



Connecticut's Trusted Internet Partner

NETWORK | SECURITY | CLOUD | COMMUNITY

Community WiFi



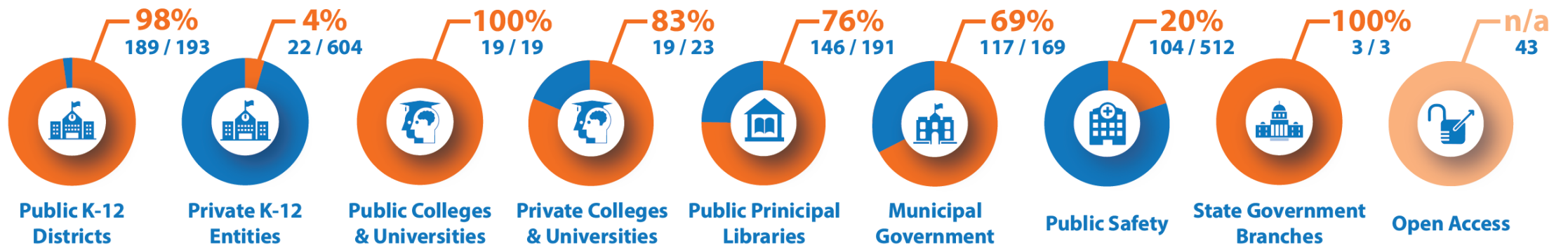
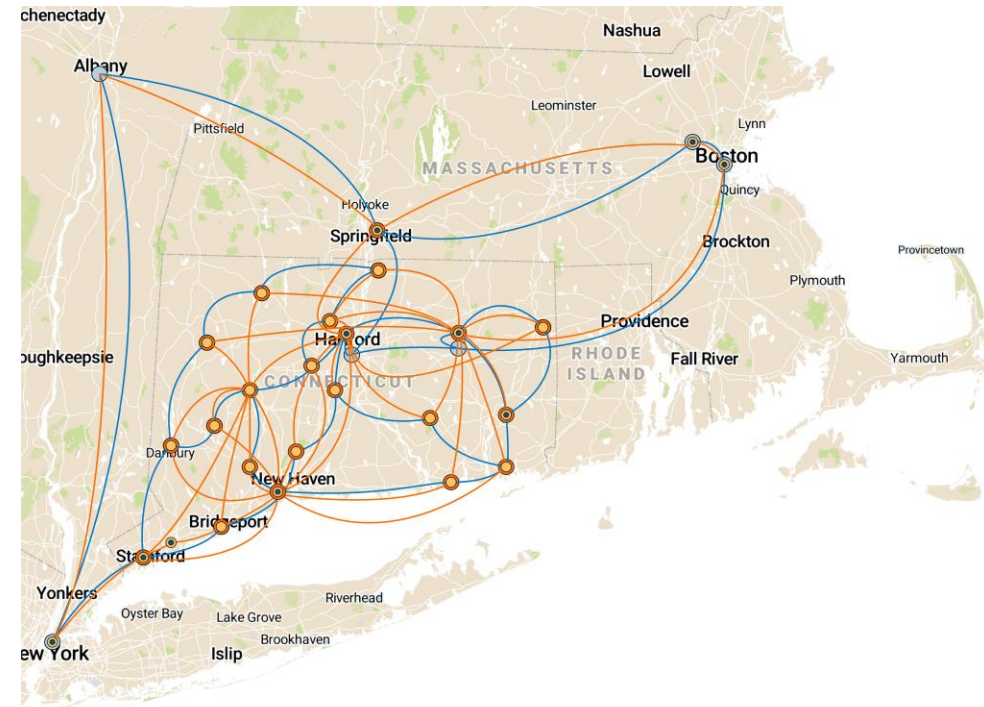
Roundtables

