



Ezserver Tutorial

Web 3.0 Video Streaming

Revision: 05/22/23



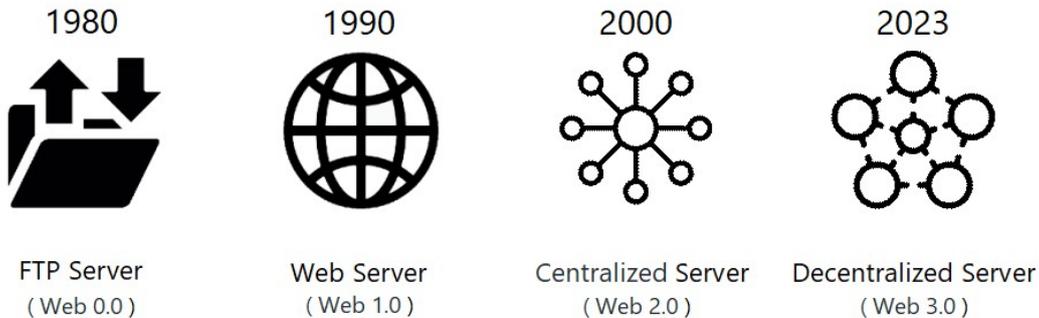
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1 Ezserver

THE HISTORY OF MEDIA SERVER SOFTWARE



While it is true that most panels and video streaming servers support only web 2.0, Ezserver stands out by offering support for both web 2.0 and web 3.0 technologies. This means that Ezserver not only provides the traditional web 2.0 features but also incorporates the innovative capabilities of web 3.0, enabling enhanced functionality and future-ready solutions for our customers.

Web 3.0 leverages decentralized technologies like blockchain and peer-to-peer networks, which can enable decentralized content delivery networks (CDNs). This decentralized approach can improve scalability, reduce reliance on centralized servers, and enhance video streaming performance by distributing content across a network of nodes.

Ezserver offers two versions of its web streaming server: Enterprise and Blockchain. The Enterprise version is a Web 2.0 server that provides a centralized solution with a main server and balancers. This version is ideal for organizations that need a reliable and comprehensive solution for handling high traffic volumes and complex network architectures.

In contrast, Ezserver Blockchain is a Web 3.0 server that uses blockchain technology to act as a decentralized server that can function as a main or slave server. This approach results in a more secure and resilient network architecture, making it ideal for organizations that prioritize security and flexibility in their web streaming services.

Whether you choose the Enterprise version or the Blockchain version, you can rest assured that Ezserver provides a powerful and scalable solution for all your web streaming needs..



Web server:

- **Protocol:** HTTP and HTTPS.

Enterprise server:

- **Protocol:** Enterprise UDP SPTS, MPTS
- **Encryption:** AES-256.
- **Video format:** H264 and H265.
- **Audio format:** AAC, MP3.

Blockchain server:

- **Protocol:** HTTP and HTTPS
- **Video format:** H264 and H265.
- **Audio format:** AAC, MP3.

IPTV panel:

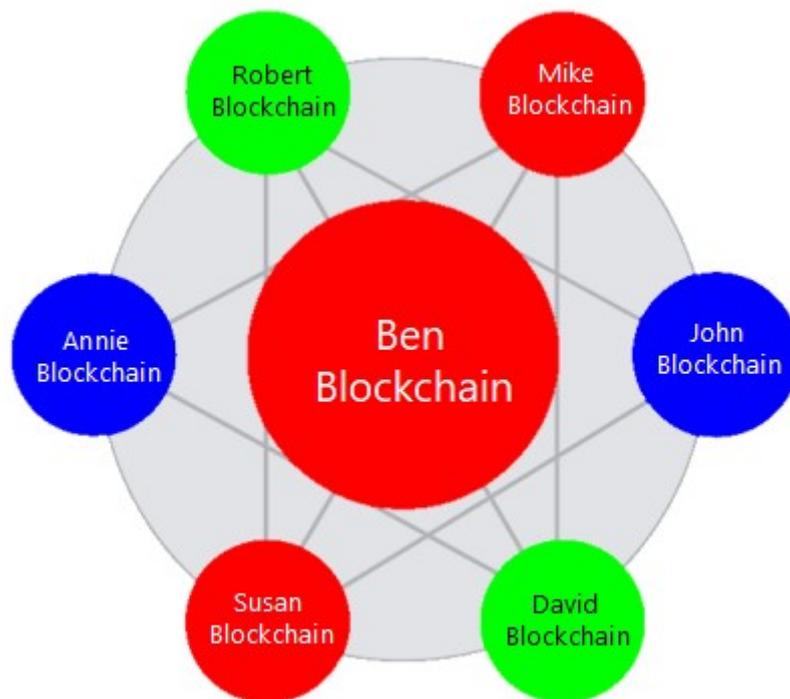
- **User management:** create, modify and delete users.
- **Channel management:** create, modify and delete channels.
- **Movies management:** create, modify and delete movies.
- **Series management:** create, modify and delete series.
- **Reseller panel:** create, modify and delete his users.



