



**Placement Empowerment Program**  
***Cloud Computing and DevOps Centre***

***100 Days of DevOps Challenge***

***Day 12 : Linux Network Services***

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# Linux Network Services

## Objective :

The main objective of this task is to diagnose and fix a connectivity issue with the **Apache service** on the stapp01 server. The service isn't reachable on port **5000**, and the task requires you to find the root cause, which could be the service itself, its configuration, or a firewall.

## Steps Performed :

- **Log in to the server:** SSH into the stapp01 server from the jump\_host using the provided credentials.
  - **Command:** `ssh tony@stapp01`
- **Check Apache status:** Verify if the Apache service (httpd) is running. It's likely inactive.
  - **Command:** `sudo systemctl status httpd`
- **Check the configuration:** Open the Apache configuration file to ensure it's set to listen on port 5000. The file is usually located at `/etc/httpd/conf/httpd.conf`.
  - **Command:** `sudo vi /etc/httpd/conf/httpd.conf`
  - **Action:** Find the line `Listen 80` and change it to `Listen 5000`. If you see `Listen 5000` already there, look for a duplicate `Listen` directive.
- **Restart the service:** After saving the configuration changes, attempt to restart the Apache service. If it fails, proceed to the next step.
  - **Command:** `sudo systemctl restart httpd`
- **Check for a firewall block:** If the service fails to restart with a "No route to host" error from the curl command, a firewall is blocking the port. You need to add a rule to allow traffic on port 5000.
  - **Command:** `sudo iptables -I INPUT -p tcp --dport 5000 -j ACCEPT`

❑ **Save firewall rules:** Make the firewall rule permanent so it persists after a reboot.

- **Command:** `sudo service iptables save` or `sudo iptables-save | sudo tee /etc/sysconfig/iptables`

❑ **Final test:** After all fixes are in place, restart the service, exit the server, and use curl from the jump\_host to confirm the service is accessible.

- **Command:** `curl http://stapp01:5000`

