# ATTACHMENT 3

# MO-KAN REGION

# SWOC ANALYSIS SUMMARY

# MO-KAN RTPT

## SWOC ANALYSIS SUMMARY

**BROADBAND STRENGTHS, WEAKNESSES, OPPORTUNITIES AND CHALLENGES**

Meeting of August 11, 2011


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## FIGURE 1: RESIDENTIAL SURVEY SWOC (PARTICIPANTS=400)

| Residential Sector | |
|---|---|
| **STRENGTHS** | **WEAKNESSES** |
| **Internet Adoption**<br>• Almost 89% of households (HHs) have internet access at home and 26% of these HHs were connected with broadband (BB) in last 3 years<br>**Broadband Adoption**<br>• 82% of residents access the Internet via broadband (satellite not included).<br>**Applications Accessed via internet**<br>• Internet is used for a variety of purposes like keeping in touch (86%); searching for services or products they want to buy (83%), buying something online (64%), accessing social networking sites (64%); searching for medical information (63%).<br>• Other uses include accessing news and politics information (63%), online banking (63%) etc.<br>• 92% reported having an e-mail account and 65% of them access e-mail at least once a day. | **Internet Access, cost and speed**<br>• 11% of HHs do not have internet access at home.<br>• 3% of the HHs access internet through dial-up (at least 14 times slower than the 768 Kbps minimum Broadband speed) and 3% use satellite connections.<br>• 54% of the HHs are dissatisfied or very dissatisfied with the number of providers (choices) they have.<br>• 16% of the HHs are either dissatisfied or very dissatisfied with the reliability of their internet access.<br>• 53% of the HHs are either dissatisfied or very dissatisfied with the cost of internet service.<br>• 24% of HHs are either dissatisfied or very dissatisfied with the speed of their connection. |
| **OPPORTUNITIES** | **CHALLENGES** |
| **Computer Ownership**<br>• 91% of respondents own a computer. Build on this base of residents that value computer ownership.<br>**Internet Access/ Types**<br>• There is a potential to expand internet access to 11% of HHs without internet (including 2% of the households with a computer but no internet) and upgrade speed to 6% of the HHs (currently using dial-up or satellite connections).<br>• Build on the base of residents that value Internet access, but don't have BB.<br>**Others**<br>• 32% of the residents without a computer at home and 58% of residents without internet at home use the internet elsewhere. Build on this base of residents that value Internet access but do not have end user technology or access at home. | **Computer Ownership**<br>• 9% of respondents do not own a computer. The 4 main reasons are: (a) don't want/ need one (b) cost (c) don't know how to use one and (d) safety/privacy/security concerns.<br>**Internet Access, cost and speed**<br>• 11% of HHs do not have internet access. The three main reasons are: (a) cost (b) lack of a computer at home, (c) privacy/security concerns.<br>• At least 17% of residents do not access the Internet via broadband (not counting satellite as BB). Take measures to expand existing broadband providers' footprint or service area.<br>• HHs report cost (81%), and speed (70%) to be the most important features for which it is important to have a broadband service choice. How do we expand broadband and at the same time, make it more affordable?<br>**Perception on BB Importance by Residents**<br>• 15% of residents feel that BB access is either not at all important (6%) or don't know how important (9%) access to BB is. Counter such perceptions through computer and related IT literacy training. |