1.1 Blockchain Server (Web 3.0)

It includes Channel Unicast Server , Movie Unicast Server, Episode Unicast Server, XMLTV EPG Parser, MPEG TS EPG Parser, MPTS to SPTS Parser, Authorization Security Server and Authentication Server. It uses **Blockchain technology** instead of loader balance, CDN technology.

Additionally, You can create a new private cloud or join other private cloud networks for enhanced DDoS defense and content exchange capabilities as below network configuration

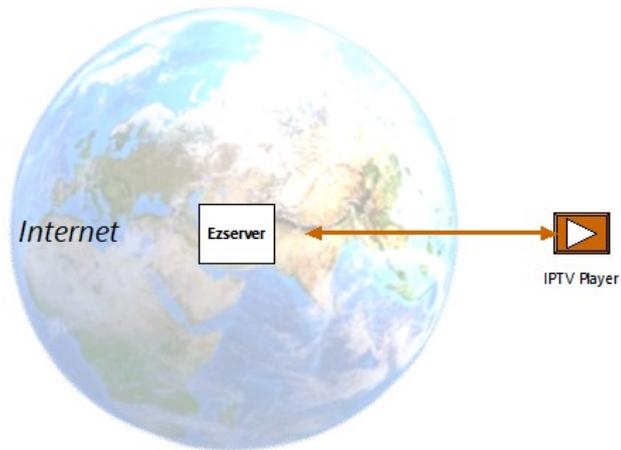




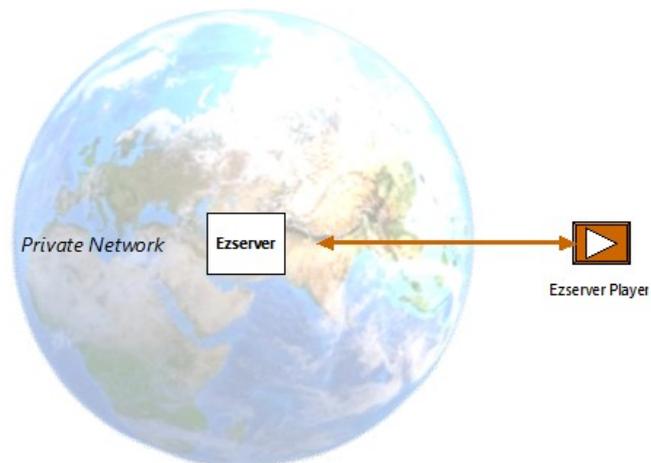
1.2 Enterprise Server (Web 2.0)

Ezserver Enterprise Server is a Centralized server with Load balancers that supports unicast and multicast player to play channels from Ezserver via HTTP and UDP encryption protocol.

Streaming Server



Multicast Server





1.3 Requirement

Hardware Requirement:

- **Min. Requirement:** Dual-Core, 8GB RAM, 1GB Network card.
- **More at** http://www.ezhometech.com/html/ezserver_user_guide.html#Hardware%20requirement

Software Requirement:

- **Linux:** Ubuntu 20.04(Recommended), Debian, Centos
- **Windows:** 64-bits

1.4 Related Information

Ezserver Forum:

<https://ezserver.createaforum.com/>

Ezserver User Guide website:

