Topeka / Shawnee County Community Technology Planning Pilot Project

Consultant Team Presentation of Final Report
Our Agenda for Today

**Objective for Today’s Meeting** – Bill and Stan (10 min)

**High-Level Overview of Plan** - Bill (5 min)

**Economic Impact / Implications** - Bill (10 min)
  
  Discussion (10 min)

**Cost Model / Implications** – Mike (15 min)
  
  Discussion (15 min)

**Final Recommendations/ Next Steps** – Bill (10 min)
  
  Discussion (30 to 45 min)
Objective for Today’s Meeting

Set the stage for the Topeka / Shawnee County team, with support from the Kansas Department of Commerce, to move forward and implement its community technology plan.
Goal:
Advance the region’s economic and community development as well as quality of life through improving countywide access and utilization of sufficient, reliable and affordable broadband infrastructure.

Tactics and Initiatives:
Assess Broadband Needs and Opportunities
• Deploy bandwidth assessment tool
• Document anchor institution needs
• Advance broadband study
• Provider consultation

Launch Sustainable Organizational Structure
• Implement leadership team structure coordinated under Heartland Visioning
• Prepare budget and resources plan

Establish Action Teams To Lead Targeted Initiatives
• 21st Century Workforce / Close Digital Divide / Expand Digital Literacy
Available broadband does not guarantee economic growth. Available technologies must be:

- Generally affordable
- Utilized and adopted by a knowledgeable population.
- Innovatively applied across all sectors of the community.

The most successful communities proactively engage all segments of the community to create a “culture” of digital innovation.
Community Indicators Consistent With A “Culture” of Digital Innovation

- A history of population and economic growth
- Youthful demographics
- An educated workforce
- Presence of a local higher education institution
- Higher Income
- A local economy with strong professional services and health care sectors
- A vital arts and entertainment sector
- Employment of science and technology occupations
- Higher population density
- Already available high speed broadband options
- High subscription rates to currently deployed broadband services
Shawnee County Strengths and Weaknesses

Strengths:
• History of stakeholders working well together
• Solid base of existing broadband service in Topeka
• Location near Kansas City metro area / State Capitol
• Commitment to arts, education and recreation values
• Engaged education and entrepreneurship focus at all levels

Weaknesses in several key fundamental areas:
• Population growth slower than Kansas average
• Subscription rates less in lower-income neighborhoods
• Higher costs of deployment in rural parts of the County
• Competition to attract and retain youthful energy
How Does Shawnee County Stack Up in Current Competitive Position to Leverage Broadband?

A “Broadband Impact Potential Index” (BIPI) was calculated for each Kansas County. This index measures each county’s position on 19 separate indicators of broadband demand and supply relative to the state average.

<table>
<thead>
<tr>
<th>Shawnee County BIPI Rank Among:</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Kansas Counties With Population Greater than 100,000 People</td>
<td>5th</td>
</tr>
<tr>
<td>Seventeen Northeastern Region Kansas Counties</td>
<td>2nd</td>
</tr>
<tr>
<td>(Outside Kansas City Metropolitan Area)</td>
<td></td>
</tr>
<tr>
<td>All Kansas Counties (Tied with Riley County)</td>
<td>5th</td>
</tr>
</tbody>
</table>
Bottom Line Results for Shawnee County

*Estimated Net Gain Attributed to Successful Broadband Availability, Adoption and Application Projected Over Ten Years*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Employment</th>
<th>Economic Value</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1: annual growth</td>
<td>9,800</td>
<td>$1.2 B</td>
<td>$363 M</td>
</tr>
<tr>
<td>impact = 0.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario 2: annual growth</td>
<td>19,600</td>
<td>$2.4 B</td>
<td>$726 M</td>
</tr>
<tr>
<td>impact = 1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario 3: annual growth</td>
<td>29,400</td>
<td>$3.6 B</td>
<td>$1.1 B</td>
</tr>
<tr>
<td>impact = 1.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What are we modeling? What Kansas City has.

- Fiber-to-the-premises (homes and businesses) across entire city
- 1Gbit/s Internet Service, TV and other services
- What would it take to replicate what KC has?
Advanced Broadband Study – Area Modeled

City Limits/CDP
Advanced Broadband Study - Scenario

- 10 Year Business Case
- FTTH – Fiber passing all homes and businesses
- Rate Plans:

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Install Charge</strong></td>
<td>$300.00</td>
<td>$300.00</td>
</tr>
<tr>
<td><strong>Monthly</strong></td>
<td>$120.00</td>
<td>$150.00</td>
</tr>
</tbody>
</table>

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</tr>
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<td>$100.00</td>
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</table>
Advanced Broadband Study - Results

If the network were built, how many would subscribe?
We estimate...

