



MARTIN COUNTY STRATEGIC TECHNOLOGY PLAN

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A. Executive Summary

A. Executive Summary

Purpose

This document provides a “road map” for technology-based growth and economic development in Martin County. Detailed assessments and recommendations are provided in Tab 1 of this report. The full report provides an overview of ConnectKentucky’s findings and recommendations related to the assessment of Martin County’s technology needs, particularly related to computers, broadband and Information Technology.

Summary

Martin County’s e-Community Leadership Team is leading the way into a new economy for Martin County, working in partnership with ConnectKentucky. By leveraging the latest in technology and networking, ConnectKentucky is ensuring Kentucky remains the place of choice to work, live and raise a family.

Pursuing the *Five A’s to technology acceleration in Kentucky* (Availability, Affordability, Awareness, Applications and Adoption) ConnectKentucky has established the Commonwealth as a national model for technology development. Over the past two years, Kentucky has achieved growth rates in technology availability and adoption that lead the nation.

Today, the world is smaller because technology makes it easier to work and to live nearly anywhere. In order to compete on a global scale, we must provide our citizens and businesses with the best available technology in the world, wherever they choose to live, learn, work or play. Central to technology-based development is access to and usage of computers and high-speed Internet, commonly referred to as “broadband.”

The need for improved technology in Kentucky is great. In 2003 rankings, Kentucky was 44th in its proportion of high-tech companies, 45th in household computer use, and 43rd in resident Internet use. But that is changing fast, as Kentucky transforms from a technology laggard into a national leader in universal access and innovative technology solutions. Some evidence of the progress Kentucky has made:

- According to the Federal Communications Commission, Kentucky leads the nation in its rate of broadband adoption over the past two years.
- In 2003, about 60 percent of Kentucky households had the ability to subscribe to broadband. Now, an estimated 77 percent of households can access broadband, an addition of 240,000 households over two years. Increased investment from telecommunications companies is expected to bring the broadband coverage rate to 90 percent by the end of 2006.

Though Kentucky’s recent progress has been swift, there remains much to be accomplished. If we do not act on our dreams, we are destined to remain at the bottom of most technology rankings.

With this vision of hope for all Kentuckians, Governor Fletcher introduced his *Prescription for Innovation*, a comprehensive initiative to achieve aggressive goals for broadband deployment and technology adoption in Kentucky. ConnectKentucky is working community by community, provider by provider to ensure that each of these goals is achieved by 2007, including:

1. Broadband availability for all Kentuckians, businesses and local governments;
2. Dramatically improved usage (adoption) of computers and the Internet;
3. Meaningful online applications for local government, businesses, educators, etc.;
4. Establishment of local technology leadership teams in every county promoting technology growth for: local government, business and industry, education, healthcare, agriculture, libraries, tourism and community-based organizations.

Governor Fletcher's *Prescription for Innovation* is being implemented through ConnectKentucky, in partnership with local community leaders. The leadership of Martin County asked ConnectKentucky to facilitate an evaluation of its current uses of technology, identifying and filling broadband coverage gaps and developing a strategic plan to increase the use of technology in each sector of the local community, including:

- Local government
- Business and industry
- K-12 education
- Higher education
- Healthcare
- Libraries
- Agriculture
- Tourism, recreation & parks
- Community-based organizations

This project has culminated in the development of initiatives to increase the competitiveness of Martin County through the expansion of broadband availability and the increased usage of computers and broadband-related applications. In completing this analysis, ConnectKentucky engaged local leaders in all economic sectors, led the group through a visioning exercise and developed a unique strategic plan for the county.

Additionally, ConnectKentucky has engaged its network of telecommunications and Information Technology resources to determine which technology resources are currently available to Martin County and which services are expected in the near future.

ConnectKentucky found that broadband is readily available in larger cities and communities, which contain more than 75% of the county's population, and there are broadband services of some kind available in various locations throughout the county. ConnectKentucky will work with current and potential broadband providers to achieve full broadband availability to all residents of Martin County by 2007.

ConnectKentucky recommends that Martin County focus on these general areas in order to encourage further build-out of broadband throughout the community and to create awareness of the broadband-related services that already exist.

- Creating awareness of the many available digital applications that provide convenience, growth, productivity and empowerment.
- Developing and expanding community applications that will drive the use of broadband access and ultimately encourage residents to become more technologically savvy.

Methodology

Activity 1 – Kickoff meeting and follow-up benchmarking meetings defined existing and future uses of broadband:

- How stakeholders currently use telecommunications and broadband services and applications
- What telecommunications and broadband needs are not currently being met
- What applications would be useful to increase the economic competitiveness of the area
- What telecommunications and broadband services and applications key stakeholders desire for the future

Activity 2 – Interviews with key telecommunications and Information Technology providers in the community determined what services and infrastructure are in place now and what services and infrastructure are planned for the future.

Activity 3 – ConnectKentucky reported the findings, provided analysis of potential alternatives and made recommendations on potential future initiatives:

- Benchmarked current uses of technology
- Researched applications that will enhance the economic vitality of the community in various participating sectors
- Recommended a strategic approach to adopting appropriate applications
- Provided project management to assure successful implementation
- Collected coverage data from existing broadband providers in the Commonwealth. In GIS format, mapped coverage footprints of all providers
- Provided data for areas not served by broadband
- Shared relevant market data with potential providers to encourage additional investment

- Identified possible grant and low-interest loan availability to areas not currently served
- Encouraged investment from all providers, including cable, telecommunications companies, municipals, satellite and wireless, to fill remaining gaps.

How Do We Get There?

ConnectKentucky will continue to assist the e-Community Leadership Team, working together to ensure that Martin County remains a strong place to work, live and raise a family. ConnectKentucky will remain engaged with the leadership and stakeholders from each sector to implement the recommendations provided in this report.



B. WHY DOES THIS MATTER?

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Business and Industry

Today, a number of factors are forcing businesses to change time-honored models of operation, including global competition, a trend toward partnering/outsourcing for all but core functions, and a demand for more personalized services. Each of these trends can save businesses time and money, but they require a sound technological infrastructure. The good news is that while these trends are emerging, the costs of technology are falling.

Businesses cannot be sheltered from competitors. The reality is that Martin County businesses must adapt to the changing world in which they operate. Businesses have to learn the tools of the networked economy and innovate to survive.

Business and industry often experience the most direct benefit of high-speed Internet with increased sales, profit and growth. However, many businesses and industries are utilizing high-speed Internet to simplify processes, increase efficiency and develop new marketing methods. While the employees benefit immediately, the consumer ultimately sees lower prices and better quality.

Gaining benefits from the implementation of high speed Internet is not just for large corporations. For smaller businesses, technology creates an even playing field with companies much bigger than themselves. E-commerce (the buying and selling of goods over the Internet) allows small or even home-based businesses to operate and sell their goods on a national and sometimes international scale. Where small businesses were once limited to whatever local customers they could attract through local advertising and word of mouth, the Internet now allows them to attract customers across the globe.

Utilizing broadband and technology, businesses with multiple locations can save money by implementing Voice over Internet Protocol (VoIP). VoIP allows businesses to call between those locations with little or no costs. It allows users to travel anywhere in the world and still make and receive phone calls. Additionally, VoIP allows for collaboration not available using traditional telephone methods.

Technology has allowed larger businesses to maximize efficiency in order to better serve customers. E-mail, intranets, paperless operations and automated logistics processes are just a few examples of how the Internet is allowing large companies to work with much greater efficiency and at lower costs. This allows those businesses to expand into other markets and grow their companies, or even pass the savings on to their customers.

K-12 Education

For our children to succeed in the New Economy, the tools of the Information Age should be as comfortable to use as a pencil and paper. The future health of the nation's economy depends on how broadly and deeply we reach a new level of literacy – that includes strong academic skills, thinking, reasoning, teamwork skills, and proficiency in the use of technology. Our schools must equip every student, regardless of family income, with the ability to use these tools. Equally important is the use of these tools in the educational

process itself. The interactive nature of the Web provides a richer learning experience that engages and motivates students to explore and learn.

In Kentucky, Internet applications used in elementary and secondary schools continue to develop. Typically, the Internet is a communication tool for teachers and parents to remain up-to-date on the recent happenings of the classroom. Everything from homework assignments to scheduled activities and pictures can be found on classroom websites, keeping everyone connected to educational resources. Elementary and secondary schools provide students with the opportunity to learn more about computer technology and explore the Internet with school computer labs. Committed to protecting students and maintaining a safe, educational environment, schools monitor and restrict Internet access of students to ensure the highest quality resources are being viewed and to ensure the safety of our children.

Healthcare

The healthcare industry has unique challenges. It inherently generates mountains of information yet at the same time is duty bound to keep these mountains hidden for the sake of individual privacy. For companies charged with managing and working with this information, high-speed Internet access and technology innovations are crucial. On a daily basis, doctors must keep up with the latest research; patient records have to be easily accessible and accurate; and images, test results and prescriptions have to be delivered promptly, without errors, to practitioners, pharmacies and insurance providers. In healthcare, errors and delays are not only costly, but also dangerous. Many providers are converting to electronic medical records which can be easily updated and shared on secure, internal networks. Network-based technologies like video-conferencing and digital stethoscopes allow specialists to consult with rural patients, reducing travel time and hazards. This ability to reach rural patients through technology has allowed many people to seek treatment that otherwise might not. Bringing the best of healthcare to every Kentucky citizen is a worthy goal.

