

# Contents

- 1 Apache Tips & Tricks:
  - ◆ 1.1 Redirect from http to https
  - ◆ 1.2 Apache Error Codes
  - ◆ 1.3 Apache REWRITE Module:
  - ◆ 1.4 Display text (footer) under an Apache file listing
  - ◆ 1.5 AllowOverride in Apache Configs for .htaccess
  - ◆ 1.6 htaccess Auth using LDAP and htpasswd
  - ◆ 1.7 htaccess examples complete
  - ◆ 1.8 Multiviews - Automatically append file extension
  - ◆ 1.9 Apache2 Common Configs
  - ◆ 1.10 Apache Rewrite via mod\_proxy
- 2 Centralised Apache Logging
- 3 Additional Modules Used
  - ◆ 3.1 mod\_evasive

## Apache Tips & Tricks:

To provide a seamless Redirect from <http://site/anypage.etc> to <http://newsite/anypage.etc>

The code should go into the specific Virtual Host or apache2.conf (httpd.conf on apache 1.3):

```
Redirect 301 /site http://newwebsite/site  
Redirect 301 / http://newweb/
```

Got from Skynet config - Thanks Lads.

## Redirect from http to https

If you want to force people to use https and/or redirect them seamlessly to https:// without them having to type in the address here is how you can do it with apache using a .htaccess file:

```
SSLRequireSSL  
ErrorDocument 403 https://securewebsite/page.html
```

Note the above is only a hack. It will break if a similar 403 (which means access is denied) is caught. For example if a "deny from all" is used along with the above, or permissions are set incorrectly - an endless loop will ensue. Im sure there are other ways of seamlessly redirecting http to https, however there is a quick one.

## Apache Error Codes

```
200 OK  
201 Created  
202 Accepted
```

## Apache

203 Non-Authorative Information  
204 No Content  
205 Reset Content  
206 Partial Content  
300 Multiple Choices  
301 Moved Permanently  
302 Moved Temporarily  
303 See Other  
304 Not Modified  
305 Use Proxy  
400 Bad Request  
401 Authorization Required  
402 Payment Required (not used yet)  
403 Forbidden  
404 Not Found  
405 Method Not Allowed  
406 Not Acceptable (encoding)  
407 Proxy Authentication Required  
408 Request Timed Out  
409 Conflicting Request  
410 Gone  
411 Content Length Required  
412 Precondition Failed  
413 Request Entity Too Long  
414 Request URI Too Long  
415 Unsupported Media Type  
500 Internal Server Error  
501 Not Implemented  
502 Bad Gateway  
503 Service Unavailable  
504 Gateway Timeout  
505 HTTP Version Not Supported

Not a definitive list. Information obtained from: <http://bignosebird.com/apache/a5.shtml>

### Apache REWRITE Module:

Here's a nice one - mod\_rewrite which is extremely powerful. I am but using 1 or 2 examples. Write the following examples straight into a .htaccess file :-)

```
#1. writes all html files as php
Options +FollowSymlinks
RewriteEngine on
RewriteRule ^(.*)\.html$ $1.php [nc]
```

```
#2. redirects all .html files to newserver.php files
Options +FollowSymlinks
RewriteEngine on
Rewriterule ^(.+)\.html$ http://www.server.com/\$1.php [r=301,nc]
```

```
#3. This is the best one for reasons I wont divulge. It does need tweaking, but works.
Options +FollowSymlinks
RewriteEngine on
Rewriterule ^(.*)$ http://internal-lan-server/\$1 [P]
```

### Display text (footer) under an Apache file listing

Put the following code in a .htaccess file, or in the apache.conf

```
ReadmeName filetoputatatbottom
//or
ReadmeName /path/to/file
```

The filetoputatatbottom may have to be a html page in order to be included correctly. If the above doesnt work, put a .html extension to the file and update the htaccess accordingly. Thats it. You will see something similar to: <http://www.burkesys.com/~sburke/apachefooterlisting/> This is very useful for showing a README explanation underneath a listing of files with which to download. Download or install instructions can be placed here as required.

