



Cisco IOS Release Notes for Cisco EnergyWise, EnergyWise Phase 2

Revised October 21, 2011

Unless otherwise noted, the term *switch* refers to Catalyst switches and other Cisco network devices, such as routers and access points.

These release notes include important information about Cisco EnergyWise Phase 2 and any limitations, restrictions, and documentation updates that apply to Cisco devices running EnergyWise. To verify that these release notes are correct for your switch, see the [“Supported Devices” section on page 3](#).

For information about a specific Cisco device running Cisco EnergyWise Phase 2, see the release notes for the Cisco IOS software running on your device. To verify that these release notes are correct for your switch, use the **show version** privileged EXEC command.

For the list of EnergyWise Phase 2 documentation, see the [“Related Documentation” section on page 13](#).



Warning

Voice over IP (VoIP) service and the emergency calling service do not function if power fails or is disrupted. After power is restored, you might have to reset or reconfigure equipment to regain access to VoIP and the emergency calling service. In the USA, this emergency number is 911. You need to be aware of the emergency number in your country.

For information about this warning, see the “Importance Notice” appendix in the *Cisco EnergyWise Configuration Guide, EnergyWise Phase 2* on Cisco.com.



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Supported Devices

To display the EnergyWise version and the Cisco IOS software running on the switch, use the **show energywise version** and **show version** commands in privileged EXEC mode.

Table 1 *EnergyWise Phase 1*

Network Device	Minimum Cisco IOS Release
Catalyst 4500 series switches	12.2(52)SG
Catalyst 3750-E series switches	12.2(50)SE
Catalyst 3750 series switches	12.2(50)SE
Catalyst 3560-E series switches	12.2(50)SE
Catalyst 3560 series switches	12.2(50)SE
Catalyst 2960 series switches running the LAN base image	12.2(50)SE

Table 2 **EnergyWise Phase 2**

Network Device	Minimum Cisco IOS Release
Cisco Integrated Services Router Generation 2 (ISR G2), including Cisco 3900, 2900, and 1900 ISRs	15.0(1)M2
Catalyst 6500 series switches	12.2(33)SX14
Cisco ME 6524 Ethernet switches:	
ME-C6524GS-8S	
ME-C6524GT-8S	
Supervisor Engines:	
Supervisor Engine 32 with MSFC2A ¹	
Supervisor Engine 720 with MSFC3 ²	
Virtual Switching Supervisor Engine 720 with 10Gigabit Ethernet uplinks	
Inline power modules:	
WS-6148-GE-TX	
WS-6148A-GE-TX	
WS-6148V-GE-TX	
WS-6148-GE-45AF	
WS-6148A-GE-45AF	
WS-6148-RJ21	
WS-6148-RJ21V	
WS-6148-RJ45	
WS-6148A-RJ45	
WS-6148-RJ45V	
WS-X6148X2-RJ-45	
WS-X6148X2-45-AF	
WS-X6196-RJ-21	
WS-X6196-21-AF	
WS-6248-RJ45	
WS-6248-TEL	
WS-6248-RJ45	
WS-6248A-TEL	
WS-6348-RJ21	
WS-6348-RJ21V	
WS-6348-RJ45	
WS-6348-RJ45V	
WS-X6548-GE-TX	
WS-X6548V-GE-TX	
Catalyst 4500 series switches	12.2(54)SG
Catalyst 3750-X series switches	12.2(53)SE2
Catalyst 3750-E series switches	12.2(52)SE
Catalyst 3750v2 series switches	12.2(52)SE

Table 2 **EnergyWise Phase 2 (continued)**

Network Device	Minimum Cisco IOS Release
Catalyst 3750 series switches except the Catalyst 3750G-24WS and 3750G-16TD switches	12.2(52)SE
Catalyst 3560-X series switches	12.2(53)SE2
Catalyst 3560-E series switches	12.2(52)SE
Catalyst 3560-C series switches	12.2(55)EX
Catalyst 3560v2 series switches	12.2(52)SE
Catalyst 3560 series switches	12.2(52)SE
Catalyst 2960-S series switches	12.2(53)SE1
Catalyst 2960-C series switches	12.2(55)EX
Catalyst 2960 series switches running the LAN base or the LAN lite image	12.2(52)SE
Catalyst 6500 series supervisor engine: VS-S2T-10G	15.0(1)SY1
Catalyst 4500 Universal POE (UPOE) 60Watt line card with EEE: WS-X4748-UPOE+E	IOS XE 3.2.0SG
Catalyst 4500 data with EEE line card with no POE: WS-X4748-GB-RJ45	IOS XE 3.2.0SG
Prime LAN Management Solution (LMS) 4.0	12.2(58)SE1

