

GNU/Linux Administration - Support #427

Installing Zimbra Collaboration Server from Source on Ubuntu

07/29/2014 08:43 AM - Daniel Curtis

Status:	Suspended	Start date:	07/29/2014
Priority:	Normal	Due date:	
Assignee:	Daniel Curtis	% Done:	60%
Category:	Mail Server	Estimated time:	8.00 hours
Target version:		Spent time:	14.00 hours

Description

This guide is building the Zimbra Collaborative Suite 8.0.8 Open Source Edition on an Ubuntu 14.04 x64 virtual machine with 1GB of RAM.

Initial Setup

- Add the Zimbra user:

```
sudo mkdir /opt/zimbra
sudo adduser --home /opt/zimbra zimbra
sudo su - zimbra
```

- Install git:

```
apt-get install git
```

- Obtain the git ssh access keys:

```
mkdir -p /tmp/zimbra-git
cd /tmp/zimbra-git
wget http://files2.zimbra.com/downloads/git-fusion/zimbra-git-ssh.tgz
tar xzf zimbra-git-ssh.tgz
```

- Add the access keys to your own user account:

```
cd ~/.ssh
cp /tmp/zimbra-git/id_rsa_git* .
```

- Add the following ~/.ssh/config. Create the file if it doesn't exist:

```
Host zimbra-git
  User public
  Hostname git.zimbra.com
  IdentityFile ~/.ssh/id_rsa_git
  IdentitiesOnly yes
  Port 1067
```

- Ensure the permissions on the config file are correct

```
chmod 600 ~/.ssh/config
```

Obtaining the source to Zimbra Collaboration Suite

The source code for ZCS is retrieved from git.zimbra.com as described above.

- To obtain the source:

```
mkdir -p ~/git
cd ~/git
git clone git@zimbra-git:zimbra-foss
```

Source for the "main" branch

- main is the development branch.

The 'main' branch, (often referred to as mainline) contains the latest code - if your interested in seeing pre-release software check it out.

It is constantly in flux (for instance we might stagger spec files to avoid the need to always rebuild ThirdParty), if you're hitting a error in the Zimbra build side the first thing to do is re-sync, as we typically resolve these fast.

It is the default branch in use after doing a checkout of zimbra-foss

Listing available branches

- The zimbra-foss repo contains all the available release branches. You can obtain a list of the branches via:

```
git branch -a

*! main-foss
remotes/origin/HEAD -> origin/main-foss
remotes/origin/frank-foss
remotes/origin/franklin-5010-foss
remotes/origin/franklin-5011-foss
remotes/origin/franklin-5012-foss
remotes/origin/franklin-5013-foss
remotes/origin/franklin-5014-foss
remotes/origin/franklin-5015-foss
remotes/origin/franklin-5016-foss
remotes/origin/franklin-5017-foss
remotes/origin/franklin-5018-foss
remotes/origin/franklin-5019-foss
remotes/origin/franklin-5020-foss
```

The branch with a * in front of it is your active checkout.

Changing the active checkout

To change the active branch, you use the git checkout command, and supply the release you are interested in.

- For example, to switch to the IRONMAIDEN 8 release branch, one would execute:

```
cd ~/git/zimbra-foss
git checkout ironmaiden-foss
```

Updating an existing clone

- To update an already existing clone:

```
cd ~/git/zimbra-foss
git pull
```

Prepare the Build Environment

- Install some prerequisites and development packages:

```
sudo apt-get install build-essential autoconf libtool perl5.14 gettext automake cmake flex bis
on software-properties-common python-software-properties unzip zlib1g zlib1g-dev expat libexpa
t1-dev libpopt0 libpopt-dev libmysqlclient-dev libcurl4-openssl-dev libsasl2-2 libgssapi3-heim
dal libsasl2-modules-gssapi-heimdal libsasl2-dev libldap2-dev libpcre3 libpcre3-dev libltdl3-
dev libbz2-dev bzip2 libbz2-1.0 apache2-dev php5-dev postfix-dev libdspam7-dev libopendkim-dev
libncurses5-dev libidn11 curl fetchmail libgmp3-dev libxml2 libstdc++6 openssl libssl-dev lib
aio-dev liblwp-useragent-determined-perl
```

- Install a few more dependencies, to be safe:

```
sudo aptitude build-dep altermime amavisd-new apache2 aspell postfix-cluebringer libxml2 php5
openldap openssl rrdtool rsync sendmail snmp libtcmalloc-minimal4 zeromq mysql-server curl cla
mav cyrus-sasl2 postfix dspam opendkim
```

- Now install a few 32-bit compatibility packages, if running on a 64 bit system:

```
sudo apt-get install libc6:i386 libgcc1:i386 gcc-4.6-base:i386 libstdc++5:i386 libstdc++6:i386
libasound2:i386 libgtk2.0-0:i386 libxtst6:i386
```

Prepare JDK 7

- Download JDK 7u60 locally then upload the local copy to the Zimbra server:

```
scp -P 4440 ~/Downloads/jdk-7u60-linux-x64.tar.gz zimbra@zimbra.example.com:/opt/zimbra/
```

- Next, on the Zimbra server, add JDK 7u60 to the Zimbra build path:

```
cp ~/jdk-7u60-linux-x64.tar.gz ~/git/zimbra-foss/ThirdPartyBuilds/x86_64/java/jdk-1.7.0_60.tgz
sudo cp ~/jdk-7u60-linux-x64.tar.gz /usr/local/
sudo tar xzf /usr/local/jdk-1.7.0_60.tgz
```

