

September 2009

e-Solutions Benchmarking

Summary report of the study conducted in Akron & Summit County (Ohio, USA) for:





Strategic Networks Group, Inc.

800 W. St Clair Avenue, Cleveland, OH 44113 • USA
1300 Richmond Rd, Suite 402, Ottawa, Ontario, K2B 8L2 • Canada

a 613.277.2588 **www.sngroup.com**

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The project team would also like to thank the Knight Center of Digital Excellence team, the Connected Communities team and OneCommunity for their efforts in promoting this initiative and enabling outreach to all organizations in Summit County.

About this document

CONTENT

This **e-Solutions Benchmarking** report is an assessment of the current and planned usage of broadband and e-solutions¹ by businesses and organizations in the city of Akron and throughout Summit County, in the state of Ohio (USA). This report is based on a survey of all businesses and organizations in Summit County (over 15,000 were invited to participate through direct invitations via email or direct mail postcards) conducted in the spring of 2009.

RATIONALE

An understanding of the broadband and e-solutions usage gaps from the businesses and organizations themselves (i.e. at a micro-economic level) is the key to identify opportunities and barriers. Hence the "insights and lessons learned" presented in this report provide the foundation required to prepare an effective e-Strategy² for the Summit County.

BACKGROUND

The study goal was to provide an analysis of how businesses and organizations throughout Summit County are using the Internet and e-solutions. SNG's e-Solutions Benchmarking service includes assessing current or potential usage of web-enabled applications and levels of demand, benefits, and impacts of broadband and e-solutions technologies. The primary research generated the data needed to define local and regional economic and social development initiatives that, if enacted, will leverage broadband to its highest potential.

USE OF THIS REPORT

The data and findings presented in this report should be used to prepare business cases and applications for development funding³. These data and findings should also help project proponent to coordinate and collaborate with other local and state agencies on productive broadband initiatives aimed at driving local economic growth and civic progress.

SUMMARY TABLES

These summaries (at the end of the report) include recommendations where sustainable adoption and use of broadband and e-solutions will have the greatest impact on community return on investment (ROI) for two critical sectors in Akron and Summit County: manufacturing and processing, and Professional, scientific and technical services.

¹ e-Solutions are online tools and applications that increase revenues, reduce / avoid costs, or make day-to-day operations easier. They can include Websites, or online payroll tools for business or organizations.

² An e-Strategy identifies initiatives which will enable and support increased adoption of broadband and e-solutions that accelerate local economic and community development.

³ The assessment was undertaken at a time when U.S. states, counties and communities had a unique, but time-sensitive, opportunity to access federal and other funding for investment in broadband (ARRA).

Value to decision makers

DEFINING E-SOLUTIONS BENCHMARKING

SNG's e-Solutions Benchmarking quantifies where broadband and e-solutions will have the greatest impact on community return on investment (ROI). This is needed to develop initiatives which will enable and support increased adoption of broadband and e-solutions: the basis for an e-strategy to accelerate regional economic development.

e-Solutions Benchmarking is designed to provide the needed intelligence about broadband market demand (current and potential) of businesses, organizations, institutions and households. Well focused and granular information and intelligence is needed for effective broadband implementation and adoption. Broadband usage gaps need to be assessed so that opportunities and barriers can be identified; goals and action plans established and targets set. These elements are needed to build a successful e-Strategy that accelerates economic and social development by:

- Quantifying (by sector and type of application) where broadband and e-solutions will have the most significant and immediate impacts (productivity, competiveness and cost/revenue) to the businesses, institutions and households within a community or region
- Identifying usage barriers and steps that can be taken to overcome those barriers
- Providing actionable targets and developing initiatives to improve the levels and effectiveness of broadband adoption leveraging existing resources.

VALUE TO PUBLIC AND PRIVATE SECTORS

The real value of **e-Solutions Benchmarking** comes from the analysis of the information gathered directly from broadband users. The focus is on how real people, in businesses and at home, use and benefit from the integration of high-speed connectivity as part of their organizational processes and personal activities.

