Pingnetbox.com – A network diagnostic websystem

**Installation Guide**

**Step 1: Domain Registration**

1. Register a domain name at “GoDaddy.com”, pingnetbox.com

**Step 2: Registration a free email hosting service at ZOHO.com**

1. Configure pingnetbox.com to ZOHO.com free email service.

**Step 3: Cloudflare free tier account registration**

3.1 Register a Cloudflare free tier account and parking the domain “pingnetbox.com” to Cloudflare.

3.2 Get your Server IP address x.x.x.x, configure the DNS record [www.pingnetbox.com](http://www.pingnetbox.com) at Cloudflare DNS mapping A record, enable CDN - content delivery service.

3.3 Enable the SSL service provided by Cloudflare

3.4 Map MX record to Cloudflare of pingnetbox.com point to ZOHO.com service domain.

**Step 4: Configure reverse proxy service at internal gateway to internal Raspberry PI**

* 1. Configure the reverse proxy service at internal internet gateway’s Apache server.

add /etc/apache2/sites-available/www.pingnetbox.com.conf

<VirtualHost \*:80>

ServerName www.pingnetbox.com

ProxyPreserveHost On

ProxyPass "/" "http://X.X.X.X/" 🡨 Internal Raspberry PI IP

ProxyPassReverse "/" "http://X.X.X.X/" 🡨 Internal Raspberry PI IP

ErrorLog ${APACHE\_LOG\_DIR}/error.log

CustomLog ${APACHE\_LOG\_DIR}/access.log combined

</VirtualHost>

Create symbolic link ln -s etc/apache2/sites-available/www.pingnetbox.com.conf etc/apache2/sites-enable/www.pingnetbox.com.conf

**Step 5: Install Raspberry PI – Pingnetbox main server service**

* 1. Install Raspberry Pi main system by Raspberry PI image burner - <https://www.raspberrypi.com/software/operating-systems/>
  2. Update the system package with sudo apt-get -y update & apt-get -y upgrade
  3. Install the system package with sudo apt-get install -y apache2 mariadb php7 php7-mysql perl traceroute whois
  4. Copy the software package to /var/www/html/
  5. Create the Database and grand new user pingnetbox a permission.

create database pingnetbox;

use pingnetbox;

create table user (

username varchar(100),

password varchar(255),

email varchar(100),

authentication varchar(100),

checkaccount int

);

create table ping (

username varchar(100),

destination varchar(255),

pingenable varchar(10)

);

CREATE USER 'pingnetbox'@'localhost' IDENTIFIED BY 'pingnetbox';

GRANT ALL PRIVILEGES ON pingnetbox.\* TO 'pingnetbox'@localhost

FLUSH PRIVILEGES;

* 1. Reboot system – sudo reboot.

**Step 6: Create a Crontab service for schedule PING**

6.1 Create a new crontab with crontab -e

\*/5 \* \* \* \* php /var/www/html/script/SchedulePingCron.php