



Ezserver P2P Tutorial

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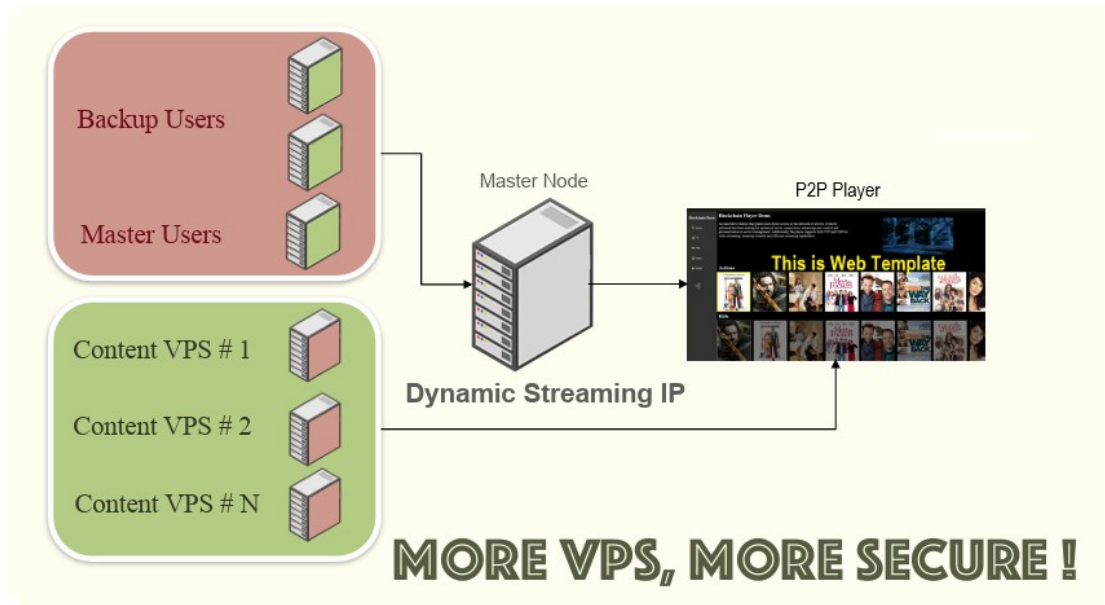
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1 Ezserver

Save Server Download Bandwidth



Ezserver's P2P version harnesses the power of P2P technology to effectively minimize server download bandwidth while bolstering reliability through Blockchain integration. Its comprehensive features include:

1. **Ezserver:** A robust STUN server capable of working with full-cone NAT, (address)-restricted-cone NAT, and port-restricted cone NAT. Additionally, it acts as a TURN server compatible with Symmetric NAT configurations.
2. **Middleware:** Empowering users with a P2P Web Portal accessed through a Chrome extension, offering an extensive array of channels and films directly within the Chrome browser environment.
3. **P2P Player:** Seamlessly integrated within an Android App, providing users with effortless access to content across various devices.



Requirement:

Minimum Server Requirement:

- **Linux:** Ubuntu 20.04(Recommended), Debian, Centos
- **CPU:** 4v Core
- **RAM:** 8GB
- **Storage:** 160 GB
- **Bandwidth:** 1Gbps unmetered

Minimum Android Requirement:

- **CPU:** Dual-Core(1.2xGHz)
- **RAM:** 1GB
- **Storage:** 1 GB
- **Bandwidth:** 1Gbps
- **Device:** STB (recommended), Mobile Phone, Android Smarter TV

Related Information:

Ezserver Official website:

<http://www.ezhometech.com/>

Ezserver User Guide:

http://www.ezhometech.com/html/ezserver_user_guide.html



1.1 Installation and License activation

Get checkout web page after you buy Ezserver License and contact us for installation password.

```
THANKS YOUR EZSERVER SUBSCRIPTION, PLEASE REFER THE BELOW:

Hello,

A. Linux Ubuntu 20.04 -- video:

1. Login ssh by root or sudo user
2. apt install openssl
3. openssl version
4. if not version 1.1, reinstall openssl by the instructions.
5. cd /home && wget -O install.sh http://www.ezhometech.com/[redacted] install.sh && chmod 777 install.sh
6. ifconfig //select one network interface for next step
7. ./install.sh
8. Contact sales@ezhometech.com for password.
9. Panel port and Streaming Port must be different.
10. cat /home/ezserver_enterprise/serial_number.txt
11. email /home/ezserver_enterprise/serial_number.txt (size: 97 bytes) with paypal transaction info. to sales@ezhometech.com for license activation.

B. Windows

1. Click here to download it and contact sales@ezhometech.com for unzip password.
2. Refer Readme.txt in zip file.
3. Double Click Ezserver.exe to create serial_number.txt.
4. email ezserver_enterprise/serial_number.txt (size: 97 bytes) with paypal transaction info. to sales@ezhometech.com for license activation.
```

Linux:

- Download install.sh from the checkout web page.
- ./install.sh with installation password
- Email us the ezserver_p2p/serial_number.txt (size: 74bytes) to active Ezserver license.



