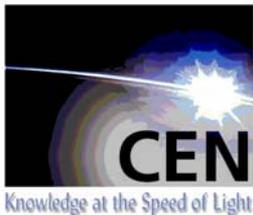


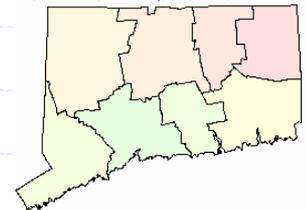
# Connecticut Education Network

Commission for Educational Technology  
Update

April 12, 2004



University of  
Connecticut

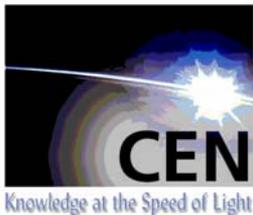


# Agenda

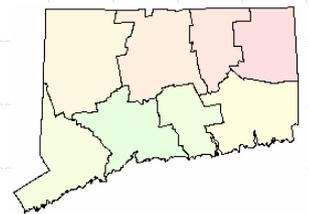
Recent Accomplishments

Present Activities & Planning

Budget & Finances



Connecticut

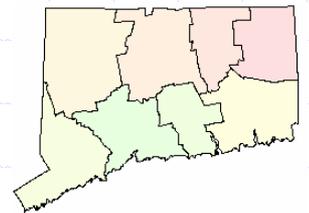


# Connecticut Education Network

- ◆ Phase I & II build completed Nov 02
  - Now connect to 100+ locations
  - >>> 182,000 K-12 Students (43%)
  - >>> 80,000 Higher Ed Students (45%)
  - 15 libraries
- ◆ Phase III complete, Phase IV under way



Connecticut



# Higher Education Connectivity

## ◆ Who's on Now

- UConn (6)\*
- CSU (4)\*
- CommTech System
- Charter Oak State\*
- Albertus Magnus\*
- Yale
- Trinity \*
- Wesleyan \*
- UNH
- Rensselaer
- Quinnipiac

## ◆ Pending Cutover

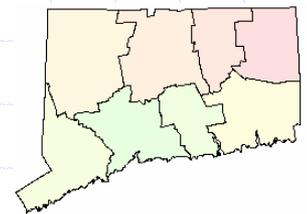
- U Hartford
- St. Joseph's
- St. Vincent's
- Fairfield
- U Bridgeport
- Sacred Heart
- Commtech Campuses (6)

## ◆ Who is next:

- Teikyo Post
- Conn College
- USCGA
- Mitchell
- Commtech (4)
- UConn Stamford
- Western CT

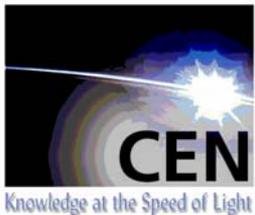


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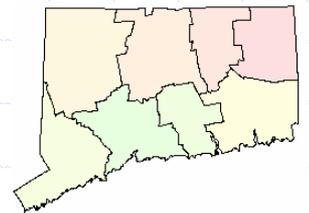


# Year 6 CEN E-Rate Approval

- ◆ Wave 20, January 20, 2004
  - !!!! 12 Months Later !!!!
- ◆ 48% or \$344,021 to Leased Circuits
- ◆ 54% or \$ 3,540,778 to Leased Fiber



Connecticut

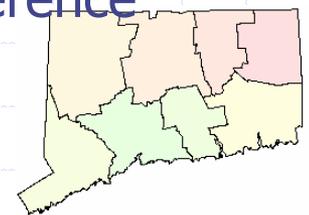


# Year 7 – Application Filed

- ◆ Scope is ***every K12 district***, every principal public library and all vocational technical schools
- ◆ Expect approximately 50% reimbursement on \$14,000,000 in project expenses
- ◆ Letter of Agency from all but one superintendent
- ◆ Letter of Agency from all but 13 PP library
- ◆ Promise from SLD to complete 90% of application approvals –before- July 1<sup>st</sup>
  - Discussion with USF senior staff at Statenets Conference

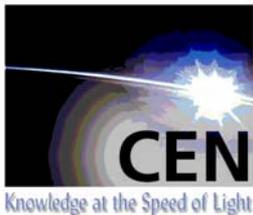


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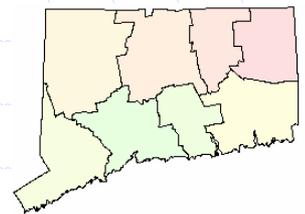


