Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

This publication contains information on the Cisco platforms and software versions that support the 10-Gigabit Etherent transceiver modules. Table 1 lists the Gigabit Ethernet transceiver model numbers and operating wavelengths. Table 2 lists the Cisco platforms that support the Gigabit Ethernet transceiver modules and the minimum software requirements.

Table 1   Gigabit Ethernet Transceiver Models

Gigabit Ethernet Transceiver Model Number	Transceiver Description
WS-G5482=	1000BASE-T GBIC transceiver module for Catagory 5 copper wire
WS-G5483=	1000BASE-T GBIC transceiver module for Catagory 5 copper wire
WS-G5484=	1000BASE-SX GBIC transceiver module for MMF, 850-nm wavelength
WS-G5486=	1000BASE-LX/LH GBIC transceiver module for MMF and SMF, 1300-nm wavelength
WS-G5487=	1000BASE-ZX GBIC transceiver module for SMF, 1550-nm wavelength
GLC-T=	1000BASE-T SFP transceiver module for Catagory 5 copper wire

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Table 1   Gigabit Ethernet Transceiver Models (Continued)

Gigabit Ethernet Transceiver Model Number	Transceiver Description
GLC-SX-MM=	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength
GLC-LH-SM=	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength
GLC-ZX-SM=	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength
GLC-BX-D=	1000BASE-BX10 SFP module for single-strand SMF, 1490-nm TX/1310-nm RX wavelength
GLC-BX-U=	1000BASE-BX10 SFP module for single-strand SMF, 1310-nm TX/1490-nm RX wavelength

Table 2   Gigabit Ethernet Transceiver Platform Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2900 Series	WS-C2980G-A	WS-G5483	7.2.1	Not Supported
		WS-G5484, 5486, 5487	*	*
	WS-C2948G	WS-G5483	7.2	Not Supported
		WS-G5484, 5486, 5487	*	*
	WS-C2912MF-XL	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C2924M-XL-EN	WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C2924M-XL-EN-DC	WS-G5482	Not Supported	Not Supported
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
Catalyst 2900XL	WS-X2931-XL	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*

Table 2 Gigabit Ethernet Transceiver Platform Support (Continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2940 Series	WS-C2940-8TF-S	GLC-T (1000BASE-T)	Not Supported	12.1(13)AY
		GLC-SX-MM, LH-SM	*	*
Catalyst 2948G	WS-C2948G-GE-TX	GLC-T (1000BASE-T)	8.2(1)GLX	Not Supported
		GLC-SX-MM, LH-SM, ZX-SM	*	*
Catalyst 2950 Series	WS-C2950G-12-EI	WS-G5483	Not Supported	12.1(6)EA2b
		WS-G5484, 5486, 5487	*	*
	WS-C2950G-24-EI	WS-G5483	Not Supported	12.1(6)EA2b
		WS-G5484, 5486, 5487	*	*
	WS-C2950G-24-EI-DC	WS-G5483	Not Supported	12.1(6)EA2b
		WS-G5484, 5486, 5487	*	*
	WS-C2950G-48-EI	WS-G5483	Not Supported	12.1(6)EA2b
		WS-G5484, 5486, 5487	*	*
	WS-C2950ST-8 LRE	GLC-T (1000BASE-T)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C2950ST-24 LRE	GLC-T (1000BASE-T)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C2950ST-24 LRE997	GLC-T (1000BASE-T)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
Catalyst 2970 Series	WS-C2970G-24TS	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*

Table 2   Gigabit Ethernet Transceiver Platform Support (Continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 3500XL Series	WS-C3508G-XL-EN	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C3512-XL-EN	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C3524-XL-EN	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C3524-PWR-XL-EN	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
	WS-C3548-XL-EN	WS-G5482	Not Supported	12.0(5)XW
		WS-G5483	Not Supported	12.0(5)WC3b
		WS-G5484, 5486, 5487	*	*
Catalyst 3550 Series	WS-C3550-24-SMI	WS-G5482	Not Supported	12.1(6)EA1a
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-24-EMI	WS-G5482	Not Supported	12.1(6)EA1a
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-24-DC-SMI	WS-G5482	Not Supported	12.1(6)EA1b
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-24-FX-SMI	WS-G5482	Not Supported	12.1(12c)EA1
		WS-G5483	Not Supported	12.1(12c)EA1
		WS-G5484, 5486, 5487	*	*
	WS-C3550-24PWR-SMI	WS-G5482	Not Supported	12.1(12c)EA1
		WS-G5483	Not Supported	12.1(12c)EA1
		WS-G5484, 5486, 5487	*	*
	WS-C3550-24PWR-EMI	WS-G5482	Not Supported	12.1(12c)EA1
		WS-G5483	Not Supported	12.1(12c)EA1
		WS-G5484, 5486, 5487	*	*

