



Wireless Enhancements for Integrated Services Routers

Cisco IOS Release 12.4(15)T introduces the following wireless features for the Cisco 800, 1800, 2800, and 3800 series integrated services routers:

- Access Point Link Role Flexibility
- Advanced Encryption Standard (AES) - CCMP
- Broadcast Key Rotation
- IEEE 802.1x Authenticator
- IEEE 802.1x Local Authentication for EAP - FAST
- Microsoft WPS IE SSIDL
- Multiple Basic Service Set ID (BSSID)
- NAC - L2 IEEE 802.1x
- Universal Client Mode
- VLAN Assignment by Name
- Wi-Fi Multimedia (WMM) Required Elements
- Wireless Non-Root Bridge

See the “Cisco IOS Wireless LAN Features Roadmap” module in the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, for information about which release trains support these wireless features.

Configuration Information

Configuration information for the Advanced Encryption Standard (AES) - CCMP and Broadcast Key Rotation features is included in the “Securing a Wireless LAN” module of the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tcd/twlr_c/index.htm



Americas Headquarters:

Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

© 2007 Cisco Systems, Inc. All rights reserved.

Configuration information for the Access Point Link Role Flexibility, Universal Client Mode, and Wireless Non-Root Bridge features is included in the “Configuring Radio Settings on an Access Point” module of the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tgc/twlr_c/index.htm

Configuration information for the IEEE 802.1x Authenticator feature is included in the “Configuring IEEE 802.1x Port-Based Authentication” feature guide at the following URL:

http://www.cisco.com/en/US/docs/ios/12_4t/12_4t11/ht_8021x.html

Configuration information for the IEEE 802.1x Local Authentication for EAP-FAST feature is included in the “Configuring Authentication Types” module of the *Cisco Wireless ISR and HWIC Access Point Configuration Guide* at the following URL:

http://cisco.com/en/US/products/ps5853/products_configuration_guide_chapter09186a008067eaf6.html

Configuration information for the Multiple Basic Service Set ID (BSSID) and Microsoft WPS IE SSIDL features is included in the “Configuring Multiple Basic Service Set Identifiers (BSSID)” module of the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tgc/twlr_c/index.htm

Configuration information for the NAC - L2 IEEE 802.1x and VLAN Assignment by Name features is included in the “Configuring Wireless VLANs” module of the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tgc/twlr_c/index.htm

Configuration information for the Wi-Fi Multimedia (WMM) Required Elements feature is included in the “Implementing Quality of Service in a Wireless LAN” module of the *Cisco IOS Wireless LAN Configuration Guide*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tgc/twlr_c/index.htm

For a complete list of features included in each configuration module, see the Feature Information table located toward the end of each module.

Command Reference Information

Release 12.4(15)T

The following commands are new or modified for these features:

- **distance**
- **dot11 mbssid**
- **dot11 qos class**
- **dot11 qos mode wmm**
- **dot11 ssid**
- **dot11 vlan-name**
- **information-element ssid**
- **mbssid**
- **show dot11 vlan-name**
- **station-role**

Detailed information about these commands is included in the *Cisco IOS Wireless LAN Command Reference*, Release 12.4T, at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124tcr/twlr_r/index.htm

Master Commands Lists

Cisco IOS master commands lists provide an alphabetical list of all Cisco IOS commands in a Cisco IOS release.

Cisco IOS new, modified, removed, and replaced commands lists provide an alphabetized list of all new, modified, removed, and replaced commands in a Cisco IOS release.

List of All Release 12.4T Commands

An alphabetical list of all Cisco IOS Release 12.4T commands is in the *Cisco IOS Master Commands List*, Release 12.4T, at the following URL:

- http://www.cisco.com/en/US/docs/ios/mcl/124tmcl/124t_book.html

List of All New, Modified, Removed, and Replaced Release 12.4T Commands

Alphabetized lists of all new, modified, removed, and replaced commands for each Cisco IOS Release 12.4T release are in the *Cisco IOS New, Modified, Removed, and Replaced Commands*, Release 12.4T, document at the following URL:

- https://www.cisco.com/en/US/docs/ios/mcl/124tmcl/124t_nml.html

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0711R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© 2007 Cisco Systems, Inc. All rights reserved.

