



AGNITAS OpenEMM Setup Guide for OpenEMM 6.2 Virtual Machine

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This document is a guidance through the administration process of OpenEMM on a virtual machine (VMX). It requires a basic knowledge of Linux System administration and (in case you need it) of Domain Name Services (DNS). The command-line examples are based on Red Hat Linux.

How to use this document

Below you will find a short description/overview of OpenEMM, the first professional e-mail marketing solution released as an Open Source. Following the description, this document will guide you through some necessary steps, which are needed to run OpenEMM smoothly.

Technical Overview of OpenEMM

OpenEMM is feature-rich enterprise software for e-mail marketing and mainly written in Java and Python. OpenEMM employs leading edge Java frameworks like Hibernate, Spring and Struts. Some performance-sensitive code is written in C. OpenEMM runs on top of a well proven Open Source software stack: Linux, MySQL, Sendmail and the web container like Resin (included in OpenEMM RPM and tarball).

Requirements

- VMware Player available at <http://www.vmware.com/products/player/>
- At least 2 GByte of free storage on your hard drive
- Network Environment, running a DHCP service



1 How to run OpenEMM VMX

1.1 Installation of VMware Player

You will find the most current version (3.0 at the creation of this document) of VMware Player at

<http://www.vmware.com/products/player/>

Follow the instructions on the website to install VMware Player.

1.2 How to start the OpenEMM Virtual Machine

Create the VMX zip file with

```
cat OpenEMM-6.2-VMX.part* >> OpenEMM-6.2-VMX.zip (Linux)
```

or

```
type OpenEMM-6.2-VMX.part* >> OpenEMM-6.2-VMX.zip (Windows)
```

Unpack the OpenEMM-6.2-VMX.zip file in a dedicated directory. For example into C:\OpenEMM-6.2-VMX. Open a file browser and double click the configuration file

```
OpenEMM-6.2.vmx
```

to start the VMware Player. If VMware Player asks you at the first start whether you moved or copied the VMX version of OpenEMM choose the default answer "I copied it". Press the *Power On* button to start the Virtual Machine.

1.3 Login the OpenEMM Virtual Machine

After the OpenEMM VMware appliance was started, log in as Superuser root:

```
Username:    root
```

```
Password:   openemm
```

You require this login for a couple of configuration changes, which are described below.

1.4 Find out your IP-Address

After the start of the OpenEMM virtual machine, you can find out its IP-Address by logging into the virtual machine and run the following command:

```
ipconfig (Windows)
```

or

```
ifconfig (Linux)
```

This will result in an output like:

```
eth0  Link encap:Ethernet HWaddr 00:0C:29:5D:35:A9  
  
        inet addr:172.16.13.82 Bcast:172.16.255.255 Mask:255.255.0.0
```

The IP address used by the OpenEMM virtual machine is: 172.16.13.82. Write down that address, since you need it to connect to OpenEMM in Step 4.

2 Domain Name Service (DNS) Configuration

(Important: If you simply want to test OpenEMM, you can basically ignore the following section. In that case, OpenEMM can not receive e-mails, bounces or resolve redirection links over the network. If you need those features, please consult your local system administrator for the setup.)

2.1 Redirect services

Basically, OpenEMM runs out of the box. It just requires a simple FQDN (Fully Qualified Domain Name), which is usually already mapped to an available IP-address by your ISP. You can use that FQDN for the redirection services, provided by OpenEMM. Example: Your machines hostname is

```
www.somecompany.com
```

In that case simply add that FQDN, as shown in the section 'Initialize the MySQL Database' below. It would look like

```
http://www.somecompany.com:8080
```

since the redirection services of OpenEMM usually uses port 8080. If you use port 8080, do not forget to include it in external links pointing to OpenEMM (like subscribe links in forms on your website). Hint: You can map that port to another port - see Appendix for further details.



2.2 Bounce management

What is the bounce management?

The bounce management provides you with the capability to keep your mailinglists clean and up-to-date automatically. A bounce message is an error message, which will be sent from a mailserver of the recipient to the sender automatically, if an E-Mail is not deliverable. The bounce management governs the enduring and passing E-Mails which are undeliverable. It also filters the error messages and autoresponder mails.

Setting up the bounce management of OpenEMM is not necessary, since bounce management for bounces received during the send process (instant bounces) works out of the box. But if OpenEMM should even process bounces (and autoresponder mails) which are received hours or even days later (which is quite often the case) you have to do some setup.

Setting up bounce management for delayed bounces

If you want to use the bounce management for delayed bounces you need to define a dedicated sender hostname for OpenEMM which is different from the existing host name of the server and you have to set up a A record and a MX (Mail Exchanger) record in your Domain Name Server (DNS) for the sender hostname. The MX record is used to route mail for a domain to one or more IP addresses. Sendmail needs the new (virtual) host as a destination, to forward all incoming response to, for further processing by OpenEMM.

In our example the regular hostname is 'host' and the sender hostname for OpenEMM will be 'news'.

