EPSON PRODUCT SUPPORT BULLETIN

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Product(s):	The following products that use TDK's PHY chip. C82391*, C12C82402*, C12C82405*, EPSON Network Image Express Card		
Subject:	Compatibility of Cisco Catalyst 3560/3750/4500/6500 Series Switches/Hubs		

This bulletin was created to provide information concerning Cisco HUB/Switch products (including Network modules) and EPSON Print Servers that experience link problems when directly connected.

Cause:

There is a limitation of the TDK chip to recognize the First-Link-Pulse (FLP) in Auto Negotiation. The Cisco products use PoE** (Cisco Inline Power). When PoE and FLP are in use, Auto Negotiation cannot be established therefore a link cannot be established between the Switch/ HUB and the Print Server.

** PoE (Power over Ethernet): This technology provides power over the Ethernet cable connection.

Countermeasure Plans:

Auto Negotiation cannot be used in either the Switch/HUB or the Print Server because the Print Server uses link speed settings with Half or Full duplex on the Switch/HUB or Print Server.

1.) Disable the Cisco Inline Power on the Cisco Products HUB/Switch.
The Cisco Inline Power is unnecessary for EPSON products Print Servers. The Epson products are provided power from either the printer slot or an AC Power Adapter.
2.) Connect another Switch/HUB between the Cisco product HUB/Switch and EPSON Print Server.

Target Products from Cisco:

In the product matrix noted below where the "OK" is designated for the model of the Cisco Inline Power product, there is a possibility that the link problem will occur. However, when IEEE802.3af is used in the same product, it is possible that the problem will not occur.

** The following list only corresponds to the Cisco Inline Power products.
** Also, the following list is comprised of currently selling products.

The Cisco Inline Power products are included from 2000, therefore, there is a possibility the same problem will occur by the time of product discontinuation.

** In the product where “Update” is noted to IEEE802.3af PoE in the following list, IEEE802.3af may be used with the updated module.

Catalyst6500 Series	Cisco Inline Power (Cisco original PoE•)	IEEE802.3af PoE (Standard)
WS-X6548-GE-45AF	OK	OK
WS-X6548V-GE-TX	OK	Upgrade
WS-X6548-GE-TX	OK	Upgrade
WS-X6148-GE-45AF	OK	OK
WS-X6148V-GE-TX	OK	Upgrade
WS-X6148-GE-TX	OK	Upgrade
WS-X6148X2-45AF	OK	OK
WS-X6148-45AF	OK	OK
WS-X6148-RJ45V	OK	
WS-X6148-21AF	OK	OK
WS-X6148-RJ21V	OK	
WS-X6148X2-RJ-45	OK	Upgrade
WS-X6348-RJ-45	OK	Upgrade
WS-X6348-RJ-21	OK	Upgrade
WS-X6348-RJ45V	OK	
WS-X6348-RJ21V	OK	
Catalyst4500 Series		
WS-X4548-GB-RJ45V	OK	OK
WS-X4148-RJ45V	OK	
WS-X4248-RJ21V	OK	OK
WS-X4248-RJ45V	OK	OK
Catalyst 3750-24PS-S	OK	OK
Catalyst 3750-24PS-E	OK	OK
Catalyst 3750-48PS-S	OK	OK
Catalyst 3750-48PS-E	OK	OK
Catalyst 3560-24PS-S	OK	OK
Catalyst 3560-24PS-E	OK	OK
Catalyst 3560-48PS-S	OK	OK
Catalyst 3560-48PS-E	OK	OK

** Designation of Cisco In-Line Power and conformity to IEEE PoE

Cisco In-Line Power	PoE(Power over Ethernet)
- Cisco original standard. - Input 9W	- Conformity to IEEE802.3af standard - Input 15.4W