Customer Facing Applications

WISDOM to work by:

1. ***Focus, focus, focus!***
   Customer facing applications should be your primary IT focus. Pull out all the stops. These software applications are the differentiators for your business. Be creative.
2. ***Customer facing applications…don't build it from scratch.***
   There is almost never a good reason to build software from scratch anymore. Practice component and tool kit integration instead. Roughly eighty percent of all software development projects fail. Don't reinvent the wheel.
3. ***Process, process, process.***
   Use a structured process to select and integrate customer facing software applications. There is a better way.

A. Customer Facing Applications Strategy

As defined in *IT is about the Strategy*, the first strategy any SMB should embrace after their first period of growth should be the business layer strategy. It is time to halt the mad rush to implement new technologies which resulted in daily service and support issues and a mishmash of technology solutions. The business layer strategy entails categorizing the existing technology solutions into one of three technology layers and addressing each of these layers in a different strategic fashion. Please refer to Appendix 1-1 for a pictorial view of this strategy.

The third layer, or customer facing, is the top layer of technology and consists of the systems that touch the customer and support the delivery of products or services, whatever the core reason for being in business. Like the back office layer, this layer resides and functions on top of the infrastructure layer. These are the systems that support the existing client base or enable the business to secure new markets or new clients. This customer facing layer is where the business can and should differentiate itself. While outsourcing, standardizing, and basically homogenizing the first two layers (infrastructure and back office), the solutions here need to be unique and creative.

The result of this strategic exercise should be a written report. Please refer to the third tab on Appendix 1-2 for an abbreviated sample of a customer facing report. Using this framework, the business should describe the current customer facing situation and have a blueprint for resolving issues and growing the capability. Using this strategy, the business can define tactics which in this case are specific activities and projects required to execute the strategy. As with the back office the strategic plan will provide the blueprint for this strategic layer. Much like infrastructure and similar to back office applications replacing or converting customer facing applications is a very difficult thing to do and needs to be approached in a structured and tightly controlled fashion. All customer facing applications should be housed on the outsourced infrastructure or with an ASP. This adds a layer of complexity as far as timing is concerned. Timing should be one of the key factors for sequencing customer facing projects.

B. Customer Facing Applications Tactics

Customer facing applications can truly be unique. While every SMB seems to believe they are unique in all aspects of their business, I contend that each should only be unique in their customer facing applications and not in infrastructure or the back office. Customer facing applications are the only place where the business should even consider custom development due to the need for creative solutions. Custom development does not have to mean software development. The IT department does not have to build systems. In some cases there are packaged applications that do what needs to be done and fully meet the business requirements. If packages do not suffice, then component development should be examined. If the business is looking for competitive advantages in the market place it may well be found in new software component applications. If at all possible, avoid having the IT team sit down and start coding. Coding systems from scratch should almost never be done anymore. The IT department needs to be systems facilitators and systems integrators who select existing applications, components and tool kits and make them work together in new and unusual ways. Shareware and freeware may even be considered. Most likely the business cannot afford the time frames required for simple custom software development anyway. The tactical approach is as follows:

- **Consider building**

  The IT department may well be able to find products and services in the market place to provide basic functionality but here they may consider building before buying. Still try to avoid total custom development. Custom development is very expensive and historically eighty percent of all software development projects fail. Try constructing systems with components or building blocks instead of coding. Try developing custom applications with tool kits like work flow, document management, messaging tools and other engines or components. The business can still find a competitive edge in the creative use and application of some of these products.

- **Remember the interfaces to the back office applications but emphasize customer facing functionality**

  Consider the flow of data out of customer facing systems into back office sys-

tems like billing, receivables, and other accounting and financial systems. These interfaces could become customer issues if the interfaces fail or otherwise become inaccurate or unreliable. Do not let these become overriding concerns but document them as requirements and address them. The focus of the customer facing layer is functionality and the goal is to provide a competitive advantage to the business in the market place.

- **In-source by developing internal support capabilities**
  Here is where the IT department can turn the creative members of the department loose. Here is where creativity and technology savvy will pay dividends. The business has avoided committing the internal IT department's time, energy and effort to the first two layers of infrastructure and back office. Now the business and the IT department can commit to distinguishing itself from the competition in this, the customer facing layer. While structured techniques are still required, the technology people can be cut loose to explore and create. The challenge is to create functionality in new and creative ways to meet current and anticipated business needs.