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

Ezserver Linux Installation

https://youtu.be/MIZGY_zqd9g

Ezserver Transcoding Guide

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



1.7 Installation and License activation

1.7.1 Enterprise Server

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.
```

Windows version:

- Download ezserver_enterprise.zip from the checkout web page.
- Refer Readme.txt in zip file to run Ezserver.exe.
- Email us the ezserver_enterprise/serial_number.txt (size: 74bytes) to active Ezserver license.

Linux:

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

Note: Windows version with multiple network cards

- Open ezserver_config.txt and edit network_interface value..
- network_interface value
 - eth0: the first card
 - eth1: the 2nd card
 - eth2: the 3rd card.
- Delete serial_number.txt and double click Ezserver.ext to create new serial_number.txt to us for license reactivation.



1.7.2 Blockchain server

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/██████████.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_blockchain/serial_number.txt (size: 74bytes) to active Ezserver license.



1.8 Start / Restart / Shutdown

1.8.1 Enterprise Server

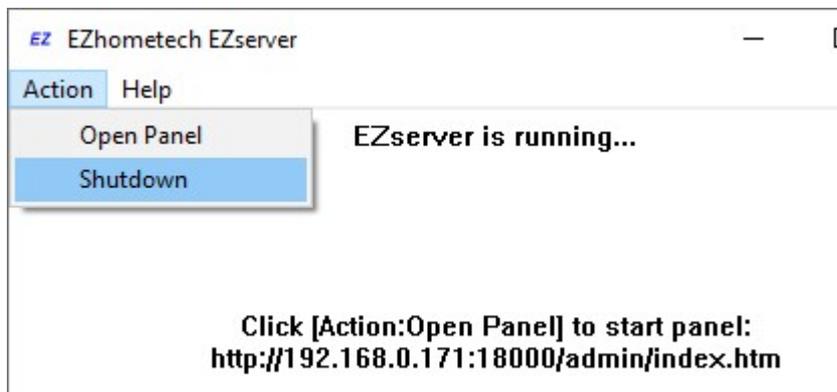
Windows version:

- Start:
 - ✧ Double Click Ezserver.exe
- Restart: Login Panel and Click the below button



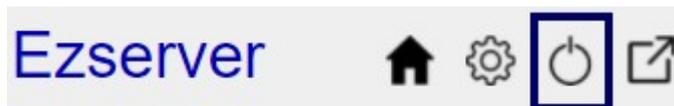
wait 30~60 seconds to relogin panel.

- Shutdown:



Linux Version: ezserver at /home/ezserver_enterprise folder

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



wait 30~60 seconds to relogin panel.

- Shutdown:
 - ✧ `cd /home/ezserver_enterprise`
 - ✧ `./shutdown.sh`



1.8.2 Blockchain server

Linux Version: ezserver at /home/ezserver_blockchain folder

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



wait 30~60 seconds to relogin panel.

- Shutdown:
 - ✧ `cd /home/ezserver_blockchain`
 - ✧ `./shutdown.sh`



1.9 Admin Password

Dashboard Users Channels

User

- Add User
- Add Android Device
- Add MAG STB
- Add Active Code
- Manage Users
- Manage Groups
- Add Reseller
- Manage Resellers

User ID	User	Password	Group	Channel List	Owner
1	root	1234	golden	--	
2	Main	n1960			
