DOXcontroller™ CMTS

Powering the Next Generation of Cable

COM21™

The DOCSIS 1.1 specification heralds the delivery of multicasting and telephony services over standards-based cable networks.

This development means more flexibility in creating high-value data services for customers, while simplifying operations on the back end. Opportunity abounds, and the Com21® DOXcontroller™ Cable Modem Termination System (CMTS) is the key to realizing it.

Real-World Experience

At Com21, we have shipped over a quarter of a million cable modems, and we have developed and supported systems that handle thousands of cable modem subscribers. What's more, we have demonstrated expertise by shipping systems that provide cable telephony and next generation tiered services. These are features that cable operators are expecting in the new DOCSIS 1.1 specification. Bringing all of this experience to bear on the design of the DOXcontroller CMTS, we have created a solution that addresses the real-world issues you will face when you deploy DOCSIS 1.1 services.

The Future Looks Like Our Past

The DOXcontroller CMTS meets the performance and latency requirements necessary to support voice-over-cable and tiered services, giving cable operators the most intelligent and easy-to-use solution for delivering media-rich broadband content. Simply put, the DOXcontroller CMTS delivers the promise of the DOCSIS 1.1 specification and the full potential of cable broadband.

Real-World Results

The DOXcontroller CMTS was built from the ground up to address DOCSIS 1.1 requirements. Our next-generation technology provides one downstream channel and options of up to eight upstream channels with load-balancing capability, and has the horsepower to handle up to 4,000 cable modems. The DOXcontroller CMTS supports advanced QoS-based services such as voice, multimedia streaming, and guaranteed bandwidth delivery. Every aspect of the design of the DOXcontroller CMTS draws on our experience and innovations — with the DOXcontroller CMTS, you will experience superior performance and ease-of-use.

DOXcontroller CMTS Advantages

Built to Address Cable-Specific Networking

- Enhanced security ensuring that communications are kept private and that cable plant security and service are not compromised through Baseline Privacy Interface Plus (BPI+).

- Provides better system performance with intelligent broadcast packet shaping. The DOXcontroller CMTS offers broadcast traffic shaping which allocates separate priorities to ARP and DHCP packets.

- Protects users against outside hacker attacks with advanced ARP authentication and DHCP snooping.

- Improves plant operations and maintenance by providing additional diagnostic tools.

Performance and Flexibility

With hardware-assisted MAC-layer processing and multi-processor distributed architecture for enhanced performance, the DOXcontroller CMTS can power the most demanding cable applications. Software-upgradeable for enhanced flexibility, the DOXcontroller CMTS operates as an intelligent layer 2 CMTS, providing the scalability for you to build the broadband network that best serves your needs. To further enhance your network flexibility, the DOXcontroller CMTS eliminates leakage of traffic between subscribers by blocking layer 2 traffic forwarding, preventing neighbors from seeing each other's traffic or being able to access each other's PCs.

Ease of Use

Cable modem deployments are in their infancy, with significant growth looming. Cable operators need a system that provides them with expandability along with ease of management. The DOXcontroller CMTS lets you easily add to CMTS capacity to incrementally expand without requiring rearrangement of IP topologies and IP addresses. This is especially important in cable networks using static IP addressing since it avoids the time-consuming and labor-intensive process of renumbering IP addresses. With the ability to control up to 4,000 DOCSIS cable modems, the DOXcontroller CMTS provides the kind of capacity you need to accommodate system growth.

In addition to embedded Web management and Command Line Interface for individual DOXcontroller CMTS units, Com21 provides a higher level of system management with our optional software module, DOXmanager™. Created by the team behind the highly successful NMAPS network management system, the DOXmanager option is a flexible solution for system management and provisioning, providing control for DOCSIS 1.0 and 1.1 CMTS systems and cable modems.

The DOXmanager option is flexible to fit your specific needs. Offering system status views and current, historical, and summary statistics, DOXmanager software provides superior RF management diagnostic tools that let you analyze and troubleshoot systems. To further enhance ease-of-use, user-configurable templates let you apply system-wide management of cable modems.

To learn more about the DOXcontroller CMTS and other Com21 cable modem solutions, visit www.com21.com or call us at 1.408.953.9100.

COM21™

Imagine the Internet without the wait.™

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