



BOYLE 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 Boyle 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 Boyle County’s technology needs, particularly related to computers, broadband and Information Technology.

Summary

Boyle County’s e-Community Leadership Team is leading the way into a new economy for Boyle 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 Boyle 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 Boyle 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 Boyle 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 Boyle County by 2007.

ConnectKentucky recommends that Boyle 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 Boyle 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 Boyle 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.

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 coops 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

Although there are over 2,000 businesses in Boyle County, there seems to be a reluctance to use e-mail. One of the major issues that businesses are concerned with is the security of information. Thus, there is a need to educate the business sector on the benefits of using information technology and how to protect information that is transmitted electronically.

Total employment for all industries = 15,646

Leading Industries by Employment

Services = 5,703

Manufacturing = 3,351

Trade, Transportation and Utilities = 3,199

Leading Employers:

R R Donnelley = 921

American Greetings = 657

Panasonic Home Appliances Company of America = 100

The Assessment

- **Networked Places** – In the category of networked places, Boyle County's business and industry sector is currently at stage 2 on a 0 to 5 scale, with some 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. Thus, some businesses have an informational website and some businesses transmit or receive some orders electronically.
- **Leadership** – In terms of technology leadership within the business community, Boyle County is currently at stage 2 on a 0 to 5 scale. In stage 2 some view the Internet as essential to business operations. Furthermore, employees in this stage are trained on basic applications.

The Vision

While the Boyle 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 county from stage 2 to stage 5 in all 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 Radio Frequency Identification (RFID) **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

Boyle County has two public school systems: Boyle County Schools and Danville City Schools. There is also the Kentucky School for the Deaf, Danville Christian Academy and the Danville Montessori School. The two major concerns for the education sector are the limited funding for technology and low bandwidth for the existing technology.

Boyle County School District enrolled 2,721 students in the 2004-2005 school year. The district's mission statement is as follows: Boyle County Schools, in partnership with the community, will educate all students to be responsible, life-long learners. Boyle County Schools offer quality instruction in safe settings that blend the best of small town America with the latest in academic practices. Among the programs and services offered are:

- Nationally accredited Preschool programs
- Family Resource Centers at two elementary schools and a Youth Service Center at the middle school
- Extended School Services for extra instruction time
- Danville-Boyle County Community Education program offering classes for students of all ages
- Gifted and Talented programs for grades one through eight in the areas of drama, dance, music and art, with an honors program at the high school
- Career training and on-the-job work experience
- English as a Second Language to assist students with limited English skills
- Danville- Boyle County Day Treatment/Alternative School offering non-traditional instructional options for students who struggle in a conventional classroom
- Drug and Alcohol prevention program for 12-17 year olds.

	Attendance Rate	Retention Rate	Dropout Rate	Graduation Rate	College	Military	Work	Voc/Tech Training	Work & Part-Time School	Not Successful
District	95.7%	3.1%	1.2%	88.3%	61.5%	4.4%	14.8%	17%	1.1%	1.1%
State	94.3%	3.3%	2.2%	81.5%	54.7%	2.6%	27.5%	4.8%	6.4%	4%

Boyle County School District has a district wide technology committee involving technology coordinators, consultants, teachers, administrators and curriculum support. Technology consultants are available on-site for support and professional development. Technology standards integration is a key component of the continuous K-12 curriculum alignment and development process in the Boyle County Schools. The district's CTE department provides high level application of academics in courses supported by technology grants in the areas of Informational Technology and pre-engineering.

	Spending per Student	Student Teacher Ratio	Student/Computer Ratio	% of Classrooms with at Least One KETS Workstation With Internet Access
District	\$8,047	16:1	3.8:1	100
State	\$8,663	16:1	3.7:1	100

District website: <http://www.boyle.k12.ky.us/>.

