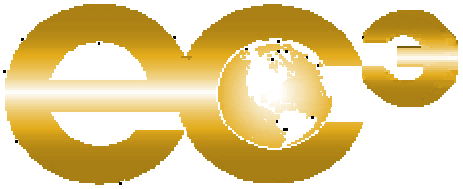
Economic Development and the New Economy: Using e-Government Capabilities to Competitive Advantage



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National Electronic Commerce Coordinating Council

The National Electronic Commerce Coordinating Council (**NECCC**) is an alliance of national state government associations dedicated to the advancement of electronic government within the states. The Council is comprised of the National Association of State Auditors, Comptrollers and Treasurers (**NASACT**), the National Association of State Chief Information Officers (**NASCIO**), the National Association of State Purchasing Officials (**NASPO**), and the National Association of Secretaries of State (**NASS**). In addition to these voting members, other governmental and private organizations participate in an advisory capacity. These associations include the Information Technology Association of America (**ITAA**), the National Automated Clearing House Association (**NACHA**), the National Association of Government Archives and Records Administrators (**NAGARA**), the National Association of State Chief Administrators (**NASCA**), the National Association of State Treasurers (**NAST**), and the National Governors Association (**NGA**). ITAA and NACHA represent private information technology companies and the financial services and technology industries.

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I. Overview of the New Economy and its Impact on Economic Development

Information technology has wrought a fundamental change in our society's economy. A "new economy" has arisen in which the substitution of high-speed communication for traditional "brick and mortar," face-to face transactions, is common. The service industry is expanding dramatically, while the manufacturing sector continues to shrink. Online business transactions have so completely eliminated common barriers to competition that definition of both the playing field and the players must be recast to encompass the globalization of access to labor, products and services and to the view that intellectual capital is now the key natural resource to a successful business enterprise. Factors such as mobility, distance, location, or geographic boundaries are no longer barriers to business. It is now possible, and increasingly commonplace, for a rural dweller to do business across the globe – without leaving home. In its recommendations to President Bush, the Council for Urban Economic Development recognized that "in the United States, broad, structural transformations, including the expansion of information technologies into all economic sectors, the globalization of markets, new rules of entrepreneurship, higher levels of business risk, and emerging new economic sectors and occupational needs, are fueling the transition from an industrial-based to a knowledge-based economy."

Governments bear significant responsibility for addressing the demands of socio-economic changes resulting from the rapid evolution of a knowledge-based, technology-intensive, global economy. Our nation's governments are struggling with the challenges of closing the "digital divide" that threatens to disenfranchise large segments of our citizens. Broadband communication represents the Interstate highway system of the 21st century. Those communities without access to the highway have difficulty maintaining their business base. Further, thorough reevaluation of commerce regulations and tax structure are required if the new economy is to thrive in this highly competitive, global marketplace.

Economic development organizations, in particular, have felt the impact of the changes wrought by the increasingly information-based economy. These organizations are

responsible for enhancing the quality of life in their jurisdictions by increasing the wealth of their communities through business growth. They are responsible for attracting and retaining businesses to an area, ensuring that local resources are used productively, and that tax bases are broadened. In this new economy, knowledge and communication are the raw materials; and people, education and quality of life are the keys to attracting knowledgeable workers. This has caused economic development organizations to rethink the way they do business. In a June, 2001 USA Today poll, 78% of state and 52% of local economic development organizations indicated that they had modified their incentives packages in order to accommodate high tech companies.

The new economy has not only caused changes in incentives, but has also caused fundamental changes in the delivery of services. In addition, government agencies have been forced to rethink the fundamental principles and mission of their services. As has occurred with most e-government transformations, changes have gone beyond the development of portals to the transformation of the organization. This can be seen in economic development agencies by the way they attract businesses, the incentives that they offer, the level of collaboration across delivery jurisdictions, and the ways in which they compete.

