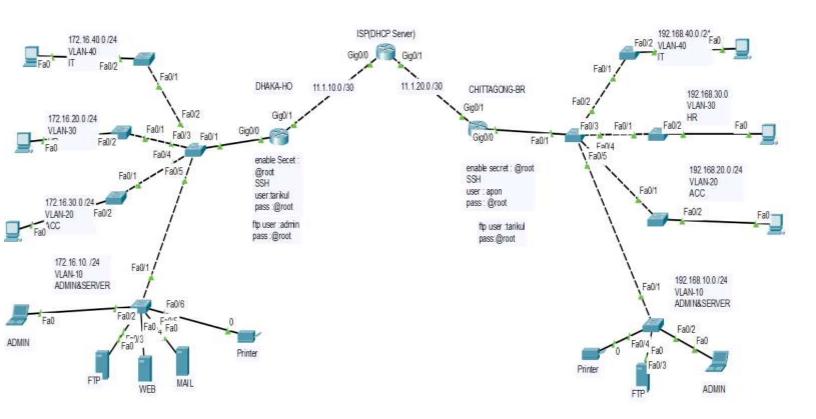NAME : Tarikul Islam Apon

ID NO: 1288503

BATCH : 65/NSA/IBCS-Primax

PROJECT : HEAD-OFFICE And BRANCH-OFFICE Network Lab Configuration



172.16.40.0 /24
VLAN-40
IT
Fa0    Fa0/2

ISP(DHCP Server)
Gig0/0    Gig0/1

192.168.40.0 /24
Fa0/2 VLAN-40    Fa0
IT

DHAKA-HO    11.1.10.0 /30    11.1.20.0 /30    CHITTAGONG-BR

Fa0/1

172.16.20.0 /24
VLAN-30    Fa0/1
Fa0    Fa0/2

Fa0/2
Gig0/1
Gig0/0

Fa0/2
Gig0/1

192.168.30.0
VLAN-30
HR    Fa0

Fa0/3    Fa0/1    Fa0/1
Fa0/4    Fa0/5

Fa0/1
Gig0/0    Fa0/1

Fa0/3    Fa0/1    Fa0/2

enable Secret :
@root
SSH
user:tarikul
pass :@root

ftp user :admin
pass :@root

enable secret : @root
SSH
user : apon
pass : @root

ftp user :tarikul
pass:@root

Fa0/4
Fa0/5

192.168.20.0 /24
VLAN-20
ACC

172.16.30.0 /24
VLAN-20    Fa0/2
Fa0    1CC

Fa0/1

Fa0/1
Fa0/2    Fa0

172.16.10. /24
VLAN-10
ADMIN&SERVER    Fa0/1

192.168.10.0 /24
VLAN-10
ADMIN&SERVER    Fa0/1

Fa0    Fa0/2    Fa0/6
Fa0/    Fa0
Fa0/3    Fa0
ADMIN

0
Printer

Fa0/2
Fa0
Printer    0    Fa0/4    Fa0
Fa0/3

FTP    WEB    MAIL    FTP    ADMIN

## ISP(As a DHCP Server) :

| |
|---|
| |
| |
| |
| |
| ip dhcp excluded-address 172.16.10.1 172.16.10.10 |
| ip dhcp excluded-address 192.168.10.1 192.168.10.5 |
| |
| ip dhcp pool VLAN-40-1 |
| network 172.16.40.0 255.255.255.0 |
| default-router 172.16.40.1 |
| dns-server 8.8.8.8 |
| ip dhcp pool VLAN-30-1 |
| network 172.16.30.0 255.255.255.0 |
| default-router 172.16.30.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-20-1 |
| network 172.16.20.0 255.255.255.0 |
| default-router 172.16.20.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-10-1 |
| network 172.16.10.0 255.255.255.0 |
| default-router 172.16.10.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-40-2 |
| network 192.168.40.0 255.255.255.0 |
| default-router 192.168.40.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-30-2 |
| network 192.168.30.0 255.255.255.0 |
| default-router 192.168.30.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-20-2 |