Danville Independent Schools enrolled 1,748 in the 2004-2005 school year. The Danville School System is comprised of five neighborhood schools: Hogsett, Jennie Rogers, and Toliver Elementary Schools, Bate Middle School, and Danville High School. The Danville Schools also serve students who attend Christian Care Communities at Woodlawn and Bruce Hall Day Treatment Center. The Danville Schools have a history of excellent academic programs and a wide variety of co-curricular and extracurricular activities. Students have access to technology that is integrated into content instruction by teachers, with the assistance of Curriculum/Technology Resource Teachers (CRTs). A large number of students, as individuals, groups or teams, have distinguished themselves by earning awards and winning competitions at the local and state levels. Staff and students regularly collaborate with local agencies and schools on various projects involving business, industry and local higher education entities. Staff members and administrators serve on community and state advisory boards, task forces and committees. District and school staff members continue to explore grant opportunities from federal, state and local government, as well as corporate sponsors, which could fund specific education initiatives. The slogan "Anchored in Excellence" provides the formula for success in the Danville Schools. For further information about the Danville Schools please visit www.danville.k12.ky.us.

	Attendance Rate	Retention Rate	Dropout Rate	Graduation Rate	College	Military	Work	Voc/Tech Training	Work & Part-Time School	Not Successful
District	94.7%	4.4%	1.9%	80.9%	69.1%	1.1%	25.5%	4.3%	0%	0%
State	94.3%	3.3%	2.2%	81.5%	54.7%	2.6%	27.5%	4.8%	6.4%	4%

Curriculum/Technology Resource Teachers (CRTs) work directly with teachers to integrate technology in all subject areas. Technology is incorporated into the Comprehensive District Improvement Plan, as related to curriculum, instruction and assessment. Teachers are working to meet the technology standards set by the International Society of Technology Education and the Kentucky Professional Standards Board. The use of technology by teachers is included in the Certified Evaluation Plan for the Danville Schools. Teachers integrate the use of digital cameras and microscopes, SMART Boards, Classroom Performance Systems, TV/VCRs, laser disks, wireless laptops and other media into classroom lessons. They also use the Internet to research curricular ideas, create lesson plans and develop technology-based activities for students. Students have access to technology and are demonstrating proficiency by using the Internet, interactive software and multimedia presentation tools to create and demonstrate projects/activities. Read and Write Gold software is used at schools to assist at risk students with reading difficulties. Schools have Student Technology Leadership Programs (STLP) or other after-school technology programs. Some students share responsibility for updating school webpages and for upgrading and maintaining technology hardware/software.

	Spending per Student	Student Teacher Ratio	Student/Computer Ratio	% of Classrooms with at Least One KETS Workstation With Internet Access
District	\$9,385	15:1	3.5:1	100
State	\$8,663	16:1	3.7:1	100

District website: <http://www.danville.k12.ky.us>.

Non-public schools in Boyle County are as follows:

- Danville Christian Academy
Enrollment: 140 Grades: PK-7
- Danville Montessori School
Enrollment: 106 Grades: PK-5

The Assessment

In its evaluation, the Boyle 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 enhanced access and use of technology and its applications. The current assessment includes:

- **Networked Places** – In the category of networked places, Boyle County’s K-12 education sector is currently at stage 3 on a 0 to 5 scale. Most schools provide at least one computer for every five students in grades seven and above. Moreover, most classrooms have computers for student use, and some teachers use computer-based presentation tools and projectors for their lessons.
- **Applications and Services** – In the category of technology applications and services, the education sector is currently at stage 3 on a 0 to 5 scale with some schools having an interactive website that offers access to homework assignments and communication with teachers and administrators. Additionally, many experienced teachers in Boyle County know how to incorporate Internet-based lesson plans into the curriculum, and most teachers welcome e-mail from parents and students.
- **Leadership** – In terms of technology leadership within the education sector, Boyle County is currently at stage 3 on a 0 to 5 scale. The school board in the county sees opportunities to use the network to raise test scores and operate the school more efficiently. Secondly, teacher training on new technologies is a priority at most school districts. Lastly, schools within the county are using consultants to take advantage of e-rate and other school discounts.

