Urbanab-Champaign Big Broadband
Addressing the Local Divide
September 17, 2009
What is UC2B?

Intergovernmental Consortium
  • City of Champaign
  • City of Urbana
  • University of Illinois

Patterned after METCAD
  • Village of Savoy
  • Champaign County

Policy Board will be appointed soon
  • Anything I tell you today about the future is subject to change by the UC2B Policy Board
UC2B History

Better Broadband is not a new idea

- CCNet Projects in the mid 1990s
  - Chamber of Commerce
  - AT&T Cable - first cable modems
    - Good security lessons
  - Ameritech - ISDN pilot

University Off-Campus Housing RFP

- McLeodUSA fiber build
  - Champaign side of campus only
  - Unusual architecture
- McLeodUSA full rate ADSL
  - 7 Mbps downstream, 1 Mbps upstream
I am a one-trick pony

• First raised concept in 1997 - C-Unet2000
  • Champaign Council wisely chose Tom Bruno instead
  • I joined the McLeodUSA effort

C-U Cable Commission

• Broadband Access Committee
  • Plan for better broadband in community
  • Advise both City Councils on broadband policy
  • Became focal point for proposal development
  • Sponsored 2 public broadband forums

GSLIS Broadband Forum

• Last Spring
2009 Federal Stimulus Legislation

- Jump-started everything in January
- Joanne Hovis presentation at iHotel in February
- $7.2 Billion for broadband nationwide
- 20% local match required
- We compete with other Illinois broadband projects
  - Not schools or roads

State of Illinois Broadband Program

- Funded in 2009 capital budget
- Up to a 10% match of total project
- UC2B received a $3.5 million commitment
Total UC2B Project as submitted to NTIA
• $36.2 million total for 3 proposals
• $31.2 million for Infrastructure
  • 7 fiber rings, 137 Anchor Institutions, and FTTH pilot
• $1.3 million for Public Computing Centers
  • 46 Public Centers throughout the community
• $3.7 million for Sustainable Broadband Adoption
  • Ongoing training, education & support
• The 3 grant applications were submitted by the University to NTIA on behalf of the UC2B Consortium on August 20th
Sources of UC2B Funds

• Federal Government - $28.3 million
• State of Illinois - $3.5 million
• University of Illinois - $930,971
• City of Champaign - $918,070
• City of Urbana - $555,675
• Unit 4 Schools - $622,557
• Unit 116 Schools - $298,075
• C-U MTD - $339,103
• U-C Sanitary District - $120,000
• Lincoln Trail Libraries - $30,000
• Champaign Telephone Company - $587,698
Total Local Matching Dollars = $4.4 million
Leveraging of state and federal dollars:

Roughly 7:1
UC2B Infrastructure

Primary Infrastructure project - 7 fiber rings

- Cover all of the metropolitan area
- Connect 137 “Critical/Anchor Institutions”
  - All Private & Public Schools & Libraries
  - All Public Safety, and Medical facilities
  - All Senior Living and Activity Centers
  - 46 Public Computing Centers
- All Urbana & Champaign city facilities
- Select U-C Sanitary & C-U MTD locations
- Provide backbone for FTTH pilot project
- Provide backbone for FTTH for everywhere
Pilot Project - Fiber to the Home (FTTH)

- 11 “Underserved” Census Block Groups
  - 6 in Champaign, 5 in Urbana
  - Less than 41% Broadband adoption
    - Door-to-door, statistically valid survey
- Internet access funded for 5 years by U of I
  - 5 Mbps symmetrical connection to the Internet
  - 100 Mbps symmetrical connection to local institutions
  - University staff runs the backbone
  - Local residents provide the end-user support
  - $19.99 a month - free fiber installation
An Open Network

- Shared community-owned infrastructure
- Multiple service providers
  - Providers compete on price and quality of service
  - All lawful service providers are welcome
  - AT&T and Comcast are welcome

All data is treated the same
- No preference to any source or type of data

Network Neutrality is a grant requirement
Why Fiber?

