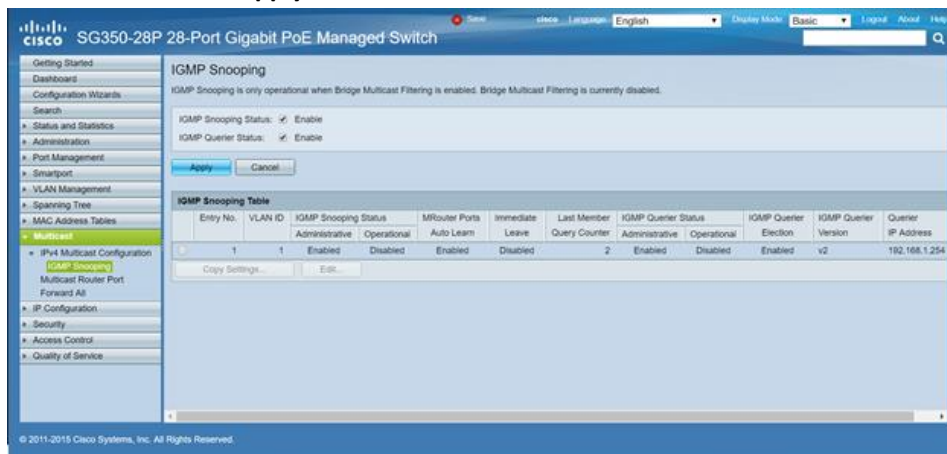




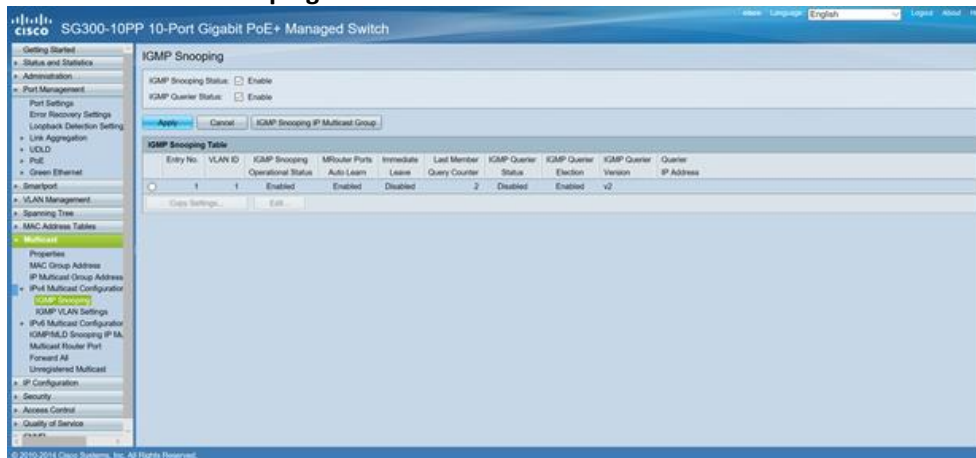
Cisco Configuration

The EVO-IP HDMI over IP System has been tested and confirmed to work with the Cisco SG300/500 and newer SG250/350/550 Switches. Below are screenshots (used with SG350-28P) showing the configuration needed to get the system up and running. Please refer to their manual and instructions on how to get into their settings.

1. Enable IGMP Snooping by going to: **Multicast->IPv4 Multicast Configuration->IGMP Snooping**. Enable the **IGMP Snooping Status** and **IGMP Querier Status** then click **Apply**.

