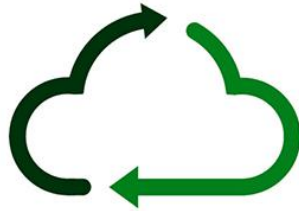


QuickStart Guide



E-Smart Screen (ESS)

Display Your Vision Whenever, Wherever!

EwrTech Team- v0.1 (beta)

Reserved Section

EwrTech Team Usage:

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Section 1: Introduction

Ewr-Smart Screen (ESS) is an advanced digital signage system that offers unique and power features focused on high security and efficiency.

It allows you to schedule and display any type of content such as images, videos, web pages, slideshows, audio files, and more on your screen(s) or TV(s).

It is highly flexible, you can schedule a content slide to display throughout a period of time, a single time, recur daily, hourly, or even run it every second.

It supports dual and quad displays to work independently and separately, in other words you can schedule a different content for each connected TV or monitor and run them simultaneously.

Here's a short list of some of the features and capabilities:

- Watch regular TV channel or listen to your favorite radio
- Simple text to speech (natural voice)
- Schedule voice reminders to tell you the current time, weather, or even tell a joke
- Create QR and add them on top of your image
- Dual & Quad monitor support, with energy saving
- Advanced networking features, can serve as secure Hotspot or a VPN
- Run as a regular Linux server, easily access SSH through web browser

Beside the main function of the ESS as an advanced digital signage, you can also use it along side with other display related applications such as E-Pad and E-Share:

- **E-Pad** (PC Mode)
- **E-Share** (Screen Sharing)

The ESS Bundle version includes both of these, and the core features don't require internet connection.

Hardware:

We support both x86-64 and arm64 CPU architecture, and all Debian based systems.

Additional software you can use with the ESS that are not related to display:

- **E-Files** (Local File Storage)
- **E-Pager** (Audio and Paging)
- **E-Cam** (Advanced Camera)

Access - Login Info

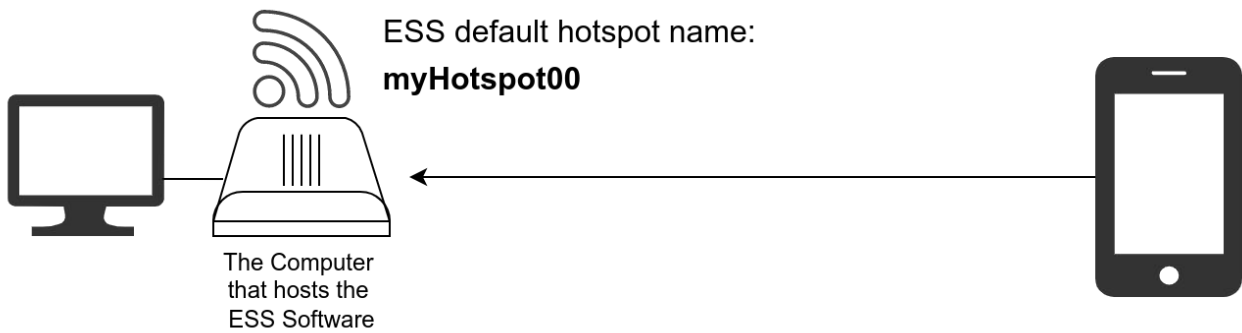
You can access the ESS using the **Ethernet**, **USB**, or the **WiFi**.

If your computer's WiFi Card supports the Access-Point Mode, the ESS App will provide you a Hotspot connection so you can connect to it directly, and once you do you can then join the computer to your own WiFi.