Only “future-proof” technology
• Speeds are unlimited
• Will last for generations
• No licensing required
• Cities own their right of ways
• New electronics
• Faster and cheaper

Who will pay for Stimulus $?
• Our children and grandchildren
• They can benefit from the fiber
Public Computing Centers

A total of 46 Public Computing Centers

- 35 identified now
  - Some large, some small
  - Some open to everybody
  - Some only open to special populations
  - Senior centers, Youth centers, Adult education, Independent Media Center, Job Training, Libraries
- 10 to be named later
- One “Mad Lab” at a headquarters
  - Training and Administration
  - Advanced media production capabilities
Public Center Locations

2 Inman Plaza - C4
15 C-U Public Health - B4
40 Parkland College - B2
42 Urbana Adult Education - C6
55 Canaan Academy - C6
66 CPD - Douglas Senior Center - C5
66 Douglas Branch Public Library - C5
77 Moyer Boy’s & Girl’s Club - C5
79 Urbana Free Library - D6
80 Champaign Public Library - D4
84 Sunny Crest Manor - E7
85 Stevick Senior Center - C4
89 Orpheum Children’s Museum - C4
92 CPD Hayes Senior Center - C3
94 Urbana Senior Residence - D6
95 HACC - Skelton Place - C5
96 HACC - Steer Place - E7
97 HACC - Washington Square - C4
98 Champaign County Nursing Home - D8
99 Florida House - E7
103 Windsor of Savoy - F4
108 Clark-Lindsay Village - F4
189 Canterbury Ridge - E8
190 Prairie Winds of Urbana - E8
192 Independent Media Center - D6
194 Job Training Center - B2
193 Round Barn Manor - D2
194 Job Training Center - B2
200 Catholic Worker House - C4
201 Restoration Urban Ministries - B2
202 Developmental Services Center - B3
203 Head Start - Savoy - G3
204 A Woman’s Place - C5
204 Center for Women in Transition - C5
205 Bethel Church - C5
206 Salem Church - C5
207 TIMES Men’s Emergency Shelter - C5
208 Muslim American Society Center - B8
Sustainable Adoption

Technology without training is useless

• Full-time staff
• 17 part-time Cybernavigators
  • Hired from the community
• 50 students in a 3-course sequence
  • From Parkland, U of I, local high schools
• Community Help Desk
  • Provide support for FTTH households
  • Funded by FTTH service fees after grant
  • Potential for jobs
Where the Money Goes

Infrastructure Proposal - $31.2 million

• $15.9 million on constructing 7 fiber rings
  • $8.1 million in Champaign
  • $4.0 million in Urbana
  • $3.8 million on Campus
• $10.7 million on Fiber-to-the-Home construction
  • $6.4 million in Champaign
  • $4.3 million in Urbana
• $3.6 million on electronics
• $1.0 million on University Indirect Cost Recovery
Where the Money Goes - 2

Public Computing Centers - $1.3 million
- $173K for hardware & miscellaneous
- $27K for renovation
- $857K for personnel
- $199K for University Indirect Cost Recovery

Sustainable Broadband Adoption - $3.7 million
- $716K for hardware & miscellaneous
- $150K for renovation
- $2.29M for personnel
- $591K for University Indirect Cost Recovery
## Government Sites

- City of Champaign - C4
- Champaign Public Works - B4
- City of Urbana - D6
- City of Urbana Public Works - D7
- County Courthouse - D6
- Champaign County Offices - D7
- Regional Planning - C6
- University of Illinois - C5
- MTD - Main Offices - C7
- MTD - Transportation Center - C4
- Savoy Government - H4
- Federal Courthouse - D3
- Champaign Township - D4
- Champaign Township - D1
- Urbana Township - C8

## Public Safety Sites

- Champaign Police - C4
- Urbana Police & Main Fire - D6
- University of Illinois Police - C5
- Inman Plaza - C4
- Savoy Fire - H4
- Willard Airport - G4
- Youth Detention Center - D8
- Edge Scott Fire District - C8
- Carrol Fire District - B8
- Eastern Prairie Fire District - A5
- Parkland College Police - B2
- Arrow Ambulance - C6
- Pro Ambulance - C5
- Arrow Ambulance - C6
- Parkland College Police - B2
- Urbana Future Fire Station - B8
- 188 Urbana Future Fire Station - B8
- University Fire Station - D5

## Medical Sites

- C-U Public Health - B4
- Carle Hospital - C6
- Carle Clinic Main - C6
- Provena Hospital - C5
- Carle Clinic Champaign - E3
- Christ Corporate Main - C4
- Christ Clinic South Champaign - F2
- The Pavilion - C4
- Francis Nelson Health Center - B4
- Carle Clinic SE Urbana - E7
- Christ Clinic SE Urbana - E7
- Carle Clinic South Champaign - G3

## Senior Living & Activity Sites

- Inman Plaza - C4
- Sunny Crest Manor - E7
- Stevick Center - C4
- CPD Hayes Senior Center - C3
- Urbana Senior Residence - D6
- HACC Skepton Place - C5
- HACC Steer Place - E7
- HACC Washington Square - C4
- County Nursing Home - D8
- Florida House - E7
- Windsor of Savoy - F4
- Clark-Lindsay Village - F4
- Canterbury Ridge - E8
- Prairie Winds of Urbana - E8
- Round Barn Manor - D2

