

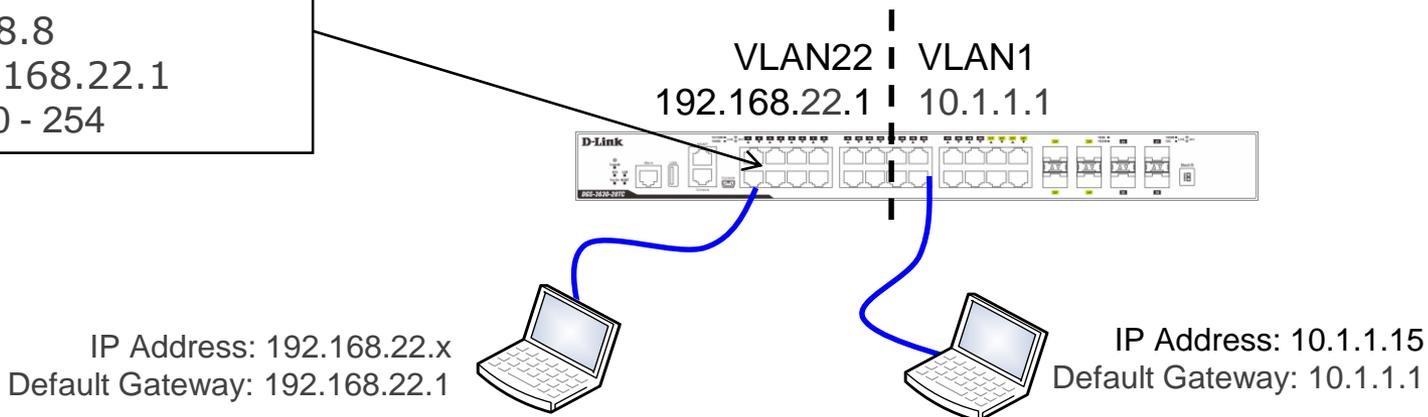
DGS-3630 Series Switches

Setting Up DHCP Server

Setting Up DHCP Server (CLI)

In this example we are enabling DHCP server on VLAN22 interface.

DHCP server enabled for this VLAN
192.168.22.0/24
DNS: 4.2.2.2 and 8.8.8.8
Default Gateway: 192.168.22.1
IP Range: 192.168.22.100 - 254



```
> enable
# configure terminal
# ip dhcp pool pool22
# network 192.168.22.0/24
# default-router 192.168.22.1
# dns-server 4.2.2.2 8.8.8.8
# exit
# service dhcp
```

Setting Up DHCP Server (GUI)

- Management > DHCP > DHCP Server > DHCP Server Pool Settings
- Add a new DHCP Pool.

DHCP Server Pool Settings

DHCP Server Pool

Pool Name

Total Entries: 1

Pool Name	
pool22	<input type="button" value="Edit Class"/> <input type="button" value="Edit Option"/> <input type="button" value="Configure"/> <input type="button" value="Delete"/>

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- Edit the Pool Settings:

DHCP Server Pool Configure

DHCP Server Pool Configure

Pool Name

Network (IP/Mask)

Next Server

Default Router

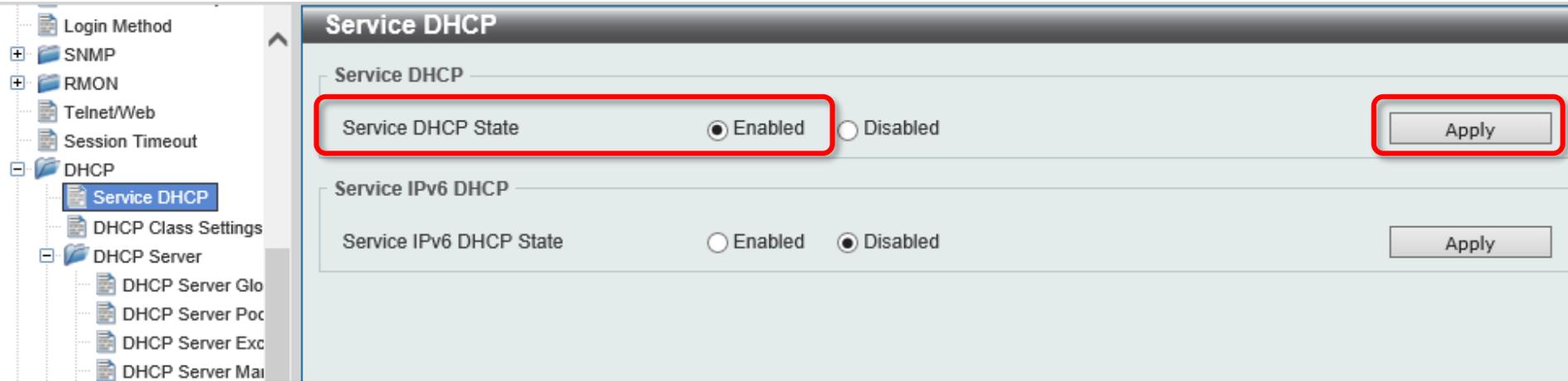
DNS Server

Lease Days (0-365) Hours Minutes

Infinite

Setting Up DHCP Server (GUI)

- Management > DHCP > Service DHCP
- Enable DHCP Service



- Set your computer to "Obtain IP Address Automatically". Verify that it obtains IP address from the switch.

