Pakedge SX-24P Setup Guide

When used with ELAN Video Over IP products

Contents

Introduction

The ELAN Video Over IP solution requires a layer 3 Managed switch in order for HDMI distribution to be achieved reliably and with no loss in performance.

The following guide is a step-by-step instruction on how to connect and configure your Pakedge SX-24P Layer 3 Managed network switch. These instructions may be suitable for other Pakedge switches. Please see Pakedge's product manuals for further information.

Pakedge Feature Requirements

The following features need to be enabled on the Pakedge network switch:-

1. Layer 3 mode
2. Maximum Transmission Units
3. IGMP Snooping/Video Over IP
4. Fast Leave
5. POE (if utilised)

Feature explanation:

- Video Over IP (one-to-many or many-to-many distribution) is group communication where information is addressed to a group of network devices simultaneously (ELAN Video Over IP products).

- Maximum transmission units - Jumbo frames are Ethernet frames with more than 1500 bytes of payload. Conventionally, jumbo frames can carry up to 9000 bytes of payload hence the maximum transmission units must be raised in order to send large packets of data for HDMI distribution.

- IGMP management & snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic. The feature allows a network switch to listen in on the IGMP conversation between hosts, routers & receivers (Video Over IP Transmitter, network switch and Video Over IP Receiver). By listening to this flow of traffic the switch maintains a map of which links need which IP Video Over IP streams. (which ELAN Video Over IP products are active and where the signal is being distributed to).

Connecting to the switch Web GUI Interface

To login into the Pakedge network switch the factory default details are:

IP Address: 192.168.1.205

User: pakedge

Password: pakedges

In order to connect to the network switch your computer will need to be physically connected to the Pakedge switch using a Ethernet network cable. The computer must also be in the same IP range as the Pakedge switch default IP address. If you are unsure how to update your computer IP range follow the 'Changing your computer IP address' instructions at the rear of this guide.

1)   Open your internet browser (Google Chrome, Mozilla, Internet Explorer etc)

2)   Type the network switch default IP address into the web browser bar

3)   Enter the default user name and password

Note: If the switch is not using the factory default settings you will need to know these login details or have to factory reset the unit. For details how to factory reset the network switch please refer to the networks switch user manual.