Value to public sector organizations

As greater and more deliberate use of e-solutions increases productivity and competitiveness (that translate into revenues, jobs, and economic growth) public sector organizations that have a stake in the economic and social vitality of their regions⁴ need information on how effectively businesses and community institutions are participating in the digital economy in order to devise effective e-Strategies.

⁴ Such as regional and local governments, economic development agencies, as well as business and industry associations, and chambers of commerce

Public policy decision makers are interested in learning more about:

- Broadband availability is a starting point to ensure that the essential infrastructure is sufficient and available to businesses, organizations, institutions and households. e-Solutions Benchmarking provides geo-coded validation of broadband connectivity, types of connectivity and service costs provided by respondents. Currently unmet and projected demand for different geographic areas can be identified and used to prioritize infrastructure investments, as well as to estimate potential revenue benefits;
- **e-Solutions usage by industry** the ability to quickly identify key sectors⁵ or business segments that show below average e-solutions usage for targeted strategies and initiatives. This may include recognizing best practices from which other organizations can learn;
- e-Solutions gaps and opportunities statistics on current levels of e-solutions usage and benefits helps decision-makers to plan and prioritize based on expected benefits;
- **Barriers to e-solutions adoption** understanding the impediments to e-solutions adoption is essential to increasing adoption and achieving desired results.
- Reliable measure of the benefits from broadband the direct benefits of e-solutions in terms of increased revenues, increased employment, and reduced costs provides critical information in support of the economic rationale for broadband investments.

Value to private sector organizations

Businesses need to know how broadband can drive productivity, revenues and savings. Industrial clusters can benefit from a better understanding of how broadband applications and activities can promote vertical or horizontal collaboration, an increasingly important issue for many industrial sectors.

Specific private sector organizations need market analytics about uses and demand for e-solutions:

- Broadband network and service providers (including community broadband networks and municipal utilities) looking for information on how to make their services "stickier" beyond basic access. Learning about the usage and needs of broadband customers enables them increase service uptake and increase customer satisfaction;
- **Providers of e-solutions** looking to increase their market shares need market intelligence to know where new growth opportunities exist (in addition to the gaps within establish market niches). They also need potential clients to have an understanding of the possible benefits of adoption of different types of e-solutions.

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⁵ SNG e-Solutions Benchmarking categorizes businesses according to standard 2-dgiti NAICS codes for analysis.

REPORT THEMES

To assess the impacts of broadband on Summit County's economic and social development opportunities, three themes are explored in this report: economic development, community well-being, skill and labor force development.

Economic development

Broadband connectivity and adoption impact on a wide range of issues related to economic and social development. This summary pays particular attention to two critical economic development strategies:

- 1. Retention of businesses and jobs: as an illustration of the employment retention value of broadband, this summary reports the benchmarking results for the largest employment and revenue generator in Summit County –the Manufacturing sector. This sector is struggling both locally and nationally to retain existing jobs and is slowly decreasing its share of overall employment down 4.7% in Summit County between 2001 and 2006. The current recession has hit manufacturing even harder.
- Development of new businesses and jobs: for insights into job creation in Summit County, analysis is provided for the Professional, Scientific and Technical Services sector which has been a major source of new employment growth with Summit County as well as state-wide and nationally. Between 2001 and 2006, this sector increased its share of employment in Summit County by over 20%.

Community well-being

To understand the impact of broadband on overall community well-being, this report focuses on participation of citizens in their daily community activities and their access to government, health, and social services. An analysis was conducted of the Health Care and Social Assistance sector⁶, which is also the second largest employer in the area.

Skill and labor force development

The report also provides an overview of usage gaps with e-solutions and e-processes. In bridging those gaps and to take advantage of the opportunities to be more competitive and productive, specific employee e-solutions skill sets will be needed. This provides an inventory of demand for local skills which will be of interest to individuals who wish to secure gainful employment.

