

## GIS in Action

# Credit Union Services Network Internet GIS Gets Customers to Business Site

Credit Union Service Corporation (CUSC) is the credit union movement's largest shared branching network, representing 55 percent of all national locations and 68 percent of credit unions participating in shared branching.

CUSC is the only shared branching network representing credit unions, leagues, the Credit Union Service Organization (CUSO), the Credit Union National Association (CUNA), and CUNA Mutual. Since 1992, the CUSC network has been offering its members convenient access to their accounts by making available numerous locations and extended hours over the Web.

Through groundbreaking technology, CUSC's Next Generation Network offers credit unions lower costs, improved transaction functionality, and substantial information capacity, making it possible for more credit unions to offer shared branching to their members.

### The Challenge

The Credit Union Service Corporation Administrative Network office, located in Duluth, Georgia, supports all aspects of the Service Center Network. CUSC needed to provide credit union members with an easy-to-navigate, fast, Web-based way to locate participating credit unions on a map and give Web site visitors driving directions from any current location. By enabling this technology, members can search for an individual credit union or access services that may be offered across the network; for example, find credit unions with foreign language support or access to specialized business lines within a ZIP Code.

"We were looking for a way to provide all users of our network with a tool that would give them door-to-door directions from any address in America they specified to one of our many

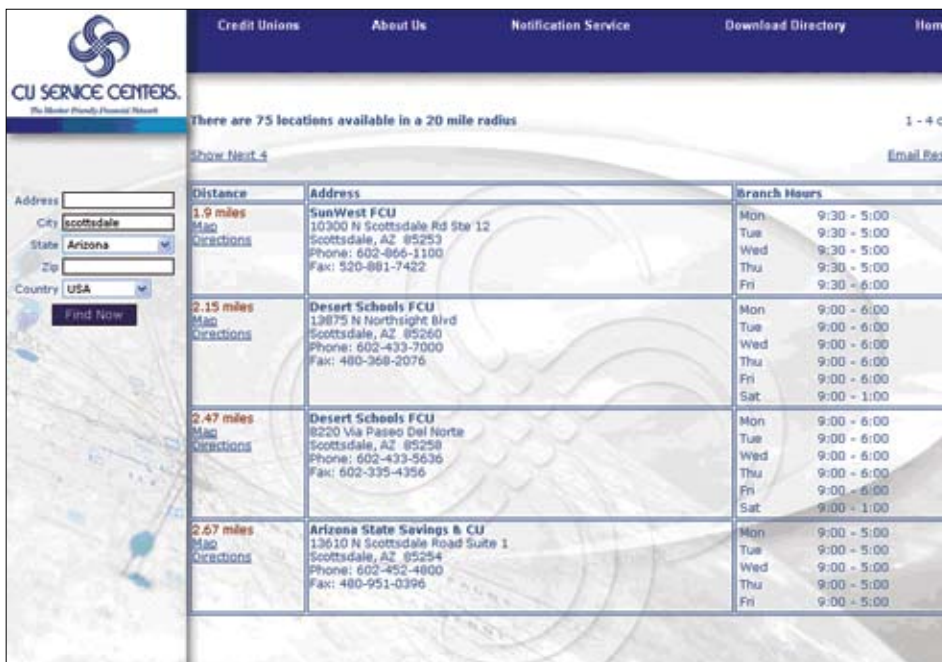
## In This Issue

GIS in Action	<b>p1</b>
• Credit Union Services Network	
• Credit Union Maintains Fiscal Stability with GIS	<b>p2</b>
Business Sense	<b>p2</b>
Data and Software News	<b>p3</b>
• ESRI Data Products: A Valuable Resource for Banks	
• Hurricanes Have Lasting Impact on Demographic Measurements	
Ask the Expert	<b>p6</b>
Special Interest in GIS	<b>p7</b>
• Using Community Tapestry to Cross-Sell to Your MCIF	
GIS Methods and Practices	<b>p9</b>
• Five Steps toward Spatially Aware Financial Institutions	
Business Partner Spotlight	<b>p9</b>
• Retail Profit Management	
Events	<b>p10</b>
• Third Annual ESRI Business GeoInfo Summit	
ESRI on the Road	<b>p11</b>

service centers," says Chris Meadows, network technician, CUSC. "We could have done this with an existing online map service, but we wanted to have control over the presentation of our maps and the materials that were displayed. We wanted to have our maps and map service local to our Web server. We chose RouteMAP IMS for the ability to have the software in-house and its easy-to-use application program interfaces, which were key factors in our decision."

### The Solution

The routing application allows a user to enter a location as specific as a street address or as general as a ZIP Code along with a search radius to find nearby service centers. Once the user enters this information, a list of service centers, including address, operating hours, distance from the user, and a phone number for each location, is returned. The user can then pick a service center from the list and get turn-by-turn directions to that location.



Credit Union Service Centers page interfaces with RouteMAP IMS for directional information.

continued on page 8

## Credit Union Maintains Fiscal Stability with GIS

Arrowhead Credit Union (ACU), a medium-sized company established in 1949, is making GIS an integral component of its business workflow. Based in San Bernardino, California, with assets of \$720 million, ACU uses ESRI GIS software to improve its financial stability.

The credit union's strategic planning, marketing, and market research divisions use GIS to expand their direct marketing capabilities. It uses ArcView Business Analyst to refine direct mail strategies and target specific households to attract new members. Previously, ACU sent mailings based on ZIP Code-level data with predetermined criteria from an outside source. ACU's marketing group found these methods expensive and lacked precision to attract and capture new profitable account holders. With GIS, ACU now sends specific offerings to smaller groups of households with an appropriate offering based on profiles of consumers from those areas. ACU identifies areas of high opportunity based on profiles and other specific criteria such as drive time to a nearby ACU branch. GIS offers increased return on investment by decreasing the overall cost of a marketing campaign while increasing the ef-

fectiveness of each promotion.

Another division of ACU, Credit Union Services Operations, uses GIS to assist other credit unions in its league. The division offers GIS business services to assist other growing credit unions with market analysis, direct marketing, and siting. These partnerships enable a growing credit union to benefit from GIS even though it may not have the immediate budgeting available to implement a GIS. ACU uses its GIS to show these partnering credit unions where local businesses are located to target prospective employer groups that might need their services. GIS makes the credit unions aware of specific market conditions and increases their understanding about how to attract more members. This GIS for business knowledge sharing helps each credit union grow.

