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|  | **2014** |
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| **[Centos]** |
| Installation, Configuration and management of Centos |

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# Centos

## Installation

Ref: <http://www.if-not-true-then-false.com/2011/centos-6-netinstall-network-installation/>

Used: CentOS-6.5-i386-netinstall.iso

Next following URL (for downloading image): http://mirrors.sonic.net/centos/6.5/os/i386/  
and Proxy: <http://130.139.104.40:8080>

Settings during installation:

* hostname: centos.jboss

## User

During first boot, system asks for user.

Add user <user> to sudo-list.  
visudo command uses vi as the editor here some tips to use it:

* Switch to root, (su root), then run visudo, (as above).
* Find where it says “root ALL=(ALL) ALL”.
* Type “o” to insert a new line below it.
* Now type what you want to insert, eg “username ALL=(ALL) ALL”.
* Hit esc to exit insert-mode.
* Type “:x” to save and exit.

To edit, goto line and next use s to make changes.

Ref: <http://www.garron.me/en/linux/visudo-command-sudoers-file-sudo-default-editor.html>

# Installation of packages

## JDK

Open JDK 1.7 is installed (jre, no JDK)

1. Download JDK 32 but rpm from Oracle
2. sudo rpm –Uvh jdk …rpm  
   JDK installed to /usr/jdk1.7.0\_51
3. Next followed:   
   <http://d.stavrovski.net/blog/post/how-to-install-and-setup-oracle-java-jdk-in-centos-6>

## ANT

Downloaded ant 1.9.3 from site.

* sudo unzip jboss-as-7.1.1.Final.zip -d /usr/share

## Maven

Great manual. Install within 3 minutes.  
Check what latest maven version is (version is 3.2.1 on 18th of may 2014).  
<http://preilly.me/2013/05/10/how-to-install-maven-on-centos/>

## jBPM

Used the step from the installation instruction for JBoss 7.1.1.final installation  
ref: <http://opensourcearchitect.co/tutorials/installing-jboss-7-1-on-centos-6>

* sudo unzip jboss-as-7.1.1.Final.zip -d /usr/share
* sudo adduser jbpm
* sudo chown -fR jboss.jboss /usr/share/jbpm-installer
* sudo su jbpm
* cd /usr/share/ jbpm-installer

Password for jbpm is: DSS\_MCX  
  
Later set password

* login as root
* $ passwd <user>
* enter new password

Added jbpm to list of sudoers (how described earlier)

# Where & What in Linux Filesystem

Ref: <http://tldp.org/LDP/Linux-Filesystem-Hierarchy/html/index.html>

|  |  |
| --- | --- |
| where | what |
| /etc/<name.conf> | Configuration files |
| /etc/init.d/<name.conf> | Application specific configuration file. |
| /usr/include | (Header) Files, managed by yum, rpm. Affected by upgrades, etc.  Source: <http://stackoverflow.com/questions/1217943/where-are-include-files-stored-ubuntu-linux-gcc> |
| /usr/lib | This directory contains program libraries. Libraries are collections of frequently used program routines. Source: ref. |
| /usr/local/include | Header files from local complication or 3rd parties (vague) installed by sys admin. Outside yum/rpm/deb control. |
| /usr/local/lib | Libraries from local complication or 3rd parties (vague) installed by sys admin.  Outside yum/rpm/deb control. |
| /var/run | Process pid’s |
| /var/log/<name.log> | App logs |
| /var/log/<name1>/<name2.log> | App log directory with log directories |
| /var/lock/subsys/<name> | Lock |

# Centos Firewall

The centos can be configures using

* ip-tables
* system-config-firewall-tui tool if you have not an X server
* system-config-firewall, which is the GUI tool
  + To install  
    $ sudo yum install system-config-firewall
  + Next available under  
    System -> Administration

# Centos Background info

## SysVServices

 SysVServices  
<http://www.linuxvoodoo.com/resources/howtos/sysvinit>

# Running App as a service

Linux provides the following services to support this

* init.d (or initd)
* Systemd   
  (first process executed in user space. It is the root of the user space tree). Was developed to replace the init system.  
  <http://en.wikipedia.org/wiki/Systemd>

When an app needs to be run as a service, nohup, setid and screen and useful “helpers”: <http://go2linux.garron.me/linux/2010/12/setsid-how-execute-commands-after-you-exit-shell-prompt-866>   
Background reading:  
<http://stackoverflow.com/questions/958249/whats-the-difference-between-nohup-and-a-daemon>

# Centos Services

Process dumps  
<https://github.com/abrt/abrt/wiki/ABRT-Project>

Monit start/ stopprocesses  
<http://mmonit.com/monit/>

Munin: network monitoring  
<http://munin-monitoring.org/>

HTOP process management  
<http://www.tecmint.com/install-htop-linux-process-monitoring-for-rhel-centos-fedora/>

HAProxy  
<http://haproxy.1wt.eu/>

System monitoring tools  
<https://mail.google.com/mail/u/0/#inbox/146063a734956877>

# Centos logging

## Rsyslogd

/etc/rsyslog.conf  
/etc/rsyslog.d/\*.conf, directory with app specific settings.  
rsyslog read the files in alphabetical order.

Examples of app specific rsyslogd rules.  
<http://wiki.rsyslog.com/index.php/Configuration_Samples>

Rules can use variables (called filters in):  
<http://askubuntu.com/questions/186592/how-do-i-configure-rsyslog-to-send-logs-from-a-specific-program-to-a-remote-sysl>

## Misc

/vat/log/boot.log contains info on latest boot

Centos 5  
<http://www.centos.org/docs/5/html/Deployment_Guide-en-US/ch-logfiles.html>

deamon: **syslogd**Current popular version is rsyslogd

**Linux logfiles (which many listed)**<https://help.ubuntu.com/community/LinuxLogFiles>

Java integration: Log4j & Logback have a SysLogAppender (UDP)  
<http://logging.apache.org/log4j/1.2/>

Rsyslogd support RELP: <http://www.rsyslog.com/doc/relp.html>   
There is a java implementation: <https://github.com/h0nIg/graylog2-input-relp>  
But I have not seen any integration into logging frameworks.

# Adding remote repository to YUM

Ref: <http://www.tecmint.com/install-google-chrome-on-redhat-centos-fedora-linux/>   
describes adding google repo.

Note: Jenkins adds repo entry this apart of the installation.