

BIOGRAPHICAL INFORMATION

Ken Brelsford
Senior Consultant Sales & Marketing
GE Energy – Geospatial Solutions

Specific Responsibilities

Became sales manager for the utilities practice following GE Energy's acquisition of M.J. Harden Associates in August, 2003. Primary responsibilities include market analysis, identify products and services through customer defined needs and requirements and maintain customer relationships. Mr. Brelsford has over 18 years experience implementing and managing geographic information systems.

Past Experience

Joined M.J.Harden Associates, Inc. in 1997 as a Project Manager in the Government / Utility Division. In this position provided supervision, leadership and direction to the project consultants, client project management and implementation consulting. Mr. Experience includes analyzing user's needs, defining database and application requirements, hardware and software configuration and project management.

Before joining MJH, Mr. Brelsford worked as a Design Analyst for PlanGraphics, Inc. Western and Pacific Regional Office (1993-1996). He was primarily responsible for providing management and implementation GIS consulting services. Prior to working with PlanGraphics, Mr. Brelsford was the GIS manager for Johnson County, Kansas from 1986 to 1992.

Educational Information

B.S. degree in Geography from Kansas State University.
M.S. degree in Geography from Kansas State University.

Professional Memberships

Geospatial Information Technology Association (GITA)
American Association of Geographers (AAG)

You Want Me To Do What? -Technology Driven Change

Paper Presentation

Audience Rank: Intermediate

Learning Objectives

1. Learn why change management is critical to technology implementation.
2. Discover tips for implementing change in your operation.
3. Understand how to address user resistance to change.

Topic: People Issues – Change Management

Industry: Electric, Gas, Public Sector, Telco

Abstract

The purpose of this paper is to address practical ideas for helping users incorporate new technology into their work environment. The only thing you can be sure of in the implementation of new technology is change. But as technology oriented people we forget that the real key to success is getting our people to adopt and use the new technology. More projects fail because we don't address how it will impact the people who will use the technology. There are no set formulas for successful change management but there are general guidelines and practices that can be followed that will give you a better chance of implementing change. This paper will present practical ideas about how to include change management in the project planning and design phase. While we talk about doing a gap analysis between two software environments, we need to do the same thing for the work environment. People need to understand what will be expected of them and how they will learn the new skills or knowledge necessary to do their jobs. We need to spend significant time with users and address what the change is, why it is beneficial to them and how the transition will be made.

WHY IS IT IMPORTANT TO UNDERSTAND THE DYNAMICS OF CHANGE?

Whether we like it or not the only thing you can be certain of in any implementation is change. One of the most consistent experiences I have had since I first became involved in technology implementation is resistance to change. This may seem very obvious especially if you have tried to introduce new ideas into your organization. But while we may understand this as a challenge to success it rarely gets the same level of attention and effort given to other technology implementation activities. This is understandable since we are usually more comfortable with tangible problems such as defining the hardware and software requirements to support a business function. Not only can we quantify these elements of implementation, it is more fun to go through the process of picking out the products that will meet our needs.

Technology implementation involves three major elements:

- Systems
- Data
- People

Regardless of project size, the implementation process remains basically the same. Implementing systems and building databases requires people with information technology development skills, detailed knowledge of the work processes to be automated, an understanding of existing data environment and the ability to move that data into a digital form. So far we are all comfortable with this job requirement. But the final element, people, require management skills to assure that the people in your organization are not only trained to use the technology but will use it. Money can buy the best system on the market but if your most expensive resource, people, do not understand why they are being asked to use this new system it will never meet your expectations and more importantly management's.

I have been involved in many GIS implementations. My first job out of college involved implementing a GIS for a county government. Recently I helped a utility organization develop a plan designed to implement geospatial technology throughout the entire company. We invested a lot of time and money in putting together a plan that would assure the organizations got the best return on their investment.

During the first year of the GIS implementation for the county we held a number of meetings with county departments to explain what GIS was and how it would provide better tools to accomplish their work tasks. During one meeting I reacted to a statement made by a department head that set the tone for this group for over five years. "This GIS will change the way we work!" I was excited because someone really understood what we were doing. We had a system that was going to change how people worked. "Yes. This is going to change how we work." She got up and walked out of the meeting. I never had another conversation with this person outside of "official" business and this department did not become a functioning part of the GIS environment until the department head retired five years later. I learned the hard way that not everyone is as excited about change as I am.