                           www.elanhomesystems.com

Maximum Frame Size

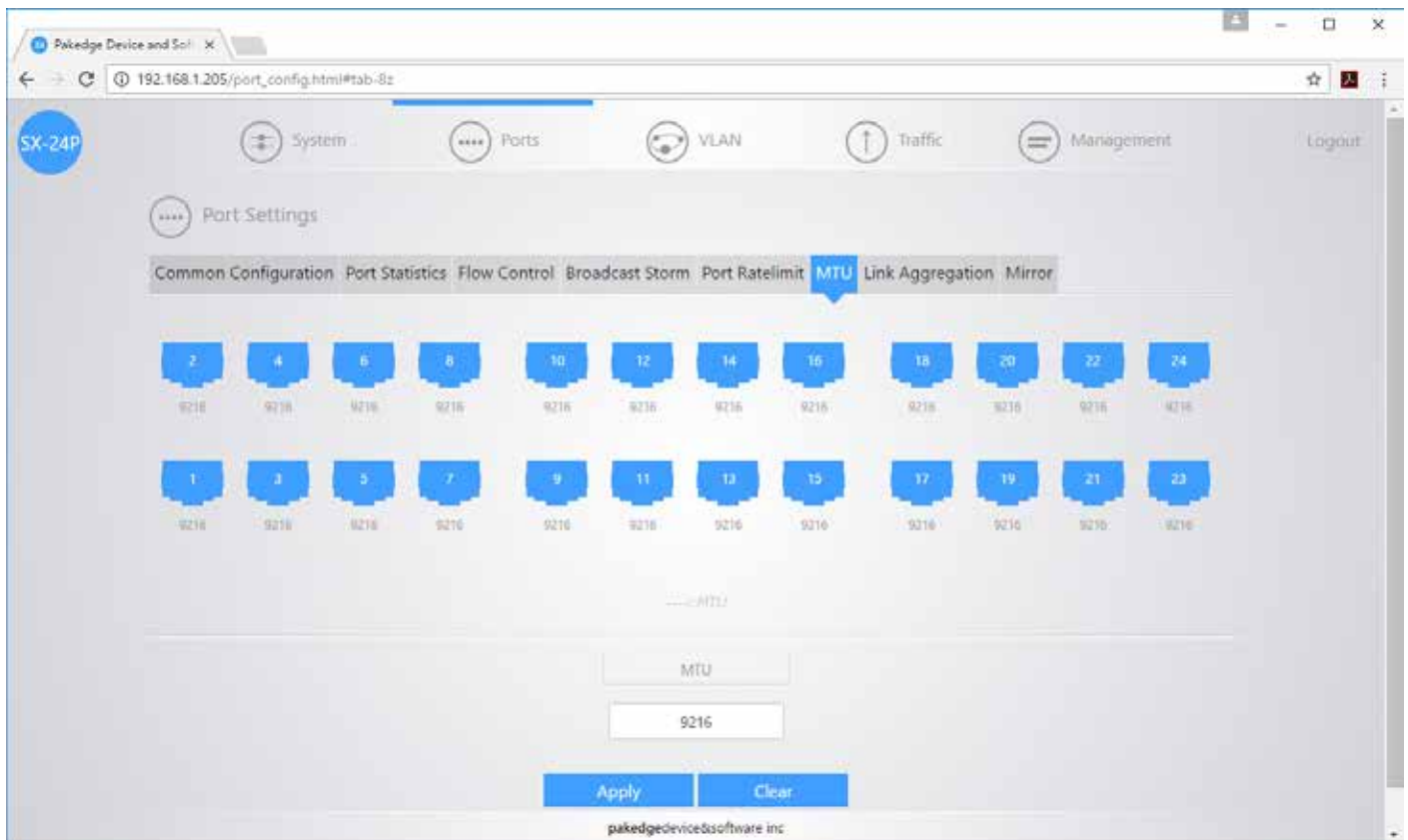To increase the maximum frame size,

Under 'Ports' menu

      Select 'Port Settings'

          Select 'MTU'

              Highlight all ports and ensure 'MTU' is set to 9216 for all ports.

