



Ezserver Balancer Tutorial

Balancer Panel

Revision: 02/05/2022



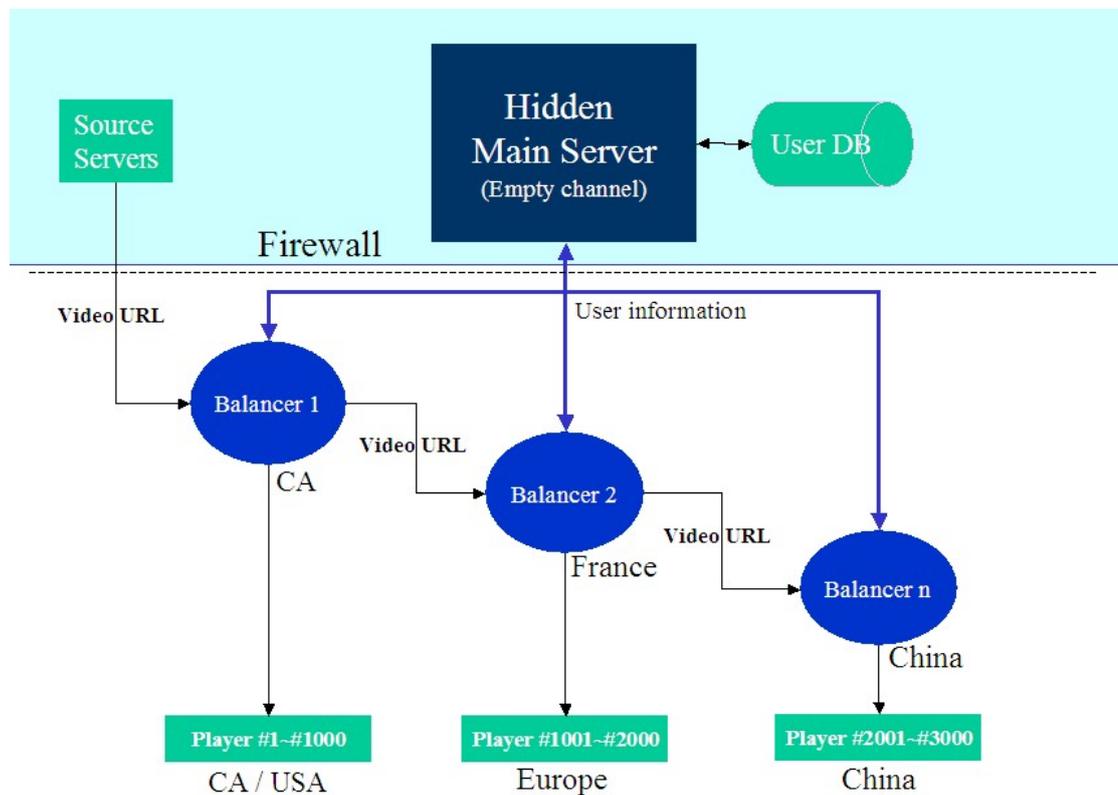
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1 Overview of Ezhometech Balancer Panel

Ezhometech Balancer Panel powered by Ezserver is a Panel with only root user to add channels, movies and series. It must be connected with P2P Panel or OTT panel to share streaming loading from players. The below configure shows 3 balancers connected with Main Server.

- **Main server:** P2P Panel or OTT Panel with all users and empty channels.
- **Balancer #1:** Get Streams from source server.
- **Balancer #2:** Get Streams from Balancer #1.
- **Balancer #n:** Get Streams from Balancer #2.
- All players connect Main server and request channels, Main server checks Player location to tells players to reconnect the nearest balancer



Balancer panel:

- **Channel management:** create, modify and delete channels.
- **Movies management:** create, modify and delete movies.
- **Series management:** create, modify and delete series.

