

## FreeBSD Administration - Support #776

### Install a Mail Server With iRedMail 0.9.5 on FreeBSD

03/15/2016 08:40 PM - Daniel Curtis

<b>Status:</b>	Closed	<b>Start date:</b>	11/12/2014
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Daniel Curtis	<b>% Done:</b>	100%
<b>Category:</b>	Mail Server	<b>Estimated time:</b>	3.00 hours
<b>Target version:</b>	FreeBSD 10	<b>Spent time:</b>	5.00 hours

#### Description

One of the core services of the Internet is email, and as such I needed to setup a mail server for one of my projects. Rather than setting up postfix, dovecot, spamassassin, etc. by hand, I found the useful open source project iRedMail. Unfortunately, this project currently is not in the port tree, however the install script uses the ports tree to install each of the necessary packages. This guide uses a FreeBSD 10.3 environment.

#### Update the system

- Login as root:

```
su -
```

- Update the ports tree

```
portsnap fetch extract
```

- Install portmaster

```
pkg install portmaster  
pkg2ng
```

- Upgrade the base system

```
pkg update && pkg upgrade
```

- Add or modify the /etc/rc.conf file:

```
vi /etc/rc.conf
```

- And make sure the hostname is set:

```
hostname="mx.example.com"
```

- Add or modify the /etc/hosts file:

```
vi /etc/hosts
```

- And make sure the hostname is set:

```
127.0.0.1 mx.example.com mx localhost
```

- Check the current hostname:

```
hostname -f
```

- The output should look similar to the following:

```
mx.example.com
```

**NOTE:** I had some issues trying to set the FQDN on a DigitalOcean droplet, I needed to set the hostname in the rc.local file:

```
vi /etc/rc.local
```

- And add the following to the end of the file:

```
hostname mx.example.com &
```

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## Install iRedMail

- Install bash and openssl

```
pkg install bash openssl
```

- Fetch and extract the iRedMail stable installer:

```
cd
fetch https://bitbucket.org/zhb/iredmail/downloads/iRedMail-0.9.5-1.tar.bz2
tar xjf iRedMail-0.9.5-1.tar.bz2
cd iRedMail-0.9.5-1
```

- Run the iRedMail Installer:

```
bash iRedMail.sh
```

## Configure iRedMail

The install process will pull in all the required packages during installation. Since each mail server is a little different, my setup uses the following parameters:

- Default mail storage path: **/var/vmail**
- Default web server: **nginx**
- Preferred backend used to store mail accounts: **MariaDB**
- First virtual domain name: **example.com**
- Optional components:
  - DKIM signing/verification
  - iRedAdmin
  - Roundcubemail
  - phpMyAdmin
  - Awstats

When the installation finishes, all the login information and URLs will be placed in the **iRedMail.tips** file.

## Securing iRedMail with SSL/TLS

**NOTE:** I've switched to LetsEncrypt for providing SSL certificates. To setup SSL with LetsEncrypt refer to Issue [#843](#)

The default location for the self-signed certificate is in `/etc/ssl/certs/iRedMail.crt` and the key is in `/etc/ssl/private/iRedMail.key`; I am going to change these to `/usr/local/etc/ssl/mx.example.com.crt` and `/usr/local/etc/ssl/mx.example.com.key`, respectively.

- Start by create a dhparam file:

```
openssl dhparam -out /usr/local/etc/ssl/dhparams.pem 4096
```

- Next, generate a nice strong SSL key and CSR:

```
openssl req -sha512 -out mx.example.com.csr -new -newkey rsa:4096 -nodes -keyout mx.example.com.key
```

- When the SSL certificate is signed, copy it securely to `/usr/local/etc/ssl/mx.example.com.crt`
- Edit the default nginx server block config:

```
vi /usr/local/etc/nginx/conf.d/default.conf
```

- And change the `ssl_certificate_key`, `ssl_certificate`, and `ssl_dhparam` paths:

```
ssl_certificate_key /usr/local/etc/ssl/mx.example.com.key
ssl_certificate /usr/local/etc/ssl/mx.example.com.crt
ssl_dhparam /usr/local/etc/ssl/dhparams.pem;
```

- Edit the main postfix config:

```
vi /usr/local/etc/postfix/main.cf
```

- And change the `smtpd_tls_key_file`, `smtpd_tls_cert_file`, `smtpd_tls_CAfile`, and `smtpd_tls_dh1024_param_file` paths:

```
smtpd_tls_key_file = /usr/local/etc/ssl/mx.example.com.key
smtpd_tls_cert_file = /usr/local/etc/ssl/mx.example.com.crt
smtpd_tls_CAfile = /usr/local/etc/ssl/mx.example.com.crt
smtpd_tls_dh1024_param_file = /usr/local/etc/ssl/dhparams.pem
```

