



## BÁO CÁO LAB 8

Sinh viên thực hiện	<b>Sinh viên 1</b> MSSV: Họ tên: Phan Võ Thiên Trường <b>Sinh viên 2</b> MSSV: Họ tên:
Lớp	NS011
Tổng thời gian thực hiện Lab trung bình	
Phân chia công việc (nếu là nhóm)	<b>[Sinh viên 1]:</b>  <b>[Sinh viên 2]:</b>
Link Video thực hiện (nếu có yêu cầu)	
Ý kiến (nếu có) + Khó khăn gặp phải + Đề xuất, góp ý...	
Điểm tự đánh giá (bắt buộc)	? /10



*[Nội dung báo cáo chi tiết – Trình bày tùy sinh viên, Xuất file .PDF khi nộp]*

Yêu cầu: tạo cặp nameserver ns1.domain.com và ns2.domain.com

- Request 2 IP WAN

WAN1 sử dụng lại IP Tuần 5 zimbra, WAN2 sử dụng IP tuần 7.

Lưu ý: Tắt lab các tuần trước để tránh đụng IP.

- Subnet: 255.255.255.0
- GW: 103.232.123.1

Các bạn đặt trực tiếp IP WAN lên 02 card mạng (vubr0).

Tạo 2 VM với hostname lần lượt là NS1 và NS2 Ubuntu 22.04.

Chạy lệnh:

```
Sudo hostnamectl set-hostname NS1/NS2
```

NS1:

```
root@NS1:~#  
root@NS1:~# hostnamectl  
Static hostname: NS1  
Icon name: computer-vm  
Chassis: vm  
Machine ID: fb160ea0a5a94a01ec088b61c829b94f  
Boot ID: b368b87514724af28507c9f690e55949  
Virtualization: kvm  
Operating System: Ubuntu 22.04.1 LTS  
Kernel: Linux 5.15.0-48-generic  
Architecture: x86-64  
Hardware Vendor: QEMU  
Hardware Model: Standard PC _i440FX + PIIX, 1996_  
root@NS1:~#
```

NS2:



```
4 packets transmitted, 4 received, 0% packet loss, time 3079ms
rtt min/avg/max/mdev = 0.388/0.491/0.635/0.104 ms
root@ns011-w08-truongpvt-2:~# hostnamectl set-hostname NS2
root@ns011-w08-truongpvt-2:~# hostnamectl
Static hostname: NS2
Icon name: computer-vm
Chassis: vm
Machine ID: fb160ea0a5a94a01ec088b61c829b94f
Boot ID: f704050117b948518ce663c4ac9327d6
Virtualization: kvm
Operating System: Ubuntu 22.04.1 LTS
Kernel: Linux 5.15.0-48-generic
Architecture: x86-64
Hardware Vendor: QEMU
Hardware Model: Standard PC i440FX + PIIX, 1996_
root@ns011-w08-truongpvt-2:~# apt install maria-db
```

Cài đặt MariaDB 10.x trên 2 VPS.

Chạy lệnh:

```
Sudo apt install mariadb-server
```

NS1

```
root@NS1:~# systemctl status mysql
● mariadb.service - MariaDB 10.6.18 database server
   Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-08-12 12:43:26 UTC; 17min ago
     Docs: man:mariadb(8)
           https://mariadb.com/kb/en/library/systemd/
   Process: 2095 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var/run/mysql (code=exited, status=0/SUCCESS)
   Process: 2096 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 2098 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] && VAR= || VAR=`cd /usr/bin/..; /usr/bin/galera_recovery`; [ $? -eq 0 ]
   Process: 2140 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 2142 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/SUCCESS)
  Main PID: 2128 (mariabdd)
    Status: "Taking your SQL requests now..."
     Tasks: 7 (limit: 15340)
    Memory: 61.0M
       CPU: 844ms
   CGroup: /system.slice/mariadb.service
           └─2128 /usr/sbin/mariabdd

Aug 12 12:43:26 NS1 systemd[1]: Started MariaDB 10.6.18 database server.
```

NS2



```
root@ns011-w08-truongpvt-2:~# systemctl status mysql
● mariadb.service - MariaDB 10.6.18 database server
   Loaded: loaded (/lib/systemd/system/mariadb.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-08-12 12:43:24 UTC; 25min ago
     Docs: man:mariadb(8)
           https://mariadb.com/kb/en/library/systemd/
   Process: 2565 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var/run/mysql (code=exited, status=0/SUCCESS)
   Process: 2566 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 2568 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] && VAR= || VAR='cd /usr/bin/..; /usr/bin/galera_recovery'; [ $? -eq 0 ]
   Process: 2610 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_START_POSITION (code=exited, status=0/SUCCESS)
   Process: 2612 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/SUCCESS)
  Main PID: 2598 (mariadb)
    Status: "Taking your SQL requests now..."
     Tasks: 7 (limit: 15340)
    Memory: 61.0M
       CPU: 940ms
    CGroup: /system.slice/mariadb.service
            └─2598 /usr/sbin/mariadb

Aug 12 12:43:24 NS2 mariadb[2598]: Version: '10.6.18-MariaDB-0ubuntu0.22.04.1' socket: '/run/mysql/mysql.sock' port: 3306 Ubuntu 22.04
```

Sau đó em chạy lệnh script bảo mật

### Sudo mysql\_secure\_installation

Tắt tính năng cho phép kết nối tới root từ xa ở cả 2 máy

```
Switch to unix_socket authentication [Y/n] y
Enabled successfully!
Reloading privilege tables..
... Success!

You already have your root account protected, so you can safely answer 'n'.

Change the root password? [Y/n] n
... skipping.

By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them. This is intended only for testing, and to make the installation
go a bit smoother. You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] y
... Success!

Normally, root should only be allowed to connect from 'localhost'. This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] y
... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access. This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] y
```

