

## What's Your Definition?

## Looking at what enterprise GIS really means

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What is your definition of an enterprise GIS? How do you know when you have maximized your GIS investment? I started to think about this, and I realized that over time, the definition of an enterprise has changed. Just as the technology is evolving so is this notion of an enterprise.

I think Bill Gates said, "We've seen a lot of amazing things so far, but there is much more to come." He said this in 2000, when the Web was a tool we used to look for information. We didn't view the Internet as a complete framework and architecture for the way we do things. This is the way I view the concept of the enterprise GIS.

When have you achieved enterprise status? Is it when you have a centralized database that every department in the organization contributes to, and the GIS department pushes that data back out? In the past, when groups got to this point, we began to see a differentiation between the GIS professional and the professional who used GIS. This was a turning point in defining the enterprise.

At first, the enterprise was all about the back office. GIS professionals generated products used by others in the organization. Then things changed. When the Internet took off, GIS software use started to change in organizations. They now had the ability to deploy the Internet, GIS data, and applications to users within the organization (the intranet), and they could provide data access to external users—the public or other agencies. The dynamic was changing. The enterprise moved from the back office to outside the office, then on to collaboration.

In the early days of GIS technology use, some of the trailblazers toyed with the idea of using it in the field, but the equipment was too bulky to accomplish that. It didn't take long for technology to catch up, however, and with the explosion of mobile devices, the enterprise went into the field. Every time we thought we had achieved a vision of the enterprise, the "cheese moved." Now, I wonder, how will cloud computing change the enterprise concept?

Enterprise GIS has become integrated with disciplines throughout the organization (planning, building, law enforcement) and interdependent on other technologies such as the Internet, mobile devices, and location-based services. The definition of the enterprise is a moving target.

Years ago, I managed a GIS department for a large organization. We were pioneers who were trying to define the enterprise. People came from all over the world to see—firsthand—the groundbreaking work we were doing. Many of them were naysayers. They couldn't imagine that we had accomplished what we said we did.



Instead of doing presentations, I took these people on tours of the various departments that used GIS. I took them to the library and showed them how the public had access to some of our data. I took them to the planning department so they could see how GIS was used for noise abatement projects. I took them to the finance department where staff would explain how they were using the system to recover lost revenue. During these tours, visitors would ask questions. Representatives from the department we were visiting would say something like, "Well, we do the analysis here, and we work with the GIS department to build the data we need."

One day it dawned on me. Everybody said "we." It didn't matter how the department was using the GIS; what mattered was that everybody felt like they were part of the enterprise. They all said "we." Getting to "we" defined the enterprise for me.

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When I speak at various conferences, I always ask who in the group has an enterprise GIS. Usually all the hands go up. Most people define their enterprise as having one group that produces maps and analyses for the other groups in the organization. (While I personally don't believe that is an enterprise, I realize "enterprise" can mean different things to different people.)

Recently, I was talking to a group of city government people at a conference. They were all complimenting their GIS staffs, but I realized that most of them did not really understand what they had. One person said, "I ask my guy for a map, and I get one." Another fellow said, "The GIS division is technically under me, but I really couldn't tell you exactly what they do."

However, one person in the group stood out. He said, "Oh, I love you guys. We just deployed our first Web site so that the public can have access to our software. We figure that we have about \$850,000 in escaped cost avoidance by using the Internet as a tool to reach the public in off-hours. We just did a trash truck rebalancing using the GIS, and we were able to save \$250,000. We went from 39 drivers to 25 drivers and never laid off a single person." He understood what it was about, and that was impressive. The rest of the group was mesmerized.

You really don't have an enterprise until you have buy-in—until everybody feels that they are part of it. When the technology is making a big difference in what people are doing in their jobs, they feel like they are contributing to the program and are not just a recipient, and they can communicate the value of the system. That's when they've gotten to "we."