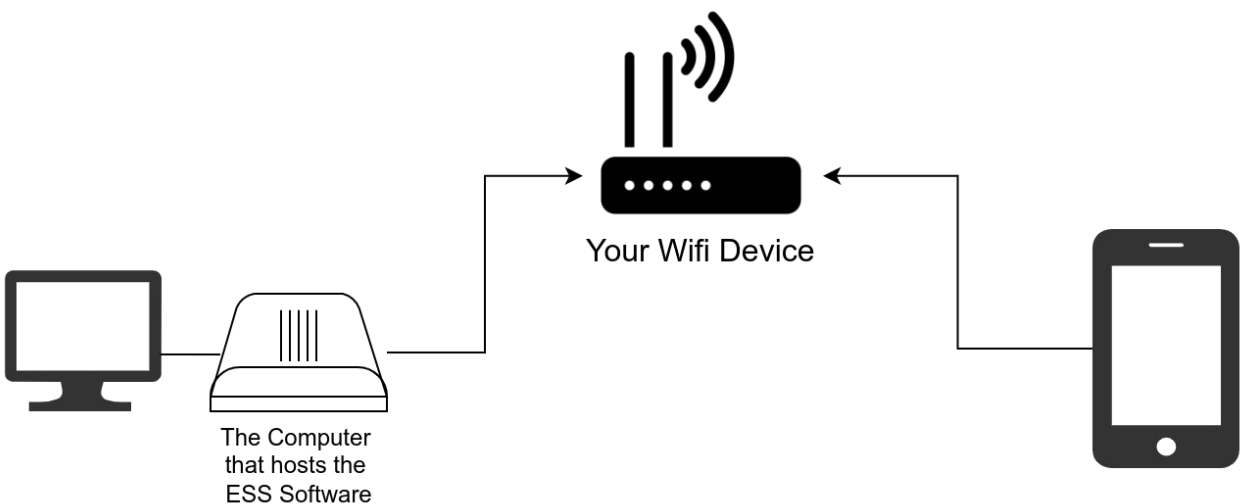
You can also use the Hotspot as a **Fail-Over**, **WiFi Extender**, or just your **primary connection** to access the ESS.

Note: if you are connecting with the Ethernet, skip the WiFi related steps.

To connect to the device directly, search for the default ESS Hotspot SSID.



Once you connect to the ESS device via Hotspot, you can then join the ESS device to your own WiFi:



Steps:

- 1- Connect your monitor or TV to the ESS computer.
- 2- Turn the monitors on and set the output source accordingly (example HDMI1 or 2)
- 3- Connect the power adapter to the ESS computer. If the computer is set to **auto-power**, it will turn on automatically as soon as you plug into the power source. Otherwise, press the power button to turn it on
- 4- Once the computer is on, **wait 5 to 10 minutes** for the initial configuration to finish
- 5- Connect to the default ESS Hotspot. If your device doesn't support the Access-Point, you may use Ethernet then join the device to your own WiFi.
- 6- Get in the same network that the ESS is connected to. If the ESS device is not connected to your WiFi, it will turn to a Hotspot mode.

Default Hotspot SSID : **myHotspot00**

Default WiFi Password: **myHSPass_99**

Once you are connected to the **myHotspot00**, you can now access the ESS system using your web browser
Note: the ESS device's WiFi card must support the Access-Point mode, otherwise there will be no Hotspot.

Login to ESS (HTTPS)

A- After you are connected to the ESS default Hotspot, open your browser and type the default ESS IP Address:
https://10.42.0.1:9001 (must type https://)

Note: if you are using Ethernet or other methods, your IP address will be different.

You will get a security warning, similar to this: (depending on your browser)



Your connection is not private

Attackers might be trying to steal your information from **10.42.0.1** (for example, passwords, messages, or credit cards). [Learn more](#)

NET::ERR_CERT_AUTHORITY_INVALID

 To get Chrome's highest level of security, [turn on enhanced protection](#)

Advanced

Back to safety

You will see this because ESS uses a “**Self Signed Certificate**” so you can use the system on your private network. This is safe, **Cisco** and **Google** use Self Signed Certs for systems that require to work without a FQDN. To learn more, see the official page: https://en.wikipedia.org/wiki/Self-signed_certificate

- Click on “Advanced” (some Web Browser may have a button saying **Continue**, or similar)



Your connection is not private

Attackers might be trying to steal your information from **10.42.0.1** (for example, passwords, messages, or credit cards). [Learn more](#)

NET::ERR_CERT_AUTHORITY_INVALID

💡 To get Chrome’s highest level of security, [turn on enhanced protection](#)

Hide advanced

Back to safety

This server could not prove that it is **10.42.0.1**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.