Because of the nature of their activities, the healthcare industry has found the perfect partner in high-speed Internet technology. The convenience of the Internet has simplified information transfers and improved medical equipment while maintaining the integrity of confidential patient information.

Libraries

Today, libraries are more than just books on the shelves. Everything from the card catalog to check out can be simplified with the help of high-speed Internet. Public libraries often play a vital role in the community by providing every resident with the opportunity to receive instruction and use the Internet free of charge. Though they are not available 24 hours a day as a home computer is, libraries are still a central point of access to the Internet that is available to each and every citizen in the community. Many businesses have been launched as a result of research done on a computer in a Kentucky library. Many children are able to do their homework online or research reports because of the Internet access provided by the local library. Because the library plays such an important role in the community, it is essential that local libraries are on the cutting edge of technology and

continue to develop new methods of keeping their patrons up to date. High speed Internet can help libraries continue their tradition as a trusted and indispensable resource.

Higher Education

Colleges, universities and community and technical colleges in Kentucky continue to find new ways to use the Internet to improve everyday activities. Websites are an important source of information about the institution, from providing news and information concerning campus activities to online registration of classes. Colleges and universities often implement the use of the school websites to attract prospective students, remain connected to alumni and allow for online donations.

The most common application of high-speed Internet on college and university campuses, however, is typically not actually used on-campus. Most colleges and universities offer online classes and academic programs to better equip students with the opportunity to learn. In 2004, 35,000 students participated in higher education classes through Kentucky Virtual University, www.kyvu.org. By bringing the classroom to the students, participants from every walk of life and region of the state were able to participate in higher education classes. However, it is necessary to have high-speed Internet to participate successfully in online classes. High-speed Internet is crucial to supporting the capabilities and the possibilities of higher education in Kentucky.

Community-Based Organizations

Non-profit agencies provide a wide variety of services to citizens, including health services, religious services, community sports and athletic facilities and public entertainment. Like any organization, community-based organizations need technology to manage operations, apply for grants, reduce costs, improve client services and better serve the community. Unfortunately, their budgets are typically limited, and they often depend on outdated technologies and donated services. As a result, community-based organizations must be creative in order to serve their constituents in the best manner possible. Fortunately, there is no shortage of creativity among community-based organizations, and many are using innovative solutions to offer important local services. As with other sectors, the Internet is an enabling factor for these creative solutions.

Government

Government serves citizens in numerous ways, from providing services such as vehicle registration to providing information such as election results. While it is common for people to feel disengaged from the everyday actions of state and local government, technology has allowed governments to begin closing that gap. On the state level, Kentucky has developed Kentucky.gov, a comprehensive website that provides government services and information to all citizens. On this site, residents can purchase and update hunting licenses; car dealers can access title searches on cars; and citizens can monitor the progress of legislation when the General Assembly is in session. By bringing the services of the state government to the convenience of residents' homes, the Kentucky.gov site provides participants a greater sense of relevance in the actions of state government.

Local governments have also seen the importance of an online presence. Local governments provide communities with many services, offer a great deal of local information and encourage public involvement and awareness. With a web presence, local governments can distribute information to more citizens, provide more opportunities for interaction with the agencies that affect them and make more convenient transactions that previously required a drive to the courthouse.

Tourism, Recreation, and Parks

As citizens become more comfortable with the Internet, they typically continue to find more uses for it. One of the industries benefiting from this trend is the tourism industry. Increasingly, people are using the Internet to research, book and pay for airline tickets, hotels, rental cars, and to make other logistical arrangements for their vacations and business travel. In light of this fact, hotels, travel agents, restaurants, attractions and other support businesses in the tourism industry are taking advantage of this trend and making their information and services available on the Internet.

Additionally, with the help of high-speed Internet and computer technology, the leisure time planned and purchased over the Internet can also be used more efficiently, allowing for a more enjoyable experience. Whether it is vacation, recreation or a visit to a local park, high-speed Internet is making the travel experience more enjoyable and more convenient. Already, a number of innovative tourism attractions are using high-speed Internet to improve services and meet the changing demands of their guests.

Agriculture

Too often, the agricultural community sees little need for broadband technology in the day-to-day activities of maintaining farms and livestock. However, broadband technology allows for growing innovation in agriculture, simplifying and mainstreaming important daily tasks, and developing marketing and sales. With high-speed Internet, farmers can remain up-to-date with everything from the weather to the conditions of the chicken facilities equipped with temperature-sensitive monitors. Livestock farmers can access market prices and gain access to the latest in livestock management techniques. Farmers can advertise and even sell goods on the Internet, generating customers from all over the world. The Internet can also help Kentucky farmers diversify their operations and develop cutting edge revenue streams thus alleviating some of the loss of revenue from the Tobacco Quota Buyout Program. Internet resources can give Kentucky farmers an edge on production and results. The possibilities are virtually endless. The marriage of agriculture and high-speed Internet can produce abundant success for farmers across Kentucky by creating opportunities.



C. WHERE ARE WE AND WHERE ARE WE GOING?

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BUSINESS AND INDUSTRY

Martin County industries employ 3,079 workers. The county's leading industry is by far mining and mining-related supplier industries, including hardware and industrial suppliers and trucking/transportation. The infrastructural foundation created by the mining industry in areas such as logistics management and transportation create diverse market opportunities for future industrial growth. In addition, advancement in the technical infrastructure of mining-related technologies also further enhances the county's diverse growth potential.

- Trade, transportation, and utilities employs 479
- Public administration employs 464
- Service industry employs 479

The leading, non-mining-related, private employers are Netcare Ambulance which employs 25 people followed by C & S Vaults, Inc., with 22 employees.

The Assessment

- **Networked Places** – In the category of networked places, Martin County's business and industry sector is currently at stage 3 on a 0 to 5 scale, with most office employees having always-on connections to the Internet at their desks.
- **Applications and Services** – In the area of technology applications and services, the business and industry sector is currently at stage 3 on a 0 to 5 scale, with most businesses having an informational website.
- **Leadership** – In terms of technology leadership within the business community, Martin County is currently at stage 3 on a 0 to 5 scale. Some businesses permit some employees periodically to telework.

The Vision

While the Martin County eCommunity Leadership Team found that business and industry's current use of technology is somewhat limited, the team has an aggressive vision for how the county's business and industry sector will be using technology in two years. The team set goals that would move the business and industry sector from a stage 3 to a stage 5 in all the three categories outlined above. The team's vision includes:

- Most businesses use **Voice over Internet Protocol (VoIP)** to save money.
- Most computers have **video cameras**
- Some retailers and manufacturers use **RFID (radio frequency identification) to track inventory and equipment**
- Some businesses send and receive **video mail**
- Some businesses **outsource most of their computing services**
- Some businesses routinely use **multiparty videoconferencing** to coordinate operations
- Some businesses have restructured to focus on their core contribution and **outsource nonessential functions**
- **New hires are required to have experience** using new technology in business applications

K-12 EDUCATION

The Martin County School District enrolled 2,203 students in the 2004-2005 school year. Martin County began the school year with a new district superintendent, Mark Blackburn, who brings a wealth of knowledge and, with children of his own in the system, a keen understanding for the needs of the local students. Three new principals also joined the Martin County Administrative team at Eden (Willa Preston), Warfield Middle (Robbie Fletcher) and Sheldon Clark High School (Patricia Elliott). All schools continue to refine curriculum offerings to ensure that instruction is current and aligned with student needs and state requirements. The combined accountability index goal for the school district in the spring of 2006 is 80.6. Based on the most current assessment data, Inez and Warfield Elementary Schools are meeting their accountability index goals. Eden Elementary, Inez Middle, Warfield Middle and Sheldon Clark High School are classified in a progressing status. Following are important benchmarks related to recent Martin County graduates:

	Attendance Rate	Retention Rate	Dropout Rate	Graduation Rate	College	Military	Work	Voc/Tech Training	Work & Part-Time School	Not Successful
District	91.9%	4.9%	2.2%	80.6%	46.3%	1.5%	27.2%	15.4%	0%	9.6%
State	94.3%	3.3%	2.2%	81.5%	54.7%	2.6%	27.5%	4.8%	6.4%	4%

All Martin County schools have an adequate number of workstations and connectivity that allows for both individual and group work to be performed. However, many workstations are outdated and replacement workstations are needed to support online assessment being planned by the state. For many students, writing portfolio entries are done with a word processor to allow for ease of editing and use of writing tools such as grammar and spell checking. Accelerated Reading and Mathematics programs are used at all levels to support classroom activities. Productivity tools such as spreadsheet, PowerPoint, and graphic programs are used on a limited basis to promote learning. Teachers use technology for e-mail, student management and classroom presentations. Activities such as Web Quests, Internet scavenger hunts, and research are used, but not widely. The district is configuring existing servers to allow for use of streaming videos from Kentucky Educational Television and United Streaming. Schools and district comprehensive improvement plans identified the need for additional training to integrate technology within the instructional assessment program. Classroom integration of technology is not at the level that it should be, but has improved over the past few years. Every classroom in Martin County schools has at least three student drops for connecting computers to our local area network. Students who have signed the district's Acceptable Use Policy have been provided e-mail and Internet access. Additional needs include installing equipment to support wireless connectivity and upgrading existing equipment and data line speed to support the infrastructure.

