

CONNECTICUT BROADBAND INTERNET COORDINATING COUNCIL (CBICC)

Meeting Minutes for December 15, 2008, 9:00am – 12:00pm

LEGISLATIVE OFFICE BUILDING, ROOM 1B

CALL TO ORDER

COUNCIL MEMBERS PRESENT

- **Mike Chowaniec**, Cablevision
- **Jack McCoy**, Town of Manchester
- **John Emra**, AT&T
- **Rob Earley**, Comcast
- **Rob Vietzke**, *Vice Chair*, Internet 2
- **Lou Manzione**, *Council Chair*, University of Hartford
- **Robert Mundy**, *Ex-officio*, DPUC
- **Bill Vallée**, Office of Consumer Counsel
- **Greg Shimer**, WebMD
- **Anthony Santino**, Laurel Woods Inc.
- **Patrick O'Brien**, *Ex-officio*, OPM

**Via Phone for part of meeting: Ed Murphy, JDSU*

GUEST SPEAKERS INTRODUCED

- **Rich Mavrogeanes**, Founder, V-Brick Technologies
- **Sharon Gillett**, Commissioner, Department of Telecommunications and Cable, Commonwealth of Massachusetts

SPEAKER 1: Rich Mavrogeanes (RM), Founder, V-Brick Technologies

V-Brick works to send high quality TV over networks. Their core product is an industry leading networked video appliance. Broadband is a new use of an old term which was one of three types of bandwidth (i.e. narrow, wide, broad) but 'broadband' now encompasses everything. RM notes that Virgin Mobile announced 50 MB service but this service will not be seen in U.S. or CT.

Main issue: It's not enough to have connectivity. It has to be useful connectivity – i.e. sufficient speed. Why not fiber instead of roads for true telecommuting? Why is fiber not going into roads when a road is opened? RM commented that water is a public service but internet bandwidth is not.

What should be done: Promote legislation that encourages the private sector.

Discussion: Vietzke asked what is working in other places.

RM cited the Metcalf rule that the value of network is proportional to the square of the number of users. So it's not just individual user access but a community having access that will make a difference. He also cites support for multicast which CT has in pockets.

Reiteration that more government support for broadband is needed. RM cited Korea where 100 MB symmetrical bandwidth is ubiquitous. Anecdotally, V-Brick could do telepresence videoconferencing with Korea but not across the street to Wallingford.

Discussion of the minimum for bandwidth. RM: "if you build it, they will come." Start at 25 MB minimum symmetrical bandwidth. Currently most businesses are feast or famine: either fractional T1 or two T1s to DS3 or above.

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V-Brick and Education

If someone is connected to the CEN then they could use the V-Brick for 1 & 2-way TV. CEN supports multicast, which is vital to the delivery of education. Institutions don't utilize CEN. But RM said the issue goes back to the consumer. Isn't the objective that a student can participate from home? Enable widespread deployment of high speed connectivity and that will enable the student participation. A question on teacher training prompted him to add that the industry is getting simpler so teachers do not necessarily need additional training to operate broadband equipment.

RM says that CT has the best education network in the country from what he has seen. Arguably, it is a 1Gigabit connection to every school. However, per McCoy only 3 cities actually have schools connected.

Chairman Manzione talked about the interest at University of Hartford to reach out to people around the world by broadcasting lectures. They need terminal equipment in the classrooms; which is not inexpensive, but it is feasible. Could it be more cost effective for institutions to acquire equipment by building it into the service contract as is done with cell phones? RM said it is possible to bundle the equipment into services but he is not an advocate of that. If the content is compelling, people will watch regardless. Per RM, V-Brick customers end up spending about 6-7K per classroom including cameras. The total cost depends on intent and whether there is broadband at the other end for the viewer/end-user.

RM Concluding Remarks, In terms of Recommendations for the CBICC.

We have public roads, so he would encourage the state to allow any carrier to deploy fiber when roads are being torn up. Why not? As a matter of course if state installed dark fiber at every opportunity; the state could own this fiber and then lease it. We should do with fiber what Eisenhower did with concrete and the interstate highway system.

SPEAKER 2: Sharon Gillett, Commissioner, Department of Telecommunications and Cable, Commonwealth of Massachusetts (see PPT presentation also)

The presentation she reviewed was prepared for the State Joint Conference on Advanced Services. First map is on population density. Density is what drives cost, especially w/r/t wired technology. If you leave deployment to the private market, then service goes first to higher density areas. Areas surrounding cities are the issue.

The initiatives in Massachusetts are coming from the people who feel they are underserved; thus the authority to borrow the \$40 million. In addition, there were about 12 years of trying things that did not work (i.e. demand aggregation projects – 'Berkshire Connect') – however that did not solve any residential issues. MA tried wireless but that does not work well with hills and trees. People were sitting in library parking lots to use the hotspot so kids could do their homework.