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⁶ Sector as classified by the North American Industrial Classification System (NAICS)

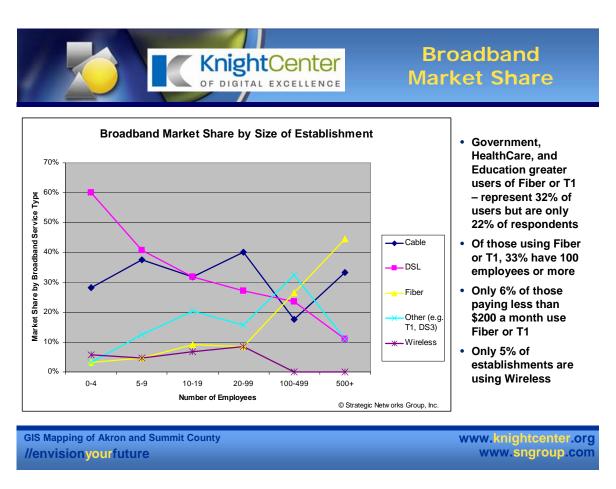
Lessons learned

BROADBAND SUPPLY AND DEMAND

Supply factors

Broadband infrastructure is widely available in Akron & Summit County and connectivity of businesses, public bodies and non-profit organizations is high. Supply-side factors show that Summit County has, for the most part, the basic infrastructure to participate in and benefit from the digital economy.

At the same time, nearly a third of respondents say that their Internet service currently available is too slow – this could also be expressed as the connection they need is too expensive. This has implications for broadband planning and the ability of individual enterprises and the region's overall economic competitiveness.



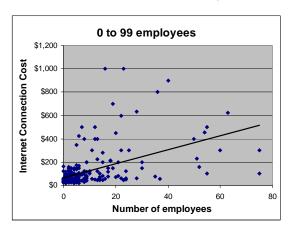
The chart above shows the market share between different types of broadband service, i.e. cable, DSL, fiber, wireless, etc. The Akron & Summit County findings show that DSL connectivity is high for smaller businesses and organizations (up to 60% of all establishments with less than 4

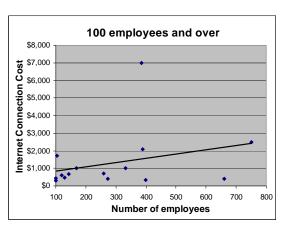
employees), while fiber and cable are the predominant broadband service connections for establishments with more than 500 employees.

The cost of broadband connectivity is highly variable, with many respondents paying over \$1,000 per month. One-sixth of respondents indicated that they pay more than \$200 per month for their broadband connection.



Cost by size of establishment





GIS Mapping of Akron and Summit County
//envisionyourfuture

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Demand factors

Organizations across all sectors report significant benefits from utilization of broadband. This finding helps to confirm the wisdom of investing in broadband, at the level of both the community and individual organizations. However, adoption of advanced applications and activities is uneven. Some sectors appear to be slow utilizing the potential of broadband applications and activities; thus risking to become un-competitive or underperforming.

Security and privacy are the main barriers to adoption of more advanced applications. Other common barriers to e-solutions implementation are the cost of development and maintenance, and the lack of internal expertise and knowledge. These issues must be addressed if higher utilization levels are to be achieved.

Finally, there is the over-arching issue of 'build it and they don't come'. Without users having an understanding of broadband's potential, the persuasion to move forward and affordability of broadband rates, there are risks to local business retention and expansion, as well as the payback periods for broadband network investments. Initiatives and programs are needed to raise awareness and increase adoption of broadband and e-solutions – this is especially true with any next generation broadband build-out where awareness and adoption campaigns should be conducted in parallel with the infrastructure build so that when the network is live, users will be ready to use the network to its full potential which supports the network business case, local competitiveness and economic growth, and community vitality.

