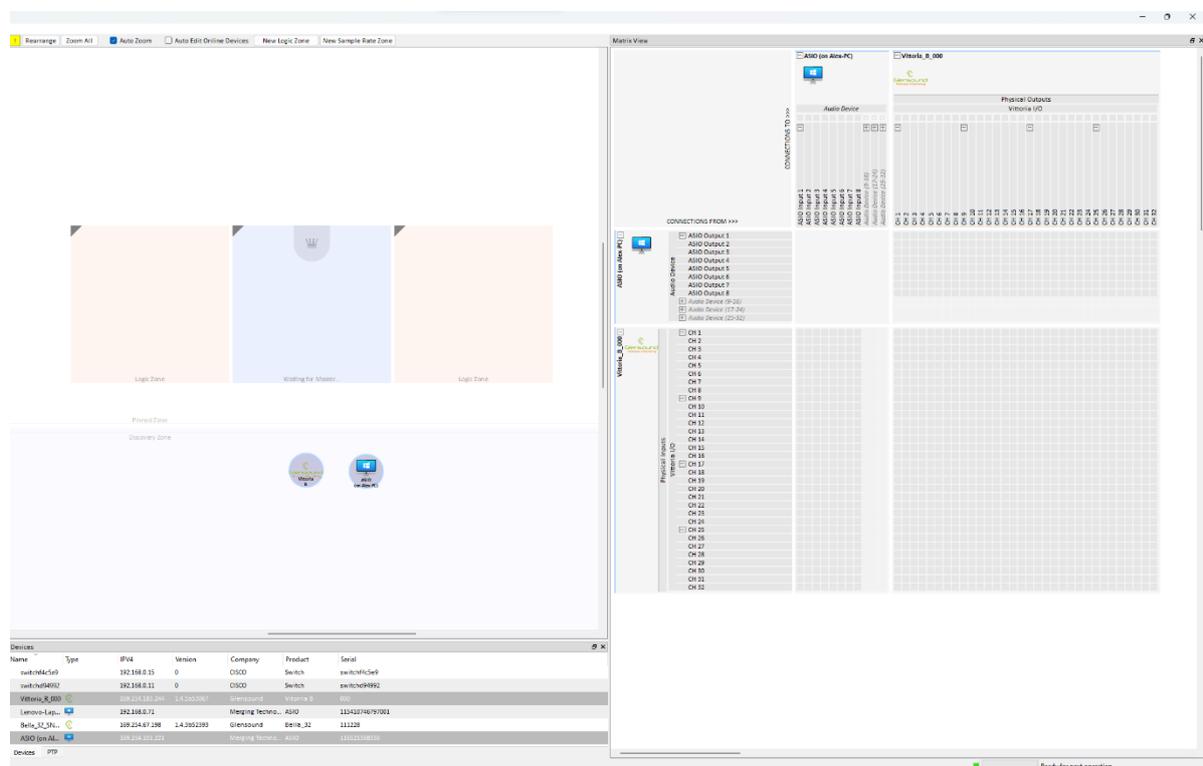
Download and install Aneman here: <https://www.merging.com/products/aneman>

Please see the Aneman user guide for a complete manual:

https://www.merging.com/uploads/assets/Installers/KHEPRI_X.0.5_HotFix4/October2022/Aneman/ANEMAN%20User%20Manual.pdf

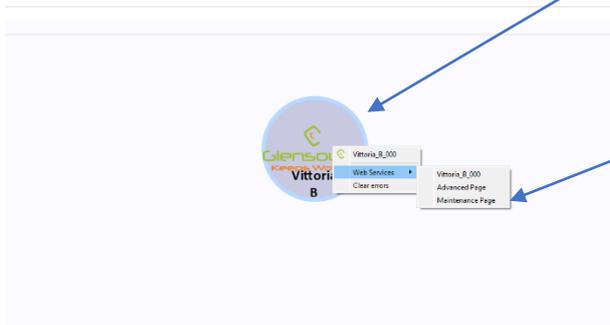
Using Aneman

This is the Aneman world, device and matrix view.



