



# Release Notes for Cisco ONS 15530 for Cisco IOS Release 12.1(10)EV2

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This document describes caveats for Cisco IOS Release 12.1(10)EV2 for the Cisco ONS 15530.

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## Introduction

The Cisco ONS 15530 is a modular, scalable optical switching and aggregation platform designed to supplement the Cisco ONS 15540 ESP. With the Cisco ONS 15540 ESP, users can take advantage of the availability of dark fiber to build a common infrastructure that supports data, SAN (storage area network), and TDM (time-division multiplexing) traffic. For more information about DWDM technology and applications, refer to the [Introduction to DWDM Technology](#) publication and the [Cisco ONS 15530 Planning Guide](#).



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# System Requirements

This section describes the system requirements for Cisco IOS Release 12.1(10)EV2 and includes the following sections:

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## Memory Requirements

The DRAM memory configuration is 64 MB, which is the default for the Cisco ONS 15530.

## Hardware Supported

[Table 1](#) lists the hardware components supported on the Cisco ONS 15530 and the minimum software version required. See the [“Determining the Software Version” section on page 12](#) for information on determining your software version.

*Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements*

Component	Part Number	Description	Minimum Software Version Required
Chassis	15530-CHAS-N	15530-CHAS-N chassis	12.1(10)EV2
Chassis	15530-CHAS-E	15530-CHAS-E chassis	12.1(10)EV2
Air ramp baffle	15530-BAF-E=	Air baffle for 15530-CHAS-E chassis	12.1(10)EV2
Power supplies	15530-PWR-AC	120 to 240 VAC power supply	12.1(10)EV2
	15530-PWR-DC	Power supply –48 VDC	12.1(10)EV2
CPU switch module	15530-CPU	ONS 15530 CPU switch module	12.1(10)EV2
Line card motherboard	15530-LCMB-0100	OSC, WB-VOA, and PB-OE module motherboard	12.1(10)EV2
OADM modules without OSC	15530-MDXA-04A0	4-channel Band A	12.1(10)EV2
	15530-MDXA-04B0	4-channel Band B	12.1(10)EV2
	15530-MDXA-04C0	4-channel Band C	12.1(10)EV2
	15530-MDXA-04D0	4-channel Band D	12.1(10)EV2
	15530-MDXA-04E0	4-channel Band E	12.1(10)EV2
	15530-MDXA-04F0	4-channel Band F	12.1(10)EV2
	15530-MDXA-04G0	4-channel Band G	12.1(10)EV2
	15530-MDXA-04H0	4-channel Band H	12.1(10)EV2

**Table 1** Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
OADM modules with OSC	15530-MDXB-04A0	4-channel Band A	12.1(10)EV2
	15530-MDXB-04B0	4-channel Band B	12.1(10)EV2
	15530-MDXB-04C0	4-channel Band C	12.1(10)EV2
	15530-MDXB-04D0	4-channel Band D	12.1(10)EV2
	15530-MDXB-04E0	4-channel Band E	12.1(10)EV2
	15530-MDXB-04F0	4-channel Band F	12.1(10)EV2
	15530-MDXB-04G0	4-channel Band G	12.1(10)EV2
	15530-MDXB-04H0	4-channel Band H	12.1(10)EV2
MM transponder modules with splitter	15530-TSP1-0111	Ch 1-2 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0311	Ch 3-4 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0511	Ch 5-6 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0711	Ch 7-8 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0911	Ch 9-10 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1111	Ch 11-12 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1311	Ch 13-14 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1511	Ch 15-16 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1711	Ch 17-18 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1911	Ch 19-20 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2111	Ch 21-22 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2311	Ch 23- 24— 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2511	Ch 25-26— 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2711	Ch 27-28— 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2911	Ch 29-30— 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
15530-TSP1-3111	Ch 31-32— 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2	

*Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)*

Component	Part Number	Description	Minimum Software Version Required
MM transponder modules without splitter	15530-TSP1-0121	Ch 1-2 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0321	Ch 3-4 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0521	Ch 5-6 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0721	Ch 7-8 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-0921	Ch 9-10 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1121	Ch 11-12 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1321	Ch 13-14 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1521	Ch 15-16 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1721	Ch 17-18 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-1921	Ch 19-20 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2121	Ch 21-22 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2321	Ch 23- 24 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2521	Ch 25-26 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2721	Ch 27-28 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
	15530-TSP1-2921	Ch 29-30 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2
15530-TSP1-3121	Ch 31-32 — 1310-nm MM 16 to 622 Mbps with SC	12.1(10)EV2	

