



# Get Me Started!

## Setting up a development setup

November 1, 2011

Doron Fediuck

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- Developer tools
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- Start running!
- Resources

# Checklist

- Internet access
  - (Or internal distro repo and Maven2 repo)
  - Used to install needed packages and fetch Maven artifacts
- Git knowledge
- OpenID account (needed for next step).
- Gerrit user
  - If you wish to submit patches or help reviewing submitted patches.
- Lots of good will
  - **Where there's a will, there's a [way!](#)**

# Linux Distro

## → Tested Distro's

- RHEL 6x

- Fedora 14, 15

## • Rumored distro's

- Gentoo

- Fully functional Backend, UI and API.

 All other distro's

 Patches and wiki's are welcomed!

## DB: PostgreSQL

- Current developers use version  $\geq 8.4.7-2$ 
  - Versions  $< 8.4.7-2$  require applying patches to fix row addition / deletion bug.
    - Versions  $\geq 9.x$  requires the relevant JDBC driver.
- MySQL / Oracle / etc...
  - Untested and unsupported.
- Install with *yum install -y postgresql-server postgresql-contrib pgadmin3*
- Edit */var/lib/pgsql/data/pg\_hba.conf* to use 'trust'
  - **Note** this is for localhost, for external connection edit *postgres.conf*
- Restart postgres service.

# Java




- ☉ Current version is 1.6.0\_X
  - ☉ Minimal for Sun is u22.
- ☉ Install using *yum install [your jdk selection]*
- ☉ If you have slotted (side-by-side) installation use alternatives to set the relevant JDK.
  - ☉ *Alternatives --display javac*
  - ☉ *Alternatives --set javac*

# JBoss





- JBoss version Engine uses is 5.1.
  - Fetch using *wget*  
<http://sourceforge.net/projects/jboss/files/JBoss/JBoss-5.1.0.GA/jboss-5.1.0.GA-jdk6.zip/download>
  - *unzip jboss-5.1.0.GA-jdk6.zip*
  - *mv jboss-5.1.0.GA /usr/local/jboss-5.1.0.GA*
  - Folder should be owned by the developer user, so you'll be able to deploy build products into JBoss.
- Test that JBoss is working
  - Run */usr/local/jboss-5.1.0.GA/bin/run.sh*



- Troubleshooting... when you're being attacked by exceptions, follow this list;
  - Verify folder owner.... 
  - Since JBoss binds to the hostname, your hostname should be resolvable, or you may add it to /etc/hosts for local resolution.
    - `127.0.0.1 localhost engine-dev`
- Used TCP ports: 8080/8443/8083/1090/4457/...
  - May be used by other applications. Either close other application or change JBoss configuration (check /usr/local/jboss-5.1.0.GA/server/default/deploy/jbossweb.sar/server.xml)



# Developer tools

- Git
  - Install git, git-email and gitk.
- Patience   
  - Upgrade to V2.0 (fix kernel-panic when waitfor > 30 sec's || cat same\_question\_again > `whoami`...)
    - Will make you a better developer!
- Eclipse
  - Use *yum install eclipse-platform* or download from site.

# Developer tools



- Maven
  - Current version in use is 2.2.1
  - You can install the fc14 rpm
  - Alternatively, you may download a tarball
    - `wget`  
<http://www.alliedquotes.com/mirrors/apache//maven/binaries/apache-maven-2.2.1-bin.tar.bz2>
    - `tar -xvjf apache-maven-2.2.1-bin.tar.bz2`
    - `mv apache-maven-2.2.1 /usr/local/apache-maven-2.2.1`
    - Add to path
  - Add a profile (next slide).

# Developer tools

- (continued) Add a ~/.m2/settings.xml file:

```
<?xml version="1.0"?>
```

```
<settings xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
  http://maven.apache.org/xsd/settings-1.0.0.xsd">
```

```
<!--***** PROFILES *****->
```

```
<activeProfiles>
```

```
<activeProfile>ovirtEnvSettings</activeProfile>
```

```
</activeProfiles>
```

```
<profiles>
```

```
<profile>
```

```
<id>ovirtEnvSettings</id>
```

```
<properties>
```

```
<jbossHome>/usr/local/jboss-5.1.0.GA</jbossHome>
```

```
<JAVA_1_6_HOME>/usr/lib/jvm/sun-jdk-1.6</JAVA_1_6_HOME>
```

```
</properties>
```

```
</profile>
```

```
</profiles>
```

```
</settings>
```

