

# Features and Important Notes for Cisco IOS Release 15.5(2)T

This document lists the new features and important notes in Cisco IOS Release 15.5(2)T:

- New and Changed Information, on page 1
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- Important Notes, on page 7

# **New and Changed Information**

This section lists the new hardware and software features supported in Cisco IOS Release 15.5(2)T:

# New Hardware Features Supported in Cisco IOS Release 15.5(2)T

This section describes new and changed features in Cisco IOS Release 15.5(2)T. Some features may be new to Cisco IOS Release 15.5(2)T 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 15.5(2)T. 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.

#### Cisco 5900 Series Embedded Services Routers

Release Notes for Cisco IOS Release 15.5(2)T on the 5900 Series Embedded Services Routers:

http://www.cisco.com/c/en/us/td/docs/solutions/GGSG-Engineering/15-5-2T/15-5-2T.html

# **New Software Features Supported in Cisco IOS Release 15.5(2)T**

This section describes new and changed features in Cisco IOS Release 15.5(2)T. Some features may be new to Cisco IOS Release 15.5(2)T 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 15.5(2)T. 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.

#### **Adaptive QoS Manageability**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/gos pleshp/configuration/15-mt/gos-pleshp-15-mt-book/gos-pleshp-adaptive-gos-dmvpn.html

#### **AVC in L2 Transparent Mode**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions\_docs/avc/guide/avc-user-guide.html

#### **BGP AS-Override Split-Horizon**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\_bgp/configuration/15-mt/irg-15-mt-book/irg-bgp-as-override-split-horizon.html

#### **Configurable Export Interval in EZPM**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions\_docs/avc/guide/avc-user-guide.html

#### **Configuring Multiple Policies on an Interface**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions docs/avc/guide/avc-user-guide.html

## **CPA Support in CUBE**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-cpa.html

# **DSCP-Based Layer 3 Custom Applications**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos\_nbar/configuration/15-mt/qos-nbar-15-mt-book/nbar-dscp-app.html

# **Dynamic Extracted Fields**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions\_docs/avc/guide/avc-user-guide.html

# **EIGRP OTP Support to Propagate SGT**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\_eigrp/configuration/15-mt/ire-15-mt-book/ire-eigrp-over-the-top.html

# **Enabling Absolute Timestamp First and Last Fields**

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

http://www.cisco.com/en/US/docs/routers/access/ISRG2/AVC/api/guide/AVC\_Metric\_Definition\_Guide.html

#### **Enhanced ART Metrics for Concurrent Connections**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions docs/avc/guide/avc-user-guide.html

#### **Export Absolute Timestamp**

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

http://www.cisco.com/c/en/us/td/docs/routers/access/ISRG2/AVC/api/guide/AVC\_Metric\_Definition\_Guide.html

#### **Fine-Grain NBAR for Selective Applications**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos\_nbar/configuration/15-mt/qos-nbar-15-mt-book/nbar-fine-selapp.html

#### FlexVPN-IKEv2 CoA for QoS and ACL

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec conn ike2vpn/configuration/15-mt/sec-flex-vpn-15-mt-book/sec-ikev2-flex-coa.html

#### FlexVPN RA-Aggregate Auth support for AnyConnect

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec conn ike2vpn/configuration/15-mt/sec-flex-vpn-15-mt-book/sec-cfg-flex-aggr.html

# **High Availability Support for REFER Call Flows Upon SSO**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-stateful-switchover.html

## High Availability for Xcoded Calls (Inbox and Box-to-Box)

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-dsp.html

# High Availability for Xcoded Calls With DTMF and VCC

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-dsp.html

# **Identify and Clear (Terminate) FPI Hung Sessions to Prevent Reboot**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/vcr1/vcr1-cr-book/vcr-c5.html

#### **IKE Fragmentation Adhering to RFC**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec conn ike2vpn/configuration/15-mt/sec-flex-vpn-15-mt-book/sec-cfg-ikev2-frag.html

#### **ISR-G2 EVC Integrations**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/cether/configuration/15-mt/ce-15-mt-book/evc-int-double-l3-vlan.html (configuration/15-mt/ce-15-mt-book/evc-int-double-l3-vlan.html) (confi

http://www.cisco.com/c/en/us/td/docs/routers/access/1900/software/configuration/guide/Software\_Configuration.html

## **IOS IPS Auto Update Functionality**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec data ios ips/configuration/15-mt/sec-data-ios-ips-15-mt-book/ips-auto-update.html

## **IPV6 MLD Snooping Feature on ISR Switch Ports**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti\_lsm/configuration/15-mt/imc-lsm-15-mt-book/ipv6\_mld\_snooping.html

## **ISIS IPv6 Multiprocess Support**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\_isis/configuration/15-mt/irs-15-mt-book/irs-ipv6-multi-process-support.html