Click 'APPLY' to update the setting

IGMP Snooping

To enable IGMP snooping, there are several steps required to enable this feature:-

- IGMP Snooping
- Unknown Video Over IP Action
- Fast Leave
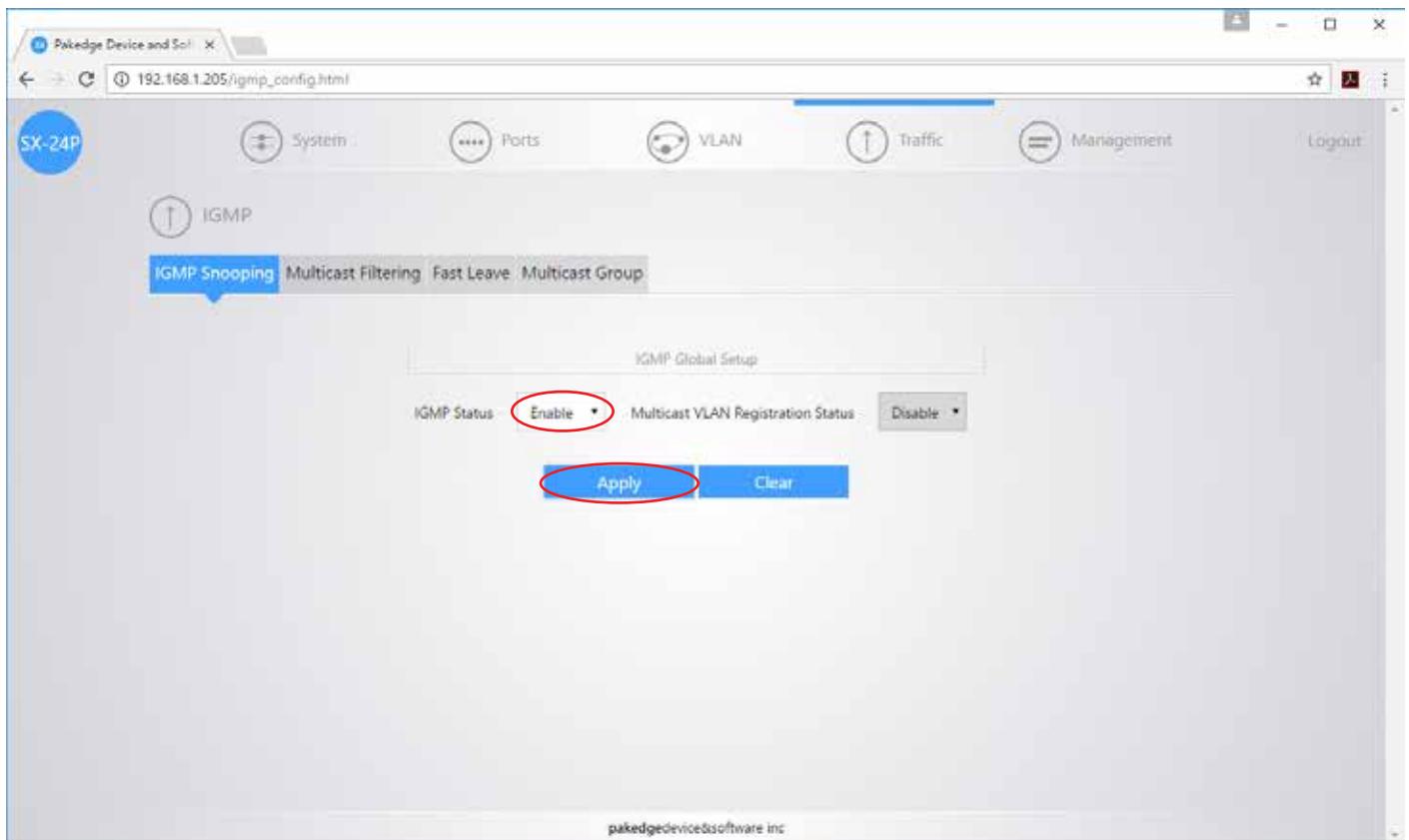
The following pages explain how to update the above settings.