Key Findings

- 99% of responding organizations had broadband connectivity. Only 5 out of 476 respondents relied on dial-up connections;
- Nearly 30% of respondents stated that currently available Internet was too slow. These respondents included users of cable, ADSL, wireless and fiber;
- The highest use of the internet by broadband users is for research (91%) followed by accessing government information (88%);
- There was a high usage of basic applications that focus on productivity and customer service. There is opportunity and need for increased utilization of more sophisticated applications;
- Over 50% of respondents view investments in e-solutions as a positive return on investment for improving productivity and growth of the organization. Less than 1% report a negative return on investment;
- Over 75% of respondents mentioned privacy and security as either very important or somewhat important barriers. Over 50% identified them as very important.
- There are no significant differences between organizations located in Akron and those located in other parts of Summit County (i.e. urban vs. rural).

ECONOMIC DEVELOPMENT

Among the leading adopters of broadband activities and applications in Summit County are small organizations and the Professional, Scientific and Technical sector. The latter sector is the seventh largest employer (out of 20 economic sectors) and sixth in revenues. These sectors are leaders in job creation, which is a positive sign for Summit County.

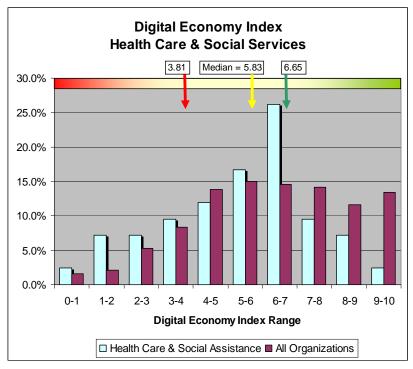
Availability of broadband is critical to retention and attraction of businesses. Those few areas without broadband risk losing existing businesses and also fail to attract new ones. While 99% of surveyed organizations had broadband, many feel that current broadband services are not fast enough. This may have limited immediate impact on areas with older and slower broadband infrastructure; however, over time these areas will be less able to retain and attract businesses.

Key findings

- 80% of businesses and organizations stated that availability of broadband was essential or very important in their decision whether to remain in their location (this calculation excludes organizations for which location decisions are not applicable). For those businesses and organizations looking at possibly moving to a new location, 66% stated that availability of broadband was essential or very important. The clear implication is that the few areas that do not have high speed internet will be at a significant disadvantage in retaining and attracting businesses;
- 30% of respondents stated that currently available Internet was too slow. This is surprising given that 99% already have some form of high-speed service. This indicates that modern broadband infrastructure requires continued investment and upgrading if it is to remain responsive to demand. Areas that do not continue to invest in broadband infrastructure risk becoming uncompetitive and losing existing or new businesses;
- While 82% purchase online, only 44% of respondents sell goods and services online. This has implications that more good and services will be imported to Summit County than exported, resulting in a negative trade balance and wealth being exported. To maintain and grow the local economy and attract high-paying jobs, more businesses will need to sell goods and services to markets outside of Summit County;
- Over 82% of respondents use a website and 64% have websites with advanced features. As the economy moves more online, those businesses and organizations without advanced features will be at a disadvantage. This is an evolution that requires ongoing attention;
- The median score on the SNG Digital Economy Index⁷ of the three highlighted sectors are:
 - Health Care and Social Assistance 5.83
 - Professional, Scientific and Technical Services 7.14
 - Manufacturing 6.41

⁷ The SNG Digital Economy Index provides a normalized score between zero and 10 based on the weighted usage of esolutions by responding organizations. The average score for each industry indicates their relative strength in esolutions usage, with the average based on scores calculated for individual organizations.

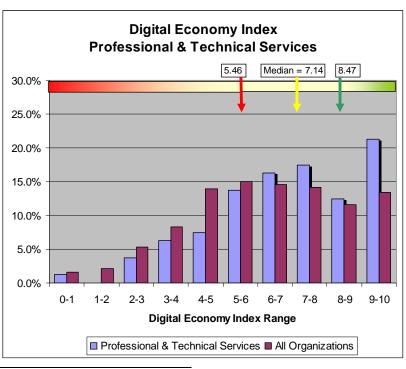
The Digital Economy Index (DEI) charts below show by sectors where individual establishments in Summit County are on the e-solution adoption curve⁸:



Health care & social services

Key DEI findings – Health & Social Services:

