U.S. UCAN and its role in Wisconsin

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From BroadbandUSA.gov:

The American Reinvestment and Recovery Act appropriated $7.2 billion for the Department of Agriculture's Rural Utilities Service (RUS) and the Department of Commerce's National Telecommunications Information Administration (NTIA) to expand broadband access and adoption in communities across the U.S., which will increase jobs, spur investments in technology and infrastructure, and provide long-term economic benefits.
July 2009: NTIA Broadband Technologies Opportunity Program (BTOP) Round 1 NOFA:

- Section 6001 of the Recovery Act establishes a national broadband service development and expansion program to promote five core purposes:
  - a. To provide access to broadband service to consumers residing in unserved areas of the country;
  - b. To provide improved access to broadband service to consumers residing in underserved areas of the country;
  - c. To provide broadband access, education, awareness, training, equipment, and support to community anchor institutions (e.g., schools, libraries, medical facilities), or organizations and agencies serving vulnerable populations (e.g., low-income, unemployed, aged), or job-creating strategic facilities located in state- or federally designated economic development areas;
  - d. To improve access to, and use of, broadband service by public safety agencies; and
  - e. To stimulate the demand for broadband, economic growth, and job creation.
• December 2009: First BTOP winners announced

• January 15 2010: BTOP Round 2 NOFA released
due March 15

• March 2010: National Broadband Plan released
In the past, the connectivity needs of research institutions have been met by non-profit research and education (R&E) networks such as Internet2 and National LambdaRail. R&E networks played a central role in the development and growth of the Internet itself through ARPANET and later NSFNET. Today, similar R&E networks provide high-speed (10 Mbps-1 Gbps) connectivity to 66,000 community anchor institutions. But more can be done—it is estimated that only one-third of anchor institutions have access to an R&E network today. This model should be expanded to other community institutions.
National Broadband Plan: “Unified Community Anchor Network” (PP 154-55, 194)

- One approach to ensure connectivity for facilities that serve public purposes is to give a non-profit institution the mission and capability to focus on serving the broadband needs of public institutions, including health clinics, community colleges, schools, community centers, libraries, museums, and other public access points.
Recommendation 8.22: The federal government and state governments should develop an institutional framework that will help America’s anchor institutions obtain broadband connectivity, training, applications and services.
BTOP Round 2 NOFA:
CCI priority criteria:

• ... deploy Middle Mile broadband infrastructure with a commitment to offer **new or substantially upgraded** service to community anchor institutions.
• ... incorporate a **public-private partnership**
• ... serve **community colleges**
• ... serve **public safety**
Advanced networks tailored to specific needs of users
- High capacity, uncongested, transparent, leading edge network technologies (IPv6, multicast) – “advanced applications ready”
- Priced to encourage, not discourage, new use, new applications, growth

Networks owned, controlled, directed by their users

Operated with full community transparency

Three tiers: national, regional/state, local

Non-profit, public purpose

Facilitating an active “community of users” as important as the network itself – self help, virtual help desk, experiments, collaboration, problem solving, training, etc.

A people network that makes the technical network useful
...national infrastructure project to tie together all anchor networks funded by BTOP.

This proposal expands the model used today.

...this project glues the winning BTOP projects together as a whole. Simply put, this project does not compete with other BTOP projects; it completes them.
BTOP

Free… Like a Puppy

BTOP is a capital program. *There is no money for operations!* Applicants had to show a plan for financial sustainability over 8 years.
Goals of the **U.S. UCAN** Project:

- Leverage the Internet2 Network and the Research & Education Networking Model to support all 200,000 community anchor institutions in the U.S.
  - Enable - for the anchor community - what the Internet2 organization has provided for higher education
  - Eliminate the network as a barrier to success for CAIs
  - Integrate new CAIs into the R&E community
  - Develop functioning communities of users: convening authority, working groups, standards, problem solving, sharing best practices and technical know how, “virtual help desk,” training, R&D, policy advocacy, etc.

- U.S. UCAN development efforts to coincide with network build completion (approx. 18-24 months)
  - Positioned as a project of the University Corporation of Advanced Internet Development
  - Contributing staffing & resources in collaboration with growing numbers of partners
Planned 100G Internet2 Network in support of U.S. UCAN
Infrastructure Goals

• Provide a leading generation national scale infrastructure to support community anchor institution applications
• Fundamentally linked to (and dependent on) similar efforts at the regional, state and local level
• Enable new applications to have flawless performance at scale
• Support complete operational transparency including network operations, finances and network performance
• Community owned infrastructure with community driven priorities
• Engineered to meet CAI expectations and requirements
• Enable for the anchor community what the Internet2 organization has provided for higher education
• Integrate new CAIs into the R&E community
• Functioning community of users: convening authority, working groups, standards, problem solving, sharing best practices and technical know how, “virtual help desk,” training, R&D, policy advocacy, etc.
• Goal to have something “up and running” by the time the network builds are completed (approx. 18-24 months)
• Start as a project within Internet2
• Modest, but growing, staffing requirement – resources?
Task Force on CAI Economic Models

“Develop an economic model(s) that will assist regional and national R&E networks and Community Anchor (CAI) partners in addressing programmatic, operational and financial challenges contained within the federal Broadband Technology Opportunity Program (BTOP).”

