Improving the Insurance Claims Management Process

By Mark McCoy

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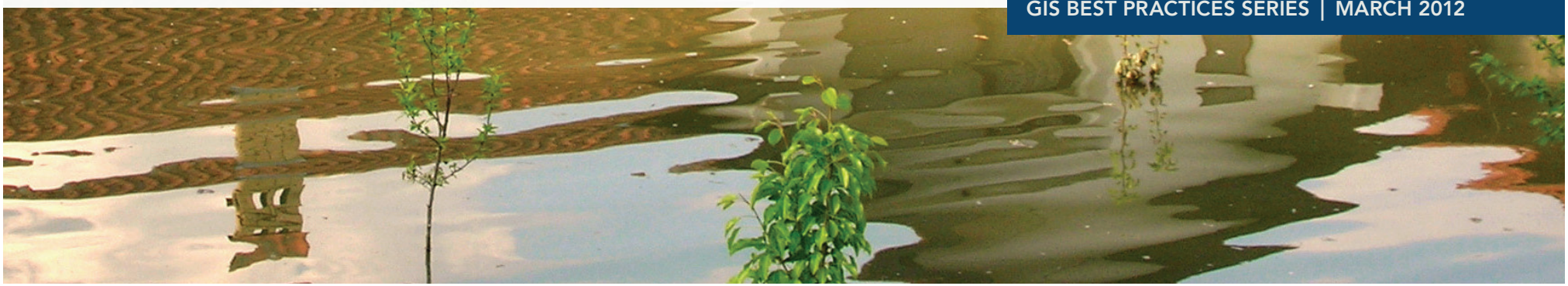

Table of Contents

3 How Can GIS Help the Claims Management Process?

3 About the Author

4 Integrating Intelligent Maps

5 Grabbing Hurricane Irene by the Tail

5 Why Location Intelligence?

6 Integrating Location into Claims Workflows

7 Crowdsourcing and Social Media

How Can GIS Help the Claims Management Process?

By Mark McCoy

This e-book sets forth the notion that the emerging field of spatially enabled insurance claims management will allow insurance organizations to be more efficient, cost-effective, and helpful.

Claims loss payouts and their related expenses are the most significant costs to insurance organizations and subsequently have the largest impact on underwriting profits. It is important to an insurance company's viability that this claims process be effective and efficient.

Historically, claims organizations have relied on a large pool of knowledgeable, highly skilled staff to provide effective customer service and support. However, as the American work force shrinks and businesses look for ways to improve worker effectiveness, increase productivity, and enhance customer satisfaction, it is imperative to automate the claims process.

Making an investment in technology can help claims process automation. This e-book describes how geographic information system (GIS) technology can be part of a more expedient claims process. GIS is a key component in modernizing the information technology (IT) of many organizations. By leveraging the data management, analysis, and visualization capabilities of GIS, claims agents are empowered to deliver services more efficiently.

About the Author

Mark McCoy is the insurance industry manager at Esri. He has more than 20 years of experience with a leading insurer in the United States, and he understands the complex challenges facing today's insurance companies.

Integrating Intelligent Maps

As the single largest expense for property and casualty (P&C) carriers, the claims management process is a focal point in driving increased customer satisfaction and underwriting profits. In fact, a recent study by Deloitte shows that improvement of a single percentage point in claims costs could return significant savings for insurers.

If this is true, what can be done to contain costs? The answer: build a workflow based on intelligent maps.

Think about the process of managing the response to a catastrophic weather event. Animated weather maps track the storm's path and intensity only. Once the storm makes landfall, the information about the impact and severity may be available, but there is no way to accurately gauge the true area or understand the extent of the damage that has occurred.

Today, responding to customers who have had losses depends on receiving their calls. Adjuster assignment schedules are based on the order in which calls are received instead of proximity to the location of the adjuster's last visit, which is more efficient. This lag in action can add time to the process, which often drives higher costs and can increase customer dissatisfaction.

Insurers that have built their claims management workflows on intelligent maps are achieving significantly better results. Real-time event tracking and geocoded customer points, integrated on maps by using GIS, simplify and improve the accurate identification of customers in the impact area. Customer information that is stored in the map is used before the event to make reverse 911 calls, plan triage support, and calculate maximum potential loss in real time. Intelligent maps, both in the office and on an adjuster's mobile device, efficiently route customer visits. Mobile maps also give adjusters access to location information, such as "before" photos, that improves their effectiveness at the loss site. Maps embedded in dashboards in the back office provide the easy-to-use tools the leadership team needs to effectively allocate staff, manage performance, and identify potential fraud. The integration of intelligent maps in the claims process holds the key to achieving a percentage point or more in the reduction of claims costs.

Grabbing Hurricane Irene by the Tail

Insurers around the World Use Interactive Mapping and Modeling to Understand Impacts of Hurricanes and Other Disasters

Because of the millions of people in its path along the East Coast of the United States, the wrath of Hurricane Irene turned into a major news story in August 2011.

The 2011 Atlantic Ocean hurricane season in the United States, which was more active than normal, also churned up Hurricanes Arlene, Bret, Cindy, Don, Emily, Franklin, Gert, Harvey, Katia, and 10 other storms.

