



Glensound

Keeps Working



RAVENNA

AES67 & ST 2110 built-in

Glensound

RAVENNA/AES67 quick-start guide

Getting started with Glensound's RAVENNA/AES67 products

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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

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
```

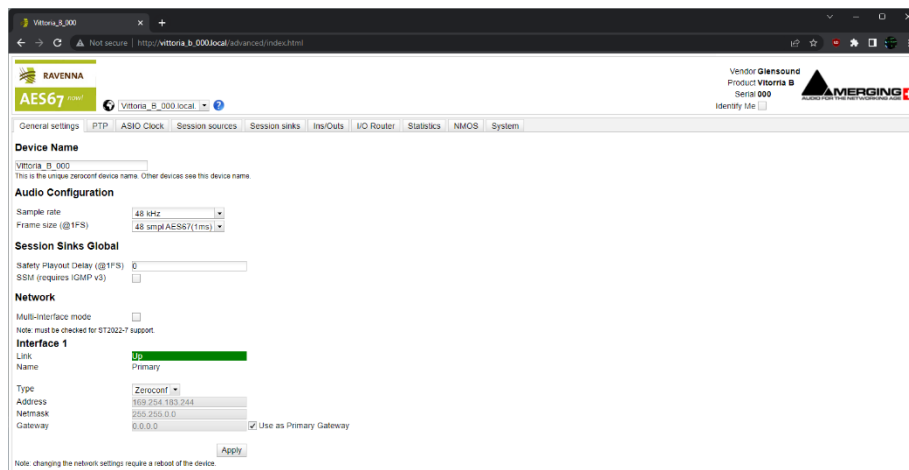
- Using Aneman (Audio network manager)

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 configuration fields include:

- Enabled:
- IO: Stream
- Name: Vittoria_B_000_1
- Description: [empty]
- Output Interface(s): Interface 1
- Auto-unicast: retrieve unicast address+port from sink (RTSP)
- Address: 239.1.183.244 (user defined)
- Address sec: [empty] (user defined)
- TTL: 15
- Payload Type: 98
- Codec: L24
- Frame size (samples): 48
- DSCP: 34 (AF41)
- Ref/Clk PTP traceable:
- Channel count: 8

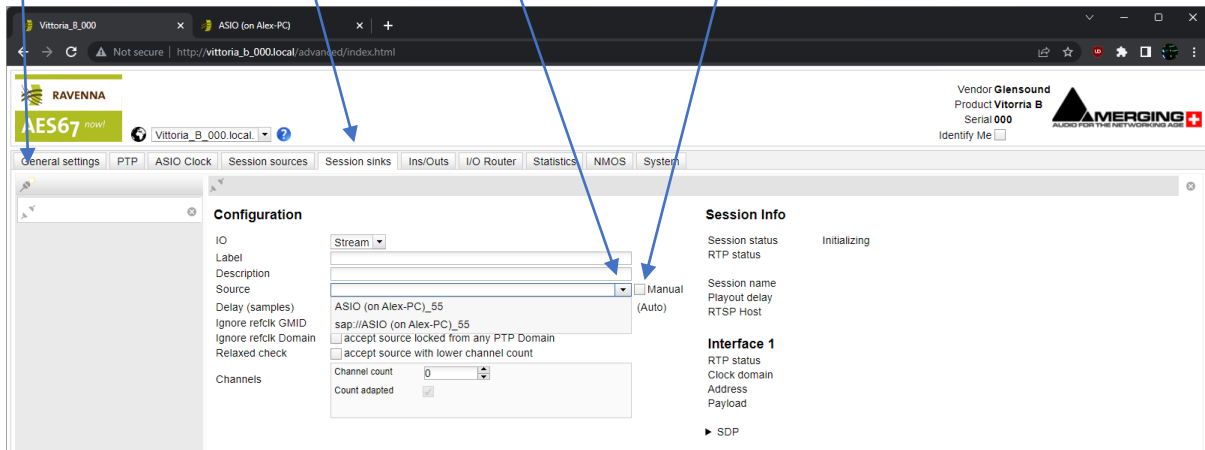
The 'Channels' section contains a table for selecting inputs and outputs:

Inputs	1	2	3	4	5	6	7	8