The work of the Task Force will include:

• Identify the costs associated with establishing the U.S. UCAN program, including connectivity of CAI’s to regional and national BTOP networks
• Propose cost recovery models that meet the goals of the BTOP program while also maintaining financial viability of national and regional R&E networks
• Assure cost recovery models support the long-term programmatic and financial interests of the CAI’s
  – Not constrain the development of applications and services for CAI’s
  – Adapt to significant changes in demand, i.e., are easily scalable
  – Sensitive to diversity among the regional R&E networks (e.g., size, geography, funding sources, organizational relationships)
  – Not assume complex new business requirements for CAI’s and their network partners
  – Include the capability to engage and support BTOP funded projects where R&E network involvement currently does not exist
Task Force Members

**Task Force Chair**

Mike Roberts

**Robert (Bob) Bocher**
representing the American Library Association Office for Information Technology Policy (ALA/OITP)

**Tom Rolfes**
*Education Information Technology Manager, Nebraska Information Technology Commission/Network Nebraska*

**William (Bill) Clebsch**
*Associate Vice President for IT Services, Stanford University*

**John Branson**
*Director of Educational Research Development and Technology Services, Chester County, Pennsylvania Intermediate Unit, Chester County, Pennsylvania*

**Joanne Hovis**
*President, Columbia Telecommunications Corp. (CTC)*

**Marianne Chitwood**
*Senior Manager I-light Indiana*

**Denise Atkinson-­‐Shorey**
*Chief Information Officer, Eagle-­‐Net (Colorado)*

**Robert (Bob) Bocher**
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**Dave Kirby**
*Health Care Informatics Consultant*

**George Laskaris**
*Chief Executive Officer, NJEDge*

**Ray Ford**
*Chief Information Officer, University of Montana*
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<th>Task Force Recommendations</th>
<th>Foundation elements</th>
<th>Transition beginning in 2012</th>
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<td>Create a <strong>U.S.UCAN</strong> Council to advise all elements of the overall <strong>U.S.UCAN</strong> program</td>
<td>Create <strong>U.S.UCAN</strong> Council</td>
<td>Bootstrap the <strong>U.S.UCAN</strong> Council and use council to help with E.D. search</td>
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<td>Internet2 should create and host a <strong>U.S.UCAN</strong> National Program Office with an estimated budget of $1.9M using a viable cost recovery model <em>to be phased in over multiple years</em></td>
<td>Hire a permanent Executive Director</td>
<td>Reopen search for ED; Hire in early 2012</td>
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<td>Migrate SEGP program to <strong>U.S.UCAN</strong></td>
<td>Prepare budget covering transitional period; Begin transition of SEGP revenue to cover NPO costs and allow for replacement of network revenue; Continue to approach Gates Foundation to assist in transitional funding</td>
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<td>Migrate rural health program to <strong>U.S.UCAN</strong></td>
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<td>The Primary mission of <strong>U.S.UCAN</strong> should be to assist CAIs in connecting to broadband ARN networks. <em>by collaborating with ARNs and CAIs to drive advanced applications, develop best practices, identify emerging trends and engage constituents</em></td>
<td>Develop U.S. UCAN affiliate program to support CAIs in each affiliated state</td>
<td>Pilot affiliate model with a small number of full service regionals and a non-R&amp;E BTOP winner</td>
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**U.S.UCAN** is a project of the University Corporation for Advanced Internet Development
• Organizations were invited to submit proposals to participate
• 14 affiliate organizations organized into 5 groups
  – Wiscnet, Indiana Gigapop, Morenet
  – CENIC, PNWGP
  – MAGPI, OARnet, NYSERnet
  – MCNC, FLR, MDren
  – UEN, IRON, Montana
• Affiliates identifying common issues, opportunities, challenges
• Workshop held April 26
US UCAN Workshop

Mark Johnson

4.26.12
Format / agenda

• 5 speakers covering public safety, public media, healthcare, libraries, K12 education

• Short presentations followed by extended Q&A / discussion

• Working lunch to identify key opportunities

• Breakout sessions roughly organized around geographic regions focused on taking advantage of the opportunities

• Report out from breakouts

• Full group discussion of reports

• Wrap up
General impressions

- Lots of energy
- Very positive
- Very little skepticism or negativity
- Very broad and diverse attendance
  - All affiliates except Montana present
  - MERIT sent 3!
  - AARnet, REDclara, CERnet
  - Several speakers stayed for the entire event
- Anxious to do it again – selected the moderator for the next workshop
Key findings

• Step 1 for CAIs is solid, high performance connectivity
• Need Net+ like services specifically packaged for CAIs
• US UCAN needs dedicated communications support
• Affiliates want to co-brand services with US UCAN
• We should use this opportunity to enlist public media’s ability as story tellers
• US UCAN and affiliates need to go where the money is – e.g. health care
• Grouping of Affiliates is successful and important
• Lots of opportunities for synergy across sectors once the connectivity hurdle is cleared
Next Steps

• Immediate
  – Develop an action plan for each Affiliate Group
  – Develop a portfolio of successful CAI stories
  – Develop a communication plan for stories and branding
  – Identify bandwidth guidelines by sector
    • Focus on required applications
  – Identify champions for Health, Public Media and Public Safety
  – Push forward with speed test project

• Longer Term
  – Repository of CAI success stories, best practices and contacts
  – Relationship with Public Media and successful creation of programming
  – Significant US UCAN presence at Internet2 FMM
  – US UCAN presentation by CAIs and affiliate at professional meetings such as HIMSS
Questions?

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