System Requirements

* OS: CentOS >=6.3 64-bit (due to PHP bug)
* Ram: 2Gb
* Swap: 4Gb

Required Software Repositories

* EPEL
* REMI (to get the lastest version of PHP and other software)

Installed Software Requirements

* LAMP

Hostname Configurations

* /etc/sysconfig/network

* /etc/hosts

Network Configurations

* IP address
* DNS
* Default Gateway

OBM INSTALLATION

Step 1 (optional). Change SSH port on your system:
```
# vim /etc/ssh/sshd_config
Port 8022
# service sshd restart
# lsof -i :8022
```

Step 2 (optional). Enable Firewall on your system
Step 2.1. Add the following rules to /etc/sysconfig/iptables file:
```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8022 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8081 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 80 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 443 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8443 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 10000 -j ACCEPT
```

Step 2.2. Restart iptables service:
```
# service iptables restart
```

Step 3. Verify that sendmail/postfix is not installed on your system:

```
# rpm -qa | grep sendmail

# rpm -qa | grep postfix
```

NOTE:
if sendmail/postfix is installed, remove it from your system:

```
# yum remove sendmail

# rpm -qa | grep sendmail
```

or:

```
# yum remove postfix

# rpm -qa | grep postfix
```

Step 4. Enable required software repositories on your system:
Step 4.1. Install EPEL repo:
rpm -Uvh http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm

or:
rpm -Uvh http://mirror-fpt-telecom.fpt.net/fedora/epel/6/x86_64/epel-release-6-8.noarch.rpm

Step 4.2. Install Remi repo:
rpm -Uvh http://rpms.famillecollet.com/enterprise/remi-release-6.rpm

Step 5. Install LAMP
Step 5.1. Install MySQL:
```
# yum --enablerepo=remi install mysql mysql-server
# rpm -qa | grep mysql
# chkconfig --levels 235 mysqld on
# service mysqld start
# mysql_secure_installation
# mysql -u root -p
```

Step 5.2. Install Apache
```
# yum install httpd
# rpm -qa | grep httpd
# service httpd start
```

Step 5.3. Install PHP5
```
# yum --enablerepo=remi install php
# rpm -qa | grep php
# service httpd restart
# vim /var/www/html/info.php
<?php
phpinfo();
?>
```
access to: http://<your-server-ip>/info.php
```
# yum --enablerepo=remi install php-mysql php-gd php-imap php-ldap
php-mbstring php-odbc php-pear php-xml php-xmlrpc
# rpm -qa | grep php
# service httpd restart
```

Step 6. Verify that hostname is configured correctly:
```
# cat /etc/sysconfig/network
```
HOSTNAME=<your-FQDN>
Eg:
HOSTNAME=mailobm.openroad.vn

```
# cat /etc/hosts
```
<your-server-ip-address> <your-FQDN>   <your-short-hostname>
Eg:
A.B.C.D mailobm.openroad.vn   mailobm

Step 7. JVM Installation and Configuration
Step 7.1. Download Oracle JVM RPM to your workstation (due to Oracle's license agreement):
```
# wget http://download.oracle.com/otn-pub/java/jdk/6u35-b10/jdk-6u35-linux-x64-rpm.bin
```

Step 7.2. Install OpenJDK (to have the java alternatives preconfigured properly for jre and java_sdk):
```
# yum install java-1.6.0-openjdk-devel
```

Step 7.3. Install Oracle JVM RPM:
```
# yum install openssh-clients
# mkdir -p /root/java-rpm
# cd /root/java-rpm
```

On your workstation:
```
$ scp <path-to-jdk-6u35-linux-x64-rpm.bin-file> root@:/root/java-rpm
```

On your server:
```
# sh jdk-6u35-linux-x64-rpm.bin
```

Step 7.4. Alternatives Configuration:
```
# alternatives --install /usr/bin/java java /usr/java/latest/jre/bin/java
20000
# alternatives --install /usr/bin/javaws javaws
/usr/java/latest/jre/bin/javaws 20000
# alternatives --install /usr/bin/javac javac /usr/java/latest/bin/javac
20000
# alternatives --install /usr/lib/jvm/java java_sdk /usr/java/latest/ 20000
# alternatives --install /usr/lib/jvm/jre jre /usr/java/latest/jre/ 20000
```

Step 7.5. Try to check the java version:
```
# java -version
```

Step 8. Database Management System
Step 8.1. Install OBM repository:
rpm -Uvh http://packages.obm.org/rpm/25/release/obm-release.noarch.rpm

NOTE:
Intalll the OBM 2.5.x version with updated OBM repository (http://packages.obm.org/rpm/25/)

Step 8.2. OBM Installation with MySQL:
```
# yum install --enablerepo=remi obm-MySQL
```

NOTE:
Install obm-MySQL package with remi repo to solve some problems related to "php-common"
package.