II. Competitive Economic Development Factors in the New Economy

Competition for new business locations is fierce. Once competition was largely between localities and sometimes between states, but now competition has expanded to other countries. Economic development organizations have traditionally been among the most competitive of government agencies and there has been fierce competition among jurisdictions for attracting businesses. Typically, there has been more cross-jurisdictional competition than collaboration.

Economic development competition begins with locating prospective businesses for a location, and enticing those businesses to relocate. As with most sales functions, significant efforts are placed on marketing, lead generation and closing the deal. Economic developers expend considerable time and resources in finding and qualifying prospects. Key factors in attracting new businesses have traditionally been access to transportation corridors and natural resources; a skilled labor force; availability of facility space; and tax incentives for relocating. Economic development organizations have traditionally concentrated on attracting large, manufacturing-based businesses. Attempts are also made to retain existing businesses, particularly if there are rumors of relocation or economic downturn.

In the new knowledge-based economy, the basic goals of finding prospects and closing deals remain, but changes have occurred. Many business prospects research areas anonymously -- via the web. This changes the methods for lead generation and follow-through. Economic development organizations are setting up portals to ensure that such prospects are "finding" their locality. They are integrating technologies that

facilitate the delivery of information via the web, but also are finding the need to develop means to capture information about who is looking. Business process changes related to lead generation and follow-through are required. Processes are required that can capture lead information and can follow through on information requests coming from new sources. Mass customization techniques can facilitate fulfillment of a business prospect's needs thereby increasing that prospect's interest.

Competitive factors for economic development have also changed when trying to attract new economy, technology based businesses. Access to transportation is still important, but often telecommunications and broadband access have become even more important than access to the interstate highway system. Transportation issues involve ease of commuting to work for employees, with urban congestion being a detriment to quality of life. Access to air transportation for workers is as important as the shipping of natural resources. Although manufacturing, production, and fulfillment are still serious components of our economy, and the traditional factors of transportation apply to these industries; techniques for selling location to a service or knowledge industry require different marketing than in the past.

Location has taken on a new meaning for many high tech companies. Access to employees is needed, but the employees can be distributed across a wide area, bound together by high-speed communication and air travel. This changes the competition field for economic development organizations. Suddenly, small rural or suburban communities may become competitors to major urban areas for companies seeking a certain quality of life. When determining where to locate a fairly mobile, knowledge-based service industry, the lack of congestion and a family-oriented community with a reasonable cost of living may be more attractive than a major metropolitan area with commute problems, high cost of home ownership, and crime. Also, regional economic development becomes more important; a business may select a location based upon the overall desirability of a region rather than on an individual site. This changes the level of collaboration among economic development organizations, and has resulted in a growing number of regional development and marketing projects.

Labor is a key part of any business. A more educated workforce attracts higher paying businesses to a region and creates the opportunities to earn higher wages. There is a growing desire by economic development institutions to tailor the marketing of a region to these attributes. The required skill sets of a community must remain current with the new economy. Educational opportunities on the Internet allow more people access to anytime, anywhere training and retraining into new skill areas. As disposable income increases in the local economy, additional secondary jobs are created.

Businesses of the new economy are also looking for streamlined government interactions packaged as around-the clock access to higher quality services. They are accustomed to service models that are driven by customer needs, and they view themselves as a customer of the government. Online governmental transactions, such as environmental permitting, tax payments, and business registration must be convenient. Shortened governmental transaction time allows businesses to concentrate

on making a profit in a highly competitive business environment. Competitive economic development teams try to lure existing businesses away from their current locations with the promise of a more convenient business environment. Online government services for citizens, both in their role as residents and as workers, are important as a component of the quality of life in a given area. Further, online government-sponsored job banks can help the workforce locate higher paying jobs while helping existing businesses find laborers. Online government is essential to the retaining existing business and to attracting new business.

III. Portals as a Strategic Economic Development Tool

Economic development organizations throughout the nation have made significant changes in the way they operate, with many examples available to demonstrate best practices. Economic development organizations are increasingly offering portals as a new advertising advantage and as a source of information for interested parties. The portals provide a combination of offerings, such as simple information delivery, delivery of complex, geographic-based applications, or the ability to transact business on-line.

