Converged Solutions Platform: A clear path to unified services.

- Converged Solution
- HIGH DENSITY EDGE QAM
- ETHERNET PASSIVE OPTICAL NETWORK (EPON)
- CABLE MODEM TERMINATION SYSTEM (CMTS)
The pressure on multiple system operators (MSOs) is mounting. Data rates are doubling and average per-user revenues are stagnating. On the subscriber side, there is an insatiable demand for more quadrature amplitude modules (QAMs) to power residential video on demand (VOD), switched digital video (SD-video), high-revenue commercial DOCSIS® data services and more tiered packages. This growth in narrowcast services creates increased node splits within the network, placing more pressure on MSOs to deploy QAM capacity where and when the need arises.

Operationally, the need to minimize costs, especially at the headend, has never been greater. Power and cooling costs, and the rising cost of available rack space, continue to eat into already thin margins.

“Cable operators that continue to aggressively win the battle for broadband subscribers face a very real challenge: how to deliver an increasing number of services and content more efficiently and effectively across their HFC networks.”

Source: Communications Technology, April 2011
Experience the true value of a converged cable access platform

A full-functioning converged cable access platform (CCAP) is widely recognized as one of the next significant steps forward at the headend. CCAP will eventually combine the functions of high-density Edge QAM, Ethernet passive optical network (EPON) capabilities and the cable modem termination system (CMTS) into a single chassis. The streamlined design is expected to save MSOs an estimated 50 percent in rack space and 60 percent in power costs.

The CCAP model also provides for video and DOCSIS QAMs to be housed in the same chassis and delivered over a media-agnostic network. The QAMs can be configured and deployed via a software interface, enabling operators to allocate data and video resources as needed.

There are various paths that lead to a CCAP solution. CommScope believes the best path is dictated by your current needs and evolves with your network as it develops.

The logical path to CCAP

Various paths lead to a complete CCAP solution. The best path is dictated by your current needs and evolves with your network as it develops.

Introducing the CommScope Converged Solutions Platform (CSP).
Converged Services Platform from CommScope is the logical evolution to a CCAP solution

CommScope CSP provides a logical path to a comprehensive CCAP solution. The CSP is being developed and deployed in three phases that are designed to support your headend/hub development precisely when and how you need.

Phase 1: Satisfy the demand for more QAMs immediately

You need more QAM capacity and you need it now. So instead of another CMTS, the CommScope CSP begins with our ultra-high-density wideband, universal Edge QAM (EQAM)—the industry’s first universal carrier-grade EQAM solution. It enables you to add as many as 28,160 QAM channels, which can be configured for any combination of DOCSIS, broadcast video, SD-video or VOD.

True wideband flexibility allows you to assign QAMs at any frequency across the entire 1 GHz RF spectrum using CommScope’s LiquidQAM® application-specific integrated circuit (ASIC). The CommScope CSP eliminates expensive block conversion and operates at a low 0.5-watt per QAM*.

So you reduce cooling as well as power expenses. Designed with N+1 redundancy, it provides a powerful, fully redundant carrier-class platform.

A Logical Path to a Comprehensive CCAP Solution

Satisfy needs immediately

Reduce cooling and power expenses

283% SAVINGS

APPROXIMATE REDUCTION IN POWER REQUIREMENTS FOR COMMSCOPE’S UNIVERSAL EQAM TECHNOLOGY.

*Based on a fully loaded chassis with 160 QAMs per port
Phase 2: Monetize commercial IP services with integrated optical networking

In phase two, the CommScope CSP integrates support for native Internet Protocol (IP) services, helping you generate increased revenue from the quickly expanding commercial data services market. This second-generation CSP adds an optical line terminal to the EQAM chassis and up to 176 1GbE and 10GbE passive optical network (EPON) cards. Each card can support up to eight 1GbE or 10GbE ports, which can be configured symmetrically or asymmetrically.

Among the many added capabilities of an integrated EPON is support for DOCSIS provisioning over EPON (DPoE). It enables you to provision an optical network unit as if it were a cable modem and provides for interoperability among DPoE-compliant systems. Additionally, the EPON-enabled CSP supports a variety of other PON technologies and enhancements, such as 10G EPON, EPON protocol over coaxial (EPoC) and synchronous timing for efficient small cell backhaul.

Phase 3: Integrate the upstream for a new, more robust CMTS when the time is right

The final phase of the CommScope CSP adds up to 120 upstream ports with six channels per port, giving you all the capabilities of a full-functioning CMTS. Specifically, this phase includes upstream line cards (ULC) and 16-port upstream physical interface cards (PIC), all with N+1 redundancy protection. Adding the CMTS functionality at the end of the process—instead of the beginning—helps maximize the investment in your current CMTS solution.

Increased revenue

The time is right

Adding functionality at the end of the process maximizes your investment
Stay flexible and ready to respond

The CSP is designed to evolve to match your needs, providing the functionality you need and when you need it. It gives you the flexibility to deliver and support the best mix of video and data services for you.

- Universal Edge QAM
- EPON
- 10G EPON
- EPON protocol over coaxial (EPoC)
- Modular CMTS
- Other emerging access technologies

The CSP offers two chassis sizes, enabling you to right-size your CCAP capacity as your needs grow. The 9-RU chassis (#CSP640) supports up to 12,800 downstream QAMs and 80 PON capacity, making it well suited for deployment in small and mid-size markets. The 14-RU chassis (#CSP1280) can support larger deployments, with up to 28,160 downstream QAMs and 176 PON capacity. Both chassis use the same hot-swappable blades to minimize inventory management and training costs while maximizing your flexibility and uptime.

24%

PROJECTED GROWTH OF GLOBAL CMTS AND EDGE QAM REVENUES IN 2013

Source: Infonetics Research, February 2013
Partner with CommScope for a single-source, end-to-end solution

Best of all, the CSP solution is developed, engineered and supported as a comprehensive solution from CommScope. This provides one partner with all the fiber and coaxial cabling, passive elements, connectors, splitters, optical taps, enclosures, grounding blocks and amplifiers—not to mention the experience and expertise—to address the challenges at your headends and hubs. Having a single source means lower administrative costs, while our global distribution and service network can reduce your inventory costs and maximize system uptime.
We’re proud to be a part of your network’s story.

Here at CommScope, we embrace our role as a trusted resource, partner, and facilitator. We create the infrastructure that connects the world and evolves with every advance in technology. By investing all of our capabilities, resources, relationships, and products into your toughest challenges, we continue our long history of solving problems together—paving the way for new ideas and fresh ways of thinking.

We’re a trusted resource and partner around the world because we’re invested in you: your people, your networks, your success. It inspires us to build relationships and infrastructure… connect people and technologies across protocols, oceans, and time zones… and share what we learn along the way. We’ll never stop connecting and evolving networks for the business of life at home, at work, and on the go.

This is our promise to you.
This is CommScope.