Step 8.3. Install city-fan repository:
rpm -Uvh http://www.city-fan.org/ftp/contrib/yum-repo/city-fan.org-release-1-12.rhel6.noarch.rpm

Step 8.4. Update libcurl package:
```
# yum update libcurl –enablerepo=city-fan.org
# rpm -qa | grep libcurl
# rpm -qa | grep curl
```

Step 8.5. Install obm-full package:
```
# yum install obm-full
```

Step 9. Disable SELinux:
vim /etc/sysconfig/selinux

Change the line "SELINUX=enforcing" to "SELINUX=disabled".

Save the file and exit.

Step 10 (optional). Disable IPv6:
```
# cp /etc/sysctl.conf /etc/sysctl.conf.bak
# echo "net.ipv6.conf.all.disable_ipv6 = 1" >> /etc/sysctl.conf
# cat /etc/sysctl.conf | grep ipv6
```

Step 11. Reboot your server:
reboot

Step 12. Change Apache's default ports:
vim /etc/httpd/conf/httpd.conf
Change the line "Listen 80" to "Listen <your-new-http-listen-port>"
Eg:
Listen 8081

vim /etc/httpd/conf.d/ssl.conf
Change the line "Listen 443" to "Listen <your-new-http-listen-port>"
Eg:
Listen 8443

Step 13. Setup OBM Apache's default ports:
```
# vim /etc/httpd/conf.d/obm.conf
```
Add the following line to the file:
Listen *:<your-obm-apache-listen-port>

Eg:
```
Listen *:80
```

Change the line "NameVirtualHost *:443" to "NameVirtualHost *:<your-obm-apache-ssl-port"
Eg:
```
NameVirtualHost *:80
```

Change the line "<VirtualHost *:443>" to <VirtualHost *:<your-obm-apache-ssl-port>
Eg:
```
<VirtualHost *:80>
```

NOTE:
I do not use SSL for OBM Apache. You can configure SSL for OBM Apachee to suite your need.

Step 14. Start Apache service:
```
# service httpd start
# chkconfig --levels 235 httpd on
```

Step 15. Check the listening ports used for Apache and OBM Apache:
```
# lsof -i :8081
# lsof -i :8443
# lsof -i :80
```

Step 16 (Optional). Install phpMyAdmin:
```
# yum --enablerepo=remi install phpmyadmin

# rpm -qa | grep phpMyAdmin

# vim /etc/httpd/conf.d/phpMyAdmin.conf
<Directory /usr/share/phpMyAdmin/>
   <IfModule mod_authz_core.c>
     # Apache 2.4
     Require local
   </IfModule>
   <IfModule !mod_authz_core.c>
     # Apache 2.2
     #Order Deny,Allow
     #Deny from All
     #Allow from 127.0.0.1
     #Allow from ::1
   </IfModule>
</Directory>

# vim /usr/share/phpMyAdmin/config.sample.inc.php
```
$cfg['Servers'][$i]['auth_type'] = 'cookie';
->
$cfg['Servers'][$i]['auth_type'] = 'http';

```
# service httpd restart
```

Access to: http://<your-server-ip>:8081/phpmyadmin

Step 17. Initiate your own OBM database:
db name: obm
db user: obm
db user's password: iWay$123456 (wrong password) -> reset the password!