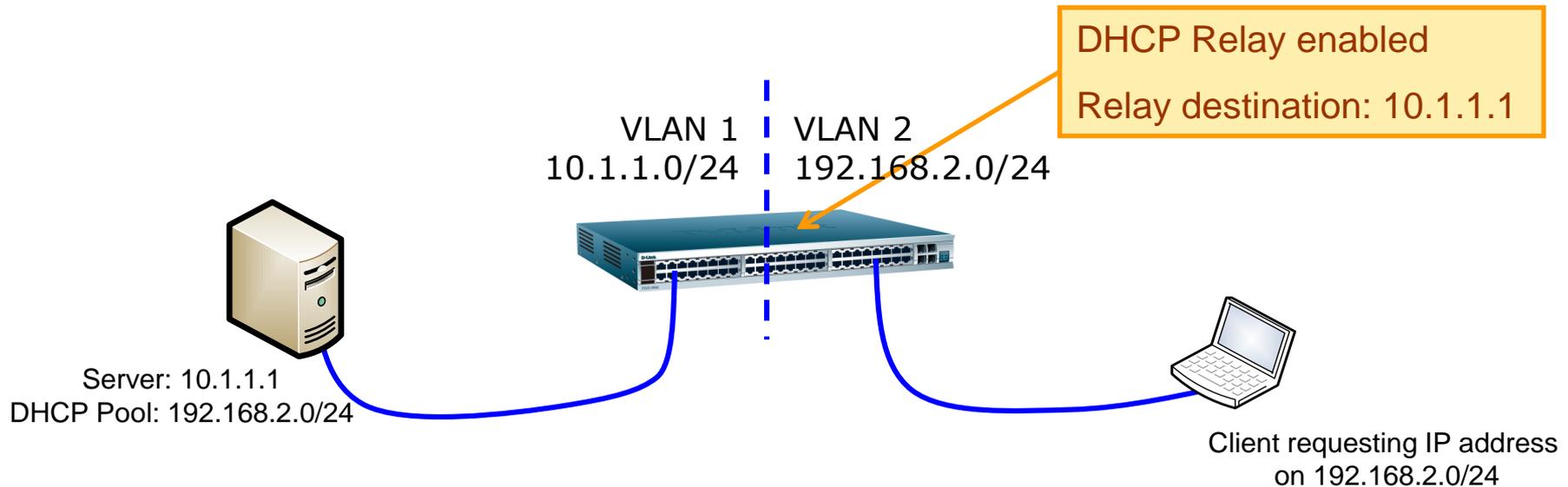
DGS-3630 Series Switches

DHCP Relay

DHCP Relay

Why do we need "DHCP Relay"?

- DHCP requests from clients are "broadcast" packets. They do not travel beyond the same VLAN or IP subnet.
- In case of multi-subnet network (Layer 3 network) you need a "DHCP Relay" to forward the DHCP packets to a DHCP server on a different IP subnet.



DHCP Relay

- DHCP relay can be applied to the whole switch or can be narrowed to individual interfaces and specific IP subnets.



The screenshot shows the configuration page for a DHCP Relay Pool. The left sidebar contains a tree view with the following items: Login Method, SNMP, RMON, Telnet/Web, Session Timeout, DHCP (expanded), Service DHCP, DHCP Class Settings, DHCP Server, DHCPv6 Server, DHCP Relay (expanded), DHCP Relay Glob, DHCP Relay Pool (selected), DHCP Relay Infor, and DHCP Relav Infor. The main content area is titled "DHCP Relay Pool Destination Settings" and contains the following fields:

- Pool Name: pool2
- VRF State: True (dropdown menu)
- VRF Name: 12 chars (text input field) with a checked "Global" checkbox
- Relay Destination: 10 . 1 . 1 . 1 (text input field)

Below the fields, there is a table showing the configuration entries:

Total Entries: 1	
Destination Address	VRF State
10.1.1.1	True

```
# ip dhcp pool pool2
# relay source 192.168.2.0 255.255.255.0
# relay destination 10.1.1.1
```

DHCP Relay

IP Helper

- DHCP relay function can also be achieved with "IP Helper". "IP Helper" function forwards all broadcast UDP packets to a designated IP address. "IP Helper" is configured on a VLAN interface.

The screenshot shows the configuration page for "IP Helper Address" on a D-Link switch. The left sidebar shows the navigation tree with "IP Helper Address" selected under "L3 Features" > "UDP Helper". The main configuration area includes the following fields:

- Interface VLAN (1-4094): 2
- VRF State: True (dropdown menu)
- VRF Name: 12 chars (text input) with a checked "Global" checkbox
- Helper Address: 10 . 1 . 1 . 1

Below the configuration fields, it shows "Total Entries: 0" and a table header with columns "Interface VLAN" and "Helper A".

```
# interface vlan 2
# ip helper-address 10.1.1.1
```