



C4c™ CMTS

System Release 8.0



New Features

- New 24U Cable Access Module (CAM)
 - 24 DOCSIS 3.0 upstream receivers with 8 F connectors per 24U CAM
 - Same Physical Interface Card (PIC) as 12U CAM for easy upgrade path
- IS-IS Multi-Topology (MT) Support
 - Includes MT #0 (IPv4 unicast) and MT #2 (IPv6 unicast) per RFC 5120
 - Facilitates migration to IPv6 while concurrently using IS-IS to route IPv4
- IPv6 Support for TFTP Enforce and Dynamic Shared Secret
- Multicast CAC for IP Video (Phase 1)
- FQDN Support for Static IGMP Joins
- Enhanced Control-Plane Overload Monitoring

The ARRIS C4c™ CMTS is a compact DOCSIS® 3.0 platform 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.

With Release 8.0, ARRIS is introducing a new, double-density upstream module—the 24U Cable Access Module (24U CAM). This new module provides 24 DOCSIS 3.0 upstream receivers capable of supporting any of the modulations defined in DOCSIS 3.0 as well as DOCSIS 3.0 channel bonding. The 24U CAM supports 8 physical F connectors and uses the same Physical Interface Card (PIC) as the existing 12U CAM, enabling easy migration from the 12U CAM to the 24U CAM, preventing the need for re-cabling.

In addition to the 24U CAM, Release 8.0 includes several new features, including IS-IS Multi-Topology (MT) support; TFTP Enforce and Dynamic Shared Secret for IPv6-addressed cable modems; the use of a fully qualified domain name (FQDN) when defining static multicast joins; a first phase of support for Multicast Connection Admission Control (CAC); and an enhanced interface for monitoring the C4c CMTS control-plane overload status. As in previous releases, Release 8.0 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 at maximum subscriber density, and with independent configuration of upstream and downstream channels using dedicated upstream (12U and 24U) and downstream (16D and XD) CAMs. The C4c CMTS is often selected by operators desiring a compact, dense, and stable solution for deployments of DOCSIS 3.0-based services.

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The ARRIS C4c CMTS features an 8 slot chassis at 7 RU with a mid-plane-based architecture. Active modules insert through the front of the chassis, and physical interface cards (PICs) – which host network connections such as RF cables – insert through the rear. Six types of modules are supported:

- System Control Module (SCM), including support for the SCM II, SCM II EM, and SCM II EM(U)
- Router Control Module (RCM)
- Downstream and Upstream Cable Access Modules (CAMs) — 16D CAM, XD CAM, 12U CAM, 24U CAM

A 2Dx12U CAM must be configured as a 12U CAM with C4c CMTS Release 8.0 (2Dx12U CAM not supported).

24U CAM (24 DOCSIS 3.0 Upstream Receivers)

The 24U CAM is a new design using the latest DOCSIS 3.0 PHY and MAC silicon and enhanced ARRIS FPGAs for high performance. The 24U CAM provides 24 DOCSIS 3.0 upstream receivers shared across the eight available F connectors. The Physical Interface Card (PIC) is the same as used with the 12U CAM, so customers can deploy the 24U CAM with minimal cabling changes.

IS-IS Multi-Topology (MT) Support

IS-IS Multi-Topology supports two independent topologies (IPv4 unicast and IPv6 unicast as described in RFC 5120) for IS-IS routing and is particularly useful when IS-IS is being used for both IPv4 and IPv6 routing.

IPv6 Support for TFTP Enforce and Dynamic Shared Secret

These cable modem configuration file security mechanisms provided by the C4c CMTS for IPv4-addressed cable modems have been extended to provide the same security for cable modems with IPv6 management addresses.

Fully Qualified Domain Name (FQDN) Support for Static IGMP Joins

The FQDN for Static IGMP Joins feature allows the CMTS to accept an FQDN as the IP multicast source address for statically provisioned IGMP configurations. The CMTS will resolve the FQDN via DNS and re-initiate IGMP joins as needed.

Multicast CAC for IP Video (Phase 1)

The Multicast CAC (Phase 1) feature extends the existing voice-oriented Connection Admission Control function to multicast service flows (intended for IP Video applications).

Enhanced Control-Plane Overload Monitoring

The Enhanced Control-Plane Overload Monitoring feature provides a new SNMP MIB for monitoring the overload status of the C4c control plane, including a new trap for overload indication, at both the module and system levels.

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

Customer Care

Contact Customer Care for product information and sales

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