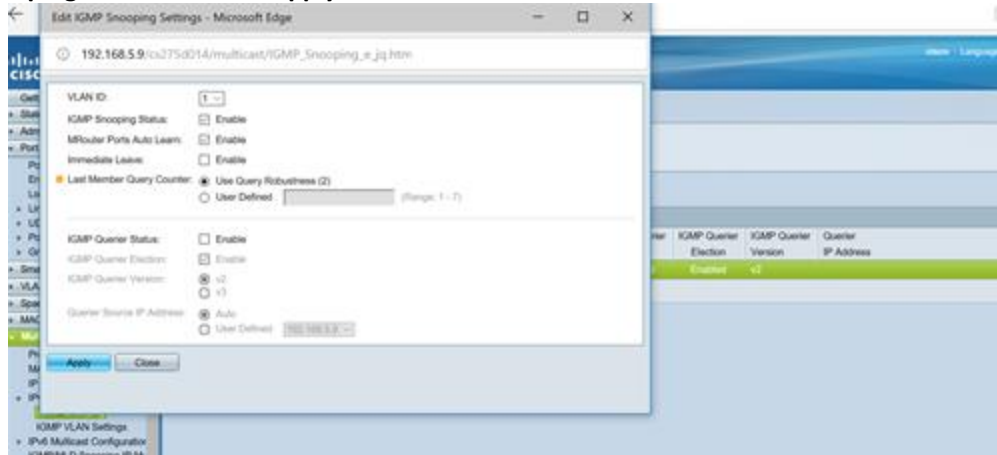


2. Select the check mark in the **IGMP Snooping Table** and select **Edit**.

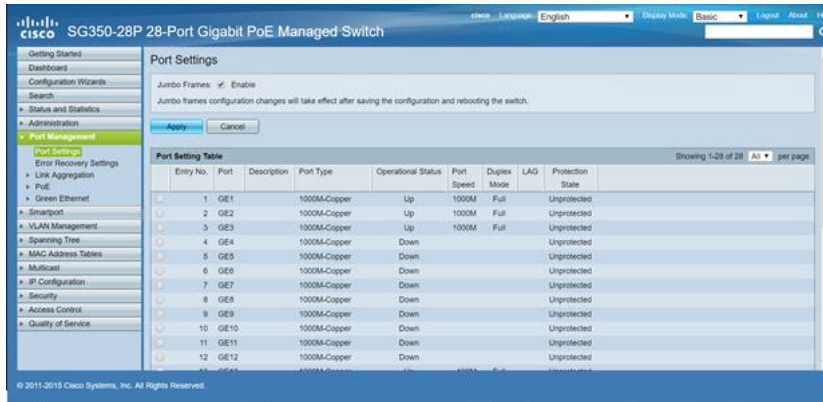


EVOLUTION

3. Enable IGMP Snooping Status and then Apply.



4. Enable Jumbo Frames by going to Port Management->Port Settings. Click on the checkbox to Enable Jumbo Frames, then click Apply.



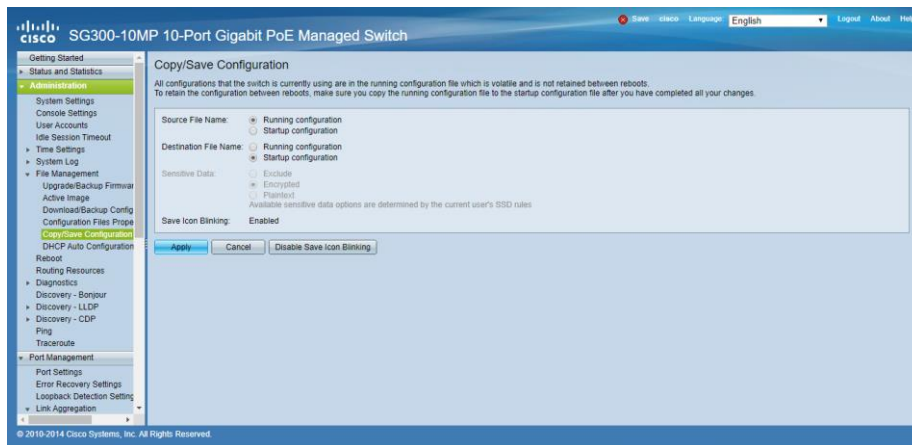
5. Click on the dropdown menu for Display Mode and select Advanced in the top right-hand corner of the screen. If your using a 300/500 switch, you can skip this step.



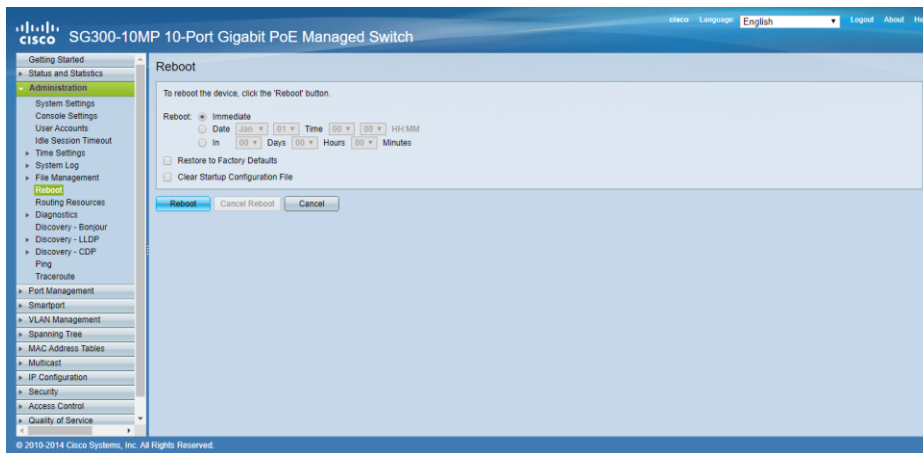
6. From the options on the left of the screen, go to Multicast, then Properties. Click on the box to Enable Bridge Multicast Filtering Status then click Apply.