The (abbreviated) DNS entry looks like this:

```
---Domain: openemm.org---
                                86400  IN    A      0      83.220.154.85
host                            86400  IN    A      10     83.220.154.85
news                            86400  IN    A      10     83.220.154.85
news.openemm.org.             86400  IN    MX     10     host.openemm.org.
---Domain: openemm.org---
```

The first line assigns the IP address for openemm.org and the second line defines the regular hostname. The third and fourth line define the A record and the MX record for sender hostname 'news', meaning that host 'host' accepts e-mails sent to host 'news'.



Validate your correct setup by using a tool like 'host' or 'dig', for example

```
host -a openemm.org
```

```
host -a host.openemm.org
```

```
host -a news.openemm.org
```

When you send e-mails and want to take advantage of the bounce management for delayed bounces there are two possibilities for the format of the sender address:

A.) Use whatever address you like. Set up a bounce filter in OpenEMM (see user manual) to forward the filtered response to a feedback e-mail address of your choice (different from the sender address, of course). Implement a forward mechanism to forward incoming mail sent back to the sender address to the forward address generated by the bounce filter (in our example ext_1@news.openemm.org). The flow for responses of your e-mails works like this:

sender address -> filter-generated forward address (to filter out bounces) -> feedback address

B.) Use an e-mail address with the sender hostname (in our example news@news.openemm.org) Since no real e-mail addresses exist for the sender hostname, normally it would not be possible to reply to an e-mail with this sender address. To forward responses to a valid e-mail address you have to define a bounce filter with an e-mail feedback address of your choice. The forward address generated by the bounce filter (in our example ext_1@news.openemm.org) has to be defined as an alias in directory /home/openemm/conf/bav in a new file named bav.conf-local. Our example:

```
---File: /home/openemm/conf/bav/bav.conf-local---
```

```
news@news.openemm.org alias:ext_1@news.openemm.org
```

```
---File: /home/openemm/conf/bav/bav.conf-local ---
```

The flow for responses of your e-mails works like this:

sender address -> bav.conf-local -> filter-generated forward address -> feedback address



3 Configuration Changes - Sendmail

(run as superuser)

To use the bounce management system of OpenEMM for delayed bounces, some modifications are required by the superuser:

```
---File: /etc/mail/relay-domains---
```

To add a host like 'news.somecompany.com' run the following command:

```
echo "news.somecompany.com" > /etc/mail/relay-domains
```

```
---File: /etc/mail/relay-domains---
```

```
---File: /etc/mail/mailertable---
```

Also run the following command (in one line):

```
echo "news.somecompany.com procmail:/home/openemm/conf/bav/bav.rc" >  
/etc/mail/mailertable
```

```
---File: /etc/mail/mailertable---
```

To activate the Sendmail changes, run the following commands:

```
cd /etc/mail
```

```
make
```

and restart the Sendmail service by:

```
/etc/init.d/sendmail restart
```

You may ignore the warning that `/home/openemm/var/run/bav.sock` is missing, since this file will be provided with the next step.



4 Update URLs in property files and MySQL

(run as superuser)

Properties "system.url" and "ecs.server.url" in file "emm.properties" and property "cms.ccr.url" in file "cms.properties" (both in directory "/home/openemm/webapps/core/WEBINF/classes") must be set to the URL of your OpenEMM installation, which is usually identical with your redirection URL like

http://www.somecompany.com:8080

To use valid redirect URLs, you need to edit a parameter in the OpenEMM database. The redirect URL should address the server OpenEMM is running on (for local tests <http://localhost:8080> is sufficient).

For example, you want to use the URL "http://www.somecompany.com" for redirection purposes. Run the following commands:

```
mysql -u root openemm
```

```
update company_tbl set rdir_domain="http://www.somecompany.com:8080";
```

```
quit
```

If you plan to use the bounce management for delayed bounces, you have to enter the sender hostname (see bounce management section) into the database. For example, you want to use the sender hostname "news.somecompany.com". Run the following commands:

```
mysql -u root openemm
```

```
update company_tbl set mailloop_domain="news.somecompany.com";
```

```
quit
```

The sender hostname will be used as domain name for the forward addresses generated by the bounce filter.



5 Start and stop OpenEMM

(run as superuser)

Become the user 'openemm' by running

```
su – openemm
```

To start the OpenEMM environment, run

```
OpenEMM.sh start
```

To stop OpenEMM

```
OpenEMM.sh stop
```

Point your webbrowser to

```
http://www.somecompany.com:8080
```

(insert your own Console URL here) and log into OpenEMM as

```
Username: admin
```

```
Password: openemm
```

Instead of a host name, you can also use the IP-Address from step 1.4 above.

OpenEMM detects the language setting of your webbrowser and shows the appropriate login page. Obviously, your first step should be to change the password 'openemm' in the Settings menu to a new password.

By default, the menus of OpenEMM are shown in English. To change to German language, click on menu "Settings" and choose submenu "User". Select user "admin" and change the language field from English to German. Retype your password twice (password and confirm field) and press the Save button. You have to log out and in again to activate the change of the user language.