Step 18. OBM Configuration:
obm-admin
================= OBM main configuration ==================

o Please enter external url (IP): mailobm.openroad.vn
o Plese enter LDAP server name : 127.0.0.1
o Enable module LDAP, (y)es (n)o : y
o Enable module MAIL, (y)es (n)o : y
o Enable module SAMBA, (y)es (n)o : n
o Enable module WEB, (y)es (n)o : n

=============== OBM DataBase configuration ===============

o Please enter the DataBase hostname: localhost

o Please enter the DataBase type (MYSQL/PGSQL): MYSQL
o Enter the DataBase name: obmtesting
o Enter the DataBase user: root
o Enter the DataBase user password:

====================== End of file ======================

=============== OBM-CORE main configuration ===============
Set document_root (OBM) setting
Set default_pat

=============== OBM-CORE DONE ===============
================= OBM MySQL configuration =================

Do you have a root password for mysql: y(es),n(o) [n]y
Do you want modify root password: y(es),n(o) [n]n
Enter MySQL root Password :
Installing OBM DB
Fix permission to Mysql
*** Parameters used
database type = mysql
database = obmtesting
database user = root
database password = Centos
install lang = fr
PHP interpreter found: /usr/bin/php -d include_path=.:/usr/share/obm/scripts/2.5/../..
*** Document repository creation
*** Database creation
  Delete old database if exists
  Create new obmtesting database
  Create new obmtesting database model

*** Database filling
  Dictionnary data insertion
  Company Naf Code data insertion
  Default preferences data insertion
DONE.

================ End of OBM MySQL configuration ================

================ OBM system user configuration ================

o Enter the root ldap password [mdp3PaAl]
================ OBM system user configuration ================

o Enter the root ldap password [mdp3PaAl]

o Enter the cyrus administrator password [cyrus]

o Enter the Samba user password [m#Pa!NtA]

o Do you want to add a LDAP syncrepl user? (y)es,(n)o [n]

default(no)
Inserting system users into the database...

================ End of OBM system user configuration =================

============== OBM cert configuration ================

Generate Certificate for this host (obm.test.com.vn)
Generating a 2048 bit RSA private key
...................................+++
....+++
writing new private key to '/etc/obm/certs/obm.test.com.vn_pk.pem'

Using configuration from /var/lib/obm-ca/ca_nocn.cnf
Check that the request matches the signature
Signature ok
The Subject's Distinguished Name is as follows
countryName   :PRINTABLE:'FR'
stateOrProvinceName   :PRINTABLE:'France'
organizationName   :PRINTABLE:'Groupe LINAGORA'
organizationalUnitName:PRINTABLE:'Aliasource'
commonName   :PRINTABLE:'obm.test.com.vn'
Certificate is to be certified until Aug 5 11:45:54 2023 GMT (3650 days)

Write out database with 1 new entries
Data Base Updated
============ End of OBM cert configuration ============

================ OBM UI configuration =================

Choose the type of authentication: (database/ldap) [database] default(ldap)
The /etc/httpd/conf.d/obm.conf file already exists
Do you want to replace it? (y)es,(n)o ?y
Activation of the Tomcat proxy
what is the IP adress of the OBM-TOMCAT server (obm-sync, funambol) ?localhost
Activation of the opush proxy
what is the IP adress of the OPUSH server ?localhost
Stopping httpd: [FAILED]
Starting httpd: [OK]

================ End of OBM UI configuration =================

================ OBM LDAP configuration =================

The slapd.conf file already exists

Do you want to replace it? (y)es, (n)o [n] y
o Do you want to activate syncrepl for this LDAP? (y)es, (n)o: [n] n
o Do you want to activate SSL/TLS in LDAP ? (y)es,(n)o [n] n
Shutting down system logger: [OK]
Starting system logger: [OK]
Starting slapd: [OK]

================ End of OBM LDAP configuration =================

Execution du script /usr/bin/obm-sync
publish /etc/obm-tomcat/applis/obm-sync.xml into OBM tomcat server...
publish /etc/obm-tomcat/applis/solr.xml into OBM tomcat server...
Waiting for OBM Tomcat shutdown....
Using CATALINA_BASE: /usr/share/tomcat
Using CATALINA_HOME: /usr/share/tomcat
Using CATALINA_TMPDIR: /usr/share/tomcat/temp
Using JRE_HOME: /usr/lib/jvm/java

================ OBM Cyrus configuration =================

o Do you want replace configuration ? (y)es,(n)o y
Importing cyrus-imapd databases: [OK]
Starting cyrus-imapd: [OK]
Starting saslauthd: [OK]

================ End of OBM Cyrus configuration =================

================ OBM postfix configuration =================

file /etc/postfix/main.cf already exist
do you want replace this file? (y)es,(n)o ? [n] y
o Please enter your relay host if you have it

o Please enter your 'mynetwork' (default empty)

create initital postfix maps
Starting postfix: [FAILED]

================ End of OBM postfix configuration =================

Starting obm-Satellite : done.