**Table 1** Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
SM transponder modules with splitter	15530-TSP1-0112	Ch 1-2—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0312	Ch 3-4—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0512	Ch 5-6—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0712	Ch 7-8—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0912	Ch 9-10—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1112	Ch 11-12—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1312	Ch 13-14—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1512	Ch 15-16—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1712	Ch 17-18—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1912	Ch 19-20—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2112	Ch 21-22—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2312	Ch 23-24—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2512	Ch 23-24—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2712	Ch 25-26—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2912	Ch 27-28—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
15530-TSP1-3112	Ch 29-30—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2	

*Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)*

Component	Part Number	Description	Minimum Software Version Required
SM transponder modules without splitter	15530-TSP1-0122	Ch 1-2—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0322	Ch 3-4—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0522	Ch 5-6—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0722	Ch 7-8—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-0922	Ch 9-10—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1122	Ch 11-12—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1322	Ch 13-14—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1522	Ch 15-16—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1722	Ch 17-18—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-1922	Ch 19-20—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2122	Ch 21-22—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2322	Ch 23-24—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2522	Ch 23-24—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2722	Ch 25-26—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
	15530-TSP1-2922	Ch 27-28—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2
15530-TSP1-3122	Ch 29-30—1310-nm SM 16 Mbps to 2.5 Gbps with SC	12.1(10)EV2	

**Table 1** Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
10G ITU trunk line cards with splitter (1550 nm)	15530-ITU2-0110	CH 1—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0210	CH 2—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0310	CH 3—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0410	CH 4—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0510	CH 5—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0610	CH 6—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0710	CH 7—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0810	CH 8—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-0910	CH 9—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1010	CH 10—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1110	CH 11—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1210	CH 12—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1310	CH 13—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1410	CH 14—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1510	CH 15—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1610	CH 16—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1710	CH 17—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1810	CH 18—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-1910	CH 19—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2010	CH 20—10-Gbps ITU trunk line card with splitter	12.1(10)EV2

*Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)*

Component	Part Number	Description	Minimum Software Version Required
	15530-ITU2-2110	CH 21—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2210	CH 22—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2310	CH 23—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2410	CH 24—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2510	CH 25—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2610	CH 26—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2710	CH 27—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2810	CH 28—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-2910	CH 29—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-3010	CH 30—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-3110	CH 31—10-Gbps ITU trunk line card with splitter	12.1(10)EV2
	15530-ITU2-3210	CH 32—10-Gbps ITU trunk line card with splitter	12.1(10)EV2



**Table 1** *Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)*

<b>Component</b>	<b>Part Number</b>	<b>Description</b>	<b>Minimum Software Version Required</b>
10G ITU trunk line cards without splitter (1550 nm)	15530-ITU2-0120	CH 1—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0220	CH 2—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0320	CH 3—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0420	CH 4—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0520	CH 5—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0620	CH 6—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0720	CH 7—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0820	CH 8—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-0920	CH 9—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1020	CH 10—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1120	CH 11—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1220	CH 12—10-Gbps ITU trunk line card without splitter	12.1(10)EV2

Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
	15530-ITU2-1320	CH 13—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1420	CH 14—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1520	CH 15—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1620	CH 16—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1720	CH 17—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1820	CH 18—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-1920	CH 19—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2020	CH 20—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2120	CH 21—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2220	CH 22—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2320	CH 23—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2420	CH 24—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2520	CH 25—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2620	CH 26—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2720	CH 27—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2820	CH 28—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-2920	CH 29—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-3020	CH 30—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-3120	CH 31—10-Gbps ITU trunk line card without splitter	12.1(10)EV2
	15530-ITU2-3220	CH 32—10-Gbps ITU trunk line card without splitter	12.1(10)EV2

**Table 1** Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
10-GE uplink card	15530-10GE-UPLINK	ONS 15530 10-Gbps uplink, 1310nm with SC	12.1(10)EV2
WB-VOA module	15500-VOA-0100	Single wide-band variable optical attenuator	12.1(10)EV2
	15500-VOA-0200	Dual wide-band variable optical attenuator	12.1(10)EV2
Single-band PB-OE module	15500-PEQ-01A0	Single-band optical equalizer Band A	12.1(10)EV2
	15500-PEQ-01B0	Single-band optical equalizer Band B	12.1(10)EV2
	15500-PEQ-01C0	Single-band optical equalizer Band C	12.1(10)EV2
	15500-PEQ-01D0	Single-band optical equalizer Band D	12.1(10)EV2
	15500-PEQ-01E0	Single-band optical equalizer Band E	12.1(10)EV2
	15500-PEQ-01F0	Single-band optical equalizer Band F	12.1(10)EV2
	15500-PEQ-01G0	Single-band optical equalizer Band G	12.1(10)EV2
	15500-PEQ-01H0	Single-band optical equalizer Band H	12.1(10)EV2
Dual-band PB-OE module	15500-PEQ-02AB	Dual band optical equalizer Band AB	12.1(10)EV2
	15500-PEQ-02CD	Dual band optical equalizer Band CD	12.1(10)EV2
	15500-PEQ-02EF	Dual band optical equalizer Band EF	12.1(10)EV2
	15500-PEQ-02GH	Dual band optical equalizer Band GH	12.1(10)EV2
AC cables	15530-CAB-AC	AC cable, North America	12.1(10)EV2
	15530-CAB-ACA	AC cable, Australia	12.1(10)EV2
	15530-CAB-ACE	AC cable, Europe	12.1(10)EV2
	15530-CAB-ACU	AC cable, UK	12.1(10)EV2
	15530-CAB-ACI	AC cable, Italy	12.1(10)EV2
	15530-CAB-ACR	AC cable, Argentina	12.1(10)EV2