3					
4	Joel		1000		
5	Jean-M		n-Michel-1975		
6	850732				

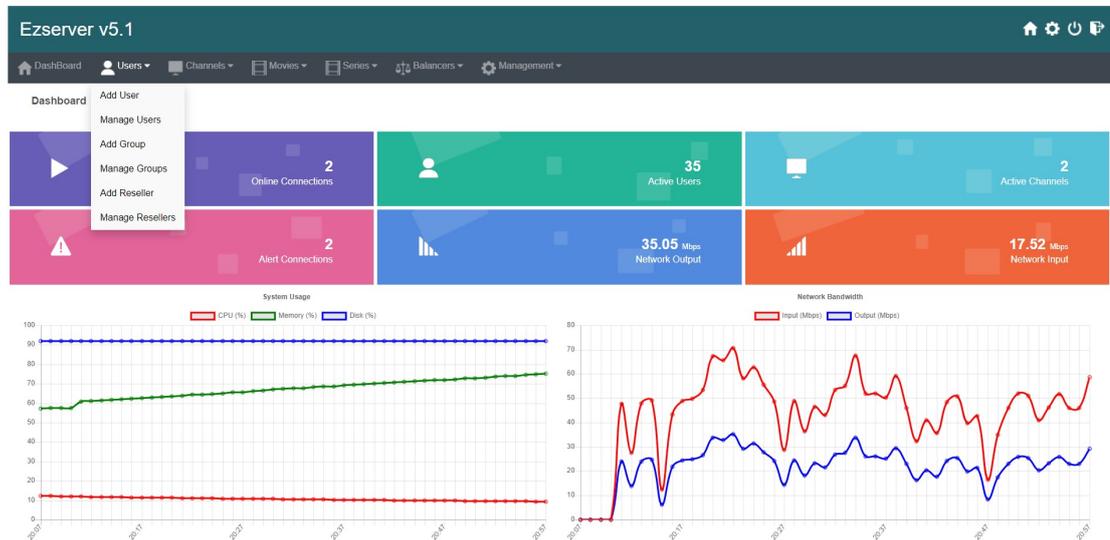
Add User



2. IPTV Panel

Admin Panel Input URL: **http://domain:port**

Reseller Panel URL: **http://domain:port/reseller/index.htm**



- **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

Dashboard Users Channels Movies Series

User

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

	Password	Group ▲▼
<input type="checkbox"/>	1234	golden ▼
<input type="checkbox"/>	9390973961	basic ▼
<input type="checkbox"/>	c42fad711688	golden ▼
<input type="checkbox"/> 4 test	1234	golden ▼

New User

User at	<input type="text" value="300"/>	User Name	<input type="text" value="new1"/>
Password	<input type="text" value="4128295961"/>	Rating Password	<input type="text" value="4128295961"/>
Group	<input style="border: none; border-bottom: 1px solid black; background: none;" type="text" value="basic"/>	Level	<input style="border: none; border-bottom: 1px solid black; background: none;" type="text" value="User"/>
Expired Time	<input style="border: none; border-bottom: 1px solid black; background: none;" type="text" value="1 month"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	MAC ID	<input type="text"/>



Add new user with MAC ID

New User

MAC ID : 11:22:33:44:55:66
Input format: **11223445566**

User at	<input type="text" value="300"/>	User Name	<input type="text" value="new1"/>
Password	<input type="text" value="4128295961"/>	Rating Password	<input type="text" value="4128295961"/>
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" value="112233445566"/>

Add trial user

New User

Trial User

User at	<input type="text" value="300"/>	User Name	<input type="text" value="new1"/>
Password	<input type="text" value="4128295961"/>	Rating Password	<input type="text" value="4128295961"/>
Group	<input type="text" value="basic"/>	Level	<input type="text" value="Trial"/>
Expired Time	<input type="text" value="1 hour"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	MAC ID	<input type="text" value="112233445566"/>



2.2 Channel Management

2.2.1 Add new channel

1.