1. MSFC2A = Multilayer Switch Feature Card 2A.

2. MSFC3 = Multilayer Switch Feature Card 3.

Table 3 **EnergyWise Phase 2 (continued)**

Network Device	Firmware Release
Cisco Unified IP Phone 6900 Series: CP-6901 CP-6911 CP-6921 CP-6941 CP-6945 CP-6961	9.2(1) (SCCP and SIP)
Cisco Unified IP Phone 7900 Series: CP-7911G CP-7931G CP-7941G CP-7941G-GE CP-7942G CP-7945G CP-7961G CP-7961G-GE CP-7962G CP-7965G CP-7970G CP-7971G CP-7975G	9.2(1) (SCCP)
Cisco Unified IP Phone 8900 Series: CP-8961 CP-8941 CP-8945	9.2(1) (SCCP and SIP)
Cisco Unified IP Phone 9900 Series: CP-9951 CP-9971	9.2(1) (SIP)

Table 4 **EnergyWise Phase 2+**

Network Device	Minimum Cisco IOS Release
Catalyst 6500 series switches	12.2(33)SXJ
Cisco ME 6524 Ethernet switches:	
ME-C6524GS-8S	
ME-C6524GT-8S	
Supervisor Engines:	
Supervisor Engine 32 with MSFC2A	
Supervisor Engine 720 with MSFC3	
Virtual Switching Supervisor Engine 720 with 10Gigabit Ethernet Uplinks	
WS-SUP720-3BXL	
Inline power modules:	
WS-6148-GE-TX	
WS-6148A-GE-TX	
WS-6148V-GE-TX	
WS-6148-GE-45AF	
WS-6148A-GE-45AF	
WS-6148-RJ21	
WS-6148-RJ21V	
WS-6148-RJ45	
WS-6148A-RJ45	
WS-6148-RJ45V	
WS-X6148E-GE-45AT	
WS-X6148X2-RJ-45	
WS-X6148X2-45-AF	
WS-X6196-RJ-21	
WS-X6196-21-AF	
WS-6248-RJ45	
WS-6248-TEL	
WS-6248-RJ45	
WS-6248A-TEL	
WS-6348-RJ21	
WS-6348-RJ21V	
WS-6348-RJ45	
WS-6348-RJ45V	
WS-X6548-GE-TX	
WS-X6548V-GE-TX	
Ethernet module with PoE line card:	
WS-X6148A-GE-45AF	

Table 5 **EnergyWise Phase 2.5**

Network Device	Minimum Cisco IOS Release
Catalyst 2360 series switches: WS-C2360-48TD-S	12.2(58)SE1
Catalyst 2918 series switches: WS-C2918-24TC-C WS-C2918-24TT-C WS-C2918-48TC-C WS-C2918-48TT-C	12.2(58)SE1
Catalyst 2960-C series switches: 2960CG-8TC-L 2960CPD-8PT-L 2960CPD-8TT-L 2960C-12PC-L 2960C-8PC-L 2960C-8TC-L 2960C-8TC-S	12.2(55)EX3
Catalyst 2960 series switches running the LAN base or the LAN lite image	12.2(58)SE1
Catalyst 2960-S series switches	12.2(58)SE1
Catalyst 3560-C series switches: 3560CG-8PC-S 3560CG-8TC-S 3560CPD-8PT-S 3560C-12PC-S 3560C-8PC-S	12.2(55)EX3
Catalyst 3560-X series switches	12.2(58)SE1
Catalyst 3560-E series switches	12.2(58)SE1
Catalyst 3560v2 series switches	12.2(58)SE1
Catalyst 3560 series switches	12.2(58)SE1
Catalyst 3750-X series switches	12.2(58)SE1
Catalyst 3750-E series switches	12.2(58)SE1
Catalyst 3750 series switches except the Catalyst 3750G-24WS and 3750G-16TD switches	12.2(58)SE1
Catalyst 3750-X series switches: WS-C3750X-12S-S WS-C3750X-24S-S	12.2(58)SE1
Cisco Catalyst 3750V2-24FS switches	12.2(58)SE1
Catalyst 4500 E-Series supervisors engines: WS-X45-SUP7-E WS-X45-SUP6-E WS-X45-SUP6L-E	IOS XE 3.3.0SG/ IOS 15.1.(1)SG

Table 5 *EnergyWise Phase 2.5 (continued)*

Network Device	Minimum Cisco IOS Release
Catalyst 6500 series supervisor engines: VS-S720-10G VS-S2T-10G	15.0(2)SY
Prime LMS 4.1	12.2(53)SE2

Table 6 *EnergyWise Phase 3.0*

Network Device	Minimum Cisco IOS Release
Catalyst 4500 E-Series supervisor engines: WS-X45-SUP7-E WS-X45-SUP6-E WS-X45-SUP6L-E	IOS XE 3.4.0SG/ IOS 15.1.(2)SG

Compatibility Matrixes

Verify that the EnergyWise specification of the domain member is compatible with the other domain members, the management station, and the connected endpoints.