Streaming server:

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

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

Support P2P Players:

- IPTV Smarter, IPTV Extreme, GSE Smarter IPTV, IPTV

Support IPTV Players:

- IPTV Smarter, XCIPTV, MAG, STBEmu, VLC
- EZ API players
- Ezserver getlink API
- HTML5
- M3U compatible players
- XC API compatible players

1.1 Related Information

Ezserver Forum:

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

Ezserver Panel REST API website

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

Ezserver Player REST API website:

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

Ezserver User Guide website:

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

2 Installation and License activation

Windows version:

- Download ezserver_balancer.zip from the checkout web page..
- Refer Readme.txt in zip file to run Ezserver.exe.
- Email us the ezserver_balancer/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_balancer/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.

3 Start / Restart / Shutdown

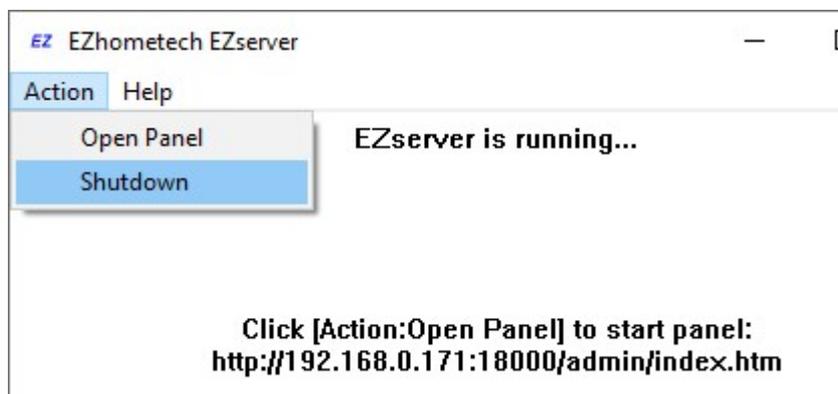
Windows version:

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



wait 30~60 seconds to relogin panel.

- Shutdown:



Linux: ezserver at /home/ezserver_balancer folder

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

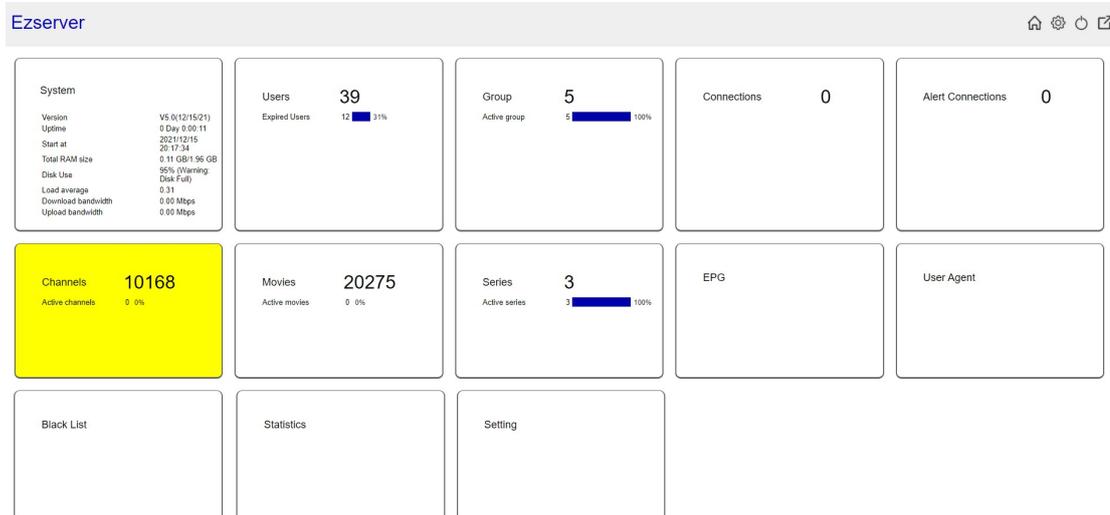


wait 30~60 seconds to relogin panel.