The screenshot shows a dashboard with navigation tabs: Dashboard, Users, Channels, Movies, and Series. The 'Channels' tab is active, displaying a table of channels. A dropdown menu is open over the table, showing options: 'Add Channel', 'Manage Channels', and 'Manage EPG'. The table has columns for 'Channel Name' and 'Media Source'.

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

2.

The 'New Channel' form contains the following fields:

- Channel at: 17
- Channel Name: TV1
- Media Source: http://streamking.dvrDNS.org:25461/77/YKktfq0vRn/19957
- Icon Path: https://cdn1.iconfinder.com/data/icons/metro-ui-dock-icon-set--icons-by-d
- Category: Kid
- Type: Live (dropdown menu is open showing options: Live, Movie, DVR, Inactive, Delay 5 sec.)

Buttons: Add, Cancel



2.2.2 Import channels by m3u link

1. Click Channels: Manage Channels: Import M3U

	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.

Import Channels

Channel after Options

M3U from HTTP URL or Local File

HTTP URL

Local File : No file chosen

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_enterprise` folder
- Open `/home/ezserver_enterprise/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.



2.3 Movie Management

	Movie Name ▲▼	Media Source
<input type="checkbox"/>		
<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 Movies with TMDB Movie Icon and description.

New Movie

TMDB import

Movie at: Movie Name:

File Folder

Category:

Rent Point: Buy Point:

Media Source:

Icon Path:

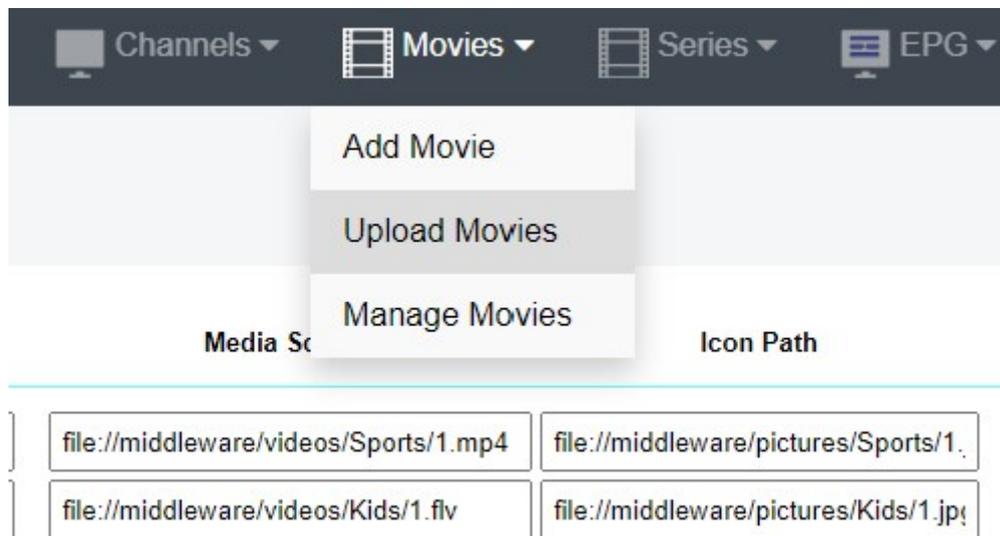
Description:

TMDB poster import
1. Monut google driver to ezserver_XXXXXX/media/videos/gdrive
2. Each folder inside gdrive has only one movie (.mp4, .mkv, .ts).
3. Folder name is same as TMDB movie name.
4. Select Folder option.
5. Ezserver will auto get TMDB Poster path and Movie Description.

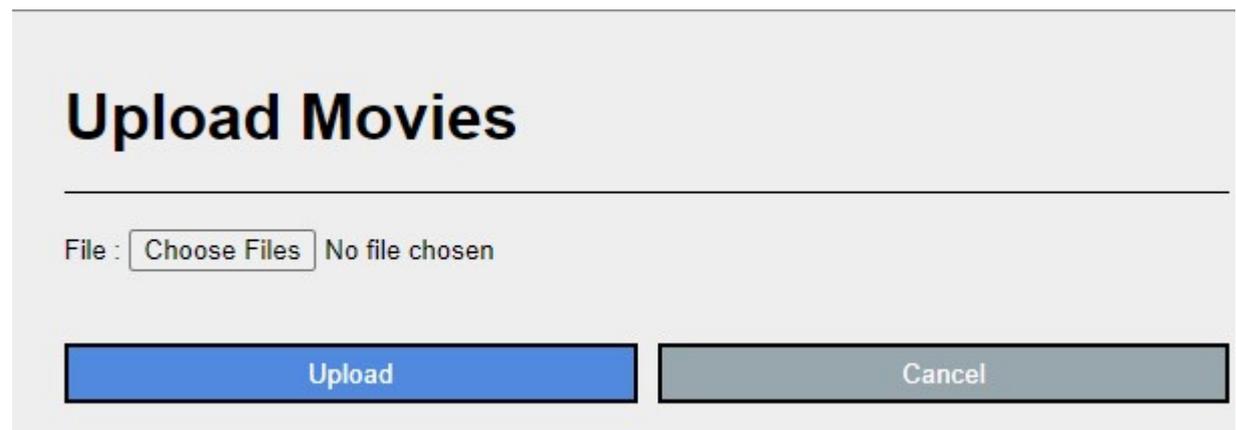


2.3.2. Upload Local movies

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	<input type="text" value="DAILY"/>
Start Time	<input type="text" value="18:00"/>	Stop Time	<input type="text"/>
Title	<input type="text"/>	Icon URL	<input type="text"/>
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"/>		



2.8 Setting

Enterprise Server