1.2 Start / Restart / Shutdown

Linux Version: ezserver at /home/ezserver_p2p folder

- Start:
 - ✧ `sudo -i`
 - ✧ `cd /home/ezserver_p2p`
 - ✧ `./start.sh`
- Restart:
 - ✧ `sudo -i`
 - ✧ `cd /home/ezserver_p2p`
 - ✧ `./restart.sh`
 - ✧ or Login Panel and Click the below button



wait 30~60 seconds to relogin panel.

- Shutdown:
 - ✧ `sudo -i`
 - ✧ `cd /home/ezserver_p2p`
 - ✧ `./shutdown.sh`



1.3 Admin Password

The screenshot shows the Admin Panel interface. At the top, there are navigation tabs for 'DashBoard', 'Users', and 'Channels'. A dropdown menu is open under 'Users', showing options: 'Add User', 'Add Android Device', 'Add MAG STB', 'Add Active Code', 'Manage Users', 'Manage Groups', 'Add Reseller', and 'Manage Resellers'. The 'Manage Users' option is highlighted with a red box and a red arrow labeled '1'. Below the menu, there is a table of users with columns for 'User ID', 'User', 'Password', 'Group', 'Channel List', and 'Owner'. A red arrow labeled '2' points to the 'Password' column. To the right, there is an 'Add User' button with a red arrow labeled '3' pointing to it.

1.4 Software Update

- `sudo -i`
- `cd ezserver_p2p`
- `./patch.sh`
- `input password`
- `./restart.sh`

1.5 User Authorization for Streaming URL

- **Enable `user_authorization` in `ezserver_p2p/ezserver_config.txt`**
 - `user_authorization=1`: Streaming URL with token or username/password.
 - `user_authorization=0`: Streaming URL without username/password
 - Add username "free" with any password in User List to get content URLs.



2.Admin Panel

HTTP Protocol:

Admin Panel Input URL: http://domain:panel_port

Ex. <http://192.168.0.9:18000/>

Reseller Panel URL: http://domain:API_port/reseller/index.htm

Ex. <http://192.168.0.9:17000/reseller/index.htm>

Setting

HTTPS Setting			
Panel port	<input type="text" value="18443"/>		API port
Streaming port	<input type="text" value="443"/>		<input type="text" value="17443"/>
HTTP Setting			
Panel port	<input type="text" value="18000"/>		API port
Streaming port	<input type="text" value="8000"/>		<input type="text" value="17000"/>

HTTPS Protocol: (Support Ubuntu 20.04 only)

Admin Panel Input URL: http://domain:https_panel_port

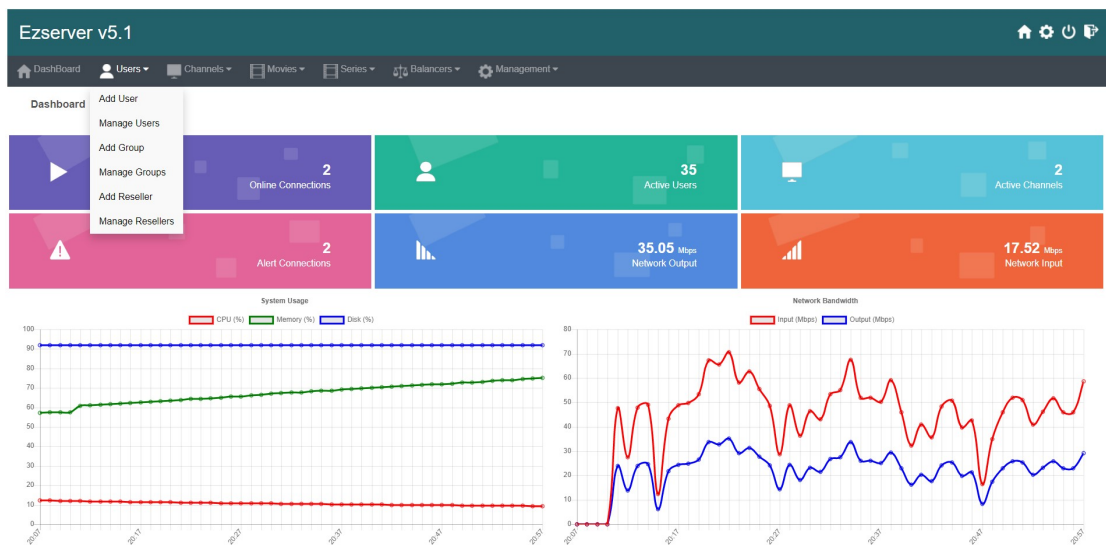
Ex. <http://192.168.0.9:18443/>

Reseller Panel URL: http://domain:https_API_port/reseller/index.htm

Ex. <http://192.168.0.9:17443/reseller/index.htm>

Setting

HTTPS Setting			
Panel port	<input type="text" value="18443"/>		API port
Streaming port	<input type="text" value="443"/>		<input type="text" value="17443"/>
HTTP Setting			
Panel port	<input type="text" value="18000"/>		API port
Streaming port	<input type="text" value="8000"/>		<input type="text" value="17000"/>



