Workaround for VLAN Management IP Address Assignment

Objective

When the switch is configured with an IP address on any VLAN, the ‘fallback’ IP address on VLAN1 (192.168.1.254) will be released.To preserve connectivity, prior to assigning an IP address to any VLAN interface, ensure the management VLAN has an IP address assigned *first*. The IP address can be obtained via a DHCP server or statically assigned to the VLAN interface. This article provides you with a workaround for VLAN IP assignment.

Applicable Devices

250 series Switches

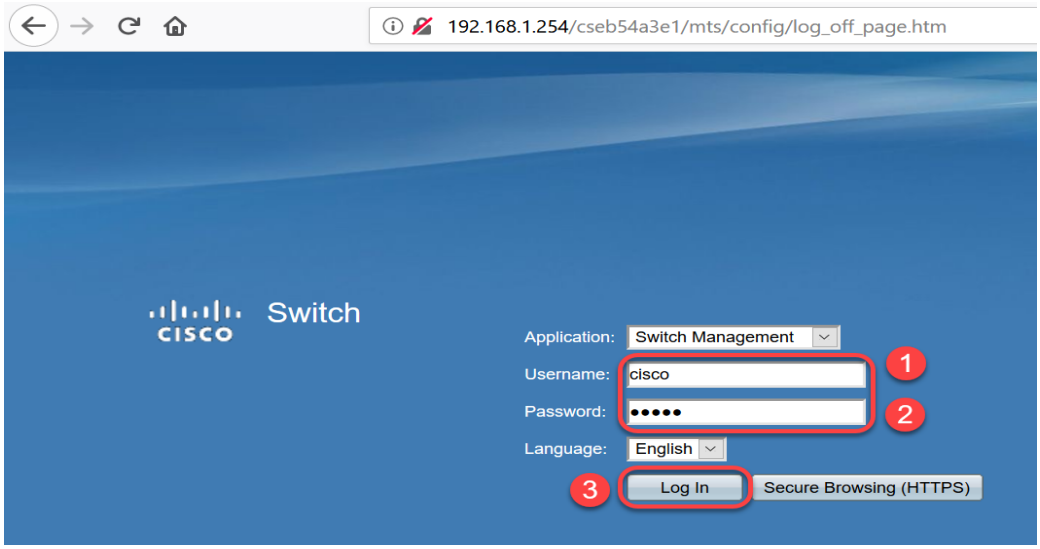
Software Version

- 2.5.0.83

Enabling SSH and Confirming Switch Status

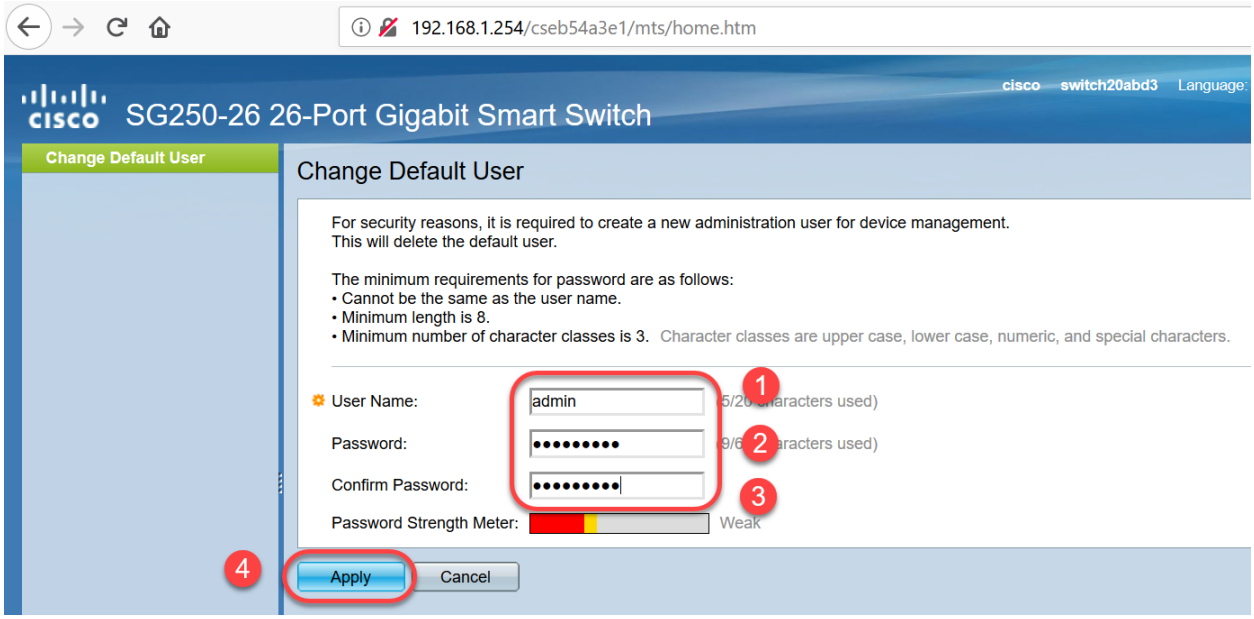
If this is *not* your first time booting up the Switch, skip to Step 3.

