

# **SIGNAMAX**

## **C-300 Series Crestron Solution Guide**

# Crestron Solution Guide

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## **SC30010**

C-300 48 Port Gigabit Managed Switch

## **SC30020**

C-300 24 Port Gigabit PoE+ Full Power Managed Switch

(Total Power Budget: 370W, can extend to 740W)

## **SC30030**

C-300 24 Port Gigabit PoE+ Managed Switch

(PoE Power Budget: 200 W)

## **SC30040**

C-300 24 Port Gigabit Managed Switch

## **SC30050**

C-300 8 Port Gigabit PoE+ Managed Switch

(PoE Power Budget: 125 W)

## **SC30060**

C-300 8 Port Gigabit Managed Switch

# How to Use This Guide

This guide includes detailed instructions on how to optimize a C-300 Series switch for the Crestron protocol based on the requirements and information provided by Crestron.

**Who Should Read this Guide?** This guide is for network administrators who are responsible for operating and maintaining network equipment. The guide assumes a basic working knowledge of LANs (Local Area Networks), the Internet Protocol (IP), the Internet Group Management Protocol (IGMP) and quality of Service (QOS).

**Related Documentation** This guide focuses on switch software configuration through the web browser.

For hardware installation please refer:

*Quick Start Guide*

For detailed configuration options and information about the switch's key features please refer:

*Web Management Guide OR CLI Reference Guide*

**Revision History** This section summarizes the changes in each revision of this guide.

| Revision | Date       | Description     |
|----------|------------|-----------------|
| v1.0.0   | 2020/03/25 | Initial Release |

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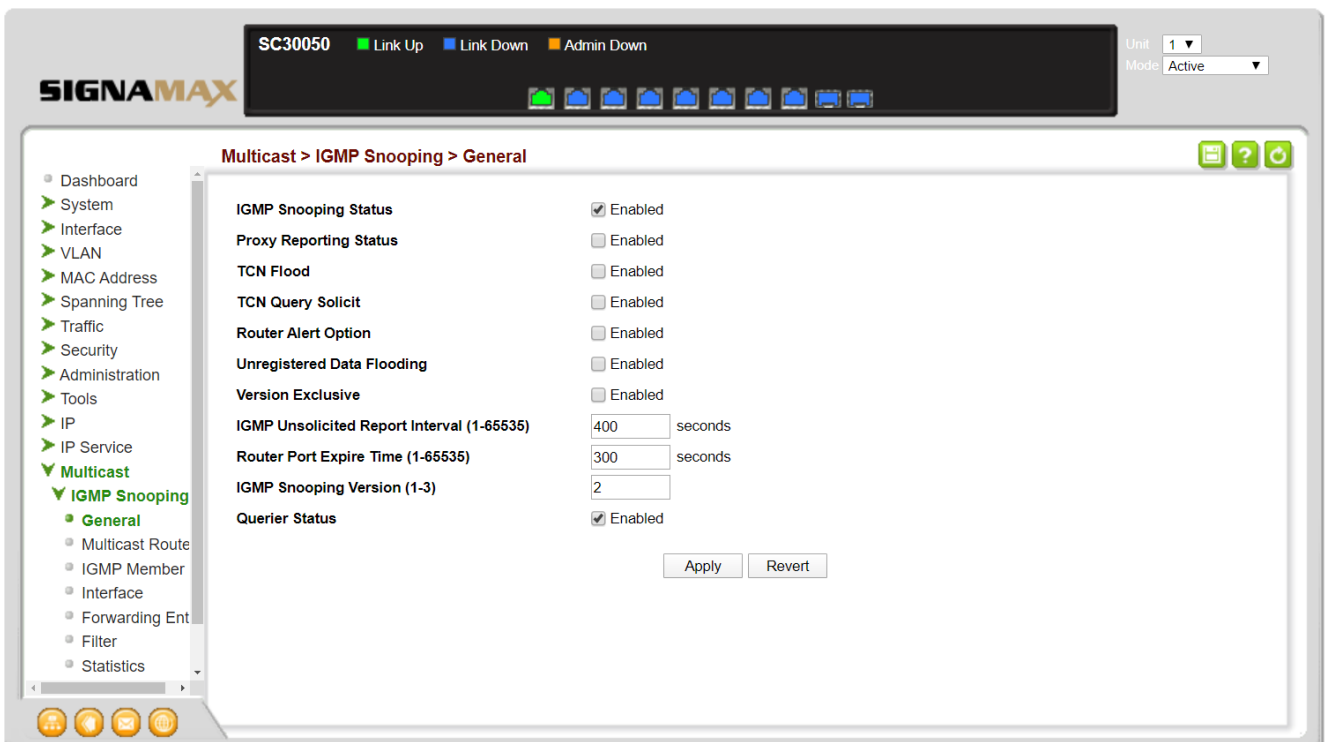
# C-300 Series Crestron Configuration via Web Interface