7. Save the current configuration by clicking the flashing **Save** button at the top of the page. Then clicking the apply button.



8. **Reboot** the switch for the jumble frame settings to take effect by going to **Administration->Reboot**. Then click the **Apply** button and wait couple minutes for the switch to reboot.



Troubleshooting (Setting up VLANs)

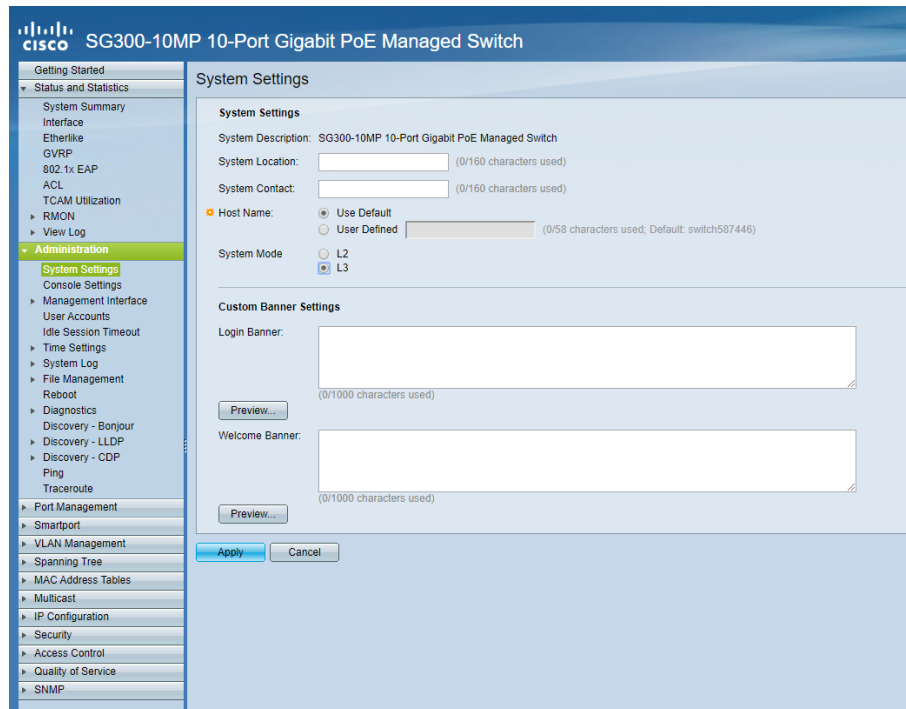
If you are finding the EVO-IP system not working reliably, consider having the EVO-IP system on its own VLAN. This helps by separating the EVO-IP system from anything else on the network that could be causing problems.

This example shows you how to setup vLan on an SG300-10MP, but you could use the other switches mentioned earlier*.

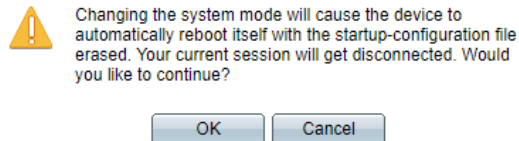
* Instruction might differ slightly

You will need access to the main networks router or request a static route from your system administrator.

1. Enable layer 3 mode by going to Administration->System Settings. Then select L3 and hit Apply, the switch should reboot afterwards.

