



C4c™ CMTS

System Release 7.4



Features

- eXtended Downstream Cable Access Module (XD CAM)
 - Higher density CAM for more downstream channels per C4c CMTS and per service group
- DOCSIS® 3.0 Multicast IP Video Support
 - Control and management of multicast IP video services
- DOCSIS 3.0 Channel Bonding
 - Up to eight bonded downstream channels
 - Up to four bonded upstream channels with encryption
- Routing Feature Additions
 - Policy Based Routing
 - IPv6 Support Phase 3
- Operational Enhancements
 - Load Balancing Enhancements
 - Additional Upstream Classifier Capability

The ARRIS C4c™ CMTS Release 7.4 is a compact DOCSIS® 3.0 CMTS based on the proven hardware and software of the larger C4® CMTS solution. It allows an operator to cost-effectively deploy DOCSIS, PacketCable™, DSG/ADSG, and PacketCable Multimedia (PCMM™) services in small-to-medium size headends where space and power are often limited. The ARRIS C4c CMTS supports DOCSIS 1.1/2.0/3.0 and PacketCable features, providing operators with a large array of Quality of Service capabilities to deploy revenue-generating services.

C4c Release 7.4 feature additions include the introduction of an eXtended Downstream Cable Access Module (XD CAM) that supports up to 24 Annex A or 32 Annex B downstream channels, DOCSIS 3.0 Multicast IP video support, Policy Based Routing, additional IPv6 support (Phase 3), load balancing enhancements, and additional upstream classifier capability. As in previous releases, C4c Release 7.4 supports DOCSIS 3.0 channel bonding (up to eight bonded downstream channels and up to four bonded upstream channels with BPI/BPI+ encryption). All of these features are supported with independent scaling of upstream and downstream channels using dedicated downstream (16D and XD) and upstream (12U) CAMs.

The C4c CMTS is a 7 rack unit, 8-slot chassis with a mid-plane based architecture designed for continuous system operation. This unique architecture allows the C4c CMTS to provide integrated Layer 3 edge routing and advanced CMTS functionality combined in a single chassis. Six types of modules are available:

- System Control Module (SCM)
- Router Control Module (RCM)
- XD Cable Access Module (XD CAM)
- 16D Cable Access Module (16D CAM)
- 12U Cable Access Module (12U CAM)
- 2Dx12U Cable Access Module (2Dx12U CAM)

eXtended Downstream Cable Access Module (XD CAM)

The XD CAM operates with up to 24 Annex A or 32 Annex B downstream channels. Cable operators can now deploy more downstream channels per C4c CMTS and more downstream channels per service group. New XD CAMs can be installed in a C4c CMTS chassis using the same active Physical Interface Card (PIC) used for the 16D CAM, and cable operators have the option to upgrade deployed 16D CAMs to XD CAMs. An operator can upgrade a C4c chassis to XD CAMs and double the number of downstreams per service group without any wiring changes.

DOCSIS 3.0 Multicast IP Video

Features are included in this release to assist operators in meeting the IP video demands of their subscribers. The C4c CMTS Release 7.4 multicast IP video support utilizes IGMPv3 for control of IPv4 multicast video, Dynamic Bonding Change (DBC) signaling, Multicast DSID Forwarding (MDF) multicast, and dedicated RF channel assignment. This feature also includes management enhancements for monitoring multicast video flows.

Routing Feature Additions

Policy Based Routing is provided which enables IPv4 packet forwarding based on criteria other than destination IP address. These criteria are defined by the operator using route maps and include source address, application, protocol type, and Type of Service (ToS).

Additional IPv6 routing features are provided for operators transitioning their networks to IPv6 addressing. IPv6 Support Phase 3 is comprised of several IPv6-related features, including upstream subscriber management filters, cable source verify with lease query, bulk lease query, route injection for DHCPv6 prefix delegation, OSPFv3, support for IPv6 CPE behind "DOCSIS 2.0+IPv6" compliant cable modems, duplicate address detection (DAD) proxy, IPv6 lawful intercept support, and IPv6 protocol throttling.

Operational Enhancements

Two enhancements are provided for better load balancing of cable modems between downstream channels and between upstream channels. Dynamic load balancing can now occur across MAC domain boundaries, and this is not dependent on whether the separate MAC domains are within the same CAM or different CAMs. The cable modem move command is no longer limited to within one C4c CMTS and can move modems to a different CMTS.

The number of upstream classifiers per cable modem MAC address is increased to facilitate Multiple Grants per Interval (MGPI) applications.

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Find more information about the C4 CMTS and C4c CMTS and other ARRIS products at www.arris.com.

Customer Care

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