

SquirrelMail for Webmail

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Scalable Internet Services (SS-E)

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What is Webmail?

- Webmail provides a web-based (HTTP) Mail User Agent (Front end) to access emails
- This makes webmail available anywhere which is practical for most users.
- Use the default http port 80 but can run on other user defined ports.
- Webmail systems will access the mail server using IMAP4(s), POP3(s). Some read the files directly from the mailbox stored in Maildir format e.g Sqwebmail.



Background



- Started in 1998 by two brothers Luke and Nathan Ehresman
- Named after squirrels for their agility
- www.squirrelmail.org
- It supports IMAP and SMTP protocols and can be setup to support a wide range of MTA and implementations
- Its written in PHP

Why Squirrelmail

- Squirrelmail is stable and scales well in most environments
- Continues to have features support in plugins including password change and server-side filters
- Its fast with options header caching and supports server side indexing - works well with Dovecot and Cyrus IMAP
- It has a light interface due to php
- Additional resources would be required to make it scale for large scale implementations



Summary on Apache

- In configuring apache the main file is `/usr/local/etc/apache22/httpd.conf`
 - Uncommenting all the required includes are done here
 - This file is also responsible for loading library module e.g php
 - Additional system wide configurations are done here.
 - More specific configs should be done in includes files
- Virtual-hosts are defined in the `/usr/local/etc/apache22/extra/httpd-vhosts.conf`
- Installation of Squirrelmail will require PHP to be preinstalled. Make install should add this as a dependancy (remember to select Apache support/module)



Installing Squirrelmail (skip this)

- Squirrelmail is installed from ports

```
$ cd /usr/ports/mail/squirrelmail
```

```
$ make install clean
```

- PHP must have been installed and working for Squirrelmail to work
- If PHP was not installed, then it will be installed as a dependency. Remember to select Apache module support on PHP options.



Installing from Source

- The following should be done as **Root**;
- Untar the Squirrelmail Source file located in the “afnog” home directory

```
tar -xvf squirrelmail-20130612_0429-SVN.stable.tar
```

- Copy the “squirrelmail” directory to the web root directory;

```
cd squirrelmail.stable
```

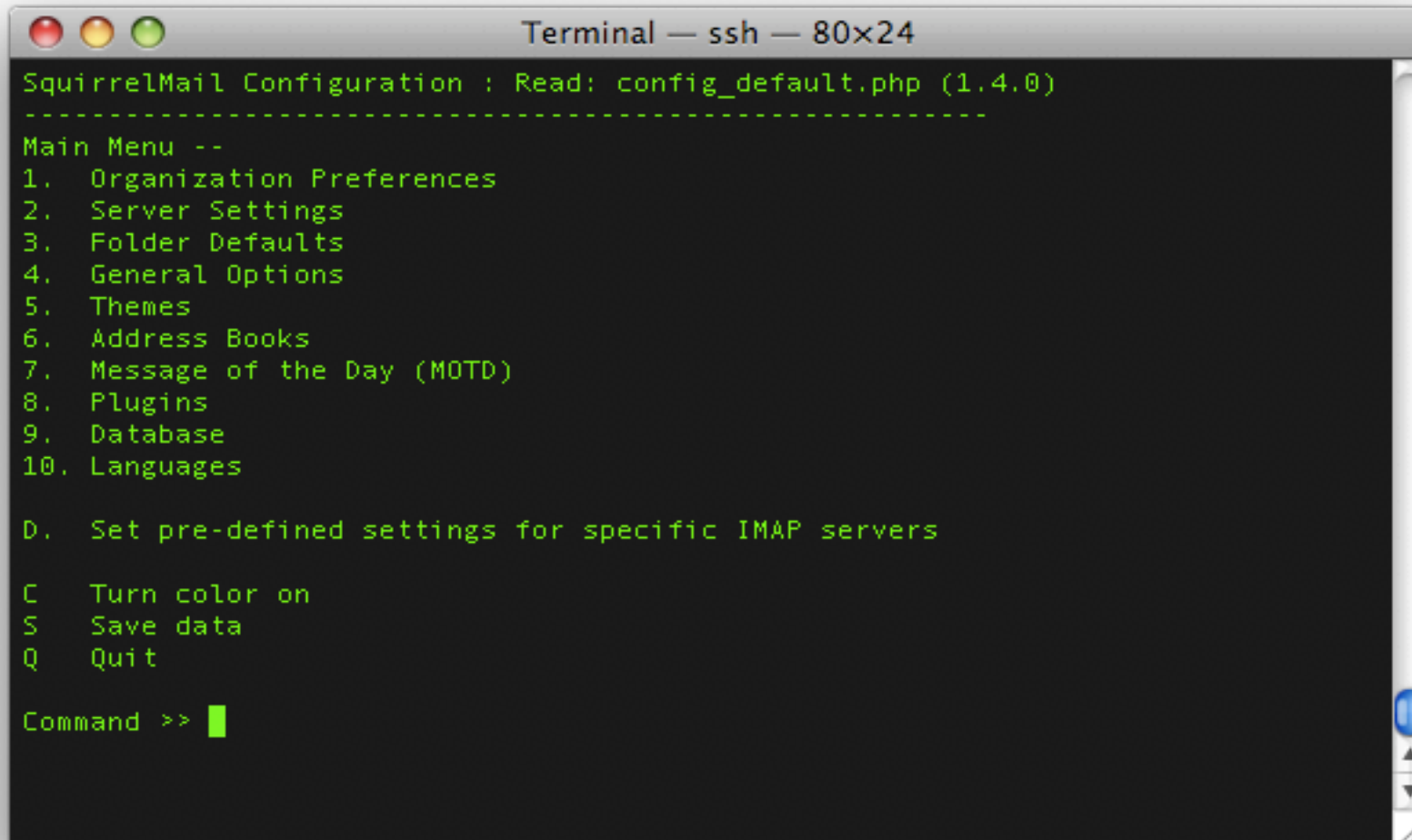
```
cp -R squirrelmail /usr/local/www/
```