- Opportunities to costeffectively extend service to new market segments & areas (tele-health)
- Low DEI scores for this sector there is room for improvement that can improve health delivery, as well as save / avoid costs

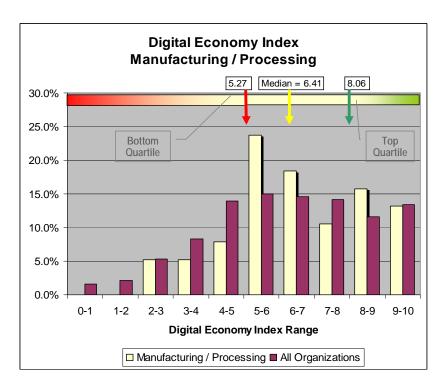


Professional & technical services

Key DEI Findings – Professional & Technical Services:

- Growing sector in Summit County and source of future high-paying local jobs
- Higher DEI ranking 25% of firms above a 8.47 DEI score higher than other sectors

⁸ The DEI charts show the distribution of DEI scores for individual organizations and indicate the score thresholds for the top and bottom quartiles as well as the median score for the industry. The median DEI indicates the relative strength of e-solutions usage, while the top and bottom quartile thresholds indicate the spread, or variation, in e-solutions usage across the industry.

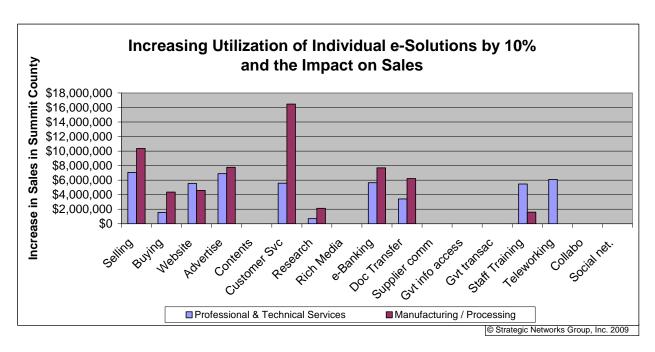


Manufacturing / processing

Key DEI Findings – Manufacturing and Processing:

- Manufacturing / Processing is the largest industry sector in Summit County and needs to be more competitive
- 25% of businesses are below a DEI score of 5.27, and another 24% have a DEI score between 5-6

As the largest employer and key economic driver for Summit County, manufacturing is of particular interest for stimulating adoption of e-solutions. Through analysis of e-solutions usage gaps, increasing levels of selected e-solution usage by 10% would have a significant impact on the Akron & Summit County economy.



The chart above shows that increasing the levels of online customer service in manufacturing from 79% to 87% would increase sales by \$16 million. This type of analysis enables local decision-

makers to develop an e-Strategy for Akron & Summit County that is based on cost-benefit analysis of e-solutions which will have the most significant and most immediate impact on the local economy.

The following analysis illustrates the impact of increasing e-solutions for the manufacturing and processing sector and demonstrates the power of applying the intelligence of e-Solutions Benchmarking:

- Manufacturing e-solutions usage, with a DEI of 6.41, is similar to the cross-industry average DEI of 6.21.
- By comparison, Professional & Technical Services has a DEI of 7.14, with 60% of organization above the Manufacturing / Processing DEI.
- Opportunity exists to increase e-solutions use improving manufacturing productivity and competitiveness.
- Increasing the usage of key e-solutions in manufacturing by 10% results in \$16M to \$38M additional revenues annually.
- This incremental revenue translates to **between 49 and 113 additional manufacturing jobs**.
- Indirect and induced effects of increased manufacturing spending and household spending create additional revenues and jobs for the county.
- Targeting manufacturing organizations with DEI below 6.0 (42% of organizations) would increase e-solutions adoption for sales, marketing, customer service, and website applications.

Initiatives for outreach to manufacturing organizations to increase awareness of e-solutions opportunities and provide needed support must be coordinated with appropriate organizations, such as economic development agencies, chambers of commerce, manufacturers associations, etc. Over one third of businesses consider the lack of time and internal expertise as critical barriers to progress in adopting e-solutions. Over 65% would welcome external support for a range of e-solutions expertise, and almost 40% say they require it now.