In addition, GIS facilitates the financial decision-making process. Knowing exactly where to place branches and automatic teller machines (ATMs) is arguably the most important corporate decision a credit union will ever make. ACU's Branch Strategies group uses ArcView Business Analyst to determine the best locations for ATMs and branches based on customer transactional

data, deposit information, and other specific datasets. GIS continually reevaluates each branch and ATM location as market conditions change. The credit union once made these decisions by driving to the location or by relying on third-party data, which might be unreliable. GIS also determines which Stater Brothers supermarket will host the next in-store credit union ATM.

"An added benefit is that GIS maps also assist greatly with communications among board members," said Manju Book, ACU's GIS administrator.

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### Business Sense

*Simon Thompson*  
Commercial Business Industry Solutions Manager, ESRI

Banking is often thought of as an impersonal business. People are numbers, records in a database, or account codes on a checkbook or credit card. But people are more than just numbers: they are important and need to be treated that way.

People are the fuel that drives corporate success. Knowing they are important and unlocking this potential is the competitive advantage for any successful bank. My experience with banks that implement GIS is that they realize this. This is what makes my job so exciting and rewarding.

GIS helps financial institutions see people in new ways: as valuable assets with needs, demands, and preferences that should be served by the organization. Our software has helped many financial companies succeed in providing better customer service and delivering more profitable and appropriate services and grow through better market understanding and business planning.

In the coming year, ESRI will continue to create new opportunities for financial organizations to profit from GIS and gain the geographic advantage for their business. We are here to help you. We hope this newsletter sheds light on the benefits of GIS for banking and financial services. For more information or to discuss your specific needs, feel free to contact me at [stompson@esri.com](mailto:stompson@esri.com).

### Build understanding and collaboration in your community—one GIS Day event at a time.

GIS Day is a grassroots event where local GIS users and vendors join together to show the public how GIS is used in their community every day. GIS Day events include lectures, software demonstrations, map galleries, games, and other activities.

We hope you will join in this mission to teach others how to apply and access the power of geographic knowledge in their organizations by participating with us. Mark Wednesday, November 15, GIS Day 2006 on your calendar and visit [www.gisday.com](http://www.gisday.com) today!



## ESRI Data Products: A Valuable Resource for Banks

Today's banking institutions must meet their customers' needs at all touch points: on the phone, at the traditional teller window, at the ATM, at the point of sale, and at the new Internet storefront. Fast-paced technological change is responsible for new market segments and, consequently, new challenges for banking and financial institutions. Which customers contribute to profitability? Which don't? Who has potential to do more business? Who doesn't? How does a bank acquire new customers while retaining established ones? How do banks promote online services without making them seem like substitutes for personalized service, all while adhering to government regulations? Those banking and financial institutions that can rise to the challenge of broadening and deepening their relationships with customers will be the winners in the current highly competitive, merger/acquisition environment.

One element remains constant at the core of all banking business: data is plentiful; customer knowledge is scarce. Mining for the right information requires skill and experience that banks may not have. Customer records enriched with demographics and consumer spending, geographic, and segmentation data enable the enterprise to make smarter strategic decisions. The more banks understand about who their customers are and how they live, the more they understand about their needs and how best to serve them. And the better customers can be served, the more they can be acquired, developed, and retained, leading to greater profitable relationships.

Banks keep very detailed customer records, but these records exist in independent business systems that are organized around products rather than around the customer. In the United States, business systems are tied together and organized around the customer household in the Marketing Customer Information File (MCIF), and similar record keeping standards exist globally. These customer-centric files give banks a distinct advantage over other business sectors that don't have that data and/or are not as efficient in the collection of customer data for marketing purposes.

Customer data that includes address and contact information, the financial products and services used, and associated detailed account and financial information is the starting point for more informative and profitable customer analysis. GIS spatially enables the customer database to create greater efficiency, indicate new profit centers, and lower investment risk.

ESRI's Community Coder enriches the cus-

tomers' database with powerful additional data to help banks understand who their customers are and what they need. Based on where the customer lives, Community Coder adds accurate demographic data to each customer record including age, income, family type, education, employment, housing, race, ethnicity, and more. Further, ESRI's Community Tapestry lifestyle data combined with Community Coder adds the power of lifestyle segmentation to each customer record, essentially telling a bank or financial institution which consumption category the customer falls within. Summary demographic reports are included in Community Coder. A bank's own customer databases enhanced with ESRI's geospatial technology tells it both where the customers are and what they "look like." ESRI offers a wide range of enhancement data and automated reporting that identifies new marketing opportunities and quantifies risk.

ESRI technology also makes it easier for banks to comply with federal and state regulations. For example, federal mandates require banks and financial institutions to demonstrate that they serve all population segments in their delineated communities. Demographic data provided by Community Tapestry can be used to craft racially and ethnically appropriate product strategies and target messages to any demographic and psychographic segment, including minorities, and households within any income group. These demographic data variables can also help in institutional planning, such as anticipating workforce requirements to serve minority populations and multilingual needs, before specific branch locations are approved or opened.

Consumer spending data from ESRI informs many different companies and industries how households in their various market segments consume services. This reveals buying habits for various categories of general merchandise and services. For financial institutions, ESRI offers basic reports as well as the MarketBank premium market potential data from ESRI partner RPM Consulting. These reports specifically identify the amount of disposable income available to purchase financial products and services. ESRI quantifies the financial goods and services so it is possible to perform analysis that identifies new potential markets, markets that are underexploited, and markets that are saturated and mature. This data is available from ESRI in a database format and via online Internet subscription reports from Business Analyst Online Consumer Spending

Reports. Business Analyst Online reports include total dollars spent and average per household spent for financial products and services such as savings accounts, mortgages, and auto loans. A spending potential index compares the amount spent in any specific geographic area with the U.S. average. This allows immediate identification and ranking of areas based on potential and the rapid construction of marketing and service plans to respond to the need or opportunity.

Market potential can be looked at from many perspectives. *Market reports* highlight the number of adults and households that would be expected to consume financial products and services such as online banking, home mortgage loans, and mutual funds. A *market potential index* measures the relative likelihood of adults and households in a specific geographic area to exhibit certain consumer behavior patterns compared to the U.S. average. Once again, this type of information is available in many different formats and applies to many different activities. Banking institutions can combine their own internal databases, which may contain the exact age, income, race, and educational and marital status of a customer, with richer segmented data like Community Tapestry. Combining and analyzing the two datasets allows the bank to see how well they are performing in any particular market or geographic region compared to the local average or estimated market potential. Scoring the return on investment or potential allows the bank to identify specific areas in which it is prudent to invest more resources or identify areas that are not achieving full potential to recommend downsizing or redirecting resources to more closely balance expectations and achieve targets. Market potential analysis can be performed for any savings, investment, credit, or loan product to generate a map of hot spots in which the bank is performing well and cold spots of lower potential and profitability.