C. Customer Facing Applications Tactics Execution

1. Develop the customer facing vision and scope

This is more difficult than it may initially seem. If the business is certain that they have identified the right customer facing projects, and that the choices are clear, please skip down to Section 2 below. Many businesses, however, are doing the wrong customer facing projects and are thereby working on the wrong things. This could be due to getting off on the wrong track initially or due to improper or inadequate scoping. Often times the need for immediate functionality by operations management forces "one off" and point solution installation. Business leaders involved in the day to day running of the business do not have the luxury of thinking strategically and will always pressure for a quick "one off" solution to meet their immediate needs. Individually these are not bad decisions but these tactics ultimately lead to an unsupportable non-cohesive mess.

The best way to view this scoping or vision challenge is to define the customer facing challenge from a process and functionality perspective. It may be a worthwhile exercise at this point to review the business model strategy for applicability. A summary is found in Chapter 6 and the book *IT is about the Strategy* discusses it in detail. Use the vision to examine existing package applications, solution sets and tool kits that are available for purchase. From a package application perspective, every vendor for every package starts with one core product focus and inevitably expands in scope as the product matures in the market place. An application may start out as a sales force management tool but then broadens to include functionality like time scheduling, or commission calculation, or even customer relationship management. Consequently, the business can solve one or many problems with any vendor's package solution. The challenge becomes one of scope. The trick is to determine how much functionality you should buy from any one vendor. You must determine how the product offerings fit with your view of the required function-

ality. This is no small feat. You can buy twenty point solutions or you can buy a single solution that attempts to do twenty different things. The real world situation will be that you will buy several solutions to garner the requisite functionality and what remains in question is where the functionality provided from one solution begins and ends.

This scoping challenge is a good reason to consider buying components instead of buying specific package solutions. Components can be used across the organization to provide functionality in different customer facing applications while purchased applications are generally requirement specific. Still, purchasing applications is recommended before coding anything. To summarize, the customer facing applications list needs to be developed in terms of processes and functionality, not specific products. Once the processes are identified, write requirements for each process. Only then can application products and solution sets be evaluated.

2. Attach the identified problems and issues

During your strategic exercise you identified problems and issues with existing customer facing applications components. You should have identified the additional functionality that you need to provide with application solutions. You merely relate these to the customer facing applications list. Again, express problems and issues in terms of processes, not products. Please refer to the third tab in Appendix 1-2 for an example of a problems and issues application list which should include issues like the following:

- Running on internal servers, need to move to outsourced infrastructure
- Homegrown package needs replaced
- Homegrown package that has been internally modified and has become a maintenance problem
- Does not interface easily to any other system
- Company has outgrown the package and replacement is required

3. Identify the projects

Identify the required projects by using the vision, scope and identified problems and issues. The customer facing suite needs to be fully scoped as described above and the entire solution suite needs defined at a high level before project work begins. Franklin Covey teaches “Begin with the end in mind”. This is true for defining the customer facing vision and identifying the projects required to fulfill that vision. It is important for the business to define the processes in detail for customer interaction. These must be used in selecting the products and services that are in essence the business capabilities. This process flow will allow for selecting technology components that can be configured and specified to provide customer facing business functionality. The result of this exercise will be the project list.

4. Sequence the projects

Strategy execution is not instantaneous and immediate. This is the real world. While the business should look for some quick wins, the business needs to develop a sequence

of execution that makes sense based on the criteria below. The goal is to prioritize projects based on the strongest positive business impact, the cost to the business and the available manpower. Remember, these are business projects and not technology projects.

- **Prerequisites** - Projects have prerequisites and the scope of the solution often dictates the project sequence. The projects may have to be built sequentially according to the process flow. Completed projects will have to coexist in an environment where legacy applications prevail so automated interfaces as opposed to manual will have to be considered.
- **Project components** - Which components being in place will enable the realization of the most functionality? Will the work flow component enable the business to fast track immediate functionality?
- **Affected business users** - Whether installing applications or component functionality, the impact on the business for their project participation must be scheduled.
- **Available personnel** - Has the business hired the right individual or individuals to manage the execution of these projects?
- **Pain points** - Determine which customer facing components are either having the most negative impact on the business or conversely will have the most positive impact on the business.
- **Funding** - Each project will require project expenses. Each project should also have a positive ROI. Perform the quick cost benefit analysis to identify the biggest winners.
- **Messages** - Which projects will gain the most positive publicity within the company and with customers? Which will send the most positive messages to the interested parties?
- **Risk** - Which projects carry a low risk and can be implemented knowing there will be some problems? Some projects will be high profile and high risk and need to be executed slowly and carefully.