# CEN Advanced Services Support

- ◆ Agreement with UConn to assist with:
  - Technical Staffing for K-20 advanced services
    - ◆ Rob Vietzke, Network Architect
    - ◆ Robin Brown, Senior Security Analyst
    - ◆ Doug Gregory, Network Technician
    - ◆ Open Search, Senior Network Engineer (CCIE)
  - Internet2 Sponsorship and Connection
  - Low Cost Commercial Internet Services
  - Partnership in developing regional, national and international advanced networking



University of  
Connecticut



# Internet2 SEGP



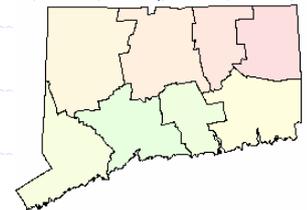
Sponsored Educational Group Participant

- ◆ Non-commercial network for R & E
- ◆ Access to next generation content for K-20
- ◆ Ability CEN participants to stay competitive
- ◆ Connecticut in-state capacity second to none
- ◆ Not available from *any* Commercial provider

[K20.internet2.edu](http://K20.internet2.edu)



Internet2® is a not-for-profit consortium, led by over 200 US universities, developing and deploying advanced network applications and technology, accelerating the creation of tomorrow's Internet.



# NEREN

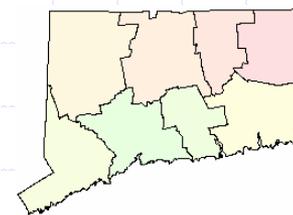
A REGIONAL OPTICAL NETWORK

Northeast Research & Education Network

- ◆ Connecticut \*
- ◆ Rhode Island \*
- ◆ New York \*
- ◆ Massachusetts \*
- ◆ Vermont
- ◆ Maine
- ◆ New Hampshire

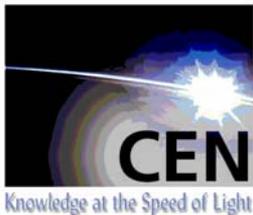


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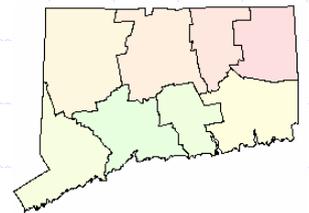


# NEREN Opportunities

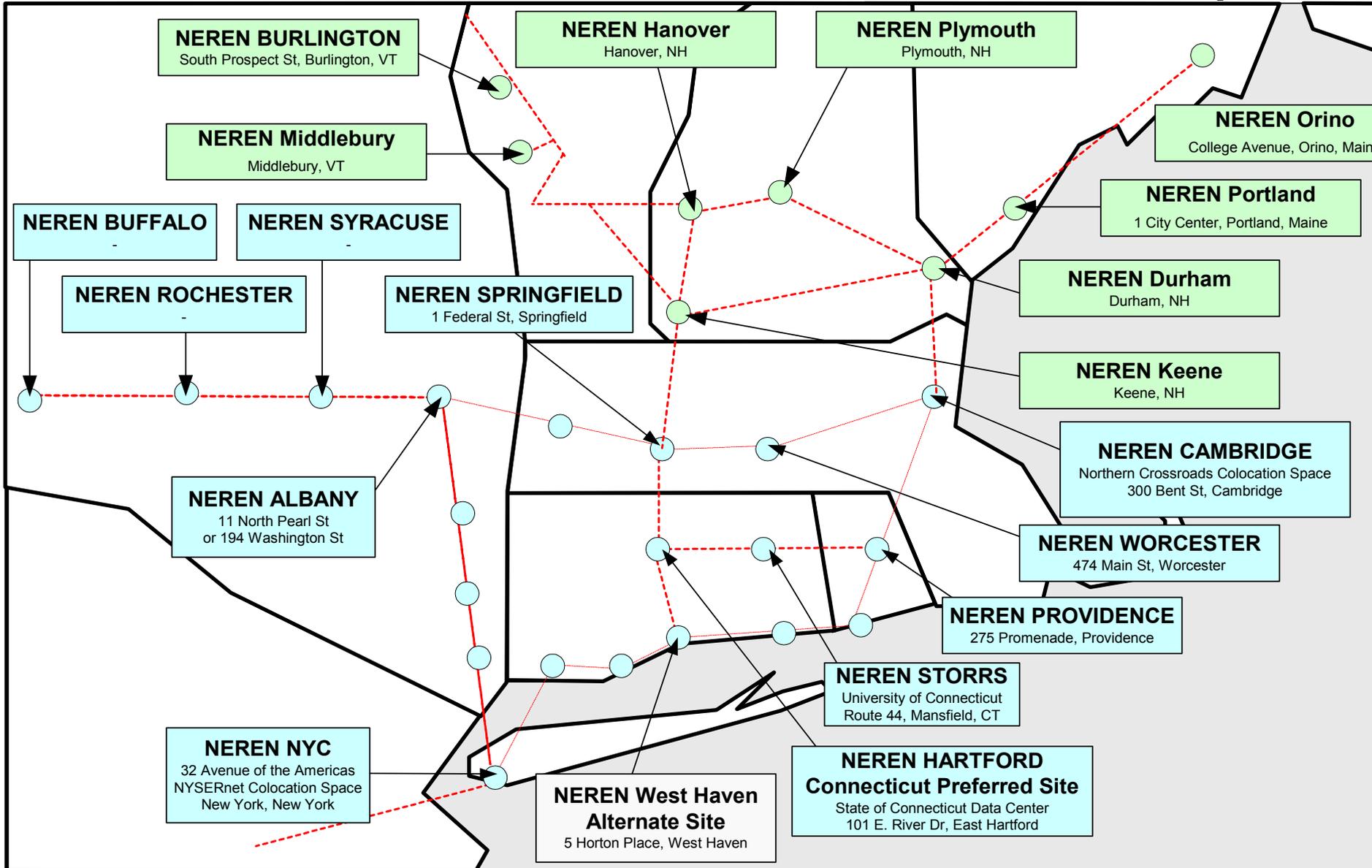
- ◆ Leverage bottom of long-haul fiber market
- ◆ Bring national and international research capacity in to North East
- ◆ Create level playing field with rest of country & world
- ◆ Assure in-state capacity carries across borders for Research and Education