Table 1 Cisco ONS 15530 Supported Hardware and Minimum Software Requirements (continued)

Component	Part Number	Description	Minimum Software Version Required
Blank panel cover	15530-COV-MUX=	OADM blank panel cover	12.1(10)EV2
	15530-COV-SLOT=	Full slot panel cover	12.1(10)EV2
	15530-COV-PWR=	Power supply blank panel cover	12.1(10)EV2
	15530-COV-OSC=	OSC blank panel cover	12.1(10)EV2
Fan assembly	15530-FT01=	Fan assembly (spare)	12.1(10)EV2
CompactFlash card	15530-MEM=	CompactFlash card 32 MB	12.1(10)EV2
Accessory kit	15530-ACCKIT23	Accessory kit for 23 inch rack	12.1(10)EV2
	15530-ACCKIT19	Accessory kit for 19 inch rack	12.1(10)EV2
Rack mount kit	15530-RKMT-E=	Chassis rack mount kit for 15530-CHAS-E	12.1(10)EV2
	15530-RKMT-N23=	Chassis rack mount kit for 15530-CHAS-N (23 inch rack)	12.1(10)EV2
	15530-RKMT-N19=	Chassis rack mount kit for 15530-CHAS-N (19 inch rack)	12.1(10)EV2

## Determining the Software Version



### Note

We strongly recommend that you use the latest available software release for all Cisco ONS 15530 hardware.

To determine the version of Cisco IOS software currently running on a Cisco ONS 15530 system, log in to the system and enter the **show version EXEC** command. The following sample output is from the **show version** command. The software version number is shown on the second line of the sample output.

```
Switch# show version
Cisco Internetwork Operating System Software
IOS (tm) ONS-15530 Software (ONS15530-I-M), Version 12.1(10)EV2
<Information deleted>
```

## Upgrading the System Image

To ensure proper system functioning, follow the system image upgrading procedure described in the *Cisco ONS 15530 Software Upgrade Guide*.



### Note

Always set the configuration register to 0x2102 when upgrading the system image using the **config-reg 0x2102** command in configuration mode.

**Caution**

Improper system image upgrades can affect system functioning and redundancy. Always follow the recommended upgrade procedures.

## Feature Set Table

The Cisco IOS Release software is packaged in feature sets (also called software images) depending on the platform. Each feature set contains a specific set of Cisco IOS features. [Table 2](#) lists the Cisco IOS software feature sets available for the Cisco ONS 15530.

**Table 2** *Feature Sets Supported by the Cisco ONS 15530*

Feature Set	12.1(10)EV2
In-band message channel	X
Gigabit Ethernet	X
Fast Ethernet	X
Ethernet	X
ATM OC-3/STM-1, OC-12/STM-4, and OC-48/STM-16	X
SONET <sup>1</sup> /SDH <sup>2</sup>	X
POS <sup>3</sup>	X
Coupling link	X
Fibre Channel (1 Gbps)	X
Fibre Channel (2 Gbps)	X
FDDI <sup>4</sup>	X
ESCON <sup>5</sup> aggregation (2.5 Gbps)	X
FICON <sup>6</sup> (800 Mbps)	X
Token Ring	X
SNMP	X
CiscoView	X
Cisco Transport Manager	X
IP packets	X
OSCP <sup>7</sup>	X
APS <sup>8</sup> channel protocol	X
Point-to-point	X
Hubbed ring	X
Meshed ring	X
Sysplex	X

1. SONET = Synchronous Optical Networking

2. SDH = Synchronous Digital Hierarchy

3. POS = Packet over SONET

4. FDDI = Fiber Distributed Data Interface
5. ESCON = Enterprise Systems Connection
6. FICON = Fiber Connection
7. OSCP = Optical Supervisory Channel Protocol
8. APS = Automatic Protection Switching

## Caveats

This section lists the caveats for the 12.1(10)EV2 release. Use [Table 3](#) to determine the status of a particular caveat. In the table, “C” indicates a corrected caveat, and “O” indicates an open caveat.

