# 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)

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

## **High Level Plan Overview**

#### 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

• 21<sup>st</sup> Century Workforce / Close Digital Divide / Expand Digital Literacy

### **Broadband Economic Impact 101**

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.

Shawnee County BIPI Rank Among:	Rank
Five Kansas Counties With Population Greater than 100,000 People	5th
Seventeen Northeastern Region Kansas Counties (Outside Kansas City Metropolitan Area)	2nd
All Kansas Counties (Tied with Riley County)	5th

#### Bottom Line Results for Shawnee County

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

	Employment	Economic Value	Labor Income
Scenario 1: annual growth impact = 0.5%	9,800	\$1.2 B	\$363 M
Scenario 2: annual growth impact = 1%	19,600	\$2.4 B	\$726 M
Scenario 3: annual growth impact = 1.5%	29,400	\$3.6 B	\$1.1 B

## **Cost Model / Advanced Broadband Study**

### 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:

		Customer Type				
			Residential		Business	
Video & High	Install Charge	\$	300.00	\$	300.00	
Speed Data	Monthly	\$	120.00	\$	150.00	
Lligh Speed Data	Install Charge	\$	300.00	\$	300.00	
High Speed Data	Monthly	\$	70.00	\$	100.00	
Low Speed Data	Install Charge	\$	300.00	\$	300.00	
	Monthly	\$	-	\$	-	

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%** 

How much would be needed in Initial Capital Investment?

\$62 Million

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

What does the Business Case over the 10 year period?

#### 10 Year Net Present Value of Business – \$12,890,341

#### Statistics (per Subscriber)

Capital Per Line	\$3,169
Net Non-Recurring Cost ("Customer Turn Up") per Line	(\$93.62)
Total Monthly Revenue Run Rate	\$87.50
Total Monthly Cost per Line Run Rate	\$79.04
Monthly Capital Costs per line	\$30.89
Monthly Operating Expenses Per Line	\$48.15
Net Present Value per Line per Month	\$5.48

Scenarios/Sensitivity

Topeka				
	Baseline	Increase Take of High/Bundled Rate Plans for the \$20-40k Income Group by a total of 10%	Increase BUS Take of High/Bundled Rate Plans by a total of 10%	Increase Take of High/Bundled Rate Plans across the board by a total of 10%
NPV per Customer Per Month	\$5.48	\$5.79	\$6.80	\$9.53

**Topline Results – Business Case Summary** 

	Pilot Cities				Top Business Case Cities					
	Fort Sc	ott	Dodge City	Topeka		Lawrence	Manhattan	<b>Overland Park</b>		Wichita
Residential Subscribers		948	3,490	18,7	10	11,771	5,910	27,281		51,153
Business Subscribers		448	1,017	5,03	30	3,170	1,748	8,706		14,549
Total Annual Revenue	\$ 1,1	140,544	\$ 4,018,467	\$ 20,593,68	82	\$ 12,989,997	\$ 6,313,182	\$ 32,723,190	\$	56,946,691
Total Annual Opex	\$ 7	716,903	\$ 2,121,755	\$ 11,319,94	42	\$ 7,427,141	\$ 3,662,55	\$ 17,446,045	\$	31,030,530
Total Annual CapCost	5	545,600	1,372,425	7,269,79	91	5,118,047	2,420,403	11,851,823		19,707,750
Annual Contribution Margin (Pre- Tax Contribution Margin)	(\$1	121,959)	\$524,288	\$2,003,9	50	\$444,809	\$230,22	\$3,425,323		\$6,208,411

# 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

## **Insights and Recommendations**

### 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 an 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

ightarrow  ightarro	146/gantt	
Home Impact Console Providers F	iles Contacts Events Training We	Icome Bill Log out
🕂 Kansas 🕇 Topeka and	Shawnee County Tasks - Contacts - Files - Events -	User's Guide
Projects - Categories - Date Rar	ge - Filter	Download CSV
	2014	
Task name	June July August September October November December	January February
	x 20 Week 23 Week 26 Week 29 Week 32 Week 35 Week 38 Week 41 Week 44 Week 47 Week 50 V	Veek 01 Week 04 Week 0
Health Care	Health Care	
Advanced Broadband Feasibility Study	Advanced Broadband Feasibility	
Advanced Broadband Cost and Business Case	Advanced Broadband Cost an	
Impact Study	Impact Study	
Provider Consultation	Provider Consultation	
Provider Meeting	Provider Mee	
Eaunch a Sustainable Organizational Structure	Launch a Sustainable Organizational Structure	
Implement Leadership Team Structure	Implement Leadership Team Structure	
Leadership Structure	Leadership Structure	
Web Platform	Web Platform	
Membership	Membership	
Work Plan	Work Plan	
Prepare Budget and Resource Plan	Prepare Budget and Resource Plan	
Budget	Budget	
Consensus	Consensus	Legend Toggle

# **Questions/Thoughts?**