January 2025

# ABOUT CEN

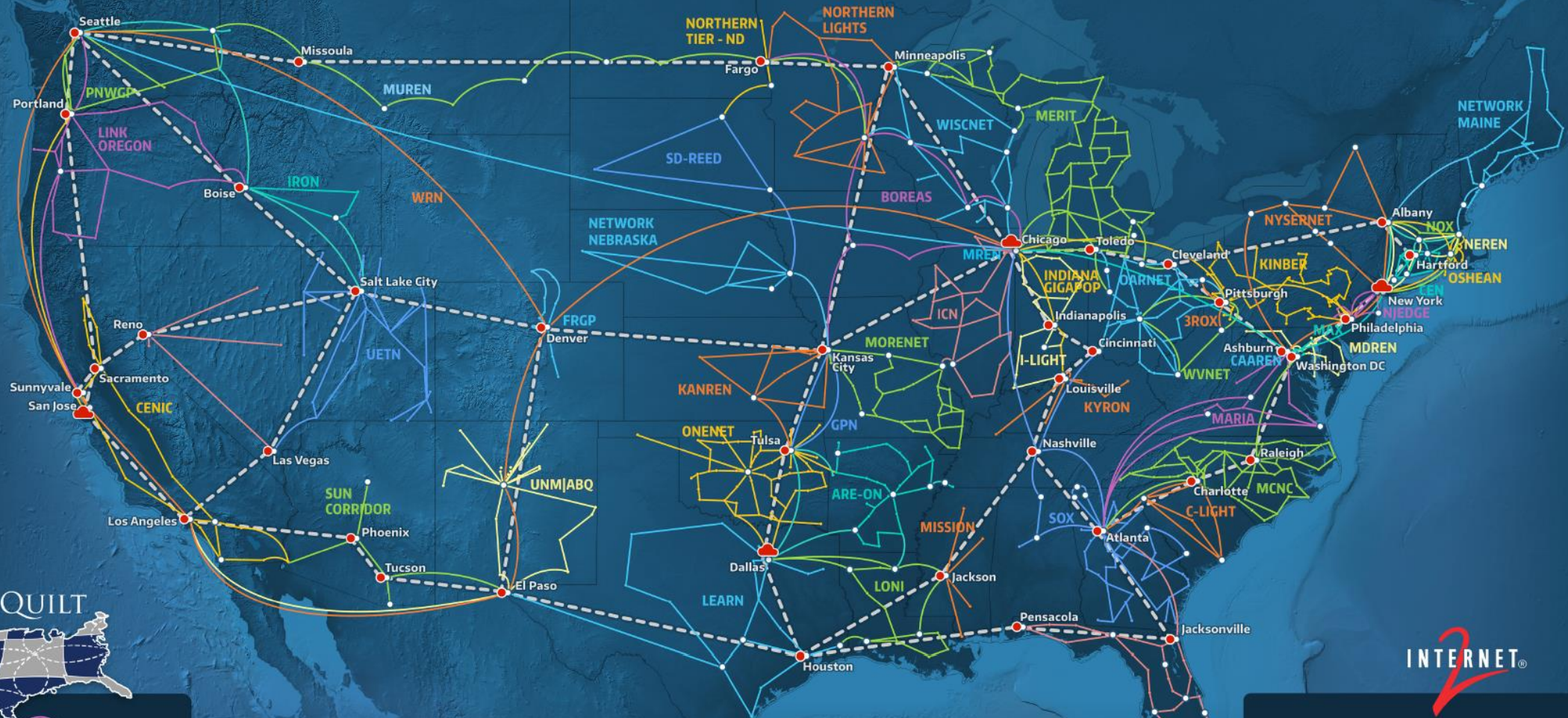


- Established in 2000
- Governed by the CET (<https://ct.gov/ctedtech>)
- State owned cyber infrastructure, managed by UConn
- Main office in Hartford, CT
- Non-Profit, Open-Access, Middle Mile Network
- Nation's first all optical network to connect every K-12 district (2005)
- One of ~ 40 'Research & Education Networks' nationally (<https://www.thequilt.net/>)
- Focus is on CAIs and their needs, 680+ Member Orgs.





# INTERNET2 & REGIONAL RESEARCH AND EDUCATION NETWORKS (REN) IN THE UNITED STATES



THE QUILT



- Intra-REN
- Inter-REN
- REN Inter-Connect Point



- Fiber Infrastructure
- I2PX/RPI/Cloud Connect Peering Site
- AL1S/AL2S/AL3S Add-Drop Site

One Connection | Many Possibilities

# SERVICE OVERVIEW



## Network

Dedicated Internet Access (Commodity Internet, Internet2, peering), Advanced L2/3 services, DNS Hosting, more...



## Security

CIPA Filtering (free for K-12 & Libraries), DDoS Mitigation (free), Managed & vFirewall, DNS Firewall (free), Student Safety...



## Cloud

AWS-DC, Google-CP, Microsoft-ER, Oracle-OCI, Peering / IXP, Rapid Private Interconnect, Custom transit...



## Community

Advisory Councils, Member Conference, Workshops, briefings, Research Support, 24x7NOC...





