

Categories have been arranged for alignment with CEN’s 2019-2024 [Strategic Plan](#).

1. Provide Value

- DDoS Mitigation Summary Review
 - 2023-2024 Academic Year (August 1, 2022 – June 1, 2023)

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
300 ↑43.54%	11.72 TB ↓74.03%	33.32 TB ↑18.33%	16.63 TB ↓9.49%	25.26 Gbps ↓34.24%	0d 23h 45m ↓98.32%

Bottom row indicates increase or decrease from prior period (September 30 2021 22:58 - August 01 2022 0:00).

- 2023 Calendar Year (January 1, 2023 – June 1, 2023)

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
202 ↑106.12%	9.22 TB ↑268.12%	27.93 TB ↑418.89%	16.63 TB ↑1145.20%	25.26 Gbps ↑20.51%	0d 23h 45m ↑134.67%

Bottom row indicates increase or decrease from prior period (August 01 2022 8:58 - January 01 2023 5:00).

- CT Library Fiber Consortium – Fiber to the Library (FTTL)
 - 6/12/23 Update: Stamford West Side complete; Gales Ferry –complete; Phoebe Griffin Noyes (Old Lyme) fiber complete, CEN turn up pending
 - Project to connect libraries through federal E-rate and matching State Library bonded funds.
 - Many project sites connect underserved communities where connectivity options have remained relatively unchanged for decades. This project provides high-quality service at reasonable costs to bridge gaps in the digital divide and help libraries continue to thrive as community assets.
 - Phase 8: Awarded February 21, 2022. 64 libraries are eligible and 3 are moving forward. This is the final phase of the program.
 - The current project across all phases (1–8) will bring total fiber-connected libraries to 146 representing 76% of all 191 libraries statewide.
 - The remaining libraries, not currently connected to CEN are eligible to connect with ARPA-CPF funds. The CEN ARPA project is tentatively scheduled to commence in September of 2023 pending US Treasury approval and authorization of funds.
- CT Library Fiber Consortium – Internal Connections (FTTL-IC)
 - Program announced December 3, 2021. <https://ctedunet.net/fttl-ic/>
 - Goal is to help libraries with internal network infrastructure to better serve library operations.
 - Libraries will receive assessments, prioritized remediation plans, and awards to assist each.
 - 6/12/23 High Level Status 41 libraries in program; 41 assessments complete; 41 delivered to individual libraries
 - Met with stakeholders to review assessment and awards
 - State library prioritized awards using standardized assessment, total funds available, and AENGLC rating.
 - Note: Adjusted Equalized Net Grand List Per Capita (AENGLC), more specifically AENGLC rank, is used in determining the state support percentages for reimbursement under adult education, school construction, and health services.
 - Applications for the second round of funding allocated were sent to each participating library for signature, with a deadline of May 30th.

- The completed applications will be reviewed by the State Library Board for their July board meeting.
 - Once approved, participants should expect to receive their awards between 30 and 60 days to then pursue upgrades.
 - New Members/Customers since the last Commission meeting (in order of turn up)
 - Newington Fire HQ1
 - Durham Community Center
- Current Member Count = 679
- *Effective 12-1-21 member count process has been adjusted to reflect multi-site organizations as one member throughout the community.

2. Ignite Innovation

- NTIA Middle Mile Grant Program
 - 6/12/23 Update
 - NTIA requested additional information and substantiation in April and opened the portal for edits. In general, this is a positive sign to advance to the next round of reviews.
 - Updated notice of award expected timeline is June/July at the earliest. Timelines were purposely vague by NTIA to allow for flexibility in process.
 - CEN Submitted a proposal for the 'Connecticut Scaled Open Access Network and Anchor Resiliency' project (CT-SOANAR) on September 29, 2022 in response to a Notice of Funding Opportunity, NTIA-MMG-2022 announced May 5 2022, applications due Sept 30, 2022 notice of awards as early as March 1, 2023.
 - Projects must be implemented within 5 years of award.
 - <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/MIDDLE%20MILE%20NOFO.pdf>
 - \$20.7M Project, \$12.2M requested from NTIA, \$8M from CEN/CT, \$500K in-kind contribution.
 - The CT-SOANAR project will advance the Middle Mile Grant Program objectives and the strategic broadband goals of the State of Connecticut by accomplishing the following:
 - Encourage middle mile infrastructure expansion and extension to reduce the cost of newly connecting unserved and underserved areas to the Internet backbone
 - Promote broadband connection resiliency through alternative network connection paths that prevent single points of failure
 - Materially reduce end user broadband prices resulting from funded middle mile infrastructure
 - Materially reduce latency experienced by end users in remote or insular areas
 - Benefit high-poverty counties, persistent poverty counties, and/or a substantial number of end users/households that meet the defined criteria
 - Offer access to the funded middle mile infrastructure, in perpetuity, on an open access basis
 - The CT-SOANAR topology enables connection of unserved anchor institutions
 - Demonstrate the project's climate and natural disaster resilience
 - Use community benefit agreements
 - CT-SOANAR incorporated input from our key stakeholders, including planned last-mile providers, community and anchor institutions, existing CEN customers who will benefit from the proposed upgrades, and Connecticut's Office of the Governor. Additional state-level broadband stakeholders who were consulted include the Office of Consumer Council - State Broadband

Office, the Bureau of Energy and Technology Policy's Office of Telecommunications and Broadband, the CT Commission for Educational Technology, and the Office of Policy and Management.

