Features and Important Notes for Cisco IOS Release 15.3(1)S

These release notes describe the following topics:

- New and Changed Information, page 27
- MIBs, page 34
- Important Notes, page 35

New and Changed Information

This section lists the new hardware and software features supported by Cisco IOS Release 15.3(1)S and contains the following subsections:

- New Hardware Features in Cisco IOS Release 15.3(1)S2, page 27
- New Software Features in Cisco IOS Release 15.3(1)S2, page 27
- New Hardware Features in Cisco IOS Release 15.3(1)S1, page 27
- New Software Features in Cisco IOS Release 15.3(1)S1, page 28
- New Hardware Features in Cisco IOS Release 15.3(1)S, page 28
- New Software Features in Cisco IOS Release 15.3(1)S, page 28

New Hardware Features in Cisco IOS Release 15.3(1)S2

There are no new hardware features in Cisco IOS Release 15.3(1)S2.

New Software Features in Cisco IOS Release 15.3(1)S2

There are no new software features in Cisco IOS Release 15.3(1)S2.

New Hardware Features in Cisco IOS Release 15.3(1)S1

This section describes new and changed features in Cisco IOS Release 15.3(1)S1. Some features may be new to Cisco IOS Release 15.3(1)S1 but were released in earlier Cisco IOS software releases. Some features may have been released in earlier Cisco IOS software releases and have been changed in Cisco IOS Release 15.3(1)S1. To determine if a feature is new or changed, see the feature information table at the end of the feature module for that feature. Links to feature modules are included. If a feature does not have a link to a feature module, that feature is documented only in the release notes.

CISCO7613-S

Platform: Cisco 7600

For detailed information about this feature, see the document at the following URL:

Trifecta-ASA

Platform: Cisco 7600
New Software Features in Cisco IOS Release 15.3(1)S1

There are no new software features in Cisco IOS Release 15.3(1)S1.

New Hardware Features in Cisco IOS Release 15.3(1)S

This section describes new and changed features in Cisco IOS Release 15.3(1)S. Some features may be new to Cisco IOS Release 15.3(1)S but were released in earlier Cisco IOS software releases. Some features may have been released in earlier Cisco IOS software releases and have been changed in Cisco IOS Release 15.3(1)S. To determine if a feature is new or changed, see the feature information table at the end of the feature module for that feature. Links to feature modules are included. If a feature does not have a link to a feature module, that feature is documented only in the release notes.

8x10G High Queue High Density ES+ Line Card for Cisco 7600

Platform: Cisco 7600

For detailed information about this feature, see the documents at the following URLs:

New Software Features in Cisco IOS Release 15.3(1)S

This section describes new and changed features in Cisco IOS Release 15.2(1)S. Some features may be new to Cisco IOS Release 15.2(1)S but were released in earlier Cisco IOS software releases. Some features may have been released in earlier Cisco IOS software releases and have been changed in Cisco IOS Release 15.2(1)S. Links to feature modules are included. If a feature listed does not have a link to a feature module, that feature is documented only in the release notes.

Ambiguous VLAN Support for IP Sessions over ISG

For detailed information about this feature, see the document at the following URL:

Cisco ASR 901 Satellite

Platform: Cisco ASR 901

For detailed information about this feature, see the document at the following URL:
Cisco ME 3600/ME 3800: HDLC Support on T1/E1 IM

Platform: Cisco ME 3600X, Cisco ME 3600X-24CX, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Distributed Synthetic Frame Loss Measurement

Platform: Cisco 7600
For detailed information about this feature, see the document at the following URL:

E2E Transparent Clocking

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Egress Default Queue Limit Improvement and Percent Bandwidth Support

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Ethernet Connectivity Fault Management

For detailed information about this feature, see the document at the following URL:

Ethernet Data Plan Loopback

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Ethernet Synthetic Loss Measurement on Cisco 7600

Platforms: Cisco 7600
For detailed information about this feature, see the documents at the following URLs:
EVC Push Rewrite

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

FHRP—HSRP BFD Peering

Platforms: Cisco 7600
For detailed information about this feature, see the documents at the following URLs:

Graceful Shutdown Support for OSPFv3

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

HSRP: Global IPv6 Address

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

IEEE 802.1x Authenticator

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the documents at the following URLs:
http://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/software/release/15.3_1_S/configuration/guide/sw8021x.html

IEEE 802.1x RADIUS Accounting

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:
IEEE 802.1x VLAN Assignment

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:
http://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/software/release/15.3_1_S/configuration/guide/sw8021x.html