# CEN CONNECT PROGRAM OVERVIEW



## Next Generation Infrastructure (NGI)

### *Upgrade of CEN Infrastructure*

- 400G Network by Dec 2026
- 680+ Member Organizations Benefit; 1.9M CT Citizens
- 4-40x capacity increase
- Platform for aggregation, collaboration, expansion, community WiFi
- Bandwidth stability for 10 years

## Connecting CT's Communities (C3I) Program

### *Expansion to more CAIs*

- Free fiber builds
- 170+ Eligible Municipalities, Libraries, and Charter Schools
- Primary or Resilient (Backup) Internet; Improved security
- Dedicated Internet with better value proposition
- Ensures internet equity in CT

## Community WiFi Grant Program

### *Expansion of public WiFi*

- \$10M Grant Funding targeting communities in need
- Encouraging partnerships between municipalities, schools, libraries, etc.
- Promoting sustainability
- Expanding 'eduroam'
- Grant guidance available Dec 2024

CT CGA PA 22-118 as Amended by PA 22-146 Authorized \$73.9M

Program Submitted to US Treasury September 2022; approved September 2023

[ctedunet.net/cen-connect](https://ctedunet.net/cen-connect)

# COMMUNITY WIFI GRANT PROGRAM OVERVIEW



## Overview

- \$10M Grant Funds
- Preparing Program Launch in January



## Info / Benefits

- **Administration:** by CET, supported by CEN, grant sub-awardee oversight required
- **Target:** underserved, typically economically disadvantaged groups; increases reach of public WiFi across the state
- **Scope:** Primarily addresses wireless buildouts, which may also require establishing connectivity to CEN. Applicants can use funds to directly connect to CEN for Internet services (IE fiber build is eligible use)
- **Partnerships:** encourage and favor proposals with multiple entities working together, such as municipalities, schools, libraries, community centers, cultural arts institutions, etc.
- **Sustainability:** Require assurances that applicants will support the wireless service for the funding period (5 years) and after.
- Awardees encouraged to broadcast the **eduroam** service set identifier (SSID).

# COMMUNITY WIFI GRANT PROGRAM OVERVIEW



## Overview

- \$10M Grant Funds
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## Expected Timeline

- **Website Available:** 12/17/24
- **Public Comment:** closes 1/24/25
- **Grant Application Window:** 1/30/25 – 3/13/25
  - Office Hours will be available throughout
- **Grant Application Review:** 3/14/25 – 4/24/25
- **Grant Awards:** 4/25/25
- **Rolling Installations, Monitoring, Close Out:** Open
- **Program End:** June 2026

# COMMUNITY WIFI GRANT PROGRAM OVERVIEW



## Overview

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## Award Types

- **Full Program Award:** Applicable for projects without infrastructure required to participate. Funds projects requiring new construction, renovations, or build-backs to establish wireless internet services at CAIs, which may or may not include integration with eduroam.
- **eduroam Only Award:** Applicable for projects with infrastructure required for eduroam. Funds projects that may only need to add the hardware, software, or professional services required to implement access points that can broadcast the eduroam SSID.
- **Partial Program Award:** Applicable when CEN determines a project may receive an award for part of the project proposal in an effort to spread awards equitably across impactful projects.



# COMMUNITY WIFI GRANT PROGRAM OVERVIEW



## Overview

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## Eligibility

- Lead applicant must meet the definition of a ‘Community Anchor Institution’ or CAI (defined below).
- Lead and partner applicants must qualify as a government entity, non-profit, education sectors, or fall into a private for-profit
- Be eligible and in good standing to receive federal or state grants
- Be registered with SAM.gov and able to provide their UEI number
- Ability to produce a partnership agreement or MOA when multiple entities are partnering up for an application

COMMUNITY ANCHOR INSTITUTION.—The term “community anchor institution” or ‘CAI’ means an entity such as a school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public housing organization, or community support organization that facilitates greater use of broadband service by vulnerable populations, including low- income individuals, unemployed individuals, and aged individuals.