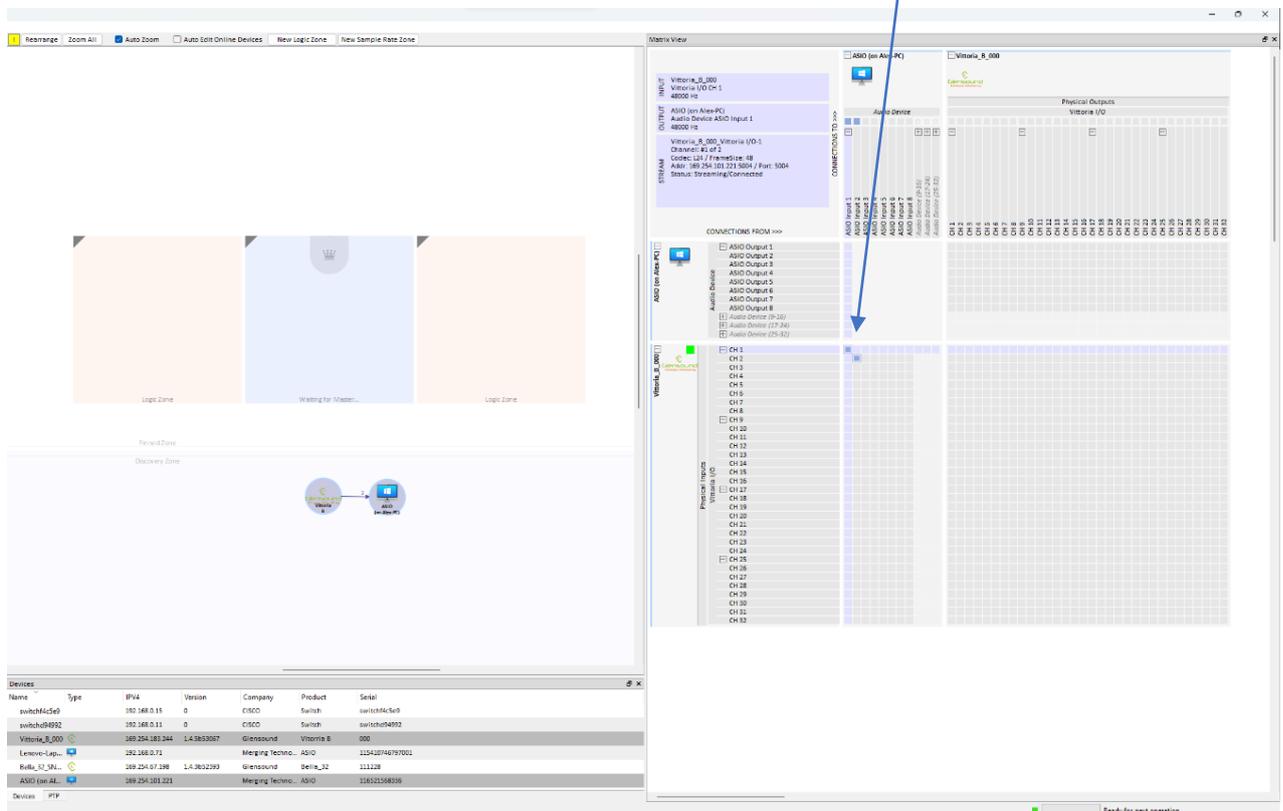


Right click device for shortcut to advanced web page



'Maintenance page' is for updating device RAVENNA firmware

Select matrix crosspoints to easily create audio pathways between devices



Updating device RAVENNA firmware

Ways to access the firmware update page

In a browser go to port 8080 of the device to access the firmware update page.

