

EtherSwitch 1600 with Catalyst 3000 Migration Guide

This document explains various upgrade alternatives for the EtherSwitch[®] 1600 switch. This information is intended to assist the migration of mixing EtherSwitch 1600 products with Catalyst[™] 3000 family products (specifically the Catalyst 3000, Catalyst 3100, and Catalyst 3200 switch systems).

The EtherSwitch 1600 and the Catalyst 3016 are essentially the same switch.

- **Hardware:** Both products are based on the same hardware design. The only difference in hardware is the hardwired “board ID,” a numeric value stored in a hardwired register that allows the network management software to differentiate the products. The board ID cannot be changed. No other differences exist in the specifications or memory capacities (Flash and DRAM).
- **Software:** Two release paths existed in the past: the EtherSwitch software releases were identified as Version “9.x,” while the Catalyst software releases were identified as Version “1.x.” Starting with Release 2.0(1) software (and valid for any software version higher than 2.0), a single code image supports all products—EtherSwitch and Catalyst—with the same software image and version. This single software image allows mixing of these products in the same physical stack if every switch in the stack is running this image.
- **Mechanical:** The EtherSwitch 1600 and the Catalyst 3000 switch have no mechanical differences. Different paint colors are used on EtherSwitch and Catalyst products, but this difference has no functional or operational impact on the devices. In addition, mixing different color hardware into the same stack (or chassis) will cause no complications once the proper software version exists on each switch.

New software images support the following new features:

- Release 2.0(x) supports additional virtual LAN (VLAN) capabilities, including:
 - Inter-Switch Link (ISL)
 - Virtual Trunking Protocol (VTP)
 - Cisco Discovery Protocol (CDP)
 - The new two-port Fast Ethernet modules
 - Remote Monitoring (RMON) management agent (Note: RMON agent license is required and sold separately)
- Release 2.1(x) supports:
 - Asynchronous Transfer Mode (ATM) User-Network Interface (UNI) 3.1
 - ATM LAN Emulation (LANE) services (LAN Emulation Server [LES], broadcast and unknown server [BUS], LAN Emulation Configuration Server [LECS])
 - ATM Simple Server Redundancy Protocol (SSRP) resiliency

- The new Media Access Control (MAC)-based port lockdown security feature for switched networks; except for sites requiring ATM or this security feature, most sites will probably choose to stay with the Release 2.0(x) software because it requires a minimum of 8 MB of DRAM to operate
- FastPort for IPX with spanning tree quick convergence

The following requirements should always be observed:

- **Warning:** When upgrading Release 2.0, software upgrades to Release 2.0 software (or higher) or switches previously installed with a software image prior to Release 2.0, you must first replace the switch boot code image with the new Release 2.0(1) boot code image *before* attempting to upgrade the switch software image. Failure to replace this image will result in an unsuccessful software upgrade.
- In Release 2.0 software, RMON in a stack requires 8 MB of DRAM in the switch. For EtherSwitch 1601A and 1601B units with only 4 MB of DRAM, an 8-MB memory, field-installable upgrade (WS-X3428) is available.
 - In Release 2.0 software, all switches booting with an ATM card installed, require 8 MB memory.
- EtherSwitch 1600 switches must first be upgraded to Release 2.0 or higher software before the new two-port Fast Ethernet with ISL modules are installed. See Table 1.

Table 1 Media Expansion Module Software Support

Release 9.x Software	Release 2.x Software
CPW410T	CPW410T
CPW310F	CPW310F
CPW100T	CPW100T
CPW100F	CPW100F
—	CPW200T
—	CPW200F

Table 2 is a list of CiscoPro™ part numbers and their corresponding Catalyst equivalents.

Table 2 CiscoPro/Catalyst Item Number Equivalence

CiscoPro Product	CiscoPro Description	Catalyst 3000
CPW1601-A	EtherSwitch 1600, 16 10BaseT, two slot, stackable, standard version	-
CPW1601-B	EtherSwitch 1600, 16 10BaseT, two slot, stackable, enhanced version	-
CPW1601-C	EtherSwitch 1600, 16 10BaseT, two slot, stackable, enhanced, 10K MAC	WS-C3016B
CPW1600-EMS-LIC	EtherSwitch 1600 RMON agent license	WS-C3000-EMS-LIC
CPW100T	One-port 100BaseTX module for EtherSwitch 1600 series	WS-X3001=
CPW410T	Four-port 10BaseT module for EtherSwitch 1600 series	WS-X3002=
CPW310F	Three-port 10BaseFL module for EtherSwitch 1600 series	WS-X3003=
CPW0280	One-port EtherStack module for EtherSwitch 1600 series	WS-X3004=



Table 2 CiscoPro/Catalyst Item Number Equivalence

CPW100F	One-port 100BaseFX module for EtherSwitch 1600 series	WS-X3005=
CPW200T	Two-port 100BaseT w/ISL module, UTP, RJ-45 for EtherSwitch 1600	WS-X3010=
CPW200F	Two-port 100BaseFX, w/ISL module, MM fiber, SC for EtherSwitch 1600	WS-X3009=
CPW0800-A	EtherSwitch matrix for EtherSwitch 1600 series	WS-X3020=
CPW0800-B	EtherSwitch matrix for EtherSwitch 1600—redundant option	WS-X3021=

Table 3 explains most from/to situations.

