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## POE & Power Management for Cisco Switches

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Product	Model	Software
Illustra	i625 PTZ	ALL

### Issue

It has been noted that under certain circumstances POE plus Class 4 Devices (PTZ cameras) connected to Cisco switches with POE plus option, may randomly reboot when PTZ sequences are run.

By default Cisco switches are configured to provide POE power to its switch ports automatically. Each port is allocated 15.4 Watts in this state. As expected PTZ sequences will cause the power drawn by the camera to exceed this value and the camera will momentarily reboot.

**Note:** This process should only be carried out by a suitably competent individual.

**Prerequisites:** Current knowledge & Practical experience of Cisco IOS, DB9 rollover with USB to serial converter or USB console cable (requires Driver) and Terminal Emulator software (Terra Term, Putty).

### Solution

Ensure full POE+ (Class 4, 30 Watts) power is permanently allocated to required switch ports by either:

1. Configuring the POE power for each switch to static.  
Or
2. Enabling Link Layer Discovery Protocol (LLDP). This will eliminate the requirement for static port configuration however it will open the network to security vulnerabilities given its role.

**Note:** For LLDP services to run you are required to download and install the latest available firmware on your Illustra 625(s).

### Procedure

**Option 1 – Enabling switch ports for Static Power.**

1. From the Privileged mode Prompt on your Cisco switch enter the following commands one per line.

**Configure terminal**

**Interface gigabitEthernet** [enter switch port interface number here]

**Power inline static**

**End**

**Write Memory**



2. Repeat this procedure for all ports requiring POE+ power. For sequential port configuration you can use the interface range command.

**Configure terminal**

**Interface range gigabitEthernet [1/0/7-14]** (enter the first port location in full & last is port number only)

**Power inline static**

**End**

**Write memory**

**Option 2 – Enabling LLDP**

**Note:** Caution LLDP & Cisco CDP provide information about connected network devices. Please consult the Network management team for approval prior to implementation.

1. To configure LLDP from Privileged mode Prompt on your Cisco switch enter the following commands one per line:

**Configure terminal**

**LLDP run**

**End**

**Write Memory**

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## Continuous Improvement Statement

As with all processes defined by the American Dynamics Technical Services Group, this document is intended to be a work in progress. Further refinements and suggestions are welcome and should be sent in writing to the e-mail address listed below.

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