COMMUNITY WELL-BEING

With broadband infrastructure widely available across Summit County, most households and individual users have access to the Internet and online services. Nonetheless, a digital divide persists among some population groups, together with increasing requirements for e-literacy among individual citizens.

Access to government services and information is the second highest use of the internet. This offers opportunities for public bodies to expand their reach and explore more effective or more cost efficient service delivery.

Of particular importance to community well-being, health care and social services are one of the lowest performing sectors on the digital economy index. In this sector, lower performance implies relatively low productivity and lost opportunities to access services (e.g. e-health), especially for marginalized groups that have limited access to the Internet. Moreover, advanced broadband usage, such as tele-health, requires advanced broadband networks⁹ which are not available in all areas of Summit County.

Access by digitally marginalized individuals and households can be addressed directly through enhanced public access in libraries, schools, and community centers, training programs and online courses. E-literacy programming can focus on the IT skills needed by local businesses and organizations as they implement e-solutions. When individual businesses and organizations benefit from e-solutions, this maintains and grows the local economy which in turn maintains and creates new jobs in a self-sustaining manner.

These findings suggest the value of follow-up research focused on individual and household use of government services and information, as well as social, health and community services. Such research, if integrated with this project's analysis of productive e-solutions, can help clarify the need for and value of improving access to these public services. Using broadband and e-solutions more effectively is also the shortest path to achieve desired results.

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⁹ Advanced broadband networks are high capacity Internet connectivity with the reliability needed to run e-solutions such as online financial systems, remote diagnostics, high quality video-conferencing, etc,

KEY CONCLUSIONS

- E-solutions with the fastest growth rates are among those that are currently less commonly used. This has implications for the demand for and supply of training and support services;
- Key barriers to e-solutions implementation are the cost of development and maintenance and lack of internal expertise and knowledge;
- Some level of external expertise support is required by the majority (approximately 60%) of organizations.

The findings from **e-Solutions Benchmarking** in Summit County identify core of needs and usage gaps critical for defining local or regional broadband initiatives. Based on SNG research findings, a strategic broadband initiative (i.e. an e-Strategy) for Akron & Summit County should address the following three areas:

- 1. Initial priority for enhancing supply should be given to those few geographic areas with businesses, organizations and households that still do not have broadband connectivity. Without broadband connectivity, these areas will not attract new businesses. Existing businesses, organizations and households will be at an increasing disadvantage.
- 2. A growing supply priority is meeting the demand for "better broadband" where the current broadband infrastructure does not meet the current or projected demand by businesses, organizations and households. Being effectively underserved limits their participation in the economy.
- 3. In addition to the above mentioned supply priorities, there is a need to address low levels of broadband utilization by individual businesses and organizations. This should include assisting organizations and businesses in becoming more effective and productive in their utilization of e-solutions and broadband connectivity. Such efforts can build on this research, both in general and with regard to prioritizing and developing action plans for specific sectors.

e-Solutions Benchmarking Summary for **Professional and Technical Services Industry**

in Akron and Summit County

| Significance | of the | industry | sector to | Summit | County |
|--------------|--------|----------|-----------|--------|--------|
| | | | | | |

- Ranked # 3 in total number of establishments (1,964) representing 10% of all establishments in Summit County
- Ranked # 7 in of total employment (5%) of Summit County
- Important industry for future growth and high-paying jobs that can be located in Summit County whose market reach can extend across US and internationally

Gaps in utilization

Ranked list of most significant e-solutions utilization based on:

- Number of establishments reporting gaps
- Size of each establishment (# of employees) and its relative significance to industry sector

Ranking of e-Solutions Gaps in Summit County:

- Rich media or service creation (e.g. multimedia content, interactive tools)
- Deliver services and content (e.g. video streaming, digitized products)
- Tele-working
- Selling goods or services
- Advertising and promotion online

"So what" - why bridge these e-solutions usage gaps?