Table 3 How to go from *What You Have* to *What You Want*

This is what you have:	This is what you want:	Then you must:
CPW1601A or CPW1601B and Release 9.x Software	Release 2.0(x) software	<ol style="list-style-type: none"> 1 Upgrade boot code image to V.2.0 2 Upgrade software image to V.2.x
CPW1601A or CPW1601B and Release 9.x Software	Release 2.1(x) software (requires 8 MB of memory)	<ol style="list-style-type: none"> 1 Buy/install WS-X3428 2 Upgrade boot code software to V.2.0 3 Upgrade software image to V.2.1(x)
CPW1601C and Release 9.x Software	Release 2.x(x) software	<ol style="list-style-type: none"> 1 Upgrade boot code image to V.2.0 2 Upgrade software image to V.2.x(x)
CPW1601A with Unenhanced Software	Enhanced software (it becomes a CPW1601B)	<ol style="list-style-type: none"> 1 Buy WS-X3017 upgrade
CPW1601A or CPW1601B with 4 MB of Memory	8 MB of memory	<ol style="list-style-type: none"> 1 Buy WS-X3428 upgrade
CPW1601A or CPW1601B in a Stack	To monitor a stack with this unit using RMON	<ol style="list-style-type: none"> 1 Requires 8-MB memory upgrade WS-X3428 2 Requires RMON agent license (WS-CPW1600-EMS-LIC)
CPW1601A or CPW1601B or CPW1601C	To monitor only this switch with RMON—8 MB recommended	<ol style="list-style-type: none"> 1 Requires RMON agent license (WS-CPW1600-EMS-LIC)
CPW1601A or CPW1601B and Release 9.x Software	To stack with Catalyst switch and ATM service LEC (requires 8 MB of memory)	<ol style="list-style-type: none"> 1 Requires 8-MB memory upgrade WS-X3428 2 Requires matrix for stack of three or more 3 Requires CPW0280 for each switch 4 Requires upgrade boot code image to V.2.0 5 Upgrade software image to V.2.0(x)
CPW1601C and Release 9.x Software	To stack with Catalyst switch and ATM service LEC	<ol style="list-style-type: none"> 1 Requires matrix for stack of three or more 2 Requires CPW0280 for each switch 3 Requires upgrade boot code image to V.2.0 4 Upgrade software image to V.2.0(x)
CPW1601A or CPW1601B or CPW1601C and Release 9.x Software	To stack with Catalyst switch and ATM services LEC, LES, BUS, and LECS (with SSRP resiliency)	<ol style="list-style-type: none"> 1 Requires 8-MB upgrade WS-X3428 for all 4-MB switches 2 Requires matrix for stack of three or more 3 Requires CPW0280 for each switch 4 Requires upgrade boot code image to V.2.0 5 Upgrade software image to V.2.1(x)

Mktg. Contacts: Mike Odenheimer 408-526-7495 (modenhei@) & Brad Danitz 408-526-6372 (bdanitz@)

**Corporate Headquarters**

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
World Wide Web URL:
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems Europe s.a.r.l.
Parc Evolic-Batiment L1/L2
16, Avenue du Quebec
BP 706-Villebon
91961 Courtaboeuf Cedex
France
Tel: 33 1 6918 61 00
Fax: 33 1 6928 83 26

**Americas
Headquarters**

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
Tel: 408 526-7660
Fax: 408 526-4646

Asia Headquarters

Nihon Cisco Systems K.K.
Fuji Building
3-2-3 Marunouchi
Chiyoda-ku, Tokyo 100
Japan
Tel: 81 3 5219 6000
Fax: 81 3 5219 6010

**Cisco Systems has more than 190 offices in the following countries. Addresses, phone numbers, and fax numbers are listed on the
Cisco Connection Online Web site at <http://www.cisco.com>.**

Argentina • Australia • Austria • Belgium • Brazil • Canada • Chile • China (PRC) • Colombia • Costa Rica • Czech Republic • Denmark
Finland • France • Germany • Hong Kong • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Malaysia • Mexico
The Netherlands • New Zealand • Norway • Philippines • Poland • Portugal • Russia • Singapore • South Africa • Spain • Sweden
Switzerland • Taiwan, ROC • Thailand • United Arab Emirates • United Kingdom • Venezuela

Copyright © 1997 Cisco Systems, Inc. All rights reserved. Printed in USA. Catalyst, CiscoPro, and Cisco Systems are trademarks; and Cisco, the Cisco Systems logo, and EtherSwitch are registered trademarks of Cisco Systems, Inc. All other trademarks, service marks, registered trademarks, or registered service marks mentioned in this document are the property of their respective owners. 1296R 2/97 LW