Cisco IOS Release Notes for Cisco EnergyWise, EnergyWise Version 2.8

October 04, 2013

If your switch is stacking-capable (for example, a Catalyst 3750-X, 3750-E, or 3750), the term *switch* refers to both a standalone switch and a switch stack unless otherwise noted.

These release notes include important information about Cisco EnergyWise Version 2.8 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 2.

For information about a specific Cisco device running Cisco EnergyWise Version 2.8, 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 Version 2.8 documentation, see the "Related Documentation" section on page 11.

⚠ **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 IOS Configuration Guide, EnergyWise Version 2.8* on Cisco.com.

Contents

Supported Devices

To display the EnergyWise version and the Cisco IOS software running on the domain member, use the **show energywise version** and **show version** privileged EXEC command-line interface (CLI) commands. For information additional information about these commands, see the *Cisco EnergyWise IOS Configuration Guide* on Cisco.com.

To see the EnergyWise version, you can also use the energywise_utl_getVersion( ) function or go to the toolkit on the Cisco Developer Network:
http://developer.cisco.com/web/esdk/home.

The following tables list the EnergyWise supported switches, supervisors, Ethernet modules, IP phones, and other devices and their Cisco IOS software and EnergyWise versions:

- Cisco Catalyst 6500 series switches (supervisors and modules)—Table 1 on page 3
- Cisco Catalyst 4500 series switches and supervisors—Table 2 on page 4
- Cisco Catalyst 3700 and 3500 switches—Table 3 on page 4
- Cisco Catalyst 2900 switches—Table 4 on page 5
- Cisco Unified IP Phones—Table 5 on page 7
- Cisco Router and Management Systems—Table 6 on page 8

Note For additional information about compatibility between domain members and endpoints, see Compatibility Matrixes, page 8.

Table 1 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco Catalyst 6500 series switches (supervisors and modules).

Table 1   *Supported EnergyWise Devices - Catalyst 6500*

Product SKU	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
VS-S2T-10G	15.0(1)SY1	2.6	15.0(1)SY1	2.6
VS-S720-10G	15.0(1)SY1	2.6	15.0(1)SY1	2.6
WS-6148-GE-45AF	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148-GE-TX	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148-RJ21	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148-RJ21V	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148-RJ45	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148-RJ45V	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148A-GE-TX	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148A-RJ45	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6148V-GE-TX	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6248-RJ45	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6248-TEL	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6248A-TEL	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6348-RJ21	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6348-RJ21V	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-6348-RJ45V	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-SUP720-3BXL	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6148A-GE-45AF	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6148E-GE-45AT	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6148X2-45-AF	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6148X2-RJ-45	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6196-21-AF	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6196-RJ-21	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6548-GE-TX	12.2(33)SXJ	2.6	12.2(33)SXI4	2
WS-X6548V-GE-TX	12.2(33)SXJ	2.6	12.2(33)SXI4	2

Table 2 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco Catalyst 4500 series switches and supervisors.

Table 2   Supported EnergyWise Devices - Catalyst 4500

Product SKU or Device Name	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
Catalyst 4500 series switches Sup 7E	IOS-XE 3.5.0E	2.8	3.1(0)XO	2.5
Catalyst 4500 series switches Sup 7LE	IOS-XE 3.5.0E	2.8	3.1(0)XO	2.5
Catalyst 4500 series switches Sup 6E	Classical IOS 15.2(1)E	2.8	12.2(52)SG	2
Catalyst 4500 series switches Sup 6LE	Classical IOS 15.2(1)E	2.8	12.2(52)SG	2
Catalyst 4500-X series switches	IOS-XE 3.5.0E	2.8	3.3 (1)SG	2.5

.Table 3 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco Catalyst 3700 and 3500 switches.

Table 3   Supported EnergyWise Devices - Catalyst 3700 and 3500

Product SKU or Device Name	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
Catalyst 3560v2 series switches	15.0.1-SE2	2.8	12.2(53)SE2	2
Catalyst 3560-E series switches	15.0.1-SE2	2.8	12.2(50)SE	1
Catalyst 3560-C series switches	12.2(55)EX3	2.8	12.2(55)EX	2
Catalyst 3560-X series switches	15.0.1-SE2	2.8	12.2(53)SE2	2
Catalyst 3750-X series switches	15.0.1-SE2	2.8	12.2(53)SE2	2
Catalyst 3750v2 series switches	15.0.1-SE2	2.8	12.2(53)SE2	2
3560-8P	15.0.1-SE2	2.8	12.55SE	2.5
3560C-8PC-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
3560C-12PC-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
3560CG-8PC-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
3560CG-8TC-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
3560CPD-8PT-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
3560G-24P	15.0.1-SE2	2.8	12.55SE	2.5
3560G-24T	15.0.1-SE2	2.8	12.55SE	2.5
3750G-24TS-1U	15.0.1-SE2	2.8	12.55SE	2.5
3750G-48PS	15.0.1-SE2	2.8	12.55SE	2.5
3750v2-24FS 100FX	15.0.1-SE2	2.8	12.2(58)SE1	2.5