	Spending per Student	Student Teacher Ratio	Student/Computer Ratio	% of Classrooms with at Least One KETS Workstation With Internet Access
District	\$8,852	15:1	3.7:1	100
State	\$8,663	16:1	3.7:1	100

District website: <http://www.martin.kyschools.us>.

The Assessment

In its evaluation, the Martin County eCommunity Leadership Team determined that the K-12 education sector has made significant progress in making technology a priority, and the team set goals for maintaining this current access and use of technology and its applications. The current assessment includes:

- **Networked Places** – In the category of networked places, Martin County’s K-12 education sector is currently at stage 3 on a 0 to 5 scale. Schools provide at least one computer for every four students in grades K-12, and most classrooms have computers for student use.
- **Applications and Services** – In the category of technology applications and services, the education sector is currently at stage 4 on a 0 to 5 scale. Many schools have an interactive website that offers access to homework assignments and e-mail contact with teachers and administrators.
- **Leadership** – In terms of technology leadership within the education sector, Martin County is currently at stage 3 on a 0 to 5 scale. The school board sees opportunities to use the network to raise test scores and operate the school more efficiently. In addition, teacher training on new technologies is a priority at most schools.

The Vision

The Martin County eCommunity Leadership Team recognizes that the school systems have made technology a priority, and the team has outlined a clear vision for enhanced technology usage and application in the classroom. The goals set forth by the Martin County eCommunity Leadership Team include moving to at least a stage 4 in the category of networked places and a goal of stage 5 in both the applications and leadership categories. The vision includes:

- Some high school **students are provided their own laptop computers** at school
- Many classroom teachers have **access to digital projection capabilities**
- Most middle and high schools have video programs that allow students to **produce and share shows on a public network**
- Some schools use **wireless sensors to monitor energy consumption**
- Schools use the network to **connect students, teachers and parents, improve learning via online resources**, and manage administrative responsibilities more efficiently
- All students **meet grade level requirements in the National Educational Technology Standards**
- **Technology training is offered** in the community
- Many high school students **use online teachers and experts to explore subjects and execute individual learning plans**
- All schools have **comprehensive plans for learning activities utilizing technology in the classroom**
- School districts **actively promote information technology literacy** to drive positive impacts on economic performance, skills and innovation in the classroom
- The school system plays a vital role in **raising the skill level and awareness of community and family members**

HEALTHCARE

Martin County has many fine healthcare facilities/clinics as well as independent physicians' offices. Examples include the Martin County Public Health Department, a forward-thinking healthcare leader in the community. With such advanced applications of technology, including telemedicine and first alert emergency notification networks, Martin County Health Department is leading the effort toward community disaster response, wellness and prevention. In addition, Martin County is served by the newly opened "After Hours Clinic" operated by Highlands Regional Medical Center in Prestonsburg. This satellite healthcare facility offers advanced, intermediate care in the evenings and weekends after local independent physician offices are closed. The clinic's plans include consideration of digital x-ray technology making it possible for Martin County residents to receive instant x-ray results.

Healthcare is also making leaps and bounds in the Business sector with Excel Mining taking advantage of the cost saving advantages of telemedicine for their employees, and the Big Sandy Regional Detention Center is also proving to be very forward-thinking when it comes to Healthcare Technology. The prison is currently utilizing telemedicine whenever medically appropriate as a means to save on the cost of transporting inmates to and from outside medical facilities.

The Assessment

The Martin County eCommunity Leadership Team found that the healthcare sector is beginning to use technology to its advantage and identified a large opportunity for technology applications within the healthcare community.

- **Networked Places** – In the category of networked places, Martin County's healthcare sector is currently at stage 3 on a 0 to 5 scale with some doctors and nurses using laptop and palmtop devices connected to wireless networks to enter patient information and access databases.
- **Applications and Services** – In the category of technology applications and services, the healthcare sector is currently at stage 2 on a 0 to 5 scale with some providers having informational websites and telemedicine being evaluated.
- **Leadership** – In terms of technology leadership within the healthcare community, Martin County is currently at stage 4 on a 0 to 5 scale with work underway by some providers to begin online exchanging of test results and other medical records with appropriate parties. Furthermore, healthcare leaders are also talking with the community about enhancing online services and using the network to improve communitywide healthcare.

The Vision

The Martin County eCommunity Leadership Team sees great potential for the use of technology in the healthcare sector but understands the industry is limited in its resources and ability to implement changes within a brief period. The team has set goals to move all three categories to a stage 5 on a 0 to 5 scale. The team's vision includes:

- Most equipment has been **converted to digital**
- **Desktop videoconferencing is routine** at all hospitals and major clinics
- Telephone systems have **converted to Voice over Internet Protocol (VoIP)** to save money
- **Remote monitoring of patients** with chronic conditions is standard procedure.
- All providers allow patients to **schedule appointments, view records and get advice online**

- All patient **records are stored electronically** and routinely sent electronically to distant providers to aid diagnosis and treatment for emergency patients
- **Telemedicine routinely is used** to access specialists
- **Wireless feeds in ambulances provide real-time patient assessment** to ER staff.
- **Healthcare leaders see themselves as a key part of the community's overall economic strategy**
- **Leaders are visible and active** in strategy development and implementation
- Executives of the region's hospitals, clinics, insurers, employers and other healthcare providers are **meeting regularly to find ways to collaboratively reduce the cost of healthcare without compromising quality of service**

LIBRARIES

Martin County Public Library currently maintains one primary facility in downtown Inez as well as the newly re-opened Rufus Reed Branch Library in Lovely. The newly renovated main building in Inez offers expanded collections and better facilities in which to serve the community. The facility has wireless connection available to patrons and is working on securing an online card catalog. Director Pat Crum and Technology Director Randy Bowen operate these facilities with the desire to pursue grant funding opportunities and community partners to maximize the impact the libraries have in the community. At present, Martin County Public Library has no online presence, but is hoping to create a website in the near future.

The Assessment

The Martin County eCommunity Leadership Team found that the library sector currently offers some technology services to the community but wishes to realize the goal to implement still more technology services to the community.

- **Networked Places** – In the category of networked places, the library sector is currently at stage 2 on a 0 to 5 scale where the library provides several computers with free access to the Internet.
- **Applications and Services** – In the category of technology applications and services, the library sector is currently at stage 1 on a 0 to 5 scale with some employees accessing e-mail and library-related websites.
- **Leadership** – In terms of technology leadership within the library system, the sector is currently at stage 3 on a 0 to 5 scale. The library research desk is an online community resource, and staff training on new technologies is a priority at most libraries. Additionally, libraries are using consultants to take advantage of e-rate and other discounts and library policies reflect appropriate filtering requirements.

The Vision

The Martin County eCommunity Leadership Team has set forth a two-year vision for enhancing the library so that it serves the community more effectively and efficiently, concentrating on networked places and leadership. The team set a goal of maintaining or moving to stage 4 on a 0 to 5 scale in the networked places category; a stage 3 in the applications and services category and at a stage 5 on a 0 to 5 scale in the leadership category. The vision includes:

- Public libraries have **added network ports or wireless networks and electrical outlets to carrels**
- **The library catalog is online**

- Patrons may **use the Internet to place books on hold and request books** from other libraries in the library system
- Patrons can **search online databases from home, school, or work**
- Libraries host **live video feeds of public interest events**
- Libraries continue to **upgrade their facilities to offer the community the next generation in technology**, services and training
- Libraries **actively promote information technology literacy** to drive positive impacts on economic performance, skills, and innovation in the community

HIGHER EDUCATION

Although there are no higher-education facilities in Martin County, there are 26 higher education facilities within a 60-mile drive of Martin County. There is also an active, committed Adult Education facility housed in the Community Center in Inez, Kentucky. This Adult Education program seeks to realize an even greater role in the economic development of Martin County through increased partnerships with community employers for training and testing of new hires and potential employees.

The Assessment

The Martin County eCommunity Leadership Team found that Adult Education is the only option for higher education in the county, but the county is also served by Big Sandy Community & Technical College which has a variety of service options, including online courses designed to make college more accessible to more people in the community.

- **Networked Places** – In the category of networked places, Martin County’s higher education sector is currently at stage 3 on a 0 to 5 scale with most on-site students having at least a 10 mbps connection to the network in every classroom.
- **Applications and Services** – In the category of technology applications and services, the higher education sector is currently at stage 2 on a 0 to 5 scale. Some faculty members are trained to use the Internet for instruction, and some classes use digital content and/or web-based content for instruction.
- **Leadership** – In terms of technology leadership within the higher education community, Martin County is currently at stage 3 on a 0 to 5 scale. Specialized courses have been developed to cater to area businesses seeking to improve the skills of workers and faculty training on new technology is a priority.