Examples of specific gaps that could be bridged:

- 10% don't have a website.
- 20% of those who have a website don't create rich media content
- 57% of those who have a website don't sell online
- 10% of those who sell online don't advertise

e-Solutions Benchmarking Summary for **Professional and Technical Services Industry**

in Akron and Summit County

Quotes form Professional and Technical Service firm respondents in Akron and Summit County on main benefits from broadband and their expectations of what they could do:

Our business is 100% on the web. Without Internet access we would not have a business.

"Use of networked knowledge resources to handle the peak needs of projects and the lack of a specific critical skill in full time employees."

"Efficiencies in cost management and productivity as well as versatility in services we're able to provide. [Would expect to:] Expand our service reach outside our locale."

"Couldn't exist without it as a SaaS vendor."

"[Deleted] provides utility [deleted] management consulting services nationwide. We currently provide consulting services in 30 states and Canada. Having a dispersed operation requires improved communication to both employees and customers. The internet allows us to communicate effectively with both customers and employees by providing real time data and information. There are very few things we don't do on the internet, video conferencing is next on our agenda. We are in the process of updating our HR and T&E software to improve information to our employees."

"As a technical Service Provider all of my Service Orders, Proposals, Research, Payments, all Documentation including Photographs, Scanned Collaterals are done by using the internet. I am using broadband access! I pay for the fastest speed that my cable company offers. I should be seeing 8 because that's what they are charging me for. I rarely can get a download speed above 1.5. I would like to see truth and accountability ISP's."

"MUST have access for required e-filing in federal courts, some state courts. RESEARCH is greatly enhanced. Access to large amounts of data never before easily obtainable. Remote access----have laptop, will travel to client. Currently the wireless access costs remain too high."

"Communication with clients, uploading and downloading files. Product research and a host of other procedures that help our business. We NEED better broadband and are fighting to get it. No provider has adequate service for our business."

e-Solutions Benchmarking Summary for **Professional and Technical Services Industry**

in Akron and Summit County

Recommendations on gaps and expected costs in bridging those gaps

Recommended e-solutions and e-processes to achieve targets:

■ Rich Media Content – it is time to shift to the Web 2.0. Advance features can make selling online possible for this particular industry which relies on services and cannot use traditional selling tools. Appropriate online Staff Training and Tele-work are a pre-condition for success.

Next steps:

- Develop actionable steps to increase adoption and utilization
- Prepare estimates on costs to bridge selected gaps in utilization

Expected economic benefits from bridging targeted gaps

SNG has calculated the potential benefits from increasing utilization of selected e-solutions:

- Raising the level of **website utilization** by 10% has the potential to increase total direct revenues in Summit County by \$5 to 6 million
- Raising the level of **selling online** by 10% has the potential to increase total direct revenues in Summit County by \$13 to 14 million
- Raising the level of **online staff training and tele-work** each by 10% has the potential to increase total direct revenues in Summit County by \$11 to 12 million

There are a range of economic impacts/spillover effects (i.e. increases in GDP, employment, tax revenues) that can be calculated from these direct benefits to Professional and Technical firms in Summit County.

Next steps & considerations for stakeholders

- Agree on e-solutions and e-processes to achieve specific targets develop appropriate programs and leverage local delivery mechanisms
- Detail project plan and costs
- Coordinate with other local and state agencies (proposals to ARRA and RUS)

¹ SNG uses Input-Output modeling to calculate economic impacts, however this was outside the scope of this project.

e-Solutions Benchmarking Summary for Manufacturing and Processing Industry

in Akron and Summit County

| Significance of the industr | y sector to Summit County |
|-----------------------------|---------------------------|
|-----------------------------|---------------------------|

- Ranked # 6 in total number of establishments (1,578) representing 8% of all establishments in Summit County
- Rank # 1 in employment (73,265 employees or 21%) of Summit County
- Rank #1 in revenues (37% of total revenues in Summit County)
- Important for the economic foundation, community prosperity and high-paying jobs. While manufacturing is under significant stress and slowing declining relative to other sectors, its sheer size and current importance make it a high priority for job retention, future competitiveness and future community well-being.