People tend to resist change. It may be fear of failure or they may not really think there is a need. Some may feel the change will cause them to lose their job or reduce the number of employees in their department. This can be a real threat to managers and supervisors. As we will discuss later this group is your key to success.

HOW DO YOU EFFECTIVELY CHANGE YOUR ORGANIZATION?

Two Keys to Change

Unfortunately change is not a problem with four easy steps that, if followed, will result in a different environment. Experience and research for this topic identified two common elements related to organizational change:

1. Leadership
2. Communication

Leadership

To understand leadership it is necessary to look at the differences between leaders and managers. Remember our tendency to view things from a mechanical perspective? In most organizations the emphasis is on managing. But almost every book or article I read pointed to leadership as one of the most important factors in successful change. So what is the difference between managing and leading.

Managers have technical skills and talents for organizing. According to the American Heritage® Dictionary of the English Language, Fourth Edition management is defined as:

1. The act, manner, or practice of managing; handling, supervision, or control.
2. The person or persons who control or direct a business or other enterprise.
3. Skill in managing; executive ability.

The primary objective is to identify methods that meet a specific goal and then control the environment to repeat these methods. Business needs managers to function. But managers are usually focused on controlling the work environment with tools such as budgets, personnel policies and procedures. They are tasked with meeting quotas, schedules and numbers. Managers often have a short time horizon because things need to be done and reported each week, month, quarter.

In contrast, leadership is defined as:

1. Capacity or ability to lead
2. Guidance; direction

There is less emphasis on control and more emphasis on persuasion and influence. People can be forced to do something but that does not mean they want to do it. Leadership is about changing peoples motivation and reason for doing something.

So what does it mean to lead? Again the American Heritage® Dictionary of the English Language, Fourth Edition defines a person who leads:

1. To show the way to by going in advance; to be first; be ahead
2. To guide or direct in a course; to go first as a guide
3. To guide the behavior or opinion of; induce; to keep in a state of expectation or hope
4. To inspire the conduct of
5. To be foremost in an endeavor or trend.

One of the common threads is setting direction for a group. A leader must be able to see beyond the management needs of the organization and establish the vision for the future. A manager focuses on working out the current vision of the group. A leader must focus on defining the future vision of the group. Not only does a leader define a vision, he must be able to create a desire in the group to implement the vision. This usually means being able to define the vision in concrete terms that allow a group to understand how the environment will be different once the change is made including how their work processes will be improved.

The most important group related to change are the middle level managers and supervisors of an organization. This is the group that will implement the changes caused by technology. A leader

needs to instill the vision for change and convince this group of its value. Invest your efforts in helping these individuals become leaders. If they can learn to lead as well as manage then your chance of success will increase greatly. To do this a leader must know how to communicate effectively.

Communications

Most people do not like surprises that do not include presents or parties. Telling the field inspectors that the paper maps they have been using for the last twenty years are going to be replaced with laptop computers next week will almost guarantee problems. But if the field inspectors are invited to the early planning and design sessions where they can see the possibilities of the new technology and have input into how the system will function, the deployment will have few people problems. There will always be some problems because there will always be at least one person that doesn't want to change.

The key is to communicate with everyone that will be involved with the new technology. Include staff from each of the line organizations (operations/maintenance/engineering), IT and upper management. Your job as a leader is to persuade your users that this will be a positive experience. Remember, you can order people to do something but they can respond with incredibly creative pass/aggressive methods to make sure the project does not achieve its potential.

So get input from everyone as early as possible. If this is your idea, bring in as many users as possible to brainstorm solutions. Make sure everyone understands that not every idea can be incorporated into the project. Some just won't make good business sense. Others will cost too much. Whether we want to admit it or not some are just bad ideas. But if you learn about the users needs and concerns at the beginning, you will have a much better chance the new work flows and products that will be adopted.

