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9 Best Free UPnP and DLNA Media Servers for Linux

James Kiarie | Last Updated: January 5, 2023 | Media Streaming, Top Tools | Leave a comment

The acronym **UPnP** stands for '**Universal plug and play**'. It's a service that enables devices on the **LAN** to seamlessly discover and communicate with each other, the goal being to allow <u>video streaming</u>, data sharing, and gaming across devices without manual setup.

DLNA (Digital Living Network Alliance) is a set of guidelines that define how digital media is shared across devices on a local network. DLNA leverages uPnP for interconnectivity and allows devices on a home network to find each other and share media files

This guide features some of the most popular open-source Free UPnP and DI NA Media Servers you can use for your streaming and data-sharing tasks in Linu

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1. Kodi – Home Theater Software

Kodi is an open-source and popular digital media hub that can receive, browse and view UPnP and DLNA content. The free-to-use media solution has several built-in UPnP A/V features, allowing it to turn your device into a fully-fledged multimedia jukebox.

Its capability includes receiving UPnP and DLNA content, browsing UPnP and DLNA media sources, and controlling access over UPnP and DLNA devices. You can also count on Kodi to share media libraries across devices and networks. The media server and player also work on gaming consoles, allowing for use on the PlayStation 3 and Microsoft's Xbox.

Kodi Features:

- Powerful streaming ability with streaming from a server or computer over a network.
- Powerful skin engine.
- Advanced play capability for CDs, DVDs plus ZIP and RAR files.
- User personalization option with box covers and descriptions.
- Playlist feature.
- Local weather forecast option.



2. Universal Media Server

<u>Universal Media Server</u> is a UPnP media server that also enables the streaming and transcoding of other media formats without a complex configuration process.

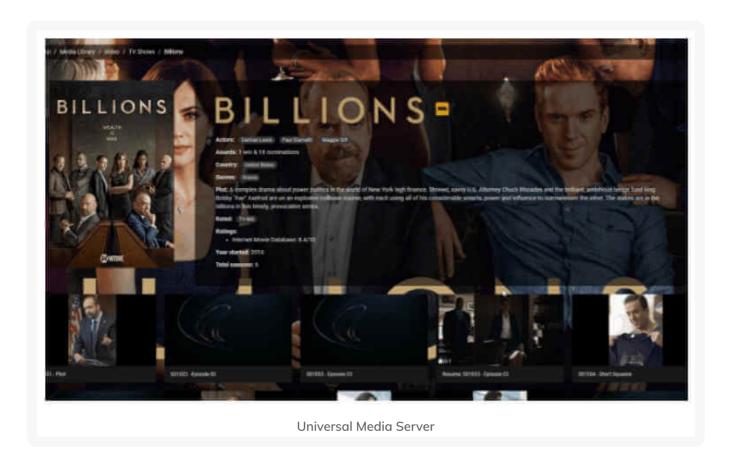
Such capability means this program can stream to various devices, including Microsoft's Xbox One, Sony Playstations (PS3 and PS4), digital TVs, smartphones, and even Blu-ray players.

The program is powered by a toolkit comprising media tools such as Crowdin, Mencoder, <u>FFmpeg</u>, <u>VLC</u>, and AviSynth to offer media support for different formats.

Key Features:

- Automatic bitrate adjustment for changing video bitrate.
- Supports automatic maximum quality.
- Subtitling for all devices with live subtitles from OpenSubtitles.
- DTS support with full-quality DTS.
- Instant file browsing with folder scanning.
- True Motion frame interpolation, which regulates framerates.

AviSynth and iTunes support.



[You might also like: How to Install Universal Media Server to Stream Media to Any Devices]

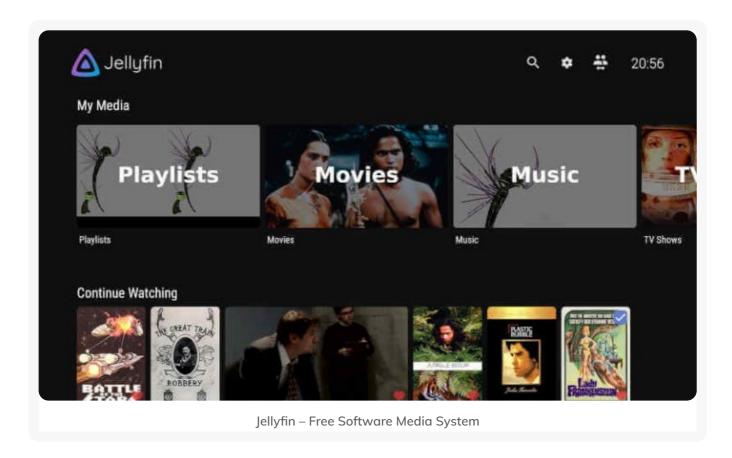
3. Jellyfin – Free Software Media System

<u>Jellyfin</u> is another leading free-software entertainment system providing UPnP and DLNA media server capability. The open-source software can collect, manage, share, and stream all media on your devices.

All it takes is to run the Jellyfin server on your device system, and the program lets you watch your media from various options. These options include watching from a web browser, apps on the Roku platform, android devices, Android Tv, iOS, and Fire TV device. Since it's open-source, you can configure Jellyfin to work directly within other platforms, such as Kodi.

