# Credit Union of Texas Maps Out Growth Using Spatial Analysis
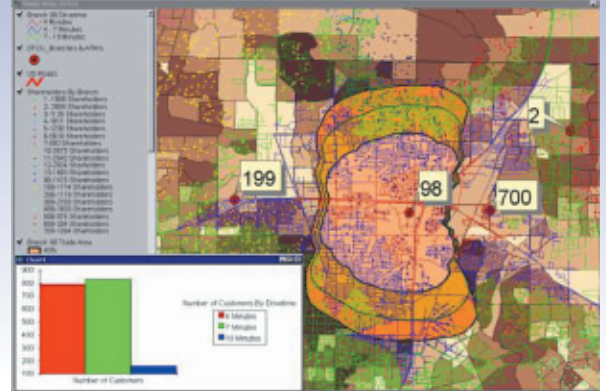
By Roy W. Urrico



Credit Union of Texas, a $760 million company, noticed a trend among its competitors toward one-to-one marketing about three years ago. "We realized that the shotgun approach to marketing was not going to work for us too much longer," says Jerry Thompson, VP/CIO at Credit Union of Texas. The full-service credit union decided to implement a customer relationship system containing a spatial analysis component that has been instrumental in increasing its potential customer base almost tenfold.

The Credit Union of Texas chose a collection of IBM's Business Intelligence (BI) products—to harvest, manage, and analyze data—integrated with ESRI® ArcView® Business Analyst, a system that Thompson recalls "literally blew our socks off." ArcView uses geographic information system (GIS) capabilities to allow the credit union to evaluate market area, demographics, and locations and to generate maps to show customer location and potential branch placement. (On May 9, ESRI of Redlands, California, reached a formal agreement to allow IBM consultants to integrate ESRI's spatial analysis software into IBM BI offerings.)

**Vital to Expansion**

The Credit Union of Texas system, launched last December, incorporates IBM® DB2® Universal Database; Visual Warehouse; Business Objects OLAP; DB2 Intelligent Miner; and profitability, general ledger, and customer relationship management (CRM) components of the EZMart financial data warehouse.

The BI combination and ESRI's ArcView Business Analyst proved vital when the occupation-based credit union made its presentation to the Texas Credit Union department to switch to a community-based charter this past spring.

"The industry is moving away from occupational-based [credit unions] to community based," says Thompson. Plus, an occupation-based charter restricts Credit Union of Texas, which currently has about 145,000 members, to a potential member base of around 250,000. By broadening its reach to include residents in a five-county area around Dallas, the credit union increased its prospective membership to an estimated 2.2 million.

To change the charter, Credit Union of Texas had to show how members could be served by becoming community based. "The State wants you to prove you can service the people you are going after before they grant the changes from occupation to community," explains Thompson.

Credit Union of Texas used their business intelligence system to gather data on its current members and locate where prospective members would be after a charter revision. That information was then plotted using ArcView Business Analyst. Credit Union of Texas drew maps by districts and created a time line illustrating a two-branch-per-year expansion. The credit union also calculated drive times (the time that patrons can be expected to travel to open accounts or go to a branch location) using the industry standard of seven to eight minutes in cities.

The data was sent to Credit Union of Texas department administrators for review. Like Credit Union of Texas earlier, Texas officials were blown away by the presentation. "The State regulators had never gotten anything so sophisticated," says Thompson. "They were very impressed." The results were equally impressive as Credit Union of Texas recently received approval for the charter change.

## Helping Branch Placement and Marketing

ArcView software's effectiveness came into play in two other cases.

- "We just opened a new branch in a suburb that is relatively close to a branch that was overloaded," Thompson says. "We wanted the drain off." They mapped out intersecting circles from the two branch locations showing two to three miles of overlapping members. "We estimated a 20 percent drain off, and I think we've got about 25 percent from the old branch using the new branch."
- An IBM profitability module and ArcView were important in a marketing project as well. Credit Union of Texas segmented the top 10 percent of its client base and pinpointed each client's location for better-targeted marketing campaigns.

## Getting the Picture

The BI solution not only gives Credit Union of Texas the ability to recognize spatial patterns on branch placement more effectively but "quickly demonstrates that when presenting a planned expansion to the Board of Directors," says Thompson.

Thompson believes the mapping ability of ArcView Business Analyst greatly enhances data. "The Board of Directors likes to see visuals. Where do the people live? Where are we spending that money on direct marketing?" He adds that it is much faster for people to understand information when they see it on a map than when it is in a table. "The bottom line is these tools add new meaning to the term 'a picture is worth a thousand words,'" says Thompson. "It is a very, very robust tool."

## The System

If Credit Union of Texas appears to live on the technological cutting edge, it is not a mirage. "We've stayed the course—staying on the leading edge of technology," states Thompson.

Their core system, "a highly customized system" from Concentrex, is another example. "We have a true client/server model that runs online, real time, all the time. It is not batches," states Thompson. The core system runs on an IBM RS/6000™ S70. It is driven over a TCP/IP. The financial institution posts anywhere from 2.5 to 3 million transactions a month. The credit union also has "a near real-time lending system."

They have 450 workstations. Most of them are Dell™ OptiPlex™ 400s. They have a gigabyte backbone with 100 MB per second connection to each workstation

over a Windows NT® network. The BI solution runs on an IBM Netfinity 7000-M10 server, running Windows NT.

"IBM's Business Intelligence offerings are based on an open architecture foundation," explains Kirk Boothe, principal, Business Intelligence Financial Solutions/Business Intelligence Consulting & Services for IBM, which worked with Credit Union of Texas.

EZMart links with ArcView Business Analyst to assess customer profitability, segmentation, demographics, and other key measures, says Boothe. "Then Business Analyst can apply advanced geocoding and spatial queries to this data for a variety of business requirements such as optimized branch/ATM locations and targeted customer marketing."

## Expanding Use

ArcView Business Analyst resides on Credit Union of Texas chief operating officer and business analyst workstations. There is also a thin client component (ArcExplorer™) that they are rolling out to senior management, who can look at it and do a little manipulation. "They can't change core data, but they can change the appearance and 'slice and dice,'" says Thompson.

Down the road, Credit Union of Texas also wants to be able to give its members general branch and ATM locations using ArcView Business Analyst on its Web page.

## About ESRI

ESRI, based in Redlands, California, develops GIS software for more than 300,000 clients worldwide. The company customizes software for more than 60 different types of industries including banking and insurance, real estate, education, communications, retail and commercial business, and governments. Using GIS, says Tony Burns of ESRI, is important "for any business to understand who their customers are and where they are located."

ESRI also provides consulting, implementation, and technical support services. In addition to its headquarters in California, ESRI has regional offices throughout the United States, international distributors in more than 229 countries, and more than 1,000 resellers and developers.

**Contact: call Tony Burns, at 909-793-2853, ext. 1595, or e-mail at tburns@esri.com.**

## ESRI

380 New York Street
Redlands, California
92373-8100, USA

For more information,
call ESRI at
**1-800-447-9778**

Send e-mail inquiries to
**info@esri.com**

Visit ESRI's Web page at
**www.esri.com**