See the *Preparation for Web Interface* section of the Web Management Guide for how to connect and login to the C-300 Switch

# Internet Group Management Protocol (IGMP)

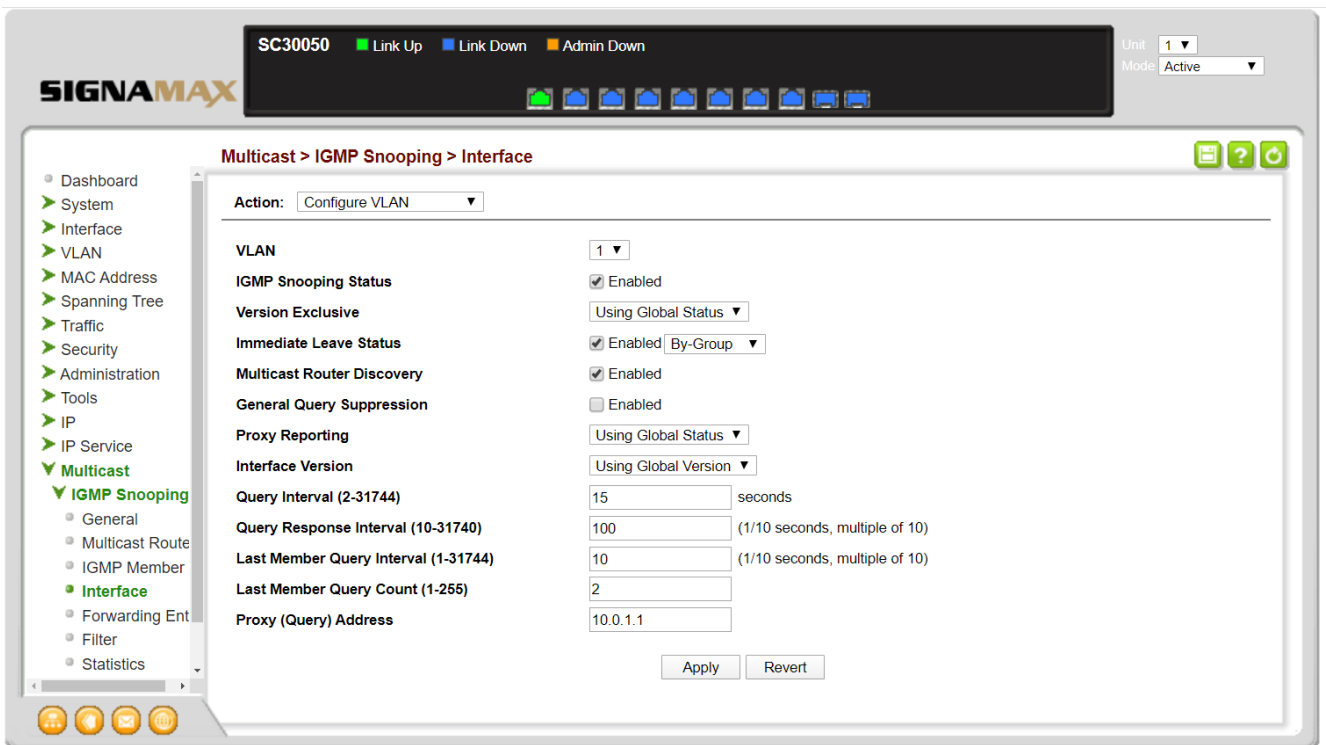
## 1. General IGMP Configuration

- Navigate to **Multicast->IGMP Snooping - > General**
- Enable **IGMP Snooping Status**
- Enable **Querier Status**
- Click **Apply**



## 2. Per VLAN IGMP Configuration

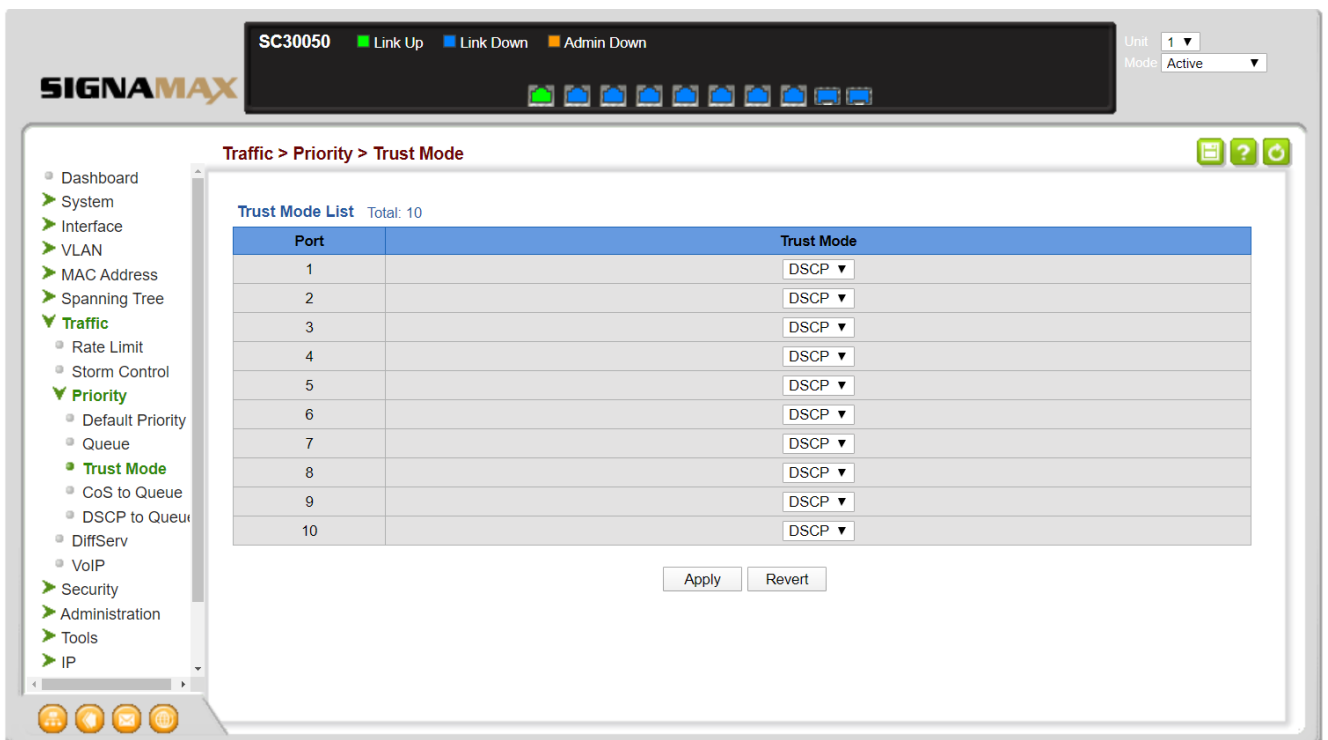
- Navigate to **Multicast->IGMP Snooping - > Interface**
- Choose Action: **Configure VLAN**
- Choose the VLAN that the Crestron devices will use. By default this is **1**
- Enable **IGMP Snooping Status**
- Enable **Immediate Leave Status** and select **By-Group**
- Enable **Multicast Router Discovery**
- Query Interval: **15**
- Proxy (Query) Address: **10.0.1.1**
- Click **Apply**