The Vision

The Boyle 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 Boyle County eCommunity Leadership Team entail moving from stage 3 to stage 5 in all the three categories outlined above. The vision includes:

- 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**
- 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

Boyle County's healthcare needs are served by the Ephraim McDowell Regional Medical Center (EMRMC), a 187-bed, not-for-profit hospital that was established more than 110 years ago. The Ephraim McDowell Health system also includes [Fort Logan Hospital](#) in neighboring Lincoln County (Stanford).

The EMRMC maintains and runs a mobile mammography service that travels to both corporate and community sites in 20 counties (Boyle, Adair, Anderson, Casey, Fayette, Garrard, Green, Jessamine, LaRue, Lincoln, Madison, Marion, Mercer, Nelson, Pulaski, Rockcastle, Russell, Taylor, Washington and Woodford). This mobile unit includes a waiting area, changing room and other features designed with the patient's comfort in mind. Both the mammogram registration and the exam itself take place on the van. The entire process takes about 30 minutes.

The EMRMC website is: http://www.emhealth.org/about_us.htm.

Boyle County is trying to encourage the use of electronic media for transferring records, results and images between physicians' offices, hospitals and laboratories. The Radiology Unit is looking to acquire the Picture Archiving and Communications System (PACS) to increase the effectiveness of electronic transfer. Furthermore, there is a need for improved connectivity to the physicians' offices.

The Assessment

The Boyle 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, Boyle 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 4 on a 0 to 5 scale with some providers allowing patients to e-mail doctors. Furthermore, most providers store patient records electronically and some lab results and images are received electronically.
- **Leadership** – In terms of technology leadership within the healthcare community, Boyle County is currently at stage 3 on a 0 to 5 scale. Some providers have begun the conversion to electronic medical records and some are investigating how to deploy wireless technologies for mobile workers.

The Vision

The Boyle 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 the category of networked places to stage 4, the category of services and applications to stage 5, and the category of leadership to stage 4 on a 0 to 5 scale. The team's vision includes:

- **Internet-based video conferencing** is used to consult experts and for training programs
- Some patients **monitored at home and at work via portable devices** with wireless transmitter
- 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
- 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**

LIBRARIES

Boyle County Public Library offers patrons an online card catalog as well as a full description of what services are available. The library offers eight public access computers for use during regular hours. Visit the library's website at <http://www.boylepublib.org/>.

The public library currently has eight computers with Internet access. The National College of Business and Technology also has 12 computers that they use at their library for training. Reliability is a major concern for the library system. One major goal is to have continuous access and in-house support to maintain the systems at the library. Also, library officials are looking at having a listserv at the library.

The Assessment

The Boyle County eCommunity Leadership Team found that the library sector had a great deal of potential with technology and could benefit a great deal from the implementation for more.

- **Networked Places** – In the category of networked places, the library sector is currently at stage 2 on a 0 to 5 scale. Thus, Boyle County Public 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 3 on a 0 to 5 scale with most libraries having catalogs online. Patrons may use the Internet to place books on hold and request books from other libraries in the library system. Patrons can also search online databases from home, school or work. Moreover, the libraries host live video feeds of public interest events.
- **Leadership** – In terms of technology leadership within the library system, the sector is currently at stage 4 on a 0 to 5 scale. Libraries help the community understand copyright issues and how to protect privacy on the Internet. Libraries also take internal

responsibility for continuing e-rate and other discounts. Libraries have developed network management policies and technologies to prevent patrons from sending spam.

The Vision

The Boyle 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 moving to stage 4 on a 0 to 5 scale in the categories of networked places and services and applications. The team also set a goal to move the category of leadership from stage 4 to stage 5 on a 0 to 5 scale. The vision includes:

- 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 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

There are several higher education institutions in the county: Centre College, Bluegrass Community & Technical College, a branch of Eastern Kentucky University, and the National College of Business and Technology. It is imperative that the county establish a collaborative effort among the local higher educational institutions and local businesses.