- Create the data and attachment directories
 - `mkdir -p /var/squirrelmail/data`
 - `mkdir -p /var/squirrelmail/attachment`
- Set the file permissions on the directories
 - `cd /var`
 - `chown -R www:www squirrelmail`



Configuring Squirrelmail

- SquirrelMail has its own configure options
 - `$ cd /usr/local/www/squirrelmail/`
 - `$./configure`

A terminal window titled "Terminal — ssh — 80x24" displays the SquirrelMail configuration menu. The text is as follows:

```
SquirrelMail Configuration : Read: config_default.php (1.4.0)
-----
Main Menu --
1.  Organization Preferences
2.  Server Settings
3.  Folder Defaults
4.  General Options
5.  Themes
6.  Address Books
7.  Message of the Day (MOTD)
8.  Plugins
9.  Database
10. Languages

D.  Set pre-defined settings for specific IMAP servers

C  Turn color on
S  Save data
Q  Quit

Command >> █
```



1. Organizational Preferences

```
Terminal — ssh — 80x24
SquirrelMail Configuration : Read: config_default.php (1.4.0)
-----
Organization Preferences
1. Organization Name      : AFNOG
2. Organization Logo     : ../images/sm_logo.png
3. Org. Logo Width/Height : (308/111)
4. Organization Title    : AFNOG Webmail Service
5. Signout Page          :
6. Top Frame             : _top
7. Provider link         : http://www.afnog.org/
8. Provider name         : AFNOG

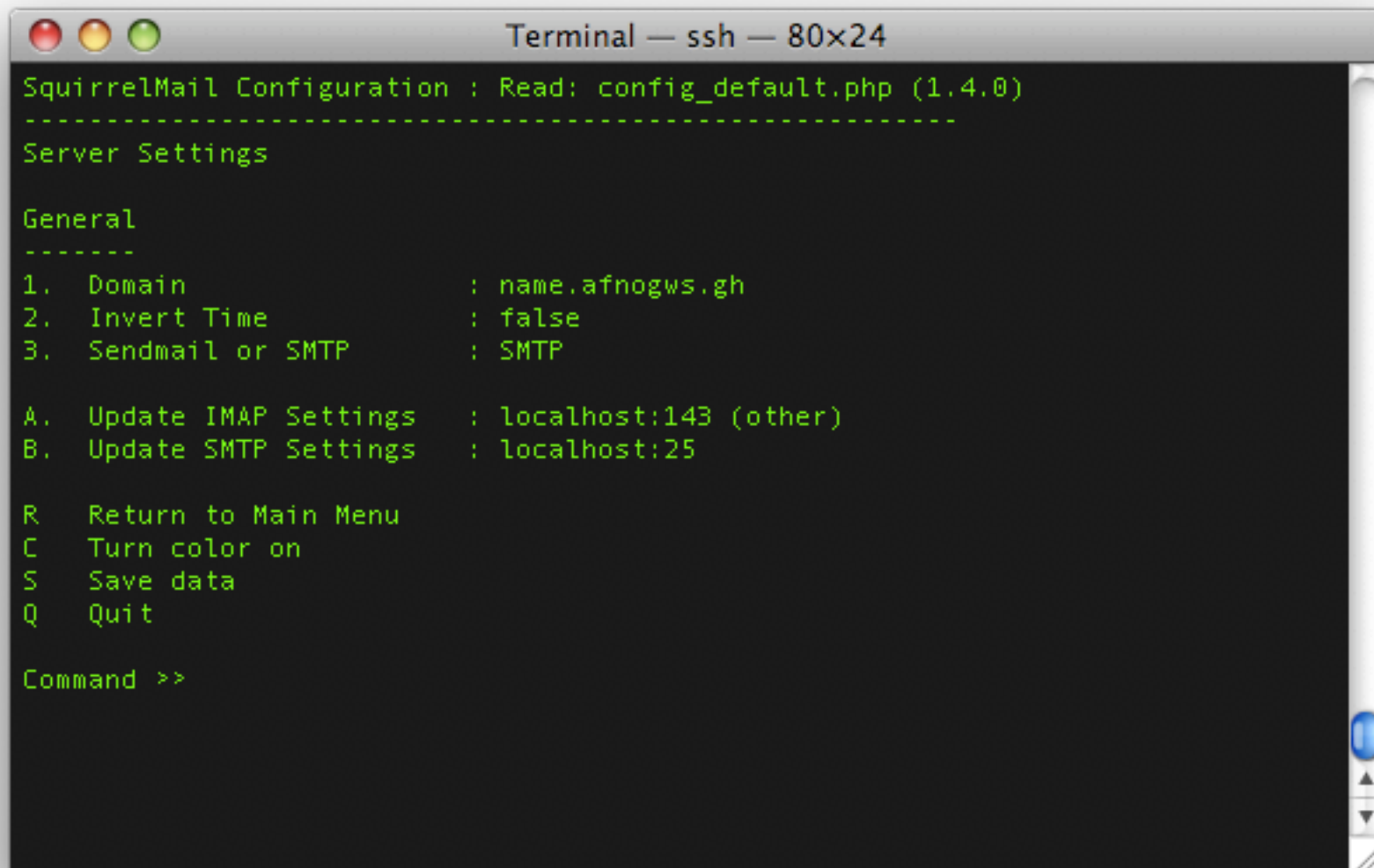
R  Return to Main Menu
C  Turn color on
S  Save data
Q  Quit

Command >>
```



2. Server Settings

- Select 2 for Server settings and 1 to change domain. Domain is “XXX.bogus.gh”

