*Topic:* **Nextcloud migration to different server along with EFS.**

### Step 1:

* **Set up the new machine with the desired OS.**
* **If OS is Ubuntu then run below command after installing the OS.**
  + **apt update**
  + **apt install unzip -y**

### Step 2:

* **Install and configure the Web server, database as well as PHP for Nextcloud (e.g. permissions or file upload size limits) and make sure the PHP version matches Nextcloud supported configuration and all relevant PHP extensions are installed.**
* **Commands are as below:**
  + **Web server (Nginx):** 
    - **apt install nginx –y**
    - **systemctl start nginx**
    - **systemctl enable nginx**
  + **Database:**
    - **apt install mysql-server –y**
    - **systemctl start mysql**
    - **systemctl enable mysql**
  + **PHP (Version 8.1):** 
    - **apt install software-properties-common**
    - **apt autoremove**
    - **add-apt-repository ppa:ondrej/php**
    - **apt install *extension name***
    - **Ext. Name: php8.1-fpm, php8.1-cli, php8.1-curl, php8.1-gd, php8.1-zip, php8.1-dom, php8.1-mbstring, php8.1-mysql, php-simplexml, php8.1-zip, php-gmp, php-imagick.**
    - **Note: Kindly install extension one by one.**
    - **systemctl start php8.1-fpm**
    - **systemctl enable php8.1-fpm**

### Step 3:

* **Now set up the database and make sure it is a Nextcloud supported configuration.**
  + **CREATE DATABASE *DBName*;CREATE USER '*DBUser*'@'localhost' IDENTIFIED BY '*Password*';GRANT ALL PRIVILEGES ON *DBName*.\* TO '*DBUser*'@'localhost';FLUSH PRIVILEGES;**

### Step 4:

* **Now clone Nextcloud latest version by below command to “/var/www/” directory.**
* **wget https://download.nextcloud.com/server/releases/latest.zip -P /var/www/**

### Step 5:

* **Now configure EFS (Elastic File Storage) in AWS.**
* **Also open port 2049 of EFS in security group.**
* **EFS creation steps:**
  1. **Go to EFS service in AWS web console.**
  2. **Then click on “Create file system” button.**
  3. **We can set transition into IA as per requirement.**
  4. **Give name for EFS and select VPC respectively.**
  5. **After creation Open that EFS and click on “Attach” button.**
  6. **Now mount Amazon EFS file system on a Linux instance with the help of below command:**
  + **Using the EFS mount helper:**
  + **Note: For efs mount we need to install efs-utils by below command:**
    - **git clone** [**https://github.com/aws/efs-utils**](https://github.com/aws/efs-utils)
    - **cd efs-utils/**
    - **apt-get -y install ./build/amazon-efs-utils\*deb**
    - **mount -t efs -o tls fs-0c152780d3ea1259f:/ /var/www/nextcloud/data/**
* **Now make entry in /etc/fstab for permanent mount.**
* **Ex: fs-0c152780d3ea1259f.efs.ap-east-1.amazonaws.com:/ /var/www/nextcloud/data efs defaults,\_netdev 0 0**

### Step 6:

* **On the original machine then stop Nextcloud. First activate the maintenance mode. After waiting for 6-7 minutes for all sync clients to register the server is in maintenance mode stop the application and/or Web server that serves Nextcloud.**
* **Create a dump from the database and copy it to the new machine. There import it in the database.**
* **Copy all files from your Nextcloud instance, the Nextcloud program files, the data files, the log files and the configuration files, to the new machine.**
* **Set permission to data folder 0770.**
* **Also set 0755 to folders and 0644 to files inside the data folder.**
* **The data files should keep their original timestamp (can be done by using “rsync” with “-t” option) otherwise the clients will re-download all the files after the migration.**

### Step 7:

* **Now check data paths in the Nextcloud config.php file.**
* **Change the CNAME entry in the DNS to point new server on existing domain.**
* **Now make vHost file for respective domain with SSL.**
* **After changes in vHost restart webserver (nginx) once.**

### Step 8:

* **If we have added files/folders via terminal then kindly re-index all files and folder using below command. Run this command in Ubuntu user.**
  + **sudo -u www-data php /var/www/nextcloud/occ files:scan –all**
* **If we have to do it for particular user then run below command.**
  + **sudo -u www-data php /var/www/nextcloud/occ files:scan *username***

### Step 9:

* **Check SMTP settings and configure as per requirements.**