| |
|---|
| network 192.168.20.0 255.255.255.0 |
| default-router 192.168.20.1 |
| dns-server 8.8.8.8 |
| |
| ip dhcp pool VLAN-10-2 |
| network 192.168.10.0 255.255.255.0 |
| default-router 192.168.10.1 |
| dns-server 8.8.8.8 |
| |
| |
| interface GigabitEthernet0/0 |
| ip address 11.1.10.2 255.255.255.252 |
| ip ospf 1 area 0 |
| |
| interface GigabitEthernet0/1 |
| ip address 11.1.20.1 255.255.255.252 |
| ip ospf 1 area 0 |

## DHAKA HO :

## CORE-1 Switch :

```
VTP Version capable            : 1 to 2
VTP version running            : 1
VTP Domain Name                : hyperloop
VTP Pruning Mode               : Disabled
VTP Traps Generation           : Disabled
Device ID                      : 000A.F3D3.0200
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53
Local updater ID is 0.0.0.0 (no valid interface found)

Feature VLAN :
-------------
VTP Operating Mode             : Server
Maximum VLANs supported locally : 255
Number of existing VLANs       : 9
Configuration Revision         : 8
MD5 digest                     : 0x69 0x1A 0xC2 0x36 0x93 0x75
0xB8 0x09

                                 0x6E 0x8C 0xCC 0x22 0x1F 0xC7
0x63 0x95
```

```
10    ADMIN&SERVER                      active
20    ACC                               active
30    HR                                active
40    IT                                active
1002 fddi-default                       active
1003 token-ring-default                 active
1004 fddinet-default                    active
1005 trnet-default                      active
```

## VLAN-40 Switch :

```
VTP Version capable            : 1 to 2
VTP version running            : 1
VTP Domain Name                : hyperloop
VTP Pruning Mode               : Disabled
VTP Traps Generation           : Disabled
Device ID                      : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53


Feature VLAN :
--------------
VTP Operating Mode             : Client
Maximum VLANs supported locally : 255
```

```
Gig0/1, Gig0/2
10    ADMIN&SERVER                      active
20    ACC                               active
30    HR                                active
40    IT                                active     Fa0/2
1002 fddi-default                       active
1003 token-ring-default                 active
1004 fddinet-default                    active
1005 trnet-default                      active
```

## VLAN-30 Switch :

```
VTP Version capable              : 1 to 2
VTP version running              : 1
VTP Domain Name                  : hyperloop
VTP Pruning Mode                 : Disabled
VTP Traps Generation             : Disabled
Device ID                        : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode               : Client
Maximum VLANs supported locally  : 255
```

```
Gig0/1, Gig0/2
 10   ADMIN&SERVER                      active
 20   ACC                               active
 30   HR                                active      Fa0/2
 40   IT                                active
 1002 fddi-default                      active
 1003 token-ring-default                active
 1004 fddinet-default                   active
 1005 trnet-default                     active
```

## VLAN-20 Switch :

```
VTP Version capable              : 1 to 2
VTP version running              : 1
VTP Domain Name                  : hyperloop
VTP Pruning Mode                 : Disabled
VTP Traps Generation             : Disabled
Device ID                        : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode               : Client
Maximum VLANs supported locally  : 255
```

```
Gig0/1, Gig0/2
10   ADMIN&SERVER                          active
20   ACC                                   active      Fa0/2
30   HR                                    active
40   IT                                    active
1002 fddi-default                          active
1003 token-ring-default                    active
1004 fddinet-default                       active
1005 trnet-default                         active
```