The Vision

The Martin County eCommunity Leadership Team sees great potential for the use of technology in the higher education sector but understands that colleges and universities are limited in their resources and ability to implement changes within a brief period. Over the next two years, the team has set goals of reaching stage 5 out of 5 in the category of networked places; and a 4 out of 5 in applications and services and leadership. The team’s vision includes:

- Many **classrooms have been remodeled to include network connections and power outlets at every seat**
- Most **students bring laptop computers or other network-enabled devices to class**
- Many **classrooms have video equipment** for recording lectures
- Most of the **faculty are trained to use the Internet** for instruction
- Most **classes use digital content and web-based content for instruction**

- Some undergraduate students take **distance learning classes** for specialized subjects and graduate-level research
- Higher education and local businesses are working together **to raise the skill level of the current workforce**
- Community colleges are **expanding their capacity by using distance learning technologies to reduce the need for classroom time**
- Some colleges and universities are **developing online classes to market to students in other parts of the country and the world**

COMMUNITY-BASED ORGANIZATIONS

There are approximately 30 community-based organizations in Martin County. As is true with most rural areas, these organizations have been slow to adopt technology and will find it difficult and cost-prohibitive to change. However, the team found that the interest is there and that funding and training are the main barriers in this area. The largest and most progressive of these organizations is the Roy Collier Community Center located in downtown Inez. This state-of-the-art, 53,000-square-foot facility contains one public access micro-computer lab with Internet-equipped terminals available, a training computer lab with approximately 20 Internet-enabled PCs, and the CenterNet videoconferencing facility currently used in partnership with the Martin County School system. Additionally, the Community Center is a wireless Internet “hot spot” and has an open-access wireless Internet infrastructure available to visitors.

The Assessment

The Martin County eCommunity Leadership Team found that the community-based organization sector is just beginning to use technology to its advantage and identified a large opportunity for technology applications within the community-based organizations.

- **Networked Places** – In the category of networked places, Martin County’s community-based organization sector is currently at stage 1 on a 0 to 5 scale with most groups accessing the Internet through a limited dial-up connection.
- **Applications and Services** – In the category of technology applications and services, the community-based organization sector is currently at an average stage 2 on a 0 to 5 scale where some organizations have informational websites.
- **Leadership** – In terms of technology leadership within the community-based organizations in the community, Martin County is currently at stage 1 on a 0 to 5 scale where the Internet is seen as a possible enhancement and marketing tool.

The Vision

The Martin County eCommunity Leadership Team sees great potential for the use of technology in the community-based organization sector but understands the sector is limited in its resources and ability to implement changes within a brief period. The team has set a goal to move the networked places category to stage 2 on a 0 to 5 scale, with a two-year goal of maintaining the applications and services category at stage 2 and the leadership category at a stage 1. The team’s vision includes:

- Some organizations have **computers that are no older than three years old**
- Many **organizations have e-mail**
- Some office employees have **always-on connections to the Internet** at their desks
- Some organizations have **informational websites**
- The Internet is seen as a possible **enhancement and marketing tool**

GOVERNMENT

Government entities in Martin County are as follows:

- Martin County
- Inez
- Warfield

The government entities of Martin County do not have official websites and generally seem to have demonstrated limited leadership in the adoption of technology.

The Assessment

Although the government entities in Martin County have a limited online presence, the Martin County eCommunity Leadership Team found that the local government is currently using technology to improve processes in other areas.

- **Networked Places** – In the category of networked places, the government sector is currently at stage 2 on a 0 to 5 scale with some employees having e-mail accounts.
- **Applications and Services** – In the category of technology applications and services, the government sector is currently at stage 1 on a 0 to 5 scale where some employees use the Internet for e-mail.
- **Leadership** – In terms of technology leadership within the government community, Martin County and its associated governments are currently at stage 2 on a 0 to 5 scale. At this stage, public agencies do not have a strategy for how best to use e-government, minimal telecommunications planning has occurred, and elected officials are not involved in telecommunications issues.

The Vision

The Martin County eCommunity Leadership Team has developed goals to provide a framework for robust e-government functions in the next two years, which will bring the sector to stage 4 in the category of networked places; the rating for applications and services to a stage 4; and the rating for leadership to stage 4. The team's vision includes:

- Some field workers use **wireless networks** to upload and download data in the field
- Some employees use **desktop videoconferencing**
- Sensors and **webcams** monitor locations, such as rivers, that are important to public safety
- Customers can **make** routine **payments**, such as parking fines, online using credit cards or **electronic fund transfer**
- Parks and recreation classes have **online registration**
- Employees can **enter building inspections and violations from the field**
- Some agencies have a formal policy that allows some employees to **work from home** at least one day a week
- **Rights-of-way and tower siting policies** are in place
- Elected officials understand the importance of the network for **economic development** and quality of life

TOURISM, RECREATION, AND PARKS

Tourism has recently become organized in Martin County, and this sector looks forward to expanding its involvement to promote tourism in the community.

AGRICULTURE

In 2002, there were 13 farms in Martin County averaging 365 acres per farm (4,739 total farm acres in the county). The average market value of production was \$9,118, totaling \$119,000 for the county. Crop sales accounted for \$9,000; livestock sales accounted for \$110,000. Martin County is ranked 118th in the value of agricultural products sold in the state, and therefore, this sector represents a small aspect of the Martin County economy.

The Assessment

The Martin County eCommunity Leadership Team found that the agricultural sector is more open than most to incorporating technology into their daily work lives.

- **Networked Places** – In the category of networked places, Martin County’s agricultural sector is currently at stage 3 on a 0 to 5 scale. Most growers, suppliers and processors have always-on connections to the Internet. Some mobile workers have laptop computers and can access the network remotely. Moreover, affordable videoconferencing facilities are available in the community.
- **Applications and Services** – In the category of technology applications and services, the agriculture sector is currently at stage 2 on a 0 to 5 scale where most growers, suppliers and processors have informational websites, and some growers, suppliers and processors transmit or receive some orders electronically.
- **Leadership** – In terms of technology leadership within the agricultural community, Martin County is currently at stage 2 on a 0 to 5 scale where some suppliers and processors permit employees periodically to telework. In addition, the Internet is seen as essential to business operations, and employees are trained on basic applications.

The Vision


The Martin County eCommunity Leadership Team sees great potential for the use of technology in the agricultural sector but understands the industry is limited in its resources and ability to implement changes within a brief period. The team has set goals to move to stage 5 on a 0 to 5 scale in networked places and applications and services and to a stage 4 on a 0 to 5 scale in the leadership category. The team’s vision includes:

- Most growers, suppliers and processors **use Voice over Internet Protocol (VoIP) to save money**
- Most computers have **video cameras**
- Some use **Radio Frequency Identification (RFID)** to track inventory and equipment
- Some growers, suppliers and processors **send and receive video mail**
- Some **outsource most of their computing services**
- Some **routinely use multiparty videoconferencing** to coordinate operations
- **Training on new technology is a priority**
- Some processors and suppliers permit employees to **telework one or two days a week**

Business and Industry	Martin County
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● Martin County's Benchmark Assessment Results are presented in red.

■ Martin County's Vision for this Sector is presented in blue.

	Stage	Networked Places	Applications & Services	Leadership
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Least Connected</div>  <div style="margin-top: 10px;">Most Connected</div> </div>	0	Not using the Internet.	No computer use or website. Customers use phone and postal mail.	No technology or telecom plan.
	1	Some employees have limited access to the Internet through a dial-up connection.	Some employees use basic e-mail services through their connection.	The Internet is considered a possible business enhancement.
	2	Some office employees have always-on connections to the Internet at their desks.	Some businesses have an informational website. Some businesses transmit or receive some orders electronically.	Some view the Internet as essential to business operations. Employees are trained on basic applications.
	3	● Most office employees have always-on connections to the Internet at their desks. Some mobile workers have laptop computers and can access the office network remotely. Affordable videoconferencing facilities are available in the community.	● Most businesses have an informational website. Some retail websites can accept credit card transactions. Some businesses participate in the electronic supply chain.	● Some businesses permit some employees periodically to telework. Some businesses encourage employees to take work-related classes offline. Employee training on new technology is a priority.
	4	Some businesses use Voice over Internet Protocol (VoIP) to save money. Some office workers have converted from desktop computers to portable device. Some office computers have webcams for videoconferencing.	Some businesses outsource most of their computer services. Some retailers and manufacturers sell goods out of state or internationally. Some employees work remotely, some out of state.	Some businesses permit some employees to telework one or two days a week. Some businesses encourage employees to take work-related courses online. Businesses are working with educational partners to raise workforce skill levels.
	5	■ Most businesses use Voice over Internet Protocol (VoIP) to save money. Most computers have video cameras. Some retailers and manufacturers use RFID (radio frequency identification) to track inventory and equipment.	■ Some businesses send and receive video mail. Some businesses outsource most of their computing services. Some businesses routinely use multiparty videoconferencing to coordinate operations.	■ Some businesses have restructured to focus on their core contribution and outsource nonessential functions. New hires are required to have experience using new technology in business applications.


● Martin County's Benchmark Assessment Results are presented in red.

■ Martin County's Vision for this Sector is presented in blue.