# COMMUNITY WIFI GRANT PROGRAM OVERVIEW



## Overview

- \$10M Grant Funds
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## Project Prioritization Criteria

- Leverage community partnerships among schools, libraries, municipal service providers (e.g., senior centers), other CAIs, and private entities whose project shows a coordinated effort to streamline and expand reach within a single application
- Include a clear sustainability plan that describes how services will be managed and maintained after the funding period ends
- Integrate eduroam and capability to install access points that broadcast the eduroam service set identifier (SSID)
- Meet or exceed the minimum wireless internet speeds of 1 gigabit-per-second symmetrical download and upload (i.e. 802.11AC <> WiFi 5, or better)
- Include in-kind contributions as part of matching funds (encouraged though not required)

## Overview

- \$10M Grant Funds
- Preparing Program Launch in January



## Reporting Requirements

- Subrecipients must cooperate with all federal reporting obligations for ARPA – CPF funding and any other statues, regulations or executive orders applicable to use of federal funds for the duration of the project
- Track data points including but not limited to dates, locations, technical specifications/plans, network performance etc.
- Post-award monitoring of subrecipients by CEN that may include but is not limited to requests for information or field audits
- Project & Expenditure Report must be completed quarterly with project-level information
- A final Project & Expenditure Report would be completed upon project completion and submitted with the Project Completion Affidavit

## Overview

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## Procurement Requirements

- A federal grant recipient or subrecipient means a non-federal entity (NFE) such as a State, local government, Indian tribe, Institution of Higher Education (IHE), or nonprofit organization that carries out a Federal award as a recipient or **subrecipient**.
- Subrecipients must comply with the federal requirements that procurements must meet to be considered eligible expenses.
- Conform to Federal Acquisition Regulations 2 CFR 200.317 through 200.327.
- CEN will provide the Federal Terms & Conditions to each awardee.
- This requirement will be part of the Grant Agreement between the awardee and the State.
- Refer to the Federal Grant Procurement Compliance Checklist (2 CFR 200) document on the program website.



# SUPPLEMENT vs SUPPLANT



## SUPPLEMENT

- Simply put means to 'add to'
- Federal agencies encourage supplementing-adding funds to existing state or local funds - add to or augment
- Examples:
  - Need to add new or compliant hardware to make eduroam work
  - Want to build out a location that has very little to nothing for connectivity
  - Use funds to expand on an existing grant and provide more capability or reach (be clear on what is covered by both and how both can stand alone on their own funding)

## SUPPLANT

- Simply put means to 'replace'
- Federal regulations strictly prohibit grant funds supplanting, or replacing, state, local, or agency funds
- Examples
  - Project or equipment was already in an approved budget.
  - Equipment and/or labor already purchased for deployment (reimburse an existing project).
  - Federal or State grants cannot be used as matching funds for grants

## eduroam expansion

***Add eduroam to your existing WiFi network***

- Upgrade hardware to support 802.11i / WPA2 Enterprise
- Add RADIUS servers (hardware, software, licensing)
- Use professional Services to install, configure, and integrate.
- Federate to eduroam network and expand access to all educational communities.

## Public Spaces

***Indoor or Outdoor WiFi access targeting communities in need***

- Parks, Recreational Areas, Green Spaces
- Public Libraries
- Community Centers
- Schools and Universities
- Cultural Arts Institutions
- Public Housing Complexes
- Public Transportation Hubs

## Connectivity to CEN

***Attach to CEN Fiber Network to also offer public WiFi***

- Cover cost of fiber build to connect to CEN
- Network Router / Switch
- Professional Services (PS) directly related to the turn up of services.

CT CGA PA 22-118 as Amended by PA 22-146

## HOW TO PREPARE



- Visit the [CEN Application Portal](https://cen.my.site.com/fundingprograms) to download and review all program documents (<https://cen.my.site.com/fundingprograms>)
- Gather the information needed for the application
- Prepare the content needed for submission with the application
- Complete the online application via the [CEN Application Portal](https://cen.my.site.com/fundingprograms)