[Proceed to 10.42.0.1 \(unsafe\)](#)

- Then **click on** “[Proceed to 10.42.0.1 \(unsafe\)](#)”



ESS

Login

Default Username:

admin

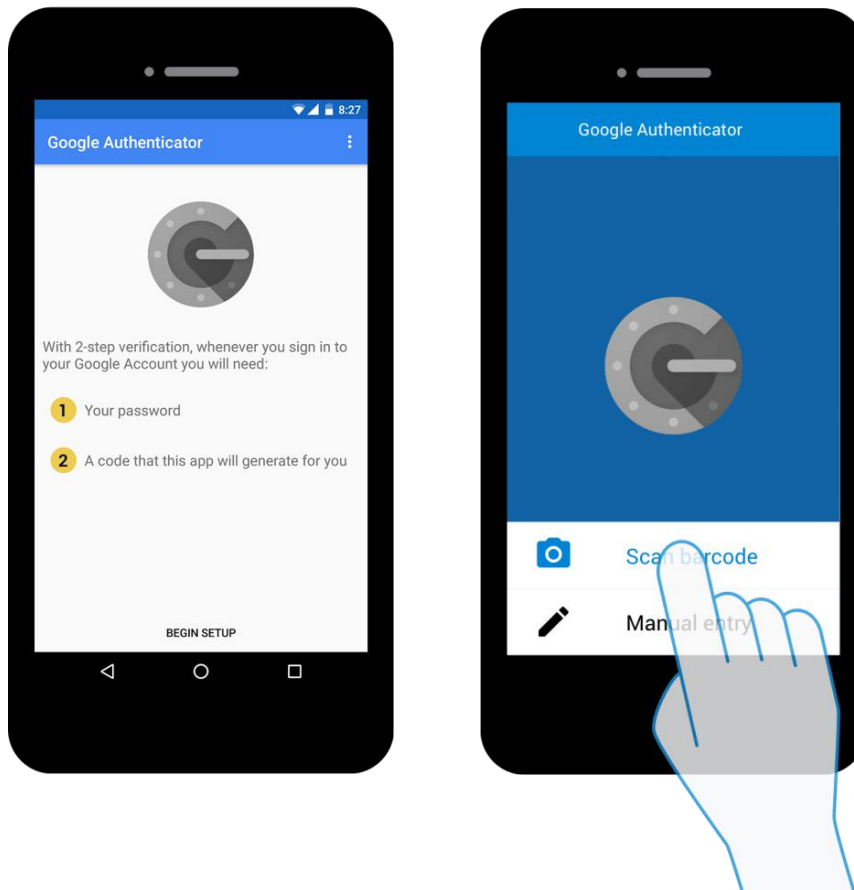
Default Password:

Admin@123

- We need to pass the 2FA. You must install a **2-Step Authentication App** on your phone. There are many, and we recommend the **Google Authenticator**. You can find it in the App Store and Google Play store.



B- After you install **Google Authenticator**, open it and scan the QR Code below:



Optionally, you can add the 2FA code to **Google Authenticator** manually if you need to:
NEASXACZ4YOTOPU6XUZCRCFXZY23ZOVL



2FA

Verify


The code changes every **30 seconds**

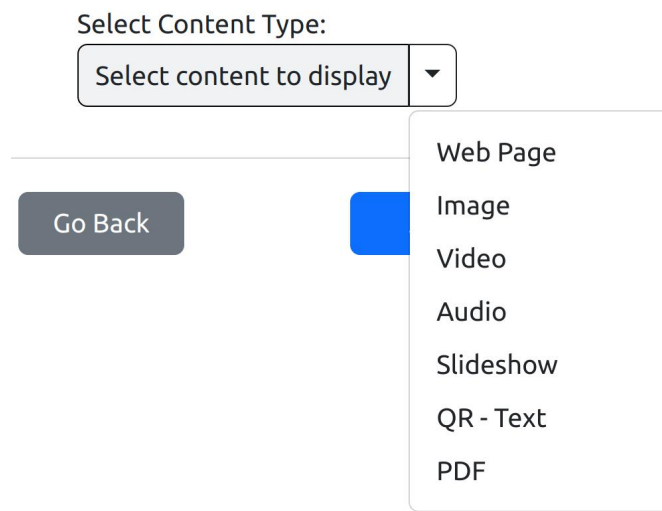
If you have any issues connecting to the device or logging in, please see: [Section 4](#).

Section 2: Content Types (Slides)

Almost anything you can display on your regular PC screen or an audio file or link you can play is considered a content for ESS.

For example, you can upload an image from your computer or phone to schedule and display it on either the first or the second monitor, display a public web page, play and radio or a YouTube link, create a QR code, watch TV, set time reminders, and more. Here's a list of contents:

After you login, click on the  plus sign to add a new slide. Then select the content type:



- Web Page

Allows you to schedule and display a publicly or locally available link using any standard protocol, and optionally set a refresh time.