Just knowing exactly where customers are is important, as this unlocks the power of spatial analysis and lifestyle segmentation. At its most basic use, ESRI's Community Coder geocoding software pinpoints the exact address or latitude-longitude coordinate for any customer information. In the United States, the Federal Information Processing Standards (FIPS) codes and other market or demographic segmentation codes can be appended to the customer records and stored within the bank's own customer files. Internationally, the United Nations Classification

*continued on page 4*

continued from page 3

### ESRI Data Products: A Valuable Resource for Banks

of Individual Consumption According to Purpose (COICOP) code provides a common statistical methodology to look at expenditure and potential on a pan-European or global basis. This allows the bank to immediately have access to how the customer performs compared to others in their ZIP Code or market area. Access to this information is always available and does not require connection to the GIS software or any other database. Combining geographic information with demographics and consumer expenditure data allows banks to see how their customers compare to the average member of the community. The banks can generate an understanding of the typical customer and compare that with their ideal. By gaining a more insightful understanding of who their customers are and how they compare to others in the same area or those who use different financial services, the bank is better able to balance and focus resources on profitable opportunities.

Geocoding can also be used to identify where different types of customers are physically located and where they perform various activities.

This knowledge not only helps banks determine where to locate branches and ATMs but also better understand the demand for assorted services. A bank can create an “ant farm” of the typical ways customers use their network of branches, ATMs, and financial service packages. To create the ant farm, the bank geocodes transactions and business use—where transactions take place, at what time of day, what volumes occur, and by whom. All these transactions create a pattern of use that highlights concentrations and flows to and from services, reflecting the true usage and demand for the services rather than some theoretical potential. This is immediately more intuitive and understandable than color-coded ZIP Codes, business graphics, or endless tables of data.

For example, the population surrounding a specific branch may be more mature or elderly: customers who prefer more traditional service and want to do business with the bank in person. In that case, perhaps the bank can more profitably promote other services ahead of Internet banking.

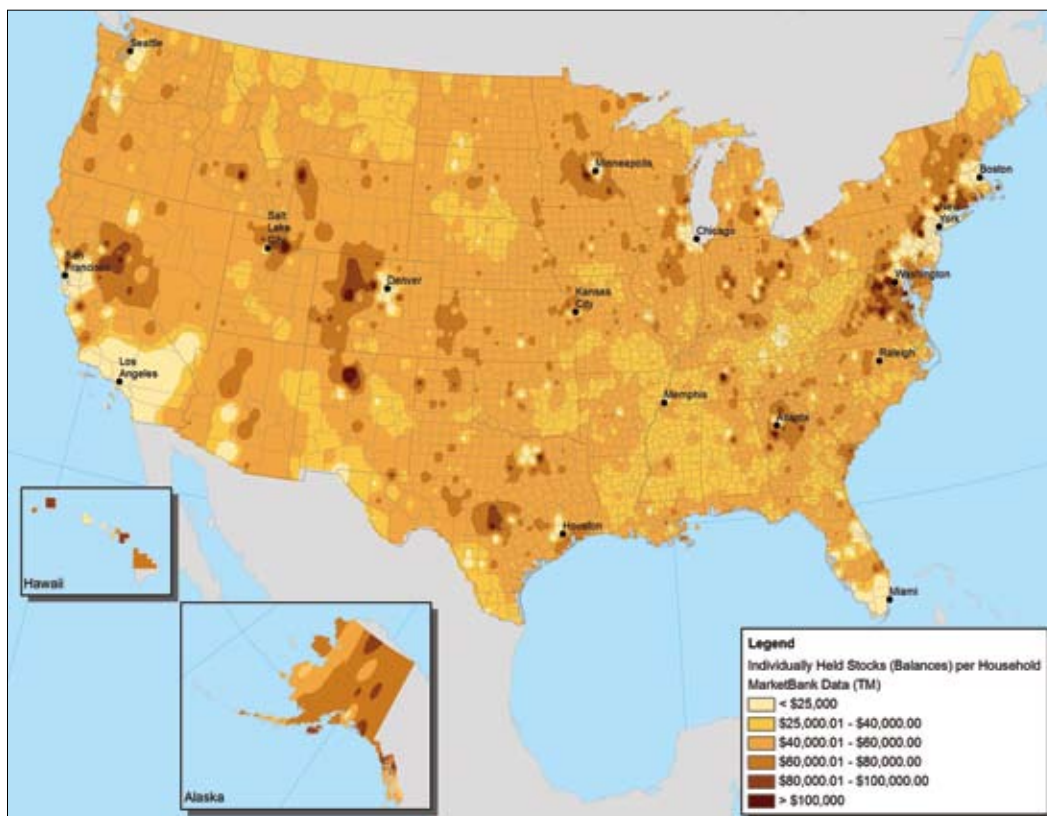
Understanding where customers live and

where they perform specific activities, such as cash withdrawals or deposits, allows a banking institution to more appropriately align services and resources with need and market demand. A customer can be encouraged to purchase and use services because the bank is in a convenient location and going there will not impact heavily on the customer’s day-to-day routine. Rather than requiring customers to go to their home bank or take time out from work to visit an alternative location, a bank, credit union, or other financial service organization can be seen as bringing the services to customers to fit into their lifestyle. This can open up new market opportunities and generate new revenues, yet these are difficult to identify by traditional market analysis tools.

That is why segmentation is so valuable. Segmentation data breaks down and identifies customers into different consumer types based on important demographic and socioeconomic characteristics. By applying a segmentation code to customer records, new insight can be gained into which customers would be receptive to up-

## Maptoid: Individually Held Stocks

This map shows the balance for individually held stocks per household. The darker the brown color, the higher the potential.



selling and cross-selling opportunities. Analysts can identify the customer segments that might respond best to promotions or be receptive to niche products. In addition, customer segmentation can identify the preferred media through which to reach and retain these customers.