# APPLICATION OVERVIEW



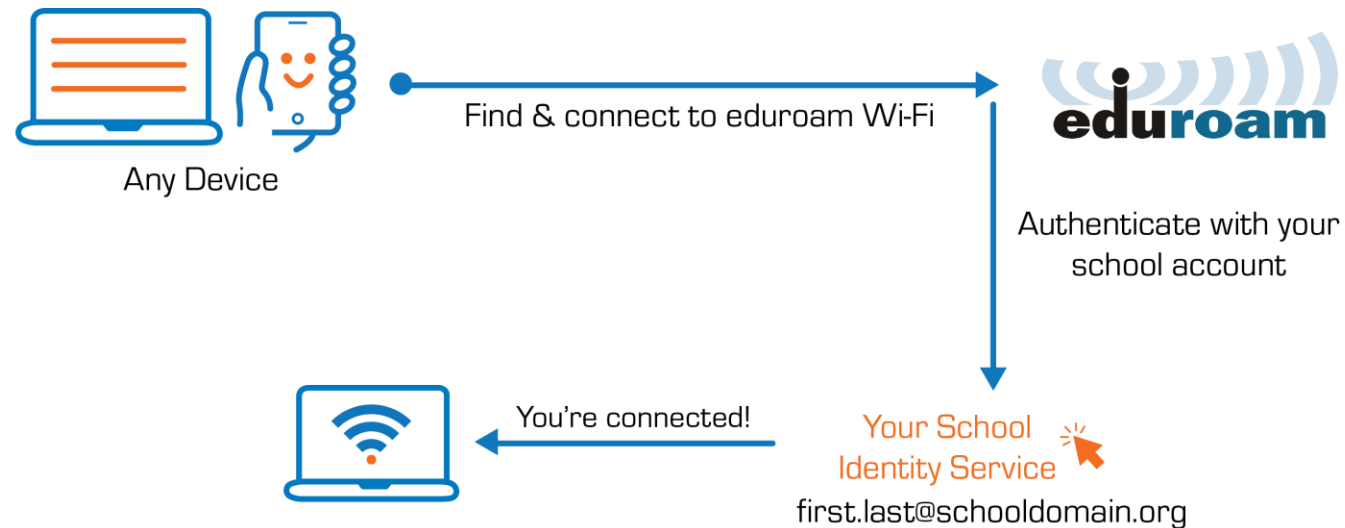
Section Title	Summary	Applicant Required Uploads
<b>Intake</b>	Lead and partner applicant organization details and points of contact	<ul style="list-style-type: none"> <li>Partnership Agreements or MOA's</li> </ul>
<b>Project Overview</b>	Project summary, location and minimum internet speed	<ul style="list-style-type: none"> <li>Statement on Organization &amp; Experience</li> <li>Executive Summary</li> </ul>
<b>Project Budget</b>	CPF funding requests, requests for advances as capital, delineation of administrative costs when applicable, and details on any acquired non-CPF funding including amounts and sources	<ul style="list-style-type: none"> <li>Project Budget</li> <li>Statement of Viability</li> </ul>
<b>Project Details</b>	Project timeline and end date, and current CEN connection status	<ul style="list-style-type: none"> <li>Project Timeline</li> <li>Technical Specifications</li> <li>Identified Risk and Mitigation Plan</li> </ul>
<b>Project Impact</b>	Demonstrated project impact (no questions, only uploads)	<ul style="list-style-type: none"> <li>Project Impact Statement</li> <li>Letters of Support</li> </ul>
<b>Project Prioritization</b>	Brief summaries on how projects address applicable project prioritization criteria	<i>(No uploads)</i>
<b>Attestations</b>	Attestations of understanding and agreements	<ul style="list-style-type: none"> <li>Applicant Affidavit</li> </ul>



# EDUROAM



- **eduroam** is the secure, world-wide roaming wireless service that allows students, faculty, and staff to roam on WiFi networks and find connectivity.
  - 2,500 participating locations in the US, and more than 33,000 worldwide.
- **How do I connect?**
  - Find eduroam in your list of available networks and connect using your school email address and account password. More information is available on our website.



# GRANT APPLICATION GENERAL ADVICE



## Login Early

- Get your grant portal access sorted out right away, navigate the space, review info, fill out what you can that is easy and straightforward. PLEASE DO NOT WAIT

## Use the Checklist

- Lists documents and needed items that should be ready at the time of application.
- Create files to upload and google or word docs with text to copy/paste as needed.

## Make the point

- Address the points in the scoring rubric so evaluators can clearly read and tie items to point values. Direct and to the point is always best.

## 5-Year Horizon

- Period of performance is 5 years. Hardware licensing can be included for the full term.

## Ask Questions

- If you have questions, ask, we want to get you answers and keep the process moving. E-mail, attend webinars, office hours, etc.

# GRANT ADMINISTRATION TEAM



## ADDITIONAL HELP

- Questions, comments, concerns? Please email and ask! [CENwifigrant@cteducation.net](mailto:CENwifigrant@cteducation.net)
- Office Hours will be posted soon

## IMPORTANT LINKS

- <https://ctedunet.net/cwifi/>
- <https://ctedunet.net/eduroam/>
- <https://eduroam.org/how/> (how eduroam works at a high level)
- <https://wiki.geant.org/display/H2eduroam> (beginner to advanced technical how-to to configure eduroam networks)