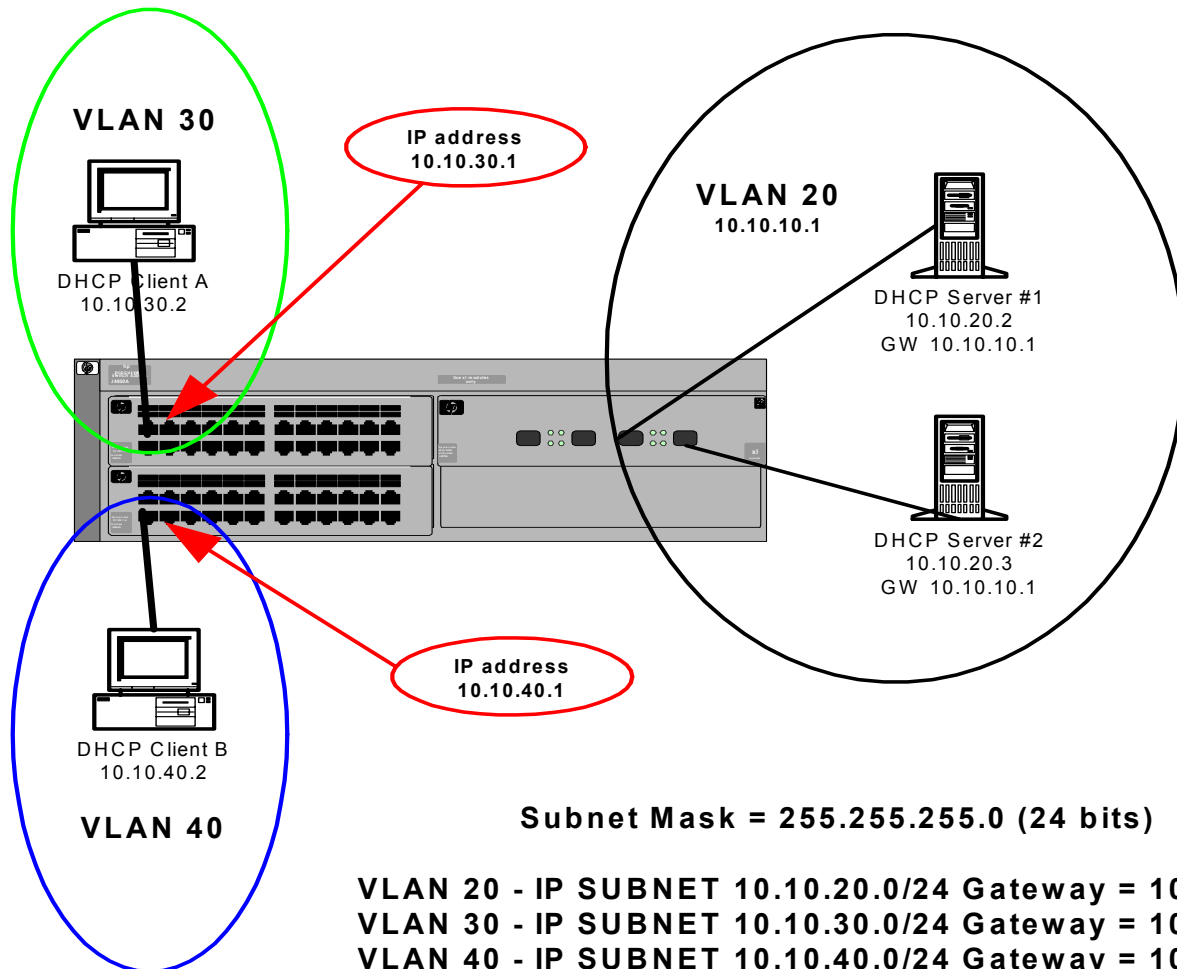


Relaying DHCP Packets to a Remote Server

With this example configuration, the HP Procurve 5300XL Switch will relay (route) DHCP traffic between a client and remote server, each on a different VLAN. The Switch 5300XL will be configured to route DHCP traffic to both a primary and backup DHCP Server.



WARNING:

The example configuration below was created from a factory default configuration on the HP ProCurve 5300XL Series switches. We recommend saving your current configuration if necessary. To reset an HP ProCurve 5300XL Series switch to a factory default configuration use the following commands:

```
HP ProCurve Switch 5304XL>enable
HP ProCurve Switch 5304XL#erase startup-config
Configuration will be deleted and device rebooted, continue [y/n]? Y
```

NOTES:

1. The interface port numbers (e.g. interface a1) and the IP address (e.g. 10.10.100.1) may differ in your network, so adjust these values accordingly.
2. The HP ProCurve 5300XL Series switch (e.g. HP 5304XL), type of module(s), and software version number below may not accurately reflect the device(s) you are configuring.
3. DHCP-relay requires IP Routing to be enabled on the HP Procurve 5300XL Series Switch. In the example below, the **ip routing** global configuration command is used.
4. In the example below the **ip helper-address** interface level command is used to relay (route) the UDP packets (e.g. DHCP) to a remote server. This command is applied to the interface on which the originating host is attached.
5. DHCP-relay is enabled in the factory default configuration. Use of the **ip helper-address** command requires DHCP-relay to be enabled on the switch. To disable DHCP-relay, use the global configuration command:

```
HP ProCurve Switch 5304XL(config)# no dhcp-relay
```

6. The configuration example below was created on software version E.06.01.

CONFIGURATION COMMANDS: (created on software version E.06.01)

```
HP ProCurve Switch 5304XL>enable
HP ProCurve Switch 5304XL# config term

HP ProCurve Switch 5304XL(config)# ip routing
HP ProCurve Switch 5304XL(config)# vlan 20
HP ProCurve Switch 5304XL(vlan-20)# untagged b3,b4
HP ProCurve Switch 5304XL(vlan-20)# ip address 10.10.20.1/24
HP ProCurve Switch 5304XL(vlan-20)# vlan 30
HP ProCurve Switch 5304XL(vlan-30)# untagged a1
HP ProCurve Switch 5304XL(vlan-30)# ip address 10.10.30.1/24
HP ProCurve Switch 5304XL(vlan-30)# ip helper-address 10.10.20.2
HP ProCurve Switch 5304XL(vlan-30)# ip helper-address 10.10.20.3
```

```
HP ProCurve Switch 5304XL(vlan-30)# vlan 40
HP ProCurve Switch 5304XL(vlan-40)# untagged c1
HP ProCurve Switch 5304XL(vlan-40)# ip address 10.10.40.1/24
HP ProCurve Switch 5304XL(vlan-40)# ip helper-address 10.10.20.2
HP ProCurve Switch 5304XL(vlan-40)# ip helper-address 10.10.20.3
HP ProCurve Switch 5304XL(vlan-40)# write mem
HP ProCurve Switch 5304XL(vlan-40)#
```

RESULTING CONFIGURATION:

Startup configuration:

```
; J4850A Configuration Editor; Created on release #E.06.01

hostname "HP ProCurve Switch 5304XL"
time daylight-time-rule None
cdp run
module 2 type J4878A
module 1 type J4821A
module 3 type J4820A
ip routing
snmp-server community "public" Unrestricted
vlan 1
    name "DEFAULT_VLAN"
    untagged A2-A4,B1-B2,C2-C24,D1-D4
    ip address dhcp-bootp
    no untagged A1,B3-B4,C1
    exit
vlan 20
    name "VLAN20"
    untagged B3-B4
    ip address 10.10.20.1 255.255.255.0
    exit
vlan 30
    name "VLAN30"
    untagged A1
    ip address 10.10.30.1 255.255.255.0
    ip helper-address 10.10.20.2
    ip helper-address 10.10.20.3
    exit
vlan 40
    name "VLAN40"
    untagged C1
    ip address 10.10.40.1 255.255.255.0
    ip helper-address 10.10.20.2
    ip helper-address 10.10.20.3
    exit
no aaa port-access authenticator active
```

VERIFICATION COMMANDS:

The following CLI commands can be used to display useful information:

- **show ip helper-address**
- **show ip**
- **show vlan <VLAN-ID>**

Outputs from these show commands for this example follow below. Refer to Chapter 7 of the [HP ProCurve Series 5300XL Switches Management and Configuration Guide](#) for more details.

```
HP ProCurve Switch 5304XL# sh ip helper-address
```

```
IP Helper Addresses
```

```
VLAN: 1
```

```
IP Helper Address
```

```
-----
```

```
VLAN: 20
```

```
IP Helper Address
```

```
-----
```

```
VLAN: 30
```

```
IP Helper Address
```

```
-----
```

```
10.10.20.2
```

```
10.10.20.3
```

```
VLAN: 40
```

```
IP Helper Address
```

```
-----
```

```
10.10.20.2
```

```
10.10.20.3
```

```
HP ProCurve Switch 5304XL# sh ip
```

```
Internet (IP) Service
```

```
IP Routing : Enabled
```

```
Default Gateway :
```

```
Default TTL      : 64
```

VLAN	IP Config	IP Address	Subnet Mask
DEFAULT_VLAN	DHCP/Bootp		
VLAN20	Manual	10.10.20.1	255.255.255.0
VLAN30	Manual	10.10.30.1	255.255.255.0
VLAN40	Manual	10.10.40.1	255.255.255.0

HP ProCurve Switch 5304XL# sh vlan

Status and Counters - VLAN Information

Maximum VLANs to support : 8

Primary VLAN : DEFAULT_VLAN

Management VLAN :

802.1Q VLAN ID	Name	Status
1	DEFAULT_VLAN	Static
20	VLAN20	Static
30	VLAN30	Static
40	VLAN40	Static