Table 2   *Gigabit Ethernet Transceiver Platform Support (Continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 3550 Series (Continued)	WS-C3550-48-SMI	WS-G5482	Not Supported	12.1(8)EA1b
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-48-EMI	WS-G5482	Not Supported	12.1(8)EA1b
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-12G	WS-G5482	Not Supported	12.1(6)EA1
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
	WS-C3550-12T	WS-G5482	Not Supported	12.1(6)EA1
		WS-G5483	Not Supported	12.1(8)EA1b
		WS-G5484, 5486, 5487	*	*
Catalyst 3560 Series	WS-C3560-24PS	GLC-T (10/100/1000)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560-48PS	GLC-T (10/100/1000)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560G-24TS	GLC-T (10/100/1000)	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560G-48TS	GLC-T, 10/100/1000	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560G-48PS	GLC-T, 10/100/1000	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560G-24PS	GLC-T, 10/100/1000	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560-48TS	GLC-T, 10/100/1000	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3560-24TS	GLC-T, 10/100/1000	Not Supported	12.2(20)SE3
		GLC-SX-MM, LH-SM, ZX-SM	*	*

Table 2   Gigabit Ethernet Transceiver Platform Support (Continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 3750 Series	WS-C3750-24TS	GLC-T (10/100/1000)	Not Supported	12.1.(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750-48TS	GLC-T (10/100/1000)	Not Supported	12.1.(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750-24PS	GLC-T (10/100/1000)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750-48PS	GLC-T (10/100/1000)	Not Supported	12.1(19)EA1c
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-12S	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-24TS	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-48TS	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-24PS	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-48PS	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	WS-C3750G-12S	GLC-T (10/100/1000)	Not Supported	12.1(14)EA1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	ME-C3750-24TE-MA	GLC-T (10/100/1000)	Not Supported	12.1(14)AX
		GLC-SX-MM, LH-SM, ZX-SM	*	*
	ME-C3750-24TE-MD	GLC-T (10/100/1000)	Not Supported	12.1(14)AX
		GLC-SX-MM, LH-SM, ZX-SM	*	*

Table 2   *Gigabit Ethernet Transceiver Platform Support (Continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 4500 Series	WS-X4013	WS-G5483	7.2	Not Supported
		WS-G5484, 5486, 5487	*	*
	WS-X4013+	WS-G5483	Not Supported	12.1(19)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4013+TS	GLC-BX-D, GLC-BX-U	Not Supported	12.2(20)EWA
	WS-X4014	WS-G5483	Not Supported	12.1(13)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4232-GB-RJ	WS-G5483	7.2	Not Supported
		WS-G5484, 5486, 5487	*	*
	WS-X4302-GB	WS-G5483	8.1	12.1(19)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4306-GB	WS-G5483	7.2	12.1(19)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4412-2GB-T	WS-G5483	7.2	12.1(19)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4418-GB	WS-G5484, 5486, 5487	*	*
	WS-4448-GB-SFP	GLC-BX-D, GLC-BX-U	Not Supported	12.2(20)EW
	WS-X4506-GB-T	GLC-BX-D, GLC-BX-U	Not Supported	12.2(20)EWA
	WS-X4515	WS-G5483	Not Supported	12.1(13)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4516	WS-G5483	Not Supported	12.2(18)EW
		WS-G5484, 5486, 5487	*	*
	WS-X4516-10GE	GLC-BX-D, GLC-BX-U	Not Supported	12.2(25)EWA
	WS-C4948	GLC-BX-D, GLC-BX-U	Not Supported	12.2(20)EWA
Catalyst 4900 Series	WS-C4912G	WS-G5483	7.2.1	Not Supported
		WS-G5484, 5486, 5487	*	*