ESRI's segmentation system, Community Tapestry, divides all U.S. neighborhoods into one of 65 segments based on demographic and socioeconomic attributes. Other datasets with different classifications are available across the world and are supported by ESRI software and analysis. The Community Tapestry "slices of America" can be used at the detailed neighborhood level or grouped together to form a picture at various levels of detail. For a broader view of markets, the Community Tapestry segments are grouped into 12 LifeMode summary groups based on lifestyle and affluence while the 11 Urbanization groups are coded according to population density and affluence. This means that financial institutions can search for and identify customers based on their geographic concentration or distribution as well as the spread across different segments and lifestyles.

By applying Community Tapestry segmentation models, a bank can learn that specific customers may not respond well to direct mail promotions but that they customarily read the newspaper's financial section, prefer to use a financial planner, and contribute regularly to a retirement program. For more information about Community Tapestry, visit [www.esri.com/tapestry](http://www.esri.com/tapestry).

Armed with detailed customer information and new methods of linking clients to preferences and likely activities, banks can be much more successful in designing products and services that best fit their most profitable customers' needs. GIS solutions from ESRI help a bank keep their best clients, reach them in a more effective and appropriate way, and find more like them. In this highly competitive business environment, banks need every advantage they can get. A thorough knowledge of customers' needs and requirements gained from GIS analysis underlies the geographic advantage.

For more comprehensive information about how segmentation data can be used effectively by banks, read "Using Community Tapestry to Cross-Sell to Your MCIF" beginning on page 7.

## Hurricanes Have Lasting Impact on Demographic Measurements

Forecasts of dramatic changes are not popular; forecasts of catastrophic change even less so. Every now and then, an unforeseen event causes us to reevaluate how we use forecast data in business planning. Projections must be derived from current events and past trends. The past and the present conditions are known, so the future can be extrapolated from this knowledge base. The force of the 2005 storms in the southeastern United States was unprecedented, as were the results. Therefore, none of the July 2005 demographic data forecasts could include the catastrophic effects that Hurricanes Katrina, Rita, and Wilma would bring to Florida and the Gulf Coast communities in Alabama, Louisiana, Mississippi, and Texas. Businesses that relied on population forecasts and demographic profiles for these areas have had to rethink and reformulate their market plans as a result.

Gauging the effects of these storms is exacerbated by a number of things such as the lack of information from our usual data sources. Estimates for 2005 were based on a midyear date of July 1—before the storms changed the profile of many of these communities. Databases that are normally continually updated have not been revised to incorporate the loss of population and businesses in the impacted areas because the situation is still "too fluid" and can lack ground truth.

Estimation processes that are employed for normal population growth can be invalidated by natural disasters and other sudden events. For example, aerial imagery can be misleading. Houses that were completely destroyed along the Gulf Coast may be shown as only a foundation slab or steps that lead nowhere. In New Orleans, abandoned houses that were flooded by the levee breaches are still standing. From aerial photographs, they appear untouched. Only the water lines reveal the underlying damage to the houses.

ESRI recognized the need to reevaluate and recalculate population and lifestyle estimates for the areas hit by the 2005 storms. Businesses lacked a vital, up-to-date, and realistic picture of the changes that have occurred in these communities. Reconstruction and the correct balancing of resource to business potential requires accurate and validated population forecasts.

ESRI has pioneered the investigation and integration of new sources of information to estimate the effects of Hurricanes Katrina, Rita, and Wilma. These are culled from agencies that respond to disasters, news reports, and fieldwork in the impacted areas. Some of the information is conflicting; all of it is subject to change and revision. Despite this, the revised demographic profile of the areas provides a key insight into business potential.

The following figures provide a snapshot of what ESRI's data development team learned as of February 2006:

- Housing units destroyed or significantly damaged: More than 470,000
- Population evacuated: More than 1,000,000
- Evacuees in Louisiana: More than 400,000
- Evacuees in Mississippi: More than 100,000
- Evacuees in Texas: More than 200,000
- FEMA applications for assistance: More than 800,000
- Official death toll as of November 2005: 1,306

These numbers will change as new facts become available. No one yet knows the full impact that these storms inflicted on the southern United States. As recovery and rebuilding continue, businesses and communities will respond to the challenges and opportunities confronting them.

For more information about ESRI's demographic data and the impact of the 2005 storms on business and lifestyle information, call 1-800-292-2224 or visit [www.esri.com/demographicdata](http://www.esri.com/demographicdata).

## Interview with Simon Thompson, ESRI

*BusinessGeoInfo* sat down with Simon Thompson, ESRI commercial business industry manager, to discuss ESRI's vision for GIS in financial institutions and what the coming year would bring in terms of technology, data, and applications.

**Q: How is GIS important to banks?**

**Thompson:** Banking is a knowledge-intensive business. People in and out of the financial services industry are often surprised at how much data is generated during normal day-to-day activities. When you see it for yourself, you genuinely understand the importance of record keeping, data management, process monitoring, and business intelligence to these organizations.

Each transaction generates another piece of knowledge. This knowledge is more often than not tied to a person. By linking this knowledge using space and time, as in a GIS, a new type of awareness is created, an awareness that can help any bank or financial institution understand its data and, ultimately, its customers better.

**Q: What differentiates ESRI GIS?**

**Thompson:** ESRI GIS allows customers to consistently integrate software, data, and applications into their business knowledge. ESRI GIS gives them the expertise to meet the goals and priorities they set.

ESRI GIS can be used across the enterprise for everything from traditional hard-copy reports to site planning, market analysis, executive dashboards, and risk management. This reflects an open software architecture and breadth of support ESRI and its partners can provide. Together, we work with our customers to provide them with the best platform and framework to integrate GIS into their business processes. This makes invest-

ment in ESRI GIS the best possible solution for any customer needing to connect GIS to their business processes all along the decision chain.

**Q: How can ESRI GIS help banks manage their resources better?**

**Thompson:** Banks have heavy exposure through lending on commercial, retail, and residential development. Compliance and corporate governance mandates such as Basel II, CRA, and Home Mortgage Disclosure Act (HMDA) bring about new forms of information and risk management. ESRI GIS is helping banks comply with mandates in a way that supports business priorities and objectives. Adding a spatial dimension to this statistical, operational, and monetary data can give a more valuable and insightful viewpoint.

Banks define their business rules and handle exceptions as part of a daily routine. A GIS-extended view of these operations and activities builds new capabilities in many ways. It enables better service planning and optimization, extends the effectiveness and profitability of customer management, improves customer retention, and brings customers to the ATM and branch network. These are just a few of the many ways our financial services clients are benefiting from ESRI GIS.