Sau đó cài đặt password cho user root trong mariadb ở cả 2 máy

```
ALTER USER 'root'@'localhost' IDENTIFIED BY "Lion`ElJohnson_!q@w#e";
```

Password cho cả 2 máy



```
root@NS1:~# mysql
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 39
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1 Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> ALTER USER 'root'@'localhost' IDENTIFIED BY 'new_password';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> ALTER USER 'root'@'localhost' IDENTIFIED BY "LionEl'Johnson_!q@w#e";
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> ALTER USER 'root'@'localhost' IDENTIFIED BY "LionEl'Johnson_!q@w#e";
Query OK, 0 rows affected (0.002 sec)

MariaDB [(none)]> exit;
Bye
root@NS1:~# mysql
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
root@NS1:~# mysql -p
Enter password:
```

```
Thanks for using MariaDB.
root@ns011-w08-truongpvt-2:~# mysql
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 39
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1 Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> ALTER USER 'root'@'localhost' IDENTIFIED BY "LionEl'Johnson_!q@w#e";
Query OK, 0 rows affected (0.002 sec)

MariaDB [(none)]> exit;
Bye
root@ns011-w08-truongpvt-2:~# mysql
```

Cài đặt PowerDNS version 4.2 trở lên trên server ns1.

Em cài đặt theo link: [Install PowerDNS on Ubuntu 18.04, 20.04, & 22.04 | phoenixNAP KB](#)

Đăng nhập mysql bằng root với password

```
Mysql -p
```

Xong tạo database gọi là 'pda' và trao tất cả quyền cho user 'pda' với password: pdns\_password

```
create database pda;
```

```
grant all privileges on pda.* to pda@localhost identified by 'pdns_password';
```



```
flush privileges;
```

sau đó theo bài hướng dẫn tạo table structures

```
CREATE TABLE domains (  
  id          INT AUTO_INCREMENT,  
  name        VARCHAR(255) NOT NULL,  
  master      VARCHAR(128) DEFAULT NULL,  
  last_check  INT DEFAULT NULL,  
  type        VARCHAR(6) NOT NULL,  
  notified_serial INT UNSIGNED DEFAULT NULL,  
  account     VARCHAR(40) CHARACTER SET 'utf8' DEFAULT NULL,  
  PRIMARY KEY (id)  
) Engine=InnoDB CHARACTER SET 'latin1';  
  
CREATE UNIQUE INDEX name_index ON domains(name);  
  
CREATE TABLE records (  
  id          BIGINT AUTO_INCREMENT,  
  domain_id   INT DEFAULT NULL,  
  name        VARCHAR(255) DEFAULT NULL,  
  type        VARCHAR(10) DEFAULT NULL,  
  content     VARCHAR(64000) DEFAULT NULL,  
  ttl         INT DEFAULT NULL,  
  prio        INT DEFAULT NULL,  
  change_date INT DEFAULT NULL,  
  disabled    TINYINT(1) DEFAULT 0,  
  ordername   VARCHAR(255) BINARY DEFAULT NULL,  
  auth        TINYINT(1) DEFAULT 1,  
  PRIMARY KEY (id)  
) Engine=InnoDB CHARACTER SET 'latin1';  
  
CREATE INDEX nametype_index ON records(name,type);
```



```
CREATE INDEX domain_id ON records(domain_id);
CREATE INDEX ordername ON records (ordername);
CREATE TABLE supermasters (
    ip            VARCHAR(64) NOT NULL,
    nameserver    VARCHAR(255) NOT NULL,
    account       VARCHAR(40) CHARACTER SET 'utf8' NOT NULL,
    PRIMARY KEY (ip, nameserver)
) Engine=InnoDB CHARACTER SET 'latin1';
CREATE TABLE comments (
    id            INT AUTO_INCREMENT,
    domain_id     INT NOT NULL,
    name          VARCHAR(255) NOT NULL,
    type          VARCHAR(10) NOT NULL,
    modified_at   INT NOT NULL,
    account       VARCHAR(40) CHARACTER SET 'utf8' DEFAULT NULL,
    comment       TEXT CHARACTER SET 'utf8' NOT NULL,
    PRIMARY KEY (id)
) Engine=InnoDB CHARACTER SET 'latin1';
CREATE INDEX comments_name_type_idx ON comments (name, type);
CREATE INDEX comments_order_idx ON comments (domain_id, modified_at);
CREATE TABLE domainmetadata (
    id            INT AUTO_INCREMENT,
    domain_id     INT NOT NULL,
    kind          VARCHAR(32),
    content       TEXT,
    PRIMARY KEY (id)
) Engine=InnoDB CHARACTER SET 'latin1';
CREATE INDEX domainmetadata_idx ON domainmetadata (domain_id, kind);
```



```
CREATE TABLE cryptokeys (  
  id          INT AUTO_INCREMENT,  
  domain_id   INT NOT NULL,  
  flags       INT NOT NULL,  
  active      BOOL,  
  content     TEXT,  
  PRIMARY KEY(id)  
) Engine=InnoDB CHARACTER SET 'latin1';  
  
CREATE INDEX domainidindex ON cryptokeys(domain_id);  
  
CREATE TABLE tsigkeys (  
  id          INT AUTO_INCREMENT,  
  name        VARCHAR(255),  
  algorithm   VARCHAR(50),  
  secret      VARCHAR(255),  
  PRIMARY KEY (id)  
) Engine=InnoDB CHARACTER SET 'latin1';  
  
CREATE UNIQUE INDEX namealgoindex ON tsigkeys(name, algorithm);
```

Sau đó disable DNS local và sử dụng public DNS để khi cài đặt powerDNS không bị lỗi.

```
systemctl disable systemd-resolved  
systemctl stop systemd-resolved
```

Cập nhật resolv.conf để server có thể phân giải được DNS

```
rm -rf /etc/resolv.conf  
echo "nameserver 8.8.8.8" > /etc/resolv.conf
```

Cuối cùng cài đặt powerdns

```
apt-get install pdns-server pdns-backend-mysql -y
```

Tiếp đến cấu hình PowerDNS trên file /etc/powerdns/pdns.conf

```
launch+=gmysql  
# gmysql parameters
```





```
gmysql-host=127.0.0.1  
gmysql-port=3306  
gmysql-dbname=pda  
gmysql-user=pda  
gmysql-password=pdns_password  
gmysql-dnssec=yes  
# gmysql-socket=
```

Restart lại powerDNS

```
Sudo systemctl stop pdns
```

```
Sudo systemctl start pdns
```

Cấu hình replication database của server ns1 về ns2. Khi thay đổi trên ns1 thì data sẽ được đồng bộ về server ns2.

