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White Paper

Solving Business Challenges with Best-in-Class Technology Deployment

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Every business is challenged with the need to improve customer service to retain revenue, gain efficiencies by reducing waste, and provide better information availability for optimized business decisions. More often than not the solutions to these challenges include some type of technology deployment. Technology tools being used by businesses today for intelligence and efficiency improvements are vast including ERP and CRM systems, mobile devices such as iPads and handhelds, and field sensors for improved information availability such as tank level and flow monitoring, just as a few examples.

These technology deployments can be expensive both in terms of capital and human resources making it critical that the planned Return on Investment (ROI) is achieved. We all know that this can be challenging for a variety of reasons from finding the right technology tool to do the job to managing the organization through the required changes in day-to-day work behaviors.

A quick search of technology deployment best practices on Google yields over 19,700,000 results in 0.32 seconds. Frankly, there is an overwhelming amount of information available and it is not always easy to know where to start. Starting with the end in mind, research suggests that change management processes can be most critical in determining long-term success of major technology deployments. Often it is easy to overlook the role that people play in a technology deployment, but the reality is that any time we need people to change their roles and their day-to-day behaviors, it can get dicey. Having a plan for how people will be trained, how expectations will be set, and what metrics are being put into place will drive a great deal of success as companies look to get value out of their technology deployments.

In William Bridges' "Managing Transitions" he opens with this sentiment, "It isn't the changes that do you in, it's the transitions." They aren't the same thing. Change is situational – the move to a new site, the changing of manual to digital systems, the reorganization of the roles on the team. Transition on the other hand is the psychological process that people go through as they internalize and come to terms with the details of the new situation that change brings.

Technology deployments require both - first the actual situational change and second the psychological transition. Managing both through thoughtful planning doesn't end up taking any more time overall, but does drastically improve the probability of successfully achieving the desired future state.

Step 1: Stakeholder Team

The first step in considering any major business process improvement is to identify the key stakeholders in the process including those that operate the process, that supply to the process, are customers of the process, and implement the process. That well-rounded team can take a broad look at the problem statement and outline both the current state and desired future state. Opening lines of communication with key stakeholders and assigning responsibilities to all participants in the early stages of a deployment make it easier to ensure the project is meeting everyone's expectations. Offering regular status updates also helps to prepare for any budgetary or productivity concerns.

Key Tip – Get Buy In. It is the key to radically improving the likelihood of success for any technology deployment.

Step 2: Define the Problem

Defining existing pain points of current processes is as important as defining the new requirements for the proposed system. By defining your deployment process and identifying key resources, it is easier to determine and prevent any pitfalls that could stall a deployment. The use of a value stream mapping (VSM) tool can simplify the process of gathering and organizing the information and will create a clearer picture of the user activities, integration points and automation needs of the system. Some simple VSM tools can be found by quickly searching the Internet. With the problem and process fully documented and agreed to, the team is ready to look at possible solutions which could include a variety of tools and technologies.

Key Tip - Start with the early adopters where possible – they will be ready for change and can be evangelists.

Step 3: Research Solutions

After reviewing the current business process and possible associated technology, the team will have identified the associated benefits, challenges and costs. With this understanding, creating requirements for a new system can be based on the needs of departments, staff and executives. Those clear requirements drive the research process and the options considered should not be limited to one preconceived notion. When the team works well together it may come up with an out-of-the-box solution that provides far more benefits than anyone anticipated. Additionally, both manual and automated solutions should be on the table for consideration. Sometimes the simplest solution is the best.

Key Tip - Focus on the "why" of the transformation, NOT on the technology itself. The technology provides a means to an end. Keep the end in mind at all times.

Step 4: Pilot the Solution

Once an option is selected, a pilot program must be undertaken. The team overseeing the pilot needs to plan out clear criteria for evaluation and success prior to getting started. Best practices include at least five main categories for review.