There are challenging economics to serve rural communities.

- 32 towns in western MA had no broadband at all
- Only 3 have a rural telco (Verizon)

The Governor announced an initiative. Verizon went live with a whole bunch of stuff and now about half of the people now have it but the other half are still mad that they do not.

- Fios is available in Eastern MA
- Upgrades of DSL in central MA
- DSL capability in Western MA

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See slide re: legislation – Massachusetts Broadband Incentive Fund which is run by a quasi-public agency. Gillett serves on their board but does not run it. It is a Public-Private approach w/ co-investment model because they are bond funds. The bonds will be owned by the state at the end of day. The model is the state creates assets that can be used by private sector. For example, state would build towers and private sector would hang radios and antennas. Also hoping to take advantage of potential broadband items in new presidential administration's stimulus package.

Massachusetts is a home rule state like CT. Some towns are as small as 350 people. Regional approach is a challenge for towns but it is the only way to afford it. SG agrees with RM that when road is opened, fiber should be put down. MA is working on that as a priority and it's in the legislation.

How do you know who is un-served?

- FCC map (not perfect). Zip code-based and if anyone has a broadband bill, then that area is considered served but that is not representative. FCC is discussing switching to census blocks.
- The Mass Tech Collaborative did a survey of the entire state and then mapped it (see slide). Red shows where no broadband is available.
 - Underserved (means that only part of the community has BB)
 - 32 towns have nothing
 - 43 towns have no cable

The map helped catalyzed actions in MA.

SC Recommendation: Quantify as much as possible. There is a role for government here. It's a market failure, and it's hard to live without BB these days.

DISCUSSION

Issues:

- Towns may have an ordinance for no poles past a certain height. People do fight the antennas. Each town has now has a BB committee. Necessary to work with towns and educate them. Communities have to be willing to make it happen. Some towns have absolutely no money.
 - SG cited the example of Vermont. Their statute shifted the balance of power. With a system of towers the state has more say. SG thinks there is now a tide of more people wanting BB access.
- Right of Way Access. Zoning, tower siting, pole placement are also issues.

SG points out that it is costing the Commonwealth of Massachusetts money to maintain dual processes for the dial-up vs. BB users. Commission itself has to be careful because they are regulators. States do not have regulatory authority over BB. "We never set the price and wouldn't want to." But SG believes where they do have authority they should exercise it.

See slide with Geographic Information Services (GIS). GIS is a state agency. Mapping is done in the public sector. When the process is done, there will be a map with red dots showing unserved areas. SG qualified that statement to say instead "unserved citizens" since the town boundary does not matter.

DSL has distant limit of 18,000 feet from the central office. Possible to inject fiber and make it go further. Affordability is major issue and can explain why people might stick w/ dial-up

Question about how the \$40 million figure was arrived at:

A study was done on "Unserved Communities Project." Operational budget of \$25 million was first approved, but that got bumped up in legislature.

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OPERATIONAL PART OF MEETING

Minutes -- Chairman Manzione called for a motion to approve the minutes from September's meeting. Emra moved to approve. All were in favor none opposed. No abstained.

Vice Chair -- Chairman Manzione announced that Rob Vietzke's nomination for recommendation as vice chair of the council had been approved by the House Speaker and Senate President.

ADMINISTRATIVE

Web Site -- Ann Bertini of asked if council members would want their e-mails listed on the CBICC web site. Shimer said it would be okay as long as it's a hyperlink and not displaying the e-mail address.

She also explained that posting to the site would go through her via e-mail. McCoy asked about FTP and Bertini promised to investigate.

Budget – CASE proposes based on hours already dedicated that the council should ask for a baseline budget of \$10,000. The issue was discussed. It was decided that the Chairman would start with letters to the Speaker and President asking for a base commitment of \$10K with accommodation that the Council may need \$5K to \$10K more for additional special projects. Council members said the letter should include a breakdown of the time (i.e. what CASE worked up and whatever additional costs are expected).

The Chairman called for a vote on the budget request. Vietzke moved to approve. Vallée seconded. All were in favor. None opposed. No abstentions.

UPDATES FROM AREAS OF INQUIRY

Current Landscape

- Assessing US state initiatives to promote broadband infrastructure (Report from Bill Vallee)
 - California Emerging Technology Fund: Nov. 21 CA Public Utility announced funding for 6 projects to bring service to 6 communities that were unserved or underserved
 - KY – iconic program– KY won an award – its landscape, literally, is more challenging in that there are mountains, and it is not densely populated. Steering committees were formed in the counties.
 - MA – cost benefit that showed increase in jobs and tax revenues to state would accrue from a BB initiative
 - NY – also has an initiative

Variety of initiatives in these states – executive and legislative – funding varies, 10 to 40 million. You can see web sites in the draft decision.