# Quality of Service (QoS)

## 1. Configure Trust Mode

- Navigate to **Traffic-> Priority - > Trust Mode**
- Choose Trust Mode: **DSCP** on all the ports that will have Crestron devices connected
- Click **Apply**





## 2. Configure DSCP to Queue Settings

- Navigate to **Traffic-> Priority - > DSCP to Queue**
- Enter Queue **2** for DSCP 8
- Enter Queue **6** for DSCP 32
- Enter Queue **6** for DSCP 46
- Leave Queue **7** for DSCP 56
- Enter Queue **0** for all other DSCP values
- Click **Apply**

The screenshot shows the 'DSCP to Queue Mapping Table' configuration page in the SIGNAMAX web interface. The page title is 'Traffic > Priority > DSCP to Queue'. The interface includes a navigation menu on the left, a status bar at the top, and a table for configuring DSCP to Queue mappings.

**DSCP to Queue Mapping Table** Total: 64

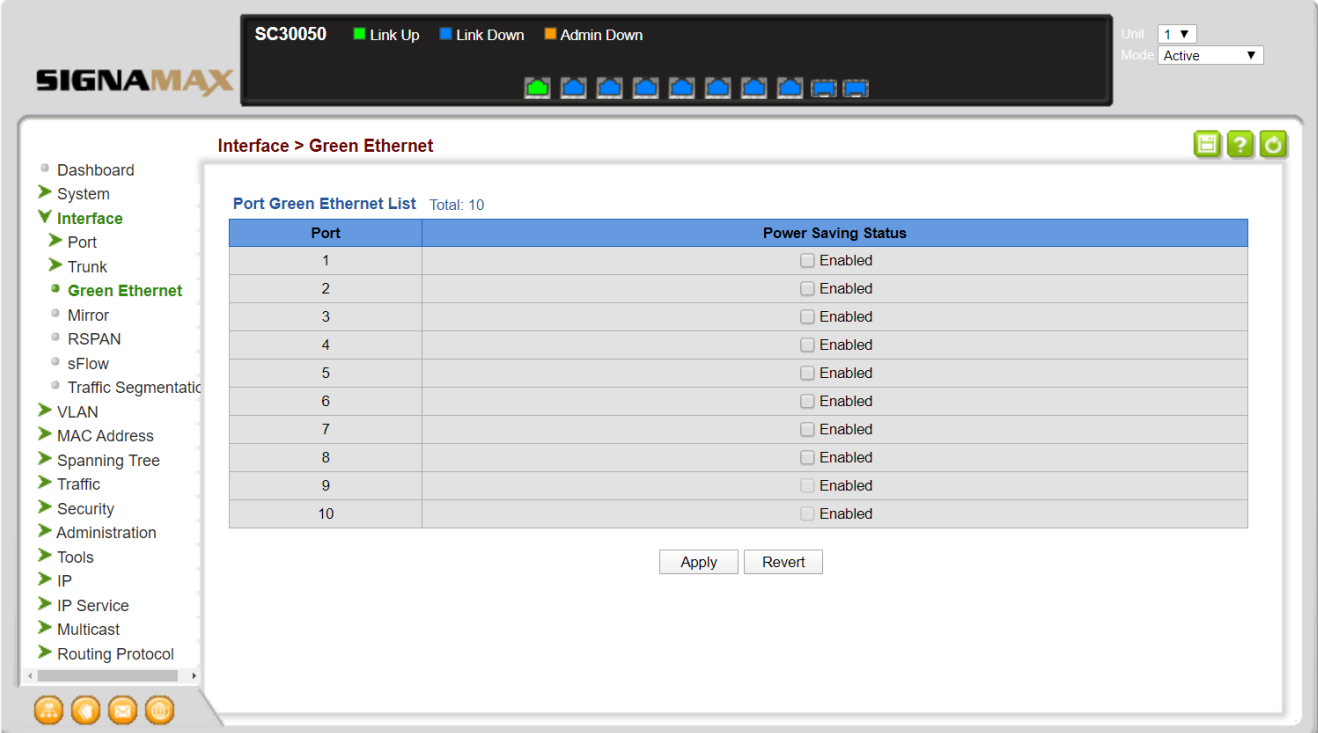
| DSCP | Queue (0-7) |
|------|-------------|
| 50   | 0           |
| 51   | 0           |
| 52   | 0           |
| 53   | 0           |
| 54   | 0           |
| 55   | 0           |
| 56   | 7           |
| 57   | 0           |
| 58   | 0           |
| 59   | 0           |