OK. Here's the References:

[http://www.widexl.com/scripts/documentation/mod\\_rewrite.html](http://www.widexl.com/scripts/documentation/mod_rewrite.html)

<http://adstil.indiatimes.com/manual/misc/rewriteguide.html> (Apache 1.3 THO)

<http://corz.org/serv/tricks/htaccess2.php>

[http://httpd.apache.org/docs/2.0/mod/mod\\_autoindex.html](http://httpd.apache.org/docs/2.0/mod/mod_autoindex.html)

### AllowOverride in Apache Configs for .htaccess

Apache's default AllowOverride in www.website.com/pageabc is None. This means that .htaccess files in pageabc do not work. Instead of allowing the complete AllowOverride All, certain pieces and directives can be allowed or disallowed. This is much better, because there is a lot of stuff that can be overridden using the AllowOverride All.

```
AllowOverride Limit Indexes
//Limit allows deny, allow from etc. etc. Indexes allows control over how indexes are displayed
```

The full doc is at:

<http://httpd.apache.org/docs/2.0/mod/core.html#allowoverride>

**Allow Override for Mod\_rewrite** Its quite common to have rewrite rules in a htaccess file. Without allowing full override, the following can be done:

```
<Directory />
    Options FollowSymLinks Indexes MultiViews
    AllowOverride FileInfo
</Directory>
```

## htaccess Auth using LDAP and htpasswd

### 1. LDAP Auth Only

```
LDAP_Debug On
AuthName "Only LDAP domain1 or domain2"
AuthType Basic
AuthOnBind On
LDAP_Server "ldap server ip"
LDAP_Port 389
UID_Attr cn
Sub_DN "OU=Users,ou=staff"
AltSub_DN "OU=Users,ou=undergraduate"
Base_DN "DC=ul,DC=campus"
require user first1.lastname1 first2.lastname2 first3.lastname3
```

### 2. Htpasswd Auth Only

Run the following from the cmd line:

```
htpasswd -bn username pass
```

Put the above username:DGdmxkU03XUJo into a .htpasswd file and call as follows using a .htaccess:

```
AuthUserFile /home/user/.htpasswd
AuthName "Only htpasswd users"
AuthType Basic
require valid-user
#or specifically as follows:
require user username
```

### 3. LDAP and htpasswd Auth

```
AuthLDAPAuthoritative Off
AuthUserFile /home/user/.htpasswd
LDAP_Debug On
AuthName "LDAP domain1 or domain2; or htpasswd users."
AuthType Basic
AuthOnBind On
LDAP_Server "ldap server ip"
LDAP_Port 389
UID_Attr cn
Sub_DN "OU=Users,ou=staff"
AltSub_DN "OU=Users,ou=undergraduate"
Base_DN "DC=ul,DC=campus"
require user first1.lastname1 first2.lastname2 first3.lastname3 htpasswduser1 htpasswduser2
```

## htaccess examples complete

<http://www.askapache.com/htaccess/ultimate-htaccess-file-sample.html>

## Apache

### Multiviews - Automatically append file extension

If you have the following file: `/var/www/foo.html` and browse to <http://localhost/foo> foo.html will be shown! The option MultiViews controls this. Typically this option would be in the VirtualHost. It can also be disabled with "Options -MultiViews" in a .htaccess.

This MultiViews caused problems when doing rewrites.

Reference: <http://www.gerd-riessmann.net/archives/2005/04/beware-of-apaches-multiviews>

### Apache2 Common Configs

How to setup CGI with Apache: <http://httpd.apache.org/docs/2.0/howto/cgi.html>

Core Directives, Usage and Syntax: <http://httpd.apache.org/docs/2.0/mod/core.html>

### Apache Rewrite via mod\_proxy

If you have a webserver running on an internal LAN, and you have a website/access on a external webserver on the LAN, it is possible to proxy requests via the External webserver to inside your LAN. <http://192.168.20.20> = Apache on Internal LAN <http://193.1.1.10> = Apache accessible Externally and Internally.

```
mkdir /home/user/public_html/internalweb
vi /home/user/public_html/internalweb/.htaccess
RewriteEngine on
Rewriterule ^(.*)$ http://192.168.20.20/\$1 [P]
```

Then browse to <http://193.1.1.10/internalweb>, and up comes the website on your Internal LAN.

---

Links:

[http://httpd.apache.org/docs/2.0/mod/mod\\_auth\\_ldap.html](http://httpd.apache.org/docs/2.0/mod/mod_auth_ldap.html)

[http://www.muquit.com/muquit/software/mod\\_auth\\_ldap/mod\\_auth\\_ldap\\_apache2.html](http://www.muquit.com/muquit/software/mod_auth_ldap/mod_auth_ldap_apache2.html)

[http://www.muquit.com/muquit/software/mod\\_auth\\_ldap/mod\\_auth\\_ldap.html](http://www.muquit.com/muquit/software/mod_auth_ldap/mod_auth_ldap.html)

### Centralised Apache Logging

After a recent oom by Apache, I wanted to be able to see exactly what requests were handled/recieved by apache during a specific timeframe. It was a bit of a pain having to go looking in the many access log files, one for each vhost. As a result I wanted to setup a global access log file ontop of the existing current log files for each vhost.