Vittoria CH 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The URL of the SDP of this session is http://vittoria_b_000_local/by-id/1

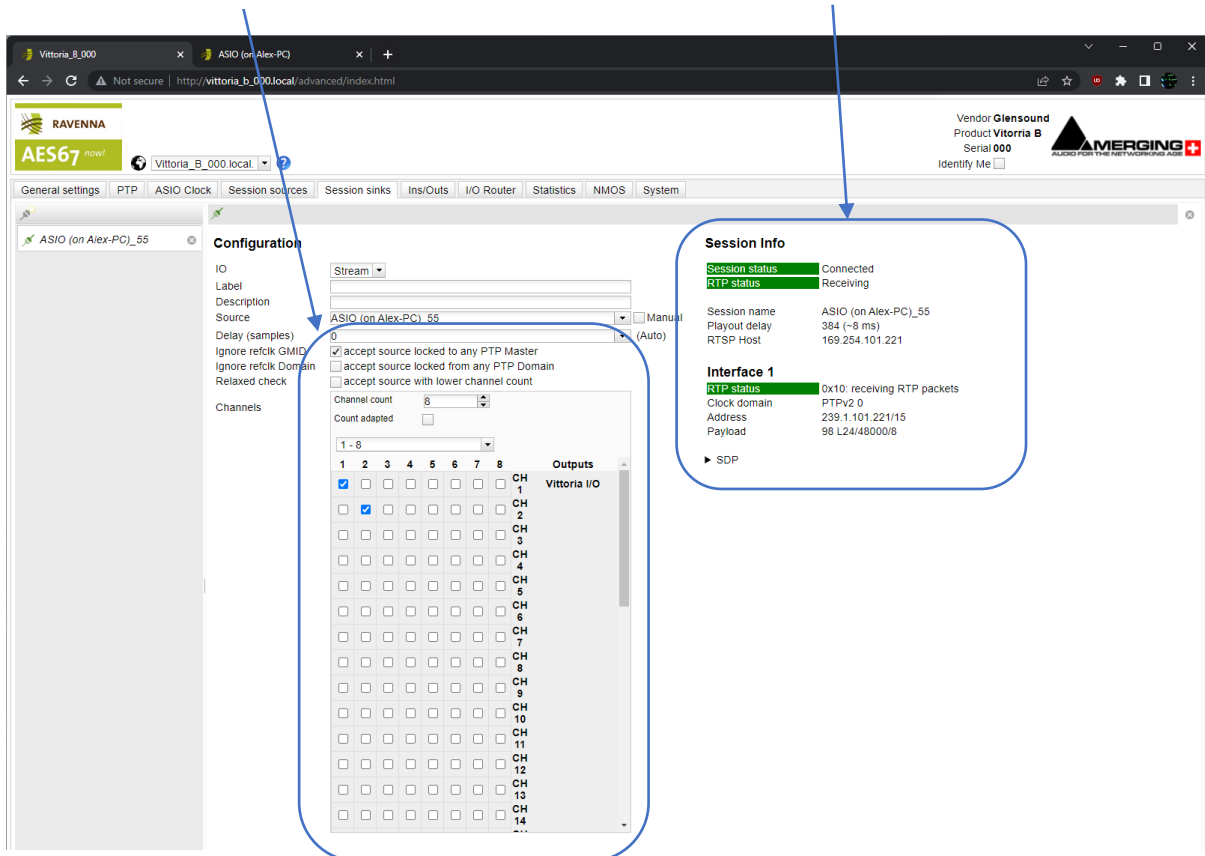
Receiving audio streams

- 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

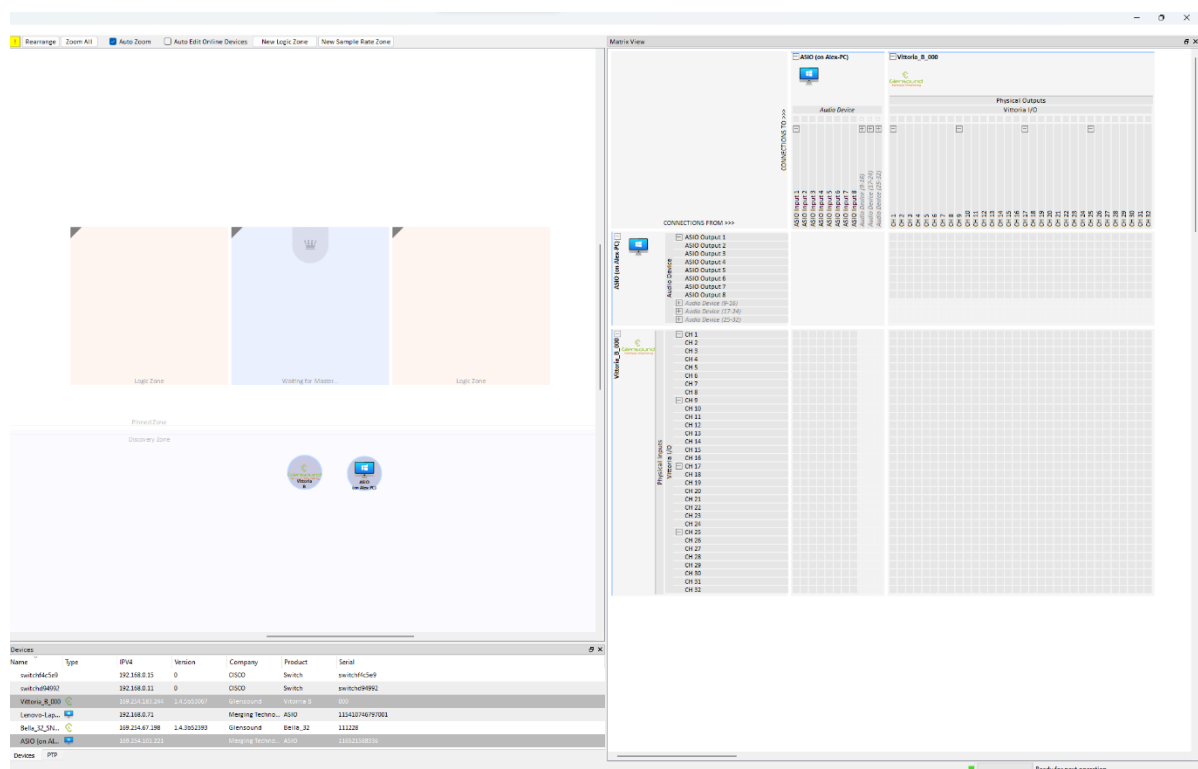
Download and install Aneman here: <https://www.merging.com/products/aneman>

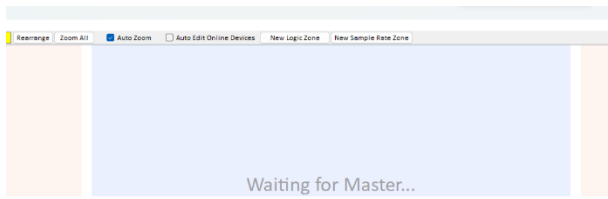
Please see the Aneman user guide for a complete manual:

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

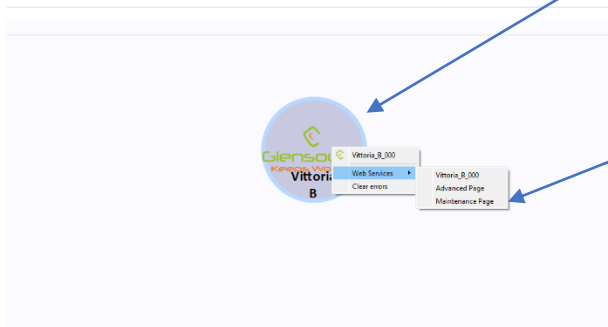
Using Aneman

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

Matrix View

Vittoria_B_000
Vittoria I/O Ch 1
48000 Hz

ASIO (on Master)
Audio Device ASIO Input 1
48000 Hz

Vittoria_B_000_Vittoria I/O-1
Channel: #2 of 2
Output List / Firmware: 18
Addr: 189.254.183.244 / Port: 5084
Status: Streaming/Connected

CONNECTION TO >>>

ASIO Device

CONNECTION FROM >>>

ASIO Device

ASIO Input 1
ASIO Input 2
ASIO Input 3
ASIO Input 4
ASIO Input 5
ASIO Input 6
ASIO Input 7
ASIO Input 8
ASIO Output 1
ASIO Output 2
ASIO Output 3
ASIO Output 4