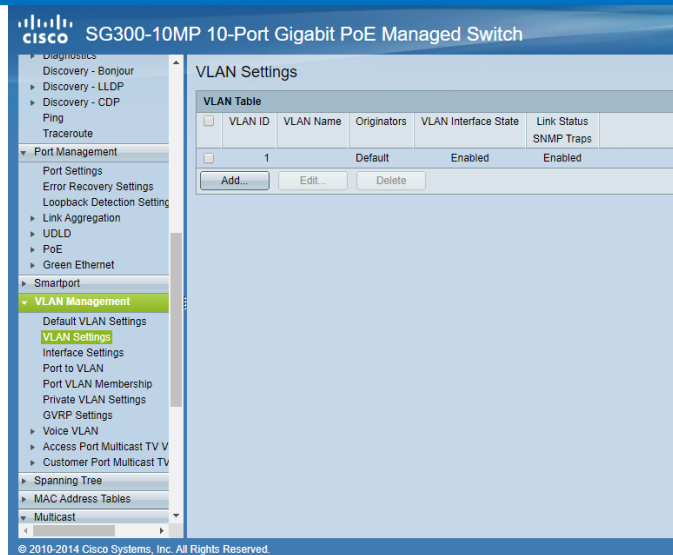


1. Hit **Ok** to reboot the switch.

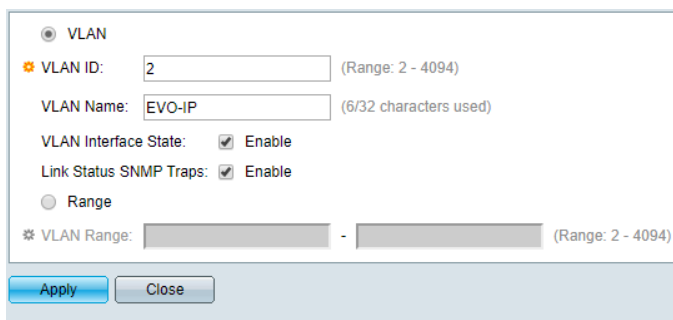


2. You will need to repeat the **Cisco Configuration** above but **Skipping steps 1-3**.

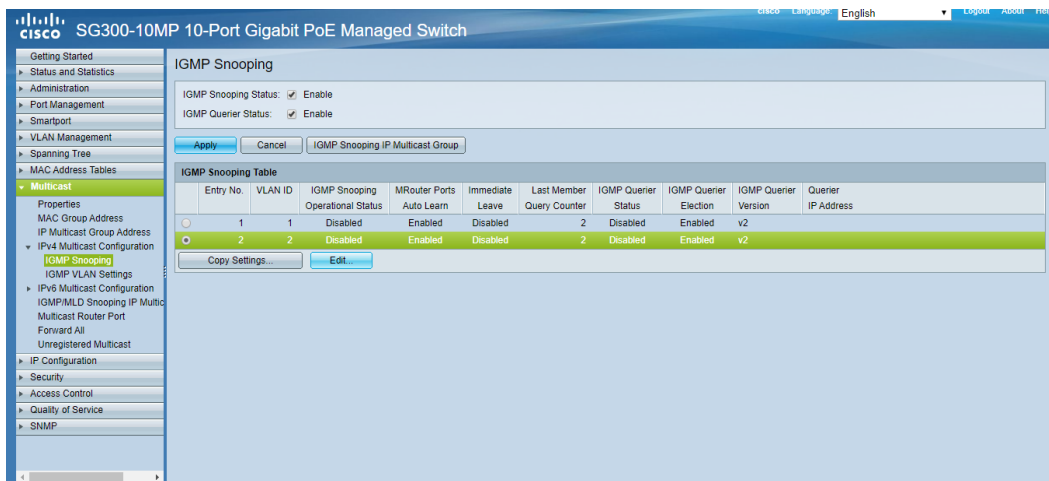
3. Add a new VLAN through the **VLAN Management->VLAN Settings** and hitting **Add**.



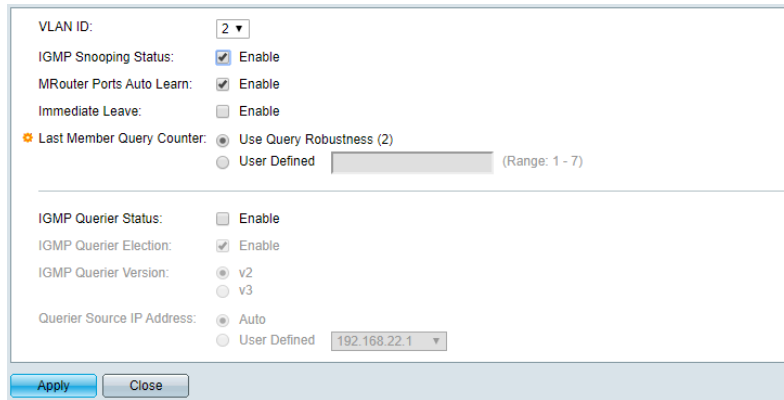
4. Enter **2** in the **VLAN ID** entry and put **EVO-IP** into the **VLAN Name**. Then click **apply**.



5. Enable IGMP Snooping for VLAN2 by going to: **Multicast->IPv4 Multicast Configuration->IGMP Snooping**. Then select VLAN2 in **IGMP Snooping Table** and click **Edit**.