# **Kaplan Draft ENUM Source-URI Enhancement**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-enum-enhance-kaplan.html

# **Mapping of Address and Port Using Translation**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr\_nat/configuration/15-mt/nat-15-mt-book/iadnat-mapt.html

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr nat/configuration/15-mt/nat-15-mt-book/iadnat-mapt.html

# Modification of X-Cisco-Recording-Participant Header Using SIP Profiles

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-param-mod.html

# **NBAR Custom Applications Based on DNS Name**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos nbar/configuration/15-mt/gos-nbar-15-mt-book/nbar-custapp-dns.html

#### NBAR Customization Assistance Based on SSL or HTTP

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos\_nbar/configuration/15-mt/qos-nbar-15-mt-book/nbar-cust-sslhttp.html

#### **Observation Point**

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

http://www.cisco.com/c/en/us/td/docs/ios/solutions\_docs/avc/guide/avc-user-guide.html

#### **OSPFv3 Autoroute Exclude**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute ospf/configuration/15-mt/iro-15-mt-book/iro-v3-autoroute-exclude.html

## **OSPFv2/v3 RFC5243 Database Exchange Summary List Optimization**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\_ospf/command/iro-cr-book/ospf-a1.html

#### PFA Integration with Adaptive QoS

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/gos\_plcshp/configuration/15-mt/gos-plcshp-15-mt-book/gos-plcshp-adaptive-gos-dmvpn.html

# **PKI Credentials Expiry Alerts**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec conn pki/configuration/15-mt/sec-pki-15-mt-book/sec-pki-alerts.html

#### **PKI MIB**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\_conn\_pki/configuration/15-mt/sec-pki-15-mt-book/sec-pki-overview.html http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\_conn\_pki/configuration/15-mt/sec-pki-15-mt-book/sec-cfg-auth-rev-cert.html

# PfRv3 Serviceability-Show Last Five Alerts

The show output for the show domain default vrf vrf-name master traffic-classes command is modified to provide history information of the last five route change events.

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/pfr/command/pfr-cr-book.html

# **PfRv3 Support for Transit Hub**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/pfrv3/configuration/15-mt/pfrv3-15-mt-book/pfrv3-transit-site.html

#### **PfRv3 Transit Site Support**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/pfrv3/configuration/15-mt/pfrv3-15-mt-book/pfrv3-transit-site.html

#### PMIPv6 LMA

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mob\_pmipv6-lonfiguration/15-mt/mob-pmipv6-15-mt-book/imo-pmipv6-lma-support.html

#### QoS on EVC and QinQ Marking Support

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

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos\_mqc/configuration/15-mt/qos-mqc-15-mt-book/qos-evc.html

#### **QoS: Spoke-to-Spoke per Tunnel QoS for DMVPN**

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

http://www.cisco.com/c/en/us/td/docs/os-xml/ios/sec conn dmypn/configuration/15-mt/sec-conn-dmypn-15-mt-book/sec-conn-dmypn-per-tunnel-gos.html

#### **Sequence/Sort dial Peers**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/vcr4/vcr4-cr-book/vcr-s7.html

# SIP Profile to Provide Tag, Sequence Number, and Modification of Unsupported SIP Header

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-param-mod.html

# **SSH Algorithms for Common Criteria Certification**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\_usr\_ssh/configuration/15-mt/sec-usr-ssh-15-mt-book/sec-secure-shell-algorithm-ccc.html

#### **SSL VPN MIB**

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec conn sslvpn/configuration/15-mt/sec-conn-sslvpn-15-mt-book/sec-conn-sslvpn-ssl-vpn.html

# TrustSec SGT Caching

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec usr cts/configuration/15-mt/sec-usr-cts-15-mt-book/cts-sgt-cache.html

# TrustSec SGT Caching Support for ISR-G2

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec usr cts/configuration/15-mt/sec-usr-cts-15-mt-book/cts-sgt-cache.html

#### X.509v3 Certificates for SSH Authentication

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

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec usr ssh/configuration/15-mt/sec-usr-ssh-15-mt-book/sec-secure-shell-auth-digi-certificate.html

# **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:

http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

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:

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

# **Important Notes**

The following sections contain important notes about Cisco IOS Release 15.5M&T:

# **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 <a href="http://www.cisco.com/en/US/support/tsd">http://www.cisco.com/en/US/support/tsd</a> products field notice summary.html
- Bulletins—You can find bulletins at http://www.cisco.com/c/en/us/products/ios-nx-os-software/ios-software-releases-listing.html

# Logging into the Embedded AP and Etherswitch Modules

Starting from Cisco IOS Release 15.5(03)M06, you must configure the **transport input all** command under line configuration mode to log in to the embedded AP and Etherswitch modules.

Logging into the Embedded AP and Etherswitch Modules