<p style="text-align: center;">Least Connected</p>  <p style="text-align: center;">Most Connected</p>	Stage	Networked Places	Applications & Services	Leadership
	0	Not using the Internet.	Schools use phone and postal mail. Schools have no website.	There is no technology or telecom plan.
	1	Few middle and high schools have computer labs for students. Few classrooms/teachers have access to computer projectors.	Few schools have an informational website. The Internet is not used as a resource for instruction or homework assignments.	Few experienced teachers are trained on how to incorporate material from the Internet into their curriculum.
	2	Many middle and high schools have computer labs for students. Some classrooms and teachers have access to computer projectors.	Many schools have an informational website. The Internet is rarely used as a resource for instruction or homework assignments.	Few schools have plans for better using telecommunications services and technologies in their classrooms. Some experienced teachers are trained on how to incorporate material from the Internet into their curriculum.
	3	<p>● Schools provide at least one computer for every four students in grades K-12. Most classrooms have computers for student use. Some teachers use computer-based presentation tools and projectors for their lessons.</p>	<p>Some schools have an interactive website that offers access to homework assignments and communication with teachers and administrators. Many teachers can incorporate Internet material into the curriculum. Teachers welcome e-mail from parents and students.</p>	<p>● The school board sees opportunities to use the network to raise test scores and operate the school more efficiently. Teacher training on new technologies is a priority at most school districts. Schools are using consultants to take advantage of e-rate and other school discounts.</p>
	4	<p>■ Some high school students are provided their own laptop computers at school. Many classroom teachers have access to digital projection capabilities. Most middle and high schools have video programs that allow students to produce and share shows on a public network. Some schools use wireless sensors to monitor energy consumption.</p>	<p>● Many schools have an interactive website that offers access to homework assignments and e-mail contact with teachers and administrators. All teachers meet National Educational Technology Standards. Most students meet National Educational Technology Standards. Parents and family members are encouraged to participate in student learning via e-mail and online applications. Online classes are available to high school students via Internet-based instruction, including college online classes and Kentucky Virtual High School.</p>	<p>Some schools have comprehensive plans for learning activities using technology in the classroom. New hires are required to have experience using new technology in the classroom. Computer labs are made available to family and community members. Schools take responsibility for continuing e-rate and other discounts.</p>
5	<p>Many classrooms have large, flat-panel displays or projectors for video-based instruction. Most schools have converted their phone system to Voice over Internet Protocol (VoIP) to save money. Most high schools have one-to-one computing for their students. Some school computer labs have been made available to the public.</p>	<p>■ Schools use the network to connect students, teachers and parents, improve learning via online resources, and manage administrative responsibilities more efficiently. All students meet grade level requirements in the National Educational Technology Standards. Technology training is offered in the community. Many high school students use online teachers and experts to explore subjects and execute individual learning plans.</p>	<p>■ All schools have comprehensive plans for learning activities utilizing technology in the classroom. School districts actively promote information technology literacy to drive positive impacts on economic performance, skills and innovation in the classroom. The school system plays a vital role in raising the skill level and awareness of community and family members.</p>	

Healthcare	Martin County
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● Martin County's Benchmark Assessment Results are presented in red.
 ■ Martin County's Vision for this Sector is presented in blue.

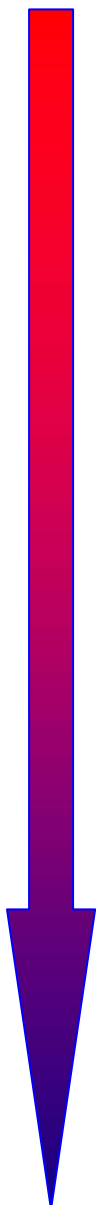
	Stage	Networked Places	Applications & Services	Leadership
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Least Connected</div>  <div style="margin-top: 10px;">Most Connected</div> </div>	0	Not using the Internet.	Customers use phone and postal mail. No website.	No technology or telecom plan.
	1	Some physicians and/or staff have access to the Internet through a dial-up connection.	Physicians and/or staff use a dial-up connection in order to access health-related sites.	Healthcare providers are considering what advantage may come from using the Internet in the office.
	2	Some doctors regularly use computers to enter and maintain patient records. Digital instruments and imaging equipment are being acquired.	● Some providers have informational websites. Some providers store patient records electronically. Telemedicine is being evaluated. Some offices are electronically transmitting records to insurers for reimbursement.	Some providers have begun the conversion to electronic medical records. Some providers are investigating how to deploy wireless technologies for mobile workers.
	3	● Some doctors and nurses are using laptop and palmtop devices connected to wireless networks to enter patient information and access databases.	Many providers have informational websites. Many providers store patient records electronically. Telemedicine is being evaluated. Some offices are electronically transmitting records to insurers for reimbursement.	Many providers have begun the conversion to electronic medical records. Many providers are investigating how to deploy wireless technologies for mobile workers.
	4	Internet-based video conferencing is used to consult experts and for training programs. Some patients are being monitored at home and at work via portable devices with wireless transmitters.	Some providers allow patients to e-mail doctors. Most providers store patient records electronically. Some lab results and images are received electronically.	● Work is underway by some providers to begin online exchanging of test results and other medical records with appropriate parties. Healthcare leaders are talking with the community about enhancing online services and using the network to improve communitywide healthcare.
	5	■ Most equipment has been converted to digital. Desktop videoconferencing is routine at all hospitals and major clinics. Telephone systems have converted to Voice over Internet Protocol (VoIP) to save money. Remote monitoring of patients with chronic conditions is standard procedure.	■ All providers allow patients to schedule appointments, view records and get advice online. All patient records are stored electronically and routinely sent electronically to distant providers to aid diagnosis and treatment for emergency patients. Telemedicine routinely is used to access specialists. Wireless feeds in ambulances provide real-time patient assessment to ER staff.	■ Healthcare leaders see themselves as a key part of the community's overall economic strategy. Leaders are visible and active in strategy development and implementation. Executives of the region's hospitals, clinics, insurers, employers and other healthcare providers are meeting regularly to find ways to collaboratively reduce the cost of healthcare without compromising quality of service.

Libraries

Martin County

● Martin County's Benchmark Assessment Results are presented in red.

■ Martin County's Vision for this Sector is presented in blue.


Least Connected	Stage	Networked Places	Applications & Services	Leadership
		0	Libraries do not provide Internet access.	Customers use postal mail or phone. No website.
1		Some employees have access to a dial-up connection.	● Some employees are accessing e-mail and library-related websites.	Employees are accessing the Internet in order to help the patrons of the facility.
2		● Public libraries provide several computers with free access to the Internet.	Most libraries have a website with basic information about hours of operation and location.	Libraries are the first to offer free access and instruction in the use of the Internet.
3		There is rarely more than a 10-minute wait to use the Internet-enabled computers.	■ Most libraries have catalogs online. Patrons may use the Internet to place books on hold and request books from other libraries in the library system. Patrons can search online databases from home, school, or work. Libraries host live video feeds of public interest events.	● The library research desk is an online community resource. Staff training on new technologies is a priority at most libraries. Libraries are using consultants to take advantage of e-rate and other discounts. Library policies reflect appropriate filtering requirements.
4		■ Public libraries have added network ports or wireless networks and electrical outlets to carrels.	Patrons may review their accounts online and pay fines by credit card. Patrons can access the library online as a portal for other online information services.	Libraries help the community understand copyright issues and how to protect privacy on the Internet. New hires are required to have experience using new technology. Libraries take internal responsibility for continuing e-rate and other discounts. Libraries have developed network management policies and technologies to prevent patrons from sending spam.
5		Most public libraries offer patrons a 54 mbps or faster wireless network.	Public libraries offer live video consultations. Public libraries allow patrons to borrow e-books over the Internet. They help patrons conduct research and assist with legal access to copyrighted databases and publications, including music and movies. Two-way videoconferencing is available to the general public.	■ Libraries continue to upgrade their facilities to offer the community the next generation in technology, services and training. Libraries actively promote information technology literacy to drive positive impacts on economic performance, skills, and innovation in the community.
Most Connected				

Higher Education

Martin County

● Martin County's Benchmark Assessment Results are presented in red.


■ Martin County's Vision for this Sector is presented in blue.

	Stage	Networked Places	Applications & Services	Leadership
 <p>Least Connected</p>	0	Not using the Internet.	Use phone and postal mail.	There is no technology or telecom plan.
	1	Some on-campus residents have broadband connections through non-university providers.	Few faculty members are trained to use the Internet for instruction. Few classes use digital content and/or web-based content for instruction.	Few departments have plans for better utilizing telecommunications services and technologies in their operations.
	2	Most on-campus residences have a 10 mbps connection to the network. Some classrooms are wired to the college/university network and are equipped with digital projection capabilities.	● Some faculty members are trained to use the Internet for instruction. Some classes use digital content and/or web-based content for instruction.	Few departments have plans for better utilizing telecommunications services and technologies in their operations.
	3	● Most on-campus residences have connections to the network in every room at least 10 mbps. Some classrooms have projection equipment that allows the instructor to display videos from the Internet into the classroom.	Many of the faculty are trained to use the Internet for instruction. Many classes use digital content and/or web-based content for instruction. Students use chat rooms to discuss lessons and ask questions of instructors outside of class hours. Online registration, catalogs and payment are available.	● Specialized courses have been developed to cater to area businesses seeking to improve the skills of workers. Some colleges and universities have or are developing online classes to provide greater convenience for students and to increase student enrollment. Faculty training on new technology is a priority.
	4	Some classrooms have been remodeled to include network connections and power outlets at every seat. Many students bring laptop computers or other network-enabled devices to class. Some classrooms have video equipment for recording lectures.	■ Most of the faculty are trained to use the Internet for instruction. Most classes use digital content and web-based content for instruction. Some undergraduate students take distance learning classes for specialized subjects and graduate-level research.	■ Higher education and local businesses are working together to raise the skill level of the current workforce. Community colleges are expanding their capacity by using distance learning technologies to reduce the need for classroom time. Some colleges and universities are developing online classes to market to students in other parts of the country and the world.
	5	■ Many classrooms have been remodeled to include network connections and power outlets at every seat. Most students bring laptop computers or other network-enabled devices to class. Many classrooms have video equipment for recording lectures.	Many undergraduate students take distance learning classes for specialized subjects and graduate-level research. All aspects of higher education are available through the network including instruction and administration.	Colleges and universities see themselves as a vital partner in the community's economic development strategy and have formed partnerships with local businesses to provide skilled technology workers and innovative solutions. Colleges and universities actively promote information technology literacy to drive positive impacts on economic performance, skills, and innovation in the classroom.
Most Connected				

Community-Based Organizations


Martin County

● Martin County's Benchmark Assessment Results are presented in red.
 ■ Martin County's Vision for this Sector is presented in blue. (Blue is used when Assessment and Vision are the same.)