- Now, download JCE 6 locally, then upload the local copy to the Zimbra server:

```
scp -P 4440 ~/Downloads/jce_policy-6.zip zimbra@zimbra.example.com:/opt/zimbra/
```

- Add JCE 6 policy to the JDK 7u60 build path:

```
cp jce_policy-6.zip ~/git/zimbra-foss/ThirdPartyBuilds/x86_64/java/
cd ~/git/zimbra-foss/ThirdPartyBuilds/x86_64/java/
unzip jce_policy-6.zip
```

Install Apache Ant

- Install apache ant:

```
cd /usr/local
sudo wget http://mirror.cogentco.com/pub/apache//ant/binaries/apache-ant-1.9.4-bin.tar.gz
sudo tar xzf apache-ant-1.9.4-bin.tar.gz
sudo ln -s /usr/local/apache-ant-1.9.4 /usr/local/ant
```

Add Java and ANT to the system environment:

- Make the following changes to the /etc/environment file:

```
sudo vi /etc/environment
```

```
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/java/bin:/usr/local/ant/bin"
```

Fix a few linked object problems:

- I needed to create a few symbolic links that Zimbra will be looking for:

```
sudo ln -s /lib/x86_64-linux-gnu/libncurses.so.5 /usr/lib/libncurses.so
sudo ln -s /lib/x86_64-linux-gnu/libz.so.1 /usr/lib/libz.so
sudo ln -s /usr/lib/x86_64-linux-gnu/libltdl.so /usr/lib/libltdl.so
sudo ln -s /lib/x86_64-linux-gnu/libpcre.so.3 /usr/lib/libpcre.so
sudo ln -s /lib/x86_64-linux-gnu/libexpat.so.1 /usr/lib/libexpat.so
sudo ln -s /lib/x86_64-linux-gnu/libpopt.so.0 /usr/lib/libpopt.so
sudo ln -s /usr/lib/libperl.so.5.14 /usr/lib/libperl.so
```

Building Zimbra Collaboration Server

To build Zimbra Collaboration Server, the "buildZCSH.sh" script can be used, that is located in the ZimbraBuild directory after the checkout completes.

- Since the server already has the various required binaries and libraries installed, run:

```
cd ~/git/zimbra-foss/ZimbraBuild
./buildZCS.sh -t
```

- I used the following CPAN repository, since I am not a fan of yahoo (the default):

<http://ftp.osuosl.org/pub/CPAN/>

Resources

- http://wiki.zimbra.com/wiki/Building_Zimbra_using_Git
- <http://www.oracle.com/technetwork/java/javase/archive-139210.html>

History

#1 - 07/29/2014 02:00 PM - Daniel Curtis

- Description updated

#2 - 07/29/2014 03:55 PM - Daniel Curtis

- Description updated

- % Done changed from 10 to 40

#3 - 07/29/2014 04:48 PM - Daniel Curtis

- Description updated

#4 - 07/29/2014 05:25 PM - Daniel Curtis

- File *jre-7u60-linux-x64.tar.gz* added

- Description updated

#5 - 07/30/2014 08:37 AM - Daniel Curtis

- File *jdk-7u60-linux-x64.tar.gz* added

- File *jce_policy-6.zip* added

- Description updated

#6 - 07/30/2014 08:53 AM - Daniel Curtis

- Description updated

#7 - 08/01/2014 09:49 AM - Daniel Curtis

- Description updated

- % Done changed from 40 to 60

#8 - 08/01/2014 10:31 AM - Daniel Curtis

- Description updated

#9 - 08/01/2014 02:24 PM - Daniel Curtis

- Description updated

#10 - 08/03/2014 09:31 AM - Daniel Curtis

- Description updated

#11 - 08/04/2014 08:18 AM - Daniel Curtis

- Description updated

#12 - 08/04/2014 08:33 AM - Daniel Curtis

- Description updated

#13 - 08/05/2014 01:40 PM - Daniel Curtis

- Description updated

~/git/zimbra-foss/ThirdPartyBuilds/x86_64/java

#14 - 08/05/2014 02:04 PM - Daniel Curtis

- Description updated

#15 - 08/05/2014 02:28 PM - Daniel Curtis

- Description updated

#16 - 08/05/2014 02:33 PM - Daniel Curtis

- Subject changed from *Installing Zimbra Collaboration Server from Source on Ubuntu* to *Installing Zimbra Collaboration Server from Source on Ubuntu 12.04*

- Description updated

#17 - 08/06/2014 09:00 AM - Daniel Curtis

- Description updated

#18 - 08/06/2014 09:41 AM - Daniel Curtis

- Description updated

#19 - 08/07/2014 04:14 PM - Daniel Curtis

- Subject changed from *Installing Zimbra Collaboration Server from Source on Ubuntu 12.04* to *Installing Zimbra Collaboration Server from Source on Ubuntu*

- Description updated

- Status changed from *New* to *In Progress*

#20 - 02/15/2015 09:02 PM - Daniel Curtis

- Project changed from *96* to *GNU/Linux Administration*

- Category set to *Mail Server*

#21 - 11/15/2015 02:56 PM - Daniel Curtis

- Status changed from *In Progress* to *Suspended*

Files

jre-7u60-linux-x64.tar.gz	44.8 MB	07/30/2014	Daniel Curtis
jdk-7u60-linux-x64.tar.gz	136 MB	07/30/2014	Daniel Curtis
jce_policy-6.zip	8.89 KB	07/30/2014	Daniel Curtis