Centre College, a liberal arts college founded in 1819, has 1,125 students who are preparing for lives of learning and leadership. Centre has produced two vice presidents, a chief justice, a justice of the Supreme Court and seven Rhodes scholars. Centre leads the nation in percentage of alumni giving. Centre equips students for excellence. Ninety-six percent of graduates are either employed or in advanced studies within 9 months of graduation. Centre College is located in Danville and has a population of 18,000. Centre's four year graduation rate is approximately 80 percent while the six year average rate nationwide is 52 percent. Centre College recently completed a state-of-the-art academic/athletic complex. Its website can be viewed at <http://www.centre.edu/>.

Bluegrass Community & Technical College offers classes in the following areas:

- Medical Information Technology
- Office Systems Technology
- Medical Transcription
- Practical Nursing
- Medical Records Clerk
- Medical Billing Specialists
- Nurse Aide
- Administrative Assistant

Bluegrass CTC's website: <http://www.bluegrass.kctcs.edu/CKTC/Danville/Home.htm>.

The Danville Center, one of Eastern Kentucky University's three extended campuses, opened in 1994. The Danville Center has allowed thousands of students, many of whom have never attended college, to pursue academic degrees or to take classes for personal enrichment or advancement in business. The facility provides convenient scheduling and affordable access to university classes for people in the surrounding communities. The EKU Danville Campus attracts students from several backgrounds: working professionals, young adults, senior adults, fulltime and part time. Complete or nearly complete degrees available on site include:

- Corrections & Juvenile Justice Systems (2 and 4 year)
- Early Childhood Development (2 year)
- Paralegal Studies (2 and 4 year)
- Social Work (4 year)
- Instructional Leadership (Master's degree)
- Nursing (RN to BSN, Master's degree)
- Elementary Education (Master's degree)
- Middle Grade Education (Master's degree)

Visit EKU Danville Campus website, <http://www.eku.edu/campuses/danville/>.

The National College of Business and Technology assists in preparation and placement of students into business life. The College attempts to instill in these graduates the ability to take initiative in formulating their lives and to change in order to meet the challenges and demands of modern business. Its curriculum is focused on well defined marketable skills and avoids coursework in non-essential areas. Learning programs are designed to offer the best in business organization and management to meet the demands of modern business. NCBT website is located at <http://www.ncbt.edu/index.asp>.

The Assessment

The Boyle County eCommunity Leadership Team found that the higher education sector is currently taking advantage of technology more than most others in the community; however, there is also a large opportunity to expand current services with technology applications.

- **Networked Places** – In the category of networked places, Boyle County's higher education sector is currently at stage 3 on a 0 to 5 scale with most on-campus facilities having 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.
- **Applications and Services** – In the category of technology applications and services, the higher education sector is currently at stage 4 on a 0 to 5 scale. In this stage most of the faculty are trained to use the Internet for instruction. Most classes use digital content and web-based content for instruction. Furthermore, some undergraduate students take distance learning classes for specialized subjects and graduate-level research.
- **Leadership** – In terms of technology leadership within the higher education community, Boyle 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. Some colleges and universities have or are developing online classes to provide greater

convenience for students and to increase student enrollment. In addition, faculty training on new technology is a priority.

The Vision

The Boyle 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. The team has set goals of reaching stage 4 in the category of networked places. The team has also set a goal of reaching stage 5 in the categories of services and applications and leadership over the next two years. The team's vision includes:

- 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**
- 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

COMMUNITY-BASED ORGANIZATIONS

There are approximately 190 community-based organizations in Boyle County, including Rotary, Kiwanis, Lions Club, Boy Scouts, Girl Scouts, Big Brothers and Big Sisters, United Way, The Blue Grass Red Cross, Community Action, and Salvation Army. There is also a senior citizens center called The Gathering Place. A park called Millennium Park was formed as a result of a collaborative effort between the city and county. Most of these CBO's are not using e-mail for their membership lists; thus, training and educating people on the importance and usefulness of e-mail is imperative in this sector.

Assessment

The Boyle 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, Boyle County's community-based organization sector is currently at stage 1 on a 0 to 5 scale with some organizations 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 stage 0 on a 0 to 5 scale. This means that there is no computer use and no websites. Phones and postal mail are the main means of communication in this sector.
- **Leadership** – In terms of technology leadership within the community-based organization community, Boyle County is currently at stage 1 on a 0 to 5 scale. The Internet is merely seen as a possible enhancement and marketing tool.