- **User / Group / Reseller management:** create, modify and delete users, groups, Reseller.
- **Channel / EPG management:** create, modify, delete or import channels,, epg.
- **Movies management:** create, modify, delete or import movies.
- **Series management:** create series.
- **User Agent Protection:** Add, delete User Agent for Player protection
- **Blacklist management:** show and delete Locked IP.
- **Statistics:** show Channel and Movies watched information.
- **Setting**



2.1 User Management

There are 3 options for player activation.

- Click “Add Android Device” and Input Device Mac Address

The screenshot shows the 'Users' management interface. A dropdown menu is open, highlighting 'Add Android Device'. The background table lists 8 users with columns for checkboxes, User ID, Username, Password, and Group. The selected user (ID 8) has a MAC address of 00:1a:79:00:00:01 and is in the 'basic' group.

<input type="checkbox"/>	User ID	Username	Password	Group ▲▼
<input type="checkbox"/>	1	root		golden ▼
<input type="checkbox"/>	2	test		golden ▼
<input type="checkbox"/>	3	d8:f3:68:2		golden ▼
<input type="checkbox"/>	4	44:d3:ad:		golden ▼
<input type="checkbox"/>	5	c6:19:7a:		golden ▼
<input type="checkbox"/>	6	30:95:87:		golden ▼
<input type="checkbox"/>	7	30:95:87:		golden ▼
<input type="checkbox"/>	8	00:1a:79:00:00:01		basic ▼

Showing 1 to 8 of 8 users

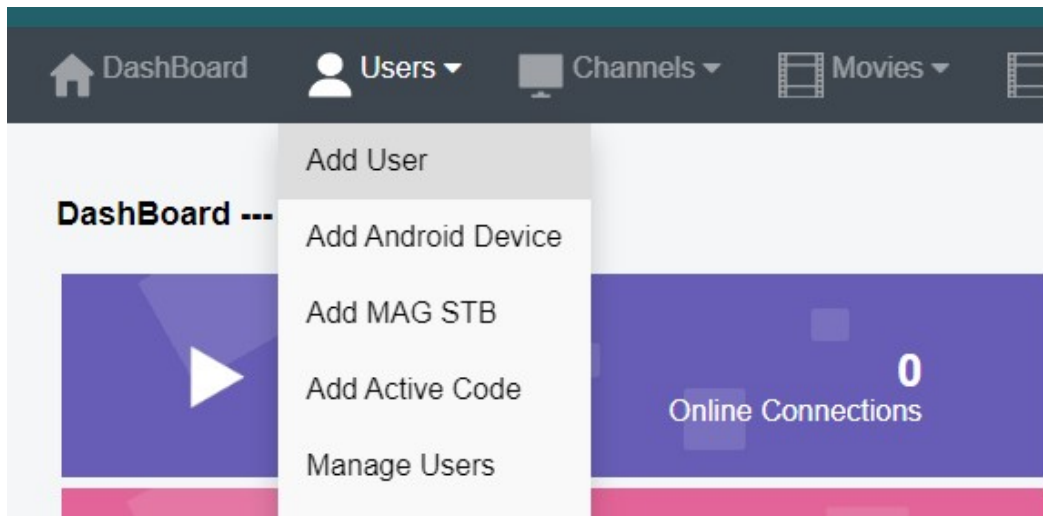
The 'New Android Device' form contains the following fields:

User at	<input type="text" value="8"/>	MAC Address	<input type="text" value="00:1A:A1:24:C8:C8"/>
Password	<input type="text"/>	Rating Password	<input type="text" value="2989770773"/>
Group	<input type="text" value="basic"/>	Level	<input type="text" value="User"/>
Expired Time	<input type="text" value="1 month"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	Device Type	<input type="text" value="android"/>

Buttons: Add, Cancel



- Click “Add User” and Input User name / password



New User

User at	<input type="text" value="18"/>	User Name	<input type="text" value="test"/>
Password	<input type="text" value="1234"/>	Rating Password	<input type="text" value="7402473116"/>
Group	<input type="text" value="basic"/>	Level	<input type="text" value="User"/>
Expired Time	<input type="text" value="1 month"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	MAC ID	<input type="text"/>



- Click “Add Active Code”

The screenshot shows a dashboard with a dark header containing navigation icons for 'DashBoard', 'Users', 'Channels', and 'Movies'. Below the header is a table with columns for 'User', 'Password', and 'Group'. A dropdown menu is open over the table, listing options: 'Add User', 'Add Android Device', 'Add MAG STB', 'Add Active Code' (highlighted), 'Manage Users', and 'Add Group'. The table contains three rows of user data:

<input type="checkbox"/>	User	Password	Group ▲▼
<input type="checkbox"/>	1	root	golden
<input type="checkbox"/>	2	test	golden
<input type="checkbox"/>	3	21	basic

New Active Code

User at	<input type="text" value="18"/>	Active Code	<input type="text" value="4866693631"/>
Password	<input type="text"/>	Rating Password	<input type="text" value="1234"/>
Group	<input type="text" value="basic"/>	Level	<input type="text" value="User"/>
Expired Time	<input type="text" value="1 month"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	Device Type	<input type="text" value="activecode"/>

- ✧ Active Code is auto generated by system random generator.
- ✧ Each active code is limited by one device.