Table 2 **Gigabit Ethernet Transceiver Platform Support (Continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 6500 Series	WS-X6K-SUP1-2GE	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP1A-2GE	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP1A-MSFC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP1A-MSFC2	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP1A-PFC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP2-MSFC2	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP2U-MSFC2	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-SUP2U-PFC2	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6K-S2-PFC2	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6408-GBIC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6408A-GBIC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6416-GBIC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6516-GBIC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*
	WS-X6516A-GBIC	WS-G5483	7.6	12.1(19)E1
		WS-G5484, 5486, 5487	*	*
	WS-X6816-GBIC	WS-G5483	7.2	12.1(13)E
		WS-G5484, 5486, 5487	*	*

Table 2 **Gigabit Ethernet Transceiver Platform Support (Continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 6500 Series (Continued)	WS-SUP720	GLC-T (1000BASE-T)	8.3.1	12.2(17a)SX
		GLC-SX-MM	*	*
		GLC-LH-SM	*	*
		GLC-ZX-SM	8.2	Not Supported
	WS-X6724-SFP	GLC-T (1000BASE-T)	8.3.1	12.2(17a)SX
		GLC-SX-MM	*	*
		GLC-LH-SM	*	*
		GLC-ZX-SM	8.2	Not Supported
	WS-X6748-SFP	GLC-T (1000BASE-T)	8.3.1	12.2(17d)SXB
		GLC-SX-MM	*	*
		GLC-LH-SM	*	*
		GLC-ZX-SM	8.2	Not Supported
Cisco 2690 Series Router	NM-1GE	WS-G5483	Not Supported	12.2(11)YT
		WS-G5484, 5486, 5487	*	*
Cisco 3660 Series Router	NM-1GE	WS-G5483	Not Supported	12.2(11)YT
		WS-G5484, 5486, 5487	*	*
Cisco 3700 Series Router	NM-1GE	WS-G5483	Not Supported	12.2(11)YT
		WS-G5484, 5486, 5487	*	*
Cisco 6400 Universal Access	C6400-NRP-2SV	WS-G5484, 5486, 5487	*	*
Cisco 7200 Series Router	NPE-G1	WS-G5484, 5486, 5487	*	*
	C7206VXR/400/GE	WS-G5484, 5486, 5487	*	*
	C7206VXR/NPE-G1	WS-G5484, 5486, 5487	*	*
	C7200-I/O-GE+E	WS-G5484, 5486, 5487	*	*
	PA-GE	WS-G5484, 5486, 5487	*	*
Cisco uBR7200 Series	uBR7200-NPE-G1	WS-G5484, 5486, 5487	*	*
Cisco 7300 Series Router	CISCO7301	GLC-T (1000BASE-T)	Not Supported	12.2(18)S1
		GLC-SX-MM, LH-SM, ZX-SM	*	*
Cisco 7500 Series Router	GEIP	WS-G5484, 5486, 5487	*	*
	GEIP+	WS-G5484, 5486, 5487	*	*

Table 2   *Gigabit Ethernet Transceiver Platform Support (Continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Cisco 7600 Series Router	OSM-1CHOC12/T1-SI	WS-G5484, 5486, 5487	*	*
	OSM-1CHOC12/T3-SI	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-ATM-MM	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-ATM-SI	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-ATM-MM+	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-ATM-SI+	WS-G5484, 5486, 5487	*	*
	OSM-4OC3-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-4OC3-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-4OC12-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-4OC12-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-8OC3-POS-MM	WS-G5484, 5486, 5487	*	*
	OSM-8OC3-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-8OC3-POS-SL	WS-G5484, 5486, 5487	*	*
	OSM-8OC3-POS-SL+	WS-G5484, 5486, 5487	*	*
	OSM-8OC3-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-16OC3-POS-MM	WS-G5484, 5486, 5487	*	*
	OSM-16OC3-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-16OC3-POS-SL	WS-G5484, 5486, 5487	*	*
	OSM-16OC3-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-POS-MM	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-POS-SL	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-2OC12-POS-MM+	WS-G5484, 5486, 5487	*	*
	OSM4OC12-POS-MM	WS-G5484, 5486, 5487	*	*
	OSM4OC12-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM4OC12-POS-SL	WS-G5484, 5486, 5487	*	*
	OSM4OC12-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-1OC48-POS-SI	WS-G5484, 5486, 5487	*	*
	OSM-1OC48-POS-SL	WS-G5484, 5486, 5487	*	*
	OSM-1OC48-POS-SS	WS-G5484, 5486, 5487	*	*

