Project ACOG

Contents

[How to setup a dhcp services with VLAN 2](#_Toc136877621)

[How to setup a DNS server with VLANs 3](#_Toc136877622)

[DNS Server (192.168.30.1) 5](#_Toc136877623)

[DHCP server (192.168.30.2) 6](#_Toc136877624)

[FTP server (192.168.30.3) 7](#_Toc136877625)

# How to setup a dhcp services with VLAN

* STEP 1 : Create, Assign IP/Subnet mask for vlans

Une image contenant texte, capture d’écran, Police, nombre

Description générée automatiquement

* STEP 2 : CONFIGURE DHCP SERVER

Une image contenant texte, ligne, Police, nombre

Description générée automatiquement

Une image contenant texte, capture d’écran, nombre, Police

Description générée automatiquement

* STEP 3 : CONFIGURE MODE ACCESS/TRUNK IN VLANS

Une image contenant texte, capture d’écran, Police, nombre

Description générée automatiquement

Une image contenant texte, capture d’écran, Police, nombre

Description générée automatiquement

* STEP 4 : TELL PC IN VLANS WHERE TO GET IP

Une image contenant texte, capture d’écran, Police, ligne

Description générée automatiquement

* STEP 5 : ROUTING FOR MULTILAYER SWITCH



(if you forgot this step, you can not ping betweens two vlans, first packet which ping from one vlan to another vlan will fail 🡺 because it needs time to find out path 🡺 time out

* STEP 6 : CHECK

# How to setup a DNS server with VLANs

Adding a DNS server starts with selecting a general server and adding it into the desired cluster. Then, for the sake of simplicity, we’ll assign a static IP address to it.

The DNS server is in the same cluster as the DHCP and FTP and we assigned the IP address of 192.168.30.1 to it.

A picture containing text, screenshot, diagram, line

Description automatically generated

**NOTE**: To save time, it’s preferable to have an assigned IP address to the DNS server when configuring the DHCP. This way the DNS’ IP address is already inputted in the DHCP server configuration. This ensures that all PCs benefiting from a dynamic IP address from the DHCP server also receives the DNS server’s IP address.

To configure the DNS server, open the server’s options screen > Services > DNS.

A screenshot of a computer

Description automatically generated

First, turn it on. We’ll then create 3 different records with different IP addresses assigned to them to demonstrate that the DNS will receive 3 different requests and will translate them into their corresponding IP addresses.

For the demonstration purposes, any PC user trying to open the “dhcp” web page will send his/her request to the DNS server, who, in turn, will redirect the request to the IP address 192.168.30.2.

The way this works is simple. You add the page that users will try to connect to. This is the “Name”. The Address field is the IP address of the server containing the page itself.

See the table below for a summary of the page and the way they work:

|  |  |  |
| --- | --- | --- |
| Record number | Name of the page | IP address where it’s hosted |
| 0 | dhcp | 192.168.30.2 (DHCP server’s IP address) |
| 1 | dns | 192.168.30.1 (DNS server’s IP address) |
| 2 | Web | 192.168.30.3 (FTP server’s IP address) |

Now that we have mapped where each page will be hosted, we can customize the index.html page of each page just to make it more identifiable.

## DNS Server (192.168.30.1)

Let’s take the example of the DNS server’s page. Every user trying to connect to its page, dns, will reach the index.html page hosted in 192.168.30.1.

A screenshot of a computer

Description automatically generated

Instead of configuring the DNS part of it, we will configure the HTTP part.

We go to item 5, index.html and click the (edit) button.

A screenshot of a computer

Description automatically generated with medium confidence

There we can customize the text of the page. For this example, we only added the last line “this a dns” to be able to identify it. Make sure to click the save button at the top right of the window once you have finished.

Let’s go to a PC, open its web browser and type “dns” there and see what happens.

A screenshot of a computer

Description automatically generated with medium confidence

Success!

Now, we’ll do the same for the other 2 servers and test it.

## DHCP server (192.168.30.2)

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Test result by opening a web browser page of a random PC and typing “dhcp”:

A screenshot of a computer

Description automatically generated with medium confidence

Success!

Now, we’ll do the same for the last server and test it.

## FTP server (192.168.30.3)

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Test result by opening a web browser page of a random PC and typing “web”:

A screenshot of a computer

Description automatically generated with medium confidence

Success! Don’t mind the text as we used the FTP server to act as a web server, but just for this test.