**Installation guide**

**For Red Hat Enterprise Linux Server release 6.5 (Santiago)**

1. Apache Web server
   1. Installation.
      1. *sudo yum install httpd.*
   2. Service start/stop
      1. *sudo /etc/init.d/httpd start or stop*
   3. Default web root
      1. /var/www/html/
2. MySQL Database server.
   1. Installation.
      1. *sudo yum install mysql-server*
   2. Service start/stop
      1. sudo /etc/init.d/mysqld start or stop
3. Php with MySQL dependency.
   1. Installation
      1. *sudo yum install php php-mysql*
4. Java and JDK
   1. Installation
      1. *sudo yum install java*
      2. *sudo yum install java-1.7.0-openjdk-devel*
5. Tomcat7
   1. Installation
      1. *sudo wget* [*http://psg.mtu.edu/pub/apache/tomcat/tomcat-7/v7.0.53/bin/apache-tomcat-7.0.53.tar.gz*](http://psg.mtu.edu/pub/apache/tomcat/tomcat-7/v7.0.53/bin/apache-tomcat-7.0.53.tar.gz)
      2. *sudo tar –xvzf apache-tomcat-7.0.53.tar.gz*
      3. *sudo cp –R apache-tomcat-7.0.53 /usr/local*
   2. Service start stop
      1. To start -- /usr/local/bin/startup.sh
      2. To stop -- /usr/local/bin/shutdown.sh

To test if installation is correct,

Start tomcat, open webpage http://<SERVER-IP>:8080

To give admin rights to a user edit file, <tomcat-dir>/conf/tomcat-users.xml

Add <user username="tomcat" password="password" roles="tomcat,role1,manager-gui"/>