5. Execute the construction or acquisition projects

Projects for customer facing applications will be one of two varieties based on your solution approach. The first is where the functionality is to be realized by buying applications or applications suites. This approach is consistent with purchasing back office functionality and a review of that chapter will provide basic guidelines. The second is where the functionality is to be realized by buying components or tool kits and the projects will consist of the following three activities:

- **Scoping and vision** - Scope the process flow, required functionality and vision. Identify the required components. This is discussed above in developing the applications list.
- **Component selection** - Review and select the components from the candidate suites. Conduct component evaluation and selection.
- **Integration of components** - Integrate the components to deliver the required functionality and build the applications.

There should be one project for the general scoping and vision exercise and two projects for each application or component. There will be one project for selection and one for installation and integration. Deploy an abbreviated basic and concise project management methodology. Please refer to the project management methodology in Chapter 10 under Common Tactics. Project execution for customer facing applications is much more difficult than for back office applications. It is easier to buy back office applications than it is to select components and integrate them for functionality. The most difficult part of project execution will be application and component selection. There is a well defined way to do this selection that will go a long way to insure success. Please refer to the package evaluation and selection methodology in Chapter 13 under Common Tactics. A summary of that process is described as follows:

- Define the customer facing application process flow (vision).
- Define the business and technical requirements.
- Define the scope (please see the relevant discussion above).
- Identify the applications or component tool kits required.
- Match the applications or components to the requirements and define the final solution in terms of which components will be used.
- Conduct product research.
- Identify the two to three potential solutions for each application or component requirement.
- Interview the vendors in a structured way.
- Develop the selection criteria in addition to the requirements.
- Map the vendors to the selection criteria and weight the results.
- Conduct customer visits.
- Develop a one page matrix with the vendors scored against the criteria to make the selection.
- Please see Appendix 13-1 for an entire package selection process example.

Once the application or component selection process has been completed the SMB moves on to package installation. This also requires a good project management methodology. From here the business moves on to day-to-day management of the application and the vendor. These issues are addressed below.

6. Execute the installation or integration projects.

Once the components or set of application systems have been selected, the work of installation and integration begins. These are also full projects and need to be managed in much the same way you would manage a software development effort. It requires the same amount of communication, testing and user interaction. Please refer to Chapter 6 for a discussion of projects, project capacity and project planning.

7. Managing the customer facing applications

If the route of purchasing customer facing applications was taken, please refer to Chapter 2 and follow the guidelines for managing back office applications. The same tools and techniques are required.

If the route of purchasing and assembling components was taken, please skip to Chapter 12 to address change management activities. Building from components moves the resulting applications into an internally built status and the day-to-day management of the application falls to internal staff. You will need a robust problem tracking and management system to adequately manage the application.

D. Customer Facing Applications and Personnel

IT leadership needs to take the lead on the vision and the selection process for applications and components. This is a very difficult undertaking and will require some solid organization and process skills. There may be some real value gained in getting outside consulting assistance to help manage and control these efforts. The visioning and scoping exercises themselves require an experienced and steady hand. The business needs to combine the creativity of the existing staff with structure and controls not often found in smaller SMBs. I recommend establishing a solid business partner relationship to assist with the vision, the application or component selection, installation and integration. It is important to use a blend of internal and external staff since support of the customer facing applications will need to stay with the SMB.

At the individual level for customer facing applications, the business needs creative technical skills to research, design, develop, project manage and support customer solutions. The skill sets here are mostly tactical. They require an excellent technical understanding and more than a little creativity. The hacker mentality is important but needs to be tempered with market awareness and the ability to evaluate and select software solutions. Once installed, the applications and solutions need to be supported while problems need to be tracked and resolved. The beginning of a service desk approach is required.