

## Laboratorio

### Comenzar el laboratorio

1. Inicie la máquina virtual CentOS en VirtualBox desde una instantánea limpia
2. Inicie sesión desde la Terminal de Windows utilizando el siguiente comando: `ssh centos@localhost`
3. Inicie el laboratorio con el siguiente comando: `startlab4`.

### Reparar un servicio dañado

*La solución de problemas es una habilidad fundamental para todos los trabajadores de tecnología.*

Los computadores son exasperantemente literales. Un espacio omitido, una coma fuera de lugar... ¿entiende esta frase? Un computador no lo haría. Por eso, la solución de problemas -trabajar de manera metódica hasta encontrar la causa raíz antes de aplicar una solución- es esencial en todo trabajo de tecnología.

Se supone que esta máquina virtual está ejecutando httpd - **pero tiene un error de configuración. Solucione el error.** Compruebe los registros, compruebe Internet, intente reiniciarlo. Su objetivo es conseguir que httpd se inicie de nuevo, para que podamos ver la página de prueba.

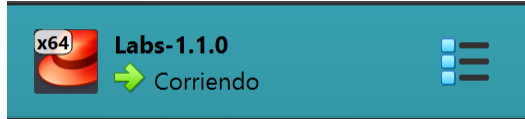
### Tareas

1. Solucionar el problema de por qué httpd no se inicia
2. Iniciar httpd para que cargue la configuración de trabajo
3. Navegar a `http://localhost` para comprobar que httpd funciona

### Fin del laboratorio

1. Detenga el laboratorio con el siguiente comando: `stoplab4`
  - a. Si no recibe ninguna respuesta, todas las tareas están completadas.
  - b. Si obtiene una respuesta, ¡todavía tiene más trabajo por hacer!

## Iniciar Máquina virtual



## Autenticar usuario

```
vbox login: centos
Password:
Last login: Wed Aug 13 19:45:59 on tty1
[centos@vbox ~]$
```

## 1. Verificar el estado de httpd (servicio web)

- Utilizando el comando: `systemctl status httpd`

```
[centos@vbox ~]$ systemctl status httpd
■ httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: inactive (dead)
   Docs: man:httpd.service(8)

Aug 28 21:08:21 localhost systemd[1]: httpd.service: Unit cannot be reloaded because it is inactive
[centos@vbox ~]$
```

- Reiniciar httpd usando el comando: `sudo systemctl restart httpd`

```
[centos@vbox ~]$ systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: active (running) since Thu 2025-08-28 21:18:57 BST; 11min ago
   Docs: man:httpd.service(8)
  Main PID: 1350 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0 B/s"
    Tasks: 177 (limit: 11113)
   Memory: 30.8M
      CPU: 718ms
   CGroup: /system.slice/httpd.service
           └─1350 /usr/sbin/httpd -DFOREGROUND
             └─1351 /usr/sbin/httpd -DFOREGROUND
               └─1352 /usr/sbin/httpd -DFOREGROUND
                 └─1353 /usr/sbin/httpd -DFOREGROUND
                   └─1354 /usr/sbin/httpd -DFOREGROUND

Aug 28 21:18:55 vbox systemd[1]: Starting The Apache HTTP Server...
Aug 28 21:18:56 vbox httpd[1350]: AH00558: httpd: Could not reliably determine the server's fully q
Aug 28 21:18:57 vbox systemd[1]: Started The Apache HTTP Server.
Aug 28 21:18:57 vbox httpd[1350]: Server configured, listening on: port 80
[centos@vbox ~]$
```

## Verificar log's para diagnosticar el fallo del servicio

```
[centos@vbox ~]$ sudo tail -n 20 /var/log/httpd/error_log
[Thu Aug 28 21:18:56.658177 2025] [core:notice] [pid 1350:tid 1350] SELinux policy enabled: httpd running as context system_u:system_r:httpd_t:s0
[Thu Aug 28 21:18:56.666968 2025] [suexec:notice] [pid 1350:tid 1350] AH01232: suEXEC mechanism enabled (wrapper: /usr/sbin/suexec)
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using fe80::a00:27ff:fe98:7e5%enp0s3. Set the 'ServerName' directive globally to suppress this message
[Thu Aug 28 21:18:57.024160 2025] [lbmethod_heartbeat:notice] [pid 1350:tid 1350] AH02202: No slotmem from mod_heartbeat
[Thu Aug 28 21:18:57.042583 2025] [mpm_event:notice] [pid 1350:tid 1350] AH00489: Apache/2.4.62 (CentOS Stream) configured -- resuming normal operations
[Thu Aug 28 21:18:57.042615 2025] [core:notice] [pid 1350:tid 1350] AH00094: Command line: '/usr/sbin/httpd -D FOREGROUND'
```

← warning

http (Apache) funcionando correctamente,  
warning: apache no puede determinar el nombre de dominio completo

solución del warning: Configurar el "ServerName"