Buttons: Restore Default, Apply, Revert

# Energy Efficient Ethernet (EEE)

## 1. Disable Energy Efficient Ethernet

- Navigate to **Interface->Green Ethernet**
- Disable **Power Saving Status** on all the ports that will have Crestron devices connected.
- Click **Apply**



The screenshot shows the SIGNA MAX web interface for device SC30050. The navigation menu on the left includes Dashboard, System, Interface, Port, Trunk, Green Ethernet, Mirror, RSPAN, sFlow, Traffic Segmentation, VLAN, MAC Address, Spanning Tree, Traffic, Security, Administration, Tools, IP, IP Service, Multicast, and Routing Protocol. The main content area is titled 'Interface > Green Ethernet' and displays a table with the following data:

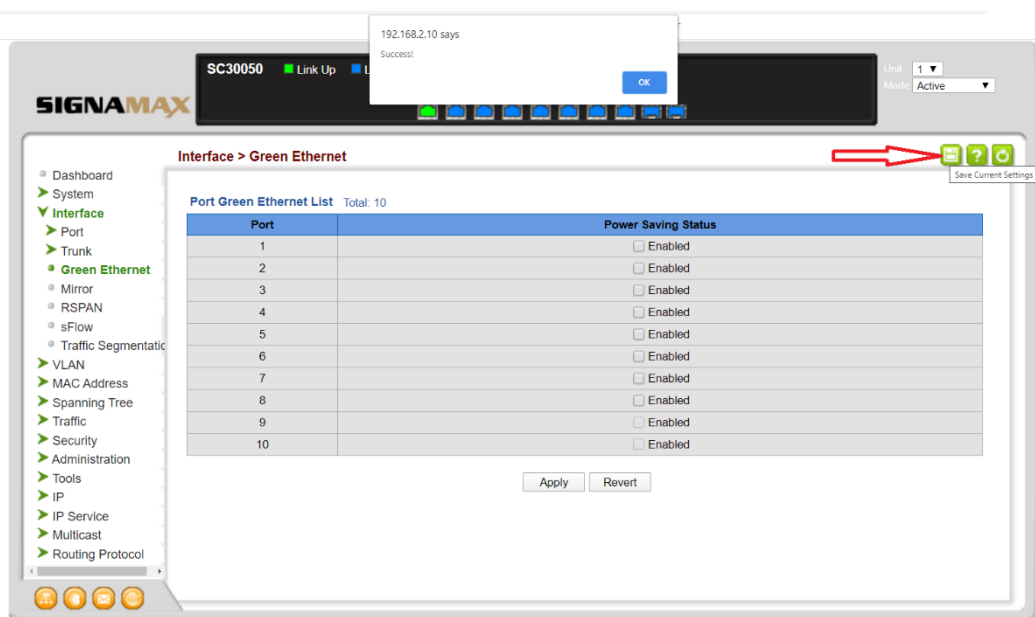
| Port | Power Saving Status              |
|------|----------------------------------|
| 1    | <input type="checkbox"/> Enabled |
| 2    | <input type="checkbox"/> Enabled |
| 3    | <input type="checkbox"/> Enabled |
| 4    | <input type="checkbox"/> Enabled |
| 5    | <input type="checkbox"/> Enabled |
| 6    | <input type="checkbox"/> Enabled |
| 7    | <input type="checkbox"/> Enabled |
| 8    | <input type="checkbox"/> Enabled |
| 9    | <input type="checkbox"/> Enabled |
| 10   | <input type="checkbox"/> Enabled |

