CT Education Network:
CT Commission for
Educational Technology
Quarterly Update

CEN
Connecticut's Trusted Internet Partner

December 06, 2021
1:00PM – 3:00PM
Virtual Meeting
Connection Detail in Invite

Categories have been arranged for alignment with CEN's 2019-2024 Strategic Plan.
2020 Annual Report

1. Provide Value

- CEN FY23 Rate Announcement Released Today
  - All rates remain the same from FY22 to FY23, effective July 1, 2022
  - Reminder that FY22 included a 2% rate reduction from FY21, effective July 1, 2021
- DDoS Mitigation Summary Review
  - 2021-2022 Academic Year (August 1, 2021 – Dec 1, 2021)

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
131	8.88 TB	13.17 TB	3.24 TB	38.42 Gbps	22d 14h 49m
↑32.32%	↑147.26%	↑122.27%	↑77.53%	↑27.81%	↑54.37%

  - 2021 Calendar Year (January 1, 2021 – Dec 1, 2021)

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
520	24.21 TB	57.88 TB	6.00 TB	38.42 Gbps	30d 2h 20m
↓27.27%	↑20.63%	↑39.06%	↓6.98%	↑92.17%	↑73.62%

- CT Library Fiber Consortium – Fiber to the Library
  - 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 1-4: 57 sites complete & savings of $1,392,000 (FCC/USAC E-Rate dark fiber IRU savings)
  - Phase 5: 16 out of 17 sites completed. Last library is under construction, summer 2022 completion.
  - Phase 6: 2 sites committed and completed.
  - Phase 7: Awarded on January 14, 2021. 5 committed and received E-rate approval. Fiber builds scheduled now with late Spring completion dates.
  - The current project across all phases (1–7) will bring total member libraries to 146 of 191 (76%), 26 of 47 branch libraries (55%); or 172 of the 238 (72%) total libraries statewide
- CT Library Fiber Consortium – Internal Connections
  - New program announced December 3, 2021. https://ctedunet.net/fttl-ic/
  - Goal is to help participating libraries with internal network infrastructure to better serve library operations
  - Libraries will receive assessments, prioritized remediation plans, and awards to assist each
  - Items include switches, routers, WiFi Access points, UPS', PDUs, targeted wiring upgrades
- Judicial Branch Connectivity Project – Completed!
  - Project to provide Internet and layer 2 network connectivity across the Judicial branch system
  - 56 sites, 31 courthouse buildings, 26 administrative / support locations
  - 56 sites have been completed and are in production
- New Members/Customers since the last Commission meeting (in order of turn up)
  - CAE Simuflite, Inc.
  - Putnam Public Library
  - Ashford Town Hall

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- o Canterbury Town Hall
  - o Thomaston Town Hall
  - o Thomaston Police Department
  - o Willimantic Police Department
  - o Danielson Fire Department
  - o King School
  - o Morrison Healthcare
  - o Town of Morris
  - o Morris Public library (indirect)
  - o New Fairfield EOC
  - o Lebanon Fire Department
  - o St. Thomas More School
  - o Judicial System (Court Houses and Admin Offices)
  - o Fairfield County Regional Dispatch
  - o Wolcott Police Department
- Current Member Count = 662*
  *Effective 12-1-21 member count process has been adjusted to reflect multi-site organizations as one member throughout the community.

2. Ignite Innovation

- Eduroam https://www.eduroam.us/
  - o Goal is to address digital divide issues impacting students learning and provide more seamless network access experience for students
  - o Tom Dillon helping coordinate activities as CET Infrastructure Advisory Council Chair, with CEN resources and fiscal support
  - o New Haven Schools implemented as part of COVID WiFi roll out response (SCSU assistance)
  - o Internet2 Support Organization program application for January
  - o Member Survey for gap analysis of required components for 802.11i secure Wi-Fi in schools, 71 responses to date. Detailed review pending.
- Additional services are in development and will be prioritized based on community feedback
  - o With help of SMAC Chair(s), items are categorized and prioritized
  - o Unified Communications RFP team meeting monthly to define service categories and requirements and targeting Q3 for RFP publication.
  - o UConn procurement will assist with RFP development
  - o Aligning initiatives with existing UConn RFP cycle where possible to make more efficient use of time and effort