## FIGURE 2: BUSINESS SURVEY SWOC (PARTICIPANTS=28)

| Business Sector | |
|---|---|
| **STRENGTHS** | **WEAKNESSES** |
| **Internet Access**<br>• 100% of the 28 businesses that took the survey have Internet access at their business, all being provided by one of 11 different providers.<br>**Cost, speed and reliability of internet**<br>• 68% of businesses are satisfied with the cost they pay for internet access; nearly 64% are satisfied with the speed of their connection.<br>• Nearly 84% of respondents say they are satisfied with their internet connection's reliability.<br>**Installation Technician's Ability and Courteousness**<br>• Nearly 92% of respondents were satisfied with the installation technicians' ability and courteousness.<br>**Applications Accessed via Broadband**<br>• 100% businesses of responding use e-mail; 75% use internet for different web applications; 67% use it for banking services; and 58% for file sharing.<br>• Other current uses: research (46%), online customer services (38%); e-business (34%), etc.<br>• As much as 95% of businesses reported that they rely on the internet, and run web-based business applications. | **Broadband availability and choice:**<br>• 8% of the businesses currently have a satellite connection only. 64% of the businesses report poor provider choice (have only a single provider).<br>• 9% of the businesses did not have BB options that are suitable for their business.<br>• Nearly 67% of businesses were not aware of the internet speed they have and 18% didn't know how much they paid.<br>**Cost and Speed of Connection:**<br>• About 22% were dissatisfied with the cost while 36% were dissatisfied with the speed of their connection.<br>**Other comments:**<br>• Some providers do not deliver the speed they say they will provide (one business reported it got just half the speed of what the provider said). |
| **OPPORTUNITIES** | **CHALLENGES** |
| **Speed of the On-line Connection**<br>• 52% of the businesses connect with DSL and many of these want enhanced access. This indicates the need for serving the businesses with enhanced access and increasing the number of providers to choose from.<br>**Enhance Current Broadband Offerings**<br>• 92% of the businesses think enhanced broadband would benefit their business. Target their need.<br>• 88% of respondents said broadband is very important (plus 8% important, 4% somewhat important) for the day-to-day operations of their business.<br>**Broadband Availability**<br>• 25% were satellite offices and 14% of the other businesses had satellite offices. Their functionality heavily depends on reliable connectivity. The need for increased BB speeds and reliability will grow with business growth.<br>• Businesses believe broadband increases efficiency and productivity. | **Broadband Availability**<br>• Some of the comments from the survey are:<br>1. A farm business wants a tower installed on the farm property which will help provide high speed internet to their rural community.<br>2. Install fiber optics lines.<br>3. Provide greater speed at reasonable cost.<br>4. We were told year after year that HSI was just around the corner but it has never been realized.<br>5. Satellite for the rural farm businesses is not a good choice. Farmers tend to be in-doors when the weather goes bad, and that is when Satellite reception is not good.<br>• Efforts are needed to narrow the gap between what is available and what is expected by the business community.<br>• We need to educate businesses about the cost/benefit of BB (as many do not know the price they pay nor do they know the speed of their connection).<br>• There is not currently a strategic business sector plan that takes in to account the BB sector. |

**NOTE:** *RTPT members present at the August 11th 2011 meeting voted individually for what they felt were the three most important Sector characteristics in each of these areas: Strengths, Weaknesses, Opportunities, and Challenges.  The votes received for each characteristic are shown in parentheses.*

### FIGURE 3: BUSINESS AND PROFESSIONAL SERVICES SECTOR SWOC (PARTICIPANTS=4) (RTPT TOTAL SWOC VOTES = 32)

| Business and Professional Services Sector | |
|---|---|
| **STRENGTHS: (7)**<br>• Current uses: Email; connectivity; research; photos; blogs; business web pages; searching and buying online; marketing is mainly done through BB. **(6)**<br>• 100% reported that they have the right hardware and software in place for broadband use.<br>• 100% reported that their current processes and procedures encourage BB use.<br>• 100% reported that their personnel are properly trained for the use of BB services and applications. **(1)**<br>• 100% reported their BB access and availability met minimum standards. | **WEAKNESSES: (3)**<br>• Any internet disruption harms business, so they can't rely too much on internet. **(2)**<br>• We need to have more education on proper equipment and use of that equipment.<br>• Even when properly trained, constant training is essential, especially on updating equipment. More IP training is needed.<br>• Faster speeds are needed to send more information **(1)** |
| **OPPORTUNITIES: (4)**<br>• Participants think presence on the web is crucial for businesses.<br>• 50% reported BB is not cost prohibitive for them. **(4)**<br>• 100% reported BB service availability and adoption to be very important. | **CHALLENGES: (18)**<br>• Some in the older generation don't want to change the way they have been doing business and have a hard time switching to or accommodating the use of internet for business (sell via or have a web presence, etc.). **(1)**<br>• 50% reported they do not know if broadband technology is cost prohibitive for them.<br>• Even though they all think that broadband service is very important, many small towns and rural areas do not have access. **(9)**<br>• Franchise agreements and regulatory issues can be problematic **(1)**<br>• Redundancy is needed **(7)** |