Step 1. **Power up the new switch** and **log in** to the switch via the web browser by using the default username and password.

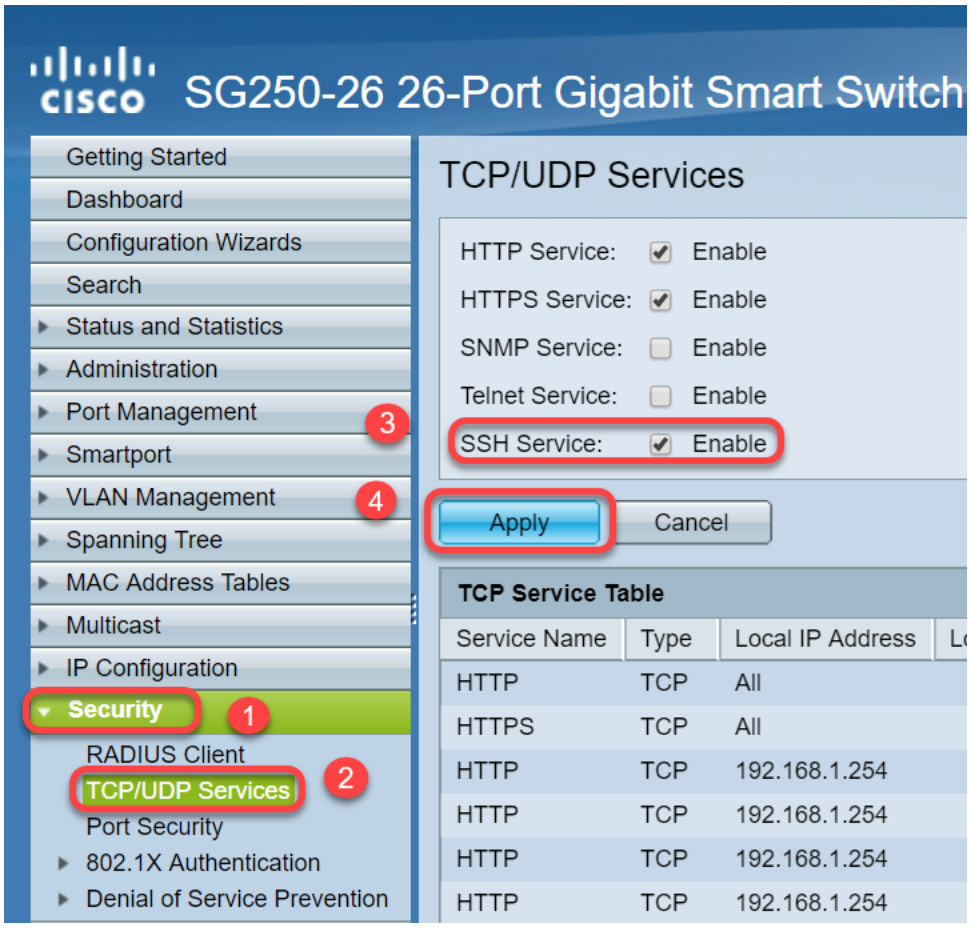


Note: The default username and password upon first boot is cisco / cisco.

