MOBILIZING SAP

Business Processes, ROI and Best Practices

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Chapter Twelve

Creating and Implementing Your Mobile Solution

Despite the tough IT environment, mobilizing SAP applications is a trend that continues to gather momentum. However, as is always the case with corporate change initiatives, successfully moving from the realm of technology's possibilities to the realm of concrete strategy requires considerable analysis, planning, and discipline. We anticipate that a mobile business strategy will not just be a nice-to-have but a need-to-have in the coming years, so in this chapter, we provide a disciplined methodology for developing a mobile solution strategy.

Introduction

Mobile field service, mobile asset management, direct store delivery, mobile sales, mobile employee-facing processes, and RFID — we covered a lot of ground in the previous section. We presented numerous case studies to highlight what is possible and what some best-practice firms have achieved.

We also illustrated through various examples that the days of the best-of-breed solution are numbered. Specialized mobile capabilities stitched together from niche providers are beginning to fuse into integrated, enterprise-wide infrastructure platforms. The most sophisticated mobile users and providers like SAP, in fact, are already thinking in these terms.

Now it's time to for you to ask: What mobile solutions and infrastructure am I going to implement in my company? How do I justify an investment? How do I execute?

In the current environment of cautious IT spending, dramatic productivity gains are becoming increasingly rare. Mobile applications have emerged

as a strong exception, with the potential to drive substantial increases in worker productivity. To build and deploy these applications you need a well-articulated strategy.

Developing a mobile solution strategy is a detailed, intricate process. Formulating one involves assessing mobile worker and employee needs, drafting a mobile blueprint based on those needs, and using the blueprint to prepare a comprehensive business case for gathering the resources — capital, labor, and talent — required to make the strategy a reality.

Envisioning how mobile technology can improve company performance is far easier than executing the strategy in a way that ensures profit. What makes execution difficult is often the process understanding and behavioral change needed among the employees or customers.

Mobile solution strategies invariably fail when they are conceived as handheld devices being slapped in front of some process rather than a new way of doing things. Remember, first-generation e-commerce conceived of a Web site as an "Internet strategy." The current generation of mobile solutions does not need to repeat this mistake. Underestimating the change effort required to deploy a mobile strategy wastes time and resources over the long term.

Figure 12.1 illustrates the different elements — user role, mobile business processes, mobile infrastructure (SAP MI), integration infrastructure (SAP NetWeaver), and back-end applications (ERP, CRM, and SCM) — that must be considered when crafting an effective mobile solution. As you can see from the figure, the mobile applications and the infrastructure are heavily interdependent. The quality of the infrastructure significantly influences the capabilities of the application.

Let's look at the steps involved in the creation of a mobile solution.

From Strategy to Implementation — A Roadmap

Mobile is a way of doing business, not a technology. Incorporating mobile into an organization involves four key elements: the solution strategy, business process evaluation, solution blueprint formulation, and tactical execution.

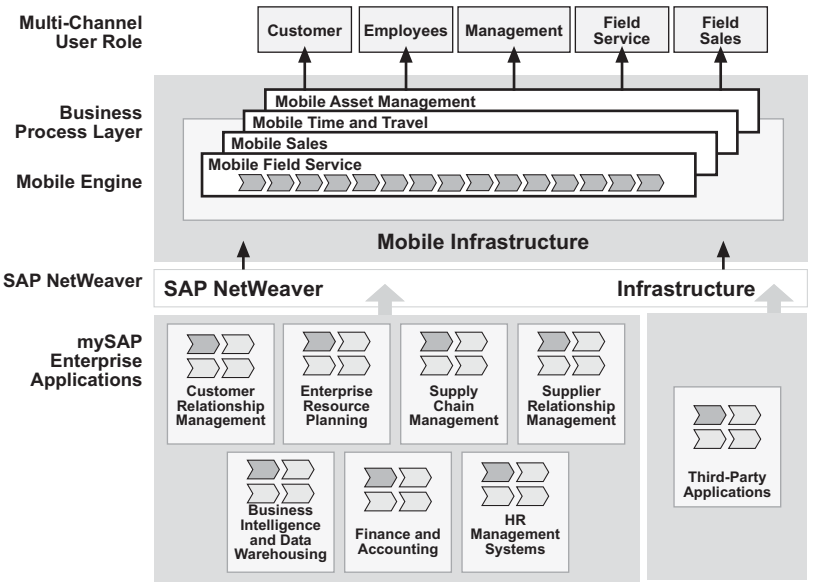

Figure 12.1: Elements of Mobilizing SAP

Mobile business will work only if it provides a complete solution to a problem. All too often, mobile is simply novel technology in search of a business problem. The first step of any solution strategy is to find and structure the business problem. Simply paving the cow path is not enough. You need to find something that can't be done the old way. In established companies, this is most often done by studying the customers in their natural environment to determine gaps between existing solutions and customer needs. For instance, mobile salesforce solutions solve the problem of providing remote users almost instant information, a capability unavailable through any other means.

