Ezserver Academy Tutorial

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Content

1 Overview

Ezserver Academy is a Platform as a Service (PaaS) that empowers developers to distribute users, channels, movies, and series across decentralized servers, enhancing the security of user data and content. Additionally, it utilizes the IP addresses of decentralized servers to dynamically assign server IP addresses when delivering content to players. It uses **Blockchain technology** instead of loader balance, CDN technology.

Ezserver utilizes decentralized blockchain technology to distribute user and content databases across multiple servers. This enhances security by preventing hackers from stealing user data or content and provides protection against Distributed Denial of Service (DDoS) attacks.

The User Node serves as the cornerstone for managing user information. It not only safeguards user data but also provides a seamless and user-centric experience, ensuring the utmost privacy and security for every individual within the system.

The Content Node, on the other hand, is the heart of content delivery, capable of streaming both channels and movies with unparalleled speed and reliability. Ezserver ensures that your content is delivered to your audience with exceptional quality and efficiency.

Privacy is of utmost importance in the digital age, and this is where the Reverse Proxy Node comes into play. It acts as a guardian, concealing user identities and ensuring their online activities remain confidential, offering peace of mind in an era where data security is a top concern.

Additionally, the Proxy Node functions as a versatile VPN server, further fortifying the anonymity of both User and Content Servers. By masking their origins and encrypting data, it creates a secure environment for seamless and confidential content delivery.

Requirement:

Minimum Server Requirement:

- **Windows**
- **CPU:** 4v Core
- **RAM:** 8GB
- **Storage:** 160 GB
- **Bandwidth:** 1Gbps unmetered

Related Information:

Ezserver Official website:

http://www.ezhometech.com/

Ezserver configuration tutorial:

https://www.ezhometech.com/document/Ezserver_Academy_Configuration.pdf

Ezserver User Guide:

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

1.1 Installation

- Download ezserver_blockchain.zip.
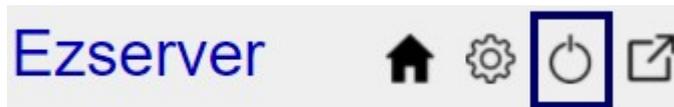- Refer Readme.txt in zip file to run Ezserver.exe.

Note:

Multiple network cards

- Open ezserver_config.txt and edit network_interface value..
- network_interface value
    - eth0: the first card
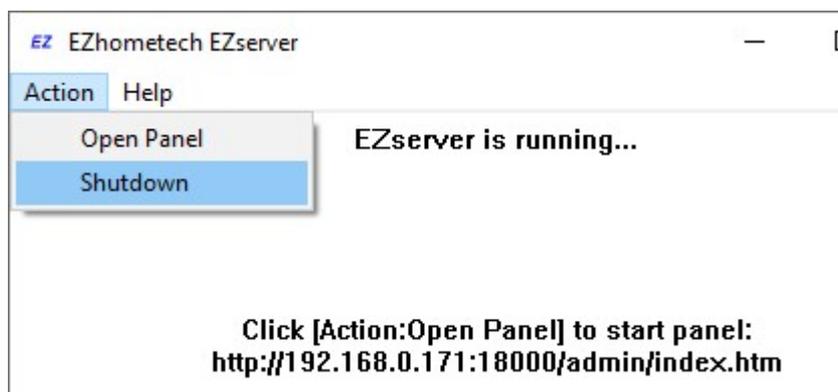   - eth1: the 2nd card
    - eth2: the 3rd card.

1.2 Start / Restart / Shutdown

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

wait 30~60 seconds to relogin panel.

- Shutdown:

1.3 Admin Password

1.5 User Authorization for Streaming URL

- **Enable user_authorization in ezserver_blockchain/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

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

- **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

- Click "**Add User**" and Input User name / password

- Click "**Add Active Code**"

✧ Active Code is auto geenerated by system random generator.

✧ Each active code is limited by one device.

2.2 Channel Management

2.2.1 Add new channel

1.

2.

2.2.2 Import channels by m3u link

1. Click Channels: Manage Channels: Import M3U

2. Click Import M3U

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

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	3	Options	Cache on demand ∨

M3U from HTTP URL or Local File

HTTP URL	http://serverip:port/get.php&username=test&password=1234&output=mpegts
Local File :	Choose Files No file chosen

Submit	Cancel

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_blockchain** folder
- Open /home/ezserver_blockchain/**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)**

Channel Setting:

Channel Input Buffer No.	8000	ⓘ
DVR Duration	60	ⓘ
Video Input Quality	SD ●———— HD (0.00)	

2. **HD / FHD channel (above 4Mbps)**

Channel Setting:

Channel Input Buffer No.	20000
DVR Duration	60
Video Input Quality	SD ———— 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	8000	Bitrate Tolerance	0