- 19 letters of support reflect the agreement of all these stakeholders that this project is the highest priority middle mile initiative for Connecticut.
- Governor Lamont has committed to the broader American Rescue Plan Act (ARPA), BEAD, and Digital Equity programs along with the Middle Mile Grant Program to define a holistic set of activities to address middle mile, last-mile, multi-dwelling unit, urban, and rural needs, and affordability across the state.
- Grant Development team included CEN Director Ryan Kocsondy, CEN Team Leads Paul Tarsa, Peter Correia, and Rick Cheung; CEN Optical Engineer Raymond Carcano; Executive Sponsor Mark Raymond, CT-DAS CIO; State assistance from David Lukens, OPM, for GIS mapping; Michael Barrera, DAS, as Staff Council. Consultant team headed by Rob Vietzke, CEN's first director and now of <https://insightinfraseservices.com/>, consisting of a project manager, grant writer, editor, and strategic broadband advisor. Note: CEN self-funded the consultants.
- eduroam <https://www.eduroam.us/>
 - 6/12 Update
 - Middletown Schools and Choate Rosemary Hall have signed agreements and will be on-boarding
 - Current subscribers and users: New Haven Public Schools, Darien Public Schools, Suffield Academy, Waterbury Public Schools.
 - New Support Organization agreement between UConn/CEN and eduroam in procurement contracting. New agreement is more conducive to scale roll out.
 - New Participant agreement between CEN and its members has been reviewed and approved by DAS and UConn legal
 - Goal is to address digital divide issues impacting students' learning and provide a more seamless network access experience for students.
 - Tom Dillon helped coordinate activities as CET Infrastructure Advisory Council Chair, with CEN resources and fiscal support. This is a crossover item between CET Infrastructure Advisory and CEN Service Management Advisory Councils.
 - 71 respondents to Secure WiFi & eduroam readiness in schools and libraries. Will re-send and collect more info.
 - 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/>
 - Agreement reached with Internet2 on terms for extending eduroam purchasing agreement through the end of 2023, to be succeeded by Support Organization agreement in 2024.

3. Foster Collaboration

- EDAC - Engagement and Development Advisory Council
 - Co-Chairs, Karen Skudlarek, UCONN, and John Mercier, Regional District 17
 - **10th Annual CEN Conference**
 - May 11, 2023 - Connecticut Convention Center
 - Full program announced 3/1/2023: <https://web.cvent.com/event/e9db8eac-4941-4320-baeb-89e096c1c43f/websitePage:645d57e4-75eb-4769-b2c0-f201a0bfc6ce>
 - Registered: 704
 - Attended: 637

- Sponsors: 65
- Conference website: <https://web.cvent.com/event/e9db8eac-4941-4320-baeb-89e096c1c43f/summary>
- SMAC- Service Management Advisory Council
 - Co-Chairs: Ken Sayers & Jonathan Garbutt
 - Committee members organizing around community RFPs for
 - Unified Communications
 - Security Services
 - CIPA filtering
- 1. Connecticut Higher Education Roundtable on Information Security (CHERIS)
<https://ctedunet.net/cheris/>
 - Co-Chairs: Brad Tudisca, CCSU; 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.
 - Second meeting in June 2023
- 2. Cyber Nutmeg
 - CEN working with CT National Guard to organize Cyber Nutmeg 2023 and help expand its reach
 - Date: Friday, October 20, 2023 @ 8AM-5PM Venue: CCSU
 - Program advisory: CEN (Ryan, Deanna, Paul, Rachael, Emma, Dick), CTNG - Joel Fulsang, Jonathan Garbutt, Joseph Bazeley, Jeff Levin, Roberta Pratt, Chris Bernard, Jeff Brown, David Palmbach, Sheri DeVaux, Gregory Freidline
 - Website to register coming soon.
 - Event Abstract:

Cyber Nutmeg 2023 is a one-day event designed to heighten your awareness on 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 (insert threat theme(s) here).