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

4 Administrator Panel

Input URL: **http://domain:port/admin/index.htm** in Chrome



- **User management:** only root user.
- **Group management:** create, modify and delete groups.
- **Channel management:** create, modify, delete or import channels.
- **Movies management:** create, modify, delete or import movies.
- **Series management:** create series.
- **EPG management:** create, modify, delete or import EPG programs.
- **User Agent Protection:** Add, delete User Agent for Player protection
- **Balcklist management:** show and delete Locked IP.
- **Statistics:** show Channel and Movies watched information.
- **Setting**

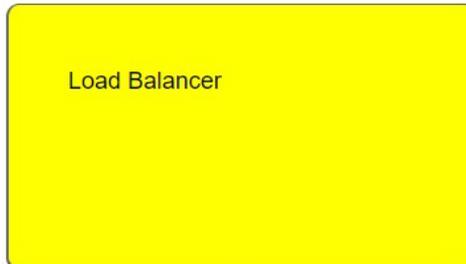
Tips:

Use http:// **domain:port** instead of **http:// domain:port/admin/index.htm** in Chrome

- . open ezserver_config.txt
- . replace **startmenu=index.htm** by **startmenu=admin/index.htm**
- . open admin/index.htm
- . replace `<script src="menubar.js"></script>` by `<script src="admin/menubar.js"></script>`
- . replace `<script src="menu.js"></script>` by `<script src="admin/menu.js"></script>`
- . restart ezserver

5 Main and Balancer connection

Login master server (P2P or OTT Panel) to add balancer information in Load Balancer configuration.



Ezserver Load Balancer 🏠 ⚙️ 🔄 📄

Disabled
 By Geo. Location
 By Max. Streaming No.

No.	Slave Server Name	Admin. Name	Password	Domain Name	IP	Panel Port	Country	Max Connection	Free Connection	Status	
1	<input type="text" value="BL2"/>	<input type="text" value="root"/>	<input type="text" value="1234"/>	<input type="text"/>	<input type="text" value="192.168.0.71"/>	<input type="text" value="17000"/>	<input type="text" value="TW"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	OFF	📄 🗑️
2	<input type="text" value="BL1"/>	<input type="text" value="root"/>	<input type="text" value="1234"/>	<input type="text"/>	<input type="text" value="192.168.0.73"/>	<input type="text" value="17000"/>	<input type="text" value="TW"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	OFF	📄 🗑️
3	<input type="text" value="BL3"/>	<input type="text" value="root"/>	<input type="text" value="1234"/>	<input type="text" value="www.ezhometech.com"/>	<input type="text" value="192.168.0.73"/>	<input type="text" value="17000"/>	<input type="text" value="TW"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	OFF	📄 🗑️

New Balancer

Slaver Name:
 Admin. Name:

Password:
 Domain:

IP:
 Panel port:

Country:

6 Channel Management

Channels **334**

Active channels 0 0%

Ezserver Channel

Back	Channel Name	Media Source	Icon Path	Category	Type	Status	Bitrate(Kbps)	
Channel Category	<input type="checkbox"/> 1 TV1	<input type="text" value="http://streamking.dvrdns.org/25461/Fran"/>	<input type="text" value="file://media/pictures/News/1.j"/>	BEIN ENTERTAINMI	Live	OOD	0	
Add Channel	<input type="checkbox"/> 2 TV2	<input type="text" value="udp://224.1.1.1:9001"/>	<input type="text"/>	BEIN ENTERTAINMI	Live	OOD	0	
Mass Edit Channel	<input type="checkbox"/> 3 BEIN SPORTS NBA	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	TELECOM VIP	Live	OOD	0	
Del Channel	<input type="checkbox"/> 4 Bein Sport News 4k	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	
Cut Channel	<input type="checkbox"/> 5 BEIN SPORTS 1 4k	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	
Refresh Channel	<input type="checkbox"/> 6 BEIN SPORTS GLOBAL 4k	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	
Import Channel	<input type="checkbox"/> 7 BEIN SPORTS 1 4k+	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	
Export Channel	<input type="checkbox"/> 8 BEIN SPORTS 2 4k	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	
OFF Channel	<input type="checkbox"/> 9 BEIN SPORTS 2 4k+	<input type="text" value="http://live.igtv-ksa.com/80/34234523432/"/>	<input type="text" value="http://bl3rbe.net/up/W9q5eE"/>	BEIN SPORT 4K	Live	OOD	0	

New Channel

Channel at: Channel Name:

Media Source:

Icon Path:

Category: Type:

- Live
- Movie
- DVR
- Inactive
- Delay 5 sec.
- Delay 10 sec.
- Delay 20 sec.
- Delay 30 sec.



