Release Notes for Linksys WCM300 Cable Modem Software, Version 1.1

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This information is in the release notes:

Introduction

The Linksys WCM300-NA (for DOCSIS), WCM300-EURO (for EuroDOCSIS), and WCM300-JP (for J-DOCSIS) wideband cable modems support the acquisition of up to three wideband (bonded) channels:

- One primary bonded channel
- Two secondary bonded channels

For each wideband channel, the Linksys WCM300 wideband cable modem supports the reception of one or more bonded RF channels. The Linksys WCM300 software supports the receiving of a 50 MHz capture window of up to eight downstream channels at 6 MHz per channel or six downstream channels at 8 MHz per channel. The total of the RF channels in the primary and secondary bonded channels must comply with the 50 MHz capture-window limitation.

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For wideband, the Linksys WCM300 also supports reception of one primary downstream channel (traditional DOCSIS channel from the uBR10-MC5X20 line card) for MAC management and signaling messages, and uses the associated traditional DOCSIS upstream channel for return data traffic and signaling. The upstream channel works as it does in DOCSIS 2.0 cable modems.

System Requirements

Table 1 lists the Linksys WCM300 software, Version 1.1, to which these release notes apply.

Table 1 Linksys WCM300 Software, Version 1.1

Software Image	Description
wcm300eu-mzs.1.1.img	Signed code file for EuroDOCSIS
wcm300jp-mzs.1.1.img	Signed code file for Japan
wcm300na-mzs.1.1.img	Signed code file for North American DOCSIS

For the reception of wideband (bonded) channels, the Linksys WCM300 modem requires that the cable modem termination system (CMTS) is the Cisco uBR10012 router. The Cisco uBR10012 CMTS must have certain components installed, such as the Cisco 1-Gbps Wideband SPA (Shared Port Adapter), Cisco Wideband SIP (SPA Interface Processor), and other associated modular CMTS components. For the complete CMTS component set that is required for the reception of bonded channels on the Linksys WCM300 modem, see the *Cisco Cable Wideband Solution Design and Implementation Guide, Release 1.0*.

The Linksys WCM300 modem is also compatible with DOCSIS 2.0 and will operate in that mode if the modem is connected to a non-wideband Cisco CMTS or to a non-Cisco CMTS. The modem is also backward compatible with existing DOCSIS 1.X networks. The Cisco uBR10012 router is *not required* as the CMTS for DOCSIS 1.X/2.0 operation.

Limitations and Restrictions

The Linksys WCM300-NA, WCM300-EURO, and WCM300-JP wideband cable modems can receive a wideband channel consisting of up to eight downstream RF channels at 6 MHz per channel, or up to six downstream RF channels at 8 MHz per channel. The modem requires that the channels be received in a 50 MHz capture window.

Open Caveats

Table 2 lists the open caveats of severity 1, 2, and 3 for Linksys WCM300 software, Version 1.1.

Table 2 Open Caveats in Version 1.1

DDTS ID Number	Description
CSCsi35238	ccmwbRFChannelDownPower (CISCO-CABLE-MODEM-WIDEBAND-MIB object), which reports power on wideband channels, shows power that is ten times greater than actual power. Workaround: Divide power reported by ten.
CSCsi85360	SysDescr (SNMPv2-MIB object) does not report appropriate model number/SKU for the WCM300 modem. Workaround: None
CSCsj87189	In the Linksys Web User Interface, the StatusLog.htm page does not reload in the Netscape browser when the Reload button is clicked. Workaround: None
CSCsj97839	The CMTS does not allow the Linksys WCM300 to come wideband online if the total number of channels provisioned for the modem in the primary and secondary bonding groups exceeds eight because channels overlap between the groups. Workaround: Overlapping channels can be used, but the total number of channels provisioned for a WCM300 must not exceed eight.
CSCsi00494	Linksys WCM300-JP modem running the J-DOCSIS software image does not operate in the extended downstream region 70 to 88 Mhz. Workaround: None
CSCse36644	The Linksys WCM300 fails to complete a sweeping ping of the CPE device when the CPE uses a Gigabit Ethernet interface that does not support Pause flow control. This is a known design limitation. The upstream buffering for the CPE interface is only 8KB. The TCP slow start mechanism ensures that data is sent at a low rate when sending from a higher speed network into a slower speed mechanism. Due to the slow upstream rates, a single TCP client can be expected to send only a single MTU at a time. Therefore, the 8KB buffer limit should only be exposed if six or more clients happen to be sending MTU-sized packets simultaneously. Statistically, many more than six clients would have to be sending in order to have their MTU-sized packets line up. When the 8KB buffer limit is hit, packets will be dropped resulting in retransmission. Workaround: Use a CPE Gigabit Ethernet interface that supports Pause flow-control, or if bandwidth requirements permit, use a Fast Ethernet CPE interface instead of a Gigabit Ethernet interface.
CSCsh29521	When the Linksys WCM300 sees two identical secondary bonding group configurations from two different CMTS routers, it is possible that the WCM300 modem will lock on to a primary bonded channel from one CMTS and secondary bonding channels from the other CMTS. Currently, there is no mechanism defined for the WCM300 modem to detect when a bonding group is coming from a different CMTS. Workaround: None

Resolved Caveats

Table 3 lists the caveats that have been resolved for Linksys WCM300 software, Version 1.1.

Table 3 Resolved Caveats in Version 1.1

DDTS ID Number	Description
CSCsi54213	When ifAdminStatus (IF-MIB object) is set to the down state for one index, all indexes are shown as down.
CSCsi55708	ifSpeed (IF-MIB object) for the CPE interface shows 100 Mbps when actual speed is 1000 Mbps.
CSCsj97022	Linksys Web User Interface needs to be implemented on WCM300 modem.
CSCsj77153	ccmwbBundleBSID (CISCO-CABLE-MODEM-WIDEBAND-MIB object) does not correctly display wideband channel IDs.

Related Documentation

Refer to the following documents for additional information about the Linksys WCM300 modem and the Cisco Cable Wideband Solution:

- *Cisco Cable Wideband Solution Design and Implementation Guide, Release 1.0*

  http://www.cisco.com/univercd/cc/td/doc/product/cable/ubr10k/ubr10012/wbsolu/index.htm
- *Cisco uBR10012 Universal Broadband Router SIP and SPA Software Configuration Guide*

  http://www.cisco.com/univercd/cc/td/doc/product/cable/ubr10k/ubr10012/sipspa/swsipspa/index.htm
- *Cisco uBR7200 Series Routers and Cisco uBR10012 Universal Broadband Router Documentation Roadmap*

  http://www.cisco.com/en/US/partner/products/hw/cable/ps2209/products_documentation_roadmap09186a0080733a04.html

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

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

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This document is to be used in conjunction with the documents listed in the "Related Documentation" section.