*Table 3 Caveat Matrix for the Cisco ONS 15530*

DDTS Number	12.1(10)EV2
<a href="#">CSCdx78717</a>	O
<a href="#">CSCdx83919</a>	O
<a href="#">CSCdy01768</a>	C
<a href="#">CSCdy46550</a>	O
<a href="#">CSCdy59551</a>	O
<a href="#">CSCdy66507</a>	O
<a href="#">CSCdy69086</a>	O
<a href="#">CSCdy72463</a>	C

This section describes the caveats in the Cisco ONS 15530.

- [CSCdx78717](#)  
**Symptom:** A change in optical threshold condition at a WB-VOA or PB-OE module power monitor may not be detected if the condition is temporary and does not last for more than a second.  
**Workaround:** None
- [CSCdx83919](#)  
**Symptom:** When swapping the ESCON line card with the 10-G ITU trunk line card in a given slot, the following error message is seen four times:  
%BPE-3-NOT\_REGISTERED: Interface[EthernetDcc9/0/0] MAC is not registered.  
**Workaround:** None.
- [CSCdy01768](#)  
**Symptom:** The CPU LED for alarms does not get cleared even though the Optical Power Monitoring alarm gets cleared. There is no functionality problem. On a CPU switchover this alarm LED is cleared and gives the correct alarm status.  
**Workaround:** OIR the card on which ALARM was generated.
- [CSCdy46550](#)  
**Symptom:** OSC/Ethernet Dcc interfaces come up with default traffic-shaping parameters. Since this is considered as default, on removing the config using **no** form of the command, the parameter value should revert back to the default value, which is not being done.

**Workaround:** Reconfigure the traffic-shaping parameters.

- [CSCdy59551](#)

**Symptom:** Performing a **shut** on the active wavepatch of a non-splitter card brings the waveethernetphy down and reports "Loss of Light" in the output of the **show interface** command, but the traffic continues to flow.

**Workaround:** If the intent is to stop traffic, do a **shut** on the waveethernetphy interface.

- [CSCdy66507](#)

**Symptom:** Low alarm is not getting cleared on wavepatch for the transponder.

**Workaround:** Perform a **shut/no shut** on the wavepatch where it is seen.

- [CSCdy69086](#)

**Symptom:** Alarms are created on the wave by pulling out the cable.

**Workaround:** The **shut** command will clear all of the alarms on the wave interface.

- [CSCdy72463](#)

**Symptom:** Spurious memory access is seen when issuing the **sh tech** command on the standby CPU; the **sh align** command shows an increase in the spurious memory errors after each **sh tech** command is issued. This is seen with the latest HAMPTONS\_DEVTEST\_UB\_020923 image.

**Workaround:** None

## Limitations and Restrictions

This section provides limitations and restrictions for Cisco ONS 15540 ESP hardware and software.

- If both CPU switch modules are removed, all aggregation cards, OSC modules, transponder line cards, ITU trunk cards, and uplink cards are shut down.



**Note**

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Traffic on pass through optical channels (which passively pass through the OADM modules) are not affected by the removal of the processor cards.

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## Related Documentation

Refer to the following documents for more information about the Cisco ONS 15540 ESP:

- *Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series*
- *Cisco ONS 15530 Planning Guide*
- *Cisco ONS 15530 Hardware Installation Guide*
- *Cisco ONS 15530 Optical Transport Turn-Up and Test Guide*
- *Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections*
- *Cisco ONS 15530 Configuration Guide*
- *Cisco ONS 15530 Command Reference*
- *Cisco ONS 15530 System Alarms and Error Messages*
- *Cisco ONS 15530 Troubleshooting Guide*
- *Network Management for the Cisco ONS 15530*
- *Cisco ONS 15530 TLI Commands*
- *MIB Quick Reference for the Cisco ONS 15500 Series*
- *Cisco ONS 15530 Software Upgrade Guide*

## Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following URL:

<http://www.cisco.com>

Translated documentation is available at the following URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

### Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.



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Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco product documentation from the Networking Products MarketPlace:  
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Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

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## Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available through the Cisco TAC: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Inquiries to Cisco TAC are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Which Cisco TAC resource you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

## Cisco TAC Web Site

The Cisco TAC Web Site allows you to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to the following URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco services contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to the following URL to register:

<http://www.cisco.com/register/>

If you cannot resolve your technical issues by using the Cisco TAC Web Site, and you are a Cisco.com registered user, you can open a case online by using the TAC Case Open tool at the following URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, it is recommended that you open P3 and P4 cases through the Cisco TAC Web Site.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

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