



C4[®] CMTS

System Release 7.3



Features

- Extended DOCSIS[®] 3.0 Downstream Channel Bonding, bonding up to eight downstream channels
- Layer 2 VPN per CableLabs[®] Business Services over DOCSIS (BSoD) specification
- IPv6 Support – Dual Stack CPE, IS-IS Routing, Downstream Subscriber Management Filters, and others
- Rule-based Cable Modem Steering
- Integrated Upstream Agility
- BPI+ Enforce
- DOCSIS 3.0 IPDR Schemas – SAMIS Type I and CPE Records
- Device Classes
- Same software image for both C4 CMTS and C4c[™] CMTS

With the delivery of Release 7.3, ARRIS continues to expand the advantages provided by its industry-leading DOCSIS[®] 3.0 C4 CMTS. Release 7.3 incorporates another set of major feature additions which increase profitability and operational efficiency for cable operators. The C4 CMTS allows an operator to cost-effectively deploy DOCSIS, PacketCable[™], DSG/ADSG, and PacketCable Multimedia (PCMM) services. Its 99.999% system availability, unsurpassed in the industry, increases subscriber satisfaction and retention via a self-healing design that maintains system services without interruption. Release 7.3 feature additions include eight downstream channel bonding (increased from four channels in Rel. 7.2), BPI+ encryption for upstream channel bonding, Business Services over DOCSIS (BSoD) L2 VPN, additional IPv6 features, Integrated Upstream Agility, and Device Classes. All of these features are supported with high availability, at maximum subscriber density, and with independent configuration of upstream and downstream channels using dedicated downstream (16D) and upstream (12U) Cable Access Modules (CAMs). The C4 CMTS is often selected by operators desiring a highly available, highly dense, and highly stable solution for large-scale deployments of converged services.

The ARRIS C4 CMTS utilizes a 21 slot chassis with a mid-plane based architecture designed for continuous system operation. This unique architecture allows the C4 CMTS to provide carrier-grade integrated Layer 3 edge routing, RF sparing, and advanced CMTS functionality combined in a single chassis. Five types of modules are available:

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

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Eight Downstream Channel Bonding

The C4 CMTS is capable of bonding up to eight downstream channels compliant with the DOCSIS 3.0 specifications. These channels are not required to be contiguous in spectrum.

CableLabs Business Services over DOCSIS L2 VPN

Per the BSoD specification, the C4 CMTS provides a Layer 2 VPN capability. This functionality operates with a point-to-point architecture, creating a Layer 2 tunnel through the C4 CMTS. Layer 2 switching and MAC learning are performed on the northbound device. Modems compatible with the CableLabs BSoD specification are required.

Integrated Upstream Agility

Each upstream channel on the C4 CMTS can be configured for automatic adjustment of three parameters: center frequency, channel width, and modulation profile. Changes to these settings are executed by the C4 CMTS based on thresholds of signal to noise ratio or uncorrected FEC codeword errors.

Additional IPv6 Feature Support

The C4 CMTS Release 7.3 provides a number of IPv6 features including dual stack CPE (devices behind cable modems), IS-IS routing, high-scale forwarding of IPv6 traffic, downstream subscriber management filters, standard data-plane ACLs, and DHCPv6 Relay Agent. In general, these features are intended for customer lab evaluation and limited-scale field trial.

BPI+ Enforce

BPI+ Enforce requires all cable modems to successfully initialize BPI+ encryption. The C4 CMTS allows a general mode of operation which requires initialization of BPI or BPI+; it also supports a more strict approach which only accepts BPI+. Any modem which does not successfully initialize BPI+ will have its CPE ports (Ethernet ports) disabled by the C4 CMTS.

Rule-Based Cable Modem Steering

The C4 CMTS provides a software setting for DOCSIS 3.0 modems and a similar separate flag for DOCSIS 2.0 modems. Enabling these flags serves to direct the C4 CMTS to steer the appropriate modem type to an ATDMA channel if any is available. The modem configuration files do not have to be modified to work with rule-based CM steering.

Device Classes

Release 7.3 allows independent DHCP Relay Agent configuration based upon three available classes of subscriber device: MTA, STB, and CableHome Portal Server (PS).

Unified C4 CMTS and C4c CMTS Software Image

Release 7.3 operates with both currently available ARRIS CMTS chassis, the C4 CMTS and the C4c CMTS.

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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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