The Web Page slide's minimum time is 5 minutes and the refresh minimum is 15.

The refresh is for pages that require to be refreshed manually, it's like when you press the F5 key.

Monitor 1 - Configure Web Page Slide :

Start Date: Start Time:

End Date: End Time:

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Ignore URL and only use failover page

Refresh

URL

OFFLINE USE

Use "Site is not reachable"

Upload HTML Site (.zip)

Choose File

Name:



- Slideshow



You can combine photos and videos to create a slideshow and run it based on the schedule you create.

You can use photos and videos together. The duration time only applies to photos.

The "Text" field is a caption on a video or a photo.


Monitor 1 - Configure Slideshow Slide :


Start Date:  Start Time: 


End Date:  End Time: 

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Upload Images/Video (jpg,png,gif,mp4,avi | <= 1G)



Vertical Priority  Loop

Slide Duration: 

Text:

Name:

Mute

- QR - Text

Allows you to generate a QR code / link and add it on top of your photos, then display it based on the schedule you create. You can also display text.

Add QR slide

- Display QR Code with Image
- Display Text - No QR Code



Add QR slide

Monitor 1 - Configure QR Slide :

Start Date:  Start Time: 

End Date:  End Time: 

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Priority 

Text:

Name:



- Audio

You can schedule an audio file, listen to a **Radio**, **Podcast**, or use the **Text-to-Speech** feature with commonly used keywords such as **TIME**, **WEATHER**, and **DATE**.

We provide some example links for popular radio channels. You can also find free channels online.

Monitor 1 - Configure Audio Slide :

Start Date: Start Time:

End Date: End Time:

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Text to speech Live Audio Loop

Upload Audio (mp3 | <= 6MB)

Name:

You can type a sentence and it will convert it to natural sound speech, and use common keywords with your sentence. Example:

It is **TIME** and the weather is **WEATHER**

Time and WEATHER are both keywords.

Monitor 1 - Configure Audio Slide :

Start Date: Start Time:

End Date: End Time:

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Text to speech Live Audio Loop

Time Gap (Seconds):

Text



Name:



- Video

Allows you to schedule and play a TV channel, upload your own video files, use YouTube, IP Camera, live streams, and more.

We provide some TV channels examples in the slide. You can search online for IP TV links.

Monitor 1 - Configure Video Slide :


Start Date:  Start Time: 

End Date:  End Time: 

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Use URL

Upload Video (mp4,avi | <= 1G)



Vertical Priority 



Mute

- PDF

You can schedule a PDF file as well.

Monitor 1 - Configure PDF Slide :

Start Date:  Start Time: 

End Date:  End Time: 

Week Days: **S** **M** **T** **W** **Th** **F** **Sa**

Upload PDF

- Image

Schedule and display any image format, jpg, png etc.. For example, a restaurant can display breakfast menu from 7AM to 11PM, and display the lunch menu from 11AM to 3PM.

Monitor 1 - Configure Image Slide :

Start Date:

Start Time:

End Date:

End Time:

Week Days: S M T W Th F Sa

Upload Image (png,jpg | <= 6MB)

Vertical Priority

Time (Scheduler)

When you add a new slide, you will see three options for the **Time**. You can select the one that best suits your scheduling needs.

Daily:

This is commonly used and works for most cases. You can start and end the slide at specific times and dates, and also select the days of the week.

Hourly:

Schedule the slide to run at a specific **Minute** of the hour, and start and end at a specific date.

Period:

This is suitable to run a slide through out a long period of time without stopping it. If you want to run a slide for more than 24 hours continuously, this may be the most suitable scheduling type.

Add a new slide

Time & Output

Select Content Type:


Section 3: Settings

You can change the display resolution, set a standby time, configure the VPN remote access, and much more under the settings menu.