There are common elements among portal sites. These elements include:

Project Elements	Definitions
Site Search Capabilities	The web site provides the ability to search across the site, across multiple sites, across the Internet
Online Transactions	The web site allows business to be conducted online: example – file and pay permits online.
Standardized Forms	The web site allows 1) forms to be downloaded, 2) forms to be completed online
Online Format Considerations	The web site is formatted for online support: visually appealing, easy to follow, easy navigation tools
Digital Signatures	The web site supports digital signatures
7*24	The web site is available 7x24.
Regional GIS	The web site provides GIS information (mapping).
Economic Resources	The web site provides instructions and/or links to public/private economic resources: low cost loans, relocation support, etc.
Tax and Fiscal Needs	The web site provides access to state/local tax information and supports links for other fiscal areas (labor offsets, reduced rents, extended terms)
Public/Private Sector Funding	The web site provides links to public and private funding sources for new business development or expansion
Web Site Development	The web site is developed by 1) public, 2) private not for profit, 3) private for profit, or 4) other organization

The following table shows an overview of capabilities among a subset of economic development sites:

	Search Engine	On-Line Transactions	Std Forms	On-line Format	Electronic Signature	7*24	GIS	Econ Info	Tax & Finance	Fund-ing Info
AgriMissouri	Yes					Yes				Yes
California State Portal	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Connecticut Econ Ctr				Yes		Yes	Yes	Yes	Yes	Yes
Connecticut Lic Info Ctr	Yes	Under Development	Yes	Yes	Under development	Yes		Yes	Yes	Yes
HUBS			On-line			Yes				
Illinois Business Exp	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na
Maryland Econ Dev	Yes	Tax filing	Yes	Yes	Yes*	Yes		Yes	Yes	Yes
Missouri Econ Dev	Yes		Down-load			Yes				Yes
New Jersey Cyberdistrict s								Yes		Yes
New York Gov Without Walls	Yes	Yes			Yes	Yes				
Oregon Internet Cm	Yes									
Oregon "Doing Business…"	Yes		Yes	Yes	Yes	Yes			Yes	
Silicon Valley Smart Permitting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Silicon Valley Smart Growth	Yes	No	No	No	No	Yes	No	No	No	No
Texas Compliance		Yes	Yes		Yes	Yes				
Utah Buss Dev	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes

IV. The Rise of Regional Technology Projects to Support Economic Growth

Other economic development organizations have embarked upon regional development projects, business incubators and regional technology centers to attract new businesses to their regions. The goal of these projects is often to improve the competitive landscape of a region and to provide a mechanism for advertising a region's advantages. These projects require a strong strategic plan, the availability of capital assets, and, typically, regional collaboration among economic development organizations. The following represent some examples of these activities:

Name	Description	Results	Reference
Cutting Edge Business Tool -- Rural Counties in Wisconsin	CAPP Services, Inc., of Stevens Point Wisconsin has developed a micro-enterprise for low-income people. CAPP introduced a website that provides technical advice, referrals for professional services and general business development information and tools. CAPP Services later added a web-based program, the "entrepreneur's exchange" that provides chat sessions with experts in marketing, banking, accounting, and other professionals and business areas. CAPP plans to expand its program to help its clients with retail products learn how to use e-commerce. They also plan to add a virtual mall to feature products sold by the companies they have helped to create. CAP is a private non-profit corporation with over 40% of its annual budget for private (non-governmental) sources.	This has turned out to be a very successful program; 67% of the businesses it has helped since its beginning in 1988 are still operating.	www.virtualincubate.com
Telecommunications Open Partnerships of Arizona (TOPAZ)	TOPAZ is a State initiative to work with telecom providers on state contract to encourage build out of a public telecom infrastructure. The project also includes an initiative to encourage schools, libraries, city, county and tribal governments able to use state contract to "aggregate demand, leverage their purchases, and provide the additional business case for carriers to build enhanced infrastructure in their communities." The assumption is that an enhanced telecommunication infrastructure will positively affect economic development, and quality of life applications, such as distance learning and tele-medicine, especially in rural areas.		
Aurora Nebraska	Aurora, Nebraska is utilizing the high-speed digital subscriber line (DSL) capability, provided by Hamilton Telecommunications, and a donated building to become a business incubator assisting and growing small business in this rural community. The technology infrastructure provides a key factor to recruit and retain business. Technology based businesses may either locate in the business incubator building or they may be in the "incubator without walls"	Aurora leaders have planned how to bring in 10 new businesses, at least 20 new jobs and expand 10 existing businesses within the next three to five years. Several business applications for the Internet are underway, including the marketing of outdoor products by Cabela's, the auctioning of cattle by the Haythorne Ranch in western Nebraska, and Aurora farmer Gary Hansen's marketing of grain on the Internet.	