Early in the process, schedule a series of workshops to introduce each group to the vision and objectives of the project. Recognize that each group will have different levels of interest and acceptance at this point. Your job is to let them know what the new environment will look like and when they can expect to see the changes implemented. It is also the time to make sure everyone understands their roles and responsibilities. If you are expecting users to provide input then they need to know how it will impact the current workload.

Be sure to include at least one workshop that includes people from all levels of the organization. This is a hard audience to present to because they each have very different perspectives on the project. But it is important for the field crews to see that upper management is committed to implementing this new technology. It is also critical for upper management understand how this is going to impact the users. Putting faces to the "cost savings" will help humanize the impact of new technology. It will also help convince the line organizations that this is important and going to happen.

Selling the value of new technology is not an event but a process. Put together a "marketing" plan designed to convince users this new technology will improve the work environment. But a

fundamental rule is don't lie. While someone might be offended at this point, it is very easy to "embellish" the true benefits. Follow the advice, "under promise and over deliver."

Throughout the implementation process, tell everyone what is happening as often as practical. One of the most effective methods of influencing someone is to spend time with them. If people are kept informed they will have opportunity to voice concerns that can be addressed before deployment. It is not always practical to talk to everyone but you can hold short, stand up meetings with a small group of users. Give a brief overview of the status of the project and ask for input. Your users should be thinking about this project and will probably have good insight into how to make it better. Listen, take notes, and follow-up with those who make suggestions. The more you can involve the end users in the process of defining, developing and deploying the technology solution the better the result.

While convincing people that the change will be positive is the best outcome, most changes need to be made and users need to adapt. It needs to be clear to all parties involved that the new system is going to be installed and everyone is going to use it. Two methods can make this transition more successful.

CHANGE MECHANICS

While leadership and communications will "win the hearts and minds" of your users, there are methods that can be used to make change permanent.

Pilot

Because most technology implementation is designed to replace current processes and tools, use a pilot to test your new systems impact on the work flow. This will give you a chance to not only test the software and hardware, it will also provide the users a chance to see how the system is going to impact them. Live examples are always better than Powerpoint lectures. Use the pilot to introduce users to the changes in an environment that gives them a chance to suggest changes. Give as much time as possible to the pilot process. The objective is to identify how to improve the user environment while changes are still relatively inexpensive. Consider having another pilot iteration after changes are made to confirm things are on the right track.

Training

Everyone puts training in the budget but it is also the first thing that gets cut when things get tight. Training needs to include how to incorporate the new technology into everyday operations. It is not enough to set everyone down in a training room and teach them how to maneuver through the screens and menus. Help the user understand the context for the application. People tend to function better if they understand where they fit in the overall work flow of the organization.

Over the years, I have seen lack of training limit and even stop GIS implementations. The system is purchased, data is converted, hardware and software are installed and put on a users desk. But the next day, the user is still measuring distances on a paper map because they did not

know the system had a function to measure length and area. Make sure users have a good overall understanding of the capability of the applications being implemented. They may not need to know the specific key commands to perform a function but if they know it is there, they will begin to figure out how to incorporate new capabilities into their work. This is when you begin to exceed your original benefits.

KEEP GOING

Once a system is installed and users are working, don't think your job is finished. It is important to make sure they don't slip back into old habits. If you have done a good job of leading, your users should be enthusiastic about the change and not need incentives or consequences to keep on track. But we are all creatures of habit and the pressure of getting work done can cause us to use old methods. Letting people know they are going to be held accountable for the success of the implementation is important.

Plan on frequent follow-up meetings, both formal and informal, to check up on progress. Now is not the time to stop leading. Keep everyone involved in the process of review and follow-up. Use email and short stand-up meetings to get feedback on user experiences.

Identify problems early. Figure out if the problem is with the system or the people using it. If a person or group is having problems you need to address them quickly. Even people who are convinced that the new system is a good thing will stop using it or only get limited benefit if problems are not addressed.

Identify incentives that encourage users. Publicly recognize users who make significant contributions to the implementation. Celebrate achieving milestones and invite everyone involved.

Change is the only thing we can count on when it comes to technology. Hopefully these ideas will make your next implementation a little smoother.