# Sources




- Get the sources using
  - `git clone git://gerrit.ovirt.org/ovirt-engine`
- In order to submit patches you need to setup your gerrit account.
  - Please follow:  
[http://www.ovirt.org/wiki/Working\\_with\\_oVirt\\_Gerrit](http://www.ovirt.org/wiki/Working_with_oVirt_Gerrit)

The screenshot shows the Gerrit web interface. At the top, there is a navigation bar with links for 'All', 'My', 'Admin', and 'Documentation'. The user 'Doron Fediuck <dfediuck@redhat.com>' is logged in, with links for 'Settings' and 'Sign Out'. Below the navigation bar, there is a search bar containing 'status:open' and a 'Search' button. The search results are displayed in a table with columns for 'ID', 'Subject', 'Owner', 'Project', 'Branch', 'Updated', 'V', and 'R'. The table contains three rows of patch information.

ID	Subject	Owner	Project	Branch	Updated	V	R
<a href="#">I6b397b17</a>	engine-core: Fix Unit Tests in Engine-Config	<a href="#">Muli Salem</a>	<a href="#">ovirt-engine</a>	<a href="#">master</a>	6:05 PM		
<a href="#">I4d6ee63a</a>	engine-core: RhevConfig Unit Tests	<a href="#">Muli Salem</a>	<a href="#">ovirt-engine</a>	<a href="#">master</a>	1:59 PM		
<a href="#">If5d8ab15</a>	packaging: add the Makefile and spec for ovirt-engine	<a href="#">Ronen Angluster</a>	<a href="#">ovirt-engine</a>	<a href="#">master</a>	2:13 AM		-1

Press '?' to view keyboard shortcuts  
Powered by [Gerrit Code Review \(2.2.1\)](#) | [Report Bug](#)

# Building

- CD to the sources you got in previous step 
- Setup jdbc driver setting by running: `cd ear && mvn clean install -P setup_postgres -D skipTests ; cd -`
- Create a DB instance running:  
`backend/manager/dbscripts_postgres/create_db_devel.sh`
- Build Backend and Frontend using: `mvn clean install -P gwt-user,gwt-admin,dep -D skipTests`

# Run Forest, Run!

- Admire your work by running JBoss
  - `/usr/local/jboss-5.1.0.GA/bin/run.sh -b 0.0.0.0`
- We have a default internal user setup. So logging in is done with user `admin@internal` and password is `letmein!`
- Open Firefox, and browse to <http://localhost:8080/webadmin>
- RESTful API may be tested by browsing <http://localhost:8080/api>

# Run Forest, Run!

- Advanced
  - Need to create a bridge called “engine”.
  - Installing VDSM (use RPM)- not now.
  - Use API to add a host:
    - `curl -v -u 'admin@internal:letmein!' -H "Content-type: application/xml" -d '<host>  
<name>sample-host</name>  
<address>{host's IP}</address>  
<cluster name="Default"/>  
<root_password>letmein!</root_password>  
</host>' http://localhost:8080/api/hosts`

# Resources

- Devel setup wiki
  - [http://www.ovirt.org/wiki/Building\\_Ovirt\\_Engine](http://www.ovirt.org/wiki/Building_Ovirt_Engine)
- Gerrit wiki
  - [http://www.ovirt.org/wiki/Working\\_with\\_oVirt\\_Gerrit](http://www.ovirt.org/wiki/Working_with_oVirt_Gerrit)



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**THANK YOU !**

<http://www.ovirt.org>



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## JBoss



- Troubleshooting... when you're being attacked by exceptions, follow this list;
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  - Since JBoss binds to the hostname, your hostname should be resolvable, or you may add it to /etc/hosts for local resolution.
    - `127.0.0.1 localhost engine-dev`
- Used TCP ports: 8080/8443/8083/1090/4457/...
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All	My	Admin	Documentation	Doron Fediuck <dfediuck@redhat.com>   <a href="#">Settings</a>   <a href="#">Sign Out</a>			
<a href="#">Changes</a>	<a href="#">Drafts</a>	<a href="#">Watched Changes</a>	<a href="#">Starred Changes</a>	status:open	<input type="text" value="Search"/>		
Search for status:open							
ID	Subject	Owner	Project	Branch	Updated	V	R
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