## Park District & Youth Sites

- CPD - Douglas Center - C5
- Don Moyer Boy's & Girl's Club - C5
- CPD - Brensam Center - D2
- CPD - Leonard Center - D2
- CPD - Springer Center - C4
- UPD - Phillips Center - C6
- UPD - Main - C6
- Orpheum Science Museum - C4

## Public Computing Centers

- Inman Plaza - C4
- C-U Public Health - B4
- Parkland College - B2
- Urbana Adult Education - C6
- Canaan Academy - C6
- CDP - Douglas Senior Center - C5
- Douglas Branch Public Library - C5
- Moyer Boy's & Girl's Club - C5
- Urbana Free Library - D6
- Champaign Public Library - D4
- Sunny Crest Manor - E7
- Stevick Senior Center - C4
- Orphuem Children's Museum - C4
- CPD Hayes Senior Center - C3
- Urbana Senior Residence - D6
- HACC - Skelton Place - C5
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- Champaign County Nursing Home - D8
- Florida House - E7
- Windsor of Savoy - F4
- Clark-Lindsay Village - F4
- Canterbury Ridge - E8
- Prairie Winds of Urbana - E8
- Round Barn Manor - D2
- Job Training Center - B2
- Round Barn Manor - D2
- Job Training Center - B2
- Catholic Worker House - C4
- Restoration Urban Ministries - B3
- Developmental Services Center - B3
- Head Start - Savoy - G3
- A Woman's Place - C5
- Center for Women in Transition - C5
- Bethel Church - C5
- Salem Church - C5
- TIMES Men's Emergency Shelter - C5
- Muslim American Society Center - B8

## Education & Library Sites

- University of Illinois - C5-F5
- University High School - C5
- Parkland College - B2
- 41A South Side School - D4
- Champaign Central HS - C4
- Champaign Centennial HS - D2
- Urbana High School - D6
- Urbana Middle School - D6
- Edison Middle School - D4
- Franklin Middle School - C4
- Jefferson Middle School - D2
- Judah Grade/Mid/HS - C4
- Holy Cross Grade/Middle - C4
- St. Matthew's Grade/Middle - E3
- Country Side School - E1
- St. Johns Lutheran School - D2
- Canaan Academy - C6
- Bottenfield School - E3
- Carrie Busey School - E3
- Stratton School - C4
- Dr. Howard School - C3
- Garden Hills School - B3
- Kenwood School - D2
- Marquette School - C5
- Barkast School - F2
- Robeson School - E2
- BT Washington School - C5
- Douglas Branch Library - C5
- Westview School - D3
- King School - C5
- Leal School - D6
- Prairie School - C4
- Thomas Paine - E7
- Washington School - C6
- Wiley School - D7
- Yankee Ridge School - E7
- Lincoln Trail Libraries - A3
- Urbana Free Library - D6
- Champaign Public Library - D4
- U.S. Army CERL - A3
- St. Thomas Moore HS - A2
- Unit 4 Early Learning - C4
- WILL-AM/FM-TV - D5
- Next Generation School - F3
- New Savoy Grade School - H3
NTIA Grants Timetable

Notification of Semi-Finalists
• Late September
• More paperwork
• Input from Governor Quinn
• Challenge period for local telcos

Award of funding
• Late November - Early December
• City Councils and University must agree to accept the grants
• Study sessions in October
Construction Timetable

Jan-March 2010 - Engineering
  • Ring #1 and 4 FTTH Census Blocks Groups

Apr-June 2010 - Bid & Award Construction
  • Ring #1 and 4 FTTH Census Block Groups

July-November 2010
  • Construction - Ring #1 and 4 FTTH Block Groups
  • Engineering of Rings #2-7
  • Engineering of 7 remaining FTTH Block Groups
  • Bid and Award Remaining Construction
  • Rings #2-7 & 7 remaining FTTH Block Groups
Construction Timetable - 2

Sept-Nov 2010 - begin services
- Turn up first FTTH Customers
- Turn up first Anchor Institutions

April - Nov 2011
- Construction of Fiber Rings #2-7
- Construction of last 7 FTTH Block Groups
- Turn up remaining FTTH Customers
- Turn up remaining Anchor Institutions

November 2011
- Grant-funded construction completed
What About My House?

April 2012

• Begin FTTH construction in other areas
  • Modest borrowing will fund organic growth
  • Other funding options for faster growth
• Let’s have this discussion in two years
• Gentrification of low-income areas?
  • Probably not, but a great question
    • Question implies how desirable FTTH will be
• Different members of the UC2B consortium could expand FTTH areas in different ways
Questions?

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