

Categories have been arranged for alignment with CEN's [Strategic Plan](#).

1. Provide Value

- DDoS Mitigation Summary Review

- o 2023-2024 Academic Year (August 1, 2024 – September 1, 2024)

Number of TMS Mitigations	Volume of Traffic Passed by TMS	Volume of Traffic Dropped by TMS	Volume of Largest TMS Mitigation	Rate of Largest TMS Mitigation	Duration of Longest TMS Mitigation
11	287.88 GB	448.38 GB	238.04 GB	25.34 Gbps	0d 0h 11m
↑450.00%	↑570.21%	↑137.23%	↑5.15%	↑1.20%	↓7.01%

Bottom row indicates increase or decrease from prior period (June 25 2024 13:37 - August 01 2024 4:00).

- o 2024 Calendar Year (January 1, 2024 – Sept 1, 2024)

Number of TMS Mitigations	Volume of Traffic Passed by TMS	Volume of Traffic Dropped by TMS	Volume of Largest TMS Mitigation	Rate of Largest TMS Mitigation	Duration of Longest TMS Mitigation
211	11.25 TB	21.52 TB	5.65 TB	154.65 Gbps	0d 3h 24m
↓17.58%	↑141.10%	↑116.25%	↑129.27%	↑12.84%	↓74.19%

Bottom row indicates increase or decrease from prior period (May 01 2023 8:58 - January 01 2024 5:00).

- CT Library Fiber Consortium – Internal Connections (FTTL-IC) <https://ctedunet.net/fttl-ic/>

- o The goal is to help libraries with internal network infrastructure to better serve library operations. Phase one (assessments and reports) is fully complete.
- o Phase 1 - Assessments. 41 Libraries received assessments and recommendations.
- o Phase 2 - Remediations and Completion: State library has authorized funding for recommendations made in assessment reports, award contracts have been signed, and funds have been released for individual libraries for equipment and labor to remediate issues. CEN/Novus Insight is working with them to review equipment lists, update as needed, initiate purchases, and schedule work dates. - This process is ongoing in batches.
 - o 36 libraries are moving forward with this phase.
 - 11 are complete and in the final closeout stage.
 - 4 libraries are in progress (work has been or is in the process of being scheduled).
 - 2 Libraries are in the quoting stage.
 - o All projects must be completed by April 30, 2025; any funds not fully expended by then must be returned to the State Library; extensions can be requested.

- New Member-Customers since the last Commission meeting (in order of turn up)

- o Leadership Greater Hartford, Inc.

- New *connections* to existing CEN members since the last Commission meeting

- o UConn - XL Center
- o Family Academy of Multilingual Exploration (New Haven School District)
- o EdAdvance Early Childhood Center
- o Connecticut Public Broadcasting - Fairfield
- o Department of Transportation (DOT) - *CEN is providing transport connectivity to DOT Headquarters and 62 Maintenance facilities and garages over a period of two years. Sites will be listed as they are completed. 25 sites were completed as of the last report. Sites will be listed as they are completed.*
 - Torrington Signs & Markings/Bridge Facility
 - Haddam Maintenance Garage
 - Middletown Maintenance Garage

- *East Haven Repair Garage*
- *New Haven Maintenance Garage*
- *Newington Region 1 Office and Garage*
- *Wethersfield Maintenance Garage*
- *New Milford Maintenance Garage*
- *Beacon Falls Maintenance Garage*
- *Stratford Maintenance Garage*
- *Hartford Electrical and Bridge Facility*
- *East Hartford Maintenance Garage*
- Exiting Member-Customers since the last Commission meeting disconnecting (in order of turn down)
 - None

Current Member Organization Count = 685

*Effective 12-1-21 member count processes are adjusted to reflect multi-site organizations as one member throughout the community.

2. Ignite Innovation

- PerfSONAR Servers
 - perfSONAR is the **performance Service-Oriented Network monitoring Architecture**, a network measurement toolkit designed to provide federated coverage of paths, and help to establish end-to-end usage expectations, ensuring friction free use of networks for scientific applications. This open-source infrastructure helps to identify and isolate problems as they happen, making the role of supporting network users easier for engineering teams, and increasing productivity when utilizing network resources.
 - Scope is to install 100Gbps PerfSONAR servers at the hub and extranet sites to provide independent tooling for measurement of capacity and throughput helping ensure the highest quality of network experience for the membership and will make these available to the community to run diagnostics from any member site.
 - 9/6/20 Update - Project will be combined with new remote access console servers installations to make best use of resources and tech time visiting each hub site.
- eduroam <https://www.eduroam.us/>
 - Goal is to address digital divide issues impacting Internet access and provide a more seamless and secure network access experience for students, faculty and staff at learning institutions and affiliate locations.
 - CEN's application for the Internet2 eduroam [Support Organization](#) program was accepted and will be one of 5 across the country.
<https://internet2.edu/internet2-announces-new-eduroam-support-organizations/>
 - eduroam Support Organization (eSO) contract agreement between CEN and Internet2 is complete. New CEN member organizations can be onboarded at will without signing an I2 agreement. CEN has a member subscriber agreement for new eduroam subscribers and will work with the early adopters to convert their I2 based agreements to CEN based agreements.
 - Current subscribers and users: New Haven Public Schools, Darien Public Schools, Suffield Academy, Waterbury Public Schools, Middletown Schools, Choate Rosemary Hall, and ACES. Sterling PS in process.

