

Apache Access Control



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Objectives



Control access using IP Addresses or Hostnames

Display Server-Status page to the localhost only

Provide access to protected content on a website to authorized users and groups



Control Host Access Apache 2.2

Prior to Apache 2.4, host access control would be written similar to the following:

```
Order allow,deny  
Allow from localhost
```

Where the default access is denied except for those hosts listed in the allow list. With Apache 2.4, access control is maintained using the **Require** directive for both hosts and users



Server Version: Apache/2.4.23 (Unix)
Server MPM: event
Server Built: Jul 5 2016 07:34:37

Current Time: Thursday, 08-Dec-2016 09:48:59 GMT
Restart Time: Thursday, 08-Dec-2016 09:43:58 GMT
Parent Server Config. Generation: 1
Parent Server MPM Generation: 0
Server uptime: 5 minutes
Server load: 0.00 0.00 0.00
Total accesses: 6 - Total Traffic: 11 kB
CPU Usage: u.05 s.08 cu0 cs0 - .0433% CPU load
.02 requests/sec - 37 B/second - 1877 B/request
1 requests currently being processed, 74 idle workers

PID	Connections		Threads		Async connections		
	total	accepting	busy	idle	writing	keep-alive	closing
3407	0	yes	0	25	0	0	0
3408	0	yes	1	24	0	0	0
3409	0	yes	0	25	0	0	0
Sum	0		1	74	0	0	0



Server Status Page

The Server Status page can be viewed via a web browser when this is enabled. Access to this page may be restricted to the Server itself and perhaps your Management Workstation



```
LoadModule status_module modules/mod_status.so  
LoadModule authz_host_module modules/mod_authz_host.so  
  
<Location "/status">  
    SetHandler server-status  
    Require ip 127.0.0.1  
</Location>
```

Configuring the Status Page

For this we introduce the Location block and load two additional modules. A Location block is similar to a Directory block, however it is used to secure **items outside of the filesystem**, unlike the Directory block. In this case we use it to secure access to the module using the URI **/status**.



Configuring the Status Page



```
LoadModule auth_basic_module modules/mod_auth_basic.so  
LoadModule authn_file_module modules/mod_authn_file.so  
LoadModule authz_user_module modules/mod_authz_user.so
```

User Access

To be able to authenticate users we need to load an additional 3 modules as a minimum. An **Authentication Type**, an **Authentication Provider** and an **Authorization module**.




```
LoadModule authn_core_module modules/mod_authn_core.so
```

```
LoadModule authz_core_module modules/mod_authz_core.so
```

Core Modules

The core modules need to be loaded as well.



```
AuthType Basic
```

```
AuthName "Only authorized users allowed"
```

```
AuthUserFile /etc/httpd/sales.pwd
```

```
Require valid-user
```

```
#Require user fred joe
```

Authentication Settings

To allow user authentication to a file we can add code similar to this.



```
htpasswd -c /etc/httpd/sales.pwd fred  
htpasswd /etc/httpd/sales.pwd joe  
htpasswd -D /etc/httpd/sales.pwd joe  
htpasswd -v /etc/httpd/sales.pwd fred  
echo Password1 | htpasswd -i /etc/httpd/sales.pwd joe
```

Configure User Passwords

To manage file based users and passwords we have the **htpasswd** command.



Authenticating Users



Configuring the Virtual Host

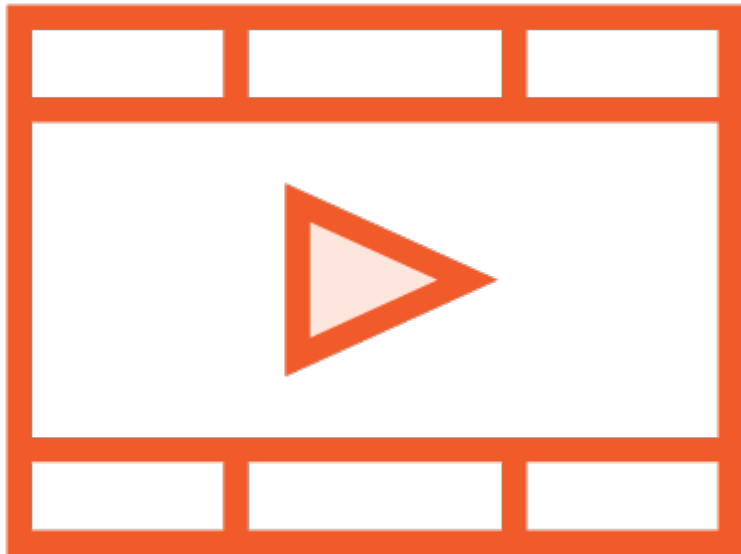


Configuring Passwords



Authenticating Groups





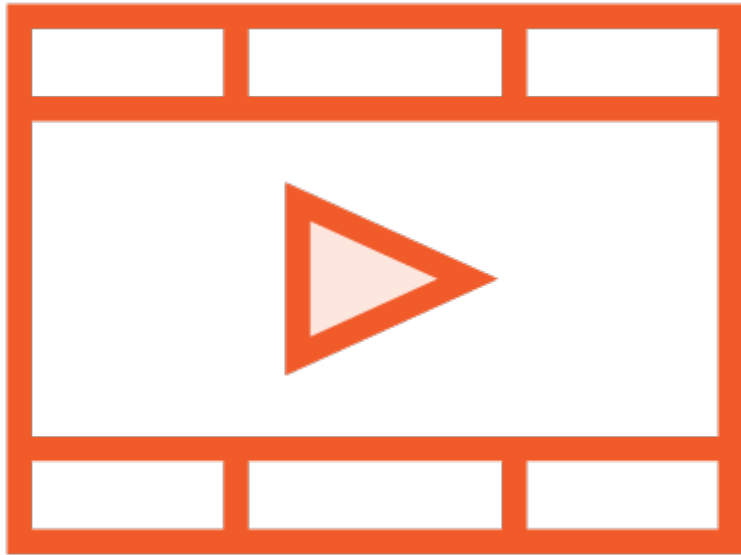
Authenticating Hosts

Authenticating hosts will require the module:
authz_host_module

The authorization line in the Location or Directory block would be similar to this:
Require ip 127.0.0.1

The server status page can shown when defined in a Location block and requires the module:
status_module





Authenticating Users

Authenticating users will require the modules:

`authz_user_module`
`auth_basic_module`
`authn_file_module`

The password file can be populated with the command:

`htpasswd`

Authorization can be either a list of users or all users:

`Require user bob joe`

`Require valid-user`



Next up: Using Scripts to
Deliver Dynamic Content