The Vision

The Boyle 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 goals to move the categories of networked places and the service and applications to stage 2 on a 0 to 5 scale. The team set goals to move the leadership category to stage 3 on a 0 to 5 scale. The team's vision includes:

- Some organizations have computers that are **no more 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**
- 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

GOVERNMENT

While the City of Danville has a site where ordinances and city meetings are available online, Boyle County does not have a web presence. However, county officials are interested in developing a website. Two areas of major concerns for the government sector in Boyle County are publicly accessed information and public safety.

Government entities in Boyle County are:

- Boyle County
- Danville
- Junction City
- Perryville

The only official county website, the Boyle County Clerks office, <http://www.boylecountyclerk.ky.gov/default.htm>, ranks 26th out of 60 official county websites in the state. The official Danville City website, <http://www.ci.danville.ky.us>, ranks sixth out of 116 official city websites in the state.

The Assessment

Although the government entities in Boyle County have a limited online presence, the Boyle 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 2 on a 0 to 5 scale with most public agency websites offering informational features such as community calendar, staff directory and downloadable forms. However, customers still rely mostly on postal mail and telephone to conduct business.

- **Leadership** – In terms of technology leadership within the government community, Boyle County and its associated governments are currently at stage 2 on a 0 to 5 scale. Accordingly, 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 Boyle 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 and stage 5 in the categories of applications and services and leadership. 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
- **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

Tourism and recreational points of interest in Boyle County include:

- Constitution Square State Historic Site
- Millennium Park
- Historic Penn's Store
- Pioneer Playhouse
- Chateau du Vieux Corbeau Winery and Elements Pottery Studio
- Jacobs Hall
- Merchants Row
- Gwinn Island Resort and Marina
- McDowell House and Apothecary
- Norton Center for The Arts at Centre College
- Central Kentucky Wildlife Refuge
- Community Arts Center
- Jones Surname Museum/Genealogical Resources and Library
- Historic Walking and Driving Tour
- John W.D. Bowling Model Train Museum
- Perryville Battlefield
- Lightning Valley MotorSports Park

The Tourism page for Danville and Boyle County can be viewed at: <http://www.danville-ky.com/BoyleCounty/tourism.htm>

The Assessment

The Boyle County eCommunity Leadership Team found that the tourism, recreation, and parks sector is beginning to use technology to its advantage and identified a large opportunity for technology applications within the tourism, recreation, and parks sector.

- **Networked Places** – In the category of networked places, Boyle County’s tourism, recreation, and parks sector is currently at stage 2 on a 0 to 5 scale with some office employees having always-on connections to the Internet at their desks.
- **Applications and Services** – In the category of technology applications and services, the tourism, recreation, and parks sector is currently at stage 2 on a 0 to 5 scale. Thus, some facilities have an informational website and some facilities transmit or receive some reservations electronically.
- **Leadership** – In terms of technology leadership within the tourism, recreation, and parks sector, Boyle County is currently at stage 2 on a 0 to 5 scale. In this sector the Internet is seen as essential to business operations. Furthermore, employees are trained on basic applications.

The Vision

The Boyle County eCommunity Leadership Team sees great potential for the use of technology in the tourism, recreation and parks 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 each of the three categories outlined above to stage 4 on a 0 to 5 scale. The team’s vision includes:

- 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 to local service providers**
- Some facilities **market 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 are working with educational partners to **raise workforce** skill levels

AGRICULTURE

In 2002, there were 715 farms in Boyle County, comprising 98,617 acres (averaging 138 acres per farm). The total market value of production was \$22.5 million. Crop sales accounted for \$4.4 million; livestock sales accounted for \$18.1 million. The average market value of production per farm was \$31,465. Government payments totaled \$378,000. Boyle County is ranked 48th in the value of agricultural products sold in the state. The leading agricultural products in sales in the county:

- Cattle and calves \$16,137,000
- Tobacco \$3,673,000
- Milk and other dairy products from cows \$1,224,000

Boyle County tobacco farmers, in 2002, received \$24.4 million from the Tobacco Buyout Program. There was no information for dark tobacco for Boyle County.

