

C9 Networks

C600/C800/C900 Series

DOCSIS 1.0 CMTS (Cable Modem Terminating System)



C9 Networks provides a highly integrated, low maintenance & high performance Cable Modem Termination System (CMTS) at the lowest prices in the industry. This solution is available in a 2U rackmount chassis:

- CMTS with 1 Down Stream & 1 Up Stream channels
- CMTS servers like DHCP, TFTP & ToD.
- Web server for local & remote Configuration and Management
- Subscriber service activation and de-activation

All the components required for providing data on cable except upconverter are integrated into one single box. This system with the highest performance for the lowest cost is an ideal solution for small MSO's, and in MTU/MDU applications. This system is software upgradeable to DOCSIS 1.1.

Applications of the C600/C800/C900 Series:

The C600/C800/C900 CMTS is a compact solution for small MSO, smaller distribution hub, Multi-Tenant Units (MTU/MDU) or hospitality business. This solution enables the operator to provide Cable TV and data on the existing cable infrastructure. In the case of the MTU it eliminates the need to rewire the building with Cat5 for data service. In future this can also enable IP multicast based video on cable.

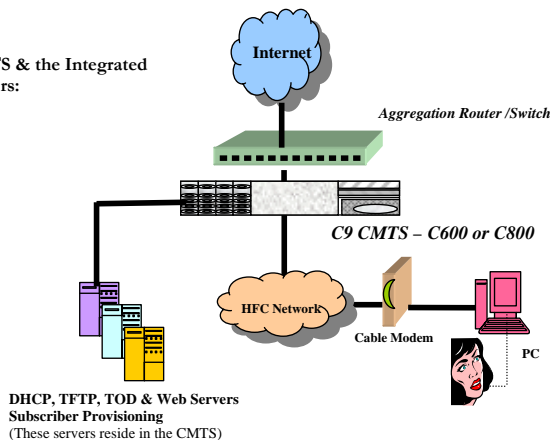
This purpose built CMTS enables the small MSO or the MTU/MDU operator to cost effectively roll out a complete solution at the flip of a switch. This system needs an external upconverter. Apart from this all the components required for the operation are integrated into a single box providing a cost-effective solution with a low cost of deployment, almost no integration cost and quick generation of revenues. C800 is the most cost effective CMTS solution in the market.

Included in C600/C800/C900 Series:

The core components of the C600/C800/C900 system are:

- DOCSIS CMTS: This supports one 1DS and 2 US channels.
- CMTS Servers: All the servers specified in the DOCSIS standard for CMTS operation are integrated into the CMTS. Typically the competition ships it as a separate box for an additional cost.
- Subscriber Provisioning: Subscriber service activation and deactivation enables operator to choose the users/modems that can obtain data service in the network. Shipped along with CMTS (no extra cost)

CMTS & the Integrated Servers:



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Specifications:

	Description
Physical	Form Factor 2U rack-mount chassis.
	Height
	Width 19 in
	Depth 16 in
	Weight -
	Rack Mounting Yes
Power consumption	<ul style="list-style-type: none"> • 100 Watts
Network & Interfaces	<ul style="list-style-type: none"> • Layer2 Bridge • Fast Ethernet uplink
RF Spectrum Support	<p><u>Downstream Parameters</u></p> <ul style="list-style-type: none"> • 1 Downstream Port • Downstream modulation 256QAM and 64QAM • Downstream per channel bit rate 38Mbps and 27 Mbps • Downstream IF signal: 44MHz at 32.5dbmV (+/- 2dbmV) <p><u>Upstream Parameters</u></p> <ul style="list-style-type: none"> • 1 Upstream port for C600 • 2 Upstream ports for C800 • Upstream Modulation 16QAM and QPSK (various symbol rates supported) • Upstream per channel bit rate 10 Mbps • Upstream signal level: -11dbmV
Upconverter	<ul style="list-style-type: none"> • Internal Upconverter (manually programmable) • Frequency range: 80 to 750MHz • Power level: 50dbmV
DOCSIS Support	<ul style="list-style-type: none"> • DOCSIS 1.0 • DOCSIS 1.1 software upgradeable • Euro-DOCSIS support • Inter-operates with all DOCSIS modems
User interface	<ul style="list-style-type: none"> • CLI and Web based interface; Telnet, SNMP • Remote monitoring and configuration
Network Management & Provisioning	<ul style="list-style-type: none"> • SNMPv1 and v3 • IETF MIBS • DOCSIS 1.0 MIBs • Web based network monitoring of CMTS, Cable Modems, Subscribers • Tools to monitor RF levels of CM and CMTS • Tools to display the MAC and IP address of CM and CPE's. • Cable Modem (CM) power levels at the CM and at the CMTS
CMTS Servers	<ul style="list-style-type: none"> • Servers: DHCP, TOD, TFTP, FTP, Telnet & Web Server • DHCP Relay
Subscriber Provisioning	<ul style="list-style-type: none"> • Subscriber Provisioning Manager: Service activation/de-activation and IP address assignment/management. • Included in the same chassis as CMTS
RF Network Monitoring tools	<ul style="list-style-type: none"> • Web based network monitoring of CMTS, Cable Modems, Subscribers • Cable Modem (CM) power levels at the CM and at the CMTS
QoS	<ul style="list-style-type: none"> • Bandwidth Rate control to manage bandwidth huggers • Multiple levels of service with configurable Upstream and Downstream bandwidths per subscriber

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Specifications (continued)

Security Features (We place high importance to security of the system and our customers)

Password and ACL based security	<ul style="list-style-type: none"> • Password protection to access CMTS through Web Interface, Telnet, FTP and SNMP • Access Lists Control (ACL): Enable only authorized users from accessing the CMTS. • Hacker proof TFTP server
Configurable HTTP Port	<ul style="list-style-type: none"> • Configure HTTP to any port number desired. • Protects system from routine hacking on well-known port 80.
Static IP blocker	<ul style="list-style-type: none"> • Disable users who abuse IP addresses or use unauthorized IP addresses. • Helps track undesirable and malicious users.
Monitor CM and PC users	<ul style="list-style-type: none"> • Monitor MAC address and IP address of CM's and PC's at the same time, to monitor network users.
Private subnet for Cable Modems	<ul style="list-style-type: none"> • Separate subnet for Cable Modems • Disable users from accessing the Cable modems (CMs) or messing with the CM configuration or bandwidth rates allocated to CMs.

Other Features

DHCP & support for multiple subnets	<ul style="list-style-type: none"> • Easy to configure DHCP server • Support multiple subnets both routable and private at the same time • Separate private subnet for Cable Modems
Monitor DHCP lease history	<ul style="list-style-type: none"> • Monitor all the DHCP lease users
DHCP Relay Support	<ul style="list-style-type: none"> • Support for customers management servers.

Models	Configuration	Modem Capacity	Bandwidth(DS)	Bandwidth(US)	Notes
C600	1DSx1US	200 to 250 CMs	40Mbps	10Mbps	2U Chassis
C800	1DSx2US	400 to 500 CMs	40Mbps	20Mbps	2U Chassis
C900	1DSx4US	750 to 800 CMs	40Mbps	40Mbps	2U Chassis