Creating a solution strategy is a four-phase process.

Phase one: Based on a solid needs assessment, the first step of a solution strategy is to formulate an approach for meeting the business needs and structuring the problem that mobilizing a process is going to solve. The solution strategy clearly identifies why the company is pursuing a mobile strategy and what value it will provide the end users (for example, the service technicians or the salesforce).

Phase two: Once companies articulate and structure their problem, the next step is to figure out what the current state of the business process looks like and what the future state is going to be. The nature of field operations often makes it harder to identify what needs to be changed or fixed. A disciplined process analysis effort can overcome this problem. The process analysis feeds into a high-level blueprint. The Socratic adage "know thyself" is vitally important when structuring any initiative. So, don't underestimate the need for process analysis and evaluation.

Phase three: The solution blueprint is a statement of the strategic, operational, and technical issues the company must address before its mobile strategy can succeed. Why is a blueprint necessary? No sane person would think of building a house without an architectural plan. Yet many corporations attempt to build large-scale mobile applications without a blueprint. The high-level blueprint lays out how the solution strategy is to be implemented and what technology infrastructure is needed to make it happen.

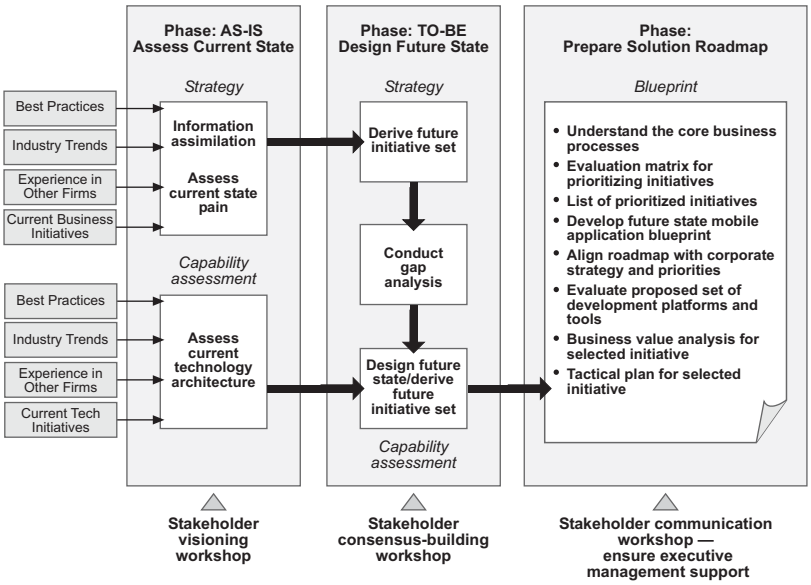

Figure 12.2: Steps in Creating a Mobile Solution

Phase four: Lastly, tactical execution is the implementation front lines, where strategy is converted into action. Here usability experts design

the user experience, business analysts create detailed use cases, and programmers create the applications and integrate the front-end user interface with the company's back-end infrastructure. This phase also focuses on how the mobile applications and devices will work with a firm's existing systems.

The next section discusses each of these four phases at length.

Phase One: Creating a Mobile Solution Strategy

In this phase, a team and its sponsors agree on what the mobile project is and what it should accomplish.

Formulating a mobile solution strategy requires taking the general concept of mobility and turning it into a viable business initiative. The outcome of this phase should be a concise statement of which users are affected, what their needs are, how the current processes fail to meet their needs, and how the company's mobile solution will solve the problem. The ability to articulate the strategy crisply demonstrates that the business concept has been thought through with care and thoroughness.

The following questions help define the end goal:

- After our firm implements its mobile solution, the employee is going to do _____.
- After our firm implements its mobile solution, the organization is going to be _____.

A clear statement of the destination is critical to formulating a successful mobile strategy. As with any corporate initiative, defined goals minimize the risk of a project deviating from its original strategy. Not only must the destination be clearly defined, it must also be measurable. In other words, the company and its employees must have a tangible, verifiable sense for knowing "we've arrived."