- Using the device DNS name

```
http://<device name><_serialnumber>:8080
```

Example Vittoria DR serial number 001 with RAVENNA module in slot B:

```
http://vittoria_b_001:8080
```

- With a static IP address

Example for unit with a static IP address:

```
http://192.168.0.1:8080
```

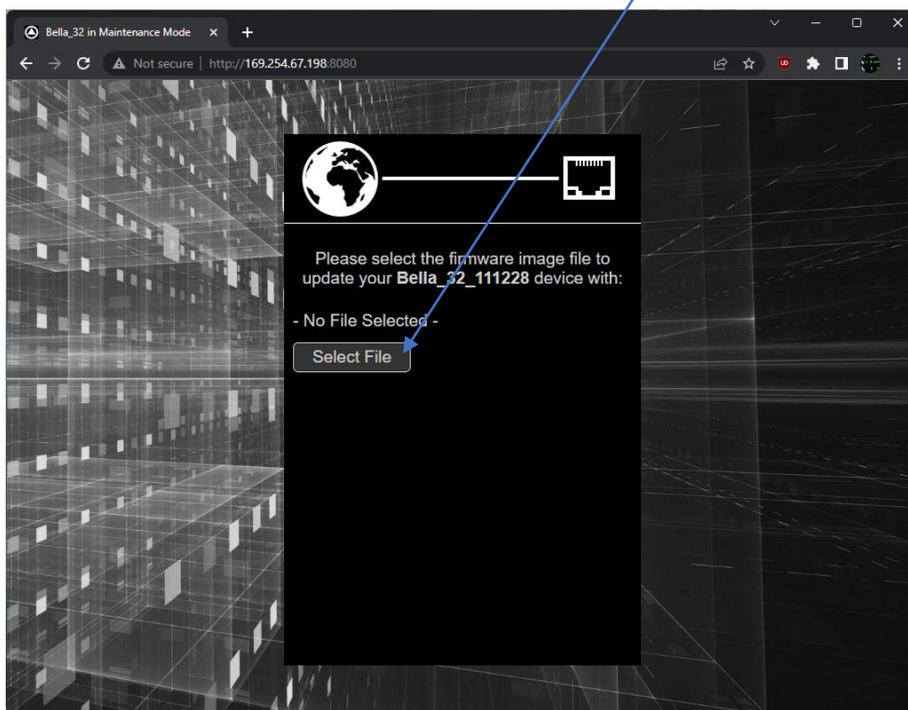
- Using Aneman (Audio network manager)

See [page 6](#)

Updating firmware

This is the firmware update view.

Choose 'Select File' to open the file browser



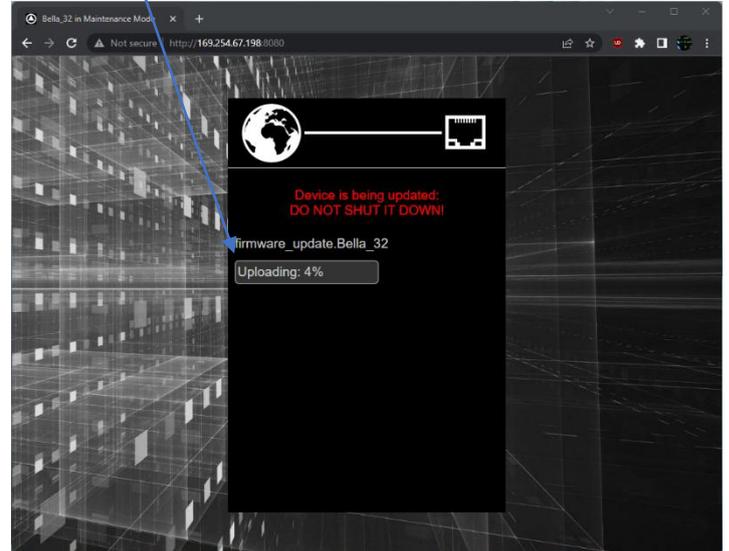
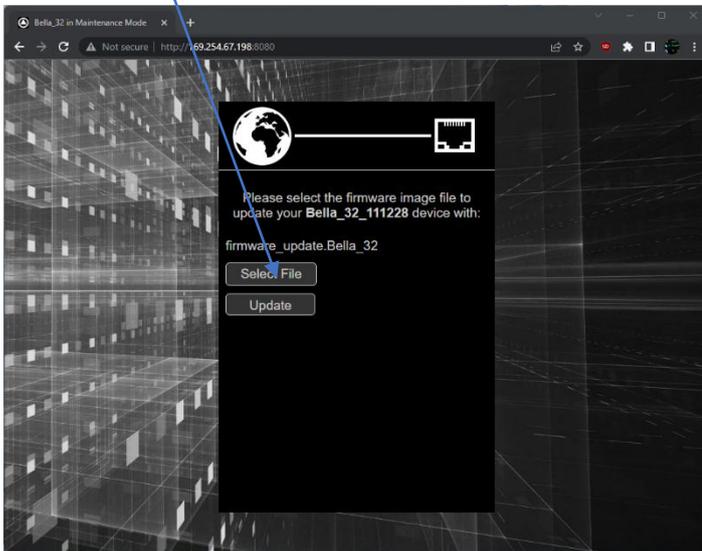
File will be called 'firmware_update.<Device_name>'