IGMP Snooping

Under 'Traffic' menu

    Select 'IGMP'

        Select 'IGMP Snooping'

            Set 'IGMP Status' to Enabled
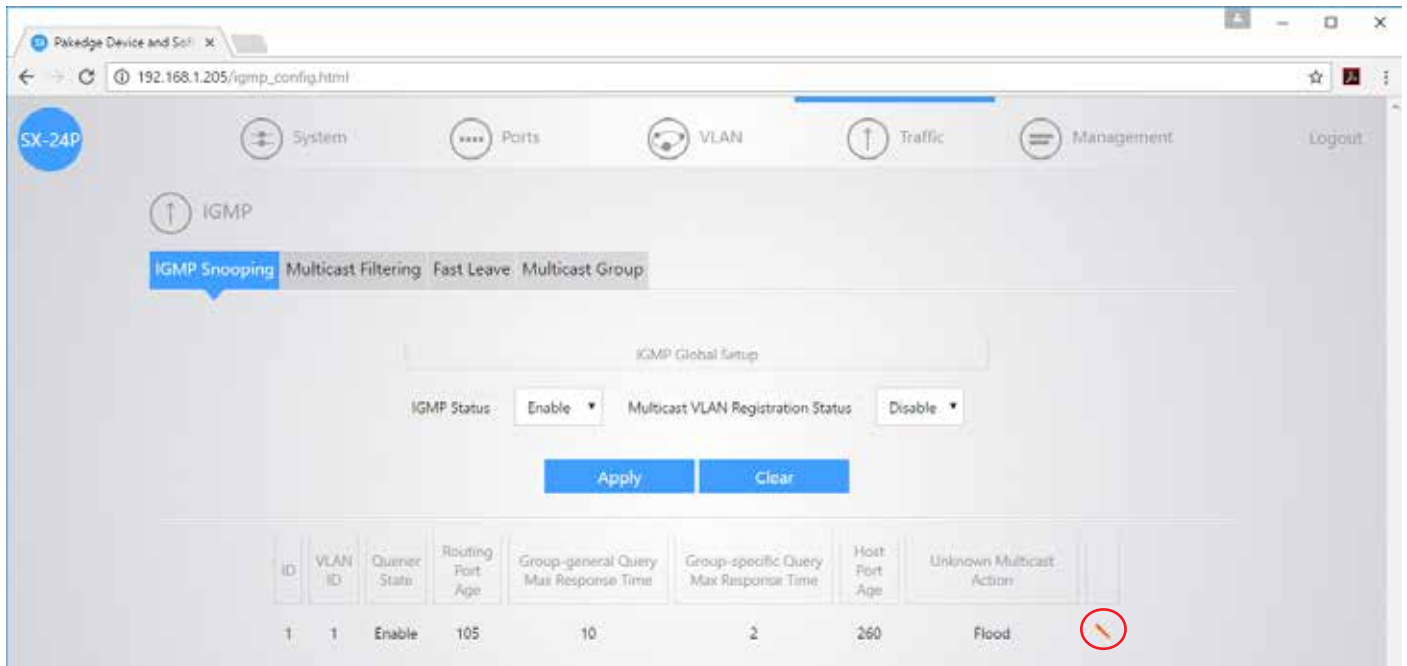

Click 'Apply' to update the setting

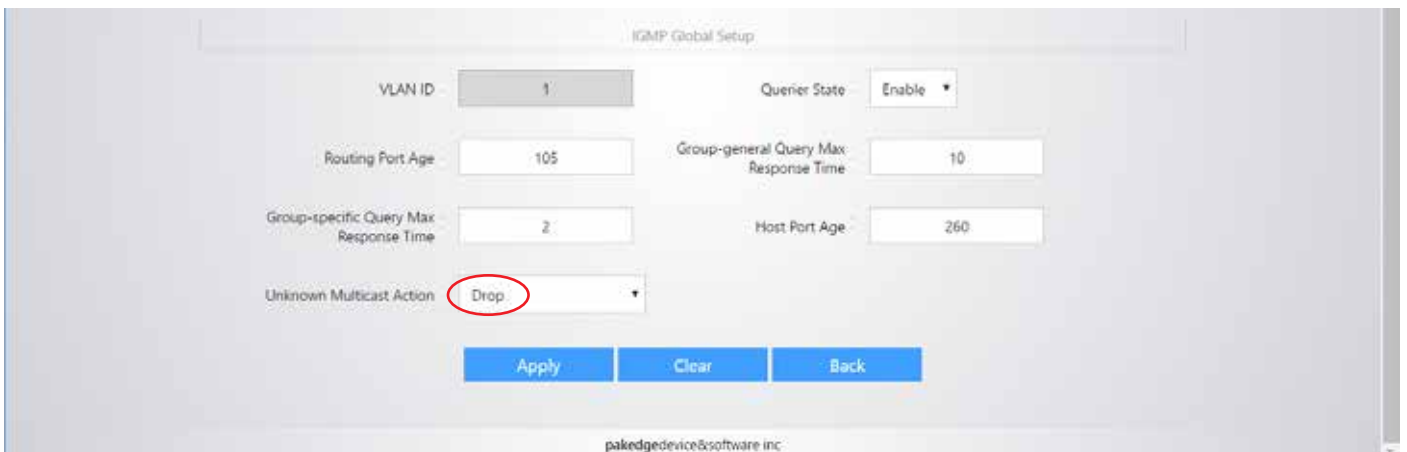# Unknown Multicast Action

Under 'Traffic' menu

    Select 'IGMP'

        Select 'IGMP Snooping'