Table 2   Gigabit Ethernet Transceiver Platform Support (Continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Cisco 7600 Series Router (Continued)	OSM-1OC48-POS-SS+	WS-G5484, 5486, 5487	*	*
	OSM-10C48-POS-SI+	WS-G5484, 5486, 5487	*	*
	OSM-1OC48-POS-SL+	WS-G5484, 5486, 5487	*	*
	OSM-2OC48/1DPT-SS	WS-G5484, 5486, 5487	*	*
	OSM-2OC48/1DPT-SI	WS-G5484, 5486, 5487	*	*
	OSM-2OC48/1DPT-SL	WS-G5484, 5486, 5487	*	*
	OSM-2+4GE-WAN+	WS-G5484, 5486, 5487	*	*
	OSM-4GE-WAN-GBIC	WS-G5484, 5486, 5487	*	*
Cisco 10700 Series Internet Router	10720-GE-FE-TX	GLC-T (1000BASE-T)	Not Supported	12.0(25)S
	10720-GE-FE-TX-B	GLC-T (1000BASE-T)	Not Supported	12.0(25)S
Cisco CSS 11500 Series	CSS11506-2AC	GLC-SX-MM, LH-SM	*	*
	CSS11506-2DC	GLC-SX-MM, LH-SM	*	*
	CSS11503-AC	GLC-SX-MM, LH-SM	*	*
	CSS11503-DC	GLC-SX-MM, LH-SM	*	*
	CSS5-SCM-2GE	GLC-SX-MM, LH-SM	*	*
	CSS5-IOM-2GE	GLC-SX-MM, LH-SM	*	*
Cisco 12000 Series Router	3GE-GBIC-SC	WS-G5484, 5486, 5487	*	*
MDS 9000	DS-X9016	GLC-T (1000BASE-T)	MDS 9x00 Enterprise Software Release 1.1.1	Not Supported
	DS-X9032	GLC-T (1000BASE-T)	MDS 9x00 Enterprise Software Release 1.1.1	Not Supported
	DS-X9308-SMIP	GLC-T (1000BASE-T)	MDS 9x00 Enterprise Software Release 1.1.1	Not Supported

* These transceiver modules have been shipping for more than 3 years. Refer to your software release notes for specific platform support for these transceiver modules.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/univercd/home/home.htm

You can access the Cisco website at this URL:

http://www.cisco.com

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation DVD

Cisco documentation and additional literature are available in a Documentation DVD package, which may have shipped with your product. The Documentation DVD is updated regularly and may be more current than printed documentation. The Documentation DVD package is available as a single unit.

Registered Cisco.com users (Cisco direct customers) can order a Cisco Documentation DVD (product number DOC-DOCDVD=) from the Ordering tool or Cisco Marketplace.

Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/

Cisco Marketplace:

http://www.cisco.com/go/marketplace/

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

  http://www.cisco.com/en/US/partner/ordering/

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 1 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you can perform these tasks:

- Report security vulnerabilities in Cisco products.

- Obtain assistance with security incidents that involve Cisco products.

- Register to receive security information from Cisco.

A current list of security advisories and notices for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you might have identified a vulnerability in a Cisco product, contact PSIRT:

- Emergencies — security-alert@cisco.com

- Nonemergencies — psirt@cisco.com

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.*x* through 8.*x*.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one that has the most recent creation date in this public key server list:

http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year, at this URL:

http://www.cisco.com/techsupport

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

http://tools.cisco.com/RPF/register/register.do

Note Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support Website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

http://www.cisco.com/techsupport/servicerequest

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
EMEA: +32 2 704 55 55
USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

http://www.cisco.com/techsupport/contacts

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is "down," or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

  http://www.cisco.com/go/marketplace/

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

  http://www.cisco.com/packet

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

  http://www.cisco.com/go/iqmagazine

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

  http://www.cisco.com/ipj

- World-class networking training is available from Cisco. You can view current offerings at this URL:

  http://www.cisco.com/en/US/learning/index.html