ASIO Output 5
ASIO Output 6
ASIO Output 7
ASIO Output 8

Physical Outputs
Vittoria I/O

CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
CH 9
CH 10
CH 11
CH 12
CH 13
CH 14
CH 15
CH 16
CH 17
CH 18
CH 19
CH 20
CH 21
CH 22
CH 23
CH 24
CH 25
CH 26
CH 27
CH 28
CH 29
CH 30
CH 31
CH 32

Physical Inputs
Vittoria I/O

CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
CH 9
CH 10
CH 11
CH 12
CH 13
CH 14
CH 15
CH 16
CH 17
CH 18
CH 19
CH 20
CH 21
CH 22
CH 23
CH 24
CH 25
CH 26
CH 27
CH 28
CH 29
CH 30
CH 31
CH 32

Devices

Name	Type	IPv4	Version	Company	Product	Serial
switchM45a9		192.168.0.11	0	CISCO	Switch	switchM45a9
switchM4992		192.168.0.11	0	CISCO	Switch	switchM4992
Vittoria_B_000		189.254.183.244	1.4.363007	Glensound	Vittoria B	000
Lemmo-Lap...		192.168.0.72		Merging Techn...	ASIO	115420740797001
Belto_7L_3K...		189.254.07.198	1.4.362283	Glensound	Belta_72	111128
ASIO (on M...		189.254.183.244		Merging Techn...	ASIO	200222568308

Device: PTF

Ready for next operation

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://vitorria_b_001:8080
```