            Select the red strip (⬊ to adjust IGMP settings

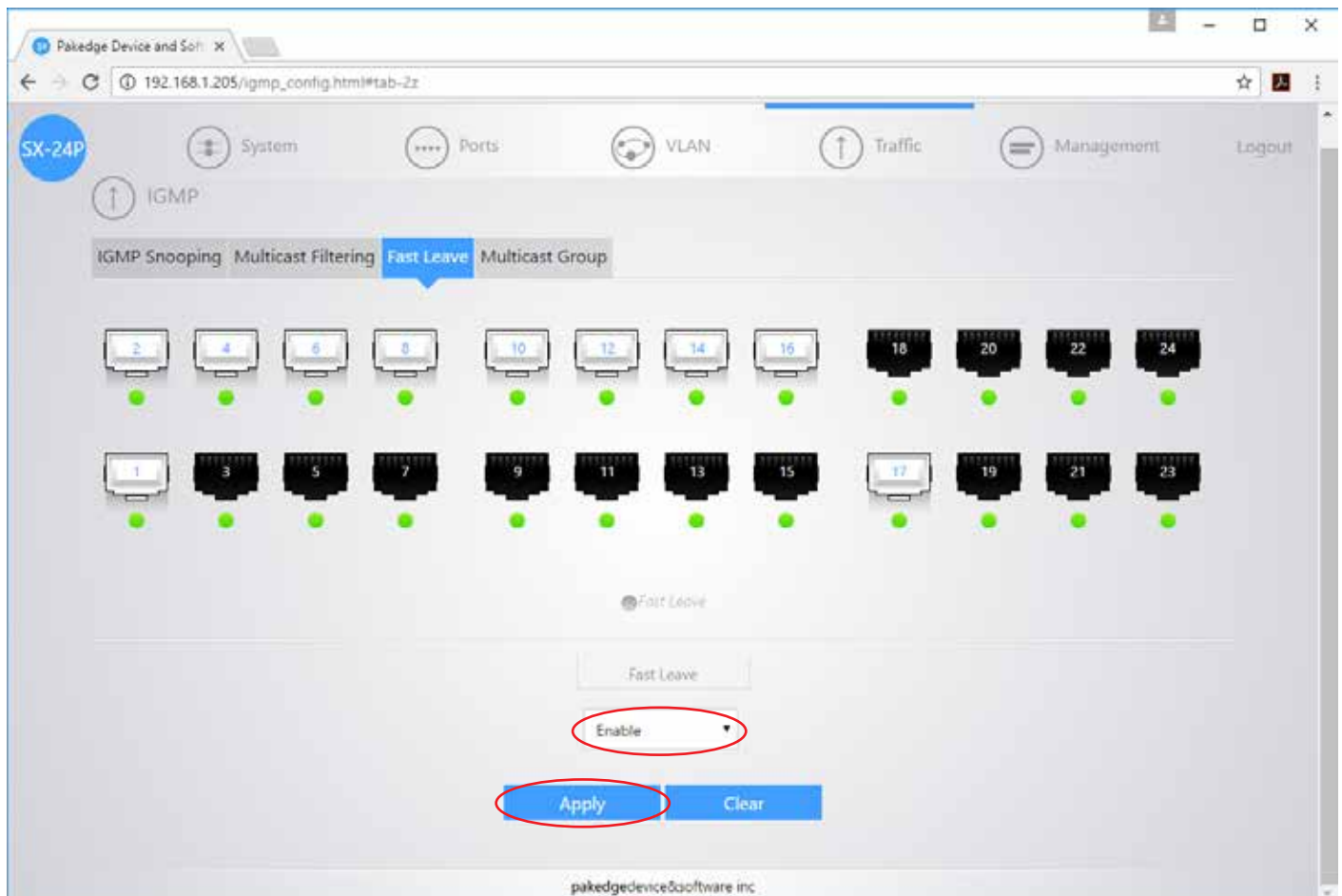Change 'Unknown Multicast Action' to Drop

Click 'Apply' to update the setting

Fast Leave

Under 'Traffic' menu

Select 'IGMP'

Select 'Fast Leave"

Highlight the channels you wish to adjust Fast Leave for.

