Optimizing the Mobile Claims Process through Location Analytics

An Esri White Paper

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Geography Matters for Mobile Claims

Geography is more than knowing the longest river and the capitals of different states. Geography provides context, which is critical to an accurate understanding of risk.

Everything that happens in the world is always described by the location where it happens. Every insured person, building, and asset has a physical place and is acted upon by events in that place (e.g., floods and tornadoes, hurricanes and wildfires).

Think of location as a lens—a new way of combining many different datasets about events and what is located in each physical location to gather insight. This lens can help us understand social and behavioral information, structured and unstructured data, and changes that occur over time. Geography connects what's where, who's where, and how their connection will influence the potential needs and outcomes.

What Is Location Analytics?

How do we make sense of all this data and start to enable better decisions? To do this, the information must fit into a business system and enhance the process with more useful information.

Location analytics is a way of bringing information together from many sources—by a common location—to support individuals and groups. Think about the locations of claims. Using location analytics, we can provide services to display flood outlines or get real-time dynamic weather information, storm paths, and tornado touch-down locations. We are able to predict things that will happen in the future based on historic patterns of particular areas. As these datasets are combined, users have information for better orientation, which enhances communication and collaboration.

It's not simply about many people coming together. It's about sharing the expertise of many different individuals in a way that breaks down barriers between different groups so they may share information in many different ways. Using location analytics, information can change cultural boundaries and overcome traditional isolated silos of information that used to exist. When we start to enhance and add maps to the business process, we change the way that people interact.

How? Esri offers many different services that provide everything from streets, imagery, and topographic data to administrative boundaries and demographic information. More than a million maps have been published, combining information from authoritative sources around the world, like the National Oceanic and Atmospheric Administration (NOAA) and the Federal Emergency Management Agency (FEMA), that can be used in existing business systems. Organizations can combine these maps with their own data and create new information that is useful by many different groups.
Plugging Maps into Analytics

Traditional information systems, like business intelligence (BI), can be enhanced with location data. For example, a map of business performance across the United States can be displayed and color coded by actual claims. It is easy to view the data and get an understanding of where loss costs are high.

Silos of information become continents of information, and these continents become global resources that can be bound in a holistic approach to business. Information can be easily brought in and out of the field in a way that is pure, scalable, and deployable both on-premises and in the cloud. Finally we can see the world of claims service.

The saying goes that mitigation and preparation trump management and response. It's better to know what needs to be done than have to worry about doing it afterward. The more we can preplan the impact of events and model the potential impact, the better we can actually respond to them. We can triage, be prepared, and start to think about the optimal customer services that need to be delivered.

In 2012, there were significant impacts going on all over the world—costing nearly $140 billion in the marketplace. Approximately 50 percent of those insured locations were in the United States. What does this mean? The world is becoming riskier. People are building in places that are more and more subject to risk, and this is consequently generating more claims in those locations.

At the same time, there are business drivers to bring down costs, improve customer service, and protect an organization's combined operation revenue and financial stability. This creates a need to improve the way teams work and how to support the people trying to accomplish these tasks. We want to deliver better collaboration and information in a world where consumers have more and more access to information.

A company's objective when it comes to claims means delivering what was promised to customers after an event. It has an obligation to deliver what those customers paid for. Ensuring timely customer service means proving the relationship and long-term value of those customers.
Organizations can use mobile devices out in the field to do analysis to manage and minimize loss claims. Taking information in the field and pushing it to the back office means analytics can be performed expeditiously. The flow of adjusters is optimized around the field, and the type of information being collected in the field can be pushed back up through management to minimize operational expenses and comply with regulatory requirements. By scheduling smarter, a positive customer relationship can be maintained and enhanced.

**Location and the Claims Process**

Let’s look at an example. When a large storm hits the coast, traditionally a claims organization relies on information from disparate sources. Weather is a good example. Many times, organizations use weather reports to monitor a storm’s movement by "eyeballing" the storm. This method is used to assess where the storm’s path might cross land or make landfall, then queries are run on the customer database to identify counties that may suffer impact from the storm. Based on those two forms of assessment, some estimate of the number of policyholders that would be impacted and the potential cost of the event is derived and shared throughout the organization as a part of preparation.

When a claims organization is geoenabled, it uses location analytics to synthesize the different sources of information into one report.

Location analytics improves the three claims process phases:

- **Preevent Analysis**—By finding out the potential impact beforehand, the organization could integrate the weather footprint on a map that also included its customer locations, geocoded and displayed as points. It would provide a more accurate and precise evaluation of where the most damaging effects of the storm might potentially be, and in turn, make definitive assessments of what customers might lose. The information could then be shared with the entire organization and major stakeholders in real time.
Event Impact—Providing more definitive information on where to locate and mobilize resources once the storm makes landfall helps insurers act quickly to their customers' needs. Real assessments based on real information about damaging winds and where they occurred relative to customers' inventory or building stock helped them understand damage quickly. Knowing where damaging winds were most likely to occur based on geographic parameters helped them assign the right number of loss adjusters to different areas.