4. Promote Advocacy

- Governor's Biennium Budget, HB5037, American Rescue Plan Act - Coronavirus Relief Fund (ARPA-CPF)
 - 6-12-23 Update – still waiting on the US Treasury review and approval process.
 - PA 22-118 <https://search.cga.state.ct.us/2022/PA/pdf/2022PA-00118-R00HB-05506-PA.pdf>
 - \$73M in programming funds for CEN based projects Projects include:
 - Next Generation Infrastructure - complete equipment upgrade of the CEN platform
 - Fiber to Municipalities & Libraries - connect remaining CAIs to CEN platform
 - Fiber to Charter Schools - Connect remaining charter schools to CEN platform
 - Community WiFi Phase 2 - grant program to expand community WiFi for entitled connected to CEN
 - All projects were submitted Sept 21 through OPM to US Treasury for funding allocations.
 - Sept 23 - US Treasury announced they are low on administrative funding for the program, impacting approvals of proposals. No update since.

- https://home.treasury.gov/system/files/136/Adeyemo-Administrative-Flexibility-Grantee-Letter_20220923.pdf
- 2023 CEN Outstanding Leader Awards (COLA) <https://ctedunet.net/cola/>
 - ‘CEN Members play a key role in the success of our community. To acknowledge those contributions, CEN presents the Outstanding Leader Awards annually to any individual from a CEN member organization who has provided extraordinary leadership, energy, ideas, and achievements for the advancement and development of the CEN community, its products and/or services, and/or its foundational mission, vision, and values.’
 - Awards presented at the CEN annual conference.
 - Award Recipients:
 - Karen Skudlarek - UConn
 - Karen Veilluex - Wallingford PS
 - Christine Gauvreau - CT State Library
- Everybody Learns WiFi - Program End <https://ctedunet.net/eli-programend/>
 - After two successful years, the Everybody Learns WiFi Initiative is ending and subsidized support for the wireless access points will cease as of December 31, 2022.
 - Equipment is property of the host entity. 3 of 5 years remain on pre-paid licensing. Options for equipment transition collected by form response are:
 - Member to claim licensing and self-manage moving forward
 - Remove access point or leave in place (optional to return to CEN or swap with another member).
 - Subscribe to CEN Managed firewall service.
 - The Everybody Learns WiFi Initiative helped tens of thousands of students and adults connect to free, high-quality WiFi through the pandemic to engage in remote learning, telehealth, and state and municipal services.
 - The program’s success hinged on the trusted CEN community partnerships and is a testament to the community’s willingness to step up and help during a crisis. In addition, the efficacy of the program paved the way for additional ARPA funds to be used in a similar manner.
 - End of Program transition summary is as follows (approximately):
 - Owner self-manage APs: 67 members, 79 APs
 - CEN managed APs: 41 members, 55 APs
 - Turn down service: 18 members, 19 APs

5. Enhance Core Resources

- CEN Staff
 - CEN currently has 13 full-time staff members, 4 part-time student workers, 1 volunteer (1 day /week), 1 fellow, and 1 special payroll.
 - Searches
 - Project Manager – canceled search; will re-post next quarter.
 - Network Security Analyst – Candidate interviews
 - Systems Administrator 1 or 2 – candidate review, interviews likely in late June
 - Student Web Development Specialist - Advertising
- Infrastructure Improvements/Investments
 - CEN was allocated ~ \$6M in CEPF funds for equipment maintenance improvements to the infrastructure. This was less than the requested amount and items are being re-prioritized, re-quoted, and sequenced based on price and availability of equipment.

- Of Note - Component delays are impacting lead times for items such as routers and switches. Lead times can be anywhere from 120-180 days for orders with little relief in sight. Some items are now projected to be up to a year.
- All other projects on hold due to manufacturing and shipping delays.
- Database Audit and True Up
 - Goal is to tidy up all records in the network management database resulting in improved network operations, enhanced notifications to members, and more accurate billing operations.
 - Scope includes documentation update, processes updates, node audit (servers, switches, routers), circuits, fiber inventory, interface descriptions, data structure hierarchies, CEN services, subscriber services, etc.
 - 6/12/23 Update - Project complete as of May with a few lingering items that will be addressed operationally moving forward.
- Route Reflectors (RR)
 - Project to replace existing route reflectors with new ones that have greater route scale and features, and enable Ethernet Virtual Private Network (EVPN) capabilities.
 - Technical: A route reflector is a designated/dedicated router that will advertise and reflect routes learned from other iBGP peer routers in a service provider network. This allows all iBGP speakers within your autonomous network to learn about the available routes in a more efficient manner and without introducing loops.
 - Status: *Three* of the four routers are in place. Need new DC power supplies for the other two and projected completion in June/July 2023.
- 400 Gbps Testing & Triangular Core Capacity Augment
 - 400Gbps technologies represent the latest in speed, capability, and capacity for advanced carrier and enterprise networks.
 - We are in 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.
- Next Generation Packet Equipment Selection Process
 - Staff are nearing completion of review and scoring of proposals for the Next Generation Infrastructure upgrades. Platform upgrades will modernize the network infrastructure and provide ample capacity, capability, and speeds for the next 7-10 years.
 - Vendor selected here will perform the equipment upgrade as part of the ARPA-CPF project(s).