Ezhometech

TV1

On Demand	<input checked="" type="checkbox"/>	HLS	<input 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"/>
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"/> ▼	AES Encryption	<input checked="" type="checkbox"/>
2nd URL	<input type="text"/>		
3rd URL	<input type="text"/>		

Save

Cancel

7 Movie Management

Movies 20275

Active movies 0 0%

Ezserver Movie 🔍 🏠 ⚙️ 🔌 📄

Back	Category	Movie Name ▲▼	Media Source	Icon Path	Category ▲▼	Duration(min.)	Bitrate(Kbps)	Status	
Add Movie	<input type="checkbox"/>	1 8 Remains (2018)[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/qe	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Mass Edit Movie	<input type="checkbox"/>	2 A Christmas Prince: The Rc	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/qe	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Del Movie	<input type="checkbox"/>	3 A STAR IS BORN[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/qe	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Cut Movie	<input type="checkbox"/>	4 Air Strike[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/qe	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Refresh Movie	<input type="checkbox"/>	5 Alb[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/5r	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Import Movie	<input type="checkbox"/>	6 Along Came The Devil[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/5r	Greek Movies ▼	0.000	0.00	VOD	📄 ✎
Export Movie	<input type="checkbox"/>	7 Alpha[GR]	http://premium-iptv.link:8080/movie/bu	http://iptv-line.com:6969/images/gy	Greek Movies ▼	0.000	0.00	VOD	📄 ✎

New Movie

Movie at
 Movie Name

File
 Folder

Category
 Recursive Folder :

Rent Point
 Buy Point

Media Source :

Icon Path :

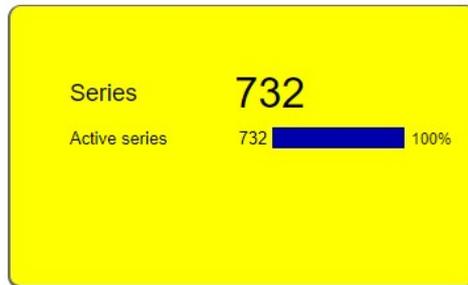


8 Remains (2018) [GR]

Rent Point	<input type="text" value="0.00"/>	Buy Point	<input type="text" value="0.00"/>
Rent Period	<input type="text" value="0"/>	Ratings	<input style="border: none; border-bottom: 1px solid black; padding: 2px 5px; font-size: 0.9em; font-family: sans-serif;" type="text" value="No Protection"/> ▼
Video Quality	<input style="border: none; border-bottom: 1px solid black; padding: 2px 5px; font-size: 0.9em; font-family: sans-serif;" type="text" value="HD"/> ▼	Proxy	<input style="border: none; border-bottom: 1px solid black; padding: 2px 5px; font-size: 0.9em; font-family: sans-serif;" type="text" value="0"/> ▼
Description		<div style="border-bottom: 1px solid black; padding-bottom: 2px; margin-bottom: 2px;">0</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px; margin-bottom: 2px;">1</div>	

SaveCancel

8 Series Management



Ezserver Series 🔍 🏠 ⚙️ 🔄 📄

Back	Category	Add Series	Del Series	Import Series	<input type="checkbox"/>	Series Name ▼	Category ▲ ▼	Season no.	Episode	Released Date
<input type="checkbox"/>	1	(Des)lencanto	ANIMES - DESENHOS	3	30					
<input type="checkbox"/>	2	1 Contra Todos	SERIES: 1 Contra Todos	4	32					
<input type="checkbox"/>	3	100 Humanos	SERIES: 100 Humanos	1	8					
<input type="checkbox"/>	4	13 Razones Why	SERIES: 13 REASONS WHY	3	40					
<input type="checkbox"/>	5	200	FILMES: INFANTIL	6	1	12/2/21				
<input type="checkbox"/>	6	22-11-63	SERIES: 11-22-63	2	8					
<input type="checkbox"/>	7	220 Volts	SERIES: 220 Volts	4	52					
<input type="checkbox"/>	8	24 Horas	24 HORAS	5	120					
<input type="checkbox"/>	9	3%	SERIES: 3%	3	26					
<input type="checkbox"/>	10	44 Gatos	SERIES: 44 Gatti	1	52					
<input type="checkbox"/>	11	5x Comédia	SERIES: 2021	1	5					
<input type="checkbox"/>	12	7SEEDS	SERIES: 7SEEDS	5	24					
<input type="checkbox"/>	13	8 Dias	SERIES: 8 Dias	1	8					
<input type="checkbox"/>	14	9-1-1: Lone Star	SERIES: 9-1-1: Lone Star	3	40					
<input type="checkbox"/>	15	A Bela e a Fera	SERIES: A Bela e a Fera	4	20					