===================== End Config obm-satellite =====================

Step 19. Restarting Jetty:
```
# service jetty6 restart
```

Step 20. Verify that OBM's services are running:
```
# service cyrus-imapd status
# service obm-tomcat status
# service jetty6 status
# service obm-satellite status
# service mysqld status
# service saslauthd status
# service slapd status
```

Step 21. Activating OBM's services on boot:
```
# chkconfig --levels 235 cyrus-imapd on
# chkconfig --levels 235 obm-tomcat on
# chkconfig --levels 235 jetty6 on
# chkconfig --levels 235 obm-satellite on
# chkconfig --levels 235 mysqld on
# chkconfig --levels 235 saslauthd on
# chkconfig --levels 235 slapd on
```

Step 22. Checking your setup:
Check that the URL (hostname FQDN) is the same in all the following files at the end of the install.
```
# cat /etc/hosts | grep <your-server-hostname>
# cat /etc/sysconfig/network | grep <your-server-hostname>
# cat /etc/httpd/conf.d/obm.conf | grep <your-server-hostname>
# cat /etc/obm/obm_conf.ini | grep <your-server-hostname>
```

Step 23. Restarting Jetty:
```
# service jetty6 restart
# service jetty6 status
```

NOTE:
Your installation is done, take a quick look at the following web page:
http://obm.org/wiki/getting-started

ROUNDCUBE INSTALLATION

Step 1. Get roundcube (0.8.7) from sourceforge:

mkdir -p /root/obm/packages

cd /root/obm/packages/

wget http://sourceforge.net/projects/roundcubemail/files/roundcubemail/0.8.7/roundcubemail-0.8.7.tar.gz/download

Step 2. Untar the roundcube source code:

tar zxvf roundcubemail-0.8.7.tar.gz

Step 3. Backup the folder "webmail" of OBM:

cd /usr/share/obm/php

mv webmail/ webmail-old

Step 4. Change name of roundcube directory and copy it to OBM's working directory:

mv roundcubemail-0.8.7 webmail

cp -R webmail/ /usr/share/obm/php/

ls -l /usr/share/obm/php/ | grep webmail

Step 5. Configure Apache to allow Roundcube installation
Step 5.1. Edit the the "obm.conf" file:

vim /etc/httpd/conf.d/obm.conf

Add the following lines to the "obm.conf" file:

...

<Location /webmail>

   Order allow,deny

   Allow from all

   DirectoryIndex index.php

</Location>

</VirtualHost>

...

Save the file and exit.

Step 5.2. Restart apache:

service httpd restart

Step 6. Chown the directory "webmail":

cd /usr/share/obm/php/

chown -R apache.apache webmail

ls -l | grep webmail

service httpd restart

Step 7. Make sure that the following directories (and the files within) are writeable by the web server user:

cd /usr/share/obm/php/webmail/

ls -l

drwxr-xr-x 2 apache apache 4096 Oct 30 15:11 logs

drwxr-xr-x 2 apache apache 4096 Oct 30 15:11 temp

Step 8. Roundcube Database Configuration:

Step 8.1. Create a new database:

```
# CREATE DATABASE <your-db-name>;
```

Eg:

```
# CREATE DATABASE roundcubemail;
```

Step 8.2. Setup PRIVILEGES on your database:

```
# GRANT ALL PRIVILEGES ON <your-db-name>.* TO <your-db-
user>@localhost IDENTIFIED BY 'password';
```

Eg:
```
# GRANT ALL PRIVILEGES ON roundcubemail.* TO roundcubemail@localhost
IDENTIFIED BY '****';
```

NOTE:
You can setup database for Roundcube using phpMyAdmin.

Step 9. Set PHP default timezone:
# vim /etc/php.ini
date.timezone = "Asia/Bangkok"

Save the file and exit.

service httpd restart

NOTE:
If "date.timezone: NOT OK", add an .ini file to /etc/php.d folder and set the directives you want:
vim /etc/php.d/timezone.ini
;Set the default timezone used by the date functions
date.timezone = "Asia/Bangkok"

service httpd restart

Step 10. Point your browser to the url below to start the install wizard:
http://<your-server-ip>/webmail/installer/

Step 11. Access Webmail on OBM