Để cấu hình replication database, database của ns1 sẽ được coi là MASTER và ns2 là SLAVE.

1. Trên NS1 (Master):
  - Chỉnh sửa file cấu hình MariaDB:

```
sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

- Thêm các dòng này vào

```
bind-address = 0.0.0.0  
server-id = 1  
log_bin = /var/log/mysql/mysql-bin.log  
binlog_do_db = pda
```



```
GNU nano 6.2 /etc/mysql/mariadb.conf.d/50-server.cnf
# These groups are read by MariaDB server.
# Use it for options that only the server (but not clients) should see

# this is read by the standalone daemon and embedded servers
[server]

# this is only for the mysqld standalone daemon
[mysqld]

#
# * Basic Settings
#

#user                 = mysql
pid-file              = /run/mysqld/mysqld.pid
basedir               = /usr
datadir               = /var/lib/mysql
tmpdir                = /tmp

# Broken reverse DNS slows down connections considerably and name resolve is
# safe to skip if there are no "host by domain name" access grants
#skip-name-resolve

# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address = 0.0.0.0
server-id = 1
log_bin = /var/log/mysql/mysql-bin.log
binlog_do_db = dpa

#
# * Fine Tuning
#

#key_buffer_size      = 128M
```

- Sau đó khởi động lại mariadb-server

```
sudo systemctl restart mariadb
```

- Đăng nhập vào MariaDB bằng root và tạo user replication: repl\_user:repl\_password. Tiếp đến show MASTER để lấy thông tin file và position.

```
Mysql -u root -p
```

```
CREATE USER 'repl_user'@'103.232.123.167' IDENTIFIED BY 'repl_password';
```

```
GRANT REPLICATION SLAVE ON *.* TO 'repl_user'@'103.232.123.167';
```

```
FLUSH PRIVILEGES;
```



```
root@ns1:~# mysql -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1-log Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE USER 'repl_user'@'103.232.123.167' IDENTIFIED BY 'repl_password';
Query OK, 0 rows affected (0.044 sec)

MariaDB [(none)]> GRANT REPLICATION SLAVE ON *.* TO 'repl_user'@'103.232.123.167';
Query OK, 0 rows affected (0.002 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> SHOW MASTER STATUS;
+-----+-----+-----+-----+
| File           | Position | Binlog_Do_DB | Binlog_Ignore_DB |
+-----+-----+-----+-----+
| mysql-bin.000001 |      328 | dpa          |                   |
+-----+-----+-----+-----+
1 row in set (0.000 sec)

MariaDB [(none)]> 
```

## 2. Trên NS2 (Slave):

- Chỉnh sửa cấu hình file MariaDB:

```
sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

- Thêm các dòng này vào:

```
server-id = 2
```

```
relay-log = /var/log/mysql/mysql-relay-bin.log
```

- Khởi động lại MariaDB

```
sudo systemctl restart mariadb
```

- Cấu hình slave để kết nối với master

```
STOP SLAVE;
```

```
CHANGE MASTER TO
```

```
MASTER_HOST='103.232.123.89',
```

```
MASTER_USER='repl_user',
```

```
MASTER_PASSWORD='repl_password',
```



```
MASTER_LOG_FILE='mysql-bin.000XXX',  
MASTER_LOG_POS=YYYY;  
START SLAVE;
```

- Cuối cùng kiểm tra trạng thái slave

```
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
MariaDB [(none)]> STOP SLAVE;  
Query OK, 0 rows affected, 1 warning (0.000 sec)  
  
MariaDB [(none)]> CHANGE MASTER TO  
-> MASTER_HOST='103.232.123.89',  
-> MASTER_USER='repl_user',  
-> MASTER_PASSWORD='repl_password',  
-> MASTER_LOG_FILE='mysql-bin.000001',  
-> MASTER_LOG_POS=328;  
Query OK, 0 rows affected (0.030 sec)  
  
MariaDB [(none)]> START SLAVE;  
Query OK, 0 rows affected (0.002 sec)  
  
MariaDB [(none)]> SHOW SLAVE STATUS\G  
***** 1. row *****  
Slave_IO_State: Waiting for master to send event  
Master_Host: 103.232.123.89  
Master_User: repl_user  
Master_Port: 3306  
Connect_Retry: 60  
Master_Log_File: mysql-bin.000001  
Read_Master_Log_Pos: 328  
Relay_Log_File: mysql-relay-bin.000002  
Relay_Log_Pos: 555  
Relay_Master_Log_File: mysql-bin.000001  
Slave_IO_Running: Yes  
Slave_SQL_Running: Yes  
Replicate_Do_DB:  
Replicate_Ignore_DB:  
Replicate_Do_Table:  
Replicate_Ignore_Table:  
Replicate_Wild_Do_Table:  
Replicate_Wild_Ignore_Table:  
Last_Errno: 0  
Last_Error:
```

Slave\_IO\_Running và Slave\_SQL\_Running đều trả về YES => đồng bộ thành công.

Để kiểm tra em tạo database pda trên ns2 và tạo một table trên ns1.