6. Enable **IGMP Snooping Status** and click **Apply**.



VLAN ID: 2

IGMP Snooping Status: Enable

MRouter Ports Auto Learn: Enable

Immediate Leave: Enable

Last Member Query Counter: Use Query Robustness (2) User Defined (Range: 1 - 7)

IGMP Querier Status: Enable

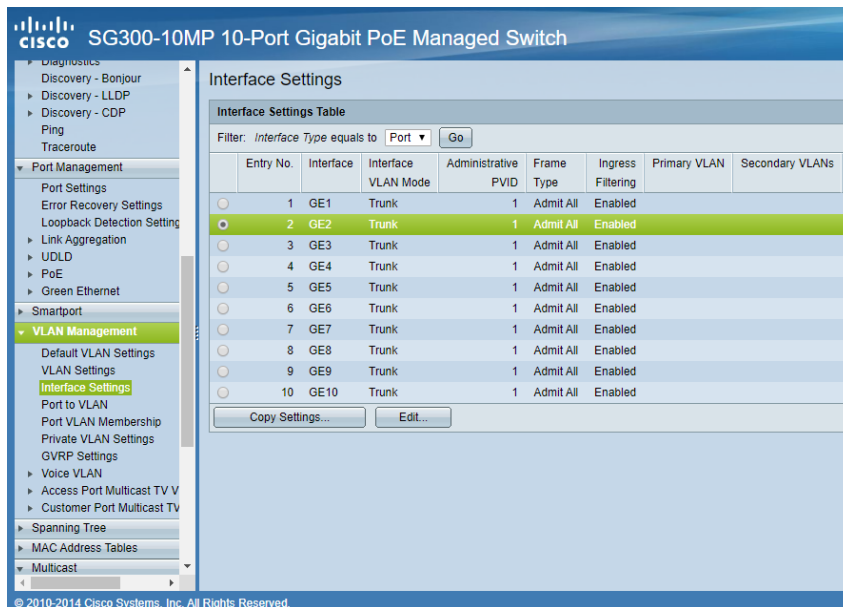
IGMP Querier Election: Enable

IGMP Querier Version: v2 v3

Querier Source IP Address: Auto User Defined 192.168.22.1

Apply Close

7. Go to **VLAN Management->Interface Settings**. select **Interface GE2** then **edit**.



Interface Settings

| Entry No. | Interface | Interface VLAN Mode | Administrative PVID | Frame Type | Ingress Filtering | Primary VLAN | Secondary VLANs |
|-----------|-----------|---------------------|---------------------|------------|-------------------|--------------|-----------------|
| 1 | GE1 | Trunk | 1 | Admit All | Enabled | | |
| 2 | GE2 | Trunk | 1 | Admit All | Enabled | | |
| 3 | GE3 | Trunk | 1 | Admit All | Enabled | | |
| 4 | GE4 | Trunk | 1 | Admit All | Enabled | | |
| 5 | GE5 | Trunk | 1 | Admit All | Enabled | | |
| 6 | GE6 | Trunk | 1 | Admit All | Enabled | | |
| 7 | GE7 | Trunk | 1 | Admit All | Enabled | | |
| 8 | GE8 | Trunk | 1 | Admit All | Enabled | | |
| 9 | GE9 | Trunk | 1 | Admit All | Enabled | | |
| 10 | GE10 | Trunk | 1 | Admit All | Enabled | | |

Copy Settings... Edit...

8. Make sure the **Interface VLAN Mode** is set to **Trunk** and set **Administrative PVID** to 2. hit **Apply**.

Interface: Unit/Slot 1/1 Port GE2 LAG 1

Interface VLAN Mode: General Access Trunk Customer (The switch will be in Q-in-Q mode when it has one or more customer ports) Private VLAN - Host Private VLAN - Promiscuous

Administrative PVID: (Range: 1 - 4094, Default: 1)

Frame Type: Admit All Admit Tagged Only Admit Untagged Only

Ingress Filtering: Enable

Primary VLAN:

Secondary VLAN - Host:

Available Secondary VLANs:

Selected Secondary VLANs:

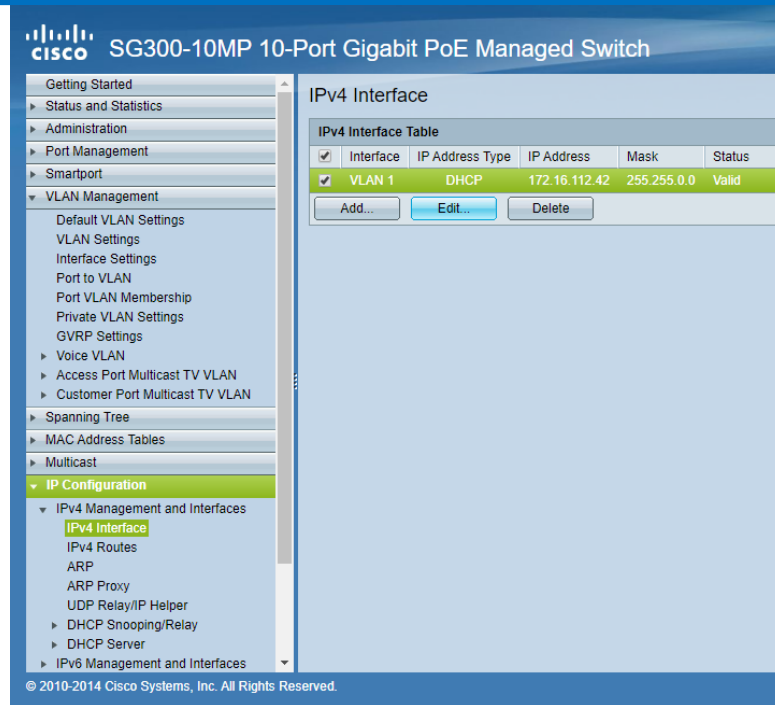
Legend: I - Isolated C - Community

- Repeat for the **next interface** until you have enough interfaces for you EVO-IP system. In this case, I have done 5 interfaces since I have 5 EVO-IP devices. (one controller, 2Transmitters, 2 receives)

Interface Settings

| Entry No. | Interface | Interface VLAN Mode | Administrative PVID | Frame Type | Ingress Filtering | Primary VLAN | Secondary VLANs |
|-----------------------|-----------|---------------------|---------------------|------------|-------------------|--------------|-----------------|
| <input type="radio"/> | 1 GE1 | Trunk | 1 | Admit All | Enabled | | |
| <input type="radio"/> | 2 GE2 | Trunk | 2 | Admit All | Enabled | | |
| <input type="radio"/> | 3 GE3 | Trunk | 2 | Admit All | Enabled | | |
| <input type="radio"/> | 4 GE4 | Trunk | 2 | Admit All | Enabled | | |
| <input type="radio"/> | 5 GE5 | Trunk | 2 | Admit All | Enabled | | |
| <input type="radio"/> | 6 GE6 | Trunk | 2 | Admit All | Enabled | | |
| <input type="radio"/> | 7 GE7 | Trunk | 1 | Admit All | Enabled | | |
| <input type="radio"/> | 8 GE8 | Trunk | 1 | Admit All | Enabled | | |
| <input type="radio"/> | 9 GE9 | Trunk | 1 | Admit All | Enabled | | |
| <input type="radio"/> | 10 GE10 | Trunk | 1 | Admit All | Enabled | | |

- Edit VLAN 1 by going to IP Configuration->IPv4 Management and Interfaces->IPv4 Interface.



11. Change the **IP Address Type** to **Static IP Address** and add the IP address that the switch can use for the main network.

Note: This will cause a loss of connection until you switch to the Static IP Address

Interface: Port GE1 LAG 1 VLAN 1 Loopback

IP Address Type: Dynamic IP Address
 Static IP Address

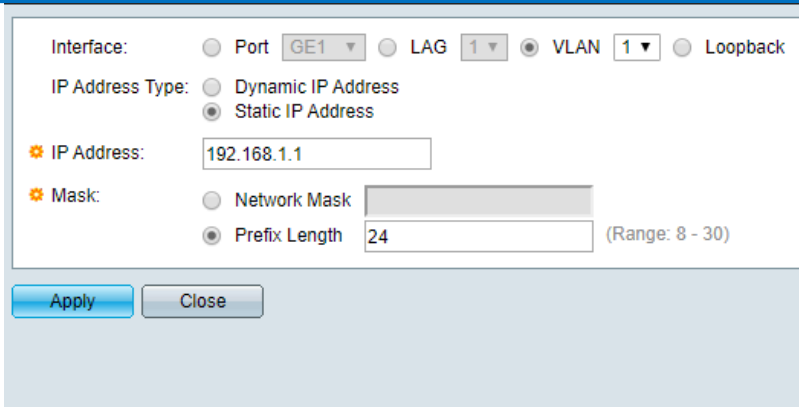
IP Address: 172.16.112.108

Mask: Network Mask
 Prefix Length 16 (Range: 8 - 30)

Apply Close

12. Select **VLAN2** and hit **Add**. Repeat step 9 entering an IP Address in a Network subnet that isn't being used.

For example, if your network is a 192.168.0.0/24, you could use a 192.168.1.0/24 address like 192.168.1.1. Once done, hit **Apply**.