Table 3   Supported EnergyWise Devices - Catalyst 3700 and 3500 (continued)

Product SKU or Device Name	Recommended Version		First Version	
3750V2-24PS	15.0.1-SE2	2.8	12.55SE	2.5
3750V2-24TS	15.0.1-SE2	2.8	12.55SE	2.5
3750V2-48P	15.0.1-SE2	2.8	12.55SE	2.5
3750V2-48T	15.0.1-SE2	2.8	12.55SE	2.5
3750G-48TS	15.0.1-SE2	2.8	12.55SE	2.5

Table 4 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco Catalyst 2900 switches.

Table 4   Supported EnergyWise Devices - Catalyst 2900

Product SKU or Device Name	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
Catalyst 2960-XR series switches	15.0(2)EX3	2.8.1	15.0(2)EX1	2.8
Catalyst 2960-X series switches	15.0(2)EX3	2.8.1	15.0(2)EX	2.8
Catalyst 2960 series switches running the LAN Base or the LAN Lite image	15.0.1-SE2	2.8	12.2(50)SE	1
Catalyst 2960-C series switches	12.2(55)EX3	2.8	12.2(55)EX	2
Catalyst 2960-S series switches	15.0.1-SE2	2.8	12.2(53)SE2	2
2960-8TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-8TC-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-24LC-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-24LT-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-24PC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-24PC-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-24TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-24-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-24TC-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-24TT-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-48PST-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-48PST-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-48TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-48TC-S	15.0.1-SE2	2.8	12.55SE	2.5
2960-48TT-L	15.0.1-SE2	2.8	12.55SE	2.5
2960-48TT-S	15.0.1-SE2	2.8	12.55SE	2.5
2960C-8PC-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5

Table 4   *Supported EnergyWise Devices - Catalyst 2900 (continued)*

Product SKU or Device Name	Recommended Version		First Version	
2960C-8TC-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960C-8TC-S	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960C-12PC-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960CG-8TC-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960CPD-8PT-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960CPD-8TT-L	12.2(55)EX3	2.8	12.2(55)EX3	2.5
2960G-24TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960G-48TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960G-8TC-L	15.0.1-SE2	2.8	12.55SE	2.5
2960PD-8TT-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-24PD-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-24PS-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-24TD-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-24TS-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48FPD-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48FPS-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48LPD-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48LPS-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48TD-L	15.0.1-SE2	2.8	12.55SE	2.5
2960S-48TS-L	15.0.1-SE2	2.8	12.55SE	2.5
WS-C2918-24TC-C	12.2(58)SE1	2.8	12.2(58)SE1	2.5
WS-C2918-24TT-C	12.2(58)SE1	2.8	12.2(58)SE1	2.5
WS-C2918-48TC-C	12.2(58)SE1	2.8	12.2(58)SE1	2.5
WS-C2918-48TT-C	12.2(58)SE1	2.8	12.2(58)SE1	2.5

Table 5 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco Unified IP phones:

Note The Cisco Unified IP Phones listed below require Cisco Unified Communications Manager (formerly Cisco Unified CallManager), 8.5(1).

Table 5   *Supported EnergyWise Devices - Cisco Unified IP Phones*

Product SKU	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
CP-6901	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-6911	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-6921	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-6941	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-6945	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-6961	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-7911G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7931G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7941G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7941G-GE	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7942G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7945G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7961G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7961G-GE	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-7962G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7965G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7970G	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-7971G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-7975G	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-8941	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-8945	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-8961	9.2(1) (SCCP and SIP)	2.5	9.2(1) (SCCP and SIP)	2
CP-9951	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2
CP-9971	9.2(1) (SCCP)	2.5	9.2(1) (SCCP)	2

Table 6 displays the first and recommended Cisco IOS software and EnergyWise versions for the Cisco routers and management systems.