Editar el archivo de configuración de Apache: sudo vi /etc/httpd/conf/httpd.conf

```
# This is the main Apache HTTP server configuration file. It contains the
# configuration directives that give the server its instructions.
# See <URL:http://httpd.apache.org/docs/2.4/> for detailed information.
# In particular, see
# <URL:http://httpd.apache.org/docs/2.4/mod/directives.html>
# for a discussion of each configuration directive.
#
# See the httpd.conf(5) man page for more information on this configuration,
# and httpd.service(8) on using and configuring the httpd service.
#
# Do NOT simply read the instructions in here without understanding
# what they do. They're here only as hints or reminders. If you are unsure
# consult the online docs. You have been warned.
#
# Configuration and logfile names: If the filenames you specify for many
# of the server's control files begin with "/" (or "drive:" for Win32), the
# server will use that explicit path. If the filenames do *not* begin
# with "/", the value of ServerRoot is prepended -- so 'log/access_log'
# with ServerRoot set to '/www' will be interpreted by the
# server as '/www/log/access_log', whereas '/log/access_log' will be
# interpreted as '/log/access_log'.
#
# ServerRoot: The top of the directory tree under which the server's
# configuration, error, and log files are kept.
#
# Do not add a slash at the end of the directory path. If you point
# ServerRoot at a non-local disk, be sure to specify a local disk on the
# Mutex directive, if file-based mutexes are used. If you wish to share the
# same ServerRoot for multiple httpd daemons, you will need to change at
# least PidFile.
ServerRoot "/etc/httpd"
#
#etc/httpd/conf/httpd.conf" 358L, 12005B
```

```
<IfModule mime_magic_module>
#
# The mod_mime_magic module allows the server to use various hints from the
# contents of the file itself to determine its type. The MIMEMagicFile
# directive tells the module where the hint definitions are located.
#
# MIMEMagicFile conf/magic
</IfModule>
#
# Customizable error responses come in three flavors:
# 1) plain text 2) local redirects 3) external redirects
#
# Some examples:
#ErrorDocument 500 "The server made a boo boo."
#ErrorDocument 404 /missing.html
#ErrorDocument 404 "/cgi-bin/missing_handler.pl"
#ErrorDocument 402 http://www.example.com/subscription_info.html
#
#
# EnableMMAP and EnableSendfile: On systems that support it,
# memory-mapping or the sendfile syscall may be used to deliver
# files. This usually improves server performance, but must
# be turned off when serving from network-mounted
# filesystems or if support for these functions is otherwise
# broken on your system.
# Defaults if commented: EnableMMAP On, EnableSendfile Off
#
# EnableMMAP off
# EnableSendfile on
#
# Supplemental configuration
#
# Load config files in the "/etc/httpd/conf.d" directory, if any. IncludeOptional conf.d/*.conf
```

Remplazar: #ServerName [www.example.com:80](http://www.example.com:80)

```
# If your host doesn't have a
#
ServerName localhost:80_
ServerName localhost:80
```

Guardar y salir:

- Presiona ESC, luego escribe: wq y presiona Enter.

```
:wq
"/etc/httpd/conf/httpd.conf" 358L, 11998B written
[centos@vbox ~]$ _
```

Verificar la sintaxis de la configuración:

```
[centos@vbox ~]$ apachectl configtest
Syntax OK
[centos@vbox ~]$
```

Reiniciar Apache:

```
[centos@vbox ~]$ sudo systemctl restart httpd
[centos@vbox ~]$ systemctl status httpd
• httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: active (running) since Fri 2025-08-29 01:09:45 BST; 5s ago
     Docs: man:httpd.service(8)
   Main PID: 1814 (httpd)
   Status: "Started, listening on: port 80"
   Tasks: 177 (limit: 11113)
   Memory: 25.5M
     CPU: 168ms
   CGroup: /system.slice/httpd.service
           └─1814 /usr/sbin/httpd -DFOREGROUND
             └─1815 /usr/sbin/httpd -DFOREGROUND
               └─1816 /usr/sbin/httpd -DFOREGROUND
                 └─1817 /usr/sbin/httpd -DFOREGROUND
                   └─1818 /usr/sbin/httpd -DFOREGROUND

Aug 29 01:09:45 vbox systemd[1]: Starting The Apache HTTP Server...
Aug 29 01:09:45 vbox httpd[1814]: Server configured, listening on: port 80
Aug 29 01:09:45 vbox systemd[1]: Started The Apache HTTP Server.
```

Verificar Warning:

```
[centos@vbox ~]$ sudo tail -5 /var/log/httpd/error_log
[Fri Aug 29 01:09:45.916439 2025] [core:notice] [pid 1814:tid 1814] SELinux policy enabled: httpd ru
ning as context system_u:system_r:httpd_t:s0
[Fri Aug 29 01:09:45.919682 2025] [suexec:notice] [pid 1814:tid 1814] AH01232: suEXEC mechanism enab
led (wrapper: /usr/sbin/suexec)
[Fri Aug 29 01:09:45.951938 2025] [lbmethod_heartbeat:notice] [pid 1814:tid 1814] AH02282: No slotme
m from mod_heartbeat
[Fri Aug 29 01:09:45.963558 2025] [mpm_event:notice] [pid 1814:tid 1814] AH00489: Apache/2.4.62 (Cen
tOS Stream) configured -- resuming normal operations
[Fri Aug 29 01:09:45.963578 2025] [core:notice] [pid 1814:tid 1814] AH00894: Command line: '/usr/sbi
n/httpd -D FOREGROUND'
[centos@vbox ~]$
```

Comprobar la página <http://localhost> comprobación de resultados

