

Red5 (standalone)



This documentation has not been updated for Release 4.0.0 yet. Please see the one host (all-in-one) [Manual Installation Instructions](#).



This documentation is for Release 3.0.0. For the Release 1 version of this page, see [v.81](#). For the Release 2 version of this page, see [v.87](#).

Intended as guidance for production environments with different hosts for most tasks, these instructions provide a recipe for building only the **Red5** piece of an Avalon system from scratch on CentOS or Red Hat Enterprise Linux. Recipes for the other components for Avalon may be found here. [Fedora \(standalone\)](#), [MySQL \(standalone\)](#), [Web \(standalone\)](#), [Solr \(standalone\)](#), and [Matterhorn \(standalone\)](#).

Instructions for building every component on one host (all-in-on) please see here: [Manual Installation Instructions](#).

- [Ready the Installation Environment](#)
- [Red5 Media Server](#)
- [Red5 Avalon Security Webapp](#)
- [Restarting the Server](#)

Ready the Installation Environment

Install EPEL

```
rpm -ivh http://linux.mirrors.es.net/fedora-epel/6/i386/epel-release-6-8.noarch.rpm
```

This package has libyaml-devel which is required by ruby and not provided by Redhat.

Make sure a valid hostname is resolvable

The default hostname is "avalon.dev", so name the machine this and enter it into /etc/hosts

```
# hostname
avalon.dev
# cat /etc/hosts
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4 avalon.dev
```

Configure iptables

The Avalon Media System requires several ports to be open to client browsers.

Here are the port settings that will need to be configured:

Port	Purpose	External?
1935	RTMP (red5)	Yes
5080	HTTP (red5)	No

The preferred method is to create a shell script that will do the work for you. Here is an example script that you should look through and customize as needed: [avalon-iptables-config.sh](#)



If you're connected over ssh, it might kick you off.

Save your script to /etc/sysconfig/avalon-iptables-config.sh, make it executable and run it.

```
chmod +x /etc/sysconfig/avalon-iptables-config.sh
/etc/sysconfig/avalon-iptables-config.sh
```

If you run into connection issues you can disable the iptables, by running "service iptables stop". This will completely drop your firewall. When finished troubleshooting run "service iptables start".

Disable SELinux

```
echo 0 > /selinux/enforce
vim /etc/selinux/config #change the value of `SELINUX` from `enforcing` to `permissive`
```

Add the NUL repository

Create the NUL repository config file:

```
vim /etc/yum.repos.d/nul-public.repo
```

Append the following code:

```
[nul_public]
name=NUL Library Public RHEL repository
baseurl=http://yumrepo-public.library.northwestern.edu/x86_64
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-nul
cost=150
```

Install and place the NUL GPG key in the proper location:

```
curl http://yumrepo-public.library.northwestern.edu/RPM-GPG-KEY-nul -o /etc/pki/rpm-gpg/RPM-GPG-KEY-nul
```

Install development libraries and packages for building Ruby

```
yum groupinstall "Development Tools"
yum install readline-devel zlib-devel libyaml-devel libffi-devel openssl-devel libxml2-devel libxslt-devel ant
```

Red5 Media Server

Red5 is an open source alternative to Adobe Media Server. **If using the Adobe Media Server you can skip to the next step.**

Create a red5 user.

```
useradd red5
groupadd avalon
```

Download and install Red5.

```
wget http://red5.org/downloads/red5/1_0_1/red5-1.0.1.tar.gz
tar xvf red5-1.0.1.tar.gz
mv red5-server-1.0 /usr/local/red5
```

Download the init script and add it to the init.d directory.

```
wget https://raw.githubusercontent.com/avalonmediasystem/avalon-installer/master/modules/red5/templates/red5_init_script.
erb -O red5_init_script.sh
mv red5_init_script.sh /etc/rc.d/init.d/red5
```

Give Red5 permissions to the red5 directory and the init script.

```
chown -R red5:red5 /usr/local/red5
chmod +x /etc/rc.d/init.d/red5
```

Create and configure streaming directories.

```
mkdir -p /usr/local/red5/webapps/avalon/streams /var/avalon /var/www/avalon/public/streams /var/avalon/hls_streams
chown red5:avalon /usr/local/red5/webapps/avalon/streams
chmod 0775 /usr/local/red5/webapps/avalon/streams
ln -s /usr/local/red5/webapps/avalon/streams /var/avalon/rtmp_streams
chown root:root /var/avalon/hls_streams/
ln -s /var/avalon/hls_streams/ /var/www/avalon/public/streams
chmod 0775 /var/avalon/hls_streams/
```

Red5 Avalon Security Webapp

```
cd /usr/local/red5/webapps
wget https://github.com/avalonmediasystem/config-files/raw/master/red5/red5-avalon.tar.gz
tar xvzf red5-avalon.tar.gz
chown -R red5:red5 avalon/
```

Edit `/usr/local/red5/webapps/avalon/WEB-INF/red5-web.properties`

```
avalon.serverUrl=http://localhost/
```

Restart Red5

```
service red5 restart
```

If Red5 is installed and running you should be able to access <http://avalon.dev:5080/>

Restart SSH

```
service sshd restart
```

Restarting the Server

Before you restart your Avalon server, you'll want to make sure all of the services necessary to run Avalon will start automatically after the restart. Run these commands once and you should be set:

```
chkconfig --level 345 sshd on
chkconfig --level 345 red5 on
chkconfig --level 345 httpd on
```