

Whitepaper: Five Rules for Successful Technology Projects

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We here at Vectrocon spend much of our lives deploying technology for clients, most of whom are small or mid-sized businesses. Clients routinely call upon us to deploy new systems, set up new offices, purchase and deploy technology to support new business functions, upgrade existing systems without causing disruption and manage countless other projects. Over the years, we have learned that if you follow certain guidelines you can increase the likelihood of a project completing on time and on budget. Conversely, ignoring these precepts usually results in missed deadlines and excessive costs.

The first rule is to contact your technology partner right away. Regardless of whether that is an in-house person or team or an outside contractor, you must get them on board as soon as you realize that there is a technology impact to your business decision. If you are adding an office employee, they will probably need a computer and possibly a cell phone or smart phone. If you have decided to open a new location, it will not only need computers, but a means of collaborating and probably connecting to the main office or other branch offices. If you are moving an office, or even eliminating an office, the quicker you can let your IT group know, the more time they will have to sort through the implications and make sure that they can fulfill your request. If you don't allow sufficient time to plan, the likelihood of errors and omissions increases significantly.

A general misconception that many small business owners have lies in the amount of time they expect it to take to obtain equipment or Internet connections. As an example, a new Internet connection can take anywhere from 2 weeks (basic cable or DSL to a pre-wired area) to a couple of months (for T-1 lines or new construction). Most of the time, there is nothing that can be done to speed this up. We always say that it's easier to fight City Hall than it is the large telecom or cable companies... The same holds true for equipment. If you want to use standardized equipment that will be less expensive to own and maintain, you can't try to buy piecemeal from various local sources. Sure, you can obtain items in a pinch from your local retailer, but then you end up with a few pieces of equipment that just don't match everything you have elsewhere. Support costs go up and reliability tends to go down. Also, in many cases, business grade equipment is not available for purchase all the time at such outlets, so you might be forced to postpone the project.

If you have an in-house IT person, especially if technology support is a function tacked on to a primary role that they play in the organization and they are not senior management or an owner, it is often tempting to wait as long as possible before disclosing plans for fear of rumors or an accidental slip of the tongue. However, reserving information about a new project frequently leads to leaving insufficient time to adequately plan and to source materials for use in the project. This, in turn, leads to mistakes, increased costs due to

expedited shipping requirements, possible overtime charges and a much higher percentage chance of downtime because of inadequate planning and risk control.

First rule recap: allow plenty of time – snap decisions rarely lead to trouble free project deployments.

The second rule of on time projects is to clearly define what the project will, and will not, accomplish and how you intend to accomplish them. Although this sounds self-explanatory, violations of this rule are common. When we work on a project for a client (other than extremely small projects, like replacing a client PC with a new model) we work up a proposal that includes an introduction to why and how the project is undertaken, the objectives of the project and finally the implementation method of the project. You don't need to define your project so formally if you don't wish to. However, in many cases, we find that it is easy to use that general breakdown and then use bullet points to list what is required in each section.

What are you trying to accomplish? When are you going to accomplish it? How are you going to accomplish it? Who is required to accomplish it? You may not have to answer the final question, where, but sometimes you may need to include that as well. By writing down your goals and objectives, and then following it through with the implementation, it forces you to answer these questions with a clear plan. Writing about it, even if only in fragmented sentences expressed in a numeric list or a set of bullet points, will highlight items that you might have omitted. For example, you might realize that you should only perform the project on alternate weeks because it affects the processing of payroll, which happens on a bi-weekly basis. You might also realize that you need another piece of equipment you were taking for granted, or that a particular person will be required to validate some data, without whom the results will not be usable.

The point here is that you want the person who is spearheading the effort to be able to think through the entire project, while the owner or principal managers can see exactly what the expected outcome will be. If the project has a broad scope or affects a certain department, it also allows the managers of those affected to review the plan and comment specifically. Finally, it gives everyone a final checklist as to what will be accomplished. When everything is checked off on the list, the project is completed. Doing this also helps keep a project from experiencing what is referred to as "scope creep". That is, a project doesn't become continually bigger and more encompassing, to the point where it never "gets done".

That brings us to the third rule: don't bite off more than you can chew. Many of the projects that tend to fail never had a chance at success, because they were simply too big and too complicated for the available resources to handle. It is always better to break down a large project into smaller, discrete projects. Large projects are difficult to control, they have a tendency to get scope creep and a lot of errors can be made due to omission and sheer complexity. The old engineering maxim of Keep It Simple Stupid (KISS principle) applies.

If you have a large project, such as the implementation of a new accounting and order entry system, try to figure out a way to phase in sections of the plan, as opposed to swallowing the whole thing and choking to death on it.

Rule four: make sure you have adequate expertise. If you aren't familiar with performing the actions required, by all means seek out and obtain an expert to handle the project for you. If you are doing a software update for your main business management system, and the upgrade is involved, it certainly pays to check into whether your vendor can do it for you. Using Internet access and software for remote control of systems, the cost is much lower for this option than it used to be as rarely would someone have to travel to your site, even for training. For physical projects, such as infrastructure upgrades or cabling installs, make sure you have the adequate skills to make the move. If you aren't familiar with the technologies that you will be deploying, you can very quickly increase risk. We ourselves utilize experts on many of our projects where we aren't familiar with a technology (such as a proprietary software package) or don't have the equipment, manpower or skills (deploying bulk wire or fiber optics, for example) to do the job safely, properly and efficiently.

Rule five: don't cut corners. If you can't afford to do a project properly, wait. This does not mean that you shouldn't seek alternatives or attempt to get the best deal on a project. Rather, it means that if you cannot achieve your goals with the resources you have (which might not be solely financial) don't try to force a project to work. Either redefine the project making it smaller or wait to complete the project until the resources are available. Trying to tackle a project with insufficient resources can lead to long term disaster, even if you manage to achieve short term success.

Of course, the myriad variables present in any project prohibit any set of rules from guaranteeing success. However, by following the five rules listed above, you can significantly increase the chance of your project being deployed on time, on budget and with controlled risk.