- Legislative and regulatory recommendations to promote enhanced and uniform broadband infrastructure in the state of Connecticut. (Robert Mundy reported)
 - Mundy mentions draft decision of DPUC docket. There is a good deal of info that supports the work of the CBICC. Comments on draft due Dec. 22.
 - Vietzke appreciates the focus on CT's situation in the docket. Regarding findings and recommendations, he asked if DPUC has tools to take it to the next step? Mundy – Refers to Gillett's presentation and perhaps

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looking at a GIS mapping for CT. He will look into whether anything commensurate can be done. As demonstrated, FCC mapping does not have the level of detail needed. Commissioner Palomino would probably also want to see some legislation drafted. Rick Strauss of CASE mentions some mapping was provided on an OWC report, and CERC is also a potential supporter of mapping. Vietzke mentioned the CT Geospatial Council.

- Vietzke said Demand Side group needs to get together.
- McCoy on municipalities: – CT Conference of Municipalities has a survey that has gone out to towns. One of the items asked about a count and characterization of buildings that have BB. The info is available per new county rules. 65% response so far. CT Council of Governments has GIS developments that plot locations around state so that is another way to address the issue.
- Santino – Telecommuting, Jake Epstein interested in talking w/ the council. Chairman Manzione said there is an opportunity to mine economic value thru telecommuting -- downsizing office space, etc. Santino said it is becoming more relevant because of the economy.
- Technology: Wireless Terminals: Manzione said market has bifurcated to iPhones and laptops as BB terminals. Decreasing cost of iPhone terminals will have an impact. But this proliferation of low cost terminals will not necessarily lower the cost of BB service. Shimer requested involvement in the terminals subcommittee since he was not at last meeting.
 - Shimer also said he would be interested in investigating the ‘devil’s advocate’ side of things like health impacts, environmental, or other issues that could arise.
- Next generation – Vietzke says sub-group will convene soon.
- Infrastructure – Manzione and Murphy. Manzione to cover wireless. Murphy more expert on wireline. Wireless: antenna technology can grow effective bandwidth with pencil beams that allow the reuse of spectrum within the cell. Pencil beams could be used to download high quality video to multiple users in the cell. This technology requires larger antennas. There are significant cost reductions in steerable beam antenna technology that could make these antennas attractive. Manzione will explore and report on these developments and the recommendations that may stem from them. McCoy suggested looking into increased density of cell and antennas as a means of growing effective bandwidth.

Manzione said council could have an impact in advising legislature. One recommendation could be to encourage the state to build more towers, and then implementing advanced tower technology which would make more bandwidth available to high bandwidth mobile users.

- Supply Side – Earley says sub-group needs to meet. Federal Stimulus package is of interest. (Earley suggests Peter Joia from CBIA as another speaker w/r/t/ the need to document economic advantages of BB access. Chowanec suggested a short presentation be requested from each speaker. CBIA could help us to understand what is going on in the demand side.

Vietzke had circulated the recent Obama speech addressing the need for Broadband infrastructure. The Obama transition team is already reaching out and it is realistic that they will try to pass something quickly. Who is responsible for this response from Connecticut? What would it take for CT to do something to get part of that package? Who is

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coordinating and leading that charge? McCoy said municipalities have a number of “shovel ready” dark fiber projects that they’re trying to get through. How can the CBICC help CT get its share of the Federal stimulus package?

- McCoy to provide listing of the kind of capital projects in NE and NW CT, to help quantify.

Vietzke to convene sub-committee to work on response to federal stimulus. Shimer knows John Larsen and Joe Courtney so he could potentially help.

Emra reiterates Commissioner Gillett’s comment about understand the problem before you start to address it.

NO PUBLIC COMMENT

MOTION TO ADJOURN

OUTCOMES

Admin

- Chairman Manzione to approach House Speaker, Senate President with request for CBICC budget
- CASE to get CBICC web site up and running
- Vietzke to convene subcommittee in preparation for responding to stimulus package from new presidential administration
 - McCoy to provide listing of the kind of capital projects in NE and NW CT, to help quantify.
- Vietzke –Next Gen Internet Subcommittee & Demand-Side Subcommittee
- Mundy to look into mapping possibilities (CERC, CT Geospatial Council)
- Earley to pursue Peter Joia/CBIA as guest speaker for March 30th meeting; Santino to pursue Jake Epstein.
- Meetings to address the response to the Federal stimulus package may be needed prior to the March 30th meeting.