Change 'Fast Leave' to Enabled
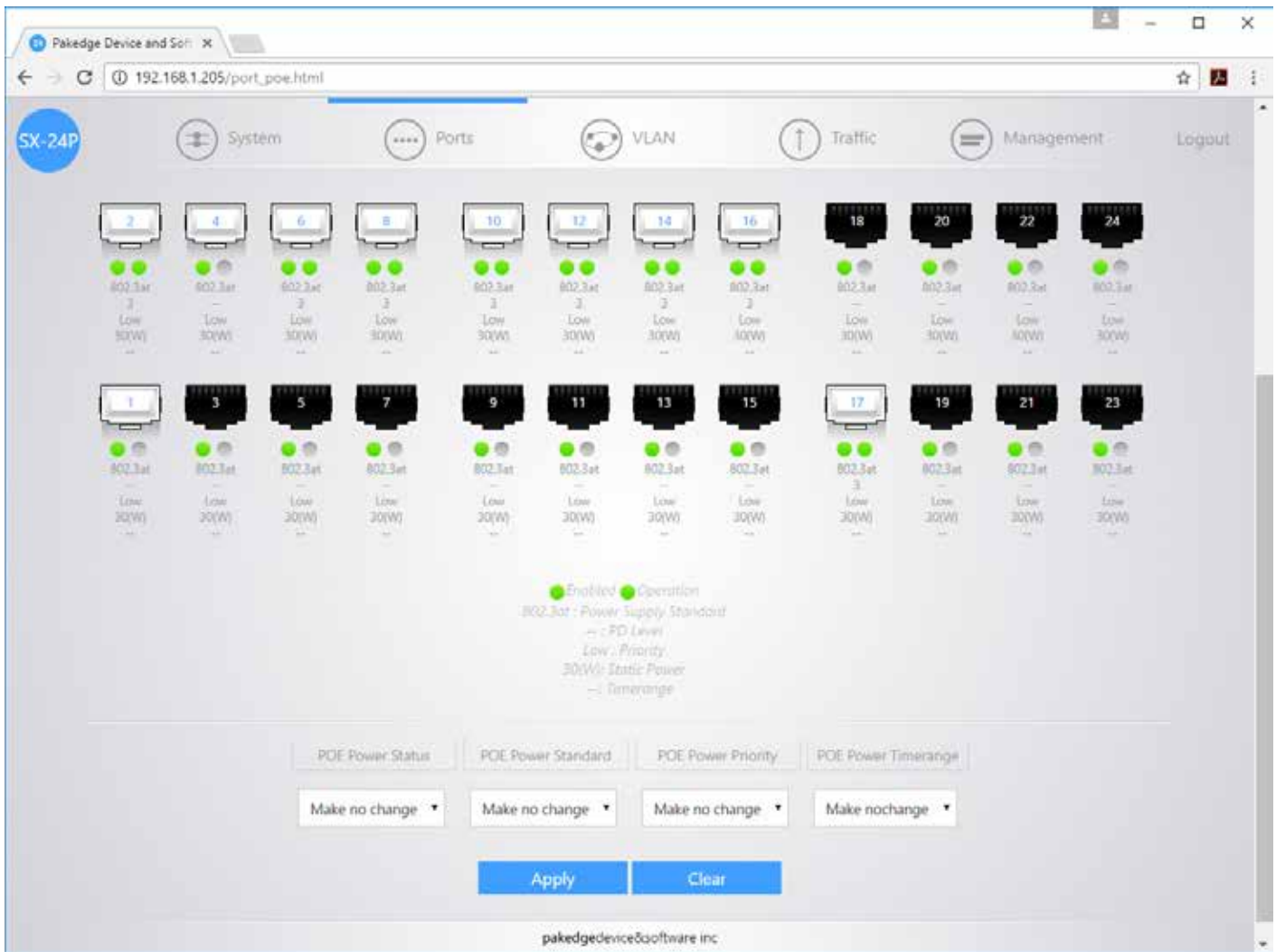
Click 'Apply' to update the setting

Turning On/Off POE

Not all Pakedge SX switches support POE. Furthermore, not all ports on the POE switches support POE. Please ensure your products are connected to the correct port. If you are unsure of the POE port setting please follow the below instructions.

Under 'Ports' menu

Select 'POE'

The following diagram shows the settings for each RJ45 LAN port on the network switch. Default settings are for POE Mode to be set to 802.3at (Enabled) so changes should not be required. If POE is 'Disabled please follow below instructions.
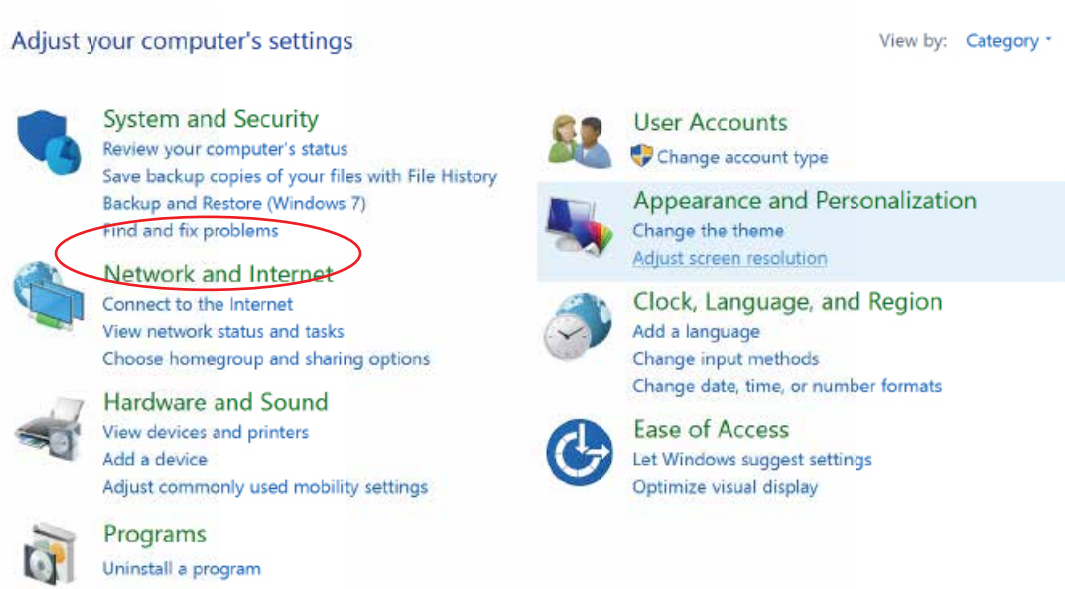

