Impact and Benefits

The Connecticut Education Network (CEN) provides low-cost, high-speed access to schools, libraries, colleges, research and nonprofit organizations, and towns.

Customers

The CEN provides access to the following customers statewide:

K – 12 Schools

- 1,270+ Schools
- 550,000+ Students
- 40,000+ Teachers and Staff

Government

- 6 State Agencies
- 4 Councils of Government

Colleges and Universities

- 36 Institutions
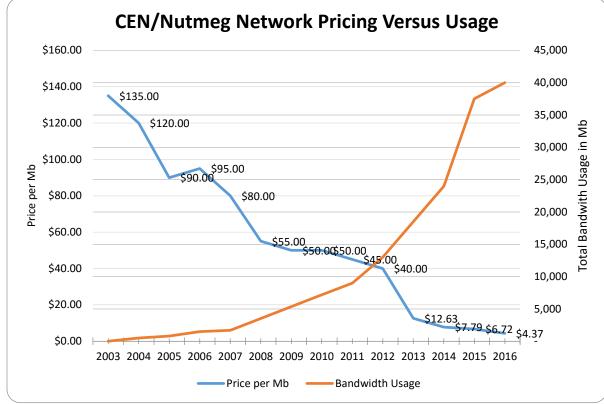- 183,167 Students

Towns and Libraries

- 66 Towns
- 161 Libraries
- 1.5+ M Cardholders
- 4,230 Internet Workstations

Educational Partners

- CT Center for Advanced Technology (CCAT)
- CT Public Affairs Network (CT•N)
- Connecticut Public Television (CPTV)
- Internet2
- Jackson Laboratories
- UConn Health Center

Value and Efficiency

For over 13 years, the CEN has met increased demands (e.g., 1:1 computing and online testing) while keeping operational costs level, resulting in a dramatic drop in bandwidth costs:

CEN/Nutmeg Network Pricing Versus Usage

In addition to saving its members on the cost of digital circuits, the CEN provides the following benefits:

- Cost-recovery model operations that contain member charges unlike for-profit competitors
- Free content filtering for all K - 12 students (federal requirement), valued at $2M+ annually
- Proprietary peering agreements that keep paid circuit costs to ~10% of bandwidth usage

- Back-office management of circuit agreements, vendor billing, and reimbursements
- Operation in a cost-recovery model, which passes savings on to members
- Delivery of free and low-cost software that supports research (e.g., iCONN) and town operations as well as digital content (CPTV, CT•N, etc.)

Capacity

The CEN remains uniquely poised to meet the exponential growth in bandwidth needs, with many schools supporting 2+ devices per student and 25% of districts expecting up to a 500% increase in bandwidth demands over the next 18 months:

- Scalability based on state-of-the-art technology, with speeds up to 400 Gbps
- Extensive partnership agreements (current and planned) through CEN's content-delivery network with tier-1 providers including Akamai, Apple, Google, Microsoft, and Netflix
- Ring architecture that provides multiple points of failover from natural disasters and Internet service provider (ISP) outages, ensuring access to statewide systems and content
- Provision of backup ISP and filtering services

K – 12 Schools
- Proven ability to meet the demands of digital learning, such as state-mandated online testing, student and teacher devices, digital textbooks, and learning-management systems
- Connections to every district that lead to digital equity and support student achievement
- Access free educational resources, reducing the cost of education

Universities and Research Centers
- Inability of commercial carriers to offer CT State and Community Colleges the same capacity or service they currently receive from the CEN
- Direct connection to Internet2, a key in attracting and retaining research centers such as Jackson Laboratories and UConn Health Center

Towns and Libraries
- Enables libraries to support lifelong learning, technology literacy, access to e-government, small business development, job seekers, and citizens' global information needs
- Ability to provide affordable, secure, high-capacity, high-performance networking
- Access to shared services including digital phone, streaming, and back-office systems

Service

With headquarters in Hartford and staff working statewide, the CEN remains highly responsive and resourceful in supporting its educational, library, municipal, and research customers:

- 24 X 7 support, a critical service for many customers (e.g., colleges) that remain operational at all times and depend on secure broadband connectivity
- Access to senior technical staff who implement timely, custom solutions, versus impersonal ticket queues and escalation rules of commercial providers
- Ability to solve complex challenges such as failures in content filtering and cyber attacks
- Team of research and education specialists acutely focused on the needs of our customers

Contact
The CEN thrives when members embrace the community. For more information about the Connecticut Education Network (CEN), call (860) 622-4560 or write to info@cteducation.net.