Click on the gear icon  located on the top right corner:

Most of the settings are self explanatory. Some features need additional clarification:

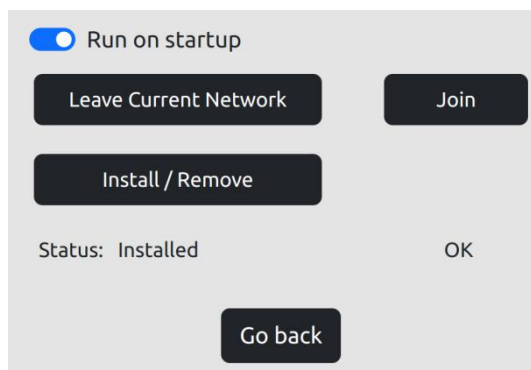
- General
- Sound
- Network
- User
- Display
- System
- Emergency
- Support
- Upgrade
- About

- Factory Reset
-  Power

VPN and Remote Access

We support all major VPNs, both the software and hardware based. We recommend the highly secure and scalable VPN called **ZeroTier**, but other options that we provide are just as good. It all depends on your specific needs.

With a click of a button, you can install and configure the VPN to have secure remote access to your device, and all your network!

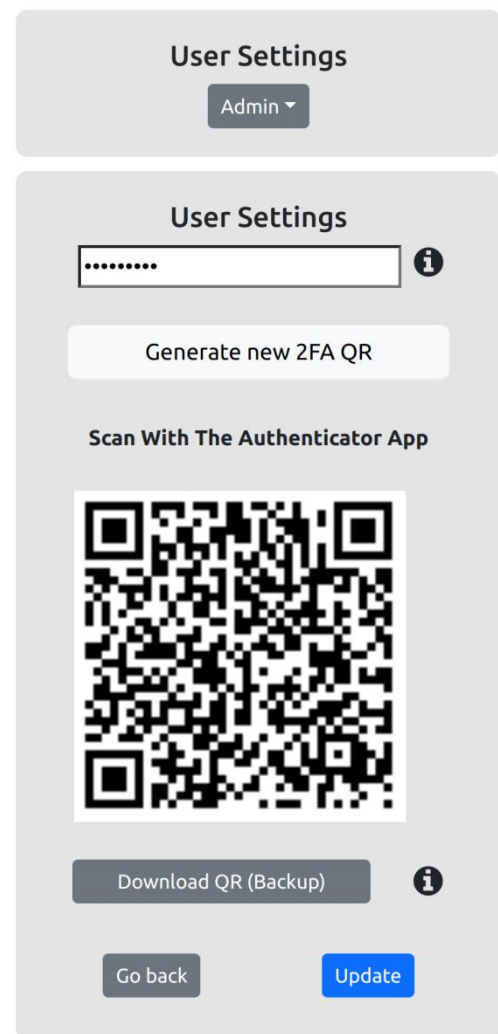


Change Your Password & 2FA

ESS has three different users. You may only see two in the menu “User Settings”.

You can change the password for each user separately.

You must change your password and 2FA for better security. Do not run the system with the default username and password.



Set Monitor Resolution & Position

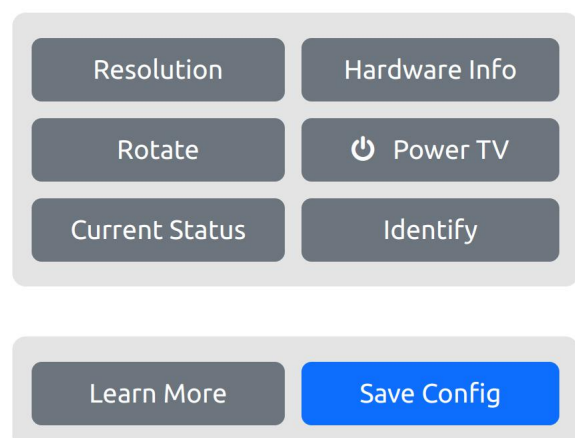
You can configure dual monitors, change a monitor to vertical, and more. Go to the **Setting Menu**, click on **Display**

Click on the button **Resolution** and select the pre-configure profile settings.

The default profile works for most monitors.

You will see the changes in the monitors when you select different profiles. Once you select the most suitable profile for your monitors, you must click on the blue button:

Save Config



Power Saving - Suspend System

You can schedule the ESS device to suspend based on the schedule you can create.

You can save energy and your hardware and monitors may last longer when not in used, when they don't need to be.

Suspend System

Disabled Schedule



Learn More Logs

up 3 hours, 25 minutes

WARNING!
You will not be able to access the system when it's suspended.