Connecticut

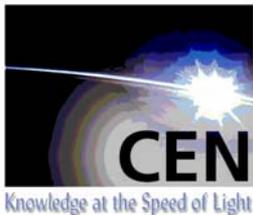


# Northeast Research and Education Network Proposal

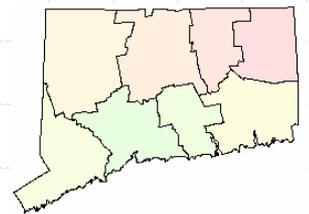


# Other Recent Accomplishments

- ◆ New Procurement Contracts
- ◆ ISP Program expansion
- ◆ Newsletter & 1<sup>st</sup> Marketing piece
- ◆ Expanded Government Partnerships
- ◆ Outreach & Presentations
  - National attention

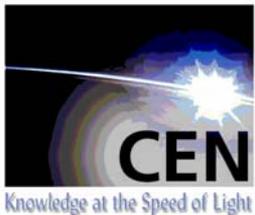


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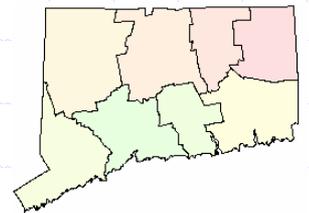


# Content Activities

- ◆ CT Distance Learning Consortium
- ◆ ICONN.org / CT Digital Library
- ◆ Connecticut History Online
- ◆ UConn Eastern Sea Mountains (Live)
- ◆ IFE Return to the Titanic (Live)
- ◆ CPTV HDTV Digital Video Initiative

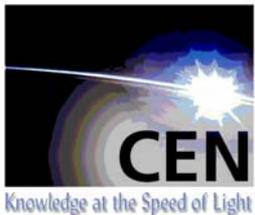


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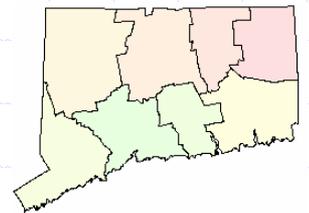


# Content Infrastructure

- ◆ Annenberg Server Mirror
- ◆ Digital Video Hosting Repository
- ◆ Internet2 Commons Video Conference Bridging / Translation Services



Connecticut

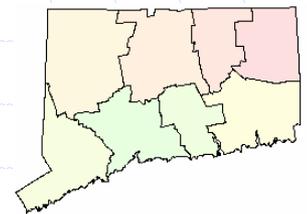


# Current Activities (Phase IV)

- ◆ With January 20, 2004 approval; construction underway to add:
  - 92 new optically connected sites
  - 215 miles of new fiber backbone
  - 14 Higher Education & Hub sites
  - Library upgrades