Hurricanes and other natural disasters caused more than $265 billion in damage globally during the first half of 2011. While emergency response and government organizations play important roles in responding to these disasters, in most cases, it is insurance companies that cover the costs of rebuilding people's houses and businesses. Insurers must understand the risks associated with the policies they cover and ensure that they can pay claims when submitted.

Why Location Intelligence?

Understanding the likelihood—or, as they say in the insurance business, the risk—that an event such as a hurricane, flood, or earthquake could occur and damage property or harm people is at the heart of what insurers do.

Understanding risk at a given location has two primary benefits. First, insurers can use this information to ensure that their customers are as safe as possible—think about trimming brush and trees around houses and other structures in fire-prone areas—and that they carry the appropriate coverages for any catastrophe that might affect that location. Second, insurers can accurately rate the risk to ensure they are collecting appropriate premiums for the losses that are most likely to affect a particular risk.

Location intelligence also plays an important role in an insurance carrier's catastrophe response by providing easy access to critical information like severity of a catastrophic event compared with policyholder concentrations in a given area. This allows carriers to make timely decisions to ensure they have adequate resources available to service their policyholders at a time when the services are needed most.

Hurricane Irene, which caused severe flooding and wind damage in states such as New Jersey, New York, and Connecticut, illustrates why it is important to know the exact location of both insured properties and storm intensity. Insuring loss may mean there are hundreds of thousands of claims to process. Knowing

where exposures are located and the specific path of the hurricane, insurers can accurately identify customers in the areas that were affected by Irene. This is important, because claim severity can vary significantly depending on the intensity of the storm at the location of each claim.

Irene is a great case study. The intensity varied as the hurricane progressed across the northeastern United States, dissipating from a category 1 hurricane when it made landfall near Cape Lookout, North Carolina, to a tropical storm as it moved inland.

In North Carolina and Virginia, winds were strong enough to cause significant structural damage to homes. In areas of the Northeast, including New Jersey, New York, and Vermont, winds were relatively weak, but flooding caused substantial damage. In states like Rhode Island, Massachusetts, and Connecticut, there were significant volumes of minor claims from food spoilage and tree debris removal. Being able to determine exposures in different areas, as well as knowing the likely severity of the damage, allows insurers to proactively plan for potential claims volume and ensure they have resources with adequate training available to assist with the influx of claims.

Integrating Location into Claims Workflows

Many insurers use ArcGIS Online, a cloud-based geospatial content management system from Esri® that anyone can use to create geographic content and build applications and then share them at no cost.

ArcGIS® is also used on servers, desktops, and mobile devices at insurance companies to create applications that staff can use throughout their organizations. Tracking real-time events like Hurricane Irene and viewing geocoded policy locations simplify and improve the accurate identification of customers in impacted areas. Insurers use this information to call on policyholders who may have experienced losses; provide immediate assistance, including hotel vouchers and rental cars; and calculate in real time what their exposed loss may be.

One insurer with clients on the East Coast uses real-time weather warnings brought in as a service to ArcGIS. These weather warnings include radar loops that display the strongest parts of the storm. This allows claims managers to see, as the event is happening, which policy locations the storm has affected. When displayed on a map, the path of destruction becomes very clear, very quickly.

Once the storm has passed, the insurer's staff plots claims on a map, as they are reported, using ArcGIS. This immediately gives claims managers the precise areas of damage so they can decide what resources are needed to help their policyholders and quickly start the claims process.

This is also important to reinsurers. Reinsurers provide insurance to insurance companies. Using ArcGIS Online for cloud-based

mapping and analysis, it is easy to connect with clients around the world and share data and analysis.

Willis Re, one of the largest reinsurers in the world, uses ArcGIS to do exactly this. Willis Re's clients—insurance companies—log on to its system, called eNCOMPASS Online, to visualize all policies that were affected by a catastrophe such as Hurricane Irene. After Willis Re's clients find and select those policies, descriptive information, such as the property owner and the value of the policy, can be viewed and analyzed further if necessary.

Crowdsourcing and Social Media

We are living in a time of unprecedented information availability. Insurers used online interactive maps provided by Esri or created their own on ArcGIS Online during Hurricane Irene. Willis Re is again a great example. It has been a pioneer in mapping social media and making crowdsourced data actionable.

ArcGIS allowed Willis Re to view social media posts in conjunction with frequently updated storm tracking information from weather services and earthquake activity from the US Geological Survey (USGS). Alongside detailed local street and topographic maps, this provided a new way to assess local conditions in the wake of major tropical storms and earthquakes across the globe during 2011. By turning on the geolocation feature of social media platforms like Facebook®, Twitter®, Flickr®, and YouTube®, people can annotate their posts with exact locations. While one or two of these posts may not be alert worthy, a large number coming from one location can indicate that there is a severe problem or that many people are affected. A scattering of many posts distributed across a vast location can be analyzed by creating a heat map in ArcGIS of those posts, which can more easily display clusters of information for quicker analysis. Using this information, insurers might better prepare field crews to respond to situations such as impassable roads, power failures, or other issues that may affect their service to clients.

Applications like ArcGIS Online provide an analysis and oversight solution for insurers. ArcGIS Online combines authoritative data from storm track modeling and weather services with social media to provide a complete picture of the widespread impacts of natural disasters. Insurance organizations can use the most up-to-date information, historical data, and what-if analyses to understand and manage exposure while providing better service to their clients.

Visit esri.com/insurance to learn more about GIS for insurance.

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