Ingress HQoS for Port-Channel on ES+

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

IPSLA Multicast Support

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

IPSLA Y1731 SLM Feature Enhancements

Platforms: Cisco ME 3600X, Cisco ME 3600X-24CX, Cisco ME 3800X
For detailed information about this feature, see the documents at the following URLs:
http://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/software/release/15.3_1_S/configuration/guide/swy1731pm.html

IP Unnumbered Ethernet Polling Support

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

IPv6 Source/Prefix Guard

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

ITU-T G.8032 Ethernet Ring Protection Switching

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:
L2VPN Protocol Based CLI
Platforms: Cisco ME 3600X, Cisco ME 3600X-24CX, Cisco ME 3800X
For detailed information about this feature, see the documents at the following URLs:

LACP 1-1 Redundancy with Fast Switchover
Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Layer 2 Protocol Tunneling Feature over EVC
Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

Link Path Through
Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

Max Bundle/LACP Hot Standby
Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

mLDP In-band Signaling/Transit Mode
Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

MPLS-TP MIB
Platforms: Cisco ME 3600X, Cisco ME 3600X-24CX
For detailed information about this feature, see the document at the following URL:
Multi Level QoS Groups

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

MVPNv6 Extranet

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

NETCONF XML PI

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

OSPFv3 ABR Type 3 LSA Filtering

Platform: Cisco 7600
For detailed information about this feature, see the document at the following URL:

OSPFv3 Demand Circuit Ignore

Platform: Cisco 7600
For detailed information about this feature, see the document at the following URL:

Prefix Suppression Support for OSPFv3

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

Switch Port Analyzer

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:
http://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/software/release/15.3_1_S/configuration/guide/swSPAN.html
VPLS MAC Limit Enhancement

For detailed information about this feature, see the document at the following URL:

VPLS over MPLS SVI Uplink, EVI Xconnect with MPLS SVI Uplink (Switchport or EVC), SVI L3VPN over SVI Uplink—MPLS IP on SVI Support

Platforms: Cisco ME 3600X, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

VRRPv3 Protocol Support

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

WCCPv2—I Pv6 Support

Platforms: Cisco 7600
For detailed information about this feature, see the document at the following URL:

Y.1731 Enhancements (On-Demand and Concurrent Support)

Platforms: Cisco ME 3600X, Cisco ME 3600X-24CX, Cisco ME 3800X
For detailed information about this feature, see the document at the following URL:

MIBs

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use the Cisco MIB Locator found at the following URL:
http://tools.cisco.com/ITDIT/MIBS/servlet/index

If the Cisco MIB Locator does not support the MIB information that you need, you can obtain a list of supported MIBs and download MIBs from the Cisco MIBs page at the following URL:

To access the Cisco MIB Locator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to cco-locksmith@cisco.com. An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:
Important Notes

The following sections contain important notes about Cisco IOS Release 15.3S:

- Cisco IOS Behavior Changes, page 35
- Field Notices and Bulletins, page 37

Cisco IOS Behavior Changes

Behavior changes describe the minor modifications to the way a device works that are sometimes introduced in a new software release. These changes typically occur during the course of resolving a software defect and are therefore not significant enough to warrant the creation of a standalone document. When behavior changes are introduced, existing documentation is updated with the changes described in these sections.

Behavior changes are provided for the following releases:

- Cisco IOS Release 15.3(1)S2, page 35
- Cisco IOS Release 15.3(1)S1, page 35

Cisco IOS Release 15.3(1)S2

The following behavior changes were introduced in Cisco IOS Release 15.3(1)S2:

- Initial INVITE with 0.0.0.0 call flow is supported.
  
  Old Behavior: Initial INVITE with 0.0.0.0 is not supported unless ACK contains valid ip address.
  
  New Behavior: This call flow is supported.

  Additional Information:

Cisco IOS Release 15.3(1)S1

The following behavior changes were introduced in Cisco IOS Release 15.3(1)S1:

- New deprecation message for the enable secret 5 password command without the md5 encrypted secret key.
  
  Old Behavior: The deprecation message for the enable secret 5 password command displayed the md5 encrypted secret key in the warning.
  
  New Behavior: The md5 encrypted secret key in the deprecation message for the enable secret 5 command was removed and the following warning message was added.
  
