

The first step is to verify if the DNS is resolving the domain name (internal.example.com) to an IP address with this command **cat /etc/resolv.conf**

Once DNS resolution is confirmed, check whether the web service is reachable with this command **telnet 10.0.0.10 80**

We can use curl to verify if the HTTP service is responding

curl http://10.0.0.10

1. If the server is not listening: Service Not Listening

We would use ss or netstat to check if the service is listening on ports 80 and 443

With this command **ss -tuln | grep ':80\|:443'**

Then:

We restart the web service if it's not listening:

sudo systemctl restart apache2

2. If it is DNS Misconfiguration

We use **cat /etc/resolv.conf** and dig to ensure DNS servers are configured correctly.

Then we add a valid DNS server to **/etc/resolv.conf**, such as 8.8.8.8 (Google's public DNS).

With command: sudo nano /etc/resolv.conf

3. Network or Firewall Issues

Confirm:

We use ping to check network connectivity to the server.

We check firewall settings on both the server and client using ufw or iptables.

Command:

ping 10.0.0.10

4. Fix 4: Incorrect Routing

We use **ip route** or **netstat -r** to check the routing table for correct routing.

With the command **ip route**