The screenshot shows the Ezserver web interface. At the top left, there is a 'Setting' tab with a gear icon. To the right, there is a 'Save' button. Below the 'Save' button, the 'Multicasting Streaming Setting' section is visible. It contains two input fields: '6. Multicast IP :' with the value '225.1.1.1' and '7. Multicast port:' with the value '9001'.

Encryption Setting:

- Defined at `hls_multicast_aes` of `ezserver_config.txt`
 - ✧ `hls_multicast_aes=0` (No encryption)
 - ✧ `hls_multicast_aes=1` (low encryption)
 - ✧ `hls_multicast_aes =2` (high encryption)

Blockchain server

Blockchain Setting **read-only** for Public Blockchain, Blockchain Setting **writable** for Private Blockchain.

The screenshot shows the 'Blockchain Server Options' web interface. A red arrow points to the 'Blockchain Setting' section, which is highlighted with a red box. The 'Blockchain Setting' section contains two input fields: 'Region' with the value 'Europe' and 'Group ID' with the value '19008'. Below this section, there are several other settings sections: 'Channel Setting:', 'System Setting:', and 'Security Setting:'. Each section contains multiple input fields and a toggle switch. At the bottom of the page, there is a blue 'Save' button.



3 Reseller Panel

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

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

<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.

<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



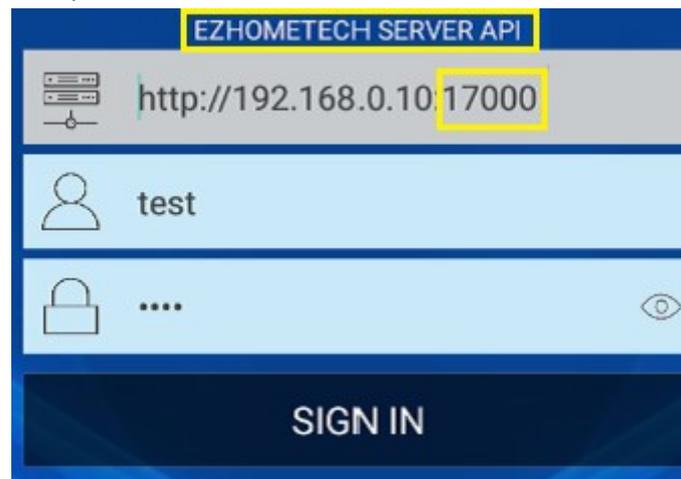
4 Supported Players

XCIPTV

- Select Ezhometech API

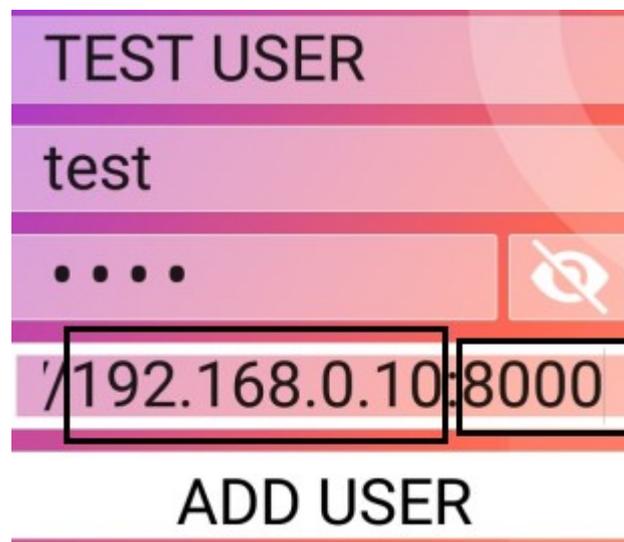


- uses Ezserver API port (17000)



IPTV Smater

uses ezserver streaming port (8000) instead of API port (17000)





Mag STB

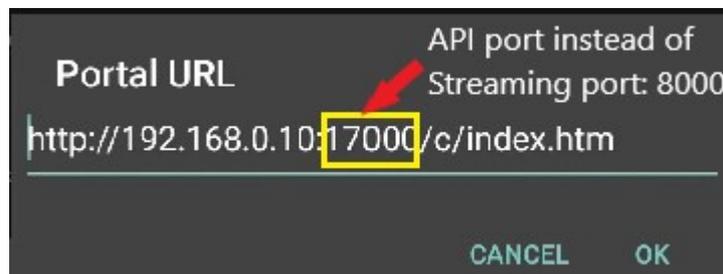
Use Ezserver API port (17000)

- Add Mag MAC ID into Ezserver IPTV Panel

New Mag STB

User at	<input type="text" value="3"/>	MAC Address	<input type="text" value="00:1A:A1:24:C8:C9"/>
Password	<input type="text"/>	Rating Password	<input type="text" value="3245087872"/>
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="mag"/>

- Portal URL is <http://domain:17000/c/index.htm>





HTML5 Player

- Add Access-Control-Allow-Origin=* into ezserver_config.txt
- 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"/>		

- Refer the below HTML codes