Username: tomcat

Password :password

1. FFmpeg
   1. Installation
      1. *yum install glibc gcc gcc-c++ autoconf automake libtool git make nasm pkgconfig*
      2. *yum install SDL-devel a52dec a52dec-devel alsa-lib-devel faac faac-devel faad2 faad2-devel*
      3. *yum install freetype-devel giflib gsm gsm-devel imlib2 imlib2-devel lame lame-devel libICE-devel libSM-devel libX11-devel*
      4. *yum install libXau-devel libXdmcp-devel libXext-devel libXrandr-devel libXrender-devel libXt-devel*
      5. *yum install libogg libvorbis vorbis-tools mesa-libGL-devel mesa-libGLU-devel xorg-x11-proto-devel zlib-devel*
      6. *yum install libtheora theora-tools*
      7. *yum install ncurses-devel*
      8. *yum install libdc1394 libdc1394-devel*
      9. *yum install amrnb-devel amrwb-devel opencore-amr-devel*
      10. *yum install libtheora libtheora-devel*
      11. *yum install libshout libshout-devel*
   2. Install Yasm
      1. *wget http://www.tortall.net/projects/yasm/releases/yasm-1.2.0.tar.gz*
      2. *tar xzfv yasm-1.2.0.tar.gz*
      3. *cd yasm-1.2.0*
      4. *./configure --bindir="$HOME/bin" --enable-shared*
      5. *make*
      6. *sudo make install*
   3. Install X264
      1. git clone git://git.videolan.org/x264.git
      2. cd x264
      3. ./configure --enable-shared --extra-cflags=-fPIC --extra-asflags=-D\_\_PIC\_\_
      4. make
      5. sudo make install
   4. Install Aacenc
      1. *wget http://downloads.sourceforge.net/opencore-amr/vo-aacenc-0.1.2.tar.gz*
      2. *tar xzvf vo-aacenc-0.1.2.tar.gz*
      3. *cd vo-aacenc-0.1.2*
      4. *./configure --enable-shared*
      5. *make*
      6. *sudo make install*
   5. Install fdkaac
      1. *git clone --depth 1 git://git.code.sf.net/p/opencore-amr/fdk-aac*
      2. *cd fdk-aac*
      3. *autoreconf -fiv*
      4. *./configure --enable-shared*
      5. *make*
      6. *sudo make install*
   6. Install lame
      1. *wget http://downloads.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz*
      2. *tar xzvf lame-3.99.5.tar.gz*
      3. *cd lame-3.99.5*
      4. *./configure --bindir="$HOME/bin" --enable-shared --enable-nasm*
      5. *make*
      6. *sudo make install*
   7. Install libmp3lame
      1. *wget http://downloads.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz*
      2. *tar xzvf lame-3.99.5.tar.gz*
      3. *cd lame-3.99.5*
      4. *./configure --bindir="$HOME/bin" --enable-shared --enable-nasm*
      5. *make*
      6. *sudo make install*
   8. Install ffmpeg
      1. *ldconfig /usr/local/lib*
      2. *git clone git://source.ffmpeg.org/ffmpeg.git*
      3. *cd ffmpeg*
      4. *git checkout release/2.2*
      5. *./configure --extra-libs=-ldl --enable-gpl --enable-nonfree --enable-libfdk\_aac --enable-libmp3lame --enable-libvorbis --enable-libvpx --enable-libx264*
      6. *make*
      7. *sudo make install*
2. ICES
3. *yum -y install bzip2-devel ncurses-devel aspell pspell expat-devel gmp-devel freetype-devel flex-devel ruby-libs ruby gd-devel subversion libjpeg-devel libpng-devel gcc-c++ gcc-cpp curl-devel libxml2-devel libtool-ltdl-devel httpd-devel pcre-devel libc-client-devel unixODBC-devel postresql-devel net-snmp-devel libxslt-devel sqlite-devel readline-devel atop htop pspell-devel python python-devel*
4. *yum install MySQL-python*
5. *wget* [*http://downloads.xiph.org/releases/flac/flac-1.1.2.tar.gz*](http://downloads.xiph.org/releases/flac/flac-1.1.2.tar.gz)
6. *tar xvzf flac-1.1.2.tar.gz*
7. *cd flac-1.1.2*
8. *./configure --enable-shared*
9. *Make*
10. *Sudo make install*
11. *ldconfig /usr/local/lib*
12. *wget http://www.centova.com/clientdist/ices/ices-cc-0.4.1.tar.gz*
13. *tar -xvzf ices-cc-0.4.1.tar.gz*
14. *./configure –prefix=<pathto install ices>*
15. *Make*
16. *Sudo make install*
17. ICECAST
    1. ldconfig /usr/local/lib
    2. wget <http://downloads.xiph.org/releases/icecast/icecast-2.3.2.tar.gz>
    3. tar xvzf icecast-2.3.2.tar.gz
    4. cd icecast-2.3.2
    5. ./configure –prefix=<icecast installation dir>
    6. Make
    7. sudo make install
18. Wowza
    1. *wget* [*http://www.wowza.com/downloads/WowzaStreamingEngine-4-0-3/WowzaStreamingEngine-4.0.3.rpm.bin*](http://www.wowza.com/downloads/WowzaStreamingEngine-4-0-3/WowzaStreamingEngine-4.0.3.rpm.bin)
    2. *sudo chmod +x WowzaStreamingEngine-4.0.3.rpm.bin*
    3. *sudo ./WowzaStreamingEngine-4.0.3.rpm.bin*
    4. Enter license key when prompted
    5. Wowza directory is /usr/local/WowzaStreamingEngine
    6. Username : platformbaba
    7. Pswd : platformbaba@123

e. Follow these guidelines on EC2 - <http://www.wowza.com/resources/WowzaMediaServerForEC2_UsersGuide.pdf>

**Running Icecast ,ices, wowza**

* 1. Code repo
     1. /radio/scripts
     2. /radio/templates
  2. In config.php mention ices installation directory
  3. To create /stop/start channel run scripts in /radio/scripts
  4. Start icecast server
     1. Sudo <Icecast Installation Dir>/bin/icecast –b –c <icecast Installation Dir>/etc/icecast.conf.xml

Check <IP>:8000 if icecast has started.

Wowza has two Applications

Ondemand – Audio and Video

Live – radio

Start Wowza

Sudo /etc/init.d/WowzaStreamingEngine start

Check

<IP>:8088/streamingengine

Username: platform

Password: platformbaba@123

Follow the doc to add new stream for radio.

<http://www.wowza.com/forums/content.php?40-How-to-re-stream-audio-from-SHOUTcast-Icecast>

For On demand Audio/Video

Create new application, and specify the content directory

DAMS

1. yum install php-mbstring
2. yum install php-xml
3. Create media folder with following structure

Var/www/html/cms/media/songs/wav

Var/www/html/cms/media/temp/songs/wav