# VLAN-10 Switch:

```
VTP Version capable          : 1 to 2
VTP version running          : 1
VTP Domain Name              : hyperloop
VTP Pruning Mode             : Disabled
VTP Traps Generation         : Disabled
Device ID                    : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode           : Client
Maximum VLANs supported locally  : 255
```

```
10   ADMIN&SERVER                           active    Fa0/2, Fa0/3,
Fa0/4, Fa0/5
                                                      Fa0/6

20   ACC                                     active
30   HR                                      active
40   IT                                      active
1002 fddi-default                            active
1003 token-ring-default                      active
1004 fddinot default                         active
```

## SwitchPort security :

| |
|---|
| VLAN-10(config)#int f0/2 |
| VLAN-10(config-if)#switchport mode access |
| VLAN-10(config-if)#switchport port-security mac-address sticky |
| VLAN-10(config-if)#switchport port-security maximum 1 |
| VLAN-10(config-if)#switchport port-security violation shutdown |
| VLAN-10(config-if)#exit |

## Router :

| |
|---|
| hostname DHAKA-HO |
| |
| enable secret 5 $1$mERr$JrSDT5XRx0PeygNeH/OON. |
| |
| |
| username tarikul password 0 @root |
| |
| ip ssh version 2 |
| ip domain-name hyperloop.org |
| |
| interface GigabitEthernet0/0 |
|  no ip address |
|  ip ospf 1 area 0 |
|  duplex auto |
|  speed auto |
| |

```
interface GigabitEthernet0/0.10
 encapsulation dot1Q 10
 ip address 172.16.10.1 255.255.255.0
 ip helper-address 11.1.10.2
 ip ospf 1 area 0

interface GigabitEthernet0/0.20
 encapsulation dot1Q 20
 ip address 172.16.20.1 255.255.255.0
 ip helper-address 11.1.10.2
 ip ospf 1 area 0

interface GigabitEthernet0/0.30
 encapsulation dot1Q 30
 ip address 172.16.30.1 255.255.255.0
 ip helper-address 11.1.10.2
 ip ospf 1 area 0

interface GigabitEthernet0/0.40
 encapsulation dot1Q 40
 ip address 172.16.40.1 255.255.255.0
 ip helper-address 11.1.10.2
 ip ospf 1 area 0

interface GigabitEthernet0/1
 ip address 11.1.10.1 255.255.255.252
 ip ospf 1 area 0

line vty 0 1
```

# CHITTAGONG-BR :

## CORE-2 Switch:

```
VTP Version capable            : 1 to 2
VTP version running            : 1
VTP Domain Name                : hyperloop
VTP Pruning Mode               : Disabled
VTP Traps Generation           : Disabled
Device ID                      : 000A.F3D3.0200
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53
Local updater ID is 0.0.0.0 (no valid interface found)

Feature VLAN :
--------------
VTP Operating Mode             : Server
Maximum VLANs supported locally : 255
Number of existing VLANs       : 9
Configuration Revision         : 8
MD5 digest                     : 0x69 0x1A 0xC2 0x36 0x93 0x75
0xB8 0x09

                                 0x6E 0x8C 0xCC 0x22 0x1F 0xC7
0x63 0x95

                                            Gig0/2
10    ADMIN&SERVER                   active
20    ACC                            active
30    HR                             active
40    IT                             active
1002 fddi-default                    active
1003 token-ring-default              active
1004 fddinet-default                 active
1005 trnet-default                   active
```

## VLAN-40 Switch:

```
VTP Version capable              : 1 to 2
VTP version running              : 1
VTP Domain Name                  : hyperloop
VTP Pruning Mode                 : Disabled
VTP Traps Generation             : Disabled
Device ID                        : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode               : Client
Maximum VLANs supported locally  : 255
```

```
Gig0/1, Gig0/2
10   ADMIN&SERVER                     active
20   ACC                              active
30   HR                               active
40   IT                               active      Fa0/2
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```

## VLAN-30 Switch:

```
VTP Version capable              : 1 to 2
VTP version running              : 1
VTP Domain Name                  : hyperloop
VTP Pruning Mode                 : Disabled
VTP Traps Generation             : Disabled
Device ID                        : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode               : Client
Maximum VLANs supported locally  : 255
```

```
Gig0/1, Gig0/2
10    ADMIN&SERVER                          active
20    ACC                                  active
30    HR                                   active      Fa0/2
40    IT                                   active
1002 fddi-default                          active
1003 token-ring-default                    active
1004 fddinet-default                       active
1005 trnet-default                         active
```

## **VLAN-20 Switch :**

```
VTP Version capable          : 1 to 2
VTP version running          : 1
VTP Domain Name              : hyperloop
VTP Pruning Mode             : Disabled
VTP Traps Generation         : Disabled
Device ID                    : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode           : Client
Maximum VLANs supported locally   : 255
```

```
Gig0/1, Gig0/2
10    ADMIN&SERVER                          active
20    ACC                                  active      Fa0/2
30    HR                                   active
40    IT                                   active
1002 fddi-default                          active
1003 token-ring-default                    active
1004 fddinet-default                       active
1005 trnet-default                         active
```

## VLAN-10 Switch:

```
VTP Version capable          : 1 to 2
VTP version running          : 1
VTP Domain Name              : hyperloop
VTP Pruning Mode             : Disabled
VTP Traps Generation         : Disabled
Device ID                    : 0005.5E4D.6700
Configuration last modified by 0.0.0.0 at 3-1-93 00:45:53

Feature VLAN :
--------------
VTP Operating Mode           : Client
Maximum VLANs supported locally  : 255
```

## Switch-Port Security :

| |
|---|
| VLAN-10(config)#int f0/2 |
| VLAN-10(config-if)#switchport mode access |
| VLAN-10(config-if)#switchport port-security mac-address sticky |
| VLAN-10(config-if)#switchport port-security maximum 1 |
| VLAN-10(config-if)#switchport port-security violation shutdown |
| VLAN-10(config-if)#exit |

```
10   ADMIN&SERVER                    active     Fa0/2, Fa0/3,
Fa0/4, Fa0/5
                                                Fa0/6
20   ACC                             active
30   HR                              active
40   IT                              active
1002 fddi-default                    active
1003 token-ring-default              active
1004 fddinet default                 active
```

## Router :

| |
|---|
| hostname CHITTAGONG-BR |
| |
| enable secret 5 $1$mERr$JrSDT5XRx0PeygNeH/OON. |
| |
| |
| username apon password 0 @root |
| |
| ip ssh version 2 |
| ip domain-name hyperloop.org |
| |
| |
| interface GigabitEthernet0/0 |
|  no ip address |
|  ip ospf 1 area 0 |
| |
| |
| interface GigabitEthernet0/0.10 |
|  encapsulation dot1Q 10 |
|  ip address 192.168.10.1 255.255.255.0 |
|  ip helper-address 11.1.20.1 |
|  ip ospf 1 area 0 |
| |
| interface GigabitEthernet0/0.20 |
|  encapsulation dot1Q 20 |
|  ip address 192.168.20.1 255.255.255.0 |
|  ip helper-address 11.1.20.1 |
|  ip ospf 1 area 0 |
| |
| interface GigabitEthernet0/0.30 |
|  encapsulation dot1Q 30 |
|  ip address 192.168.30.1 255.255.255.0 |
|  ip helper-address 11.1.20.1 |

```
 ip ospf 1 area 0

interface GigabitEthernet0/0.40
 encapsulation dot1Q 40
 ip address 192.168.40.1 255.255.255.0
 ip helper-address 11.1.20.1
 ip ospf 1 area 0


interface GigabitEthernet0/1
 ip address 11.1.20.2 255.255.255.252
 ip ospf 1 area 0


!
interface Vlan1
 no ip address
 shutdown


line vty 0 2
 login local
```