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– LPI 102 –

Operate and perform basic configuration of Apache [2]

(Linux Professional Institute Certification)

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```

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Operate and perform basic configuration of Apache

Objective

Candidates should be able to modify simple parameters in Apache
configuration files, start, stop, and restart httpd, arrange for automatic
restarting of httpd upon boot. Does not include advanced custom
configuration of Apache.

Operate and perform basic configuration of Apache

Key files, terms, and utilities

`httpd.conf`

apachectl

httpd

Resources of interest

article1 :

```
http://www.apache.org
```

item 1 :

Apache

- Apache is a web server (http daemon)

- Default on all Linux distros

- Most popular web server on the internet

- Named after the number of patches to orginal source code.

- Provides both HTTP and HTTPS (SSL) as standard

- Other features added with modules (eg cgi)

Starting & Stopping Apache

- Apache can be started:

  - On demand through inetd or xinetd

  - As a daemon

- Normally started as daemon to reduce connect delay

- Uses standard SysV start/stop semantics

  Debian: `/etc/init.d/apache`

  RedHat: `/etc/rc.d/init.d/httpd`

- An alternative is `apachectl`

Apachectl

Apachectl is a management utility. To use it:

`apachectl <command>` ↩

command	Function
start	Start the daemon
stop	Stop the daemon
restart	Restart or start the daemon
fullstatus	Report status of server (requires lynx)
graceful	Gracefully restart the serve
configtest	Test config file syntax
help	Display commands

HTTPD Parameters

The `httpd` deamon can be run directly if needed. On Debian the daemon is called `apache`.

Parameter	*Function*
-v	Shows version
-V	Shows compile configuration
-h	List all cmd line parameters
-l	List compiled in modules
-L	List config directives
-S	Shows parsed settings (virtual hosts only)
-t	Test config file & doc root
-T	Test config file only

HTTPD Parameters

The following options take parameters:

Parameter	Function
Parameter	*Function*
-D *name*	Defines a name for use in `IfDefine` *name*
-d *directory*	Defines an alternate server root
-f *file*	Set a new configuration file
-C *"directive"*	Process directive before reading config file
-c *"directive"*	Process directive after reading config file

Configuring Apache

- Apache originally used 3 configuration files:

  - `httpd.conf` - Server settings

  - `srm.conf` - File types & doc specs

  - `access.conf` - Security settings

- All configuration is now done in `httpd.conf`

- Normally located in `/etc/httpd/conf`

Site-wide Directives

Directive	Function
ServerAdmin	Sets email address for admin
ServerName	Sets the name of the server
DocumentRoot	Sets the root for content served
ServerRoot	Sets root for server files
ServerType	`standalone` or `inetd`
MinSpareServers	No of free httpd's before starting more
MaxSpareServers	No of free httpd's before killing some
StartServers	No of httpd's to start
MaxClients	Maximum no of httpd's to run at once.

Directory block Directives

You can set directives so that thay only apply to a particular part of the content directory tree. For example:

```
<Directory /Games>
        AllowOverride None
</Directory>
```

This says that the `.htaccess` file can not override settings for this directory

Access Control

This directive controls who can access what directories on your site. This is about the only directive that needs to be changed from an 'off-the-shelf' configuration if you want external users to access your site.

```
<Location  />
    order deny,allow
    deny from all
    allow from 127.0.0.0/255.0.0.0
    allow from .c222
</Location>
```

This says to deny first then allow. The result is that only users in the .c222 domain and the localhost will be able to access the server.

Other Directives

There are a large number of configuration directives. These are grouped as follows:

- Aliases & Redirects

- Default pages

- User Web Directories (site content in a users home)

- MIME types

- CGI files

- Directory Browsing

- Authentication

- Virtual hosts (multiple sites on one host)

- Logging directives