

Eco-Friendly

Feature Overview and Configuration Guide

Introduction

This guide describes the Eco-friendly features, which reduce a switch's power consumption by either or both of:

- turning off power to port LEDs
- implementing IEEE 802.3az to put ports into a Low-Power Idle mode.

Products and software version that apply to this guide

This guide applies to all AlliedWare Plus™ products, running version **5.4.1** or later.

However, feature support and implementation varies between products. To see whether a product supports a particular feature or command, see the following documents:

- The product's [Datasheet](#)
- The product's [Command Reference](#)

These documents are available from the above links on our website at alliedtelesis.com.

Version 5.5.3-0.1 added support for disabling the front-panel eco button, to prevent it from being pressed accidentally.



Contents

Introduction	1
Products and software version that apply to this guide	1
The Eco-friendly LED feature: Disabling port LEDs	2
What happens to other LEDs?	2
Enabling the eco-friendly LED feature	3
Disabling the eco button	3
Displaying eco-friendly LED status	3
The Eco-friendly LPI (Low Power Idle) Feature	4
Enabling the eco-friendly LPI feature	4
Displaying eco-friendly LPI status	5

The Eco-friendly LED feature: Disabling port LEDs

You can conserve power by enabling the eco-friendly LED (Light Emitting Diode) feature. This feature disables power to the switchport LEDs.

While the eco-friendly LED feature is enabled, a switchport's LED will not change if the port's status changes. Instead, the LED will stay turned off. When you disable the eco-friendly feature again, that will restore power to the port LEDs. The LEDs will correctly show the current state of the ports, even if that state changed while the LEDs were off.

What happens to other LEDs?

Seven-segment LED

On products that have a seven-segment LED, one of the horizontal segments of the seven segment display will glow permanently in eco-friendly mode. If the device is a VCStack master, the upper segment will glow; if the device is a VCStack member or a stand alone unit, the center segment will glow.

Other LEDs

The eco-friendly feature does not turn off other LEDs, including LEDs for (depending on the product):

- power indicator
- system status
- SD card status
- USB port status
- Power/Fault indicator
- NET MGMT port
- power supply and fan status

On SBx8100 On SBx8100 systems, the eco-friendly feature disables power to all LEDs except:

- the NET MGMT eth0 port
- active/standby LEDs on the Control Fabric Cards
- the LEDs on the PSUs
- the LEDs on the fan tray.

Enabling the eco-friendly LED feature

To do this, either:

- enter the **ecofriendly led** command, as follows:

```
awplus# configure terminal
awplus(config)# ecofriendly led
```

In a VCStack environment, enabling the eco-friendly LED feature on the stack master will apply the feature to every member of the stack.

- or, press the eco button on the front panel, on products that have an eco button. The eco button overrides any configuration set with the **ecofriendly led** command.

Disabling the eco button

From 5.5.3-0.1 onwards, you can disable the eco button on the front panel of devices that have one. This stops the eco button from being accidentally pressed. Pressing the eco button accidentally can lead to confusion about the state of the device. The button is enabled by default. To disable the button, use the command:

```
awplus(config)# no ecofriendly button enable
```

To enable the button again, use the command:

```
awplus(config)# ecofriendly button enable
```

Displaying eco-friendly LED status

To display the current eco-friendly LED configuration status of the switch, enter the command:

```
awplus# show ecofriendly
```

This command shows whether the eco button is enabled, and if so, whether it has been pressed. It also shows whether each port is in eco mode or not.

```
awplus#show ecofriendly
Front panel port LEDs          normal
Hardware button state         enabled

Energy efficient ethernet
Port      Name                  Configured  Status
port1.0.1 Port 1                  off         -
...
```

In this output, the port LEDs' entry can have one of the following values:

- **normal** means the eco-friendly LED feature is disabled and port LEDs show the current state of the ports. This is the default setting.
- **off** means the eco-friendly LED feature is enabled and power to the port LEDs is disabled. The LEDs are off.
- **normal (configuration overridden by eco button)** means the eco-friendly LED feature has been disabled with the eco-switch button, and before that it had been enabled with the **ecofriendly led** command. In this situation, the port LEDs show the current state of the ports.
- **off (configuration overridden by eco button)** means the eco-friendly LED feature has been enabled with the eco-switch button, and before that it had not been enabled with the **ecofriendly led** command. In this situation, power to the port LEDs is disabled and the LEDs are off.

The Eco-friendly LPI (Low Power Idle) Feature

On products that support it, you can also conserve power by enabling the eco-friendly LPI feature.

This feature reduces the power supplied to the ports by the switch whenever the ports are idle and are connected to IEEE 802.3az Energy Efficient Ethernet compliant host devices. All ports configured for LPI must support LPI in hardware and must be configured to autonegotiate by default or by using the **speed** and **duplex** commands as needed.

LPI is a feature of the IEEE 802.3az Energy Efficient Ethernet (EEE) standard. LPI lowers power consumption of switch ports during periods of low link utilization when connected to IEEE 802.3az compliant host devices. If no data is sent then the switch port can enter a sleep state, called Low Power Idle (LPI), to conserve power used by the switch.

Enabling the eco-friendly LPI feature

To enable the feature for a switch port, or for a range of switch ports as in the example below, enter the commands:

```
awplus# configure terminal
awplus(config)# interface port1.0.2-port1.0.6
awplus(config-if)# ecofriendly lpi
```

The eco-friendly LPI feature does not affect the NET MGMT eth0 port.

Displaying eco-friendly LPI status

To display the current eco-friendly LPI configuration status of the switch, enter the command:

```
awplus# show ecofriendly
```

This command shows whether LPI is configured for each port (the "Configured" column), and also whether it is active (the "Status" column). A status of "lpi" means that LPI is active. A status of "off" means that it is not active:

```
awplus#show ecofriendly
Front panel LEDs          normal
Hardware button state    enabled

Energy efficient ethernet
Port      Name      Configured  Status
port1.1.1 Port 1    lpi        lpi
port1.1.2          lpi        off
...
```

C613-22071-00 REV B



NETWORK SMARTER

North America Headquarters | 19800 North Creek Parkway | Suite 100 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895

Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830

EMEA & CSA Operations | Incheonweg 7 | 1437 EK Rozenburg | The Netherlands | T: +31 20 7950020 | F: +31 20 7950021

alliedtelesis.com

© 2023 Allied Telesis, Inc. All rights reserved. Information in this document is subject to change without notice. All company names, logos, and product designs that are trademarks or registered trademarks are the property of their respective owners.