Highlight the channels you wish to adjust POE for.

Change 'POE Power Status' to Enabled

Click 'Apply' to update the setting

Changing your computer IP address to communicate with the network switch
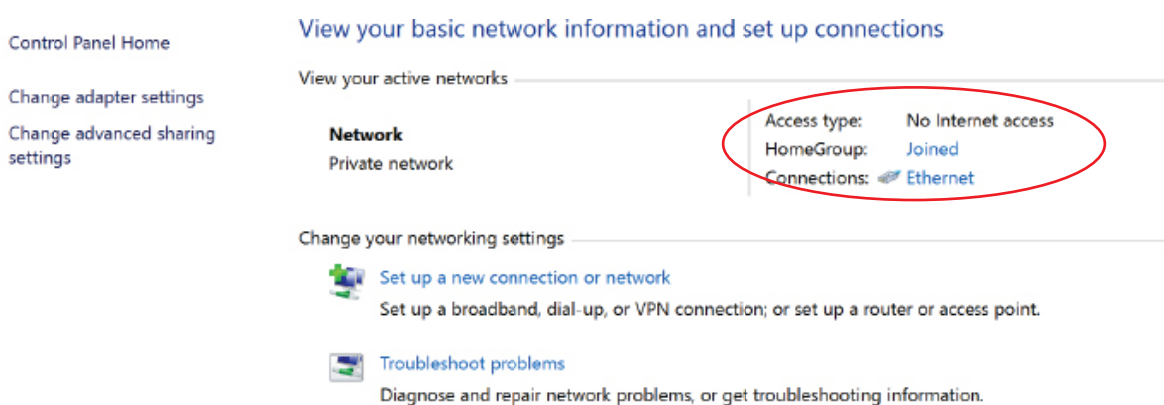
1) Connect your computer to your network switch using Ethernet cable

2) In the Windows toolbar navigate to 'CONTROL PANEL'
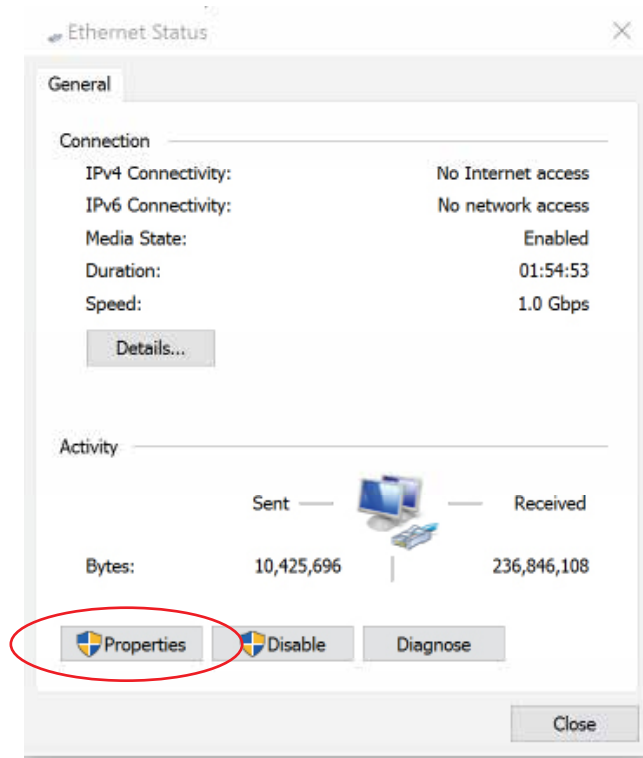
3) Select 'NETWORK AND INTERNET'
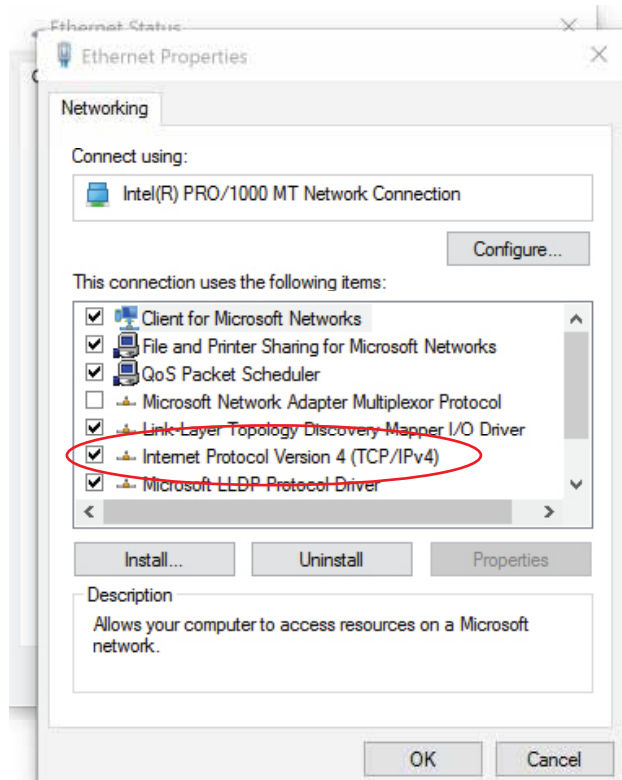