Specifying a quantifiable destination requires significant background work and analysis. Companies are often tempted to select a destination quickly, to pick one that has been widely written about or talked about. Such "momentum strategies" are similar to momentum investing in the stock market. They reflect a company's unwillingness to focus on its own

internal issues, unique characteristics, and customer needs when shaping its mobile strategy. Formulating a strategy takes patience and focus — both rare commodities in the time-deprived world of instant everything.

The first step in developing any mobile strategy is determining the unmet needs of the mobile worker and knowing what the workforce seeks that is novel or unique. The second step is honestly assessing the company's capability for meeting these workforce needs and preferences. A capability assessment identifies the skills and resources the firm currently has and identifies how to acquire the ones it doesn't have. Formulating any solution strategy requires a company to be conscious of its own abilities and limitations. Mobile business is no different.

What Is the Need or Pain?

Any serious attempt to map mobile solution strategy must start with the end user — his pain, his needs, his expectations, and his values. Hardly a new insight. Every manager knows that companies should assess the current state of their end users before introducing something new and unproven. Most business processes have inefficiencies that are best identified by listening to end-user unhappiness with existing processes. Removing the sources of dissatisfaction or offering end users a breakthrough on performance can result in mobile opportunities.

As we stated in the previous chapters, one relatively quick way to identify a mobile solution that has a high potential for a significant, quick ROI is by looking for any process that utilizes paper for data capture. Paper is an inherently slow, inaccurate tool for collecting data. Paper processes are often coupled with key data transmitted through conversations that are also error-prone and harder to track.

Many enterprises that have converted a paper-based process to an electronic form-based application on a mobile device have seen data collection times reduced in the field, more accurate data flowing to central enterprise servers, and faster business reporting. The very small size of PDAs available in different form factors, along with internal battery power that can support mobile workers for an entire day shift while wirelessly connected, makes them capable of handling tasks that are not possible with notebook computers.

Automating data capture in this way helps to reduce the overall time it takes to provide customer services. Automation enables more business transactions at the same staffing levels while improving overall customer satisfaction. Errors can be very costly, so in some cases error avoidance can be the vehicle for achieving a rapid return on one's mobile solution investment.

The bottom line for mobile solution strategy: Opportunities often come from viewing the world differently and from simple insights, but awareness of service and business process gaps is not enough. You must also understand how to address them using mobile technology.

The five critical steps in creating a mobile strategy include:

1. List the really painful process areas and prioritize,
2. Identify the potential payback from solving each pain,
3. Validate the pain by collecting some primary data,
4. Estimate the ROI and reprioritize, and
5. If ROI is significant, develop a preliminary business case to present to management.

Now you are ready for phase two.

Phase Two: Evaluating Business Processes

Even the most well-intentioned business strategies are often visionary, abstract, and qualitative. They remain at the 20,000-foot level, never becoming pragmatic, concrete, or quantifiable.

To pluck a vision out of the ethereal realm and ground it in everyday reality, a business must analyze its objectives, process structure, process limitations, and constraints. Most firms ignore this critical step when initiating a company project, believing that their business processes are well known. The reality is that most large firms know very little about themselves in terms of concrete tasks, skills, abilities, and resources.

The Difficulty of Process Analysis

Suppose you asked ten people who perform the same task to walk you through what they do. The odds of getting the same description from each person are slim. You would probably end up with ten variants of the same process.

So the question is: How do you improve and mobilize a process that is really ten different ones in reality? The lack of a standard, well-documented process model is one of the many reasons why mobilizing business processes can be particularly challenging. Filling that gap is a critical point in the process analysis phases because doing it well will significantly reduce downstream rework.

This is easier said than done. We have found that far too often corporate executives embrace a business vision but are incapable of staying focused on the next step. For example, a Fortune 50 company wanted to develop a consistent field sales experience across different business units. Everyone at the firm came to accept this vision during a two-day workshop. Their acceptance, however, was only philosophical, and they left the workshop wondering what to do next.

Luckily, this firm had a strong leader who stepped in to show the way. Over the next quarter, a mobile task force was set up to drill into the business process specifics. The task force took the time to understand salesperson' needs and preferences, the current AS-IS process, and how mobilizing the process could create value.

A good process analysis effort involves focusing on the company's internal operations and on how to extend them to implement the new mobile strategies. In this phase, the company is assessing whether or not it can achieve the mobile vision it has said it wants. It must honestly look at its current organization, business processes, and people to support the new vision. It must determine what changes need to be made to ensure success. Lastly, a process evaluation prioritizes each mobility project according to the "burning need" and the value the project brings.

Future State Process Design

Once the capabilities are evaluated and linked to the broad strategy, various opportunities or scenarios begin to emerge. At this time, it is

essential for companies to select a scenario based on what they know is right for them.