    2. **HD / FHD channel (above 4Mbps)**

Buffer Size	20000	Bitrate Tolerance	0.99

2.2.5 Daily Refresh Channel

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

2.3 Movie Management

2.3.1. Upload Local movies

1. Click Movies:Upload Movies

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

Upload Movies

File : [Choose Files] No file chosen

[Upload]   [Cancel]

2.4 Series Management

| 👤 Users ▾ | 🖥 Channels ▾ | 🎞 Movies ▾ | 🎞 Series ▾ | ⚖ Balancers ▾ |

Add Series

Manage Series

☐		Series Name ▲ ▼	Category ▲ ▼
☐	1	13 Reasons Why	|IR| SERIES
☐	2	ROMAN EMPIRE	Series2
☐	3	THE KOMISKY METHOD	|IR| SERIES

Showing 1 to 3 of 3 seriess

New Series

Series at	4	Series Name :	new1
Category :	Series2	Season No. :	4
Rating :		Released Date :	12/12/2022
Icon Path :	file://media/pictures/action/1.jpg		
Description :	1234		

| Add | Cancel |

2.5 EPG Management

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

UDP Stream

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

		Channel Name ▲▼	Media Source	
☐	1	Euronews	udp://239.0.0.4:1234	
☐	2	Eurosport	udp://239.0.0.5:1234	
☐	3	HSE24 Extra	udp://239.0.0.6:1234	
☐	4	Kabel 1	udp://239.0.0.8:1234	

Channel Streaming Prebuffer No.	2000	ⓘ
Channel Reconnection Interval	6	ⓘ
MPEG EPG Extraction	🔵	ⓘ

Pagination Limit Number	100	ⓘ
Admin. System Log Lines	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.

2.6 User Agent Management

Series ▾   ⚖ Balancers ▾   ⚙ Management ▾

User Agenet

Blacklist

Statistics

Setting

ed Mode ○ Accepted Mode

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

New User Agent

User Agent: [   ]

[Add]   [Cancel]

3 Middleware for Browsers

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.

URL: http://192.168.0.10:18000/w/
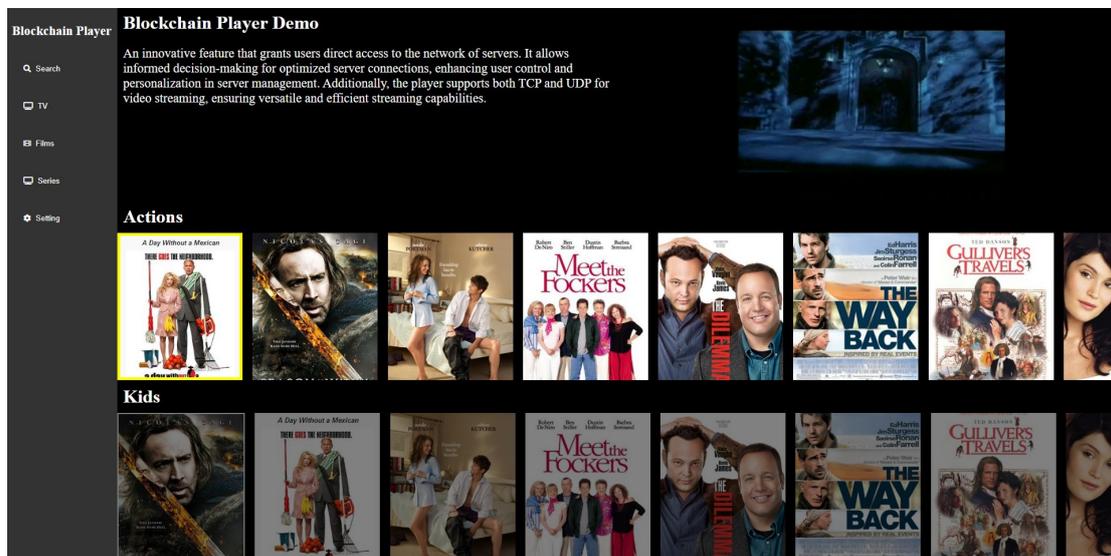
For Android STB, Smarter TV, and LG Smarter TV, users are required to install the Ezserver Player on these devices to access the full range of features and enjoy seamless IPTV streaming.

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

4 Academy Node Setting

The blockchain network consists of 4 pivotal nodes, each playing a crucial role in ensuring a robust and secure ecosystem for content delivery. These nodes are **User Server**, **Content Server**, **Proxy Server** and **Reverse Proxy Server**

- **User node** : management user information.
- **Content node** : It can be for channel or movie streaming.
- **Reverse Proxy node** : hide the User.
- **Proxy node** : acts VPN server to hide the User and Content Servers.