Table 6 Supported EnergyWise Devices/Systems - Cisco Routers and Management Systems

Product SKU	Recommended Version		First Version	
	IOS Version	EnergyWise Version	IOS Version	EnergyWise Version
Cisco Integrated Services Router Generation 2 (ISR G2), including Cisco 3900, 2900, and 1900 ISRs	15.0(1)M2	2	15.0(1)M2	2
LMS-4.0	4.0	2	4.0	2
LMS-4.1	4.1	2.5	4.1	2.5
LMS-4.2	4.2	2.8	4.2	2.8

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, the Cisco EnergyWise specification, and the toolkit version:

```
DomainMember# show energywise version
EnergyWise is Enabled
IOS Version: 12.2(58)SE
EnergyWise Specification: (rel2_7)1.2
```

In this example:

- Cisco IOS release is Cisco IOS Release 12.2(58)SE.
- Cisco EnergyWise specification is rel2_7.
- Toolkit version is 1.2.

Table 7 Compatibility Matrix for Cisco IOS Release 12.2SE

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
12.2(50)SE	0.6	0.6.n	—	—
12.2(52)SE	2	rel2[1]	rel2_25	—
12.2(53)SE	2.2	rel2_25	rel2 rel2_5 rel2_6 rel2_7	—
12.2(53)SE1	2.5	rel2_5	rel2_25 rel2_6 rel2_7	—

Table 7   Compatibility Matrix for Cisco IOS Release 12.2SE (continued)

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
12.2(53)SE2	2.5	rel2_5	rel2_5 rel2_6 rel2_7	—
12.2(55)SE 12.2(55)EX	2.6	rel2_6	rel2_25 rel2_5 rel2_7	—
12.2(58)SE	2.7	rel2_7	rel2_25 rel2_5 rel2_6	1.2

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 15.2 E

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
15.2(1)E	2.8	rel2_8_1	rel2_5 rel2_6 rel2_7 rel2_8	1.3.0

Table 9   Compatibility Matrix for Cisco IOS Release 12.2SX

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
12.2(33)SXI4	2	rel2[1]	rel2_25	—
12.2(33)SXJ	2.6	rel2_6	rel2_25	—

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

Table 10   Compatibility Matrix for Cisco IOS Release 15SG

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
15.0(2)SG/3.2(0)SG	2.6	rel2_6	rel2_25 rel2_5 rel2_7	—
15.1(1)SG/ 3.3(0)SG	2.7	rel2_7	rel2_25 rel2_5 rel2_6	1.2
15.2(1)E / 3.5.0E	2.8	rel2_8_1	rel2_5 rel2_6 rel2_7 rel2_8	1.3.0

Table 11   Compatibility Matrix for Cisco IOS Release 15.0

Cisco IOS Release	EnergyWise Version	Cisco EnergyWise Specification	Compatible EnergyWise Specification	Compatible Toolkit Version
15.0(2)SE	2.8	rel2_8	rel2_5 rel2_6 rel2_7 rel2_8	1.2
15.0(2)EX	2.8	rel2_8	rel2_5 rel2_6 rel2_7 rel2_8	1.2
15.0(2)EX1	2.8	rel2_8	rel2_5 rel2_6 rel2_7 rel2_8	1.2
15.0(2)EX3	2.8.1	rel2_8_1	rel2_5 rel2_6 rel2_7 rel2_8	1.2

New Features

- For Catalyst 2960-X and 2960-XR switches: The switch now hibernates in response to a power level 1 setting. Use this option to manage the power usage of the switch during periods of nonoperation. You can hibernate the switch immediately or at scheduled times; a configured hibernation end time determines when the switch power level is restored.

- Option to wake up a device without entering a MAC address. If you configure an EnergyWise endpoint device to include off-state caching and Wake on LAN, you can use the **energywise query** privileged EXEC command to wake up the device and set its power level.

- Option to use SNMP to communicate with endpoint devices that are connected to a Cisco network but do not have an EnergyWise agent installed. To use SNMP, you have to configure an EnergyWise SNMP proxy on the domain member that the endpoint device is connected to.

Limitations and Restrictions

Review this section before you begin working with EnergyWise. These are known limitations that will not be fixed, and there is not always a workaround:

- EnergyWise Version 2.8 is not backward-compatible with EnergyWise Version 1.

- EnergyWise Version 2.7 is not backward-compatible with EnergyWise Version 1.

- EnergyWise Version 2.6 is not backward-compatible with EnergyWise Version 1.

- EnergyWise Version 2.6 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 or later. We recommend that you use the

SDK or MAPI and Cisco EnergyWise 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).

Related Documentation

For information about configuring Cisco devices, see the *Cisco EnergyWise Configuration Guide* on Cisco.com:
http://www.cisco.com/en/US/products/ps10195/products_installation_and_configuration_guides_list.html

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

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.

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 Version 2.8*

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 and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at:
http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html.

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