Use the **show energywise version** privileged EXEC command to display the Cisco IOS release and the Cisco EnergyWise specification:

```
DomainMember# show energywise version
EnergyWise is Enabled
IOS Version: 12.2(55)SE
EnergyWise Specification: (rel2_6)1.n.0
```

Table 7 *Compatibility Matrix for Cisco IOS Release 12.2SE*

Cisco IOS Release	EnergyWise Phase	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Cisco EnergyWise Orchestrator	Orchestrator Version
12.2(50)SE	1.0	0.6.n	—	No	—
12.2(52)SE	2.0	rel2 ¹	rel2_25	No	—
12.2(53)SE	2.0	rel2_25	rel2_5 rel2_6	No	—
12.2(53)SE1	2.0	rel2_5	rel2_25 rel2_6	No	—
12.2(53)SE2	2.0	rel2_5	rel2_5 rel2_6	Yes	2.0.1
12.2(55)SE 12.2(55)EX	2.0	rel2_6	rel2_25 rel2_5	Yes	2.0.1

1. Cisco EnergyWise Specification rel2 is not compatible with Cisco EnergyWise Specification rel2_5 or Cisco EnergyWise Specification rel2_6.

Table 8 *Compatibility Matrix for Cisco IOS Release 12.2SX*

Cisco IOS Release	EnergyWise Phase	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Cisco EnergyWise Orchestrator	Orchestrator Version
12.2(33)SXI4	2	rel2 ¹	rel2_25	No	—
12.2(33)SXJ	2+	rel2_6	rel2_25	Yes	2.0.1

1. Cisco EnergyWise Specification rel2 is not compatible with Cisco EnergyWise Specification rel2_5 or Cisco EnergyWise Specification rel2_6.

New Features

- Catalyst 6500 series switches running EnergyWise Phase 2+ support Cisco EnergyWise Specification rel2_6.
- Cisco Unified IP Phone 6900, 7900, 8900, and 9900 series support the Cisco EnergyWise Power Save Plus mode. You can use this feature to configure the phone to sleep (power down) and wake (power up). To use this feature, your system should include an EnergyWise controller, such as a Cisco switch with the EnergyWise feature enabled. The following switches support this feature:
 - Catalyst 6500 series switches running Cisco IOS Release 12.2(33)SXJ.
 - Catalyst 4500 series switches running Cisco IOS Releases 3.2.0 SG and 15.0(2)SG.
 - Catalyst 2960, 2960-S, 3560, 3560-E, 3560-X, 3750, 3750-E, and 3750-X series switches running Cisco IOS Release 12.2(58)SE1.

For more information about the Cisco EnergyWise Power Save Plus mode, see the following resources:

- Cisco Unified IP Phone 6900 series:
http://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/6921_6941_6961/firmware/9_2_1/english/release/notes/6921_921_sip.html#wp199915
http://www.cisco.com/en/US/products/ps10326/tsd_products_support_series_home.html
- Cisco Unified IP Phone 7900 series:
http://www.cisco.com/en/US/partner/docs/voice_ip_comm/cuipph/firmware/9_2_1/english/release/notes/7900_921.html#wp50106
http://www.cisco.com/en/US/partner/products/hw/phones/ps379/tsd_products_support_series_home.html
- Cisco Unified IP Phone 8900 series:
http://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/9971_9951_8961/firmware/9_2_1/release_notes/9900_8900_921.html#wp219153
http://www.cisco.com/en/US/products/ps10451/tsd_products_support_series_home.html
- Cisco Unified IP Phone 9900 series:
http://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/9971_9951_8961/firmware/9_2_1/release_notes/9900_8900_921.html#wp219153
http://www.cisco.com/en/US/products/ps10453/tsd_products_support_series_home.html
- Cisco EnergyWise Return on Investment with Cisco Unified IP Phones Whitepaper:
http://www.cisco.com/en/US/prod/collateral/voicesw/ps6788/phones/ps10326/solution_overview_c22-589129.html
- When you use the EnergyWise endpoint software development kit (SDK) or the management application programming interface (MAPI), we recommend the following software and hardware:
 - Catalyst 3750-X, 3750-E, 3750v2, 3750, 3560-X, 3560-E, 3560, 2960-S, and 2960 series switches running Cisco IOS Release 12.2(53)SE2 or later.
 - Catalyst 3560-C switches running Cisco IOS Release 12.2(55)EX or later.