Connecticut





# NEAR TERM K-12 DELIVERY TIMELINES (ordered & funded)

## By July 1<sup>st</sup>, 2004

-Rocky Hill	Rocky Hill	Complete
-Windsor High School	Windsor	Complete
-Trumbull Board of Ed	Trumbull	Complete
-Ellington Middle School	Ellington	5/30/2004
-Glastonbury High School	Glastonbury	5/30/2004
-Manchester Town Hall / High School	Manchester	5/30/2004
-Rockville High School	Vernon	5/30/2004
-Bristol Board of Education	Bristol	5/30/2004
-Plainville High School	Plainville	5/30/2004
-Troop G Hub Site	Bridgeport	5/30/2004
-Troop A Hub Site	Southbury	5/30/2004
-Bloomfield Board of Ed	Bloomfield	6/30/2004
-Hartford – CREC (changed loc)	Hartford	6/30/2004
-Fairfield Board of Ed	Fairfield	6/30/2004
-Mansfield EO Smith High School	Mansfield	6/30/2004

## By September 1<sup>st</sup>, 2004

-Enfield Fermi High	Enfield	7/30/2004
-Windsor Locks High School	Windsor Locks	7/30/2004
-Bridgeport Public Schools	Bridgeport	7/30/2004

-Simsbury High School	Simsbury	8/30/2004
-Stamford Board of Ed	Stamford	7/30/2004
-Stratford Board of Education	Stratford	7/30/2004
-Bridgeport – Bullard Havens VT	Bridgeport	8/30/2004
-Bethany – Amity Jr/Sr High	Bethany	8/30/2004
-Monroe Elementary School	Monroe	8/30/2004
-Norwalk BOE	Norwalk	8/30/2004
-Trumbull – CES	Trumbull	8/30/2004
-Westport Staples High	Westport	8/30/2004
-Westport Town Hall	Westport	8/30/2004
-Wilton	Wilton	8/30/2004
-Stamford Hub Site	Stamford	8/30/2004
-Danbury Board of Ed	Danbury	8/30/2004
-Danbury Hub at WCSU	Danbury	8/30/2004
-Danbury High School	Danbury	8/30/2004
-New Canaan Town Hall	New Canaan	8/30/2004
-Southbury	Southbury	8/30/2004
-Ansonia - Emmett OBrien VT	Ansonia	8/30/2004
-Middlebury	Middlebury	8/30/2004
-Wilton	Wilton	8/30/2004
-Tolland High School	Tolland	8/30/2004

Pending on time “make ready” by pole owners & maintainers

# NEAR TERM K-12 DELIVERY TIMELINES (ordered & funded)

## September / October 2004

Avon High School	Avon
Wolcott	Wolcott
Darien BOE	Darien
Tolland High	Tolland
Bethel High School	Bethel
Danbury - Henry Abbott VT	Danbury
Stamford - JM Wright VT	Stamford
Waterford	Waterford
Willington - District 19	Willington
Canton Senior High School	Collinsville
New Hartford	New Hartford
Torrington	Torrington
New Fairfield	New Fairfield
HC Wilcox VT	Meriden
Vinal VT	Middletown
Goodwin VT	New Britain
Windham VT	Windham
New London	New London
LEARN – RESC	Old Lyme
Groton Board of Ed	Groton
Grasso - VT	Groton

East Hartford High School	East Hartford
East Windsor Jr/Sr High	East Windsor
Farmington High School	Farmington
Somers	Somers
Berlin Town Hall	Berlin
Hamden - Eli Whitney VoTech	Hamden
Suffield	Suffield
Windham Middle School	Windham
Burlington	Burlington
Litchfield	Litchfield
Litchfield - RESC	Litchfield
Newtown High School	Sandy Hook
Sherman	Sherman
Manchester - Howell Cheney VT	Manchester
Waterbury - JF Kaynor VT	Waterbury
Old Lyme	Old Lyme
Old Saybrook	Old Saybrook
LEARN	Old Lyme
New Milford	New Milford
Shepaug Valley	Washington
Milford- Pratt VT	Milford