Connect to your WiFi (Join the device to your own WiFi router)

Go to:
Settings > Network > click on Set WiFi button > click on Enter SSID Manually button

Set Wifi  

SSID: myHotspot00
IPv4: 10.42.0.1/24
Status: connected

For more details, see [Section 4](#).

Enter SSID Manually

Apps (Additional Applications bundled with the ESS)

EwrTech has many products, a couple of them are bundled with the standard ESS version (this version), the **E-Share** and **E-Pad**.

E-Share:

Allows you to easily share your screen with the monitors connected to the ESS device, or send invite links for sharing your screen with others. You can also use a webcam and stream a video file directly from your phone.

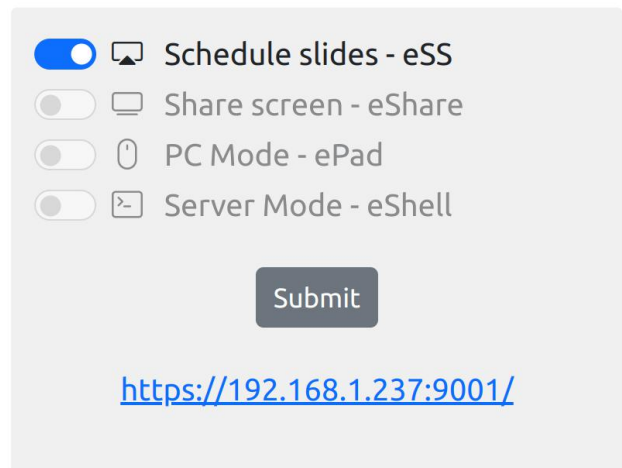
E-Pad:


This simply turns the system into a standard PC that you can use as a web browser, or do anything else you can do when using a Linux Desktop PC. You can use your phone or any other device as a virtual keyboard and mouse to interact with the system.


For more information, please check the user manuals for the specific product you are interested in.


Server Mode:


This will stop all other Apps and start the Linux Shell in the browser



 Schedule slides - eSS

 Share screen - eShare

 PC Mode - ePad

 Server Mode - eShell

<https://192.168.1.237:9001/>

Other EwrTech products and apps (These are not included with the standard ESS license)

The basic ESS license doesn't include additional Ewr Apps.
All Ewr Software Packages work independently and you can buy them individually.

E-Plugs:

Schedule and control electric outlets and appliances.

E-Pager:

Intercom, Music player, and audio scheduling system.

E-Files:

Local storage for sharing and hosting files on premise.

E-Cam:

Advanced Camera system that supports, IP Cams, USB Cams, and more.

Section 4: Join ESS To A New WiFi Network

If the ESS device is not joined to any WiFi, the device will turn to a Hotspot mode so you can connect to it directly.

Once you do, you can then join the device to your own WiFi router.

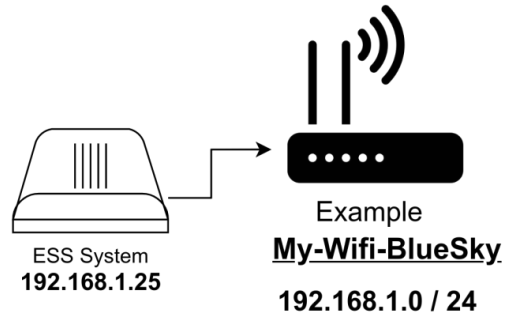
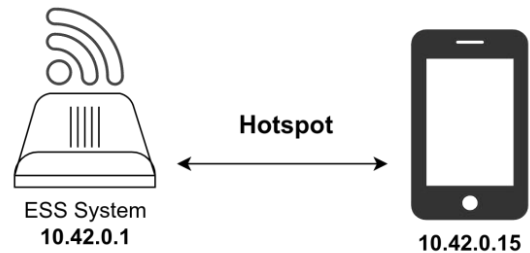
Additionally, the Hotspot mode can be used as your: **primary connection, fall-back, or a WiFi extender.**

WiFi extender: this will convert an Ethernet connection to a WiFi. Your device's WiFi card must support AP mode.

Once you join the device to your own network, you must be in the same network to access the ESS again.

Your WiFi router will assign a unique IP address to the ESS device. Find out the IP address and use it to access ESS again.

`https://<ESS New IP ADDRESS>:9001`



1 - Once you are connect to the ESS device, open your browser and type:

`https://<ESS IP ADDRESS>:9001`

If you are connecting to it with the Hotspot:
`https://10.42.0.1:9001`

Otherwise, the ESS device will have a different IP address.