 <p>Least Connected</p>	Stage	Networked Places	Applications & Services	Leadership
	0	Not using the Internet.	No computer use. No website. Use phone and postal mail.	No technology or telecom plan.
	1	● Accessing the Internet through a limited dial-up connection.	Currently using e-mail and possibly other basic Internet functions.	● ■ The Internet is seen as a possible enhancement and marketing tool.
	2	■ Some organizations have computers that are no older than three years old. Many organizations have e-mail. Some office employees have always-on connections to the Internet at their desks.	● ■ Some organizations have informational websites.	Organizations are minimally involved in community economic development issues. Little or no plans exist for better using telecommunications services and technologies. Some organizations provide technology training to their staff at least once a year.
	3	Most organizations with at least five paid staff have at least one computer for every three employees. Many organizations have e-mail.	Many organizations have an informational website. Many local chapters are able to share data electronically with the national parent organization. Some organizations accept online donations.	Some organizations are involved in specific economic development initiatives, but most do not participate. Some organizations plan to use telecommunications services and technologies within the next year. Some organizations provide technology training to their staff at least once a year.
	4	Many organizations with at least five employees have direct connections to the Internet. All paid staff have e-mail accounts. Some organizations use Voice over Internet Protocol (VoIP) to save money. Some office workers have converted from desktop computers to portable wireless devices. Some office computers have video cameras.	Most organizations have an informational website. A unified portal provides access to a broad range of community information and services. Most local chapters are able to share data with the parent organization.	Some organization leaders are actively involved in community economic development issues and there are visible leaders taking a significant role in economic development. Many organizations plan to use telecommunications services and technologies within the next year. Most organizations provide technology training to their staff at least once a year.
5	Most organizations use Voice over Internet Protocol (VoIP). Every organization is connected to the Internet. Every computer can access the Internet via a local area network. Many computers have video cameras. Most organizations use affordable videoconferencing facilities.	Most organizations accept online donations. Some organizations use an interactive service to further engage the community and make their services more broadly available. Electronic data sharing is a common practice between organizations locally and with national parent organizations.	Organizations collaborate with one another regularly to share resources and provide up-to-date training to their employees and volunteers. Organizations have a defined role in supporting local economic development initiatives. Most organizations plan to use telecommunications services and technologies within the next year.	
Most Connected				

Government	Martin County
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● Martin County's Benchmark Assessment Results are presented in red.
 ■ Martin County's Vision for this Sector is presented in blue.

	Stage	Networked Places	Applications & Services	Leadership
 <p style="text-align: center;">Least Connected</p> <p style="text-align: center;">Most Connected</p>	0	Not using the Internet.	No website.	There is no technology or telecom plan.
	1	Select employees have access to the Internet through a dial-up connection.	● Some employees use the Internet for e-mail purposes.	The Internet is seen as a possible way to enhance the basic daily operations.
	2	● Some employees have e-mail accounts.	Most public agency websites offer informational features such as a community calendar, staff directory and downloadable forms. Customers rely mostly on postal mail and telephone to conduct business.	● Public agencies do not have a strategy for how best to use e-government. Minimal telecommunications planning has occurred. Elected officials are not involved in telecommunications issues.
	3	Many employees have e-mail accounts. Some field workers are collecting data on laptop computers or palmtops. Webcams are starting to be deployed.	Some e-government applications are available, such as simple building permit applications, e-mail listservs and some downloadable forms. E-mail from residents is manually routed to the appropriate departments. Some agencies routinely use the network to share data.	Government staff is actively involved in framing technology and telecommunications issues. Processes are underway for enhancing connectivity, rights-of-way management, and information technology innovation. Employees are trained and knowledgeable about basic applications.
	4	■ Some field workers use wireless networks to upload and download data in the field. Some employees use desktop videoconferencing. Sensors and webcams monitor locations, such as rivers, that are important to public safety.	■ Customers can make routine payments, such as parking fines, online using credit cards or electronic fund transfer. Parks and recreation classes have online registration. Employees can enter building inspections and violations from the field.	■ Some agencies have a formal policy that allows some employees to work from home at least one day a week. Rights-of-way and tower siting policies are in place. Elected officials understand the importance of the network for economic development and quality of life.
	5	The telephone system is being converted to Voice over Internet Protocol (VoIP) to save money. Many field workers use wireless networks to upload and download data in the field. Critical traffic signals are connected. Desktop videoconferencing is widely available.	Interactive applications, such as customer relationship management, online GIS and video streaming are in regular use. Employees manage benefits programs on an intranet. Emergency response teams can reliably communicate across jurisdictions. Council meetings are indexed and available for searching and retrieval online.	The government has telecommunications, e-government and information technology master plans in place to guide its efforts. Innovative processes are used to collaborate with the private sector.


Tourism, Recreation and Parks	Martin County
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	Stage	Networked Places	Applications & Services	Leadership
 <p style="text-align: center;">Least Connected</p> <p style="text-align: center;">Most Connected</p>	0	Not using the Internet.	No computer use. No website. Customers use phone and postal mail.	There is no technology or telecom plan.
	1	Some employees can access the Internet through a dial-up connection.	Some employees currently use the Internet for e-mail.	The Internet is seen as a possible way to enhance operations.
	2	Some office employees have always-on connections to the Internet at their desks.	Some facilities have an informational website. Some facilities transmit or receive some reservations electronically.	The Internet is seen as essential to business operations. Employees are trained on basic applications.
	3	Most office employees have always-on connections to the Internet at their desks. Some mobile workers have laptop computers and can access the office network remotely. Affordable videoconferencing facilities are available.	Most facilities have an informational website. Some websites can accept credit card purchases. Some facilities participate in an electronic supply chain.	Some facilities permit some employees periodically to telework. Some facilities encourage employees to take work-related classes online. Employee training on new technology is a priority.
	4	Some facilities use Voice over Internet Protocol (VoIP) to save money. Some office workers have converted from desktop computers to portable devices with wireless connections. Some office computers have webcams for videoconferencing.	Some facilities outsource most of their computing services. Some facilities market themselves out of state or internationally. Some employees work remotely.	Some facilities permit some employees to telework one or two days a week. Some facilities encourage employees to take work-related classes online. Facilities work with educational partners to raise workforce skill levels.
	5	Most facilities use Voice over Internet Protocol (VoIP) to save money. Most computers have video cameras.	Some facilities send and receive video mail. Some facilities outsource most of their computing services. Some facilities routinely use multiparty videoconferencing to coordinate operations.	Some facilities have restructured to focus on their core contribution and outsource nonessential functions. New hires are required to have experience using new technology in business applications.

Agriculture

Martin County

● Martin County's Benchmark Assessment Results are presented in red.
 ■ Martin County's Vision for this Sector is presented in blue.

	Stage	Networked Places	Applications & Services	Leadership
 <p>Least Connected</p> <p>Most Connected</p>	0	Not using the Internet.	No computer use. No website. All contacts via phone and postal mail.	There is no technology or telecom plan.
	1	Some growers, suppliers and processors have limited access through a dial-up connection.	Some growers, suppliers and processors use e-mail and Internet.	The Internet is seen as a possible enhancement to the way daily business is conducted.
	2	Some growers, suppliers and processors have always-on connections to the Internet at their desks.	● Some growers, suppliers and processors have an informational website. Some growers, suppliers, and processors transmit or receive some orders electronically.	● The Internet is seen as essential to business operations. Employees are trained on basic applications.
	3	● Most growers, suppliers and processors have always-on connections to the Internet. Some mobile workers have laptop computers and can access the network remotely. Affordable videoconferencing facilities are available in the community.	Most growers, suppliers and processors have informational websites. Some websites can accept credit card purchases. Some growers, suppliers and processors participate in an electronic supply chain.	Some suppliers and processors permit employees periodically to telework. Some growers, suppliers and processors encourage employees to take work-related classes online.
	4	Some growers, suppliers and processors use Voice over Internet Protocol (VoIP) to save money. Some workers have converted from desktop computers to portable devices with wireless connections. Some office computers have webcams for videoconferencing.	Some suppliers and processors outsource most of their computing services. Some growers, suppliers and processors sell goods out of state or internationally.	■ Training on new technology is a priority. Some processors and suppliers permit employees to telework one or two days a week.
	5	■ Most growers, suppliers and processors use Voice over Internet Protocol (VoIP) to save money. Most computers have video cameras. Some use Radio Frequency Identification (RFID) to track inventory and equipment.	■ Some growers, suppliers and processors send and receive video mail. Some outsource most of their computing services. Some routinely use multiparty videoconferencing to coordinate operations.	Some suppliers and producers have restructured to focus on their core contribution and outsource nonessential functions. New hires are required to have experience using new technology.