2.2 Channel Management

2.2.1 Add new channel

1.

Dashboard Users Channels Movies Series

Channel

- Add Channel
- Manage Channels
- Manage EPG

<input type="checkbox"/>	Channel Name	Media Source
<input type="checkbox"/>	1 RTS 1	dir://media/videos/Movie/
<input type="checkbox"/>	2 TV3	http://bitcdn-kronehit.bitmovin.com/v2/f
<input type="checkbox"/>	3 RTS 2	dir://media/videos/Movie/

2.

New Channel

Channel at: Channel Name:

Media Source:

Icon Path:

Category: Type:

- Live
- Movie
- DVR
- Inactive
- Delay 5 sec.



2.2.2 Import channels by m3u link

1. Click Channels: Manage Channels: Import M3U

<input type="checkbox"/>	Channel Name	Media Source
<input type="checkbox"/>	1 RTS 1	dir://media/videos/Movie/
<input type="checkbox"/>	2 TV3	http://bitcdn-kronehit.bitmovin.com/v2/f
<input type="checkbox"/>	3 RTS 2	dir://media/videos/Movie/

2. Click Import M3U

No Filter ▾ 20 ▾ Add Channel ↻ ▾

- Multi Refresh
- Import M3U
- Export as XML
- Transcoder

3. Input HTTP M3U Link and Click **Submit** button

Import Channels


Channel after Options

M3U from HTTP URL or Local File

HTTP URL

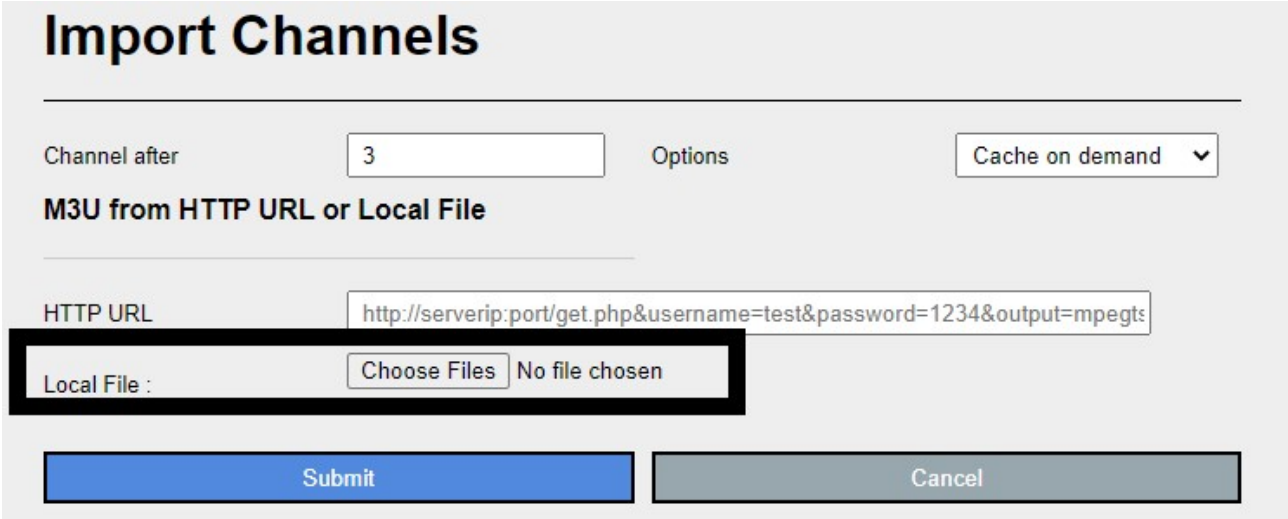
Local File : No file chosen



4. Then restart ezserver by `./restart.sh` cmd in ssh console or click panel power off button,  then wait for 1~2 min. to login panel again.

5. if any issue after import by the above way., you can refer the below steps

- Use Chrome to download your m3u link and rename it to **new.m3u**
- Click **Choose Files** to select new.m3u and click **Submit** button.



6. if any issue after import by the above way., you can refer the below steps

- Use Chrome to download your m3u link and rename it to **new.m3u**
- Upload **new.m3u** into server `/home/ezserver_p2p` folder
- Open `/home/ezserver_p2p/channel_definition.xml`
- Remove all lines **except the 1st line** and save it.
- Restart ezserver by `./restart.sh` in ssh console again
- Import it again by new URL: http://ezserverIP:panel_port/new.m3u
- Login panel to check it again.