Ns2



```
root@NS2:~# mysql -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1-log Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| pda |
| performance_schema |
| sys |
+-----+
5 rows in set (0.001 sec)

MariaDB [(none)]> use pda
Database changed
MariaDB [pda]> show tables;
Empty set (0.000 sec)

MariaDB [pda]> 
```

Ns1



```
Aug 17 00:17:51 ns1 pans_server[191]: WARNING: mysql_opt_reconnect is deprecated and will be removed in a future version.
root@NS1:~# mysql -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 26
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1-log Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| pda |
| performance_schema |
| sys |
+-----+
5 rows in set (0.047 sec)

MariaDB [(none)]> use pda
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [pda]> show tables;
+-----+
| Tables_in_pda |
+-----+
| comments |
| cryptokeys |
| domainmetadata |
| domains |
| records |
| supermasters |
| tsigkeys |
+-----+
7 rows in set (0.001 sec)
```

Tạo table test trên ns1 và kiểm tra database pda trên ns2



```
MariaDB [pda]>
MariaDB [pda]> create table test;
ERROR 1113 (42000): A table must have at least 1 column
MariaDB [pda]> create table test(id INT AUTO_INCREMENT);
ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key
MariaDB [pda]> create table test(id INT AUTO_INCREMENT, primary key(id));
Query OK, 0 rows affected (0.022 sec)

MariaDB [pda]> show tables;
+-----+
| Tables_in_pda |
+-----+
| comments      |
| cryptokeys    |
| domainmetadata|
| domains       |
| records       |
| supermasters  |
| test          |
| tsigkeys      |
+-----+
8 rows in set (0.002 sec)

MariaDB [pda]> 
```



```
bye
root@NS2:~# mysql -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 10.6.18-MariaDB-0ubuntu0.22.04.1-log Ubuntu 22.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| pda |
| performance_schema |
| sys |
+-----+
5 rows in set (0.001 sec)

MariaDB [(none)]> use pda
Database changed
MariaDB [pda]> show tables;
Empty set (0.000 sec)

MariaDB [pda]> show tables;
+-----+
| Tables_in_pda |
+-----+
| test |
+-----+
1 row in set (0.001 sec)

MariaDB [pda]> 
```

Cài đặt PowerDNS version 4.2 trở lên trên server ns2.

Tương tự như ns1 tắt system-resolved

```
systemctl disable systemd-resolved
```

```
systemctl stop systemd-resolved
```

Cập nhật resolv.conf để server có thể phân giải được DNS

```
rm -rf /etc/resolv.conf
```

```
echo "nameserver 8.8.8.8" > /etc/resolv.conf
```





```
root@NS2:~# systemctl disable systemd-resolved
systemctl stop systemd-resolved
Removed /etc/systemd/system/dbus-org.freedesktop.resolve1.service.
Removed /etc/systemd/system/multi-user.target.wants/systemd-resolved.service.
root@NS2:~# rm -rf /etc/resolv.conf
echo "nameserver 8.8.8.8" > /etc/resolv.conf
root@NS2:~# cat /etc/resolv.conf
nameserver 8.8.8.8
root@NS2:~#
```

Sau đó cài PowerDNS, cấu hình PowerDNS kết nối tới mysql

```
apt-get install pdns-server pdns-backend-mysql -y
```

Cấu hình PowerDNS

```
launch+=gmysql
# gmysql parameters
gmysql-host=127.0.0.1
gmysql-port=3306
gmysql-dbname=pda
gmysql-user=pda
gmysql-password=pdns_password
gmysql-dnssec=yes
# gmysql-socket=
```

Restart PowerDNS, trước đó cần phải cấu hình các tables cho pda như bên ns1 rồi mới có thể restart

```
Sudo systemctl restart pdns
```



```
MariaDB [pda]> show tables;
+-----+
| Tables_in_pda |
+-----+
| comments      |
| cryptokeys    |
| domainmetadata|
| domains       |
| records       |
| supermasters  |
| tsigkeys       |
+-----+
7 rows in set (0.001 sec)

MariaDB [pda]> exit
Bye
root@NS2:~#
```

Cài đặt trang quản trị poweradmin cho phép quản lý các DNS zone trên ns1.

Cài các dependencies cho poweradmin

```
sudo apt install -y apache2 php php-dev php-gd php-imap php-ldap php-mysql php-odbc php-pear php-xml php-xmlrpc php-mbstring gettext php-curl php-zip unzip php-intl

sudo apt install php-pear

sudo pear install DB

sudo pear install MDB2_Driver_mysqli
```

Tải poweradmin

```
cd /var/www/html/

wget http://downloads.sourceforge.net/project/poweradmin/poweradmin-2.2.1.tar.gz

tar xvf poweradmin-2.2.1.tar.gz

cd poweradmin-2.2.1
```