Residences – 20,209
Businesses - 5,394
**TOTAL = 25,603**

What the total average take rate?
**39.6%**
Advanced Broadband Study - Results

How much would be needed in Initial Capital Investment?

$62 Million
Advanced Broadband Study - Results

What does the Business Case look like on an annual basis?

Capital Costs – $7,269,790
Operational Costs – $11,333,608
Revenue – $20,593,682

Annual Contribution Margin – $1,990,283
Advanced Broadband Study - Results

What does the Business Case over the 10 year period?

10 Year Net Present Value of Business – $12,890,341
## Advanced Broadband Study - Results

### Statistics (per Subscriber)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Per Line</td>
<td>$3,169</td>
</tr>
<tr>
<td>Net Non-Recurring Cost (&quot;Customer Turn Up&quot;) per Line</td>
<td>($93.62)</td>
</tr>
<tr>
<td>Total Monthly Revenue Run Rate</td>
<td>$87.50</td>
</tr>
<tr>
<td>Total Monthly Cost per Line Run Rate</td>
<td>$79.04</td>
</tr>
<tr>
<td>Monthly Capital Costs per line</td>
<td>$30.89</td>
</tr>
<tr>
<td>Monthly Operating Expenses Per Line</td>
<td>$48.15</td>
</tr>
<tr>
<td>Net Present Value per Line per Month</td>
<td>$5.48</td>
</tr>
</tbody>
</table>
# Advanced Broadband Study - Results

**Scenarios/Sensitivity**

<table>
<thead>
<tr>
<th>Topeka</th>
<th>Increase Take of High/Bundled Rate Plans for the $20-40k Income Group by a total of 10%</th>
<th>Increase BUS Take of High/Bundled Rate Plans by a total of 10%</th>
<th>Increase Take of High/Bundled Rate Plans across the board by a total of 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV per Customer Per Month</td>
<td>$5.48</td>
<td>$5.79</td>
<td>$6.80</td>
</tr>
</tbody>
</table>
## Advanced Broadband Study - Results

### Topline Results – Business Case Summary

<table>
<thead>
<tr>
<th></th>
<th>Pilot Cities</th>
<th>Top Business Case Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fort Scott</td>
<td>Dodge City</td>
</tr>
<tr>
<td>Residential Subscribers</td>
<td>948</td>
<td>3,490</td>
</tr>
<tr>
<td>Business Subscribers</td>
<td>448</td>
<td>1,017</td>
</tr>
<tr>
<td>Total Annual Revenue</td>
<td>$1,140,544</td>
<td>$4,018,467</td>
</tr>
<tr>
<td>Total Annual Opex</td>
<td>$716,903</td>
<td>$2,121,755</td>
</tr>
<tr>
<td>Total Annual CapCost</td>
<td>545,600</td>
<td>1,372,425</td>
</tr>
<tr>
<td>Annual Contribution Margin (Pre-Tax Contribution Margin)</td>
<td>($121,959)</td>
<td>$524,288</td>
</tr>
</tbody>
</table>
Advanced Broadband Study

Impact Study and Cost Study Findings:

- **Economic Impact Model:** The Economic Value is at a minimum of $1.2bil over 10 years
- **The Advanced Broadband Study Business Case:** The Net Present Value of the Network is $12.9mil over 10 years

Conclusion:

- A private provider can justify build-out of a FTTH network to Topeka.
- Policy makers and stakeholders should feel confident encouraging investment given the Economic Value.
Advanced Broadband Study

What can be done with the data?

• To develop an understanding of the economic feasibility of a gigabit speed network – City-wide or otherwise.
• To support advocacy to policy makers and stakeholders on the value of such a network.
• To manage procurement of a private partner to deploy or manage the network and business.
• Manage leverage that the city might have – Right-of-way, city assets/equipment, permitting, franchising
• To manage architecture issues and other matters that may serve to expedite build-out.
• Neighborhood demographics, demand and economic data will help to effectively manage deployment and adoption.
• Can be used to advise applications for grants, loans and other programs
Continue to Nurture Critical Partnerships

• Initial ownership assigned to Heartland Visioning very positive.
• Important to quickly launch the new diverse stakeholder committee to maintain momentum.
• Continue to encourage communication and collaboration as area organizations implement their visioning and technology planning.
• Assign priority to stakeholder outreach (examples):
  • Utilize the video summary of the Topeka / Shawnee Plan
  • Place articles in newsletters and media
  • Find spots on agenda’s of local organizations
Be Pragmatic and Realistic

• Success can be achieved by hitting multiple “singles” and not focusing exclusively on the “home run”.

• Important to set priorities as a community and not overstretch available volunteer and staff resources. (for example, staging of efforts to launch action teams).

• Utilize cost model and impact data to set realistic expectations...but it is okay to be bold.
Utilize Plan Implementation Tools

- Contacts
- Files
- Events
- Tracking
Questions/Thoughts?