Here is an example of a firmware file for a Glensound Bella 32

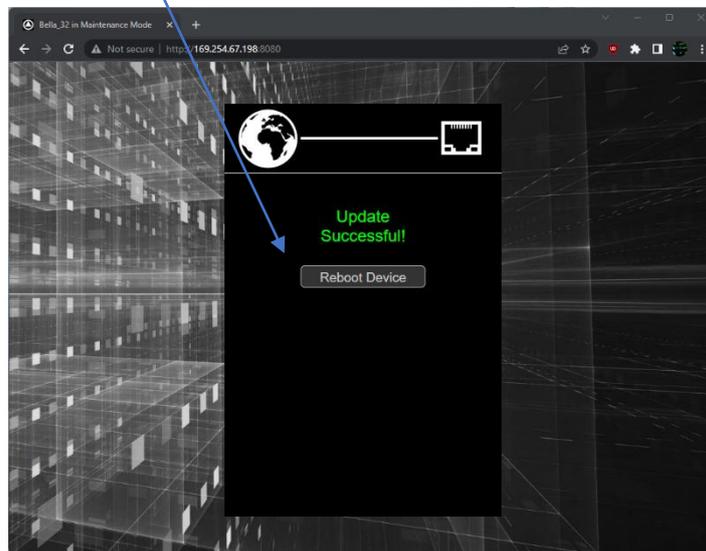
Name	Date modified	Type	Size
 firmware_update.Bella_32	04/08/2022 11:35	BELLA_32 File	51,750 KB

Choose 'Update' to begin update process

Update in progress – Do not interrupt power to the device



Update successful – Choose reboot to finish update process. Firmware has now been updated



Recovering device with unknown IP address

There are a few different methods, perhaps the simplest method is with a few Powershell commands (if you have a Windows PC).

1. First you should connect the device's Ethernet interface directly to your PC NIC (so no network switch is between them).
2. Open PowerShell
3. Run the command: `dns-sd -B _http._tcp`
4. Wait a few moments to see the device name appear (e.g Beatrice_R8_1483)
5. Press Ctrl+C to stop the command
6. Now, at the new prompt, type the next command to get the IP address:
`Resolve-DnsName -Name Beatrice_R8_1483.local`
7. It should reveal the IP address of the device
8. Now you can change your PC's NIC to be in the same IP range (in the example case the PC would be set to something like 10.10.10.5), and then the webpage should be accessible again.
9. Change it's IP back to something else / or enable DHCP

Here is an example with a Beatrice R8 Ravenna device. (In step 5 you will need to put the name of your device that was discovered in step 3)

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Alex> dns-sd -B _http._tcp
Browsing for _http._tcp
Timestamp      A/R  Flags if  Domain                Service Type          Instance Name
10:34:04.934  Add   2 4 local.                _http._tcp.          Beatrice_R8_1483
PS C:\Users\Alex> Resolve-DnsName -Name Beatrice_R8_1483

Name                                     Type  TTL  Section  IPAddress
----
Beatrice_R8_1483.local                   A     120  Answer   10.10.10.3

Name           : Beatrice_R8_1483.local
QueryType      : NSEC
TTL            : 120
Section        : Additional
NextDomainName : Beatrice_R8_1483.local
TypeBitMap     : {0, 0, 0}

PS C:\Users\Alex> |
```

Useful links

Various useful resources

<https://www.RAVENNA-network.com/downloads/>

Network considerations when using RAVENNA

<https://merging.atlassian.net/l/cp/mWmiY9BT>