**Q: How can a bank easily get into GIS?**

**Thompson:** ESRI has a range of solutions that can meet the differing needs of banks. Perhaps the easiest and most affordable approach is to use ESRI Business Analyst Online. This is an online subscription-based application that requires no software and data expenditure from the bank. It is a dedicated site selection and demographic

modeling application built with ESRI Web services and extensive household, consumer, and business-related data sources.

Many banks use Business Analyst Online in addition to their core ESRI GIS software products and dedicated business applications. Desktop products such as ArcGIS Business Analyst yield insight into customer habits, preferences, and purchasing potential. This is easily integrated into a bank's own data to identify the best way of tailoring services to individual customers' characteristics, needs, or preferences. Both Business Analyst Online and ArcGIS Business Analyst provide an excellent entry point for a bank.

**Q: What does the next year have to offer in regard to banking and GIS?**

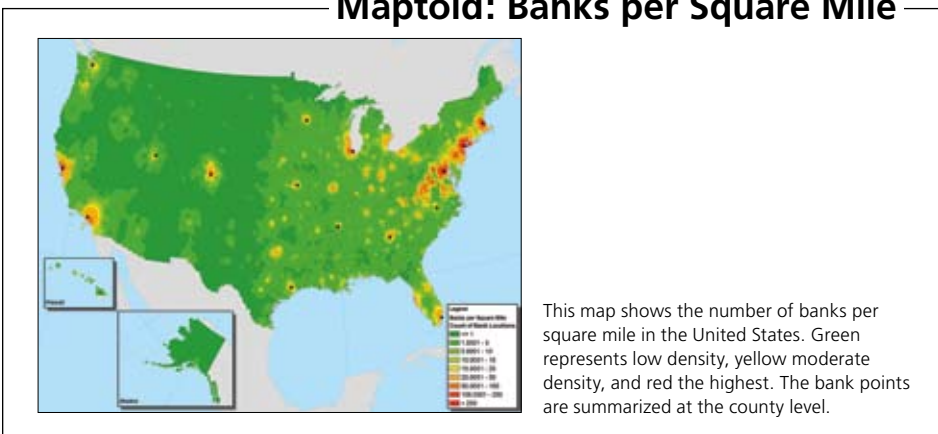
**Thompson:** ESRI is lucky enough to count 20 of the top 25 financial institutions in the United States (based on asset size) as customers. From these mega-organizations to smaller regional credit unions, a common thread is the need to respond to market change through better understanding and integration of customer and transaction-related information.

Improving customer understanding and business-line demand has been important for many years. Customer retention and the creation of new income-producing sources is a vital part of a bank's operation. Consequently, this area will continue to grow, allied with the increased acceptance of business intelligence and customer analytics. This combination of standard business software and integration of spatial analysis with statistical analysis is accelerating growth and acceptance at the enterprise level.

Banks are also becoming more diverse businesses. The broadening of services, new product mixes, and highly tailored offerings are driving renewed emphasis on market understanding and segmentation. Linking a bank's own information to external sources and activity-focused commercial datasets is especially important. GIS has a crucial role to play in understanding competitive pressure, helping banks with the decision-making processes and in executing successful response to changing business climates.

Ultimately the success of any customer-centric business focus is tied to its ability to achieve better levels of data collaboration, analysis, and reporting. This is especially important across the enterprise. GIS has, and will continue to have, a significant role in facilitating this.

### Maptoid: Banks per Square Mile



# Using Community Tapestry to Cross-Sell to Your MCIF

by Dan Primavera

Financial institutions understand the Master Customer Information File (MCIF) contains valuable information about their customers. Using one of the humblest data elements in MCIF, the customer's street address, financial service marketers can yield a bonanza of information. The street address permits financial institutions to append a Tapestry code to each customer record based on the neighborhood in which he/she lives.

Community Tapestry is ESRI's lifestyle segmentation system that provides an accurate, detailed description of America's neighborhoods and classifies them into one of 65 Tapestry segments. These segments are based on demographic variables such as age, income, home value, occupation, household type, education, and consumer behavior characteristics. Thus, banks create customer profiles based on Tapestry codes, allowing them to answer questions such as Who are our customers? What do they buy? How should we reach them?

Tapestry profiles typically identify 6 to 12 key customer segments. Once identified, these segments can be located geographically for de novo applications to create proximity marketing campaigns around each branch and advertise financial products to those customer segments that are most likely to utilize them.

The example below shows a Tapestry profile and grid for an MCIF for a local branch with 1,294 household relationships. Of the 65 possible Tapestry segments, 11 segments were identified as being important to this bank branch.

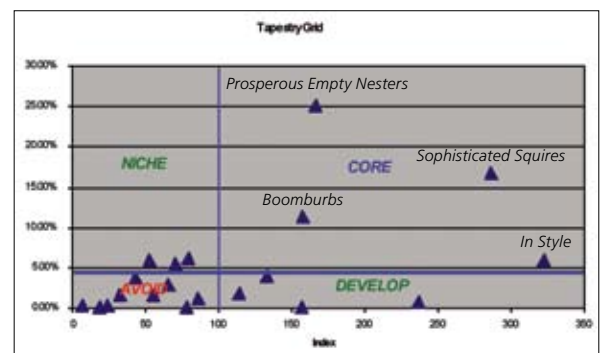
Tapestry Segment	Customer Households	Customer %	Branch Area Households	Branch Area %	Index*	Tapestry Quadrant
4 Boomburbs	147	11.36%	2,050	7.24%	157	Core
6 Sophisticated Squires	218	16.85%	1,666	5.88%	286	Core
13 In Style	77	5.95%	523	1.85%	322	Core
14 Prosperous Empty Nesters	325	25.12%	4,278	15.10%	166	Core
7 Exurbanites	11	0.85%	102	0.36%	236	Develop
10 Pleasant-Ville	24	1.85%	463	1.63%	113	Develop
24 Main Street, USA	51	3.94%	841	2.97%	133	Develop
35 International Marketplace	3	0.23%	42	0.15%	156	Develop
28 Aspiring Young Families	79	6.11%	2,179	7.69%	79	Niche
43 The Elders	77	5.95%	3,211	11.33%	53	Niche
49 Senior Sun Seekers	72	5.56%	2,248	7.93%	70	Niche
1 Top Rung	2	0.15%	56	0.20%	78	Avoid
12 Up and Coming Families	38	2.94%	1,270	4.48%	66	Avoid
15 Silver and Gold	22	1.70%	1,503	5.31%	32	Avoid
16 Enterprising Professionals	2	0.15%	234	0.83%	19	Avoid
19 Milk and Cookies	17	1.31%	434	1.53%	86	Avoid
21 Urban Villages	6	0.46%	1,973	6.96%	7	Avoid
47 Las Casas	6	0.46%	553	1.95%	24	Avoid
57 Simple Living	21	1.62%	828	2.92%	56	Avoid
58 NeWest Residents	49	3.79%	2,498	8.82%	43	Avoid
20 City Lights	0	0.00%	720	2.54%	0	n/a
52 Inner City Tenants	0	0.00%	659	2.33%	0	n/a
<b>TOTAL</b>	<b>1,294</b>	<b>100.00%</b>	<b>28,331</b>	<b>100.00%</b>	<b>100</b>	