2.2.3 All SD, HD, FHD channels setting

Click Panel Setting.

1. SD channel (~2Mbps)



2. HD / FHD channel (above 4Mbps)



Channel Setting:	
Channel Input Buffer No.	<input type="text" value="20000"/> ⓘ
DVR Duration	<input type="text" value="60"/> ⓘ
Video Input Quality	SD <input type="range" value="0.99"/> HD (0.99)

2.2.4 Single SD, HD, FHD channel setting

Click Panel Channel Management: **Edit button** of the channel.

1. SD channel (~2Mbps)

Buffer Size	<input type="text" value="8000"/> ⓘ	Bitrate Tolerance	<input type="text" value="0"/> ⓘ
-------------	-------------------------------------	-------------------	----------------------------------

2. HD / FHD channel (above 4Mbps)

Buffer Size	<input type="text" value="20000"/> ⓘ	Bitrate Tolerance	<input type="text" value="0.99"/> ⓘ
-------------	--------------------------------------	-------------------	-------------------------------------

2.2.5 Daily Refresh Channel

- Add `channel_refreh=1` in `ezserver_p2p/ezserver_config.txt`.
- Run `./restart.sh` to restart ezserver
- Ezserver will refresh all channels at 00:00 AM per day.



2.3 Movie Management

<input type="checkbox"/>	Movie Name ▲▼	Media Source
<input type="checkbox"/>	1 THE BEST UPCOMING MC	https://youtu.be/uAQFxn2Ss84
<input type="checkbox"/>	2 GOLD Trailer (2022)	https://youtu.be/9UHxMBhFy88
<input type="checkbox"/>	3 NEW MOVIE TRAILERS (2	https://youtu.be/LbSeaed26SI

2.3.1. Add TMDb Movie

This option works only for HTTPS Admin Panel.

- Add Movie
- Upload Movies
- Manage Movies



New Movie

Click here

Movie at: Movie Name:

File Folder

Category:

Rent Point: Buy Point:

Media Source:

Icon Path:

Description:

New Movie

Click Here

Movie at: Movie Name:

File Folder

Category:

Rent Point: Buy Point:

Media Source:

Icon Path:

Description:

Select one option from the list:



New Movie

Movie at: Movie Name:

File Folder

Category:

Rent Point: Buy Point:

Media Source:

Icon Path:

Description:

New Movie

Movie at: Movie Name:

File Folder

Category:

Rent Point: Buy Point:

Media Source:

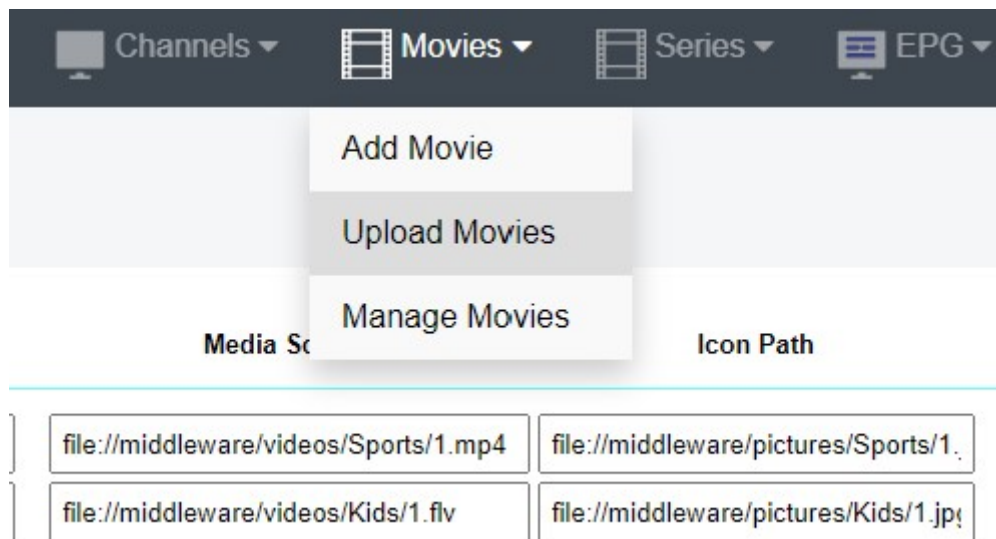
Icon Path:

Description:

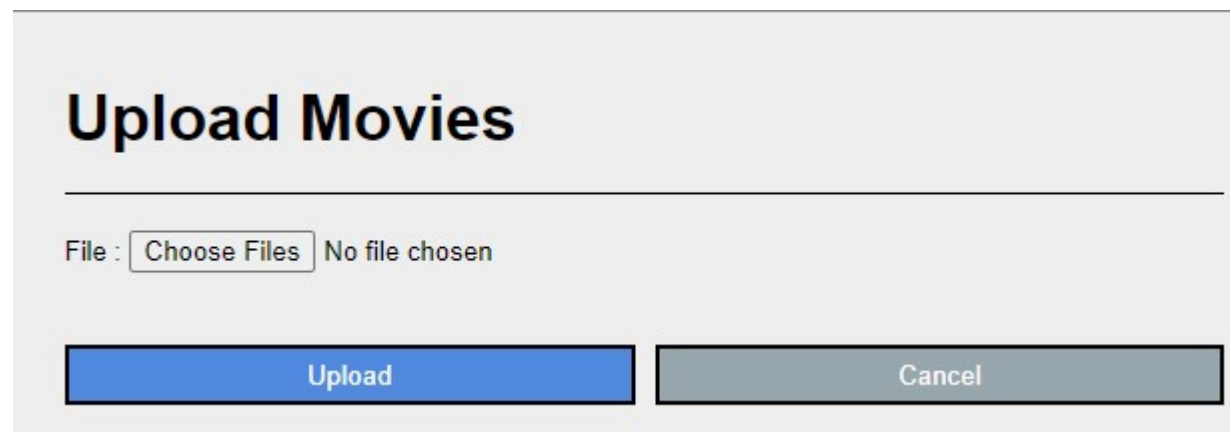


2.3.2. Upload Local movies

1. Click Movies:Upload Movies



2. Click **Choose Files** to select new.m3u and click **Submit** button.





2.4 Series Management

Users ▾ Channels ▾ Movies ▾ Series ▾ Balancers ▾

Add Series
Manage Series

<input type="checkbox"/>	Series Name ▲ ▼	Category ▲ ▼
<input type="checkbox"/>	1 13 Reasons Why	R SERIES
<input type="checkbox"/>	2 ROMAN EMPIRE	Series2
<input type="checkbox"/>	3 THE KOMISKY METHOD	R SERIES

Showing 1 to 3 of 3 series

New Series

Series at: Series Name:

Category: Season No.:

Rating: Released Date:

Icon Path:

Description:



2.5 EPG Management

No.	Start Time	Stop Time
1	06:41	06:50
2	2022/05/04 00:25:00	2022/05/04 00:30:00
3	2022/05/04 00:30:00	2022/05/04 02:20:00

There are 3 ways to add EPG to Ezserver, one is from XMLTV URL, the other is from UDP Stream, another is manual insertion.

XMLTV URL

XMLTV EPG URL:

System Setting:
Max. Streaming No. Pagination Limit Number
System Log Lines Admin. System Log Lines

Security Setting:
Alert Player Duration Blacklist Option

Management
User Agent
Blacklist
Statistics
Setting



UDP Stream

Add channels by multicast URL as below and enable MPEG EPG Extraction option

<input type="checkbox"/>	Channel Name ▲▼	Media Source	
<input type="checkbox"/>	1 Euronews	udp://239.0.0.4:1234	[
<input type="checkbox"/>	2 Eurosport	udp://239.0.0.5:1234	[
<input type="checkbox"/>	3 HSE24 Extra	udp://239.0.0.6:1234	[
<input type="checkbox"/>	4 Kabel 1	udp://239.0.0.8:1234	[

Channel Streaming Prebuffer No.	<input type="text" value="2000"/>	
Channel Reconnection Interval	<input type="text" value="6"/>	
MPEG EPG Extraction	<input checked="" type="checkbox"/>	

Pagination Limit Number	<input type="text" value="100"/>	
Admin. System Log Lines	<input type="text" value="1000"/>	



Manual insertion

Select DAILY, MONDAY, or others with Start time, then Ezserver will record video by the option into local storage and insert the video into Movie menu.

New Program

Program No.	<input type="text" value="1"/>	Record by	<div><input type="text" value="DAILY"/> </div> <ul style="list-style-type: none">ONDAILYMONDAYTUESDAYWEDNESDAYTHURSDAYFRIDAYSATURDAY
Start Time	<input type="text" value="18:00"/>	Stop Time	
Title	<input type="text"/>	Icon URL	
Description	<input type="text"/>		



2.6 User Agent Management

Series ▾ Balancers ▾ Management ▾

User Aget

Blacklist

Statistics

Setting

ed Mode Accepted Mode

No.	Player Name	
1	stagefright	
2	vlc(linux;)	
3	VLC6	
4	NSPlayer	

New User Agent

User Agent:



2.7 Reseller Management

Dashboard Users Channels Movies Series

Reseller

- Add User
- Manage Users
- Add Group
- Manage Groups
- Add Reseller
- Manage Resellers

No.		Email
1		@gmail.com
2		@gmail.com
3		1@gmail.com
4		1@gmail.com
5	sr3	@gmail.com
6	sr4	@gmail.com

New Reseller

No.	<input type="text" value="7"/>	Total Credit :	<input type="text" value="1000"/>
Name :	<input type="text" value="susan"/>	Password :	<input type="text" value="1234"/>
Group	<input type="text" value="golden"/>	Level:	<input type="text" value="Reseller"/>
Expired Time :	<input type="text" value="12/31/2024"/>	Email:	<input type="text" value="susa@gmail.com"/>
Auto Renew	<input type="text" value="ON"/>		

Auto Renew: When a user associated with a reseller account expires, the ezserver system automatically adjusts the reseller's credit by deducting an amount equivalent to the expired user's subscription cost.