The Assessment

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

- **Networked Places** – In the category of networked places, Boyle County’s agricultural sector is currently at stage 1 on a 0 to 5 scale. This means that some growers, suppliers and processors have limited access through a dial-up connection.
- **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 with some growers, suppliers and processors having an informational website. Some growers, suppliers and processors transmit or receive some orders electronically.
- **Leadership** – In terms of technology leadership within the agricultural community, Boyle County is currently at stage 2 on a 0 to 5 scale. In Boyle County the Internet is seen as essential to business operations. In this regard, employees are trained on basic applications.

The Vision


The Boyle 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 4 on a 0 to 5 scale in applications and services. The team would also like to move to stage 3 on a 0 to 5 scale in the networked places and leadership categories. The team’s vision includes:

- 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
- Some suppliers and processors **outsource most of their computing services**
- Some growers, suppliers and processors **sell goods out of state or internationally**
- Some suppliers and processors permit employees periodically to **telework**
- Some growers, suppliers and processors encourage employees to take **work-related classes online**

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

■ Boyle 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 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.

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

■ Boyle 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.	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	● 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.	● 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.	● 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.
	4	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.	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.	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.
	5	■ 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.	■ 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.
Most Connected				

Healthcare

Boyle County

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

■ Boyle 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.	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 been 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

Boyle County

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

■ Boyle 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	Libraries do not provide Internet access.	Customers use postal mail or phone. No website.	There is no technology or telecom plan.
	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.	

Higher Education

Boyle County

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

■ Boyle 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.	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.

Community-Based Organizations

Boyle County

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

■ Boyle 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. 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	Many 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.

Government

Boyle County

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

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


Least Connected	Stage	Networked Places	Applications & Services	Leadership
	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.	
Most Connected				

Tourism, Recreation and Parks

Boyle County

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

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


Least Connected  Most Connected	Stage	Networked Places	Applications & Services	Leadership
	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

Boyle County

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

■ Boyle 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			
	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?

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The Boyle County eCommunity Leadership Team identified the following project ideas during an extensive meeting process. The three projects listed are the most important areas to focus on over the next 12 to 18 months. Project teams are already underway in each of these areas. Brief project overviews, followed by initial plan outlines, are described below.

Training and Awareness

Project Leaders: Don Rightmyer, Ken Crigger, Diane Culbertson

Team Members: Jerry Little, Spencer Rodgers, Darrell Johnson, Susan Taylor, Steve Rinehart

Cooperative effort between schools, library, business, government and adult education to improve knowledge, awareness, skills and use of technology in community

- Overcome fear factor – basic training, show how to use the Internet and what can be accomplished online
- Safety and Security issues – i-safe training
- Online banking, bill pay, buying, selling, scheduling vacations and trips, etc.
- Classes and seminars to promote Internet and computer use in community and region
- Work with the library and schools to offer classes to citizens and farmers on technology utilization in home, business and agriculture
- Use students to help teach and assist
- Provide computers and training for senior citizens
- Leverage video conferencing facilities at Kentucky School for the Deaf (KSD) and KCTCS for entire community

Online Information

Project Leaders: Nick Warren, Sheree Gilliam, Kent Brown

Team Members: tbd

Engage community, residents and organizations in organized online activities. Improve the online presence and collaboration for entire county and area.