Table 9 *CISCO-ENERGYWISE-MIB*

Feature	Minimum Cisco IOS Release Required
Endpoint-only support for the new cewNeighborLevelTable table and alsofor new MIB objects in the cewEntTable and cewNeighborTable tables. For information, see the MIB.	12.2(53)SE1, 12.2(55)EX, 12.2(54)SG, 12.2(33)SXJ, 15.0(1)M2
<p>Endpoint-only support for objects in the cewNeighborTable table:</p> <ul style="list-style-type: none"> • cewNeighborMacAddress object to identify an endpoint • cewNeighborParentPortIndex object to specify a port connected to an endpoint • cewNeighborPhysicalEntityId object to specify a EnergyWise ID. <p>Updated descriptions for cewEntEnergyUsageDirection and the cewNeighborEnergyUsageDirection objects</p> <p>Support for the cewEntEnergyLevel with read-only access</p> <p>Updated description of the cewEntConfiguredLevel object</p> <p>Removal of the cewProxyTable table</p>	<p>12.2(55)SE for Catalyst 3750-X, 3750-E, 3750v2, 3750, 3560-X, 3560-E, 3560, 2960-S, and 2960 switches</p> <p>12.2(55)EX for Catalyst 3560-C and 2960-C switches</p> <p>12.2(54)SG for Catalyst 4500 switches</p> <p>12.2(33)SXJ for Catalyst 6500 switches</p>

To locate and download MIBs for a specific Cisco product and release, use the Cisco MIB Locator: <http://cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>.

Limitations and Restrictions

EnergyWise Phase 2 is not backward-compatible with EnergyWise Phase 1.

EnergyWise Phase 2 does not support IPv6.

The Cisco EnergyWise software development kit (SDK) or the management application programming interface (MAPI) Version 1.2, also referred to as the EnergyWise toolkit Version 1.2, is compatible with Cisco EnergyWise Specification rel2_7. We recommend that you use the SDK or MAPI Specification rel2_7 with domain members running Cisco IOS Release 12.2(58)SE. The toolkit Version 1.2 is not backward-compatible with Cisco EnergyWise Specification rel2_5 or Cisco EnergyWise Specification rel2_6. (CSCtn68547)

Updates to the Cisco EnergyWise Configuration Guide, EnergyWise Phase 2

- In the “Preface” chapter, this link is added to provide more information about Cisco EnergyWise Integrated Services Routers (ISR) and ISR G2:
http://www.cisco.com/en/US/partner/docs/routers/access/1900/software/configuration/guide/enrgyz_artg.html
- In the “EnergyWise CLI Commands” chapter, this information is added:
 - The **activitycheck** interface configuration command is supported on the Cisco High-Density Packet Voice Digital Signal Processor Module (PVDM3).
 - This information is added to the command history of all the EnergyWise commands:

Release	Modification
15.0(1)M3	This command was introduced on the Cisco 3925E and Cisco 3945E Integrated Services Routers.

Related Documentation

For information about configuring Cisco devices, see the *Cisco EnergyWise Configuration Guide* on Cisco.com.

For Cisco Integrated Service Routers Generation 2 (ISR G2), see the *Configuring Cisco EnergyWise Feature for Branch Routers*:

http://www.cisco.com/en/US/docs/routers/access/1900/software/configuration/guide/enrgyz_artg.html

These partner documents provide information about the management API and endpoint SDK and are available on the Cisco Developer Network at <http://developer.cisco.com/web/esdk/home>.

- *Cisco EnergyWise Documentation Roadmap*
- *Cisco EnergyWise Partner Development Guide*
- *Cisco EnergyWise Programmer Reference Guide for the End-Point SDK*
- *Cisco EnergyWise Programmer Reference Guide for the Management API*
- *Release Notes for Cisco EnergyWise, EnergyWise Phase 2*

Obtaining Documentation and Support on the Cisco Developer Network

Cisco EnergyWise development partners can access the EnergyWise documents, API and SDK software code, and Cisco IOS software by joining the Cisco Developer Network:

<http://developer.cisco.com/web/esdk/home>.

You need a support contract and license to access EnergyWise resources on the Cisco Developer Network and on TAC. The business development manager who registered your licence must set up your Cisco.com account with the appropriate access privileges.

The forum, wiki, and other resources on the Cisco Developer Network provide a self-help knowledge base and community for EnergyWise application developers and programmers. You can get additional support by opening a case in the TAC Service Request Tool:

<http://tools.cisco.com/ServiceRequestTool/create/launch.do>.

Obtaining Documentation, Support, and Security Guidelines

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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