Login to ESS, then go to:

Settings > Network > Set WiFi > Enter SSID Manually

Once you enter your SSID (Your WiFi name), and the password, the device will reboot for the connection to re-establish.

If you can't access the device, make sure you are in the same network as the ESS.

Note: when connecting or disconnecting to a network, it takes a few minutes for the changes to take effect.

Set Wifi

It takes a few minute for connections to establish.

Enter SSID Manually

YOU WILL GET DISCONNECTED
when ESS is joined to a new Wifi.

To reconnect:

1. Wait a few minutes
2. Connect to the same Wifi as the ESS is connect to
3. Find the new ESS IP address

A. It will be displayed on the screen for 1 minute

B. It will tell you, if you have speakers and internet

C. Use the command line tool
ping -4 essbox00

4. Go to: `https://<New ESS IP>:9001`

Note: If ESS fails joining the new Wifi, it returns back to current Wifi after a few minutes.

Help Cancel

2 - You will get disconnected once you click on the button "Connect"

Once you click on the **Connect** button, ESS will try to connect to the new WiFi connection and drop all other connections.

To re-gain access to ESS, make sure you are in the same network as the ESS, and use the correct IP address.

User's message:

Check your Wifi connection again to make sure you are on the same network as the ESS is on.

Then you must close this window and re-open it in a new tab with the **correct IP address**

If the new connection has failed, wait a few minutes and connect back to the previous Wifi to regain access.

Set Wifi [X]

Hidden Wifi

SSID Name

Enter SSID Name

Password

Enter Password

WARNING:

You are about to join this device to another network and you will get disconnected. To access the ESS again, you must join the same network that this device is joining to.

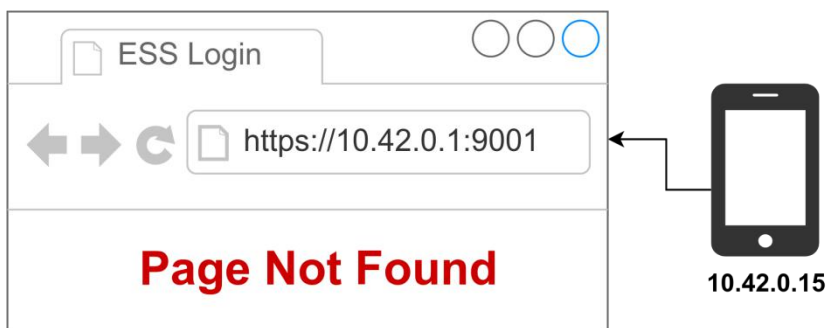
A new IP address will be assigned to this device.

Learn More Cancel Connect

2- As you can see, the ESS system has joined a new network, and has a new IP address (192.168.1.25).

You will get an error if you are still trying to access the old ESS IP address: 10.42.0.1

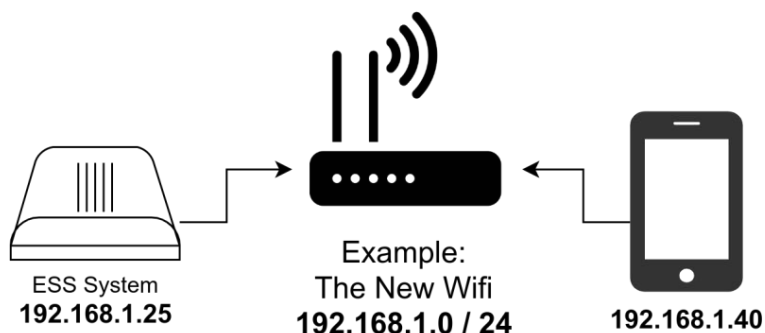
Again, you have to connect to the same WiFi as the ESS is connected to, and find the new ESS IP address to access it again.



3- Once you are on the same network, find the new IP address assigned to the ESS device.

The new IP will be displayed on the monitor and stay for 1 minute.