A terminal window titled "Terminal — ssh — 80x24" showing the SquirrelMail configuration menu. The menu is displayed in green text on a black background. It starts with "SquirrelMail Configuration : Read: config_default.php (1.4.0)" followed by a dashed line and "Server Settings". Under "General", there is another dashed line and a list of options: 1. Domain : name.afnogws.gh, 2. Invert Time : false, 3. Sendmail or SMTP : SMTP, A. Update IMAP Settings : localhost:143 (other), B. Update SMTP Settings : localhost:25, R. Return to Main Menu, C. Turn color on, S. Save data, and Q. Quit. At the bottom, it says "Command >>".

```
Terminal — ssh — 80x24
SquirrelMail Configuration : Read: config_default.php (1.4.0)
-----
Server Settings

General
-----
1.  Domain           : name.afnogws.gh
2.  Invert Time      : false
3.  Sendmail or SMTP : SMTP

A.  Update IMAP Settings : localhost:143 (other)
B.  Update SMTP Settings : localhost:25

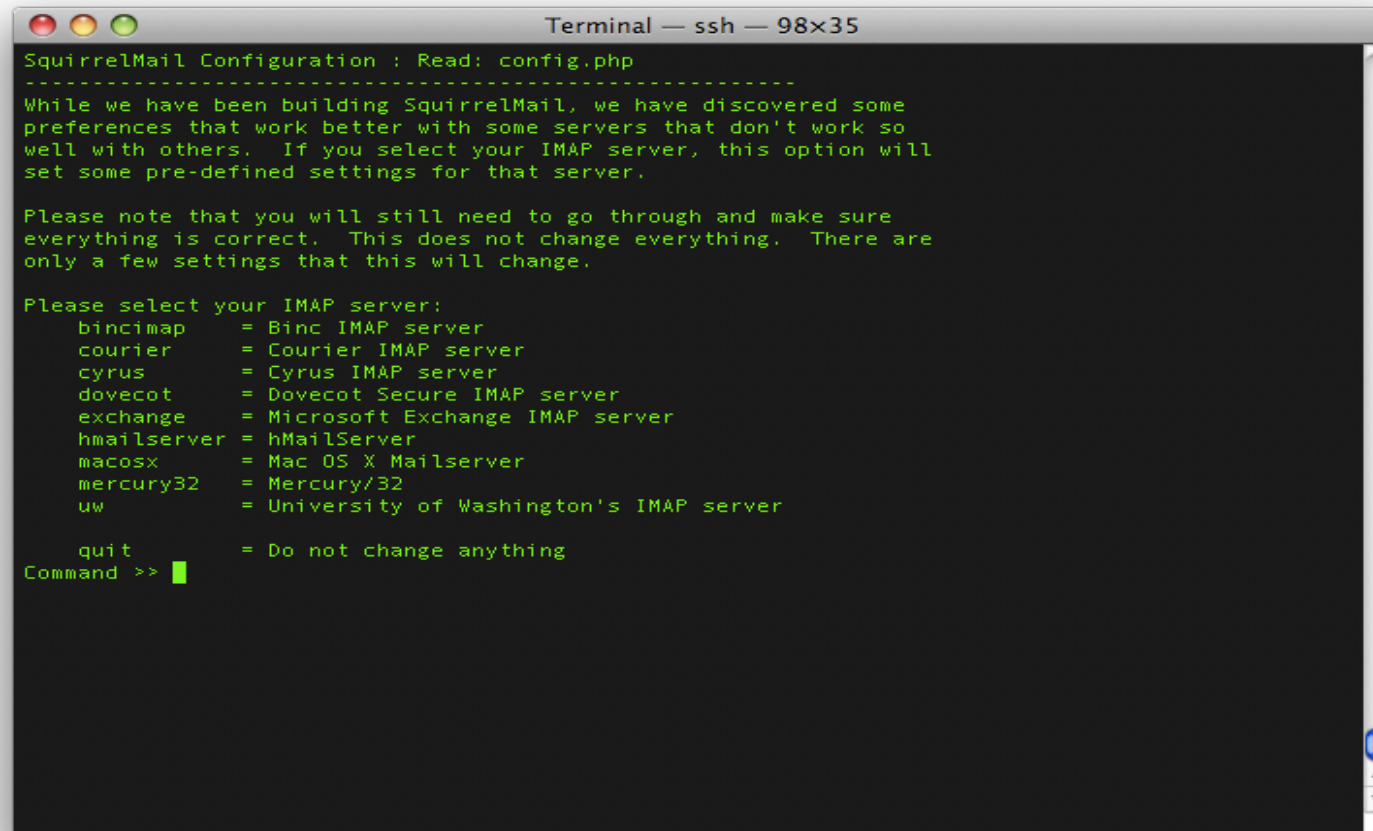
R   Return to Main Menu
C   Turn color on
S   Save data
Q   Quit

Command >>
```