## FIGURE 4: ECONOMIC DEVELOPMENT SECTOR SWOC (PARTICIPANTS=3) (RTPT TOTAL SWOC VOTES = 32)

| Economic Development Sector | |
|---|---|
| **STRENGTHS: (4)**<br><br>• Key uses of internet: Websites; webinars; social media; email; marketing; placing and checking orders; prospecting; banking; merchandising; business expansion and development. **(3)**<br>• One third of the participants think that the right hardware, software and other tools are in place for businesses to utilize broadband in the region.<br>• Two thirds of participants think their current processes and procedures encourage the use of BB.<br>• 33% of the participants think people in their businesses are properly trained to use BB technology effectively.<br>• Block grants could possibly provide funding for BB expansion **(1)** | **WEAKNESSES: (9)**<br><br>• 67% of the participants don't have the right hardware. 3G is available in only some towns. 4G is nonexistent. Dial-up is common off of highways.<br>• Current internet, wireless data and phones are not providing consistent coverage or service. **(2)**<br>• One third of participants think their current processes and procedures encourage the use of BB.<br>• 67% of the participants think people in business are not properly trained to use BB technology effectively. **(4)**<br>• 100% of the participants think broadband access and availability in the region does not meet minimum standards for effective business and e-commerce applications.  It is slow. Outside larger rural towns, there is no broadband. **(3)** |
| **OPPORTUNITIES: (9)**<br><br>• Increases communication between companies; Improving access and speed would increase home based businesses, and the growth of new and current businesses. **(4)**<br>• Competitiveness in agriculture pricing, commodities, selling and buying, and marketing would be possible with good broadband.<br>• 100% of the participants don't think broadband technology is cost prohibitive. **(2)**<br>• 100% of the participants consider addressing BB availability and adoption issues important for economic development in the region.<br>• With BB technology, entrepreneurs would become more productive in the field; increase businesses in rural areas; through both meeting business siting requirements as well as attracting new businesses to locate; the ability to communicate, order, process, and take inventory at proper speeds is vital for doing business; it would allow agricultural businesses to grow significantly. (3) | **CHALLENGES:  (10)**<br><br>• Participants realize that with very few customers in rural areas BB expansion is hard to justify; however it must be available even at a high cost. There are only a few small pockets within the community that have sufficient internet. Without it there will be population loss because BB is needed for young peoples' "culture" **(3)**<br>• Investing in programs like community classes, on-line tutoring, brochures, pamphlets, education and training would help residents to connect and use BB.<br>• State and private efforts need to collaborate to reduce redundant capacity. (2)<br>•  By investing in infrastructure the public sees returns from private investments, jobs, taxes, and growth. Communication though technology is a legitimate public issue. **(5)** |

## FIGURE 5: COMMUNITY AND SOCIAL SERVICES SECTOR SWOC (PARTICIPANTS=5) (RTPT TOTAL SWOC VOTES = 26)

| Community and Social Services Sector | |
|---|---|
| **STRENGTHS: (9)** | **WEAKNESSES: (1)** |
| • Current key uses of BB: Primary source of communication, information, distribution and tracking; electronic records; billing; daily sales; member check in; and accounting. **(2)**<br>• 100% of participants reported having the right hardware, software and tools for the use of broadband technology.<br>• One respondent has a MPLS private wide area network that is reliable and meets their existing needs.<br>• 100% of participants reported that their current practices and processes encouraged the use of BB technologies.  Some of them use supporting mobile services to interact with organizational information systems and see this use increasing. **(5)**<br>• 100% of participants reported having properly trained staff and personnel. Training regarding secure practices will continue as they expand on their use of broadband and its technology. **(2)**<br>• 100% of the participants reported that the BB technology they have meets their minimum standards. | • All participants reported the BB technology they have meets their minimum standard, but some say at too high of a price.<br>• Others say that while existing needs are met, there are concerns about reliability **(1)** |
| **OPPORTUNITIES: (7)** | **CHALLENGES: (9)** |
| • BB saves resources by saving travel/ trips (video conference rather than travel).<br>• 67% of the participants think BB technology is very important for them and the connectivity needed for the care of their patients. Improved care will increase with the expansion of interaction into the patients' homes. **(3)**<br>• BB provides the pathway for critical emergency notifications to the community **(4)** | • 33% of participants think BB technology is cost prohibitive while 67% don't know if it's cost prohibitive or not. **(5)**<br>• 33% of the participants don't know how important BB technology is for their services and activities.<br>• Existing services require the use of multiple providers' assets. Expensive to scale enterprise services such as T1, DS3, MPLS, etc.<br>• There are concerns about the financial implications of reaching future scaling needs.<br>• They need multiple providers with larger footprints and additional network technology, who can provide speeds beyond 5Mbps at reasonable prices. They need assistance in rural areas. **(4)** |