- With a static IP address

Example for unit with a static IP address:

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

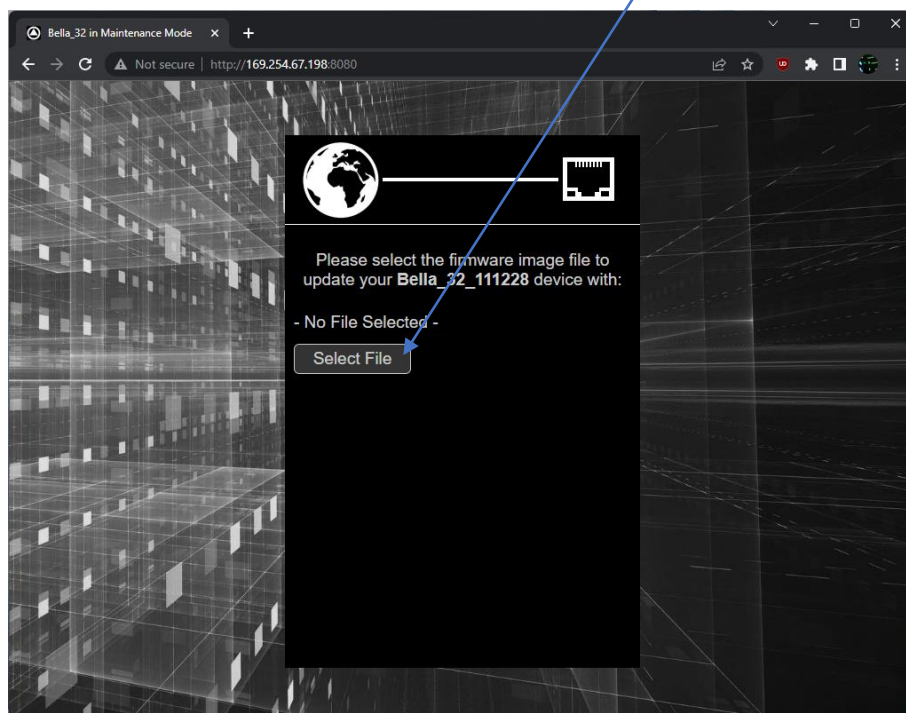
- Using Aneman (Audio network manager)

See [page 6](#)

Updating firmware


This is the firmware update view.