2 a. Set Predefined IMAP Servers

- ❑ Select A for option to set the type of Server
- ❑ Type “dovecot” and press enter
- ❑ Press S to save and R to return to previous menu



```
Terminal — ssh — 98x35
SquirrelMail Configuration : Read: config.php
-----
While we have been building SquirrelMail, we have discovered some
preferences that work better with some servers that don't work so
well with others.  If you select your IMAP server, this option will
set some pre-defined settings for that server.

Please note that you will still need to go through and make sure
everything is correct.  This does not change everything.  There are
only a few settings that this will change.

Please select your IMAP server:
bincimap      = Binc IMAP server
courier       = Courier IMAP server
cyrus         = Cyrus IMAP server
dovecot       = Dovecot Secure IMAP server
exchange     = Microsoft Exchange IMAP server
hmailserver  = hMailServer
macosx       = Mac OS X Mailserver
mercury32    = Mercury/32
uw           = University of Washington's IMAP server

quit         = Do not change anything
Command >> █
```



4. General Options

- From the main menu Press 4 to go to “General Options”
- Select option 1 for Data Directory
- Type the path of the data directory created earlier i.e /var/squirrelmail/data
- Press enter
- Press option 2 for Attachments Directory
- Type the path of the attachments directory created earlier i.e /var/squirrelmail/attachment
- Press “s” to save and “r” to return to main menu



Other Squirrelmail Options

- Folder options: - directory default features and behavior of squirrelmail
- General Options: - Server side activities and optimizations
- Themes : - Look and Feel
- Addressbook : - Create or configure LDAP AB
- Plugins: - Install additional plugin features
- Database: - Define database for AddrBook
- Languages: - Change Languages



Configuring Squirrelmail as Apache Virtual-Host

- Squirrelmail is a web-mail service
- First step is to do the virtual hosts on apache.
- Edit `/usr/local/etc/apache22/extra/httpd-vhosts.conf` and add the following lines.

```
<VirtualHost *:80>
```

```
ServerAdmin afnog@pcXX.sse.ws.afnog.org
```

```
DocumentRoot /usr/local/www/squirrelmail
```

```
ServerName webmail.XXXX.bogus.gh
```

```
ErrorLog /var/log/mail-error_log
```

```
CustomLog /var/log/mail-access_log common
```

```
</VirtualHost>
```



Configuring - Apache

- Second Step step is to enable directory access on apache;

```
vi /usr/local/etc/apache22/Includes/squirrelmail.conf
```

- add the following in the new file;

```
<Directory /usr/local/www/squirrelmail/>
```

```
Options Indexes FollowSymLinks
```

```
AllowOverride None
```

```
Order allow,deny
```

```
Allow from all
```

```
</Directory>
```

- Save the file and close
 - Restart apache
- ```
$ apachectl restart
```



# DNS Entry for Webmail

- A Resource Record for “**webmail**” subdomain should be created in your DNS Servers
- Edit `/etc/namedb/master/XXX.bogus.gh`
- *Add an Address Record (A) and (AAAA) for `webmail.XXX.bogus.gh` pointing to the IPv4 and IPv6 addresses assigned to the PC/virtual machine*
- *Update the serial number and restart Bind - `rndc reload`*





# Accessing Webmail

- Open the browser as per the configuration it should be `http://webmail.XXX.bogus.gh`
- Logon using the system username and password (user afnog/pass afnog)



# Happy Webmailing



# Additional Information



# SSL Mod-rewrite for Squirrelmail

- Squirrelmail is a web-mail service as such for security reasons its important to use secure access https
- Since we require and want to force everyone to go through an SSL interface we set it up as follows;

```
<VirtualHost *:80>
```

```
ServerName webmail.XXX.bogus.gh
```

```
RewriteEngine on
```

```
RewriteCond %{HTTPS} ^off$
```

```
RewriteCond %{HTTP_HOST} (.*)
```

```
RewriteRule ^(.*)/? https://%1/$1 [L,R]
```

```
</VirtualHost>
```

- **CAVEAT:** SSL does not work in Name Based Virtual Hosting environment only in an IP Based Virtual Hosting. On a shared server it will generate name warnings