D. HOW DO WE GET THERE?

D. HOW DO WE GET THERE?

PROJECT CONCEPT: Technology Service Provider Inventory for Martin County

LONG-TERM GOAL

This project will work to identify and compile local information technology support resources into a directory to remove a primary concern and impediment to technology investment by local organizations.

WHY IT'S IMPORTANT

When someone needs a website designed or there is a computer/network problem, local groups do not have a strong resource inventory of local providers in the community who can assist. Often these groups look outside the county to Ashland or Huntington based providers, yet many talented and qualified people may live right next door.

In an attempt to convert demand to market, this provider inventory will connect those needing technical services with those locally who can provide them. In return, the community's dollars stay local and never-before realized jobs in the local IT industry can begin to form. At the same time, local businesses, community organizations and private citizens will have available a powerful tool to enable them to be connected more quickly and reliably.

SPECIFIC MEASURABLE OUTCOMES

(Criteria: clear, compelling, outcome-oriented, achievable within one year)

1. Identify the IT support human resources that currently exist within Martin County by looking through word of mouth compilations of those doing IT related work or possessing IT related skill sets.
2. Create a vehicle by which future IT Support resources could be marketed to the public.
3. Increase the citizen usage rates of computers and broadband in Martin County.

STEPS TO ACHIEVE OUTCOME

1. Identify all individuals or organizations within Martin County currently performing any IT Support functions.
2. Create a directory of those businesses/individuals currently performing IT support services and their specialty and contact information.
3. Develop a mechanism by which said directory could be periodically updated.
4. Market and distribute directory.

NAMES OF IMPLEMENTATION CHAMPIONS

Martin County Schools
Martin County Cooperative Extension Service
Martin County Public Library
Martin County Business Community
Martin County Local Government

PROJECT CONCEPT: E-Commerce Virtual Mainstreet Center for Local Businesses

LONG-TERM GOAL

This project team will work to diversify Martin County's economic base by increasing the number of local businesses who sell their products online, thereby expanding their market for external revenues.

WHY IT'S IMPORTANT

E-Commerce has become the fastest growing method of commerce in the world. By using the Internet to open worldwide markets, E-Commerce has enabled even the smallest businesses to prosper and grow through online sales. While many small businesses may believe an online presence is too costly or too difficult to maintain, emerging technologies are making online sales nearly as simple and easy to operate as a traditional storefront. As a result, the Internet is proving to be a valuable marketplace for small business and in some cases online sales are actually surpassing traditional sales. Such unprecedented new markets provide small communities like those in Martin County to diversify their economic base while growing their own hometown, small businesses. This economic growth means more jobs and more opportunities for the people in Martin County.

SPECIFIC MEASURABLE OUTCOMES

(Criteria: clear, compelling, outcome-oriented, achievable within one year)

1. Create a working team of local businesses, local economic development and government representatives, and school technology representatives to develop the concept.
2. Integrate the online marketing of local arts and crafts within the community website.
3. Pilot the project with local businesses who are interested in E-Commerce.
4. Measure success based on online availability and sales.

STEPS TO ACHIEVE OUTCOME

1. Identify members of the local community who have an interest and products suitable for sales on the Internet.
2. Work with school technology programs to identify and assemble a knowledgeable web development team of students.
3. Design, launch and market Internet presence for pilot entrepreneurs.
4. Review website traffic and tailor marketing efforts to target specific markets for products being sold.
5. Measure and track traffic and online sales.

NAMES OF IMPLEMENTATION CHAMPIONS

Martin County Arts and Crafts / Tourism Community
Martin County Economic Development Community
Martin County Business Community
Martin County Local Governments
Big Sandy Community and Technical College

PROJECT CONCEPT:
**Utilize Student Technology Programs to Meet Community IT needs
for Martin County**

LONG-TERM GOAL

This project will promote Student Technology Leadership Programs within the local schools as a resource for community IT needs, while allowing more Martin County students the opportunity to get involved and learn a commercially valuable skill set.

WHY IT'S IMPORTANT

Local small businesses and community organizations do not have adequate resources readily available for ongoing IT needs. By partnering with the local schools and higher education institutions to tap the enormous resource potential of the Student Technology Programs, small businesses and community organizations within Martin County could have a more effective IT support resource and web presence without an overwhelming cost burden.

SPECIFIC MEASURABLE OUTCOMES

(Criteria: clear, compelling, outcome-oriented, achievable within one year)

1. Increased web presence and low-cost technology support resource availability by partnering the resources of the Student Technology Leadership Program with the local small businesses and community organizations.
2. Increase the number of students showing interest and pursuing IT-related career paths, as well as increasing those obtaining specialized IT training.
3. Development of education, training and awareness opportunities for technology and broadband applications as they relate to e-commerce and other IT advantage opportunities for local businesses.

STEPS TO ACHIEVE OUTCOME

1. Identify key small businesses and community organizations within Martin County who are currently without a web presence or who may be in need of IT assistance.
2. Work within existing STLP programs at K-12 schools to match community IT project opportunities with interested STLP students, with particular focus on webpage design, Internet safety, basic PC application training and eCommerce development.
3. Determine which organizations could benefit from focused technology assistance and partner the same with appropriate student project teams.
4. Monitor operations and engage local IT service providers for project assistance where needs exceed student capacity.

NAMES OF IMPLEMENTATION CHAMPIONS

Martin County Schools
Big Sandy Community and Technical College
Martin County Business Community
Martin County Community Based Organizations
Martin County Tourism

**PROJECT CONCEPT:
Create a Community Website for Martin County**

LONG-TERM GOAL

This project team will work toward the creation of a website for the community of Martin County that will serve the local county/community as a clearinghouse of government/civic information by providing access to all value-added applications, links and websites for the citizens and visitors of Martin County.

WHY IT'S IMPORTANT

A County/City Community Website would provide a new and vital way of delivering pertinent services to citizens living in Martin County. By harnessing the power of the Internet, an electronic community "one stop shop" could eventually be realized. A growing range of services could be accessed by residents of Martin from either their own homes or from community facilities within the county. This would bridge the problem of rural isolation by making needed community services and information available at a touch.

SPECIFIC MEASURABLE OUTCOMES

1. Increase community access to pertinent information and services
2. Creation and implementation of an established clearinghouse of community information for Martin County residents
3. Increase in community comfort level of Martin County citizens through use of the Website.
4. Promote technology usage through website communication device

STEPS TO ACHIEVE MEASURABLE OUTCOMES

1. Engage services of Kentucky.gov to assist with technical hosting, design and implementation of a website for each of the named community entities.
2. Identify and decide on all pertinent links and applications.
3. Create webpage design
4. Launch webpage
5. Market webpage to increase usage by the community

NAMES OF IMPLEMENTATION CHAMPIONS

Martin County Judge Executive / Fiscal Court
Inez City Commission
Martin County Schools
Martin County Business Community
Martin County Civic Organizations

PROJECT CONCEPT: Develop Martin County as an “Insourcing” Center for Technology Development

LONG-TERM GOAL

The goal of this project is to develop Martin County into a Center for “Insourcing” by creating a trained workforce partnered with organizational infrastructure to match those companies with technology needs to local resources capable of “virtually” providing them.

WHY IT’S IMPORTANT

According to statistics, insourcing is becoming more common as businesses experience less than satisfactory experiences with outsourcing especially in the area of customer support. Many outsourcing proponents are now rethinking their strategy due to the negative consumer opinion backlash which is a direct result of having outsourced their communications management to vendors who rely on overseas operations. For this reason, the idea of insourcing continues to grow.

Estimates are that within the next 18 months, outsourcing contracts worth more than \$90 billion will be up for renewal. A variety of factors suggest that many client organizations are seriously considering insourcing (within the U.S) a significant portion of those previously outsourced services.

The key factor driving the consideration of insourcing has been the failure of outsourcing to achieve the consistent, long-term and significant cost savings clients anticipated.

Organizations that expected the best of both worlds from outsourcing—low cost and "value-added" responsiveness and commitment—have inevitably been disappointed, and are now revisiting their decision to outsource. The time is ripe for developing an “Insourcing” Center within Martin County.

SPECIFIC MEASURABLE OUTCOMES

1. Increase number of technology-trained workers within Martin County.
2. Establish a Technology Insource Center within Martin County.
3. Increase economic development and growth within Martin County.