Pending on time “make ready” by pole owners & maintainers

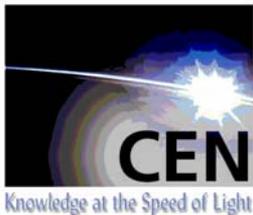
# ***All Remaining Towns***

***Begin Immediately Pending:***

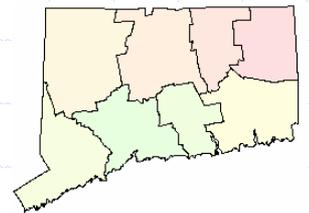
- Approval of Year 7 Erate Application***
- Approval of \$5M from 2004 Bond Package***
  - (in addition to existing commitments of \$5M)***

# By end of 2004, CEN will extend to:

- ◆ 82% of K-12 students (464,000+)
  - ◆ 88% of higher education students (150,000+)
  - ◆ Connect to at least 58 library systems
- 
- ◆ And, by July 2005, pending funding:
    - Network complete to 100% of K12, Libraries and Higher Education

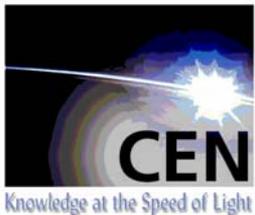


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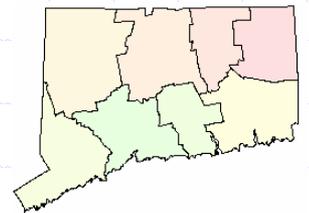


# Looking Forward

- ◆ Complete and document framework for local municipal upgrades
- ◆ Address Library Consortium and Library network funding issues
- ◆ Increase support for content hosting and service infrastructure
- ◆ Increased facilitation of K-20/Lib conversation crossover
- ◆ Enhance communications to multiple Levels of our community
- ◆ Enhance 7x24 support & communications mechanisms

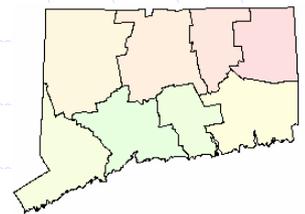


Connecticut



# Budget & Finance Update

- ◆ FY '03 \$10M carried us through FY' 04
  - 2004 Bonding Never Passed \$5M
- ◆ 2005 Bond package includes \$5M
- ◆ To complete on time in 2005, we need \$10M, not \$5M in FY'05
  - Erate application filed before we knew these funds were not forthcoming



# Budget Breakdown FY '05

## Existing contracts and commitments

\$2.6 M for 2<sup>nd</sup> year of 5 year network contract

\$1.2M for equipment to activate sites

\$.7M for equipment, filtering, software maintenance costs

\$.3M for traditional telecom fees

\$.2M contingency

## Completion of the remaining sites

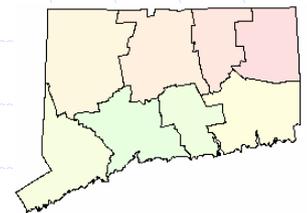
\$ 2.5 M for 105 additional K12 and Higher Ed Sites

\$ .3 M for annual library circuit fees

\$ 2.2M for one-time installation fees for these sites



Connecticut

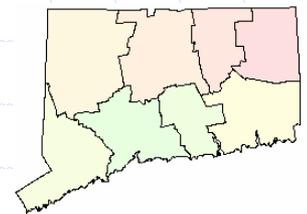


# Budget Needs

- ◆ On track with \$5M /yr one time fees
  - Skipping FY'04 delays completion 1 year
- ◆ Lack of operating dollars becoming critical barrier to ongoing support particularly as construction finishes
  - Directly effects library & non-dark fiber sites
  - Retards optimum staffing
  - Need \$4M /yr operating beginning '06



Connecticut



# Contact CEN

<http://www.ct.gov/cen>

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Director, CEN Advanced Services Center, University of Connecticut

[John.Vittner@po.state.ct.us](mailto:John.Vittner@po.state.ct.us)

Co program manager, Dept. of Information Technology

[Robin.Brown@uconn.edu](mailto:Robin.Brown@uconn.edu)

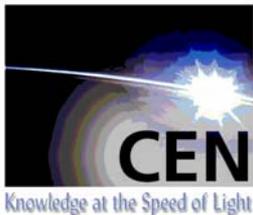
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Network Technician

[Sheri.Devaux@po.state.ct.us](mailto:Sheri.Devaux@po.state.ct.us)

Internet Services Consultant (Filtering, DNS)



Connecticut