3 Reseller Panel

Input URL: <http://domain:port/reseller/index.htm> in Chrome

- **Super reseller** can create, modify and delete Resellers and users

The screenshot shows the 'Reseller' dropdown menu with two options: 'Add Subreseller' and 'Manage Subresellers'. Below the menu is a table with the following data:

<input type="checkbox"/>	User Name	Password	Group
<input type="checkbox"/> 1	e1	1304693446	basic
<input type="checkbox"/> 2	e2	1304693446	basic
<input type="checkbox"/> 3	e3	1304693446	basic
<input type="checkbox"/> 4	e4	1304693446	basic

- **Reseller** can create, modify and delete users only.

The screenshot shows the 'Users' dropdown menu with two options: 'Add User' and 'Manage Users'. Below the menu is a table with the following data:

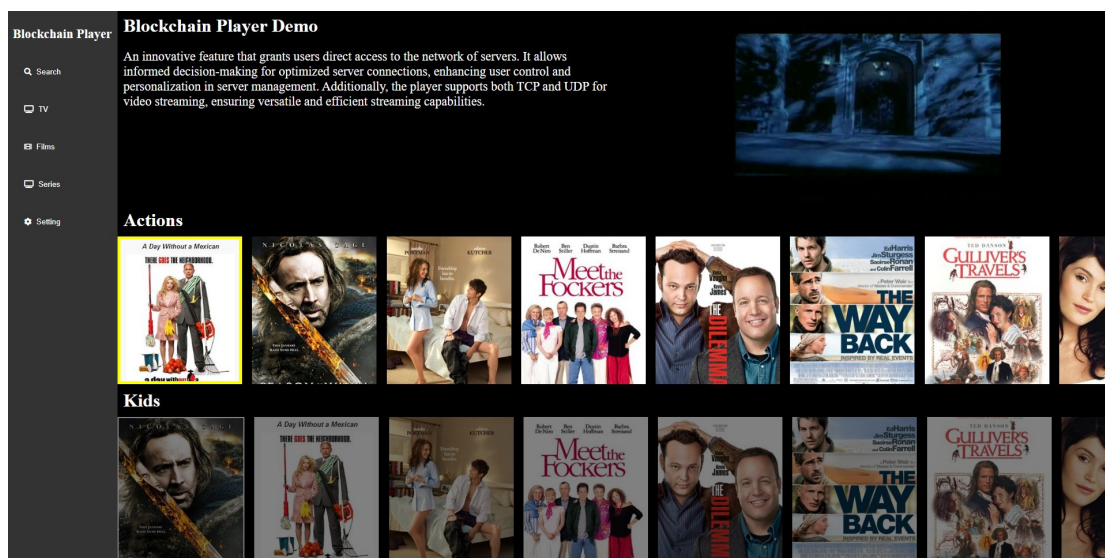
<input type="checkbox"/>	User Name	Password	Gr
<input type="checkbox"/> 1	rt51	9091880686	basic
<input type="checkbox"/> 2	rt52	9091880686	basic
<input type="checkbox"/> 3	rt53	9091880686	basic



4 Middleware

Ezserver middleware platform grants users access to live TV channels, on-demand video content, and additional features like electronic program guides. Our platform is designed to seamlessly support various protocols and technologies, including HLS, HTTP, and HTTPS, ensuring smooth content streaming across a wide array of devices and platforms. Currently compatible with Google Chrome, Microsoft Edge, Apple Safari, FireFox, Android STB / Smarter TV and LG Smarter TV, it offers a flexible and user-friendly experience for diverse viewing preferences.

Main Menu



For Android STB, Smarter TV, and LG Smarter TV, users are required to install the Ezserver Player on these devices to access the full range of features and enjoy seamless IPTV streaming.

Note: For Internet Browser use: **Need to enable Channel HLS option**

TV1

On Demand	<input type="checkbox"/>	HLS	<input checked="" type="checkbox"/>
Channel SID	<input type="text"/>	EPG Channel ID	<input type="text" value="TV1"/>
User Agent	<input type="text" value="Ezhometech(Ezserver)"/>	Bitrate Tolerance	<input type="text" value="0"/>
Catch Up Days	<input type="text" value="0"/>	Proxy Mode	<input type="text" value="0"/>
Input Adapter	<input type="text" value="127.0.0.1"/>		
2nd URL	<input type="text"/>		
3rd URL	<input type="text"/>		



5 Multiple Servers Setting

The P2P network consists of 2 pivotal nodes, each playing a crucial role in ensuring a robust and secure ecosystem for content delivery. These nodes are **User Server**, **Content Server**,