\*An index is tabulated to represent a value of 100 as the average demand. A value of more than 100 represents high demand and a value of less than 100 represents low demand. In this example, Boomburbs, with an index of 157, implies that customer households in Boomburb neighborhoods are probably 57 percent more likely to be customers than other households in the branch market.

The Tapestry grid graphically shows us the key segments. Core segments need more of the same marketing. Niche segments need product options that better meet their specific needs. Develop segments need to hear more about the product or service, in other words, more marketing. Avoid segments still constitute a portion of the customers, but scarce product and marketing dollars are best spent elsewhere.

The Core segments, and their cross-sell opportunities ranked by average opportunity, are as follows (the higher the index, the better the opportunity):

Cross-Sell Opportunities**	Boomburbs	Sophisticated Squires	In Style	Prosperous Empty Nesters
Average monthly credit card expend.: \$701+	238	190	156	148
Have second mortgage-equity	180	187	129	161
Have home mortgage	192	165	135	141
Have home equity line of credit	159	158	148	164
Have 401(k) retirement savings	194	152	142	137
Have mortgage refinance	236	135	127	124
Have money market account	172	151	134	164
Have IRA retirement savings	170	136	136	154
Have overdraft protection	172	140	119	130
Own annuities	138	119	135	169
Own securities	148	140	131	138
Have personal line of credit	141	153	121	133
Have auto loan for new car	164	145	126	109
Own CD	135	105	139	113
Have savings account	131	119	120	110
Have education loan	168	95	99	91
Have personal loan	88	104	75	82



\*\*ESRI used data from Mediamark Research Inc. (MRI) to compute the MPI indexes.

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### Credit Union Services Network

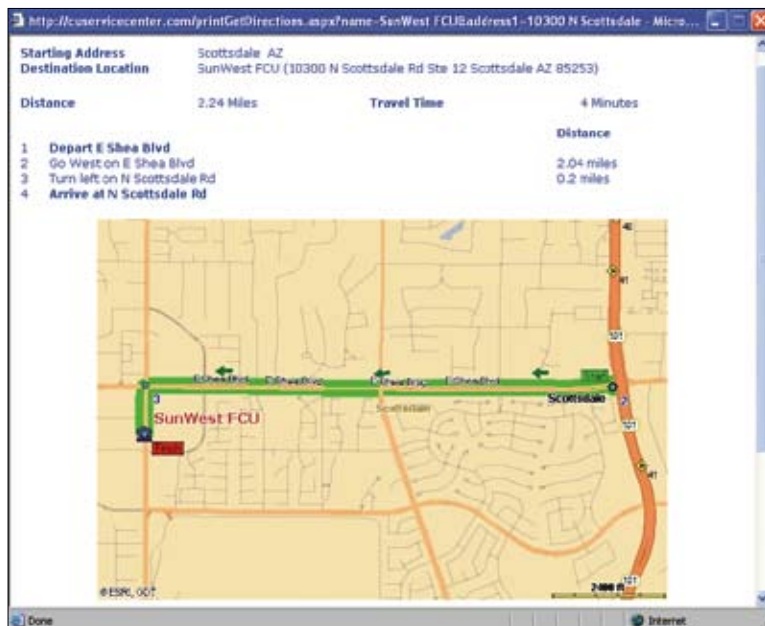
A user can also select a state from the company's national map or view recent openings on its Recent Openings page. A list of service centers is returned once a selection is made. Then the user picks a service center, provides a valid starting address, and receives turn-by-turn directions to that particular location.

Another unique aspect of the application is its ability to search for service centers within a user-defined radius. This feature allows all users of CUSC's network to quickly find door-to-door directions for any one of more than 2,000 locations available across the country.

The ability to find a specific service center using a number of different methods creates a flexible interface that members feel is a key feature on the Web page. Customizing the application interface to look and feel like the other CUSC pages improves the overall experience for the user.

### Results

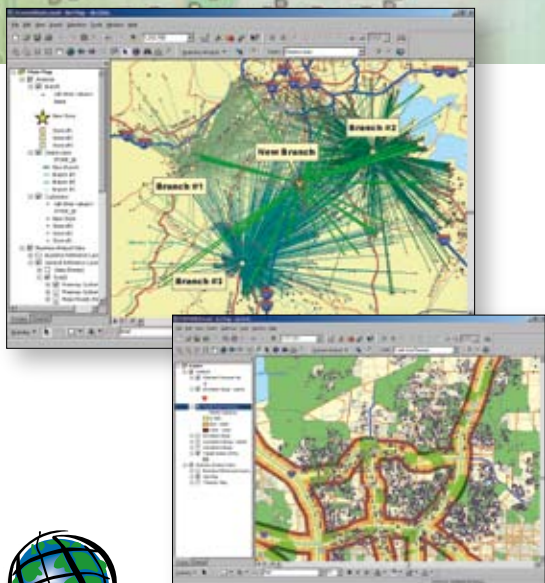
"Through ESRI's RouteMAP IMS solution, we have been able to provide our customers with an easy-to-use interface that generates door-to-door directions to any of our more than 2,000 service centers across the country. This service has proven time and time again to be a very large benefit to our network and a valuable tool used by many," says Meadows.



Online map shows customer route and time to service center.

# ESRI Business GeoInfo Summit

## GIS Intelligence for the Enterprise



April 23–25, 2007

Westin Park Central  
Dallas, Texas

ESRI's **Business GeoInfo Summit** offers two days of concentrated sessions and demonstrations of GIS use in business.

Take this opportunity to meet and learn from leaders in your industry. See how GIS has helped these businesses become more efficient and responsive to their customers.