3. Foster Collaboration

- EDAC - Engagement and Development Advisory Council
 - Co-Chairs: Karen Skudlarek, UCONN; Cathie Drury, Coventry Public Schools
 - EDAC Kick-off Meeting: September 16th, in-person
 - Annual Member Conference, *CEN Connect 2025* May 7-8, 2025, at CT Convention Center
 - Day 1: 8 Long-form pre-conference workshops, vendor exhibition, after hour social event at CT Science Center for all attendees on day 1 and 2.
 - Day 2: Traditional format, AM welcome and keynote, all-day vendor exhibition, after hours social
 - Celebrating 25 years of service!
 - Proposal submission site and registration becoming available: mid October
 - Member Trainings
 - *Transitioning to IPv6 as a Preferred Network Protocol*
 - Location: Microsoft Teams online seminar
 - Date: October 22, 2024, 10AM - 11:30AM
 - Presenter: Jason Healy, Suffield Academy
 - Register here:
<https://events.teams.microsoft.com/event/887f3c6a-ca31-43ae-b450-31977f06f35c@17f1a87e-2a25-4eaa-b9df-9d439034b080>
 - ARIN RPKI Training
 - Target date: Feb 2025
 - Target audience: CEN members who BGP peer with us.
- SMAC- Service Management Advisory Council
 - Co-Chairs: Ken Sayers & Jonathan Garbutt
 - Council meetings scheduled for 10/2, 12/13, 3/11
 - Committee members are organizing around aggregated services available for members.
 - Unified Communications - RFP team comprising DAS procurement and SMAC members developed timeline for publication in the next 4-6 months
 - Security Services - building new survey feedback for the community to help provide priority and direction for the committee and CEN to pursue.
 - Pricing and Port based model - with the new platform being built, will solicit feedback from council and community on port speed and pricing options moving forward.
 - CIPA filtering - on hold, discussing options.
 - Services Reviews: Walk through of services to review service life cycles will continue:
https://ctedunet.net/wp-content/uploads/sites/2510/2021/12/2020-10-20_CEN_Service_LifeCycle_Process23.pdf
- Connecticut Higher Education Roundtable on Information Security (CHERIS) <https://ctedunet.net/cheris/>
 - Co-Chairs: Owen Brandt, ECSU; John Schaeffer, Conn College
 - Forum of Higher Education IT security professionals that meets quarterly to collaborate on IT solutions, discuss best practices, and share security challenges.
 - No updates
- Co-Hosting the Internet2 Connector Principals Meeting on Sept 16 and The Quilt Fall Member Meeting September 17-19 in Hartford. This is a closed event for I2 and/or TheQuilt members only.
 - This is the first time either meeting has taken place in CT! CEN provides light administrative support and local knowledge for both Internet2 and TheQuilt to run their events.

- o Local participants as speakers in the Quilt general session program on the 18th include: Mark Raymond, Doug Casey, Michal Mundrane and John Barden from CT, and others from New England.
- Cyber Nutmeg <https://ctedunet.net/cybernutmeg/>
 - o Cyber Nutmeg 2024 will build on the recent success of the CTNG:CEN partnership and continue the one-day event designed to heighten your awareness of cybersecurity threats and defenses you can deploy to protect your organization. This event is intended for state, municipal, and educational leaders, including but not limited to first selectmen, mayors, town managers, superintendents, and the IT and cybersecurity professionals who support them. Cyber Nutmeg consists of three main components: Threat Briefing from the FBI, Homeland Security, and CT Counter Terrorism and Intelligence (CTIC); Cyber Security Awareness Training/workshops; a National Guard led Tabletop exercise where blended groups can work collaboratively to focus on today's most prevalent threats.
 - o Date: October 11, 2024
 - o Venue: Hartford Marriott Downtown
 - o Event website: <https://cvent.me/aN42zI>
 - o Registrations as of 9/9/24: 171
 - o Sponsors as of 9/9/24: 10