## FIGURE 6: AGRICULTURE SECTOR SWOC (PARTICIPANTS=4) (RTPT TOTAL SWOC VOTES = 23)

| Agriculture Sector | |
|---|---|
| **STRENGTHS: (5)**<br><br>• Current key uses of BB: Communication, call reports, website, information and education on agriculture, market updates, education for children and personal growth, online news and weather. Needs to be available to all Missourians at an affordable cost.<br>• 100% participants reported that they have the right hardware, software and other tools in place for the agricultural industry to utilize broadband in their region<br>• 100% of the participants think their current processes and procedures encourage the use of BB. **(5)** | **WEAKNESSES: (7)**<br><br>• One third of the participants think that workers are not properly trained to use BB technology effectively.<br>• 67% of the participants don't think broadband access and availability in the region meet minimum standards for effective agriculture applications.<br>• BB speed: Too slow. **(7)** |
| **OPPORTUNITIES: (1)**<br><br>• 100% of the participants consider BB as very important for them.<br>• 33% think BB technology is not cost prohibitive.<br>• 67% of the participants think that workers are trained to use BB. **(1)** | **CHALLENGES: (10)**<br><br>• 67% don't Know if BB technology is cost prohibitive or not. **(2)**<br>• They need more high speed internet in rural areas. **(8)** |

## FIGURE 7: LIBRARY SECTOR SWOC (SURVEY PARTICIPANTS=4) (RTPT TOTAL SWOC VOTES = 23)

| Library Sector | |
|---|---|
| **STRENGTHS: (11)**<br>• BB is currently used for e-mail; job applications; taxes; ordering materials and supplies; administrative correspondence; answering patron questions; test taking; paying bills; small business matters; flights; library catalog; and book checkout system.**(7)**<br>• All participants report that they have no problem with hardware and software. They receive their broadband through MOREnet, and currently have enough bandwidth for their demand.<br>• All participants reported that their staff is properly trained to use broadband technology effectively. **(2)**<br>• They have great internet access, training and other tech support through MOREnet. **(2)** | **WEAKNESSES: (9)**<br>• Small communities losing population really need this so that residents continue living in the rural areas and make their living. **(9)**<br>• Library employees are trained but the constituents that come to the library are not.<br>• Many constituents do not have internet access and come to the library to fill out applications or pay bills but don't know how to do so online. So the staff has to spend a longer time helping the constituents. |
| **OPPORTUNITIES: (1)**<br>• Currently have 1.5 Mbps, T-1 lines through MOREnet and are getting ready to upgrade to 3Mbps.<br>• Faster speeds would enable them to become more of a multimedia resources center.<br>• 67% of the participants don't think BB technology is cost prohibitive for them.<br>• Two thirds of the participants think broadband technology is very important to the libraries.<br>• 100% of the participants reported that the current processes and procedures of the libraries encourage broadband technology.<br>• Pushed online by the government and private sectors (job applications and application for other services), now libraries provide a place to use internet for applications and also provide digital literacy to constituents. **(1)** | **CHALLENGES: (2)**<br>• The cost for the broadband access is going up; any further budget cut will be problematic. They would like to keep supporting MOREnet's program to sustain the services provided to libraries. **(1)**<br>• Pushed online by the government and private sectors, but many residents do not have digital literacy. **(1)**<br>• One third of the participants think broadband technology is not at all important.<br>• 33% of the participants think the technology is cost prohibitive for them and any funding cuts will make it more difficult.<br>• One library in a county closed; the role of a library is changing from books to more digital. |