```
<!-- CSS -->
<link href="https://vjs.zencdn.net/7.2.3/video-js.css" rel="stylesheet">
<!-- HTML -->
<video id='hls-example' class="video-js vjs-default-skin" width="400" height="300" controls>
<source type="application/x-mpegURL" src="http://192.168.0.10:8000/TV1.m3u8?u=robert;p=1234">
</video>
<!-- JS code -->
<!-- If you'd like to support IE8 (for Video.js versions prior to v7) -->
<script src="https://vjs.zencdn.net/ie8/ie8-version/videojs-ie8.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/videojs-contrib-hls/5.14.1/videojs-contrib-hls.js"></script>
<script src="https://vjs.zencdn.net/7.2.3/video.js"></script>
<script>
var player = videojs('hls-example');
player.play();
</script>
```



5 M3U / M3U8 URL for Players

5.1 M3U List API

- Go to User menu
- Select m3u(getlink API)

Group ▲ ▼	Channel List
golden ▼	-- ▼
golden ▼	Enigma
basic ▼	Enigma 1.6
basic ▼	Enigma(RTMP)
golden ▼	Enigma 1.6(RTMP)
golden ▼	Enigma(chno)
golden ▼	Enigma 1.6(chno)
golden ▼	Enigma(RTMP/chno)
golden ▼	Enigma 1.6(RTMP/chno)
basic ▼	m3u
basic ▼	m3u(getlink)
	m3u(net nhn)

Copy the URL to players



5.2 M3U8 List API

- Enable Channel HLS option

TV1

On Demand HLS

Channel SID EPG Channel ID

User Agent Bitrate Tolerance

Catch Up Days Proxy Mode

Input Adapter

2nd URL

3rd URL

- Go to User menu
- Select m3u8(getlink API)

Channel List	Mo
--	--
m3u(chno with suffix)	--
m3u(chname with suffix)	--
m3u(RTMP)	--
m3u8	--
m3u8(getlink API)	--
m3u8(No Encoded)	--

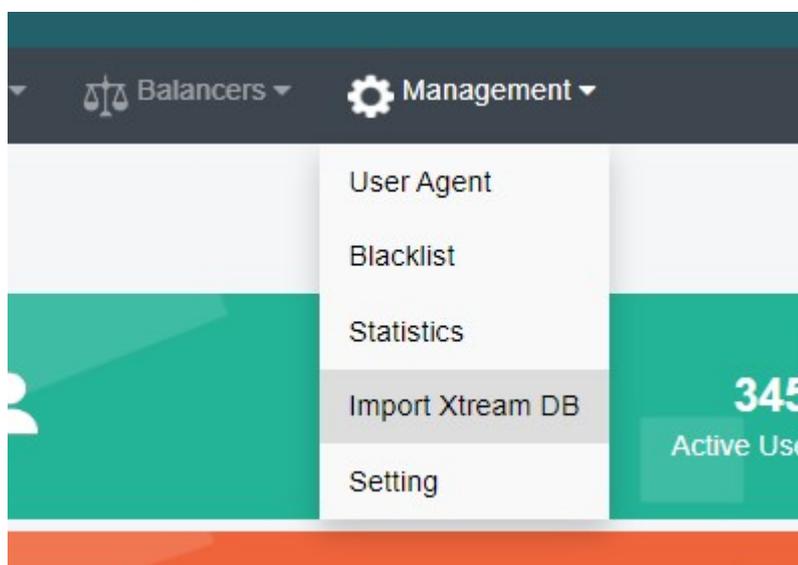
Copy the URL to players



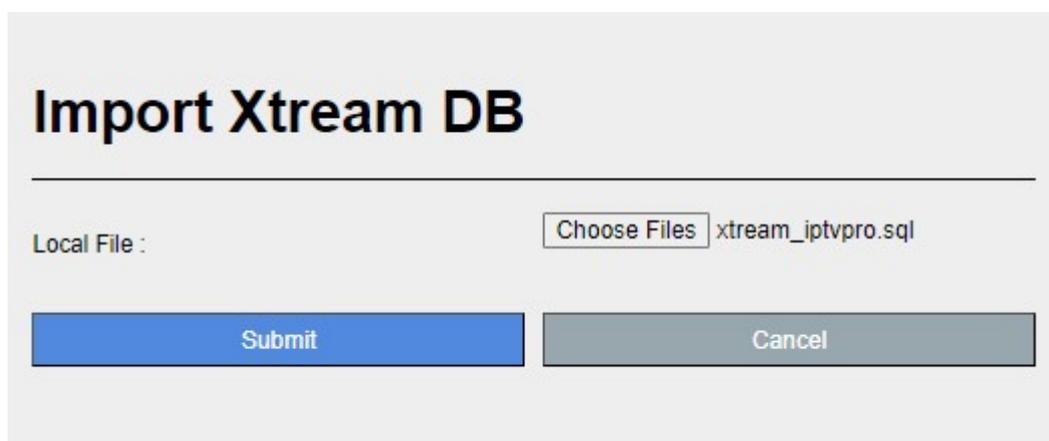
6 Other Panel to Ezserver

Migrate Xtream Users and Resellers to Ezserver

- Click management:Import Xtream DB button



- Upload xstream IPTVpro.sql
- Click Submit button





7 PHP Script Integration

Support php script into **ezserver_enterprise/php** folder. It lets you code php scripts for integration with Ezserver.

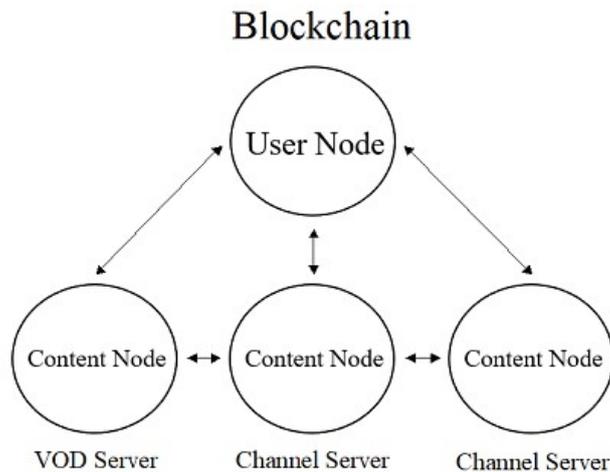
- sudo apt update
- sudo apt install php
- test PHP
 - ✧ php -v
- upload .php files into **ezserver_enterprise/php** folder



8 Blockchain Setting (for Web 3.0 only)

Web 3.0 Blockchain is a chain of your servers that has 2 node type, User node and Content nodes.

- **User node** : management user information.
- **Content node** : It can be for channel or movie streaming.



- **User Node (ex. www.imoviecity.com)**
 - ✧ Enable Main / Slave Node option
 - ✧ Define Control port

Main / Slave Node

Control port

- **Content Node**
 - ✧ Disable Main / Slave Node option
 - ✧ Input User Node Domain Name
 - ✧ Input User Node Control port

Main / Slave Node

Main Node Domain Name / IP

Main Control port