Showing 1 to 15 of 732 series

First < 01 02 03 04 05 06 07 08 09 10 > Last

New Series

Series at: Series Name:

Category: Season No.:

Rating: Released Date:

Icon Path:

Description:

Add
Cancel

9 EPG Management



Ezserver EPG

Channel: 1 | 2021 | 12 | Query

No.	Start Time	Stop Time	Program Title	Program Description	Record Icon Path	Record	
1	00:00	01:00	ez1			SATURDAY	 
2	01:00	02:00	ez2			TUESDAY	 
3	01:00	03:00	ez3			WEDNESDAY	 
4	01:00	02:00	ez4			THURSDAY	 
5	01:00	02:00	ez5			DAILY	 
6	01:00	02:00	ez6	1234	http	SATURDAY	 
7	01:00	02:00	ez7			SUNDAY	 
8	01:00	02:00	ez8			MONDAY	 
9	00:00	01:00	ez9			TUESDAY	 

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

Ezserver Setting

Back

DVR Duration: 60 | MPEG EPG Extraction:

XMLTV EPG URL:

Save

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	[

Ezserver Setting

[Back](#)

DVR Duration: ⓘ

MPEG EPG Extraction: ⓘ

XMLTV EPG URL: ⓘ

[Save](#)

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	
Title	<input type="text"/>	Icon URL	
Description	<input type="text"/>		

- DAILY
- ON
- DAILY**
- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY
- SATURDAY
- SUNDAY
- OFF

10 User Agent Management



- Back
- Add
- Refresh

Disabled Mode Rejected Mode Accepted Mode

No.	Player Name	
1	stagefright	
2	vlc(linux;)	
3	VLC6	
4	NSPlayer	
5	VLC9899	

New User Agent

User Agent:

Add

Cancel

11 Setting



Setting

Unicast Streaming Setting

Panel port <input type="text" value="18000"/>	API port <input type="text" value="17000"/>
HTTP port <input type="text" value="8000"/>	RTMP port <input type="text" value="1935"/>

Multicasting Streaming Setting

Multicast Output IP <input type="text" value="0.0.0.0"/>	Multicast Output Port <input type="text" value="9000"/>
----------------------------------------------------------	---------------------------------------------------------

P2P Streaming Setting:

P2P Cmd Port <input type="text" value="17030"/>	P2P Data Port <input type="text" value="17040"/>
-------------------------------------------------	--------------------------------------------------

Channel Setting:

Channel Input Buffer No. <input type="text" value="8000"/>	Channel Streaming Prebuffer No. <input type="text" value="2000"/>
Channel Streaming Bitrate Tolerance <input type="text" value="0"/>	Channel Reconnection Interval <input type="text" value="60"/>
DVR Duration <input type="text" value="60"/>	MPEG EPG Extraction <input type="checkbox"/>
XMLTV EPG URL <input type="text"/>	

System Setting:

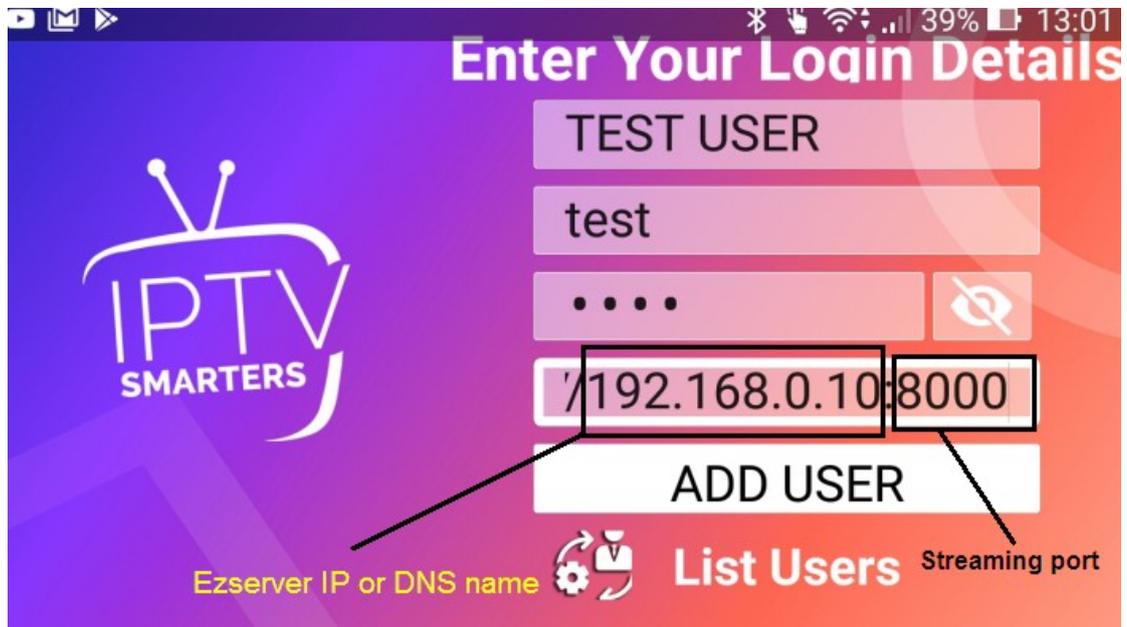
Max. Streaming No. <input type="text" value="3000"/>	Pagination Limit Number <input type="text" value="20"/>
System Log Lines <input type="text" value="1000"/>	Admin. System Log Lines <input type="text" value="1000"/>

Security Setting:

Alert Player Duration <input type="text" value="5.0"/>	Blacklist Option <input checked="" type="checkbox"/>
--------------------------------------------------------	------------------------------------------------------

12 Supported Players

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



VLC

- Login Panel: User menu to select a users Channel List option
- Copy the URL into VLC

Group ▲ ▼	Channel List	Movie / Series List	Expir
golden ▼	-- ▼	-- ▼	12/
golden ▼	-- ▼	-- ▼	12/
golden ▼	--	-- ▼	12/
golden ▼	Enigma	-- ▼	12/
golden ▼	Enigma 1.6	-- ▼	12/
golden ▼	Enigma(RTMP)	-- ▼	12/
golden ▼	Enigma 1.6(RTMP)	-- ▼	12/
golden ▼	Enigma(chno)	-- ▼	12/
golden ▼	Enigma 1.6(chno)	-- ▼	12/
golden ▼	Enigma(RTMP/chno)	-- ▼	12/
golden ▼	Enigma 1.6(RTMP/chno)	-- ▼	12/
	m3u		
	m3u(getlink)		
	m3u(get.php)		
	getxmltv		
	m3u (No Encoded)		

