

Success Story

A case study about exceptional value we provided to our clients



Geospatial Business Intelligence / Visual Business Intelligence

UNDERSTANDING & ADAPTING TO THE IMPACT OF WEATHER

Unlocking the power of location data can give an organization an incredible competitive advantage and the ability to greatly optimize performance. Johnston McLamb's Geospatial Business Intelligence/Visual Business Intelligence (GBI/VBI) practice helped one large federal agency do just that by location-enabling data it already possessed to streamline operations and improve performance.

JOHNSTON MCLAMB'S GBI/VBI SOLUTIONS HELP BUSINESS AND GOVERNMENT:

- Unlock the full potential of their existing information
- Generate organizational insight needed to make critical business decisions criteria
- Utilize geospatial data that is freely available
- Gain a clear competitive advantage over peers

PROJECT SCOPE

With thousands of operational centers spread across the United States, this large federal agency needed to better understand how weather events were impacting its facilities and its bottom line. Each of these facilities shipped items to, and received items from, other locations all day, every day. They realized the incredible potential benefit of anticipating the impact of weather events and responding to them as they occurred. Using location data to make strategic operational decisions and adjustments was sure to help the organization streamline operations and better serve citizens.

IDENTIFYING BUSINESS GOALS

The agency was driven by one overall business goal from the start: get real-time data into the hands of staff so they can make operational decisions from the field. Johnston McLamb started by helping the client assess its current situation. To what data—if any—did field employees currently have access? How were they receiving it? How were they reacting to it? This assessment helped the agency come to a more full understanding of its existing information and where it could be enhanced by the introduction of spatial data. Finding a way to create relationships between the agency's 38,000+ nationwide facilities and data from commercial and government sources quickly became a priority during this analysis and discovery process.

Johnston McLamb then helped the agency prioritize the spatial data that would most benefit them. We determined what could most quickly and effectively be integrated with the existing infrastructure to improve daily operations. One specific goal that quickly came to the forefront was to associate each of the client's facilities with weather alerts generated by National Oceanic and Atmospheric Administration (NOAA). When combined with existing organizational data, this NOAA data would create an in-house automated weather warning system. The system would allow management and field employees to receive near real-time information about weather events impacting facilities.



SPATIALLY ENABLING EXISTING DATA

Once the business goals were fully defined, Johnston McLamb led the process of spatially-enabling the agency's existing database. As with every implementation, our goal here was to minimize impact of the spatial footprint within the database, as well as dramatically improve performance and maintainability.

Johnston McLamb developed a partitioning strategy that would provide an efficient loading/archiving mechanism. Ultimately, this strategy didn't just support the spatial data initiative the agency was undertaking. It also resulted in performance gains across the board, in every response line that was being generated.

We also geocoded the database's unique, unparsed address data. External spatial data was loaded to support the business goals of the agency. Finally, Johnston McLamb validated all data and optimized it for spatial analysis. This final task ensured that the agency is now able to support activities such as classification, binning, association, and spatial correlation—all essential for business intelligence activities.

INCORPORATING EXTERNAL, FREELY AVAILABLE DATA

In many of our GBI/VBI implementations, we're helping our clients leverage freely available spatial data. We're helping them see how this can be combined with existing organizational data in order to achieve even greater gains. In this case, we worked with the agency to determine how information freely available from NOAA could support the early warning and response activities the agency was looking to develop.

NOAA offers a Common Alerting Protocol (CAP) XML-based feed that is consumed by the application every five minutes. For each state across the nation, this feed contains all National Weather Service "Watch, Warning, and Advisory" information. Johnston McLamb constructed the application so that it parses this feed and relates information to individual facilities via each facility's geocode. The end result is that NOAA-generated weather alerts can be directly tied to and then broadcast to affected facilities.

REALIZING THE BENEFITS OF SPATIAL

Each day, more than 4,000 weather alerts impacting an average of 1,400 facilities are being issued via the system. The agency has empowered its field managers to not only identify which of the locations under their control are going to be impacted by a weather event, but also to proactively

make operational adjustments based on that information. Every day, the agency is now able to manage its shipments so that the financial impact of weather events is minimized as much as possible.

The agency is now operating in a way that only an organization that has spatially enabled its data can. It's realizing the power of combining weather data with facility data and fully understanding relationships that can be drawn from that data. Managers are now armed with the actionable information they need to make strategic operational decisions.

MAKING SPATIAL ATTAINABLE FOR ALL ORGANIZATIONS

As with all of Johnston McLamb's GBI/VBI implementations, we reduced the financial and time investments necessary for this agency to start realizing the benefits of location-enabling its data. Built to their specific needs, we developed this solution so that the client's existing information technology organization—not a separate group or a vendor with a specialty in GIS solutions—is able to maintain the system.

This agency is now benefiting from the creation and storage of spatial data within their existing enterprise architecture. No longer is there the need to use proprietary vendor databases for such information. We're helping all of our clients realize the savings—and the increased power—that can be realized from storing this information with existing enterprise data. This information can then be called on by other reporting tools, applications, web services, and map viewers in use across the organization.

THE BIG PICTURE: THE BOTTOM LINE

Johnston McLamb's GBI/VBI practice is about much more than plotting points on a map. It's about the power to correlate between events and to identify trends across geographic areas. It's about having access to real-time, actionable information that organizations can use to enable strategic decision making. And it's about the power to harness that information to gain a competitive advantage by optimizing operations, minimizing costs, and reducing risks.

Contact Johnston McLamb at jmsales@johnstonmclamb.com to learn more about how our Geospatial Business Intelligence/Visual Business Intelligence practice can bring these same benefits to you.