	program, in which start-ups receive advice and consultation from retired or existing successful business executives. Aurora sees the Internet as a key to small-town survival in Nebraska.		
Centers of Excellence in Rural America (Watford City, North Dakota)	CERA is a multi-state, multi-site project sponsored by the Western Governors' Association, with leadership from the governors of North Dakota and Wyoming and participation from the towns of Lusk, Powell, and Glenrock in Wyoming and Watford City and Mayville in North Dakota. The technologies deployed will enable citizens in these towns to pool collective talent that can be utilized in an extended workplace situation, and market that pool of talent to corporations. In addition, with high speed telecommunications capabilities in place, the participating towns will focus on improving access to health, education, and government services Services and expertise among the towns may be shared over the network as well.	Watford City, North Dakota has experienced significant growth from this program, including the location of two businesses within this small, western North Dakota ranching community.	
Hospitals, Universities, Business and Schools (HUBS)	Implementing the vision of Congressman Curt Weldon (R-PA), the HUBS program has been moving forward to transform the four-state region of Pennsylvania, Maryland, New Jersey and Delaware into a "smart region." HUBS uses technology development and transfers that technology to regional hospitals, universities, businesses, schools and government operations. HUBS initiatives have focused on five key areas: education, medicine, business, national defense, and state/ local government. HUBS promotes technology transfer and development as a way to meet economic and social needs. Collaboratively working to create a smart region brings technology to the region, helping it to thrive and prosper in this increasingly technologically advanced world. The objectives of HUBS are to: ▪ encourage collaboration among experts in disparate communities; ▪ apply the highest level of security for the smooth transformation of the digital landscape;	To date, the following projects have been performed under the HUBS initiative: ▪ The HUBS Ed Portal provides teachers, parents and students ready access to resources and communications tools in the four-state area to create an improved learning environment. ▪ HUBS has partnered with a number of hospitals and universities to develop telepathology applications, where pathologists in geographically dispersed locations can collaboratively work as if they were at the same microscope. ▪ Using next generation Internet and virtual private networking technologies, the Intelligent Regional Medical Archive provides storage of large volumes of diagnostic/ radiological data from Johns Hopkins School of Medecine and from the University of Pittsburgh Medical Center. The archive shows the viability of a remotely located, shared, data	

	landscape; ▪ support the development and implementation of technologies that create useful information and services for end users; ▪ develop a virtual private network system for specific communities; ▪ promote development of software competencies that are transferable to multiple applications; to encourage investment in small to medium regional assets with promising new technologies; ▪ demonstrate the regions's technological capabilities and potential to encourage significant investment and attract new businesses and skilled workers to the region	repository with fast access to large volumes of data that are protected from unauthorized access. ▪ HUBS has provided small business start-up companies with guidance on financing and business development, support in identification of market opportunities, and offers introductions to potential partners or funding sources in the four-state area. ▪ Development of collaborative portals that allow for sharing of engineering information over a secure virtual private network. ▪ Collaborating with Delaware Division of Public Health to design a statewide integrated Electronic Reporting System (ERS) for Delaware public health organization to electronically submit required public health data.	