Cài đặt quyền

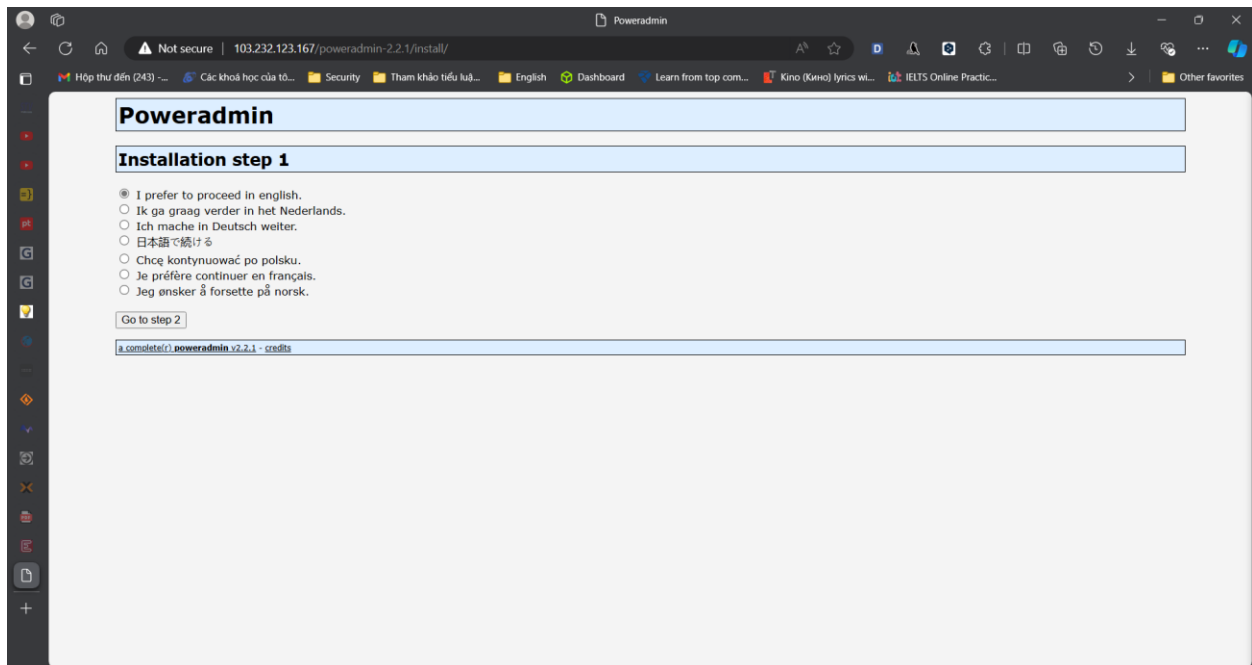
```
sudo chown -R www-data:www-data /var/www/html/poweradmin-2.2.1
```

```
sudo chmod -R 755 /var/www/html/poweradmin-2.2.1
```

Copy file config-me.inc.php thành config.inc.php

```
cp /var/www/html/poweradmin-2.2.1/inc/config-me.inc.php /var/www/html/poweradmin-2.2.1/inc/config.inc.php
```

Trở vào domain/poweradmin/install và tiến hành cài đặt



Poweradmin password: LionEl'Johnson\_!



Poweradmin

### Installation step 3

To prepare the database for using Poweradmin, the installer needs to modify the PowerDNS database. It will add a number of tables and it will fill these tables with some data. If the tables are already present, the installer will drop them first.

To do all of this, the installer needs to access the database with an account which has sufficient rights. If you trust the installer, you may give it the username and password of the database user root. Otherwise, make sure the user has enough rights, before actually proceeding.

Username	pdia	The username to use to connect to the database, make sure the username has sufficient rights to perform administrative task to the PowerDNS database (the installer wants to drop, create and fill tables to the database).
Password	*****	The password for this username.
Database type	MySQL	The type of the PowerDNS database.
Hostname	localhost	The hostname on which the PowerDNS database resides. Frequently, this will be "localhost".
DB Port	3306	The port the database server is listening on.
Database	pdia	The name of the PowerDNS database.
DB charset		The charset (encoding) which will be used for new tables. Leave it empty then default database charset will be used.
DB collation		Set of rules for comparing characters in database. Leave it empty then default database collation will be used.
Poweradmin administrator password	LionEtJohnson_!	The password of the Poweradmin administrator. This administrator has full rights to Poweradmin using the web interface.

Go to step 4

a.comolote/c/ poweradmin v2.2.1 - credits

User: powerAdmin:Bloodraven01@#

Poweradmin

### Installation step 4

Updating database... done!

