

How to turn off server signature on Apache web server

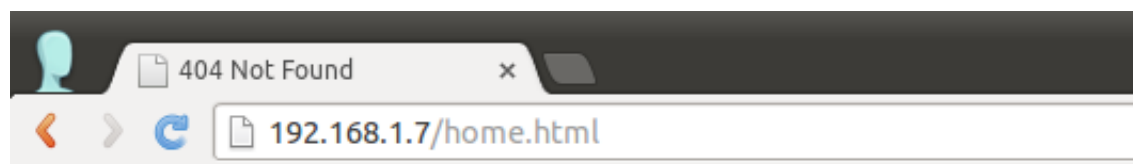
Author : Dan Nanni

Categories : [Networking](#), [Security](#)

Tagged as : [apache2php](#)

Question: Whenever Apache2 web server returns error pages (e.g., 404 not found, 403 access forbidden pages), it shows web server signature (e.g., Apache version number and operating system info) at the bottom of the pages. Also, when Apache2 web server serves any PHP pages, it reveals PHP version info. How can I turn off these web server signatures in Apache2 web server?

Revealing web server signature with server/PHP version info can be a security risk as you are essentially telling attackers known vulnerabilities of your system. Thus it is recommended you disable all web server signatures as part of server hardening process.



Not Found

The requested URL /home.html was not found on this server.

Apache/2.2.22 (Debian) Server at 192.168.1.7 Port 80

Disable Apache Web Server Signature

Disabling Apache web server signature can be achieved by editing Apache config file.

On Debian, Ubuntu or Linux Mint:

```
$ sudo vi /etc/apache2/apache2.conf
```

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On CentOS, Fedora, RHEL or Arch Linux:

```
$ sudo vi /etc/httpd/conf/httpd.conf
```

Add the following two lines at the end of Apache config file.

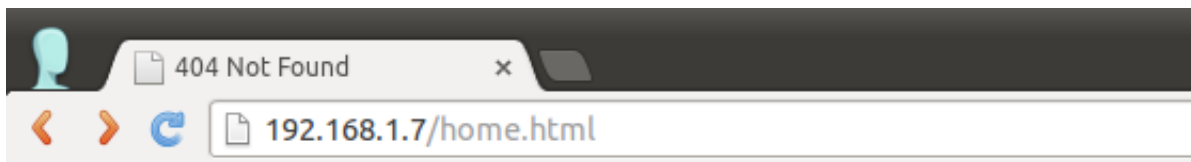
Then restart web server to activate the change:

```
$ sudo service apache2 restart (Debian, Ubuntu or Linux Mint)
```

```
$ sudo service httpd restart (CentOS/RHEL 6)
```

```
$ sudo systemctl restart httpd.service (Fedora, CentOS/RHEL 7, Arch Linux)
```

The first line `'ServerSignature Off'` makes Apache2 web server hide Apache version info on any error pages.



Not Found

The requested URL `/home.html` was not found on this server.

However, without the second line `'ServerTokens Prod'`, Apache server will still include a detailed server token in HTTP response headers, which reveals Apache version number.

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```
$ curl -v http://192.168.1.7/home.html
* Hostname was NOT found in DNS cache
*   Trying 192.168.1.7...
* Connected to 192.168.1.7 (192.168.1.7) port 80 (#0)
> GET /home.html HTTP/1.1
> User-Agent: curl/7.35.0
> Host: 192.168.1.7
> Accept: */*
>
< HTTP/1.1 404 Not Found
< Date: Wed, 13 Aug 2014 02:05:11 GMT
* Server Apache/2.2.22 (Debian) is not blacklisted
< Server: Apache/2.2.22 (Debian) ←
< Vary: Accept-Encoding
< Content-Length: 284
< Content-Type: text/html; charset=iso-8859-1
<
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>404 Not Found</title>
</head><body>
<h1>Not Found</h1>
```

What the second line 'ServerTokens Prod' does is to suppress a server token in HTTP response headers to a bare minimal.

So with both lines in place, Apache will not reveal Apache version info in either web pages or HTTP response headers.

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```
$ curl -v http://192.168.1.7/home.html
* Hostname was NOT found in DNS cache
*   Trying 192.168.1.7...
* Connected to 192.168.1.7 (192.168.1.7) port 80 (#0)
> GET /home.html HTTP/1.1
> User-Agent: curl/7.35.0
> Host: 192.168.1.7
> Accept: */*
>
< HTTP/1.1 404 Not Found
< Date: Wed, 13 Aug 2014 02:32:08 GMT
* Server Apache is not blacklisted
< Server: Apache
< Vary: Accept-Encoding
< Content-Length: 207
< Content-Type: text/html; charset=iso-8859-1
<
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>404 Not Found</title>
</head><body>
<h1>Not Found</h1>
<p>The requested URL /home.html was not found on this server.</p>
</body></html>
```

Hide PHP Version

Another potential security threat is PHP version info leak in HTTP response headers. By default, Apache web server includes PHP version info via "X-Powered-By" field in HTTP response headers. If you want to hide PHP version in HTTP headers, open `php.ini` file with a text editor, look for "expose_php = On", and change it to "expose_php = Off".

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```
> GET /info.php HTTP/1.1
> User-Agent: curl/7.35.0
> Host: 192.168.1.7
> Accept: */*
>
< HTTP/1.1 200 OK
< Date: Wed, 13 Aug 2014 03:05:45 GMT
* Server Apache is not blacklisted
< Server: Apache
< X-Powered-By: PHP/5.4.4-14+deb7u12
< Vary: Accept-Encoding
< Transfer-Encoding: chunked
< Content-Type: text/html
<
```

On Debian, Ubuntu, or Linux Mint:

```
$ sudo vi /etc/php5/apache2/php.ini
```

On CentOS, Fedora, RHEL or Arch Linux:

```
$ sudo vi /etc/php.ini
```

Finally, restart Apache2 web server to reload updated PHP config file.

Now you will no longer see "X-Powered-By" field in HTTP response headers.