Registration includes the Plenary Session with keynote address, software demonstrations, breakout sessions, GIS Solutions EXPO, Map Gallery, Welcome Social, and lunch on Monday and Tuesday.

For more information about Business GeoInfo Summit visit [www.esri.com/geoinfo](http://www.esri.com/geoinfo)

## Five Steps toward Spatially Aware Financial Institutions Enterprise-Wide Benefits and Beyond

by Grant I. Thrall and Simon Thompson

GIS and spatial technology has a long history of adoption in the banking industry. Banks and financial institutions have diversified and now offer extended services and customer offerings. GIS is now recognized as the must-have tool for improving customer geodemographic and market analysis to maximize asset return and improve the accuracy of investment forecasts of the customer segment or market area. GIS is now also considered to be invaluable to institutional operations and core financial services planning. Those that invest in greater use of geospatial technology and analysis have the potential to lower exposure to risk; reduce operations costs; and increase profits per customer, branch, territory, or region.

Regulatory requirements mean that many financial institutions are already paying to spatially enable their data. In the United States, the Community Reinvestment Act and other legislation requires financial institutions to produce periodic reports that are geographically focused. These depict where deposits are received and where loans are made, applied for, or denied. By converting this textual information into interactive maps and spatial analysis, banks and other financial institutions can improve understanding of their customer base, identify untapped submarkets, and better align or balance business resources to commercial opportunity.

Many organizations have made compliance reporting a focal point for greater profit focus and improved risk management. The geographic data that is vital for compliance documentation can also supplement and improve a financial organization's territory management strategy and customer profiling projects.

Five key strategies for improved business performance with GIS follow:

### 1. Improve trade area understanding.

Turn intuition and observation into evidence and qualified scorecards.

### 2. Respond more effectively to market trends.

Get insight into what is happening within and between different market segments and how that impacts segments and the operational network.

### 3. Define core target segments and underexploited niches.

“Slice and dice” customer interaction by geography and territory to define submarkets and expose potential areas of operation or risk. Prioritize and market these opportunities.

### 4. See the big picture yet understand detail.

Gain the geographic advantage by understanding the hierarchy of markets and the way these interact across branches, regions, or the nation. Explore and examine competitive influences and identify business expansion applications.

### 5. Apply geospatial intelligence across multiple business functions.

Leverage the investment in data or customer transactions, demographic profiling, and economic and social change to provide greater intelligence for decision making and business planning.

Financial institutions have invested in ESRI technology for many different business functions—from traditional hard-copy reports and maps to gaining key business insight via dashboard and executive information systems (EIS) or more traditional market and customer analytics. Geography lies at the heart of many financial transaction and commercial activities. Banks and financial service companies must track and understand their income-producing assets (IPA) if they are to maintain profitability and a strong competitive position. A geospatially extended approach to information analysis and business decision making is a clear way to gain a concise picture of these assets and transactions. Those that have already adopted and deployed GIS technology are now enjoying a competitive advantage over those that remain fixed on a pure textual and nonspatial database analysis.

## Retail Profit Management

Retail Profit Management (RPM) is a consulting company founded in 1990 by corporate planners and management information system (MIS) officers to help organizations better understand and more effectively approach their markets and communities. RPM works in a number of sectors but specializes in retail financial services, with clients ranging from major insurance companies, banks, and credit unions to a number of midsize and smaller financial institutions. RPM has developed numerous client-oriented and business process-focused solutions for its financial services clients. These include mapping and spatial analysis for fair lending compliance and marketing, site selection, and network optimization. Recent successful projects and deployments include Marketing Customer Information File (MCIF) marketing customer database selection and development, customer relationship management systems, applied profitability analysis, and primary consumer research.



*continued from page 7*

### Using Community Tapestry to Cross-Sell to Your MCIF

The final step in the process is to take action.

The marketing department can create specific marketing programs for each of the segments in your branch market area. The content of the campaign should focus on the financial products that are preferred by the customers in MCIF. In conclusion, we see that one data element, the customer's street address, from the MCIF combined with GIS technology can yield significant marketing intelligence.

# Third Annual ESRI Business GeoInfo Summit



ESRI's Business GeoInfo Summit was held April 30–May 2, 2006, at the Boston Marriott Copley Place in Boston, Massachusetts. The conference is the only specialized GIS in business conference held in the United States. More than 300 attendees enjoyed an agenda filled with two days of informative sessions and demonstrations across commercial arenas including retail, insurance, banking, real estate, and manufacturing. A key objective of the conference was for industry leaders and GIS advocates to share their experience and knowledge with corporate executives, line of business managers, and application specialists. The conference successfully delivered on its theme of demonstrating how GIS software and data improve many commercial activities, empower better decision making, assist in business transformation, and increase return on investment and assets.

## Day 1

Monday's general session was conducted by president Jack Dangermond and senior ESRI staff, followed by presentations by industry leaders. Dangermond acknowledged the growth of GIS

beyond the traditional GIS community and into business processes and activities in particular. He outlined how he sees GIS becoming a more integral and connected part of the information infrastructure of many organizations. "The unique integration capabilities of GIS allow disparate datasets to be brought together to create a complete picture of any situation," stated Dangermond. "For commercial organizations, this helps them run their businesses more effectively and provides a new way of benefiting everyone in the company, from the shareholders to management, employees, and customers."

The ESRI product demonstrations and keynote sessions continued on this theme, showcasing examples testifying to the value of GIS in enabling businesses to make better decisions and provide improvements throughout the organization and to stakeholders.

Keynote presenters included Don Hinman, executive vice president and senior principal for Allant Professional Services; Richard E. Stier, executive manager of Strategic Network Planning, Dealer Network Development, General Motors (GM); and John Stavrakas, PE, di-

rector of Engineering, New England Region, KeySpan Energy.

## Allant Professional Services

As the leader of Allant's Predictive Intelligence engines strategy, Hinman champions automation of strategic and analytic services enabling marketers to execute client acquisition, growth, and retention strategies. He discussed the evolution of data segmentation and state-of-the-art techniques for marketing-related activities. His keynote, entitled Why Many Marketers Are GIS/Geo Illiterate Spectators, introduced the idea of using geography in conjunction with corporate data to extend and improve the performance of outbound campaigns.

Hinman's example of using geodemographic data in an insurance company scenario highlighted the importance of using a wide range of data and analysis to build more informative layers of information, improving the effectiveness of the campaigns. "Once the best locations and the high potential areas for customers are mapped, individual data models can be developed to predict what a company needs to attract potential clients," said Hinman.