4. Promote Advocacy

- CEN advocated for Community Anchor Institution connectivity statewide and developed a broadband infrastructure program renamed as CENConnect (Pronounced C.E.N. Connect). CENConnect is a program that provides direct investment in middle-mile broadband infrastructure in support of Connecticut's municipalities, schools, colleges, universities, libraries, healthcare, open access, and cultural arts institutions, through upgrades and expansion of the CEN (<https://ctedunet.net/cen-connect/>). In addition, the program offers grant funding opportunities to attach to the CEN platform for Community Wi-Fi access to CT citizens in need. Program funding is made available as part of Governor Lamont's Connecticut Plan for the American Rescue Plan Act of 2021. CEN Connect community webinars / info sessions.
 - *CEN Connecting CT's Communities*
 - September 4, 2024; Registered 7, Attended 7
 - Assisted Homeland Security / CISA with administrative support, event registration, and promotion for - Cybersecurity Incident Response Plan Workshop series across the DEMHS Regions.
 - o Region 1: July 1, Registered: 34
 - o Region 2: July 9, Registered: 32
 - o Region 3: July 24, Registered: 36
 - o Region 4: Aug 29, Registered: 20
 - o Region 5: Aug 13, Registered: 42
 - BEAD Challenge Process
 - o CEN participated in the BEAD challenge process, updating over 500 records with evidence based connectivity information for CAIs as well as promoted others to participate in the challenge process to update and correct serviceable location data.
 - o Efforts here impact funding for CAI connectivity *AFTER* unserved and underserved populaiotns are addressed and if there is any funding remaining though the NTIA BEAD program administered by CT DEEP.



- Working with CT DEEP on awareness campaign and communication of CEN ConneCT programs
 - Broadband programs Flyer in draft
 - Meeting series to engage with constituents bening scheduled by DEEP now, CEN participating with CET and DEEP on the 3 part series.

5. Enhance Core Resources

- CEN Staff
 - CEN currently has 14 full-time staff members, 1 part-time student worker, 1 contracted specialist, and 2 special payroll.
 - New hire: Anthony DiBenedetto, Information Security Officer (ISO) and CyberSecurity Services manager.
 - Recognition: Dick LeFave - served as a consulting advisor to CEN for 5+ years and recently passed. Dick was an amazing influence on CEN staff and within our community.
 - Upcoming Searches
 - Cyber Security Engineer – Reviewing Candidates
 - Network Engineer – Reviewing Candidates
 - GIS Specialist – on hold
- Triangular Core Capacity Augment
 - 400Gbps technologies represent the latest in speed, capability, and capacity for advanced carrier and enterprise networks.
 - We are in the early planning stages to augment the triangular core with 400Gbps links adding capacity and resilience to current network infrastructure and in preparation for Next Generation Infrastructure upgrades.
 - Status: Links between core sites are up, production traffic flowing, near complete.
- In partnership with the Northeast Research and Education Network (NEREN)
 - CEN is part of a collaborative effort to connect the Massachusetts Green High Performance Compute Center (MGHPCC) to the NEREN backbone. This connectivity will help CT based researchers and their institutions by providing high throughput connectivity and access to resources at the MGHPCC and beyond. Components include:
 - Optical node install to integrate MGHPCC into NEREN fabric
 - New service with Internet 2 to set up an 'Exchange' for NEREN partners to aggregate services in the region fostering collaboration and cost control.
 - Status: NEREN optical node installation target completion in winter time frame.
- CEN Connect (ARPA-CPF) Project Updates
 - Next Generation Infrastructure (NGI)
Scope: Comprehensive upgrade of the CEN equipment infrastructure bringing 400G backbone and handoff options of 1G, 10G, 25G, 40G, 100G, and 400G to every member location.
 - Site survey / audit of every service location - Complete May 31,2024
 - Network Lab / Automation / Orchestration build out – in process – partial completion June; remaining in November
 - Optical Upgrades – 80% complete, target completion is in November.
 - Packet Upgrades – Design meeting in motion for each phase and/or section of the network
 - Libraries, Municipalities, COGS, and Charter Schools
Scope: Expand network services to target members/sites with free fiber build
 - Current progress update:
 - 176 total prospects

- 123 engaged (handraisers)
- 43 commitments, 21 declined
- 67 additional sites being quoted (e.g. Community Centers, and/or other municipal facilities)
- Community WiFi
 - Scope: \$10M Grant funds to expand WiFi to communities in need, expand 'eduroam' adoption / use
 - Developing Content for Grant Guidance
 - Purchased Salesforce Grant Module, build out will begin after guidance is done
 - Promotion / engagement planning underway