Choose 'Select File' to open the file browser



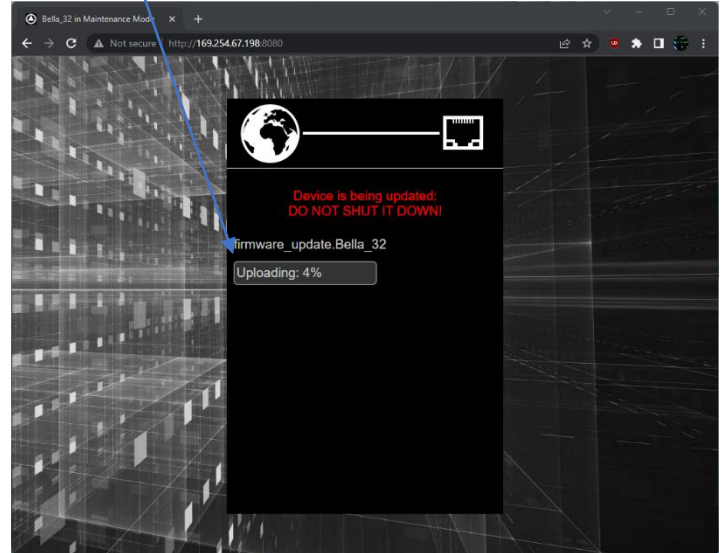
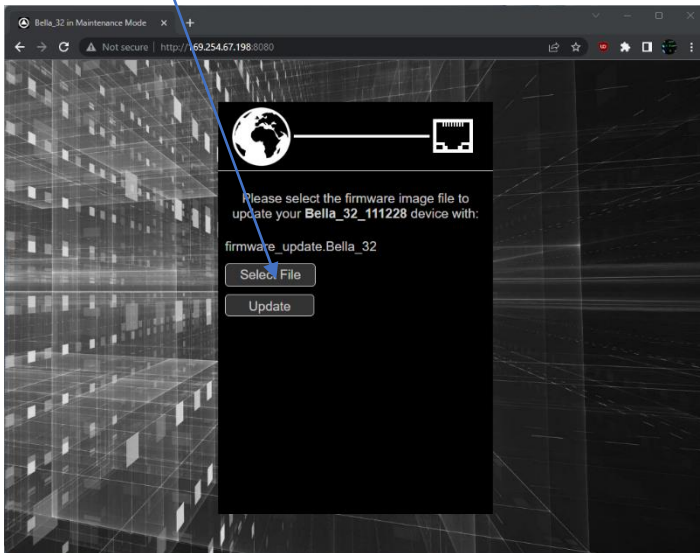
File will be called 'firmware_update.<Device_name>'

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

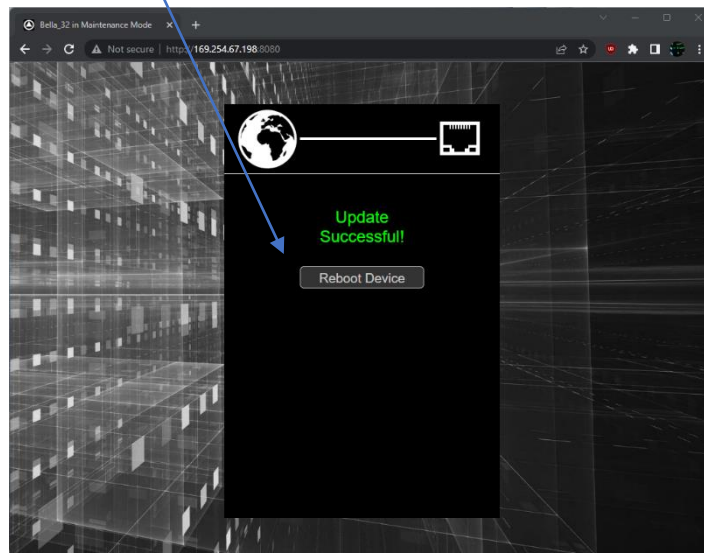
Name	Date modified	Type	Size
 firmware_update.Bella_32	04/08/2022 11:35	BELLA_32 File	51,750 KB

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



Useful links

Various useful resources

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

Network considerations when using RAVENNA

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