1. Technology/Product Performance
   a. Does the technology/product meet the published specifications?
   b. Does the technology/product meet the defined objectives of the project?
2. Ease of Installation
   a. How easy is the technology/product to deploy?
   b. How will the technology/product best be deployed across the full organization?
3. Ease of Use
   a. Is the technology/product easy to use for those who interact to get their jobs done?
   b. Is the technology/product easy to troubleshoot for those who will act as administrators?
4. Technology Supplier Support Capabilities
   a. How well is the supplier equipped to handle day-to-day support needs?
   b. What resources does the supplier have to help with managing the ongoing deployment?
5. Reputation of Technology Company and Solution
   a. What is the reputation of the supplier in the market?
   b. How long has the supplier been around and what is their financial strength?
   c. What is the longevity of the technology/product under consideration?
   d. How equipped is the supplier to incorporate new technologies as appropriate?

A pilot is a test of the technology including the impact to the business processes. A key area of focus that often gets overlooked during the pilot is obtaining a grasp of where the process information is flowing and who uses it for what. The team should avoid simply automating processes as they exist and instead consider how the new technology tool can completely transform the business to improve efficiencies and reduce waste.

This is the time to use a "sandbox environment" to test out how the technology works in the real-life situation and operates to the requirements that were identified early on. The team should agree on a defect management system that tracks how closely the system or technology is tracking to the expectations. Objective criteria that have been previously identified help to reduce any emotional outcomes if and when things become stressful. The key is to prevent any interruption in productivity, missed sales or customer disappointment due to a technology deployment.

Key Tip - Don't get ahead of yourself and go too fast.
The pilot process is critical as well as adapting the business processes.

Step 5: Full Scale Deployment of Technology/Product

The full-scale deployment is the next step, typically approached as a phased activity including business process preparation, people preparation with training and communication, actual technical installation, and review and adjustment to address any uncovered needs. The true success of a new or upgraded system is not achieved without understanding the operational benefits of the new system. Creating control charts and evaluating the capabilities and processes of the new technology against the original pain points and requirements in the deployment plan will determine the effectiveness of the system.

Deployments will have problems. Setting clear expectations for how issues will be addressed and following through on those will help drive confidence in the solution. Expecting some setbacks and sharing those expectations will reduce the emotional response when any challenges actually take place. Back to the old adage – We don't know what we don't know… Planning and preparation will reduce much of the risk, but it is never gone completely.

Key Tip - Be prepared for setbacks and have a process in place ahead of time for dealing with those temporary challenges.

This completes the CHANGE part of the process, but the people TRANSITION piece is still underway.

Step 6: People Transition Management

Transition success is all about thorough and frequent communication to all involved. It may help to think about the communication needs of people by putting it into the five **P's**: **Problem** being solved, **Purpose** of the change, **Picture** of the future, **Plan** to make it happen, **Part** that they each play.

There are essentially three stages that humans go through when they make a transition: the ending of what is known, the neutral zone or chasm where all is unknown and fear can set in, and the new beginning. The goal of project managers is to move people through the chasm as quickly and effectively as possible to help the people involved move through the transition successfully.

Key Tip - Train, train, train and then do it again. Human beings need to hear things 7 times, sometimes in 7 different ways, for them to adopt and adapt. Be patient but firm.

Conclusion

Business process improvements can seem like a daunting task and possibly fraught with peril. Whether the technology solution is a new back office business system or a complete tank monitoring system, utilizing technology deployment best practices will help guide the way to success.

Author Bio

Sherri McDaniel is the President of ATEK Access Technologies, LLC. TankScan is one of ATEK's premier product brands. Sherri has over 20 years of experience in the industrial instrumentation business, helping both large and small organizations utilize technology effectively to improve their business results. Sherri is also a professor at Bethel University in St. Paul, MN; teaching leadership and change management best practices.

ATEK Access Technologies provides business consulting services in the field of organizational change management, fleet management, supply chain management and order fulfillment services in the tank monitoring market space.

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