STEPS TO ACHIEVE MEASURABLE OUTCOMES

1. Partner with local educational entities to develop specialty training opportunities for Martin County residents.
2. Develop a Center for Insourcing whereby businesses could utilize the skills, training and experience of a Martin County workforce to contract certain specific business operations.
3. Foster relationships with regional corporations to secure contracts for certain operations to be completed within the Insource Center.
4. Staff, market and launch the Insource Center.

NAMES OF IMPLEMENTATION CHAMPIONS

Martin County Judge Executive
Inez City Commission
Martin County Schools
Big Sandy Community and Technical College
Martin County Media Outlets
Martin County Business Community

POTENTIAL ACTION ITEMS

Business and Industry

- Educate businesses about telecommunications services and the benefits of using technology in business.
- Create a technologically capable workforce through training and skills development.
- Identify ways to reduce the cost of connecting to the Internet and find potential funding sources for businesses.
- Get businesses together to aggregate demand for high-speed services, create a more attractive market for infrastructure providers and ensure that the services meet local needs.
- Develop a media campaign to help consumers and businesses understand the benefits of high-speed services and the Internet.
- Teach businesses how to use e-commerce to sell to public agencies.
- Offer training programs and workshops at night and on weekends to make them more accessible to community-based organizations.
- Provide technical training programs for non-profits and for-profits to meet their special needs.
- Promote awareness and training to overcome the Internet fear factor.
 - How to determine good information from bad – scams, etc.
 - How to protect yourself
- Provide training for online banking to demonstrate the benefits of online banking, including speed, safety, convenience and cost savings.
- Encourage Internet access from home for education, business, shopping, eBay and banking.
- Offer basic training classes on how to use e-mail, search the Internet and perform research.

- Use online meter reading to eliminate manual readings.
- Encourage more hotspots in locations such as coffee shops, businesses and libraries.
- Develop a directory for local IT-related services in the county.
- List local providers for technical support, including individuals, businesses and schools.

Education

- Provide training in information technology resources, especially for support staff and classified personnel.
- Establish a countywide consortium (made up of public and private schools and adult education) to consolidate technology planning in the education sector.
- Build relationships between schools and broadband providers.
- Develop strategies for bridging the digital divide, such as after-school programs, community centers, etc.
- Expand wide-area resources and increase bandwidth.
- Create web-based instructional materials.
- Identify options for opening school computer labs to the community after hours.
- Seek technology proficiency of Level 1-3 for K-12 teachers.
- Continue to expand student, parent and teacher access to student information such as homework assignments and attendance records.
- Develop school websites with interactive features.
- Strive to have 10 percent of high school students and teachers complete one distance learning course per year.
- Make it easier for low-income families to access computers and the Internet to facilitate communications with teachers and schools.
- Ask businesses to donate surplus computers to low-income parents.
- Provide low-income parents with low-cost Internet connections through the school district.
- Create training, internships or career ladders for technical support staff.
- Promote technology integration in classrooms and on teacher websites.

- Encourage parent involvement through technology
- Improve the use of teacher websites by making teachers more comfortable with technology
 - Provide iSafe training for students and parents
 - Encourage parents to access and use STI and i-High sites
 - Provide laptops for students to check out for home use
- Train students to provide technical support.
- Add links to teachers' webpages for homework assignments, tests and other school-related material.
- Create an interactive online calendar for school events
 - Look at using calendar for entire community
 - Run ads in local papers and radio stations to advertise availability

Healthcare

- Develop a providers' survey to gather baseline information on usage of technology in healthcare. Topics should include e-mail access, Internet access, websites, electronic records, billing and telemedicine initiatives.
- Identify funding methods for enhancing educational infrastructure.
- Educate providers on available technologies and the benefits of technology in medicine.
- Provide safe, vendor-neutral, information technology training for healthcare providers, using the state and community and technical colleges, adult education programs and libraries.
- Using public and private partnerships, ensure that small providers and rural areas have access to affordable, high-speed networks so they can participate in telemedicine and teleconferencing services.
- Seek grants to upgrade technology and train medical staff.
- Develop better strategies to retain technical and professional healthcare staff.
- Create a focus group to identify the barriers to using technology in private practice.
- Show doctors how to use technology in their offices.
- Provide basic technology education for healthcare providers, using state and community and technical colleges, adult education, distance learning and the library.

- Working within privacy guideline, keep patient data on a central database shared among all medical providers to minimize the number of forms patients have to fill out on each visit, which would enable providers to avoid copying and faxing patient information.
- Provide online appointment scheduling and verification.

Library

- Increase the number of public-access computers.
- Develop a part-time instructor position to assist patrons in technology use; possibly from the local public school district student-body population.
- Provide ports or wireless access points where patrons with laptop computers can connect to high-speed lines.
- Develop expanded Internet training programs for the public, targeting specific needs and groups.
- Increase the use of mobile computer stations in bookmobiles, especially in rural areas.
- Market the current capabilities and services of the library system.
- Improve the current website and expand the library's ability to interact with patrons.
- Make library services more user-friendly.
- Support county applications for technology grants that will also benefit the library system.
- Explore options to increase customer-initiated transactions online, such as paying fines and accessing subscription databases.
- Work through issues related to providing personal laptop access at the library, such as security, networking, wiring and electricity.
- Identify and catalog technology training programs already in place.
- Make more e-books available.
- Communicate which training classes are currently available.
- Create an online calendar of library and community events.
- Coordinate with schools, businesses, adult education and the UK extension office.
- Improve and enhance the current library website, and work with K-12 and ATC to engage students to assist.

- Digitize genealogy and historic information.
- Apply for grants to get laptops for a computer lab for public instruction.

Higher Education

- Develop wireless networks to allow students and faculty seamless access to the adult education facilities.
- Develop advanced applications like Voice over Internet Protocol (VoIP) to save resources and enhance services.
- Substantially increase the number of web-enhanced and fully web-based courses.
- Ensure countywide access to distance learning classes.
- Identify an ongoing source of funds for technology acquisition and support.
- Provide continuous training to all educators and staff on technology use and applications.
- Provide information technology resources to the community.
- Inventory and market existing online training opportunities in the county.
- Encourage institutions of higher education to work together to develop online courses and programs.
- Encourage citizens to take advantage of the online classes already available.
- Increase computer literacy by introducing new classes and training techniques.
- Form a partnership among all education organizations including the Extension Office, Community and Technical Colleges and the Adult Education Office.
- Increase awareness of national research information available across the country.

Community-Based Organizations

- Identify the community-based organizations in the county and list their websites.
- Develop a list of potential funding sources for technology acquisition.
- Develop collaborative partnerships with educational institutions and corporate partners to provide web services/design and equipment.

- Develop a networking event to share information, ideas and innovations in technology deployment.
- Recruit university and high school students to develop websites.
- Encourage community-based organizations to use e-mail and the web to reduce the use of paper mail.
- Introduce a community portal that expands use of a variety of applications.
- Help community-based organizations find locations to access the Internet.
- Facilitate collaboration to share the costs of technology and expertise.
- Develop “train-the-trainer” workshops to help agencies take advantage of technology resources and explain the benefits to clients.
- Provide training on web page development, including the use of free webpages.
- Introduce a community portal that expands access and utilization of a variety of applications, including smart cards.

Government

- Improve the ability to conduct business with government over the Internet, such as permitting, purchasing and payments.
- Increase the number of public access terminals in the county.
- Encourage inter-governmental sharing of software, information and e-commerce concepts.
- Develop more e-government applications that provide value to the consumer.
- Allow the donation of appropriate surplus computers to non-governmental organizations and individuals.
- Set goals to be completed in one year.
- Develop more thorough employee technology training programs.
- Seek grant funding to improve infrastructure and support functions.
- Develop partnerships with businesses and grassroots organizations to improve technology usage countywide.
- Create a strategic plan to improve all automated systems, re-engineer manual procedures and restructure how departments collaborate.

- Increase city-county collaboration.
- Use streaming video to broadcast council or court meetings on the Internet.
- Create a partnership of public and private entities to develop a regional portal.
- Build a public-private consortium to identify best practices in website design and content, such as ADA compliance, multiple language support and navigation techniques.
- Create a county website and post all meeting agendas, minutes and attachments online.
- Enable online government services, such as permitting, purchasing, payments, downloading tax forms, paying ambulance bills and applying for dog tags.
- Enable online license renewals, voter registration, and court record searches and voting.
- Digitize Property Valuation Administration records, maps and utilities for online access.
- Issue emergency notifications, such as road closures, via e-mail and the website.
- Provide training and awareness to senior citizens.

Tourism, Parks and Recreation

Coordinated tourism efforts are currently under development.

Agriculture

- Increase broadband awareness among the agricultural community.
- Develop educational materials to help the agricultural community understand the importance of broadband and what is available.
- Create a list of providers to help the agricultural sector understand what service is available and from whom.
- Continue to provide high-speed Internet access at the UK Cooperative Extension office.
- Consider creating a local agricultural portal for sharing news and market information.
- Create and promote the use of videoconferencing centers for use by the agricultural community and create promotional materials to show possible usages of video conferencing.
- Create and promote materials for the new eXtension service, a national web-based information and education network providing 24/7/365 access to objective, science-based information from universities and partners nationwide.

- Provide high-speed wireless Internet access at the UK Cooperative Extension Office.
- Create a national animal identification database.
- Promote online sales and auctions.
- Use GPS and radio frequency identification (RFID) on farms.