Step 2. Change the default username and password. Click **Apply**.



Step 3. Once the main menu has opened, click **Security > TCP/UDP Services**. Once this page loads **enable SSH** on the switch. Click **Apply**.



Step 4. **Log in** to the switch via SSH, we chose to use Putty.

Note: To learn how to access an SMB switch through SSH or Telnet, click here.

Step 5. To display details of the firmware and to confirm whether the Switch is updated to the latest available firmware version or not, enter the following command.

Note: It is recommended to use the latest firmware on the Switch. To download the latest

firmware, please click here.

Step 6. To display information about VLAN settings of the switch, enter the following command:

```
switch20abd3#show vlan
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN

Vlan       Name            Tagged Ports      UnTagged Ports      Created by
---- ----------------- ------------------ ------------------ ----------------
 1           1                                gi1-26,Po1-4           DV
```

Step 7. To display information about IP interface, enter the following:

```
switch20abd3#show ip interface

    IP Address        I/F     I/F Status  Type    Directed  Prec Redirect Status
                              admin/oper          Broadcast
------------------ --------- ---------- ------- --------- ---- -------- ------
0.0.0.0/32         vlan 1    UP/UP       DHCP    disable   No   enable   Not
                                                                         receiv
                                                                         ed
192.168.1.254/24   vlan 1    UP/UP       Default disable   No   enable   Valid
```

By using the above mentioned command, you can see the current IP address settings on the interfaces and decide about assigning a new IP on the new VLAN interface.

Example: Creating the VLAN and Assigning the IP address

Note: The below is an example of the steps SSH session loss. When you enter the last command, you will lose access to the switch because VLAN1 will not have an IP address and all switch ports are still assigned to VLAN1.

To skip directly to the workaround steps, click here.

Step 8. From the Privileged EXEC mode of the switch, enter the Global Configuration mode by entering the following command:

```
User Name:admin
Password:*********

switch20abd3#configure terminal
```

Step 9. To configure the VLAN 2 on the Switch, enter the following:

switch201bd3 (config) #**vlan 2**

```
switch20abd3#configure terminal
switch20abd3(config)#vlan 2
```

Step 10. To manage the VLAN 2 interface, enter the following:

switch201bd3 (config) #**interface vlan 2**

```
switch20abd3#configure terminal
switch20abd3(config)#vlan 2
switch20abd3(config)#interface vlan 2
```

Step 11. To configure the IP on VLAN 2 interface, enter the following:

switch201bd3 (config-if) #**ip address 192.168.2.254 255.255.255.0**

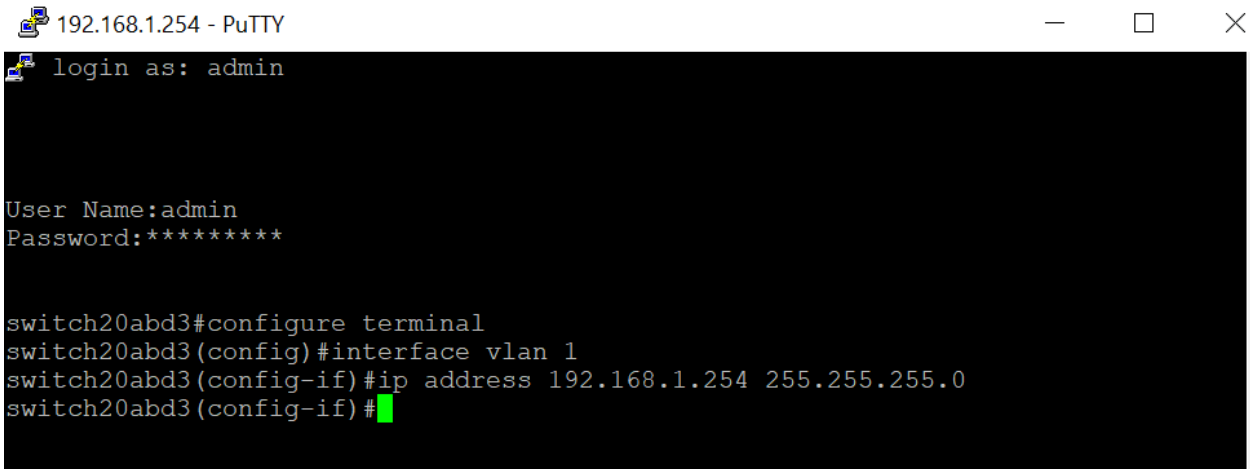
```
switch20abd3(config)#interface vlan 2
switch20abd3(config-if)#ip address 192.168.2.254 255.255.255.0
```

Workaround: Preventing loss of SSH session

By assigning a static IP address to the VLAN 1 interface, you preserve the SSH connection when assigning IP addresses to VLANs 2, 3, 4 etc.

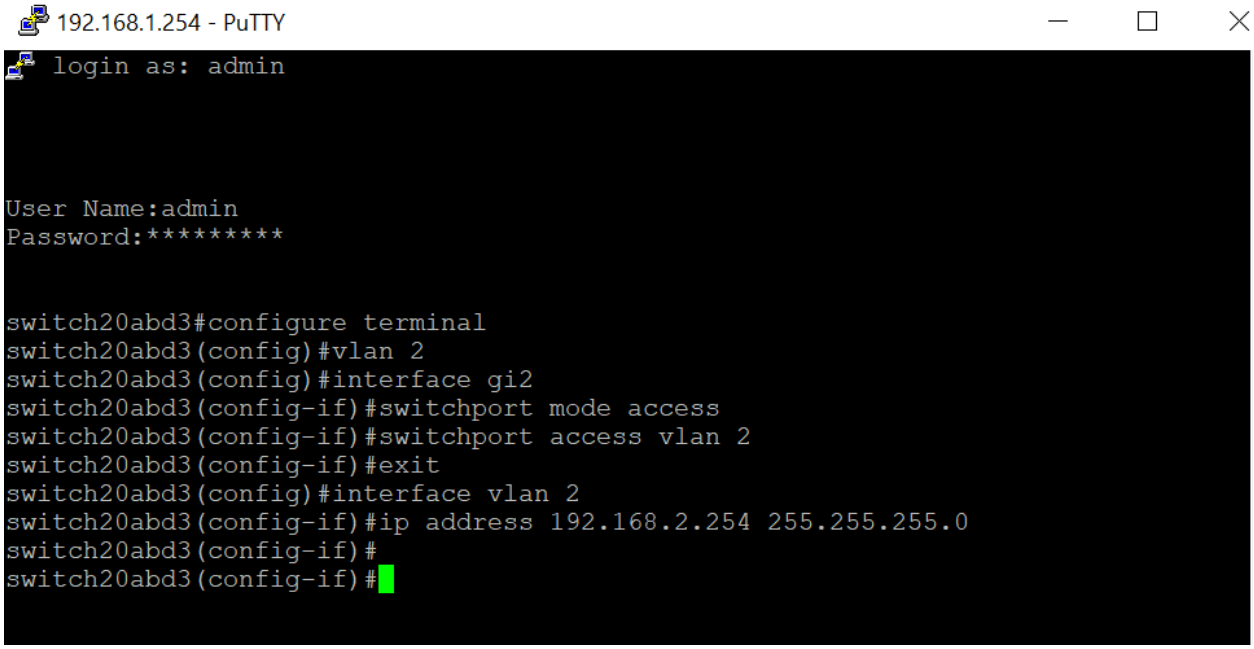
To avoid losing the connection from VLAN 1 while assigning the IP on a different VLAN interface you can perform the following:

Step 1. Enter the below commands in sequence to set the static IP address on VLAN 1.