Interface: Port GE1 LAG 1 VLAN 1 Loopback

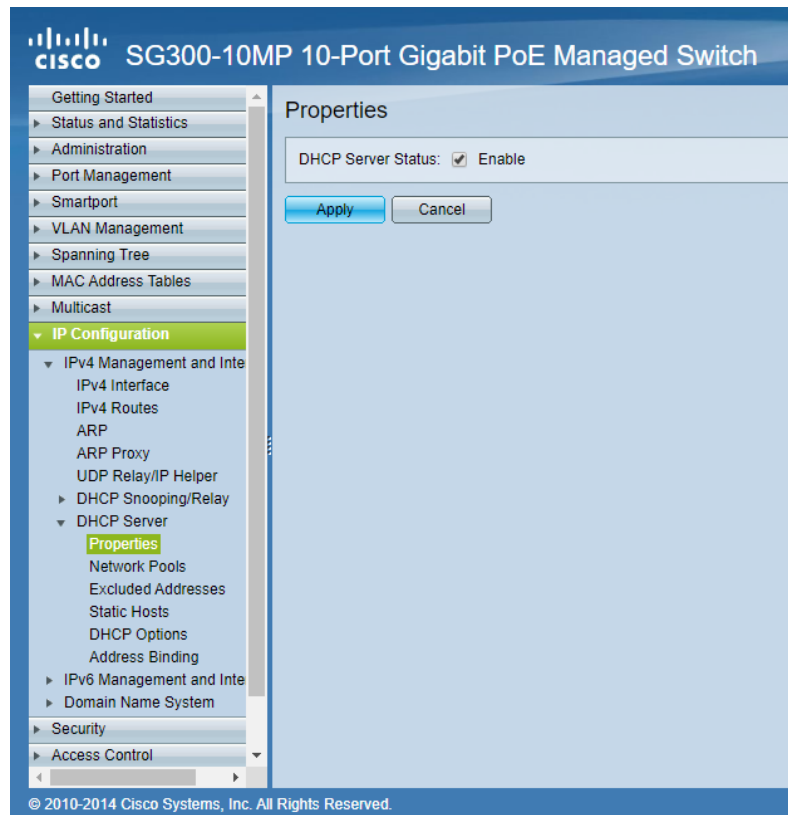
IP Address Type: Dynamic IP Address
 Static IP Address

* IP Address: 192.168.1.1

* Mask: Network Mask
 Prefix Length 24 (Range: 8 - 30)

Apply Close

13. Enable **DHCP Server**, go to **IP Configuration->DHCP Server->Properties**. Enable and hit **Apply**.



cisco SG300-10MP 10-Port Gigabit PoE Managed Switch

- Getting Started
- Status and Statistics
- Administration
- Port Management
- Smartport
- VLAN Management
- Spanning Tree
- MAC Address Tables
- Multicast
- IP Configuration**
 - IPv4 Management and Inte
 - IPv4 Interface
 - IPv4 Routes
 - ARP
 - ARP Proxy
 - UDP Relay/IP Helper
 - DHCP Snooping/Relay
 - DHCP Server
 - Properties**
 - Network Pools
 - Excluded Addresses
 - Static Hosts
 - DHCP Options
 - Address Binding
 - IPv6 Management and Inte
 - Domain Name System
- Security
- Access Control