Buttons for 'Apply' and 'Revert' are located below the table.

# Startup Config

## 1. Saving the configuration file

- Click the **Save Current Settings** green button in the upper right of the screen



# C-300 Series Crestron Configuration via config file

An alternative to configuring the switch via the web interface described in the previous section is loading to the switch the configuration file provided in the link below

# Loading the prepared configuration file

## 2. Download the prepared Crestron configuration file

Download the prepared configuration file from here:

[C-300 Series Crestron Configuration file](#)

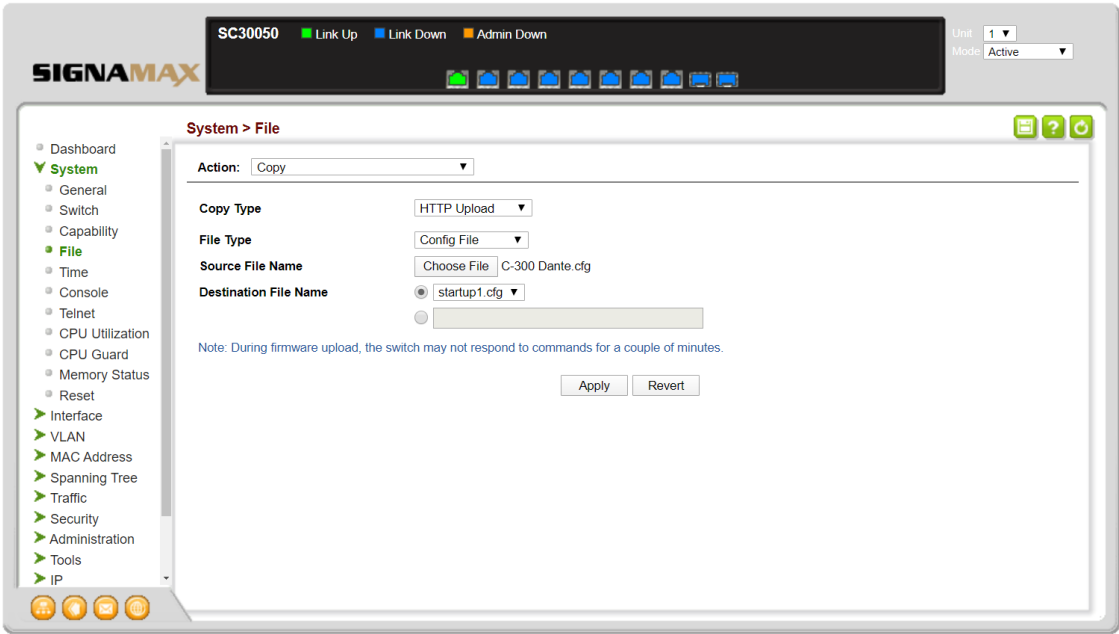
Open the zip file and save the .cfg file on your computer.