Jellyfin Features:

- Multiplatform support for all devices (Windows, Linux, iOS, Android, and macOS).
- Wide range of support for different DLNA clients.
- Runs inside containerized images, whether Docker or Kubernetes.
- The SyncPlay option allows for remote media sharing.



4. DMS – UPnP DLNA Digital Media Server

For users looking for complexity, <u>DMS</u> is the perfect pick for a UPnP DLNA media server. The open-source media server runs from the terminal, allowing users to explore and stream media content from your filesystem or working system directory.

If need be, DMS also advertises and serves raw files while alternately transcoding streams where possible. Its terminal-based structure means using commands in the PATH given to the program, or else the features will not work. These commands work to get multiple media data, including video transcoding, generating thumbnails, and identifying the bitrate.

DMS Features:

Terminal-based UPnP DLNA digital media server.

- Use of terminal commands.
- Serves media content straight from the filesystem or working directory.
- SSDP component for broadcasting and responding to media requests.

5. Coherence - DLNA/UPnP Media Server

<u>Coherence</u> is a standalone open-source multimedia solution that acts as a DLNA/UPnP media server, framework, plus application. The open-source framework is built on Python and performs all the functions of a UPnP and DLNA media server.

For instance, **Coherence** provides users with a built-in export option that allows sharing local files or online media through the application's back ends. Coherence also functions as a user-controlled UPnP and DLNA media renderer thanks to its supported clients, including Rhythmbox and Gstreamer.

For advanced functionality, Coherence provides users with a toolkit of packages such as Cadre, Compre, Mirabeau, and Puncher, among other media plugins.

Coherence Features:

- Python-based open-source multimedia computer application.
- Supports advanced media clients such as Gstreamer and Rhythmbox.
- Functions as a standalone controllable DLNA/UPnP media renderer.
- In-built capability to export local files plus online media.
- A cross-platform toolkit containing several media packages.

6. SimpleDLNA – Free DLNA Media Server

If you need a basic and open-source UPnP and DLNA media server, then SimpleDLNA is your best bet. The free DLNA media server is written in C# language with support for fast streaming performance, zero-configuration, and quick media thumbnailing for videos plus photos.

Unlike its competitors, the program also provides fast video playback with a metadata processor to unlock all media details. Windows users also stand to gain from using SimpleDLNA, with the application providing a Windows setup package including binaries and the source code for user modification.

SimpleDLNA Features:

- C#-based media solution framework.
- The Thumbnail display supports images and videos.
- Zero-configuration for the DLNA Server.
- Provides media Metadata from TagLib.
- Allow easy coding of additional media sources, such as podcasts..

7. Gerbera – Free Media Server

All kinds of UPnP-compliant clients work with <u>Gerbera</u>, making it one of the leading UPnP media servers for users with different clients. The UPnP media server allows streaming of your digital media using a network while allowing you to consume media on a wide variety of UPnP-compatible devices.

Gerbera also has an advanced web interface that provides users with a rich control panel, proper media organization and support for dozens of media formats.

Gerbera Features:

- Browse and playback options for media on networks or devices.
- Web UI with a tree structure view for database and file system.
- Flexible media format transcoding using plugins or scripts.
- Automatic rescan of directories.
- Supports the use of external URLs, enabling link creation for the renderer.



[You might also like: Gerbera – A UPnP Media Server That Lets You Stream Media on Home Network]

8. ReadyMedia – MiniDLNA Media Server

<u>ReadyMedia</u> (formerly MiniDLNA) is another simple-to-use open-source media server fully compliant with its DLNA/UpnP-AV clients. The server software is free-to-use and comes with a simple and lightweight design carrying few features.

Among these features are its ability to serve media files to your network clients, including applications (Totem and XBMC), plus compliant devices such as smartphones, TVs, and portable media players.

ReadyMedia Features:

- Web user interfaces with support from a Webmin module.
- Partial transcoding support for media streaming.
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- Basic NLS support for users.
- Optimized JPEG scaling to enhance media.

9. Rygel – Home Media Solution

<u>Rygel</u> is a UPnP AV media server providing users with a home media solution to easily share audio, video, and photos to other devices. The open-source software works with media player software to create a media renderer remotely controlled with a UPnP or DLNA controller.

Rygel also achieves advanced device interoperability by following the strict requirements of DLNA. Its plug-in mechanism further improves the software functionality, including media conversion to compatible formats for the client devices.

Rygel Features:

- Easy search and play feature for media on the phone, PC, or TV.
- Browse and play option for stored media on PC.
- Advanced export option of media players, online and on-disk media.
- Sound output redirection to DLNA speakers.
- Audio and video media transcoding capability.

You might also like:

- 12 Best Media Server Software for Linux
- Best Linux Media Center Distros for Your Home Theater PC
- Best KDE Multimedia Applications for Linux
- mStream A Personal Streaming Server to Stream Music from Anywhere

Wrapping Up

In this guide, we have covered some of the best open-source, free UPnP and DLNA media servers that save you a lot of struggle by allowing free content streaming between devices on the same network. Hopefully, you will find an open-source option that works for you without a hitch. Your feedback on this guide is much welcome.

Do you know of any other best open-source UPnP and DLNA media servers for Linux? Let us know your views in the comments below.

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