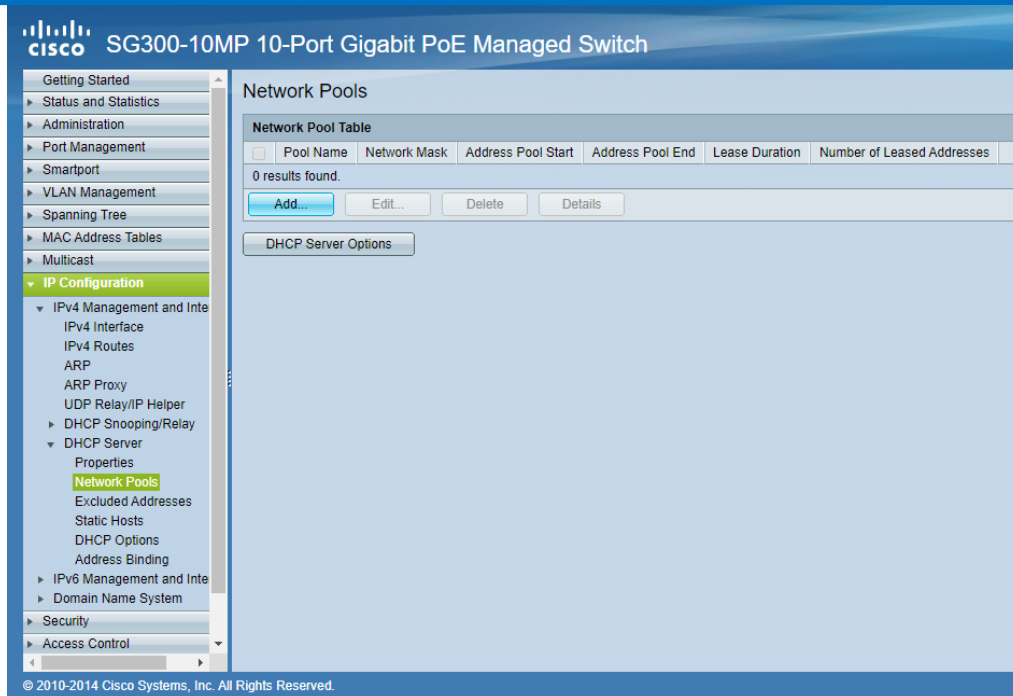
Properties

DHCP Server Status: Enable

Apply Cancel

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14. To Add DHCP Pool, go to **IP Configuration->DHCP Server->Network Pools** select **Add**

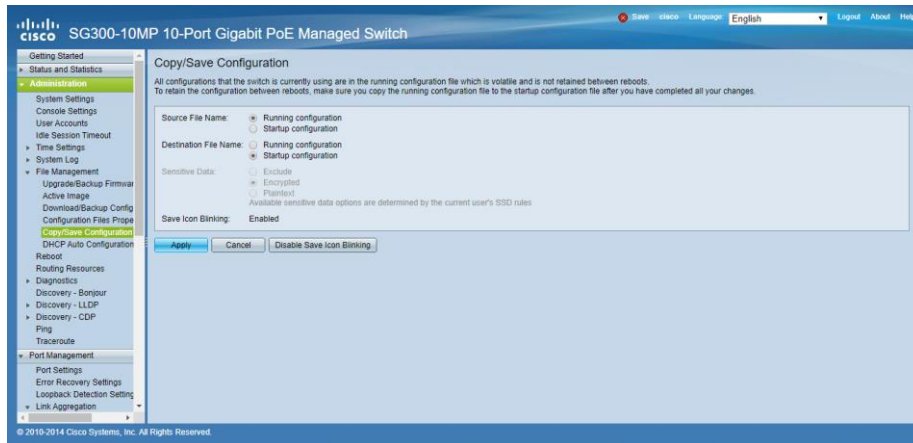


15. You want to put **EVO-IP** into the **Pool Name**. The **Subnet IP Address** and **Mask**, you need to enter the network subnet and mask you used for the static IP address for **VLAN2**. After that, it will auto populate the **Address Pool Start** and **Address Pool End**. change these so that the range doesn't cover the Static IP used for the switch. In the example below, I change the **Address Pool Start** to 192.168.1.100. hit **Apply**.

Pool Name: (6/32 characters used)
 Subnet IP Address:
 Mask: Network Mask Prefix Length (Range: 8 - 30)
 Address Pool Start:
 Address Pool End:
 Lease Duration: Infinite Days Hours Minutes (Default: 1 Day)

Default Router IP Address (Option 3): Auto Disable User Defined
 Domain Name Server IP Address (Option 6):
 Domain Name (Option 15): (0/32 characters used)
 NetBIOS WINS Server IP Address (Option 44):
 NetBIOS Node Type (Option 46): Hybrid Mixed Peer-to-Peer Broadcast
 SNTP Server IP Address (Option 4):
 File Server IP Address (siaddr):
 File Server Host Name (sname/Option 66): (0/64 characters used)
 Configuration File Name (file/Option 67): (0/128 characters used)

16. Save the current configuration, clicking the flashing **Save** at the top of the page. Then clicking the apply.



17. **Reboot** the switch by going to **Administration->Reboot**. click **Apply** and wait couple minutes for the switch to reboot.