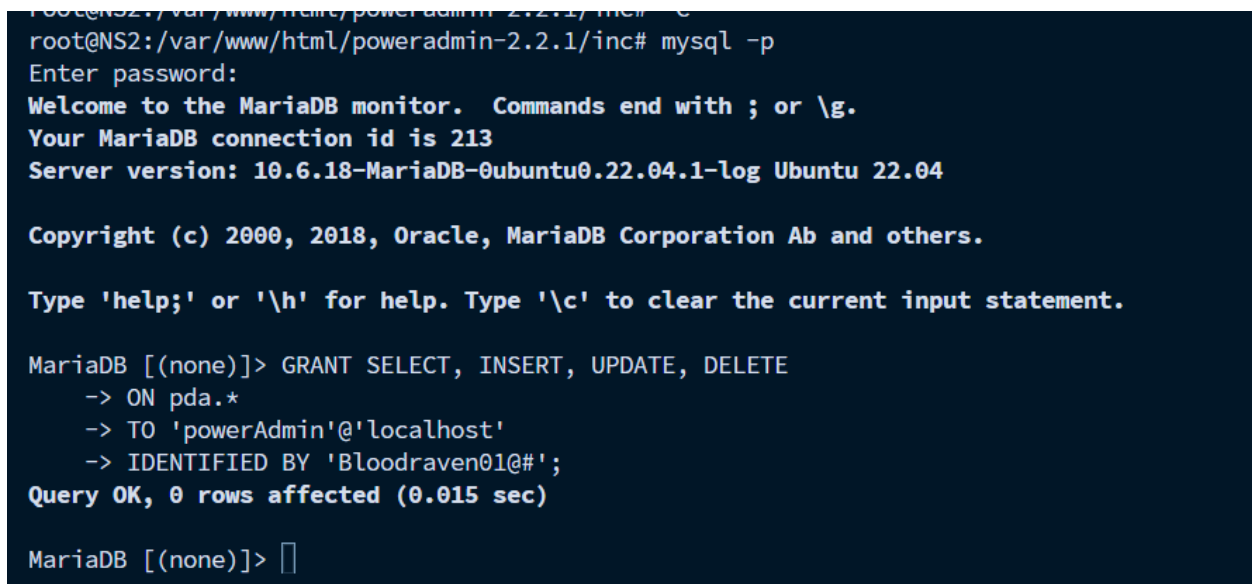
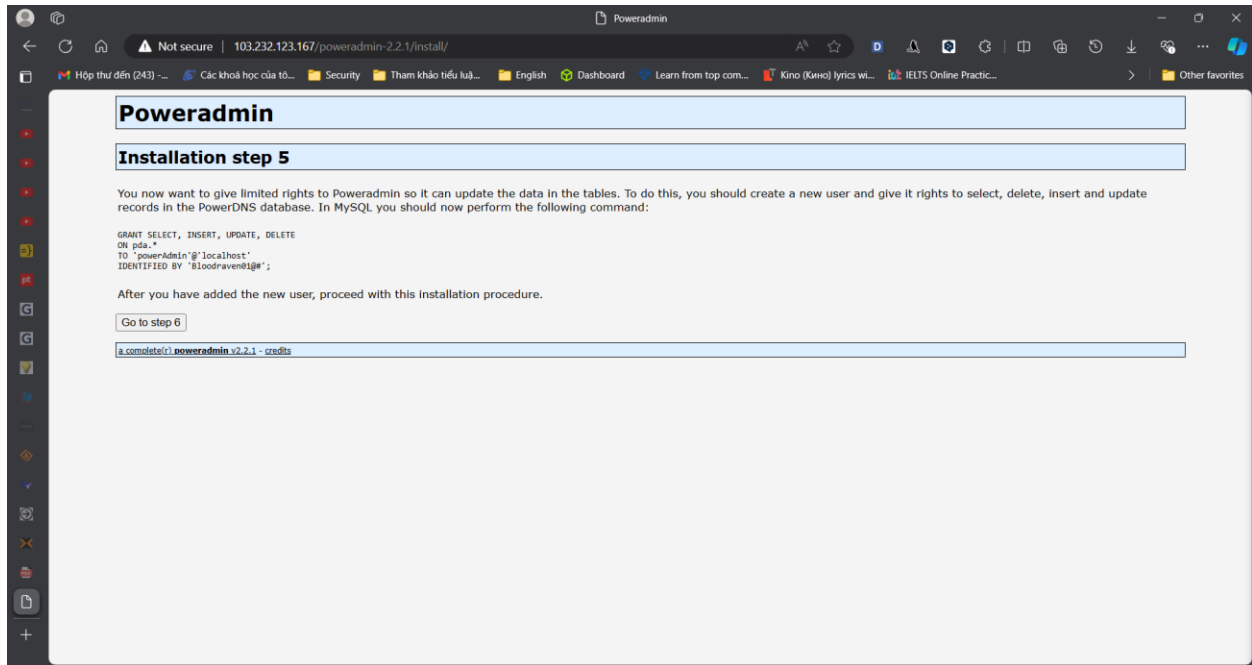
Now we will gather all details for the configuration itself.

Username	powerAdmin	The username for Poweradmin. This new user will have limited rights only.
Password	Bloodraven01@#	The password for this username.
Hostmaster	truongpvt.id.vn	When creating SOA records and no hostmaster is provided, this value here will be used. Should be in the form "hostmaster.example.net".
Primary nameserver	ns1.truongpvt.id.vn	When creating new zones using the template, this value will be used as primary nameserver. Should be like "ns1.example.net".
Secondary nameserver	ns2.truongpvt.id.vn	When creating new zones using the template, this value will be used as secondary nameserver. Should be like "ns2.example.net".

Go to step 5

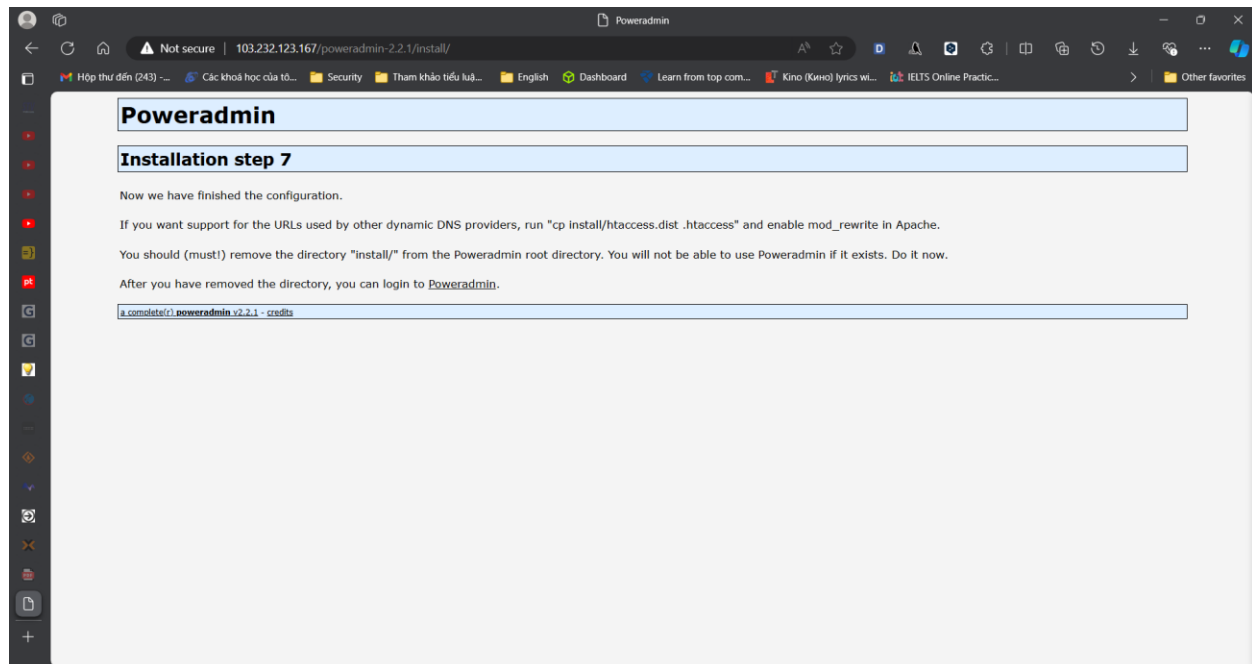
a.comolote/c/ poweradmin v2.2.1 - credits

Tiếp đến ở bước 5 tạo user powerAdmin trong database với các quyền hạn chế: SELECT, INSERT, UPDATE, DELETE trên database pdia.