When a server has full connections, Ezserver invokes Blockchain function to let other servers serve the new connection and shows protocol **BVP** instead of **HTTP** in current server and **BCP** in another server.

System Setting:
Max. Streaming No. 1000

CNN The 1001th connection requests CNN channel, it will be forwarded to one of Europe servers.

On Demand	<input checked="" type="checkbox"/>	HLS	<input type="checkbox"/>
Channel SID	<input type="text"/>	EPG Channel ID	<input type="text" value="TV9"/>
User Agent	<input type="text" value="Ezhometech(Ezserver)"/>	Bitrate Tolerance	<input type="text" value="0.99"/>
Catch Up Days	<input type="text" value="0"/>	Proxy Mode	<input type="text" value="Disabled"/>
Input Adapter	<input type="text" value="127.0.0.1"/>	AES Encryption	<input type="checkbox"/>
Blockchain Region	<input type="text" value="Europe"/>	Blockchain Group ID	<input type="text" value="18097"/>
2nd URL	<input type="text"/>		
3rd URL	<input type="text"/>		



9 Ezserver Multicast *(for Web 2.0 only)*

Ezserver Multicast is for local network users that plays channels, movies and series from Ezserver.

Features:

- **Save Server Bandwidth**
- **TV, Movie and Series**
- **EPG and Catch up TV**
- **Parent Control of adult content**
- **Channel Video Format: MPEG2/H264 Transport Stream**
- **Channel Audio Format: MP3/AAC, ADTS Stream**
- **Movie Format: MP4, MKV**

Hardware Requirement:

- **Min. Requirement:** Above 1.0GHz, 1GB RAM, 802.11 a/b/g/n.

Software Requirement:

- **Android 5.0+**

Panel Setting

- **Set Multicast output IP and Port**

The screenshot shows the Ezserver web interface. At the top, there is a black header with the 'Ezserver' logo in white. Below the header, there is a navigation menu with a 'Setting' option highlighted. To the right of the menu, there is a 'Save' button. The main content area is titled 'Multicasting Streaming Setting:' and contains two input fields: '6. Multicast IP :' with the value '225.1.1.1' and '7. Multicast port:' with the value '9001'.

Encryption Setting:

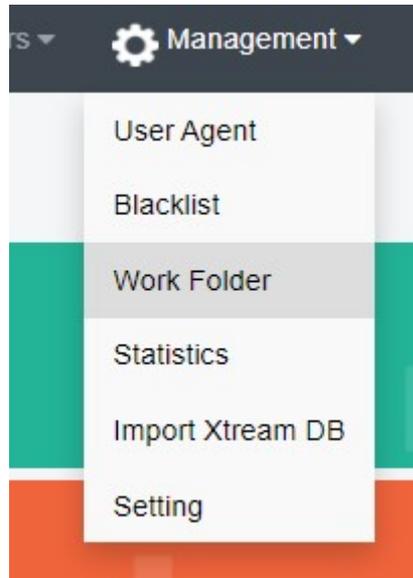
- Defined at **hls_multicast_aes** of ezserver_config.txt
 - ✧ **hls_multicast_aes=0** (No encryption)
 - ✧ **hls_multicast_aes=1** (low encryption)
 - ✧ **hls_multicast_aes=2** (high encryption)



10 Work Folder (for Web 2.0 only)

Assign Balancer movie and series folder path in Main server Panel.

- Add balancers in main server first
- Refresh movies and series per hour or manually



Update Folder

Server Name	<input type="text" value="BL1"/>
Folder Type	<input type="text" value="Movie"/>
Selected path	<input type="text" value="media/videos/upload"/>
Enabled	<input checked="" type="checkbox"/>