5) Select 'NETWORK AND SHARING CENTER'

6) Under 'View your Active Networks' you can see connection types available.

The example below shows both LAN (local area connection) and Wireless.

Select 'Local Area Connection' as this is the method of communication you are using with the switch.
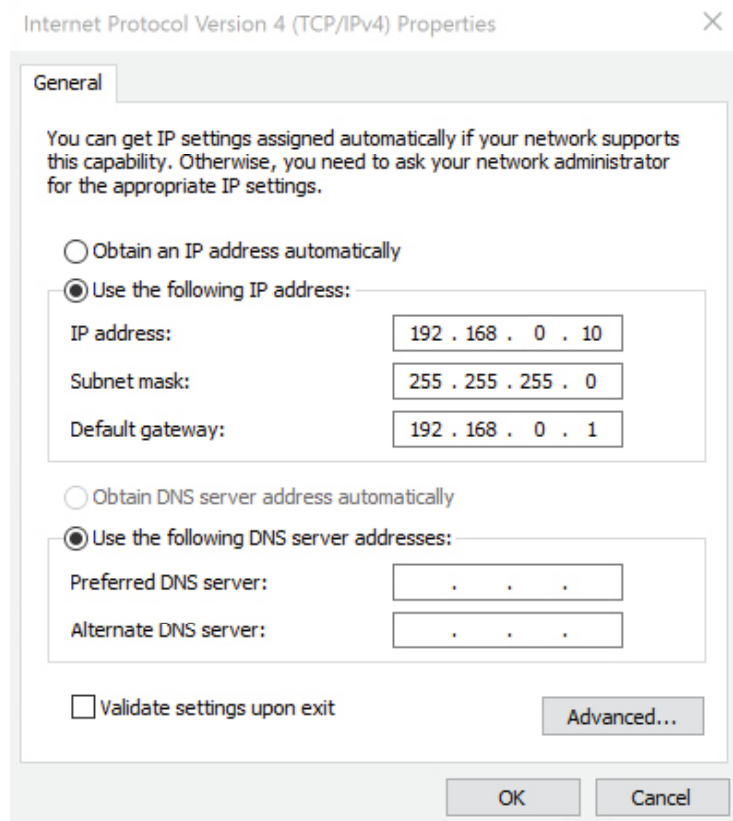
7) In the next window select 'PROPERTIES'

8) A. In the 'NETWORKING' window highlight/select 'INTERNET PROTOCOL VERSION 4 (TCP/IPv4)
   B. Select 'PROPERTIES'

9) A. Under the 'General' tab select 'USE THE FOLLOWING IP ADDRESS'

B. Enter the following FIXED IP network details

10) Click 'OK' and exit the network setup

11) Enter the default Pakedge IP address in your web browser and check that you can connect to the unit.

ELAN

www.elanhomesystems.com