- Develop a community portal for county
- Enable timely, accurate and current information for community
- Include all businesses and organizations in county, with links to current websites
- Engage all organizations – include an online farmer's market, online festival info, etc.
- Integrate information and provide an easy user interface for the entire community
- List available technology resources within county and surrounding area
- Healthcare network for doctor and patient information sharing

E-government Services

Project Leaders: Darrell Blennis, Tony Wilder, John Hudson

Team Members: tbd

Improve communications between government and citizens and promote available products and services more effectively throughout the county

- Create ky.gov website for county government
- City/county collaboration for improving online information, forms and services
 - fiscal court and city council meetings, payments, license renewals, etc.
 - Include school forms – registration, etc, as needed
- Content management – keep online information current
- Encourage county wide wireless Internet system for affordable access
- Development partnerships with schools and businesses for technology internships

Project Concept Outline – Training and Awareness

Goal

Organize, promote and deliver technology education, training and awareness to the community. Develop a strategy and plan to help the community become more aware of what can be done and the benefits available through using the Internet and computers in their daily lives and activities. Some suggestions mentioned include adult coaching, awareness of need and easy access.

Importance

An educated community is essential in today's global economy. There are opportunities to leverage existing resources to expand and enhance workforce training programs, encourage more post secondary education and create additional awareness within the community in regards to broadband and technology utilization.

Outcomes

1. An integrated approach to the organization, promotion and delivery of technology education, training and awareness for the community
2. Inventory of all technology training resources available in the county
3. Increased citizen usage of computers and the Internet
4. Improved basic computer skills and knowledge levels for residents encouraging greater economic opportunities

Steps

1. Identify all organizations performing technology education and training services
2. Create a list of training classes currently being offered
3. Determine what additional classes need to be included
4. Develop a collaborative and cooperative approach for delivery between all organizations
5. Educate community through local banks about online banking

6. Partner with local media to provide knowledge to community through local newspaper and radio
7. Use mobile skill unit for training and awareness in outlying areas
8. Partner with local Area Development District to provide more education and training as needed
9. Engage high school students to provide part-time help
10. Provide computers and training for senior citizens

Participants

Boyle County Schools
Danville City Schools
Boyle County Public Library
Boyle County Adult and Community Education
UK Cooperative Extension Service
City of Danville

Project Concept Outline - Online Information

Goal

Increased online presence for local organization via the development of a community portal and websites for local businesses, organizations and agencies.

Importance

Businesses of all sizes and industries benefit from the implementation of high-speed internet. For smaller businesses, technology creates an even playing field with companies much bigger than themselves. E-commerce allows the small or even home-based business 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.

Outcomes

1. New and enhanced websites for local businesses and organizations
2. Improved communications and marketing via increased online presence
3. List of available technology resources within county and surrounding area
4. Co-op program for students to assist local businesses
5. Increased information available online for every sector of the community, including government, business and tourism

Steps

1. Update website for Chamber of Commerce with list of local businesses and their respective websites
2. Put basic information online about offices, services, meetings, forms and events on county website

3. Create an online calendar for local events and training and education classes and activities
4. Enhance websites for tourist facilities and attractions
5. Integrate community portal for easier navigation and consistency in linking sites together
6. Offer classes for website design and maintenance for local businesses – in conjunction with education project team

Participants

City of Danville
Inter-County RECC
Danville Advocate Messenger Newspaper
Boyle Chamber of Commerce
Boyle Economic Development

Project Concept Outline: e-Government Services

Goal

Using technology, improve internal and external efficiencies within city and county government allowing for better communication between the different government entities and the citizens of Boyle County.

Importance

Technology will allow local governments to deliver more applications and improved services to constituents while saving money. E-government will assist in achieving this objective, as well as make the services more accessible to the constituents. With growing public acceptance of online transactions and dramatically growing e-commerce, a well-planned e-government strategy will provide for the request for and delivery of local government services over the Internet.

Outcomes

1. Official county government website
2. Determine the public need for electronic access to government
3. Develop a strategy for significantly reducing visits by the public to government offices for routine transactions
4. Identify applications specifically designed to help businesses interface with governments more efficiently
5. Integrate information and provide an easy user interface for the entire community

Steps

1. Create a ky.gov website for county government
2. Review current e-government applications to identify areas containing gaps
3. Develop a survey instrument to identify applications of public interest. Use the survey to examine potential e-government applications

4. Identify high-volume services to target for automation/online service
5. Identify partners and entities to assist in implementation
6. Develop and launch applications

