

# Installing a media server (Red5) for LAMS



Attention: Support for Red5 media server has been now deprecated. Please use the Kaltura tool for video instead.

## About the media server (Red5)

As of LAMS 2.3, video recording has been made possible using a dedicated [Video Recorder Tool](#) and also a [Video Recorder FCKEditor plugin](#). Both these applications need a media server called [Red5](#) to be installed and configured with LAMS. This wiki page will guide you through the process of downloading, installing and configuring your new media server to add video recording capability to LAMS.

[Red5](#) is an Open Source Flash Server written in Java that supports Streaming Audio/Video (FLV and MP3), Recording Client Streams, Shared Objects, Live Stream Publishing and Remoting (AMF)

## Downloading Red5

We recommend using version 0.7 of Red5. Development of the video recording tools was done using this version of the media server. [Red5 0.7 Downloads](#). Red5 0.8 is also now available [here](#).

## Installing Red5

### Windows

Download the Windows installer from the [Red5 0.7 Final release page](#) and run it. Install to the default directory. All done!

### Linux, Mac OSX and others

#### Ubuntu/Debian

Download the debian package from the [Red5 0.7 Final release page](#). Then just run (as root):

```
# dpkg -i red5_0.7.0_all.deb
```

Done! (you've got to love the debian packaging system! 🍷)

#### Mac OSX

In the [Red5 0.7 Final release page](#) you will find a .dmg file for Mac OS X. Download and install as any other Mac OSX application. Red5 will be added to your Applications folder under a directory called, surprisingly enough, Red5.

#### Other Unix flavours

[Red5 0.7](#) comes as a WAR to use with Sun Java 5 or 6. So download the one according to the Java JDK version you are running on your server. You can drop the war file into a Tomcat or Jetty container.

## Configuring Red5

Once Red5 is started, navigate to <http://localhost:5080/installer/>. Select the 'oflaDemo', and click 'Install'.

Once that's done, there's only a slight change you need to do to the configuration settings for Red5. Go to where you the Red5 server is installed (Windows: c:\Program Files\Red5, debian/ubuntu: /usr/lib/red5/, Mac OSX /Applications/red5, other unix: see inside the .war file) and edit this file `<your-red5-folder>/webapps/oflaDemo/WEB-INF/web.xml`. You will see that the last part of the XML file reads:

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Forbidden</web-resource-name>
    <url-pattern>/streams/*</url-pattern>
  </web-resource-collection>
  <auth-constraint/>
</security-constraint>
```

You will need to comment all this chunk out as follows:

```
<!--
  <security-constraint>
    <web-resource-collection>
      <web-resource-name>Forbidden</web-resource-name>
      <url-pattern>/streams/*</url-pattern>
    </web-resource-collection>
    <auth-constraint/>
  </security-constraint>
-->
```

The `<!-- and -->` at the exclude or comment out this section from the file.

If your Red5 was running, make sure you restart it so this changes take effect.

Alternatives to this are to expose the *oflaDemo/streams* directory using another web server (apache, IIS, etc). Also please read on the [Red5 website](#) how to best implement security for your server.


## Default ports

Red5 uses the following default ports. Ensure that your firewall do not block them:

Default ports:  
1935,8088,5080,1936  
RTMP: 1935  
RTMPT: 8088  
HTTP servlet engine port: 5080  
Debug proxy port: 1936

If you cannot open these ports, you might be able to run Red5 on port 80. See [instructions](#).

## Configuring Red5 and LAMS

 A user with **System Administration** privileges must perform this operation.

Now, you need to tell LAMS where the Red5 server is. Login as sysadmin in your LAMS server go to the Sysadmin Menu then click on "Edit Configuration Settings" and then go to the Media Server section. There are two options:

- Media Server Recordings URL
- Media Server URL

The *Media Server URL* is the URL for the Red5 server so this should be `rtmp://172.x.x.x/` (of course replace the 172.x.x.x with the domain or the IP of the server in which you installed Red5).

As for the *Media Server Recordings URL*, this is the directory from where the LAMS server will "grab" the recordings and export them when required (think export portfolio, sequence export, etc). This should look like: `http://172.x.x.x:5080/oflaDemo/streams/` (again replace the 172.x.x.x with the domain or the IP)

That's all 🎉 Now you can get video and audio in all LAMS activities and make use of the [Video Recorder tool](#)!

## Security concerns

Note that Red5 doesn't necessarily secure your recording and the fact that we have to expose them online means that you might need to get your Red5 server protected using iptables or some other IP restricting mechanisms.

## Troubleshooting

### Netconnection not connected



In order to record your video, Red5 requires the port 1935 opened. See further details. See [here](#) for more information on Red5 default ports. Other instructions on how to run Red5 over port 80 can be found [here](#).

If you have other problems, post them in the [LAMS Community Tech Forums](#).

## Using RTMPT

If your firewall/network does block the RTMP protocol, then you can tunnel it using RTMPT which acts as an HTTP wrapper for RTMP (see [details](#)).

Just change the Media Server details in LAMS to point to `rtmpt://<server>`. If the issue is the port (default 8088), then change it to run on whatever port your network allows.

Note: Red 5 version 0.80 and higher does not enable RTMPT by default, see [here](#) for further details.