- **User Server** : management user information, *it can also have content*.
- **Content Server** : It can be for channel or movie streaming.
- **User Main Server: Acts Main node**
 - ✧ Enable Main / Slave Node option
 - ✧ Define Control port

Main / Slave Node	<input checked="" type="checkbox"/>	
Control port	<input type="text" value="17100"/>	

- **User Backup Server: Acts Slave Server**
 - ✧ Disable Main / Slave Node option
 - ✧ Input User Node Domain Name
 - ✧ Input User Node Control port

Main / Slave Node	<input type="checkbox"/>	
Main Node Domain Name / IP	<input type="text" value="www.your_domain_name.com"/>	
Main Control port	<input type="text" value="17100"/>	

- **Domain Name Setting: For the reliability of your service**
 - ✧ Add all IPs of User Main Server and Backup Servers into Domain Name Setting of your DNS register site.



- **Content Server**

- ✧ **Delete all users except root**
- ✧ Disable Main / Slave Node option
- ✧ Input User Node Domain Name
- ✧ Input User Node Control port

Main / Slave Node



Main Node Domain Name / IP

www.your_domain_name.com ⓘ

Main Control port

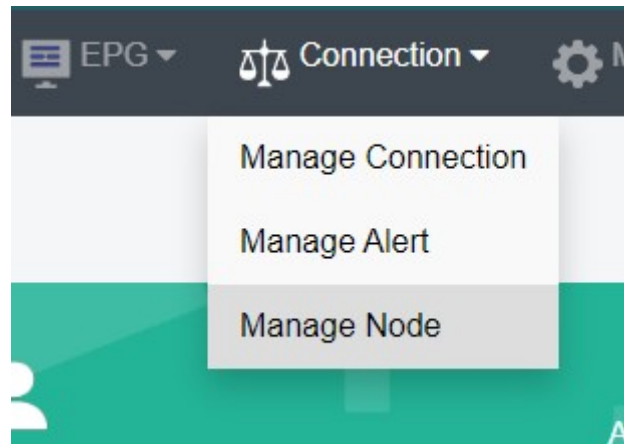
17100 ⓘ



6 Work Folder

Assign movie and series folder path of Content Nodes in Main server Panel.

- Check Content Nodes in main server first

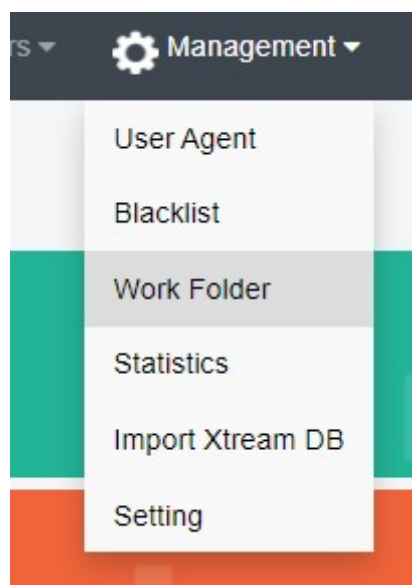


Nodes

No.	Node	Region	Group ID
1	192.168.0.9	Asia	18000
2	192.168.0.5	Europe	18000

Showing 1 to 2 of 2 nodes

- Create Work Folder of Content Nodes in main server





Create Movie Folder

New Folder

Server Name

Folder Type

Selected path

Enabled

- Add new folder (/home/media) in Content Node
- Upload mp4 files into /home/media as below syntax

Folder name for movie name to get its TMDb profile

Hider In My House (2023) [imdb-tt16531670]

Upload one film into the folder

Hider.In.My.House.2023.1080p.WEB-DL.EAC3.2.0.h264-Kitsune.mkv

Welcome to Valentine (2023) [imdb-tt25391092]

Welcome.to.Valentine.2023.PCOK.1080p.WEB-DL.EAC3.5.1.x264-NTb.mkv

Monster Hunter (2020)

Luckless in Love (2023) [imdb-tt21212308]

Hider In My House (2022) [imdb-tt16531670]

- System automatically refreshes hourly movie work folder



Create Series Folder

New Folder

Server Name

Folder Type

Selected path

Enabled

- Add new folder (/home/series) in Content Node
- Upload mp4 files into /home/series as below syntax

Filename syntax: Series name - episodes name - xxx.mp4

- used US - S01E01 - WEBDL-720p.mkv
- used US - S01E02 - WEBDL-720p.mp4
- bhagya-lakshmi - S01E05 - WEBDL-720p.mp4
- bhagya-lakshmi - S01E04 - WEBDL-720p.mp4
- bhagya-lakshmi - S01E03 - WEBDL-720p.mp4
- bhagya-lakshmi - S01E02 - WEBDL-720p.mp4
- bhagya-lakshmi - S01E01 - WEBDL-720p.mp4

- ezserver automatically refreshes hourly series work folder