Participants

Boyle County Fiscal Court
City of Danville
Boyle County Schools
Emergency Management Services
Danville Police & Fire Departments

POTENTIAL ACTION ITEMS

Business and Industry

- Work with higher education for training on everyday computer needs such as computer security
- Survey the business community to gauge technology adoption
- Locate federal grants to fund the building of a technology infrastructure
- Create a plan designed to retain college graduates in the technological field
- Locate resources to help households/businesses afford computers and to obtain the necessary training
- Secure affordable high-speed Internet access, training and equipment
- Aggregate demand for high-speed services, create a more attractive market for infrastructure providers and ensure that the services meet local needs
- Educate small businesses about telecommunications services and the benefits of using technology in business
- Create a technologically capable workforce through training and skills development
- Develop a services directory for local IT-related services in the county

Education

- Acquire digital projectors for classrooms
- Facilitate the installation of fiber connections to every school building
- Provide affordable high speed access to residential areas
- 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
- Expand student, parent and teacher access to student information such as homework assignments and attendance records
- Win the support of school boards for increased resources for technology and training
- Make it easier for low-income families to access computers and the Internet to facilitate communications with teachers and schools
- Encourage parent involvement through technology
- Facilitate the access and use of STI home application by parents

Healthcare

- Facilitate the implementation of faster connectivity for outlying facilities and physicians' offices
- Install technologies that will allow the electronic transfer of medical records and images between health workers
- Integrate providers into a seamless network
- Improve and expand the existing wireless networks
- Develop a providers' survey to gather baseline information on use 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
- Develop better strategies to retain technical and professional healthcare staff
- Have physicians' portal available enabling physicians to access the hospital from home
- Create a patient portal where patients can log in and see their records or schedule appointments

Library

- Improve reliability of the computers available for Internet access at the library
- Increase availability of technical assistance in hardware and software operations and maintenance
- Improve technical support for public libraries and library website
- Investigate cost-efficient ways to increase bandwidth to rural libraries
- Increase the number of public-access computers
- 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
- Improve technical support for public computers and the library website
- Complete automation and networking

Higher Education

- Establish collaborative initiatives among local higher education providers
- Provide seminars/courses for community members related to online security issues, resolving computer use issues, etc.
- Substantially increase the number of web-enhanced and fully web-based courses
- Improve 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
- Increase computer literacy by introducing new classes and training techniques
- Form a partnership among all education organizations (the Extension, Community and Technical Colleges and Adult Education)
- Increase awareness of national research information available across the country

Community-Based Organizations

- Develop a list of potential funding sources for technology acquisitions
- Educate community-based organizations on locations that provide access to the Internet
- Identify the community-based organizations in the county and list their websites
- 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
- Facilitate collaboration to share the costs of technology and expertise

Government

- Provide online broadcasting of public meetings
- Provide wireless meter reading for water services
- Provide Mobile Data Terminals (MDTs) to police cruisers and emergency services countywide
- Improve the ability to conduct business with government over the Internet, such as permitting, purchasing and payments
- Increase the number of public access terminals and hot spots 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
- Develop more thorough employee technology training programs
- Seek grant funding to improve infrastructure and support functions
- 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
- Enable online license renewals, voter registration and court record searches and voting

Tourism, Parks and Recreation

- Establish a countywide web portal to share information, market the community, list attractions and hotels and provide a calendar of events
- Encourage more local companies to sell their goods and services online to promote local businesses and increase sales
- Develop affordable, high-speed services for rural parts of the county
- Use a community portal page to promote tourism in the county
- Use technology to market county attractions to potential in-state and out-of-state tourists
- Develop programs to set up public access points in malls, public buildings and farm worker communities
- Encourage local hotels to provide computers and high-speed Internet access to their occupants
- Get all organizations and hotels online with links to the tourism website
- Offer videoconferencing capability to all sectors from a central location

Agriculture

- Increase availability of high speed access
- Provide high-speed access at the UK Cooperative Extension Office
- Develop educational materials to help the agricultural community to understand the importance of broadband
- Create a list of providers to help the agricultural sector understand what service is available and from whom
- 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