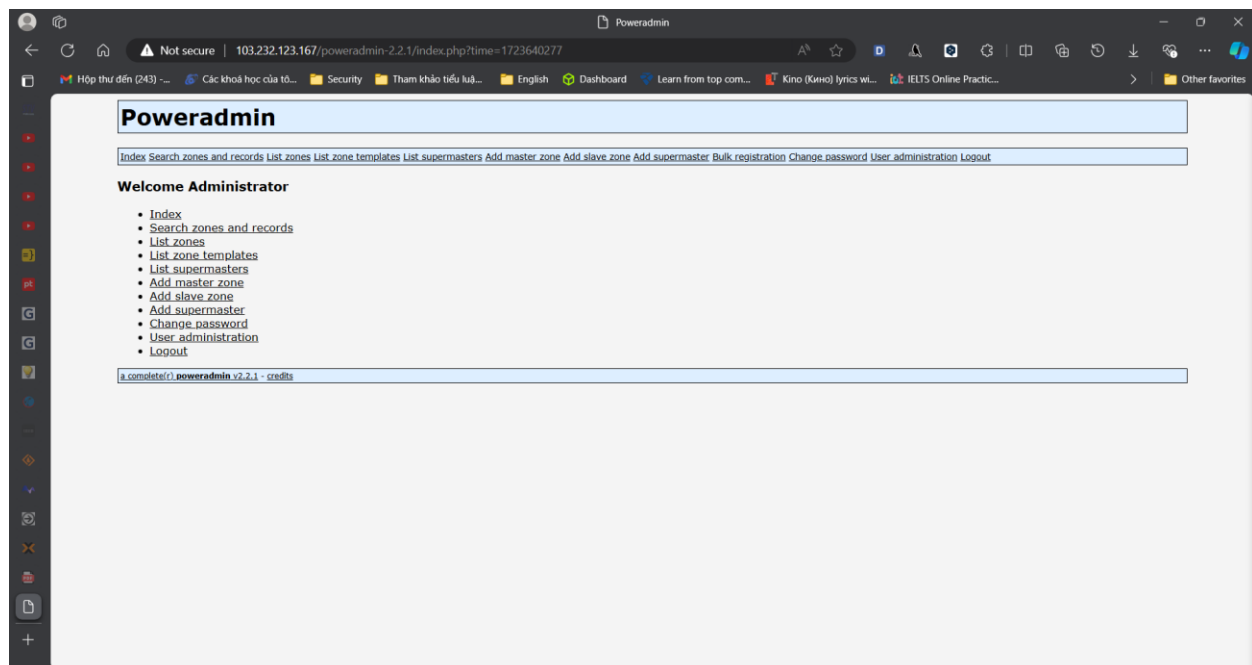


Sau khi cài xong xóa folder install

Rm -r /var/www/html/poweradmin-2.2.1/install

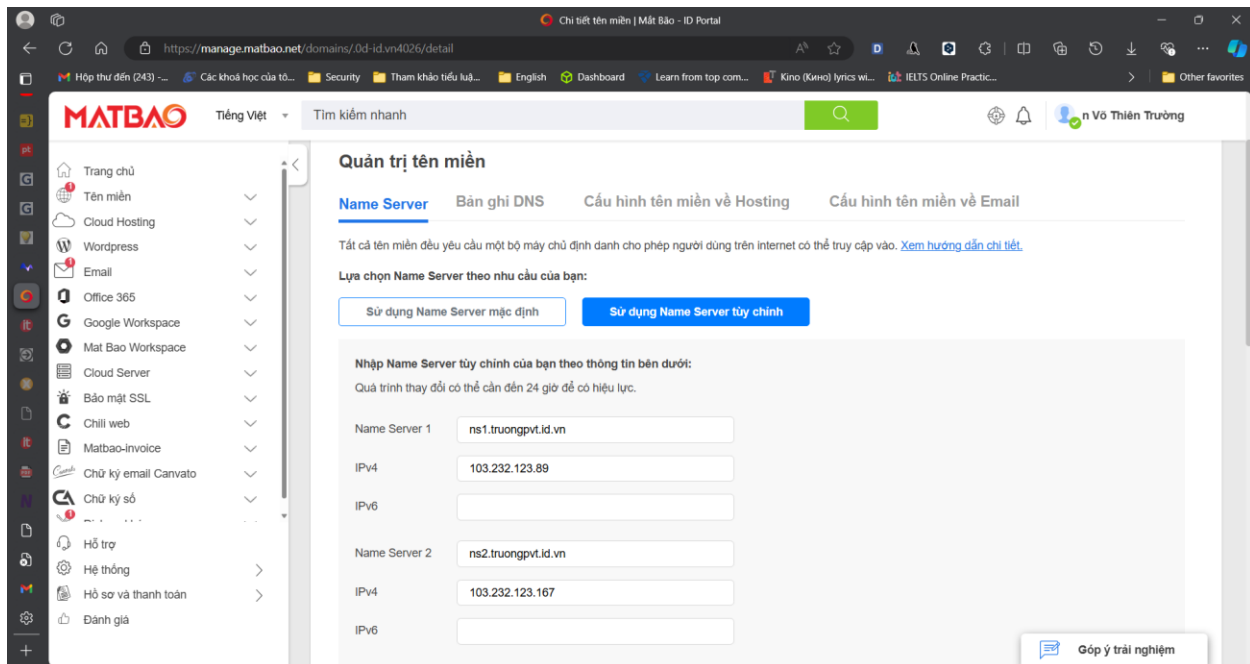


Vào trang đăng nhập bằng admin với password của nó

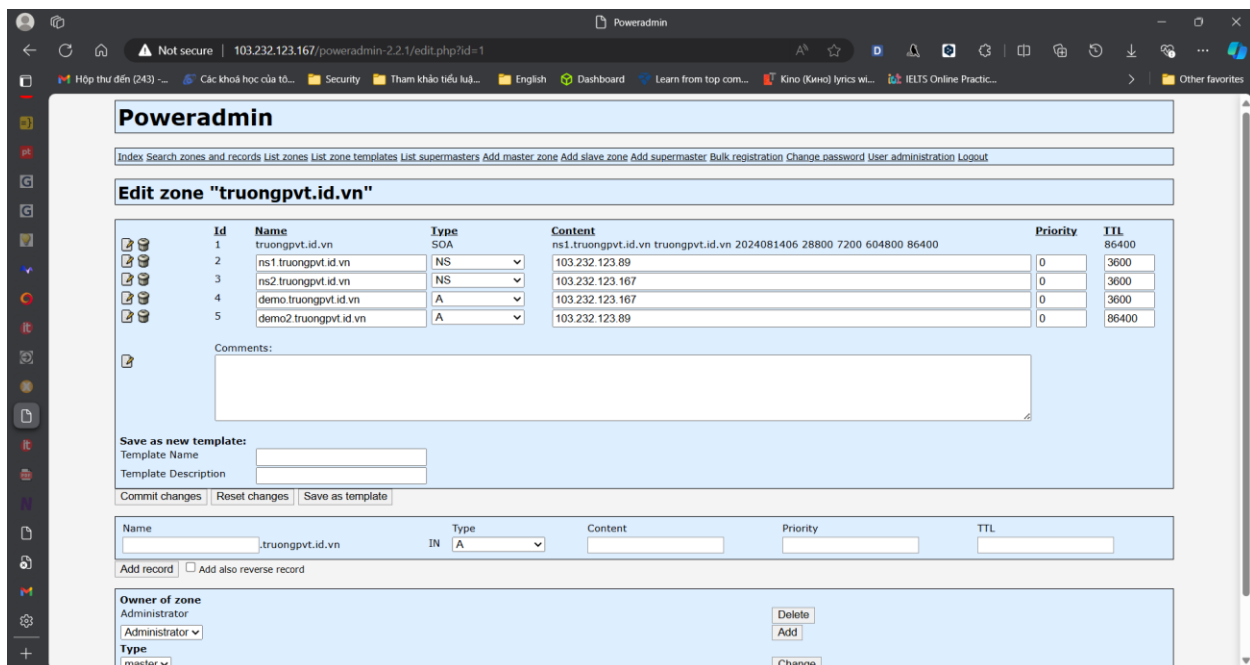


Trở nameserver cho domain của các bạn về cặp nameserver đã cài đặt và không sử dụng nameserver ns1/2.vhostdns.net nữa

Lên trang quản lý domain chỉnh lại nameserver về domain đã đăng ký. ở đây em dùng mắt bảo nên thay vì sử dụng nameserver của mắt bảo em chỉnh về ns1.truongpvt.id.vn và ns2.truongpvt.id.vn



Còn poweradmin thêm vào domain và 2 nameserver ns1 và ns2



Em kiểm tra bằng cách tạo 2 subdomain demo.trungpvt.id.vn và demo2.trungpvt.id.vn để kiểm tra DNS bằng mxtoolbox.com



Network Tools: DNS, IP, Email

https://mxtoolbox.com/SuperTool.aspx?action=a%3Ademo.truongpvt.id.vn&run=toolpage

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SuperTool Beta7

demo.truongpvt.id.vn DNS Lookup

a:demo.truongpvt.id.vn Find Problems

Type	Domain Name	IP Address	TTL
A	demo.truongpvt.id.vn	103.232.123.167 WHOIST-AS-VN (AS56156)	60 min

Test	Result
DNS Record Published	DNS Record found

smtp diag Blacklist http test dns propagation

Reported by ns2.truongpvt.id.vn on 8/14/2024 at 2:54:48 PM (UTC 0), just for you. Transcript

a:demo2.truongpvt.id.vn

Type	Domain Name	IP Address	TTL
A	demo2.truongpvt.id.vn	103.232.123.89 WHOIST-AS-VN (AS56156)	24 hrs