- **Proxy node (www.your_domain_name.com)**
    - ✧ Add proxy_server=1 in **ezserver_blockchain/ezserver_config.txt**
    - ✧ **Delete all users except root and channels, movies and series.**
    - ✧ Enable Main / Slave Node option
    - ✧ Define Control port

Main / Slave Node	🔵⚪ ❶
Control port	17100 ❶

- **Reverse Proxy node (www.your_domain_name.com)**
    - ✧ **Delete all users except root and channels, movies and series.**
    - ✧ Enable Main / Slave Node option
    - ✧ Define Control port

Main / Slave Node	🔵⚪ ❶
Control port	17100 ❶

- **User Node**

  Acts Main node
  - ✧ **Delete channels, movies and series.**
  - ✧ Enable Main / Slave Node option
  - ✧ Define Control port

Main / Slave Node	⬤▬ ❶
Control port	17100 ❶

  Otherwise (Slave Node)
  - ✧ **Delete channels, movies and series.**
  - ✧ Disable Main / Slave Node option
  - ✧ Input User Node Domain Name
  - ✧ Input User Node Control port

Main / Slave Node	▬⬤ ❶
Main Node Domain Name / IP	www.your_domain_name.com ❶
Main Control port	17100 ❶

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

Main / Slave Node	▬⬤ ❶
Main Node Domain Name / IP	www.your_domain_name.com ❶
Main Control port	17100 ❶

Example:

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.
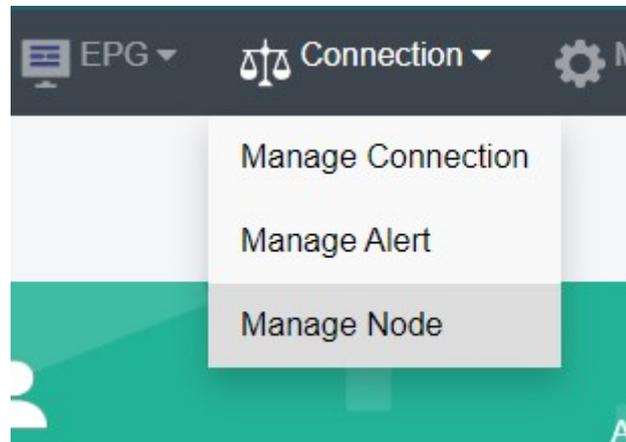
5 Work Folder

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
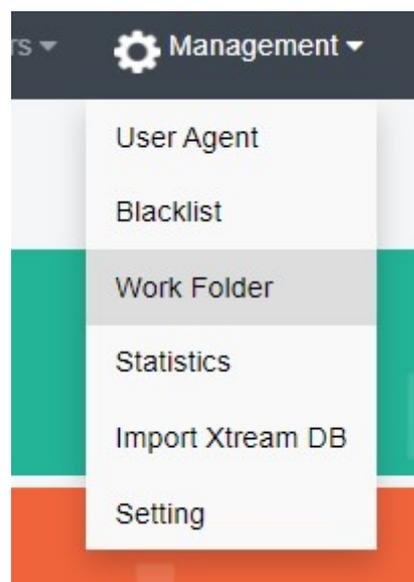
Create Movie Folder

New Folder

Server Name	192.168.0.5
Folder Type	Movie
Selected path	/home/media
Enabled	(toggle on)

Add	Cancel

- 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	192.168.0.5
Folder Type	Series
Selected path	/home/series
Enabled	🔵

Add	Cancel

- 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
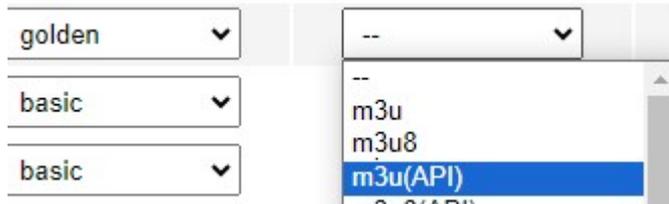- bhagya-lakshmi - S01E01 - WEBDL-720p.mp4

- ezserver automatically refreshes hourly series work folder

6 M3U / M3U8 URL for Players

6.1 M3U List API

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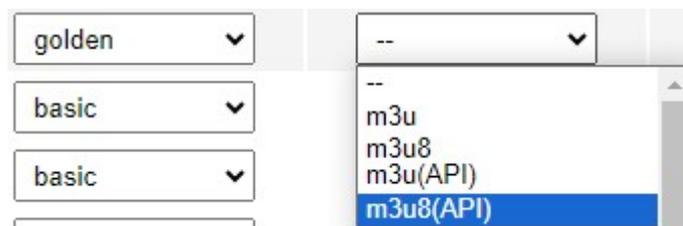- Select m3u(getlink API)

Copy the URL to players

6.2 M3U8 List API

- Enable Channel HLS option

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

Copy the URL to players