

# BusinessGeoInfo

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GIS for Business Solutions

## Managing Risk in the Worst of Times Balboa Insurance Group Creates an Easy Online Interface for Financial Services Clients

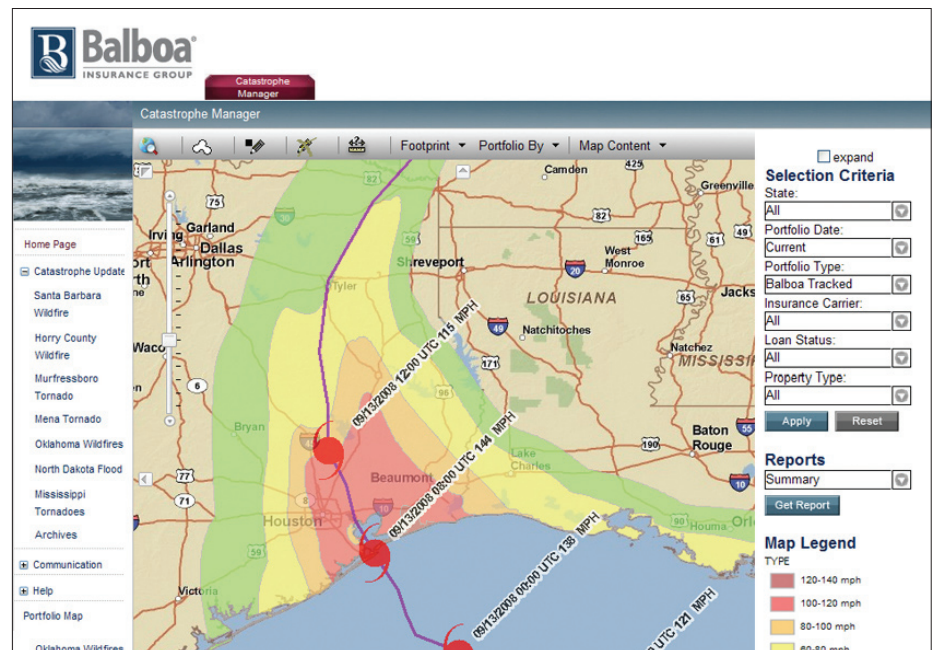
Catastrophic events, such as hurricanes, tornadoes, floods, fires, and earthquakes, put mortgage lenders' portfolios at significant risk. Since catastrophes take place throughout the country, Balboa Insurance Group vigilantly monitors them year-round. Now, with the help of ESRI's ArcGIS Server GIS software, Balboa's clients can view maps of catastrophes and gauge potential risks to their portfolios on the company's Catastrophe Manager Web site.

ArcGIS Server uses geographically referenced information to connect disparate data so it can be holistically viewed, analyzed, and presented in an easy-to-understand format, usually through a map interface. ArcGIS Server stores all its information in a relational database management system (RDBMS) so data can be managed in tabular format. Using a map instead of a table graph to display and explore data often reveals much more about a catastrophe.

Balboa also has access to additional data through ArcGIS Online, an online community that serves as a central online repository for users to easily share and find GIS data, maps, layers, services, and tools. With more accurate data, Balboa's clients can more precisely map where their loans are located for better estimates of risk and damage after a catastrophic event. The technology gives Balboa clients the information to begin asking themselves crucial questions, such as

- How likely is the risk of loss?
- How much overall monetary loss exposure is in the portfolio?
- How many loans are affected by a particular event?
- Does the borrower have enough insurance to cover the damage caused by the catastrophe?

Balboa created its own client application using .NET to access and use ArcGIS Server and the GIS data over the Internet. The application, called Catastrophe Viewer (CATViewer) is part of the company's Catastrophe Manager Web



Clients can view loan locations along with the geography of various events.

site, which keeps Balboa's financial services clients up-to-date during natural disasters by enabling them to view loan locations along with the geography of various events. Clients can view data and show results of different property risks including geographic concentrations, property values, and loan value. CATViewer allows Balboa's clients to apply risk and loss calculations for more accurate assessments. The interface was developed with the ArcGIS API for JavaScript, which allowed Balboa analysts to easily create an application merging GIS layers and other types of data from many sources into CATViewer.

CATViewer is accessed by the company's clients through a secure extranet using a login ID and password. Once logged in to the system, clients can track specific events and view their portfolios. For example, during the fires in Santa Barbara, California, in 2009, a lender could log

in and view a synopsis of the event, including information about the homes in the evacuation area and the percentage of homes in the affected area. The lender could then run a summary report on the impacted homes or export a detailed report of each loan in the impacted area.

While the CATViewer map may have shown that 100 houses within a lender's portfolio were within the boundary of the fire, the lender would still have to verify that those houses were, indeed, affected and, if so, to what extent.

Assisting those affected homeowners and communities with expediency and compassion is of paramount importance. "The system is a great way to help us respond quickly and determine where to send our mobile claims units so we can help those in the greatest need first," said Stephen Hunckler, senior vice president, senior customer service center executive, Central Claims, Balboa Insurance Group. "It saves time

and allows the adjusters to better plan their site visits and more effectively support their customers. In fact, our mobile claims units and bilingual associates have been on the scene so quickly, they've often helped customers with other insurance carriers."

