Infrastructure Advisory Council
Meeting Minutes
August 7, 2019

Attendees

- Colleen Bailie — West Haven Public Library
- Doug Casey — Connecticut Commission for Educational Technology
- Tom Dillon — Independent
- Fred Kass — Trinity College
- Ryan Kocsondy — Connecticut Education Network (CEN)
- Sabina Sitaru — Connecticut Health Information Exchange
- Rick Widlansky — Libraries Online (LION)

Agenda

- Cybersecurity Issues and Resources
- CEN Member Feedback
- Equity – Homework Gap
    - Eduroam Pilot Communities
    - Access Point Programs

Meeting Notes

The items below represent an assimilation of ideas rather than a strict verbatim or chronological record of points shared.

Welcome

The meeting convened at 1:30 PM with a welcome by Tom Dillon, Infrastructure Advisory Council Chair, and Doug Casey of the Commission. Tom provided the group with an overview of the agenda items.

Cybersecurity Issues and Resources | CEN Member Feedback

Tom opened a discussion on this topic by noting the ongoing challenges that schools, universities, and libraries have in preventing and minimizing the impact of cyber-attacks. Fred Kass concurred, noting the importance of prevention rather than simply responding to incidents. He also acknowledged the difficulty that institutions have in recruiting and retaining a skilled cybersecurity workforce. Ryan Kocsondy mentioned the University of Connecticut's School of Engineering cybersecurity program as a strong feeder of talent to institutions.

Members discussed two main areas of need that the Commission could address, either through CEN or separately: (1) staff training and (2) cybersecurity auditing. With regard to training, the Advisory Council members shared the resources they currently use to establish and maintain "cyber hygiene" among staff and students. Resources include those from the SANS Institute (www.sans.org) as well as third-party providers such as KnowBe4 (www.knowbe4.com) and Security Mentor (www.securitymentor.com), which State agencies use to train staff. Rick Widlansky mentioned that the Connecticut Library Consortium (CLC) provides cybersecurity training to its members.

There may be an opportunity to leverage the scale and resources of CEN or the Department of Administrative Services (DAS) procurement team to establish agreements with one or more of these providers that municipalities, districts, libraries, and educational institutions could leverage. Advisory Council members expressed some interest in developing training and outreach materials customized to Connecticut statute (e.g., student data privacy). Provisioning of these resources could even take place via researchIT (www.researchitct.org) or using a similar authentication solution, whereby anyone on the Network could freely access high-quality training materials.

Ryan briefly summarized responses to the survey that attendees of the CEN Conference in May completed. He will consolidate and share this data in the near future. In the meantime, he indicated that CEN members have clearly articulated a value in having additional shared cybersecurity services and resources.

The group also expressed interest in legislative changes that would require institutions to train their staff on best practices in using technology (e.g., see recent Texas law). All acknowledged the key role in mitigating risk that employee cyber hygiene plays. Providing strong cybersecurity outreach and support can also represent an economic development incentive, attracting companies to a state that provides a safer place to do business online.

The other area of opportunity would come in services around cybersecurity system and organization controls (SOC). Ryan mentioned three potential frameworks for these services through CEN: (1) hiring staff in-house to provide services directly, (2) "white labeling" the service with fulfillment through partners, and (3) direct pass-through to trusted providers. A number of potential partners already provide these services to Connecticut institutions, including Foresite, GreyCastle, Trustwave, and Vancord. The Advisory Council members noted that every institution invests in some type of cybersecurity efforts, whether through hiring a chief information security officer (CISO); brokering a shared CISO position, as have Trinity College and Wesleyan University; or designing a mix of in-house and external leadership and support. Additional costs go to cyber liability insurance, a guaranteed premium against potential direct and indirect costs of an attack.

At the least, the Commission and CEN can continue to champion effective cybersecurity programs and resources, as they have done by promoting the NIST Framework (www.nist.gov/cyberframework) for all institutions and Trusted Learning

Environment (www.TrustedLearning.org) for schools. Through the CEN Services Advisory Council, Ryan will further investigate needs and opportunities in this area.

Equity – Homework Gap
In addition to providing safe, high-speed Internet connections to Connecticut's education institutions, the Commission remains committed to ensuring access outside of schools, libraries, and universities to support learning anywhere, anytime. To that end, the Advisory Council discussed different approaches to providing Internet access to students.

Eduroam
Doug opened this topic by reminding members of previous discussions around Eduroam (www.eduroam.org), a technology that enables institutions and partners to authenticate students through a federated credentialing model. Late last year, discussions took place among leaders in Middletown to pilot Eduroam for K – 12 students in partnership with the Middletown Public Library, Wesleyan University, LION, and CEN. Local challenges have delayed the implementation of this initiative, and Doug welcomed suggestions for other potential pilot communities. To help generate ideas, he shared a list of [State Colleges and Universities](#) as well the Connecticut Conference of Independent Colleges [member institutions](#).

Members of the Advisory Council shared additional details about the Eduroam technology framework, from institutional credential management to radius server configuration. Fred noted that many colleges have produced instructional videos to support student and staff use of Eduroam (see example from Brigham Young University at https://youtu.be/m_0oftaXfQc), and Eduroam creates its own videos every few years (see [current example](#) posted on Trinity's Web site).

In order to facilitate community-based Eduroam pilot planning, the group agreed that these videos and a sample meeting agenda would help guide conversations and lead to actionable outcomes. Soon after the Advisory Council meeting, Doug e-mailed a copy of the agenda used for Middletown's planning.

Members discussed several Connecticut cities and towns that might welcome an Eduroam deployment:

- Bridgeport: Tom offered to contact leaders in the Bridgeport community, including representatives of Bridgeport Public Schools, Housatonic Community College, and the Bridgeport Public Library. His relatively close proximity to these institutions and contacts there make it a logical fit for next steps.

- Hartford: As the former Chief Information Officer for the city and schools of Hartford (MetroHartford Information Systems), Sabina offered her assistance in convening leaders from Hartford Public Schools and Hartford Public Library. Fred welcomed the opportunity to meet with leaders of these organizations, looking at a pilot concentrated around the "Learning Corridor," the campus of magnet

schools across the street from Trinity, and more specifically [Hartford Magnet Trinity College Academy](). Other potential partners in Hartford could include Capital Community College. (NOTE: As of the publication of these minutes, a planning meeting had already taken place on August 22, 2019.)

- West Haven: As Director of the West Haven Public Library, Colleen Bailie offered her town as another potential Eduroam pilot community. She promised to contact her colleagues at the University of New Haven (located in West Haven) along with leaders from West Haven Public Schools to discuss the opportunity.

Mobile Hotspots
Schools, libraries, and universities have also adopted programs that loan mobile hotspots to students and patrons. Doug mentioned that two national hotspot providers have approached the Commission, offering discounts at the state level to their devices and the management tools to support their use. Doug asked the Advisory Council members about their own experience in running such programs and the potential value of a statewide initiative.

Rick mentioned that 8 of 29 members of LION have loaner programs, and the Connecticut Library Consortium provides hotspots at a unit cost to libraries of $22.99 per month. Others mentioned Tech Soup as a source for procuring mobile access points. Colleen stated that West Haven Public Library sees heavy use of its hotspots, which patrons can check out for up to 14 days. Members of the Advisory Council welcomed opportunities to reduce costs through the type of statewide program mentioned at the start of the discussion. Doug thanked them for their input and suggested that gathering feedback on access point programs (costs, usage, platforms, etc.) might help quantify the potential cost savings and impact of a statewide program.

Adjournment
Tom thanked the group for their time and input and concluded the meeting at approximately 3:30 PM.