Long-Term Management—Planning and assigning territories—something that wasn't easily accomplished in the past—could be achieved now. Using a map displaying the storm footprint, agents were able to inventory and type customers to a plan more efficiently, establish territorial assignments, and get feet on the streets at
the right time. This helped align coverage and provided the employees with information that helped them do their jobs better in the field.

In fact, in many situations, inspectors and agents in the field were able to check on customers near claims being adjusted before the first notice of loss had been filed from those customers. Accessing real-time feeds on their mobile devices allowed them to pull up data records and provide feedback to the main office, staying completely connected even while out doing site visits. Making early assessments helped to cut down on suspicious claims activity.

Using mobile devices to record and check data is useful, even when access to cellular or Wi-Fi networks is not an option. Using GPS-enabled tablets, adjusters verify and record information accurately, including the location. Addresses can be validated from the actual rooftop of a building. Loss events can also be tagged by location, and then information is referenced together for a holistic claim view, even one that is complex.

The back office integration, including business information databases and case management tools, can be brought directly to the field. Agents can communicate between the different devices. Rather than going back to their home office, the agents connected these different devices in the field. A whole workflow can be enabled in an office or in the field—including the ability to adjust policy limits—because information can be shared in a secured, cloud-based environment.

**Case Study**

When the claims division of an insurance company first started doing fieldwork, a combination of paper, pens, personal digital assistants (PDAs), and Global Positioning Systems (GPS) was used to support data collection and analysis both in the office and out in the field. The department was quick to look for alternatives after staff realized there may be a better way to collect, move, and manage data seamlessly between both environments.
After reviewing solutions available on the market, staff members found Windows-based Motion Tablet PCs fit their requirements. Installed with the Esri® ArcGIS® platform, the devices were connected and rugged yet lightweight and powerful enough for field use.

Tasks have gone from taking weeks to mere seconds. Staff members were no longer squandering time on paper-based processes, attempting to decipher handwritten notes and waiting for hard copies to travel to and from the office. All data collected on the tablet PCs is available in near real time, meaning increased productivity due to the constant flow of communication and access at the point of service.

Last season after a major storm, armed with ArcGIS for Windows® Mobile on a Motion F5 Tablet PC, adjusters were able to travel to the field and note damage and other information quickly by inputting their exact location on interactive maps on the PC. ArcGIS for Windows Mobile helps organizations deliver GIS capabilities and data from centralized servers to a range of mobile devices, including the Motion F5 Tablet PC.

Using this solution, this particular insurer was able to deploy intuitive and productive mobile GIS applications that increased data accuracy and improved the timeliness of service delivered across the organization. ArcGIS for Windows Mobile is intuitive, and the adjusters, who had no previous GIS experience, were able to easily map out where claims were located, ask questions about location using the map, and sketch and edit directly on top of the map.
The adjusters were able to fill out custom-designed data collection forms right on the tablet PC, capturing valuable details, including damage description, proposed repair, priority, and estimated cost. The F5's integrated digital camera allowed auditors to capture and attach photographic documentation directly to their observations.

At the end of each day, the adjusters uploaded their data from the F5 Tablet PC to an enterprise database. The claims process generally lasted three to four days, and on the last day, the data from the database was queried to populate a tool that the claims team used to carry out the final claims meeting with the client.

The insurance staff found many layers of benefits that came from using Motion Tablet PCs and the ArcGIS platform. The adjusters were more productive. They were able to digitally capture information at the point of service. The data was less error-prone and available in real time. It then went immediately into reporting and autopopulated the software for analysis. No more transposing handwritten notes—data was collected once instead of having to touch it three or four more times before the next step of the process.

**Conclusion**

Location analytics on mobile devices is changing claims management. No matter if someone is in the field managing claims and is part of a different organization, doing claims expenses using Microsoft Office®, or integrating to back-end systems in the main office, a secure path and the best mix of hardware and software is available to maximize the performance of those tasks. Processes and process improvement can be delivered with more capabilities to the people in the field.

Bringing your own device is great, but with that comes a huge number of headaches. With standardized devices, software, hardware, and peripherals, we can actually move toward this idea of sharing your own insight. Now anybody anywhere can publish, do analysis, and share it with others. This is important as self-service analytics becomes more and more important. Secure, dynamic applications are needed to improve the claims process to change the autonomous user. Instead of discovering what was accomplished weeks later, instant collaboration provides instant feedback and helps everyone—organizations and the people they serve—move forward quickly.
Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth’s most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.

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