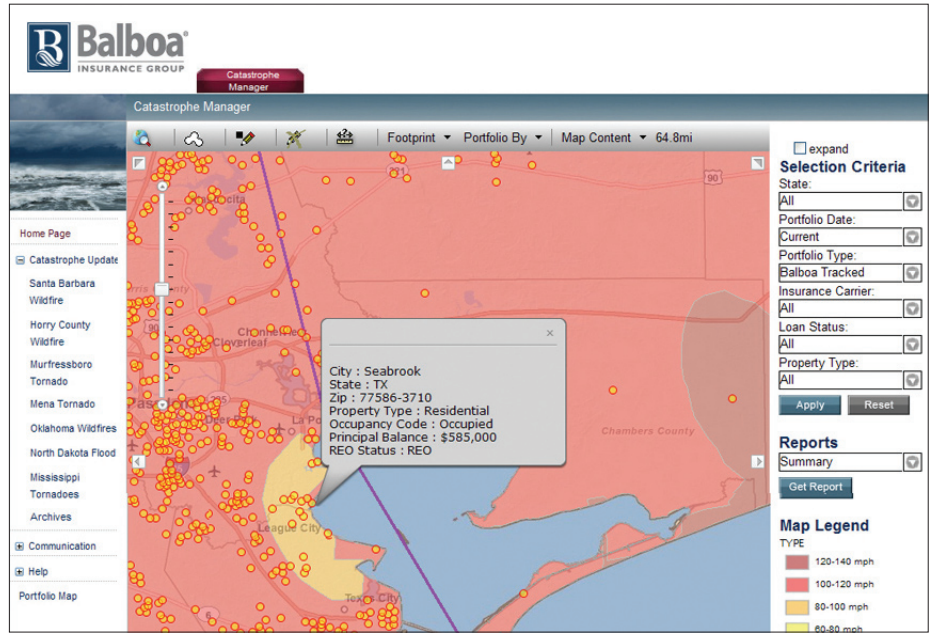
To aid stricken communities as soon as possible, Balboa uses many different datasets from ArcGIS Online, including satellite imagery, topographic maps, and street maps. These are extremely powerful tools, especially during a catastrophe. Balboa's clients can upload borrower information from their database into the system, maintaining up-to-date records of geocoded addresses with rooftop accuracy.

Balboa first began using mapping software about two years ago. While it was a definite improvement over using only tabular data to discern risk patterns and allocation, the first mapping system Balboa installed had room for improvement. The quality and size of the maps hindered the clients' ability to visually understand the current level of risk to their portfolios. Additionally, boundaries could be defined only at the ZIP Code level.

"This really became obvious to us when we were tracking fires during California's record 2007 fire season," said John Meadows, senior vice president, Product Management, Balboa Insurance Group. "Our ability to view fire damage based on ZIP Code parameters wasn't particularly helpful. If we could have viewed down to the neighborhood level and closer, then we could have more accurately pinpointed homes that were affected."

"In response to the amount of property damage that has occurred in the past, insurers are finding better ways to look more closely at their portfolios," added Mark McCoy, insurance solutions industry manager for ESRI. "The risk of bearing uninsured losses in an event today is higher than it has ever been because of property values and dense buildings. Insurers like Balboa need to be able to measure many different dimensions of risk and estimate the severity and breadth of potential loss under many different scenarios. GIS is the best technology to handle such sophisticated analysis."

GIS technology helps insurers and lenders be better prepared for natural disasters by being able to monitor and assess a portfolio by geography. It also allows them to quickly confirm that they have the appropriate reserves necessary to be financially prepared to assist their customers and protect their own bottom line.



The results of different property risks, including geographic concentrations, property values, and loan value, are viewed easily.

In addition to using the data stored in ArcGIS Server, the Balboa Catastrophe Modeling Team monitors specific catastrophes and gets additional data from key organizations such as the National Hurricane Center, National Oceanic and Atmospheric Administration (NOAA), the U.S. Geological Survey (USGS), and AccuWeather. Balboa uses all the information at its disposal to import storm and hurricane footprints for visualizing the storm path and help their clients assess damage.

Balboa has a world-class catastrophe management program that uses experienced associates and advanced technology to quickly mobilize after a catastrophe. Its Risk Modeling Team monitors multiple online and television broadcasts around the country to post updates immediately and keep the claims department, which provides 24/7 access for customers right after an event, apprised so it has the most accurate information to respond to clients' needs quickly. Understanding that customer service is crucial during a catastrophe, Balboa uses its tools to help anticipate customer needs and provide solid solutions.

For more information about how Balboa Insurance Group uses GIS software, e-mail catastrophe\_manager@balboainsurance.com. For more information on how ESRI GIS software is used in the insurance industry, visit [www.esri.com/insurance](http://www.esri.com/insurance).

For more than 20 years, Balboa Insurance Group, located in Southern California, has provided industry-leading risk management and loss mitigation solutions to financial institutions in the mortgage finance industry. If a collateralized property in the lender's portfolio is damaged, and the borrower does not have adequate hazard insurance, Balboa provides insurance that helps guarantee that there will be money available to repair the property.



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