## FIGURE 8: WORKFORCE DEVELOPMENT SECTOR SWOC (PARTICIPANT=6) (RTPT TOTAL SWOC  VOTES = 23)

| Workforce Development Sector | |
|---|---|
| **STRENGTHS: (6)**<br>• Key uses of internet: access to Toolbox for customers; websites; updating; contact info; hours, location; qualifications; applications; pre-employment testing; customer database. **(6)**<br>• 67% of participants reported that the right hardware and software were in place for worker's to utilize broadband in their region.<br>• 67% of participants think their current training processes and procedures encourage the use of BB.<br>• Two thirds of the participants think the workers are properly trained to use BB technology effectively.<br>• 67% of the participants think broadband access and availability in the region meets minimum standards for effective business, e-commerce and training applications. | **WEAKNESSES: (0)**<br>• 33% participants reported that the right hardware and software were not in place for worker's to utilize broadband in their region.<br>• 33% of participants don't think current training processes and procedures encourage the use of BB and some of them are unsure what broadband is.<br>• One third of the participants think the workers are either not properly trained or were unsure of their training to use BB technology effectively.<br>• 33% of the participants either don't know or are not sure if broadband access and availability in the region meet minimum standards for effective business, e-commerce and training applications. **(3)** |
| **OPPORTUNITIES: (8)**<br>• BB access at the work force development centers is needed to effectively provide services to customers on a daily basis.  Such access will assist with computer skills, job search, and skill building. Current info. is key for hiring, keeping and maintaining employees and customers **(6)**<br>• Being able to apply online saves customers gas money. **(2)**<br>• 100% of the participants think it is important (or very important) that broadband service availability and adoption issues be addressed for workforce development in their region. | **CHALLENGES: (8)**<br>• The need for BB is increasing while resources are decreasing. **(3)**<br>• Without BB the majority of their services can't be offered. **(2)**<br>• Some rural centers are closing due to costs.<br>• 67% don't Know if BB technology is cost prohibitive or not. **(3)** |

## FIGURE 9: LOCAL GOVERNMENT SECTOR SWOC (PARTICIPANTS=3) (RTPT TOTAL SWOC VOTES= 22)

| Local Government Sector | |
|---|---|
| **STRENGTHS: (14)**<br>• Current uses of internet: email; state and federal forms; state statutes; search engines; city websites; and research. **(7)**<br>• 100% of participants reported having the right hardware, software and other tools in place for local government to utilize broadband in their region.<br>• 100% of the participants think their current processes and procedures encourage the use of BB. **(1)**<br>• 67% of the participants reported that the people in local government are properly trained to use broadband technology effectively. **(3)**<br>• 100% of the participants reported that the local government is provided with the latest technology that meets their need for using websites and email. **(2)**<br>• Lathrop Telephone Company has been excellent to work with and have gone above and beyond expectations. **(1)** | **WEAKNESSES: (3)**<br>• 33% of the participants reported that the people in local government are not properly trained to use broadband technology effectively and feel there should be more opportunities for BB utilization.<br>• Redundancy issues **(3)**<br>• They were told that community anchor institutions would be connected but the providers have not done so, especially in rural areas. |
| **OPPORTUNITIES: (2)**<br>• Broadband technology would improve the efficiency of local government and will allow more utilization of available information. **(1)**<br>• 100% of the participants reported that BB technology was not cost prohibitive. **(1)**<br>• 100% of the participants consider BB technology to be important or very important and think it is imperative for local governments to be able to provide service to their citizens.<br>• Participants think BB is key for economic development. | **CHALLENGES: (3)**<br>• To be on the web requires cascading costs for necessary servers, HR and skills. **(3)** |

## FIGURE 10: ENERGY SECTOR SWOC (PARTICIPANTS=1, HAD NO RESPONSE TO MOST QUESTIONS)

| Energy Sector | |
|---|---|
| **STRENGTHS:**<br>• Current uses: Shopping<br>• Yes: have the right hardware and software in place. | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• Reliable and better BB access would make processes more efficient and would save fuel. | **CHALLENGES:**<br>• |

## FIGURE 11: EDUCATION (K-12) SECTOR SWOC (NO RESPONSE, NO PARTICIPANTS)

| Education (K-12) Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |

## FIGURE 12: ENVIRONMENT SECTOR SWOC (NOT LISTED, NO PARTICIPANTS)

| Environment Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |

## FIGURE 13: HEALTH SECTOR SWOC (NO RESPONSE, NO PARTICIPANTS)

| Health Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |

## FIGURE 14: HIGHER EDUCATION SECTOR SWOC (NO RESPONSE, NO PARTICIPANTS)

| Higher Education Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |

## FIGURE 15: INDUSTRY AND MANUFACTURING SECTOR SWOC (NO RESPONSE, NO PARTICIPANTS)

| Industry and Manufacturing Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |

## FIGURE 16: PUBLIC SAFETY SECTOR SWOC (NO RESPONSE, NO PARTICIPANTS)

| Public Safety Sector | |
|---|---|
| **STRENGTHS:**<br>• | **WEAKNESSES:**<br>• |
| **OPPORTUNITIES:**<br>• | **CHALLENGES:**<br>• |