

Practice: Changing SELinux Contexts

Guided exercise

In this lab, you will persistently change the SELinux context of a directory and its contents.

Resources	
Files:	/etc/httpd/conf/httpd.conf
Machines:	serverX

Outcomes:

You will have a web server that publishes web content from a non-standard document root.

Before you begin...

You should have a working RHEL 7 system with SELinux in enforcing mode.

- ☐ 1. Log in as **root** on **serverX**. Use **yum** to install the Apache web server.

```
[root@serverX ~]# yum install -y httpd
```

- ☐ 2. Configure Apache to use a document root in a non-standard location.

- ☐ 2.1. Create the new document root, **/custom**.

```
[root@serverX ~]# mkdir /custom
```

- ☐ 2.2. Create the **index.html** with some recognizable content.

```
[root@serverX ~]# echo 'This is serverX.' > /custom/index.html
```

- ☐ 2.3. Configure Apache to use the new location. You need to replace the two occurrences of **"/var/www/html"** with **"/custom"** in the Apache configuration file, **/etc/httpd/conf/httpd.conf**.

```
[root@serverX ~]# vi /etc/httpd/conf/httpd.conf
[root@serverX ~]# grep custom /etc/httpd/conf/httpd.conf
DocumentRoot "/custom"
<Directory "/custom">
```

- ☐ 3. Start the Apache web service.

```
[root@serverX ~]# systemctl start httpd
```

- ☐ 4. Open a web browser on **serverX** and try to view the following URL: **http://localhost/index.html**. You will get an error message that says you do not have permission to access the file.

- ❑ 5. Define a SELinux file context rule that sets the context type to **httpd_sys_content_t** for **/custom** and all the files below it.

```
[root@serverX ~]# semanage fcontext -a -t httpd_sys_content_t '/custom(/.*)?'
```

- ❑ 6. Use **restorecon** to change their contexts.

```
[root@serverX ~]# restorecon -Rv /custom
restorecon reset /custom context unconfined_u:object_r:default_t:s0-
>unconfined_u:object_r:httpd_sys_content_t:s0
restorecon reset /custom/index.html context unconfined_u:object_r:default_t:s0-
>unconfined_u:object_r:httpd_sys_content_t:s0
```

- ❑ 7. Try to view <http://localhost/index.html> again. You should see the message "This is serverX." displayed.