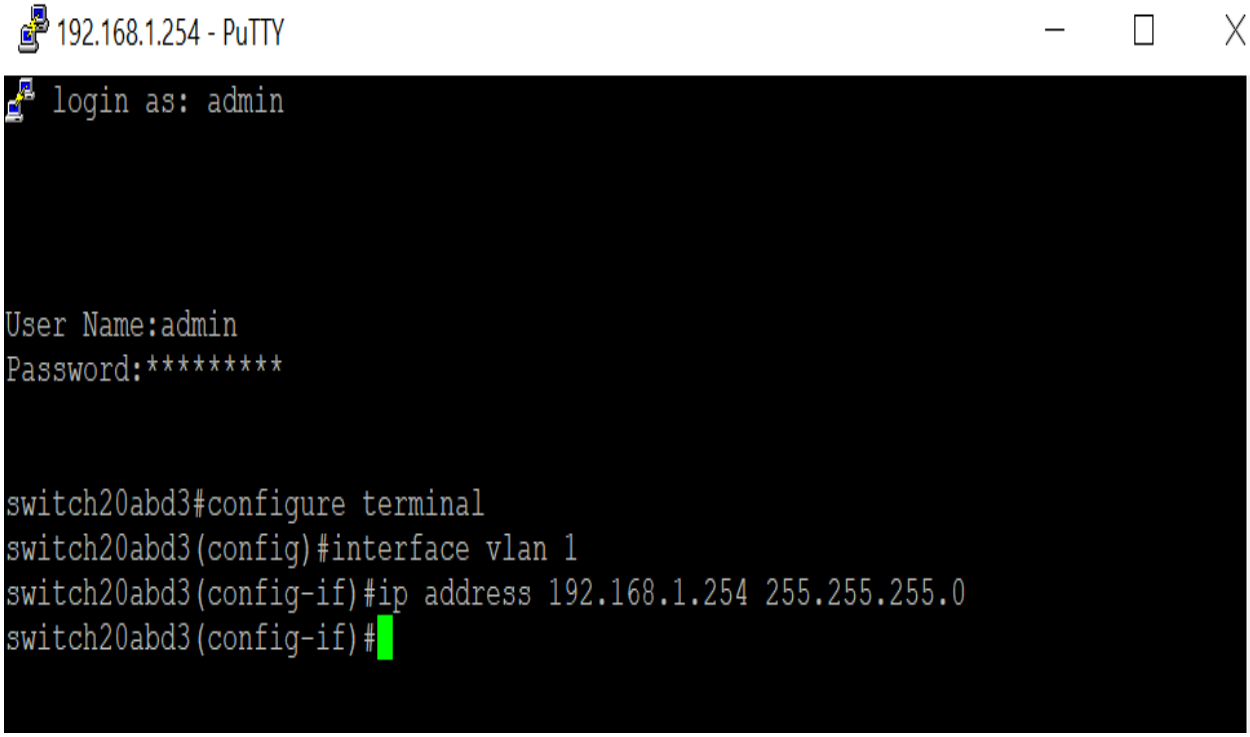
Note: from this point you are able to assign IP addresses at will.

Step 2. Apply the below mentioned command to create a VLAN 2 and assign an IP on that.



Note: In the example above, if you were connected to the switch via gi2 then you would lose the connection.

Step 3. (Optional) You can now verify the VLAN & IP address of the switch by using the following commands.



Conclusion

You have now successfully assigned an IP on another VLAN interface without losing connection to VLAN1. It will be helpful to assign a static IP on the VLAN 1 interface of the

Switch for management purpose.

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