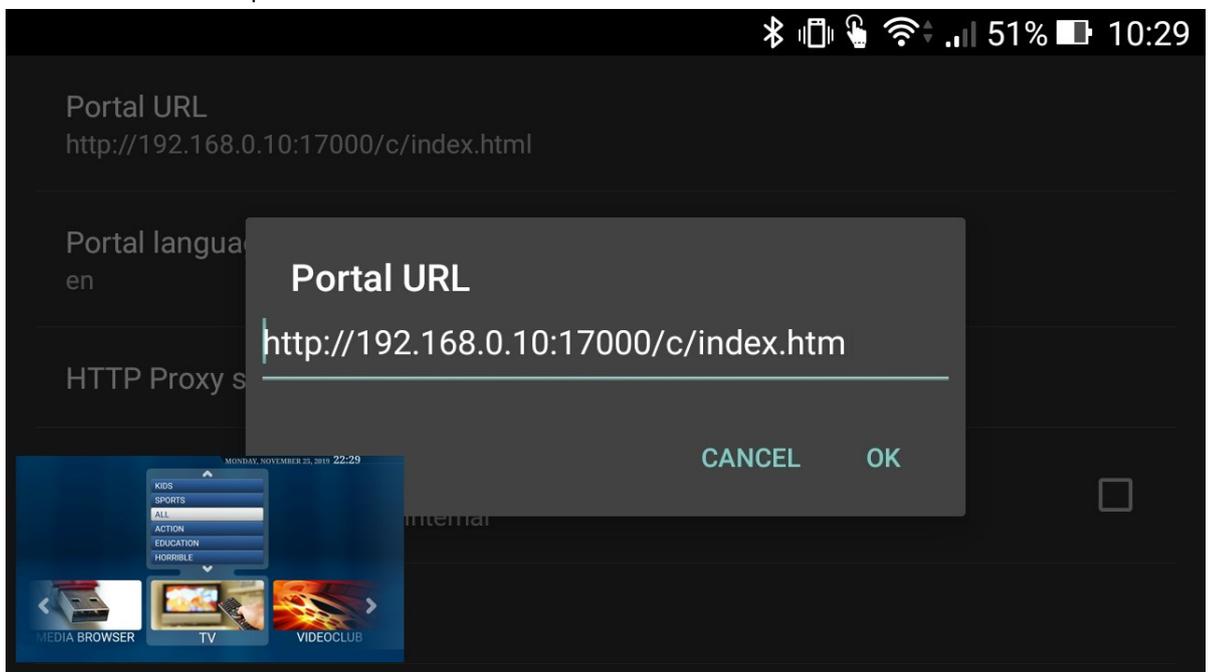
Mag STB and STBEmu use Ezserver API port (17000)