## 3. Login to the switch Web Interface

See the *Preparation for Web Interface* section of the *Web Management Guide* or the *Quick Start Guide* for how to connect and login to the C-300 Switch

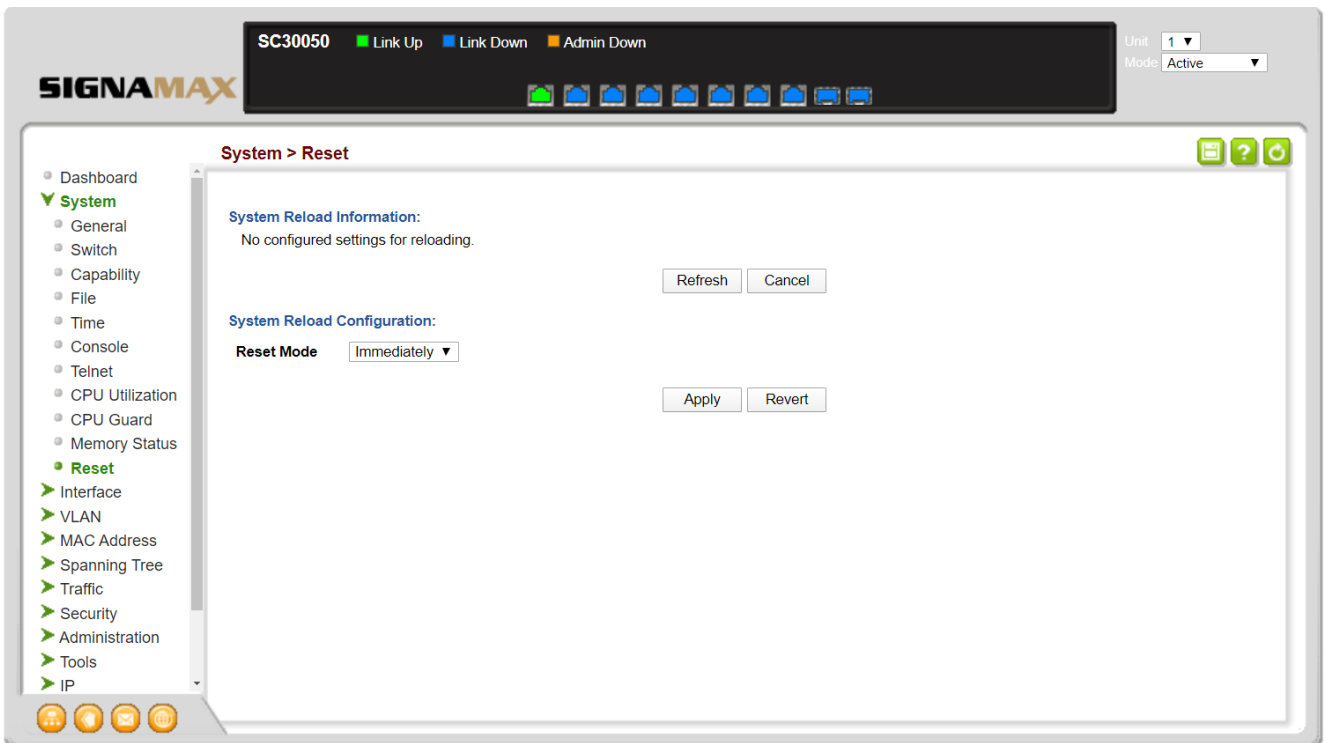
## 4. Copy the configuration file to the switch

- Navigate to **System->File**
- Select Action: **Copy**
  - Copy Type: **HTTP Upload**
  - File Type: **Config File**
  - Click **Choose File**, navigate to the configuration file you saved in step 1 above and select it
  - Click **Apply**



5. **Reset the switch**

- Navigate to **System->Reset**
- Click **Apply**



6. **Complete the switch configuration**

After the switch has completed the reboot process (approximately 90 seconds) you can re-login to the switch and make any localized configuration required (IP address, passwords etc.)