Gaps in utilization

Ranked list of most significant e-solutions utilization based on:

- Number of establishments reporting gaps
- Size of each establishment (# of employees) and its relative significance to industry sector

Ranking of e-Solutions Gaps in Summit County

- Rich media or service creation (e.g. multimedia content, interactive tools)
- Deliver services and content (e.g. video streaming, digitized products)
- Government transactions
- Collaboration
- Social networking

"So what" - why bridge these e-solutions usage gaps?

Examples of specific gaps that could be bridged:

- Less than 1/3 of those with a website create rich media content
- 26% don't use the internet for staff training
- 21% don't provide customer service on-line
- Collaboration and social networking can introduce new internal and external processes and relationships
- 10% don't have a website.

e-Solutions Benchmarking Summary for Manufacturing and Processing Industry

in Akron and Summit County

Quotes form Professional and Technical Service firm respondents in Akron and Summit County on main benefits from broadband and their expectations of what they could do:

"We have opened up new channels of business - Direct to Consumer and Business to Business (Childcares and hospitals, school systems etc.) using the internet. It has been an excellent way for us to romance our products and receive and provide feedback from our consumers on almost a real time basis."

"We want to expand our Direct to Consumer business to other countries."

"Lower cost marketing of product and company, broader audience by eliminating geographic barriers to information dissemination."

"Reach broader market than the rust belt. / Conduct business on-line reduces selling cost. / Advertising has to be done on-line--Print media waning."

"Continue to increase worldwide sales"

"Document exchange that is quick and accurate, cost savings from reduced phone and mail usage, ability to allow clients access to information about their orders etc. without direct contact with our employees."

"Customers cannot enter their orders into our system, most of our suppliers cannot accept our orders into their systems, so many phone calls could be handled more efficiently through internet exchanges but customers are too tied to multiple phone calls, i.e., call us with a question which we have to research and call back which raises another question from the customer that they forgot to ask the first time around and we have to look up and call back. So many inquiries could be answered by our computer systems if we gave access to information to our customers. We have no interactive services available. Our business is 100% on the web. Without Internet access we would not have a business."

e-Solutions Benchmarking Summary for Manufacturing and Processing Industry

in Akron and Summit County

| Recommendations on | gaps and | expected costs in | n bridging those | gaps |
|--------------------|----------|-------------------|------------------|------|
|--------------------|----------|-------------------|------------------|------|

Recommended e-solutions and e-processes to achieve targets:

- Develop enhanced websites with rich media content and capacity for customer service
- Online Staff Training is key to work force development and succession issues.
- Develop strategic approach for collaboration and social networking.

Next steps:

■ Develop actionable steps to increase adoption and utilization.

Prepare estimates on costs to bridge selected gaps in utilization.

Expected economic benefits from bridging targeted gaps

SNG has calculated the potential benefits from increased use of selected e-solutions:

- Raising the level of Customer Service by 10% has the potential of increasing direct revenues in Summit County by \$16 million;
- Raising the level of Selling Online by 10% has the potential of increasing total direct revenues in Summit County by \$10 million;
- Raising the level of online Staff training and Tele-work each by 10% has the potential to increasing total direct revenues in Summit County by \$1.6 million.

There are a range of economic impacts/spillover effects (i.e. increases in GDP, employment, tax revenues) that can be calculated² from these direct benefits to manufacturing firms in Summit County.

Next steps & considerations for stakeholders

- Agree on e-solutions and e-processes to achieve targets develop appropriate programs and leverage local delivery mechanisms.
- Detail project plan and costs.
- Coordinate with other local and state agencies (proposals to ARRA and RUS).

² SNG uses Input-Output modeling to calculate economic impacts, however this was outside the scope of this project.

For further information, please contact:

KNIGHT CENTER OF DIGITAL EXCELLENCE James Nice

STRATEGIC NETWORKS GROUP, INC. Michael Curri

President/Founder
mcurri@sngroup.com

** +1.613.277.2588 ** +33.618.176.456

www.sngroup.com