- Add Mag MAC ID into Ezserver IPTV Panel

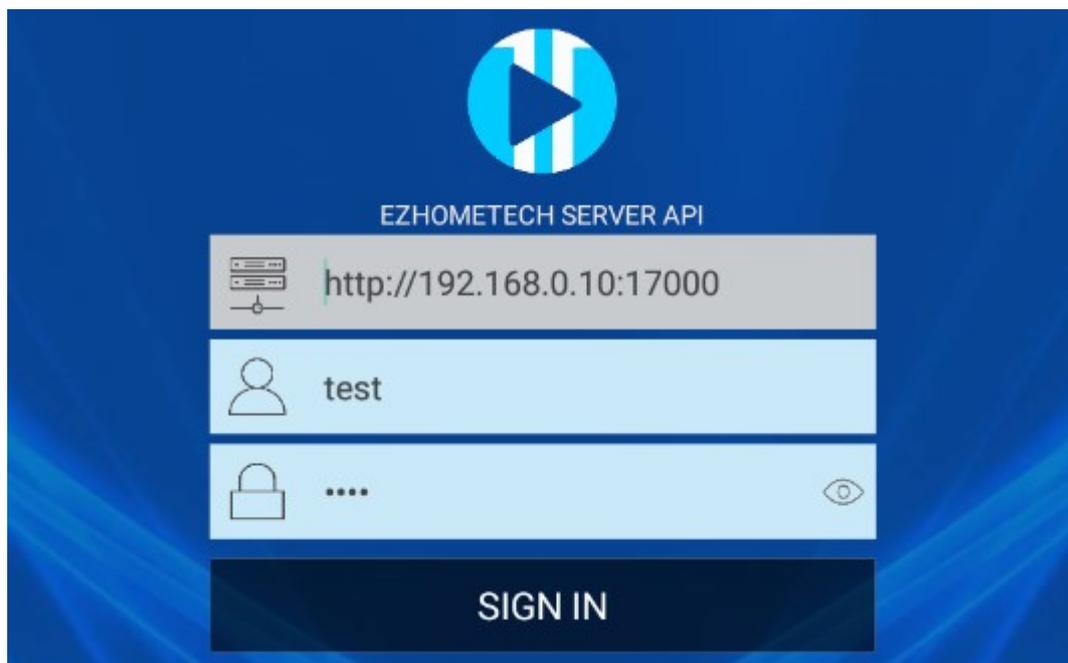
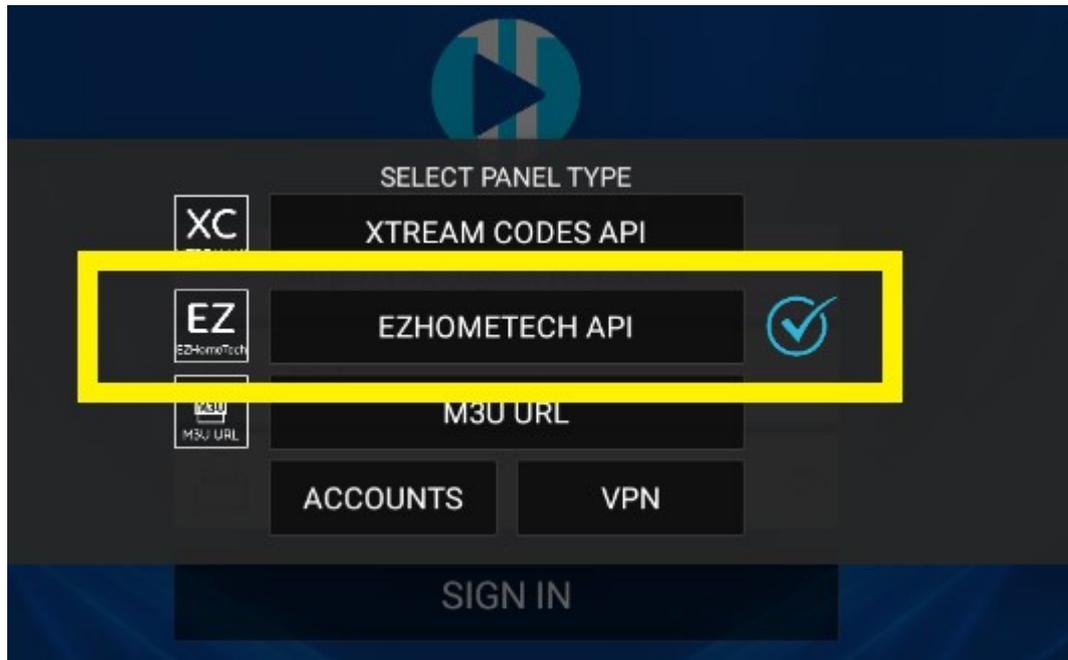
New User **Keep Password Empty and MAC ID is mag**

User at	<input type="text" value="7"/>	User Name	<input type="text" value="00:1A:79:24:C8:C0"/>
Password	<input type="text"/>	Rating Password	<input type="text"/>
Group	<input type="text" value="basic"/>	Level	<input type="text" value="User"/>
Expired Time	<input type="text" value="3 month"/>	Connection Limit	<input type="text" value="1"/>
IP	<input type="text"/>	MAC ID	<input type="text" value="mag"/>

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



XCIPTV uses Ezserver API port (17000)



HTML5

- 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"/>	

Save
Cancel

- 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>

```

HLS output by getlink API

- Enable Channel HLS option

TV1

On Demand

Channel SID

User Agent

Catch Up Days

Input Adapter

2nd URL

3rd URL

HLS

EPG Channel ID

Bitrate Tolerance

Proxy Mode

Save
Cancel

- Go to User menu

Ezserver User

Back	<input type="checkbox"/>	User ID▲▼	Password	Group▲▼	Channel List
Add User	<input type="checkbox"/>	1 root	1234	golden	--
Mass Edit Users	<input type="checkbox"/>	2 test	1234	golden	m3u8(getlink AI)

- Select m3u8(getlink API)

Channel List

	Mo
<div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">--</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">m3u(chno with suffix)</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">m3u(chname with suffix)</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">m3u(RTMP)</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">m3u8</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px; background-color: #007bff; color: white;">m3u8(getlink API)</div> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;">m3u8(No Encoded)</div>	--

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