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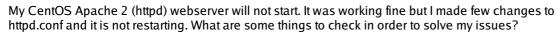
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Troubleshooting: Apache Webserver Will Not Restart / Start

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If httpd / Apache will not restart, there are few things which you can check in order to get rid of problem. Ssh into your server and and try the following tips. Always, make a backup of existing working httpd.conf and other config files before making any changes to those files.

Check for config syntax error

Almost all web server including Apache supports config file syntax checking. To run syntax check for config files, enter:

```
# httpd -t
# httpd -S
```

Sample output:

```
Syntax OK
```

You should see "Syntax OK" message if config file httpd.conf is configured properly. Otherwise, it will display an error message on screen:

```
Syntax error on line 29 of /usr/local/etc/apache22/httpd.conf:
Invalid command 'ServerRoot1', perhaps misspelled or defined by a module not included in the
```

You can use vi to open file and correct syntax:

```
# vi +29 /usr/local/etc/apache22/httpd.conf
```

Check Apache error log file

Some time error is displayed on screen. However, checking the error log file [2] will point out exact problem location:

```
tail -f /var/log/httpd-error.log
egrep -i 'warn|error' /var/log/httpd-error.log
```

DNS configuration

Like any other Internet serverm Apache requires working <u>DNS client support via /etc/resolv.conf</u> [3] file. It is very particular about having it's hostname be resolvable via DNS. Make sure dns is working and ServerName is set correctly in httpd.conf. ServerName directive gives the name and port that the server uses to identify itself. This can often be determined automatically, but we recommend you specify it explicitly to prevent problems during startup. If your host doesn't have a registered DNS name, enter its IP address here.

```
ServerName server.cyberciti.com:80
```

Check your hostname from a shell prompt [4] and set it as ServerName in httpd.conf file:

```
hostname -f
```

```
server.cyberciti.com
```

Check Apache / PHP / Python / CGI log file size

In most cases log files (including php and virtual domain logs) over 2GB will cause problem or error 500. So make sure that log files are under limit. If they are, then you can move or remove them out of log directories. Set up <u>logrotate tool</u>, <u>which is designed to ease administration of systems that generate large numbers of log files</u> [5]. Use Is -Ih command to list log file size:

```
# ls -lh /var/log/httpd*
```

Check for open file (FD) limits

On busy server open FD (file descriptors) limits can cause all sort of the problems. You may want to find out how many tile descriptors are being used [6] under Linux.

Check for port 80 and 443

It is possible that some other process may be using port 80 or 443. Use $\frac{\text{netstat command}}{\text{netstat command}}$ to list open port and their owners:

```
# netstat -tulpn
# netstat -tulpn | grep
# netstat -tulpn | grep ':80'
```

If other process using port 80 / 443, you need to stop them or assign another port to Apache.

Other techniques

- Use <u>search</u> [8] <u>engine</u> [9] to find out solution for exact error messages.
- Search Apache mailing lists [10] and vendor support forums for the error messages.
- Debug problem using strace and other tools [11].

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URLs in this post:

- [1] Image: http://www.cyberciti.biz/faq/category/apache/
- [2] error log file: http://www.cyberciti.biz/faq/apache-logs/
- [3] DNS client support via /etc/resolv.conf: http://www.cyberciti.biz/tips/linux-how-to-setup-as-dns-client.html
- [4] hostname from a shell prompt: http://www.cyberciti.biz/faq/linux-find-domain-hostname/
- [5] logrotate tool, which is designed to ease administration of systems that generate large numbers of log files: http://www.cyberciti.biz/faq/how-do-i-rotate-log-files/
- [6] how many file descriptors are being used: http://www.cyberciti.biz/tips/linux-procfs-file-descriptors.html
- [7] netstat command: http://www.cyberciti.biz/tips/linux-display-open-ports-owner.html
- [8] search: http://google.co.in/
- [9] engine: http://in.search.yahoo.com/
- [10] Apache mailing lists: http://httpd.apache.org/lists.html
- [11] strace and other tools: http://www.cyberciti.biz/tips/linux-strace-command-examples.html