3. Foster Collaboration

- 9th Annual Member Conference; May 5, 2022 https://ctedunet.net/annual-conference/
  - o 1 Day in-person event at the CT Convention Center
  - o Return to traditional format of keynote, 24-28 sessions, light breakfast, lunch, happy hour
  - o Registration open https://cvent.me/yq4Xzl
  - o Call from proposals is open: https://www.cvent.com/c/abstracts/8cf6f3a1-20b1-423a-8088-111891684808

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- Quarterly Training / Info Sessions https://ctedunet.net/engagement-events/
  - AI and Proctoring & Alternative Assessments took place September 23. It was interactive discussion to learn and share best practices and discuss alternative assessment methods. 26 CEN members attended.
  - Subsequent quarterly training sessions will include IPv6, iboss Web Filtering updates, Securly Student Safety updates
- EDAC - Engagement and Development Advisory Council
  - Co-Chairs: Rebecca Osleger & Karen Warren
  - Announced Future Co-Chairs, Karen Skudlarek, UCONN, and John Mercier, Regional District 17 will replace Rebecca and Karen Warren in May of 2022 after the CEN Member Conference.
  - Very active in virtual meeting format, meeting once per month and sometimes bi-weekly.
  - Planning the session program for 2022 Member Conference and discussing quarterly training opportunities
- SMAC- Service Management Advisory Council
  - Co-Chairs: Matt Ross & Jon Garbutt
  - Committee members organizing around community RFPs for
    - Unified Communications
    - Security Services
    - CIPA filtering
  - Policy, Procedures, Practice https://ctedunet.net/policies/
    - Member Continuity – effective 2021-10-15
    - Service Lifecycle – effective 2021-10-15
- Member Town Halls
  - Three virtual member town halls were held between September 30, and October 14, 2021. 124 CEN members registered to attend in total. The following topics were discussed:
    - CEN Service Dashboard
    - UC/VOIP RFP
    - Security Services RFP
    - NextGen CEN Infrastructure Update
    - Eduroam
    - Member Conference
    - Quarterly Training Schedule

4. Promote Advocacy

- Everyone Learns Initiative - WiFi Hotspot Project https://ctedunet.net/everyonelearnswifiinitiative/
  - Leverage CEN network and member locations to provide WiFi Hotspots across 40 target towns
  - Original scope was $2.2M; $1.7M authorized to provide walk-up/drive up WiFi service through external/on-building mounted 802.11AX wireless access points.
  - Cost includes software licensing, equipment, enclosures, wiring, material, labor, project management, bandwidth for 1 year, etc.
  - APs and installation are donated to the participating member location; CEN will manage for the first year.
  - Project delays due to scheduling and COVD related access delays at participating sites
  - 154 sites online, closing out project, targeting end of December completion.
  - Remaining equipment will be donated to members on a first come first serve basis for self-install
- Member Spotlight Articles https://ctedunet.net/spotlightarticles/

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- o The CEN Member Relations Team conducted a series of interviews with Members to better understand how CEN services are being utilized and what value it provides.
- o Two completed: Central Connecticut State University, The Open Hearth plus an article profiling CEN's COVID Response
- o Several draft articles are under review: Mystic Aquarium, Connecticut Science Center, CT State Library, The Bushnell, and Firewall Service Members.
- o Submit concepts / proposals for articles here: https://ctedunet.net/spotlightarticleproposal

5. Enhance Core Resources

- • CEN Staff
  - o CEN currently has 11 full-time staff members, 2 part-time student workers, and 1 volunteer (1 day /week)
  - o Deanna Lavoie was hired as Program Assistant in the Member Services team. Deanna has worked with the team in a marketing and communications support role for 2 years as a student and special payroll, post-grad.
  - o Job searches
    - ▪ Network Security Analyst 2 – Offer declined, Re-Post
    - ▪ Financial Manager 1 – Interviewing
    - ▪ Network Engineer – JD Complete, Approvals
  - o Financial Assistant 1 role that was filled in March is now vacant. Will review need and JD once new financial manager is on board
- • Hub/Distribution Layer Equipment Upgrades
  - o $1.5 M bond allocated to replacing devices at distribution layer of the network that are end of life/end of support. Will bring 100G backbones to busiest hub-sites in the network
  - o Implementations underway, roughly 3/4 deployed
  - o COVID related challenges include travel, scheduling, and access to site facilities
- • iBoss Capacity Increases
  - o Stability issues in last academic year and subsequent measures to improve
  - o New f5 BigIP load balance platform was installed in May/June 2021 and stabilized the service
  - o In August, upgraded to f5 VELOS platform that replaced the previous f5, which was undersized
  - o Very stable, continuing to monitor and tune for performance