



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

***100 Days of DevOps Challenge***

***Day 20 : Configure Nginx + PHP-FPM Using Unix Sock***

**Name: Nevesh Gokul M J**

**Department: CSE**



# Configure Nginx + PHP-FPM Using Unix Sock

## Objective :

The objective is to configure a web server on stapp03 to serve a PHP-based application. This involves installing Nginx and PHP-FPM, configuring Nginx to listen on port 8096 and use the document root /var/www/html, and integrating it with PHP-FPM to process PHP files.

## Steps Performed :

### □ Connect to the Server:

- SSH into the jump host: `ssh thor@jump_host`
- From the jump host, SSH into stapp01: `ssh tony@stapp01`

### □ Install Required Software:

- Gain root access: `sudo -i`
- Install Nginx and PHP-FPM: `yum install nginx php-fpm -y`

### □ Configure Nginx:

- Open the Nginx configuration file: `vim /etc/nginx/nginx.conf`
- In the server block, change `listen 80;` to `listen 8096;`
- Change `root /usr/share/nginx/html;` to `root /var/www/html;`
- Uncomment and modify the PHP block to use the correct socket:

Nginx

```
location ~ \.php$ {  
    fastcgi_pass unix:/run/php-fpm/www.sock;  
    fastcgi_index index.php;  
    fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;  
    include fastcgi_params;  
}
```

- Save and exit the editor.

### □ Configure PHP-FPM:

- Open the PHP-FPM configuration file: `vim /etc/php-fpm.d/www.conf`
- Ensure the `listen` directive is set to the Unix socket: `listen = /run/php-fpm/www.sock`
- Save and exit.

## □ Start and Enable Services:

Start the services:

- `systemctl start nginx`
- `systemctl start php-fpm`

Enable services to start on boot:

- `systemctl enable nginx`
- `systemctl enable php-fpm`

## □ Verify and Test:

Test Nginx syntax: `nginx -t`

Restart services if the test is successful:

- `systemctl restart nginx`
- `systemctl restart php-fpm`

Return to the jump host.

Verify the website is working using `curl`:

- `curl http://stapp01:8096/index.php`

The screenshot shows a terminal window with a dark background. On the left, there is a sidebar with icons for home, search, and other functions. The main area is divided into two panes. The left pane displays a green checkmark and the text "You're done!" followed by "CONGRATULATIONS!!!!". Below this, it says "You have successfully completed the challenge. Results have been saved. Ref ID: 68077509399a2462b6cc6671". It also mentions "That might have been an easy task for you. But don't worry. Depending on the tasks you complete, you will get more difficult and advanced tasks assigned in the future." and "You can also view your results in your dashboard under the 'Active Practice' page." The right pane shows a terminal session with the following commands and output:

```
Sep 05 05:32:41 stapp01.stratos.xfusioncorp.com systemd[1]: php-fpm.service: Got notification message from PID 5126 (READY=1, STATUS=Ready to handle connections, MAINPID=5126)
Sep 05 05:32:41 stapp01.stratos.xfusioncorp.com systemd[1]: php-fpm.service: Changed start -> running
Sep 05 05:32:41 stapp01.stratos.xfusioncorp.com systemd[1]: php-fpm.service: Job 357 php-fpm.service/start finished, result=done
Sep 05 05:32:41 stapp01.stratos.xfusioncorp.com systemd[1]: Started The PHP FastCGI Process Manager.
Sep 05 05:32:41 stapp01.stratos.xfusioncorp.com systemd[1]: php-fpm.service: Failed to send unit change signal for php-fpm.service: Connection reset by peer
Sep 05 05:32:51 stapp01.stratos.xfusioncorp.com systemd[1]: php-fpm.service: Got notification message from PID 5126 (READY=1, STATUS=Processes active: 0, idle: 5, Requests: 0, slow: 0, Traffic: 0.00req/sec)
[tony@stapp01 ~]$ curl http://stapp01:8099/index.php
<?php
echo "Welcome to xFusionCorp Industries!";
?>[tony@stapp01 ~]$ sudo vi /etc/nginx/nginx.conf
[tony@stapp01 ~]$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
[tony@stapp01 ~]$ sudo nginx -s reload
[tony@stapp01 ~]$ curl http://stapp01:8099/index.php
Welcome to xFusionsudo systemctl restart nginx
[tony@stapp01 ~]$ curl http://stapp01:8099/index.php
Welcome to xFusionCorp Industries! [tony@stapp01 ~]$ exit
logout
Connection to stapp01 closed.
thor@jumphost ~$ curl http://stapp01:8099/index.php
Welcome to xFusionCorp Industries! thor@jumphost ~$
```



**Congrats!**

You have completed the task successfully.



**100 Days of  
DevOps**

Day 20: Configure Nginx + PHP-FPM Usin...



100 

1000 

 Share your success card