

# 09-threadfin.md

kstack: book: Centerpoint Home

Lab chapter: Media &

Entertainment page: Threadfin

tags: [threadfin, iptv, m3u, xmltv, plex, jellyfin]

## Overview

Threadfin is an M3U proxy and IPTV middleware that translates IPTV streams into a format consumable by Plex DVR and Jellyfin Live TV. It manages M3U playlists, XMLTV guide data, and presents a virtual tuner device to media servers via HDHR (HDHomeRun) emulation.

## Access

| Type   | URL / Endpoint                         | Notes                                |
|--------|----------------------------------------|--------------------------------------|
| Web UI | <code>http://192.168.1.85:34400</code> | Direct LAN access — no Traefik route |
| HDHR   | <code>http://192.168.1.85:34400</code> | HDHomeRun device emulation endpoint  |

No Traefik route is configured for Threadfin — Plex and Jellyfin connect to it via direct IP and port on the LAN.

# Configuration

**Image:** `fyb3roptik/threadfin:latest` **Compose project:** Standalone (managed via Portainer)

## Ports

| Port               | Protocol | Purpose                                         |
|--------------------|----------|-------------------------------------------------|
| <code>34400</code> | TCP      | Threadfin web UI and HDHR endpoint (host-bound) |

## Environment Variables

| Variable                               | Value                        | Purpose                |
|----------------------------------------|------------------------------|------------------------|
| <code>TZ</code>                        | <code>America/Toronto</code> | Timezone               |
| <code>THREADFIN_PORT</code>            | <code>34400</code>           | Listen port            |
| <code>THREADFIN_BRANCH</code>          | <code>main</code>            | Update channel         |
| <code>THREADFIN_BIND_IP_ADDRESS</code> | <code>0.0.0.0</code>         | Bind to all interfaces |
| <code>THREADFIN_DEBUG</code>           | <code>0</code>               | Debug logging off      |

## Volumes / Bind Mounts

| Host Path                                         | Container Path                    | Purpose                             |
|---------------------------------------------------|-----------------------------------|-------------------------------------|
| <code>/home/jeeves/docker/threadfin/config</code> | <code>/home/threadfin/conf</code> | M3U playlists, XMLTV data, settings |

## Networks

| Network                  | Purpose                                             |
|--------------------------|-----------------------------------------------------|
| <code>traefik-net</code> | Present (container is on traefik-net but no labels) |

Threadfin is on `traefik-net` for network reachability but has no Traefik labels — it is accessed by direct IP.

# Plex / Jellyfin Integration

## Plex:

1. In Plex Settings → Live TV & DVR → Set Up Plex Tuner
2. Enter the Threadfin HDHR URL: `http://192.168.1.85:34400/device.xml`
3. Plex discovers the virtual tuner and available channels

## Jellyfin:

1. Admin Dashboard → Live TV → Add Tuner Device
2. Select HDHomeRun and enter `http://192.168.1.85:34400`

# Dependencies

- M3U source URL (IPTV provider) configured in Threadfin UI
- XMLTV guide source configured in Threadfin UI
- Plex or Jellyfin must be able to reach `192.168.1.85:34400` on the LAN

# Notes / Gotchas

- M3U playlists and XMLTV guide data are refreshed on a schedule configured in the Threadfin UI. If the IPTV provider URL changes, update it in Threadfin settings — Plex and Jellyfin do not need to be reconfigured.
- Threadfin does not store or proxy video streams itself; it redirects the media server directly to the IPTV stream URL. Buffering and quality are determined by the stream source.
- Port `34400` is non-standard. Ensure no firewall rules block LAN-to-LAN traffic on this port between Plex/Jellyfin and Centerpoint.

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