This global log file will also be used later on to graph bandwidth usage across multiple vhosts.

## Apache

The config was simple.

```
#1 vi /etc/apache2/apache2.conf
#Include the following line, underneath the existing LogFormat entries.
LogFormat "%h %t %v %X %D \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\"" global
#For a complete list of what the above letters mean, head over to: http://httpd.apache.org/docs/2.0/

#2 vi /etc/apache2/sites-enabled/vhost-name
#Include the following line, underneath the existing CustomLog entry. Two CustomLog entries can be m
CustomLog /var/log/apache2/global_access.log global
```

I tried entering the CustomLog entry in apache2.conf, which should theoretically log everything, it didn't and I had to add the CustomLog entry to all vhost configs. This might have been to do with the fact that there was a current CustomLog entry in each vhost, and it was taking preference, and that both CustomLog entries had to be made in the one location, which was in the vhost in my situation. Be careful of the fact that this file will grow substantially in size!! Check that it will get rotated by logrotate.d in /etc/logrotate.d/apache2. By default all \*.log files in /var/log/apache2/ get rotated and compressed. References:

<http://httpd.apache.org/docs/2.0/logs.html>  
[http://httpd.apache.org/docs/2.0/mod/mod\\_log\\_config.html#customlog](http://httpd.apache.org/docs/2.0/mod/mod_log_config.html#customlog)  
[http://httpd.apache.org/docs/2.0/mod/mod\\_log\\_config.html#formats](http://httpd.apache.org/docs/2.0/mod/mod_log_config.html#formats)

More to follow on generating nice stats from this global log file.

## Additional Modules Used

### mod\_evasive

```
apt-get install libapache2-mod-evasive
```

Mod\_evasive prevents against ddos and scripted bots which can hammer a website. (I got 100's and hundreds of referral spam with "GET / HTTP/1.1" Mediawiki kept eating up resources.) After the above apt-get install command, its all setup and ready to go. I was able to trigger the "403 Forbidden" error by refreshing a page as fast as I could on my browser. (Also done a CTRL+r in elinks very fast). I was initially quite worried it would catch a lot of false results, so I setup logging and email logging.

```
apt-get install libapache2-mod-evasive
mkdir /var/log/apache2/mod-evasive
chown www-data:www-data /var/log/apache2/mod-evasive
```

```
vi /etc/apache2/apache2.conf
#add
<IfModule mod_evasive20.c>
    DOSEmailNotify    root@burkesys.com
    DOSLogDir          /var/log/apache2/mod-evasive
</IfModule>
```

```
ln -s /usr/bin/mail /bin/mail
```

```
#Done. Watch Logs.
#The default settings for mod_evasive on Debian Lenny are stored in:
zless /usr/share/doc/libapache2-mod-evasive/README.gz
#Lets see how these settings go.
APACHE v2.0
-----
```

## Apache

```
<IfModule mod_evasive20.c>
  DOSHashTableSize    3097
  DOSPageCount        2
  DOSSiteCount        50
  DOSPageInterval     1
  DOSSiteInterval     1
  DOSBlockingPeriod   10
</IfModule>
```

References: /usr/share/doc/libapache2-mod-evasive

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=437824> (bug about mails not been sent in lenny)

[http://www.mydigitallife.info/2007/08/15/install-mod\\_evasive-for-apache-to-prevent-ddos-attacks/](http://www.mydigitallife.info/2007/08/15/install-mod_evasive-for-apache-to-prevent-ddos-attacks/)

[http://www.sfr-fresh.com/unix/privat/mod\\_evasive\\_1.10.1.tar.gz:a/mod\\_evasive/README](http://www.sfr-fresh.com/unix/privat/mod_evasive_1.10.1.tar.gz:a/mod_evasive/README)

[http://edouard.peller.in/how-to-install-mod\\_evasive-on-debian-etch/](http://edouard.peller.in/how-to-install-mod_evasive-on-debian-etch/)

<http://www.debianadmin.com/how-to-protect-apache-against-dosddos-or-brute-force-attacks.html>

<http://linuxharbour.com/content/protect-ddos-attach-apache-debian-lenny>

<http://www.novell.com/communities/node/3025/protecting-apache-against-dos-attack-modevasive>