  Warning: The CLI will be deprecated soon

  enable secret 5

  Please move to enable secret CLI

  Additional Information:
• Position of MP_REACH Attribute in Attributes List of BGP Updates

Old Behavior: If the BGP Enhanced Attribute Error Handling feature is enabled, BGP places the MP_REACH attribute (attribute 14) at the beginning of the attributes list while formatting an update. If the feature is not enabled, BGP places the MP_REACH attribute at the end of the attributes list, which makes handling a malformed update more difficult for neighbor routers that are doing enhanced error handling.

New Behavior: Whether or not the BGP Enhanced Attribute Error Handling feature is enabled, BGP places the MP_REACH attribute (attribute 14) at the beginning of the attributes list while formatting an update. Enhanced error handling can function much more easily when the MP_REACH attribute is at the beginning of the attributes list.

• The SME default editor behavior is improved.

Old Behavior: When configuring the `editor-type editor` command, the router would copy the default profile to default editor if the default editor was not modified.

New Behavior: The `editor-type editor` command only changes the editor-type but never copies default profiles to default editors.

If user wants to reuse previous profile configurations, he can use the test sbc profile-to-editor sip, which helps to generate editor configurations from the profile.

• New Behavior: Alarm reporting can be enabled for Wanphy alarms.

Old Behavior: No reporting was available for Wanphy alarms.

Additional Information:

• The `interworking vlan` command for VPLS is now working.

Old Behavior: The `interworking vlan` command does not work, which causes traffic failure.

New Behavior: The `interworking vlan` command is now working. However, you must enter the `clear mpls ldp neighbor *` command before using the `interworking vlan` command the first time.

Additional Information:

• The `sck-pool-size` command was added to configure the SIP socket control buffer size.

Old Behavior: SIP calls with TCP control depleted stub control buffer.

New Behavior: The `sck-pool-size` command was added to configure the SIP socket control buffer size.

• Old Behavior: When the Layer 2 protocol tunneling EVC receives an encapsulated packet, it goes to error-disabled state and remains in that state.

New Behavior: Automatic recovery can be configured to bring the EVC status up if the EVC goes to error-disabled state.

Impact to customer: Use the `errdisable recovery cause l2proto-tunnel time` command to configure the automatic recovery timer to bring the EVC service instance status to up once the timer expires.

Additional Information:
- Changes are made for subscriber profiles in AAA server.

  Old Behavior: In the Cisco IOS XE Release 3.8S, the iWAG may fail to establish the GTPv1 tunnel with the GGSN, for example, with ASR 5000 platform. To address this issue, a workaround of prepending 19 to the original MSISDN number was introduced in the Cisco IOS XE Release 3.8S. This workaround changes the subscriber profiles.

  New Behavior: This issue is fixed in the Cisco IOS XE Release 3.8.1S. Therefore for new customers, this workaround is not required. For customers who are using the workaround provided in the Cisco IOS XE Release 3.8S, the following commands are added in the Cisco IOS XE Release 3.8.1S to provide flexibility on MSISDN encoding:

  ```
  information-element msisdn [npi npi-value | ton ton-value]
  radius msisdn leading-digits number of digits
  ```

  Additional Info:

- Layer 2 Protocol (L2PT) can forward LinkOAM, ESMC, ELMI, and other reserved MAC addresses in the IEEE range of 0180C2000000-0F.

  Limitations: Pause frames that use 0180C2000001 cannot be L2PT forwarded or dropped because they are consumed by the forwarding ASIC’s physical registers without sending them to the CPU.

  Dot1x that uses 0180c2000003 is disabled by the Cisco ME 3800 and ME 3600 switches. This functionality is the same as in previous releases.

  L2PT tunneling for the reserved MACs is not supported since the reserved MACs do not have known link types. Reserved MACs tunneled with 0180C200000B are replaced to ensure packets egress.

  The LinkOAM, ELMI, and ESMC protocols are considered to be “L2PT peer” even if the L2PT CLI is not applied on the interface. Unlike other protocols, L2PT code assumes it to be drop. This is done to avoid L2PT peer configuration for LinkOAM, ELMI, and ESMC since these protocols previously worked without L2PT configurations.

- On an ES+ line card, a recovery action is introduced for every two consecutive failures of the diagnostic tests TestFabricCh0Health and TestFabricCh1Health.

  Old Behavior: No recovery action is taken when the diagnostic tests TestFabricCh0Health and TestFabricCh1Health fails continuously.

  New Behavior: A recovery action is introduced for every two consecutive failure of the diagnostic tests TestFabricCh0Health and TestFabricCh1Health.

  Additional Information:

Field Notices and Bulletins

- Field Notices—Cisco recommends that you view the field notices for this release to see if your software or hardware platforms are affected. You can find field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.