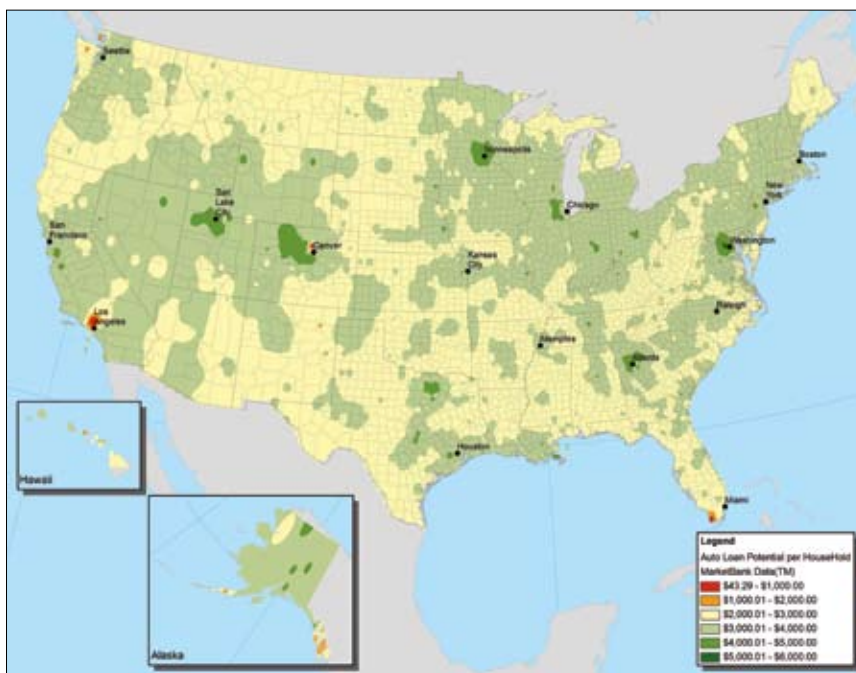
## General Motors

Stier's career spans 33 years with GM in various finance and sales positions. For the last 17 years, he has been focused on GM's U.S. dealer network development. Stier discussed how GM uses ESRI GIS across the enterprise from human resources and facility management to manufacturing and marketing.

With more than 7,000 GM dealerships and 14,000 franchises, GM has the largest number of franchised dealers in the United States. Optimizing the dealer network is crucial to the company's success as a consistent world-class retail channel. "Working with ESRI has helped us maintain our high standards," said Stier. "We are able to get the best retailing locations in the market using GIS. This has improved our dealership image and aligned with our brands."

GM is using ESRI GIS software and data to optimize its retail network using predicted and optimized sales volume per outlet. The system is used to balance and align the number, type, and location of dealers. This forms a major part of the planning process, ensuring dealerships achieve sales performance and forecast goals while providing the greatest convenience for GM customers.

## Maptoid: Auto Loan Potential



This map shows the auto loan potential standardized on the number of households per county. This means that the total county value for "auto loan potential" was divided by the total number of households to show the potential value per household.

## KeySpan Energy

Stavrakas, a 20-year veteran of KeySpan Energy, discussed the enterprise use of GIS for customer relationship management in the utilities industry. KeySpan Energy is the largest gas distribution company in the northeastern United States, serving 2.5 million customers within a territory covering more than 4,300 square miles.

Stavrakas discussed how KeySpan stores, analyzes, and integrates a wealth of corporate information to improve customer service and business performance. Customer data and work order management and marketing information are linked to leak management, engineering systems, and other corporate systems using geospatial views of the organization and its network.

This data is used to model distribution networks, build main and service pipelines, maintain records of physical assets, and make intelligent choices regarding growth opportunities. By integrating this data with GIS, KeySpan is able to make more informed decisions regarding its overall corporate strategy. Asset management, capital expenditures, regulatory requirements, site selection, environmental data, emergency preparedness, marketing demographics, and service expansion all play a role in the decision-making process.

"All database and management systems having a geospatial component of data can be managed using a GIS platform," said Stavrakas. "This creates business process improvement opportunities driven by spatial data relationships."

## Day 2

Tuesday's breakout sessions continued to provide examples of GIS technology and data improving business functions and expanding corporate capabilities. The sessions were led by business professionals focusing on insurance, banking, marketing analysis, site location, GIS management,

and enterprise integration from such organizations as the Federal Deposit Insurance Agency, BostonCoach, HSBC, and Apex Office Supply.

Attendees left the conference with a clear understanding of the value and importance of GIS in today's business. The conference provided numerous illustrations of how commercial organizations are benefiting from integrating data with a geographic context into their business processes. Speakers, workshop leaders, and session presenters reinforced how GIS technology provides a more integrated and intuitive view of the business landscape. This allows them to make more informed and appropriate business decisions based on better understanding, supplementary data, or more qualified analysis.

Conference delegates shared valuable experiences in the vital role GIS plays in improving asset management, integrating real-time data, extending in-field and location-based services, or enabling collaboration across the organization and over the Internet. Whether incorporated into a small or large organization, GIS is emerging as one of the most intuitive and successful ways to manage business processes and needs. ESRI's open technology supports all the necessary IT standards to not only integrate GIS into business systems but embed its use into crucial operational and client-focused functions within the organization. By transforming the way organizations look after their assets, serve their customers, make decisions, and communicate, GIS will continue to expand possibilities and deliver benefits to all those who have interest in the future success of the business.

Make plans now to join ESRI at the next Business GeoInfo Summit from April 23 to 25, 2007, in Dallas, Texas.

For more information, visit [www.esri.com/geoinfo](http://www.esri.com/geoinfo).



## Business GeoInfo Summit

April 23–25, 2007 • Dallas, TX

### Save the Date

For the next Business GeoInfo Summit

April 23–25, 2007

Westin Park Central

Dallas, Texas

## ESRI on the Road

Visit ESRI at the following trade shows and talk to industry experts.

### BAI 2006

November 14–17  
Las Vegas, Nevada

### NRF 2007

January 13–16  
Jacob C. Javits Convention Center  
New York City, New York  
Booth #2322

### 2007 ESRI International Business Partner Conference

March 17–20  
Palm Springs, California

### 2007 ESRI Developer Summit

March 20–22  
Palm Springs, California

### Business GeoInfo Summit '07

April 23–25  
Westin Park Central  
Dallas, Texas

### 2007 ESRI International User Conference

June 18–22  
San Diego, California



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