

## Coming Out Of The Dark

Author Simon Sinek stated, "More information is always better than less. When people know the reason things are happening, even if it's bad news, they can adjust their expectations and react accordingly. Keeping people in the dark only serves to stir negative emotions." When I worked for the power company, it was my job to make sure that people were not in the dark, literally. When people were out of power, we usually figured out why. A snow storm drizzled ice on the power lines. Some drunk crashed into a utility pole. Some stupid (and now dead) squirrel climbed onto the lines and forgot that his tail was a very nice conductor. Yet, when people called the power company's call center, the people on the other end of the line often kept callers in the dark, both figuratively and literally. The reason was and often still is, because the industry still has not been that great at answering the customer's simple question, "When will my lights be back on? When will I come out of the dark?"

Why is that? It's because they don't have enough information

It's not necessarily that someone in the power company might have a pretty good answer. Or eventually, the power company will have the answer. It's just that the power company doesn't have the processes or systems get the right information. In the cases where there is a wide spread power failure, they need to get lots of information and fast. With AMI (Advance Metering Infrastructure) in place linked to an ADMS (Advanced Distribution Management System), utilities have a very good understanding of how many customers are out of power and where they are. However, they don't have the critical information to answer that simple, yet profound question of when am I going to get my lights back on. To answer that question, the power company needs to know:

- How many repair jobs there are
- How bad the damage is
- Where the damages are
- How many crews do they have available to do the work.

If the power company had that information, then that poor stressed call center person could provide an answer to their question. Instead, they have to give statements, like, "Sir, we are working as hard as we can to get your power back, or there are crews in your neighborhood or worse by guessing.

During outage events, power companies have to do damage assessment, What's the damage, where is it, To paraphrase Sinek, the more information about the damage (and the faster they get it), the better, The trick to analyzing a lot of information coming from many sources is to have a common framework to figure out what's going on. You could get a phone call from a taxi driver saying that she heard a loud bang or saw a flash and then the lights went out. Or you could have a customer tweet about tree hitting a wire line or someone could take a cell phone picture of broken pole. The common denominator for all that information is the location. If all of these pieces of information comes from the same location, then the information points to a single event. If not, then there are many events and thus many more repair jobs. That's where GIS and field deployment of GIS comes in. GIS is a platform that is designed to take information from many sources. It then can organize that information by location. It then can analyze that information and figure out where the nearest crew is or how close the damage is to critical infrastructure. It provides a simple road-map (pun intended) to how many repair jobs the crews have to do and where they are.

Most utilities have deployed GIS today, but mostly as a centralized system. That's changing. Utilities are deploying simple GIS based apps on mobile devices that communicate simple targeted information back to decision makers. Using GIS and information gathered from many sources, utilities can share, communicate and collaborate. They can give critical answers to workers in the field on their mobile devices, customers on their smart phones and those in the office trying desperately to answer that very simple question pf when will my lights be back on.

Using GIS and field devices for damage assessment, utilities can do what Simon Sinek stated best – get the most information you can to keep as many people out of the dark as quickly as possible,.