- Edit the dovecot config:

```
vi /usr/local/etc/dovecot/dovecot.conf
```

- And change the paths:

```
ssl_cert = </usr/local/etc/ssl/mx.example.com.crt
ssl_key = </usr/local/etc/ssl/mx.example.com.key
```

**NOTE:** To use an intermediate CA certificate nginx requires all SSL certificate be attached all in a single file. This can be done by running:

```
cat mx.example.com.crt ca.cert.bundle.pem > mx.example.com.bundle.crt
```

# DNS

## A Record

- From your DNS record manager, create an A record using the following template:

NAME	TTL	TYPE	DATA
www.example.com.	1800	A	10.0.0.3

## PTR Record

- From your DNS record manager, create a PTR record using the following template:

NAME	TTL	TYPE	DATA
3.0.0.10.in-addr.arpa.	1800	PTR	mail.example.com.

## MX Record

- From your DNS record manager, create a MX record using the following template:

NAME	PRIORITY	TYPE	DATA
example.com.	10	mx	mail.example.com

## SPF Record

- From your DNS record manager, create a TXT record using the following template:

NAME	PRIORITY	TYPE	DATA
example.com.	3600	TXT	v=spf1 mx mx:example.com -all

## DKIM Record

- Run command in terminal to show your DKIM keys:

```
amavisd showkeys
```

- Example output:

```
dkim._domainkey.example.com. 3600 TXT (  
  "v=DKIM1; p="  
  "YUVfMB0GCSqFGTb3DQEBAWAAA4GNADCBiQKBgQDYArSr2BKbdhv9efugByf7LhaK"  
  "txFUt0ec5+1dWmcDv0WH0qZLFK711sibNN5LutvnaiUH+w3Kr8Ylbw8gq2j0UBok"  
  "FcMycUvOBd7nsYn/TUrOua3Nns+qKSJBy88IWSH2zHaGbJRYujyWSTj1PELJ0H+5"  
  "EV711qww34omquskkwIDFMRI")
```

- From your DNS record manager, create a TXT record using the following template:

NAME	PRIORITY	TYPE	DATA
dkim._domainkey.example.com	3600	TXT	v=DKIM1; p=YUVfMB0GCSqFGTb3DQEBAWAAA4GNADCBiQKBgQDYArSr2BKbdhv9efugByf7LhaKtxFUt0ec5+1dWmcDv0WH0qZLFK711sibNN5LutvnaiUH+w3Kr8Ylbw8gq2j0UBokFcMycUvOBd7nsYn/TUrOua3Nns+qKSJBy88IWSH2zHaGbJRYujyWSTj1PELJ0H+5EV711qww34omquskkwIDFMRI

## Resources

- <http://www.iredmail.org/docs/install.iredmail.on.freebsd.html>
- <http://www.iredmail.org/download.html>
- <https://bitbucket.org/zhb/iredmail>
- <http://www.iredmail.org/docs/setup.dns.html>

### Related issues:

Copied from FreeBSD Administration - Support #537: Install a Mail Server With... **Closed** 11/12/2014

## History

### #1 - 03/15/2016 08:40 PM - Daniel Curtis

- Copied from Support #537: Install a Mail Server With iRedMail 0.9.0 on FreeBSD added

### #2 - 03/15/2016 09:20 PM - Daniel Curtis

- Description updated

- Status changed from New to In Progress

- % Done changed from 0 to 30

### #3 - 08/21/2016 02:26 PM - Daniel Curtis

- Subject changed from Install a Mail Server With iRedMail 0.9.4 on FreeBSD to Install a Mail Server With iRedMail 0.9.5 on FreeBSD

- Description updated

- Target version changed from FreeBSD 9 to FreeBSD 10

- % Done changed from 30 to 70

### #4 - 08/22/2016 09:16 PM - Daniel Curtis

- Description updated

- Status changed from In Progress to Resolved

- % Done changed from 70 to 100

### #5 - 09/12/2016 08:12 PM - Daniel Curtis

- Description updated

### #6 - 09/12/2016 08:14 PM - Daniel Curtis

- Description updated

### #7 - 09/12/2016 08:21 PM - Daniel Curtis

- Description updated

### #8 - 09/23/2016 07:50 PM - Daniel Curtis

- Status changed from Resolved to Closed

## Files

iRedMail-0.8.7.tar.bz2	110 KB	11/12/2014	Daniel Curtis
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