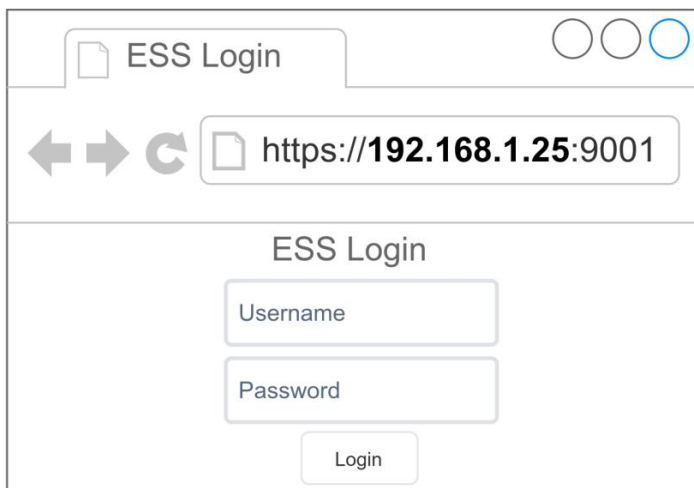
Another way to find the IP, use PING command: ping -4 essbox00 in the command-line.



If you still can't find the IP of the ESS device, there are many other ways you can try. That's beyond the scope of this quick-guide. You may consult with your IT, or contact us.

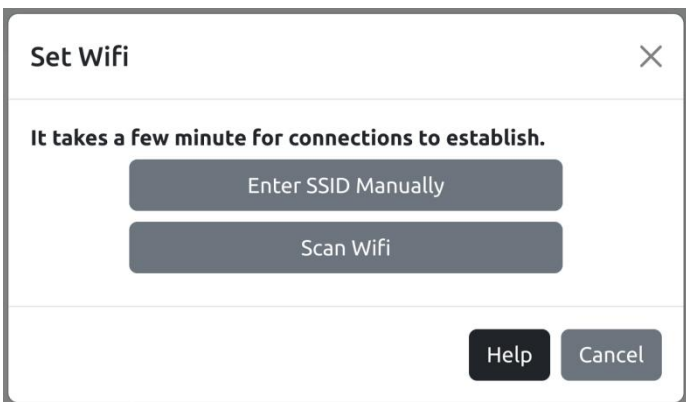
4- Finally, go to your browser and type the new IP address of the ESS:

<https://192.168.1.25:9001>

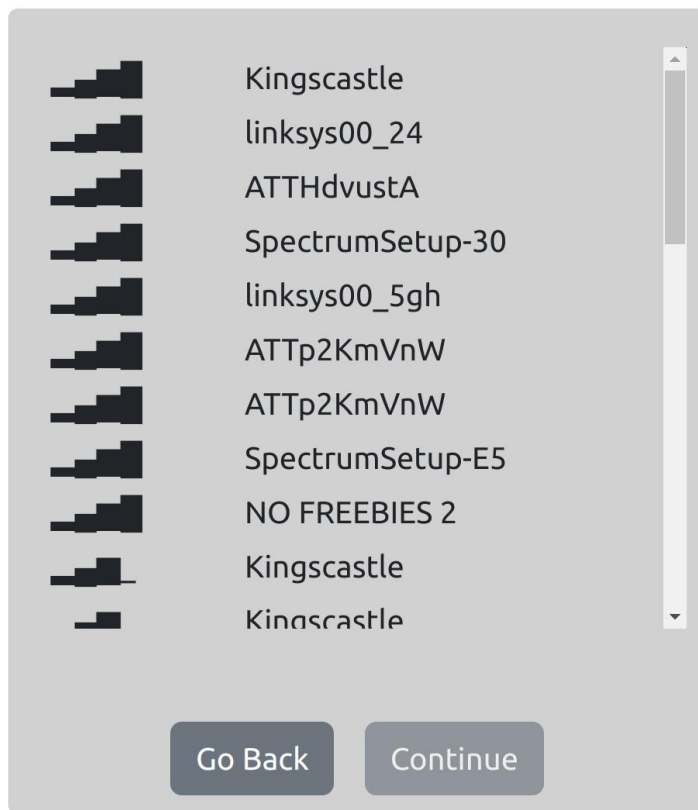


Note:

If you have joined the device to a WiFi, and need to join it to another one, you can click on **Scan WiFi** button:



Example: select your WiFi SSID



Thank you!

Note:

ESS Software is still under development. This is a basic help document and will change in the future.

We provide other methods to access the system: USB, Ethernet, and VPN.
If you encounter any issue or need help please feel free to contact us:

<https://www.ewrtech.com/>

Toll Free: +1 (833) 830-0330

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