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Get feedback on how recipients perceive your email: complaints, unsubscribes, failures, and more...

Adaptive Blacklist Monitoring  
Real-time monitoring of all your domain's sending IPs

Mailflow Monitoring  
Round-trip monitoring of your email latency

Network Tools: DNS, IP, Email

https://mxtoolbox.com/SuperTool.aspx?action=a%3Ademo.truongpvt.id.vn&run=toolpage

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SuperTool MX Lookup Blacklists DMARC Diagnostics Email Health DNS Lookup Analyze Headers All Tools

SuperTool Beta7

demo.truongpvt.id.vn DNS Lookup

a:demo2.truongpvt.id.vn Find Problems

Type	Domain Name	IP Address	TTL
A	demo2.truongpvt.id.vn	103.232.123.89 WHOIST-AS-VN (AS56156)	24 hrs

Test	Result
DNS Record Published	DNS Record found

smtp diag Blacklist http test dns propagation

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a:demo2.truongpvt.id.vn

Type	Domain Name	IP Address	TTL
A	demo2.truongpvt.id.vn	103.232.123.89 WHOIST-AS-VN (AS56156)	24 hrs

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Know if your campaigns will make the inbox

Recipient Complaints  
Get feedback on how recipients perceive your email: complaints, unsubscribes, failures, and more...

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Real-time monitoring of all your domain's sending IPs

Mailflow Monitoring  
Round-trip monitoring of your email latency





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