A capably executed strategy delivers better results than a seemingly more elegant one that does not reflect an organization's strengths. It makes sense to choose a sound strategy that meets financial goals and provides the best fit with the abilities of the organization.

When determining a company's "TO-BE" strategy, it is crucial to assess its strengths and weaknesses. Such an assessment can challenge long-held beliefs. However, strength and weakness are both relative concepts — relative to the competition and to customers' expectations. Yesterday's strengths may have become today's weaknesses without anyone in management noticing. A corporate self-examination clarifies a company's readiness in the existing business environment, given the vulnerabilities and risks to which it is open.

It is also important to uncover and address any differences between the philosophies of the various lines of businesses, the technology group, and that of the leadership. Often these differences are reflected in a business organized around application "stovepipes" resulting from political conflicts. Companies in which the application infrastructure isn't aligned with customer-facing or employee-facing business objectives must clean house before they can embark on a mobile strategy. As a result, top management commitment will be crucial in going forward.

What New Capabilities Do We Need?

Once a strategic scenario is chosen, capability assessments identify what the company must acquire, improve, learn, or build in order to make its mobile strategy a reality. The assessment step requires having a fully developed statement of the effort's scope and focus. The next step is to structure a firm's capability assessment and ensure that its vision and capabilities are clearly aligned, leading to the creation of a business case.

The assessment will reveal gaps in the company's current capabilities. These gaps have to be filled by either acquiring, hiring, or contracting, or through strategic partnering. If these missing capabilities are ignored, the company risks "mobilizing" its existing inefficiencies. In other words, it automates a mess. Despite the investments, the root causes of historical company problems remain, putting the project at risk.

A significant part of the assessment is evaluating application and information infrastructure readiness. Mobile infrastructure can either accelerate or impede an organization's ability to adapt to changing business conditions. The infrastructure design must be flexible enough to integrate emerging technologies without compromising the existing enterprise architecture. The ability to fully meet new business requirements is revealed during the infrastructure assessment.

The capabilities assessment phase should also factor in the change management requirements. It must assess the cultural willingness to change and whether the initiative is something the employees approve of or whether it is mandated by management. Never underestimate the changes required in culture, business practices, and operations when undertaking a company project.

The change plan should carefully phase in mobile initiatives with the company's overall strategy. A thorough plan details how the current business operations will be performed while transitioning to the new way of doing business. The plan should provide a sense of stability and security as the firm moves from its current to its future state.

Creating a Detailed Process Transition Roadmap

This step links a company's mobile "TO-BE" strategy with its current "AS-IS" capabilities. It describes the unique combination of capabilities, processes, partnerships, and funding needed to support a strategy.

Determining the appropriate structure for a new initiative means addressing a variety of issues, including creating transition models for bridging the old and new, developing a strategy to motivate employee adoption, and designing incentives to overcome employee inertia.

Employee inertia is a response to living and working in environments of constant change. It is essentially "innovation fatigue," and it creates a vicious spiral in which the pressure to perform leads to accelerated burnout. Employees become exhausted, with little energy for new innovation, and this stalls the change process. The result is greater disruption to the company's social structure.

When adopting any innovation, the transition should occur in a way that minimizes disruption. Capability configuration helps define a high-level

structure for making explicit exactly how the transition will take place and who will be responsible for making it happen. The structure and transition plan are documented in the business case.

The business case helps the executive team to fully understand the mobile business efforts and objectives. It relates the project's objectives to each executive's functional area and informs executives of the project's impact. It defines the scope, specific milestones, deliverables, activities, and critical success factors for each function.

Phase Three: Formulating a Solution Blueprint

A business case leads to a solution blueprint. The solution blueprint explores different alternatives for executing the mobile strategy.

Developing the blueprint forces management to consider all the aspects involved in creating the mobile solution. A blueprint ties together all activities on a project. A strategy may be well conceived, the business case carefully drawn up, the project adequately financed, the technology very sophisticated, and the consultants brilliant, but if the efforts of all participants are not coordinated and skillfully managed, the project may fail to meet the schedule, overrun the budget, or fall short of expectations. The larger and more complex the project, the more critical the overall solution blueprint is.

In preparing the blueprint, the firm must analyze the project's potential ramifications for existing technology, operations, and customer service strategies. The blueprint also outlines the human, physical, and financial resources the project requires. Further, the blueprint grounds the strategy in practical reality and saves time, energy, and resources that would have been consumed through trial and error. On a typical project, novel and puzzling problems have a way of cropping up constantly. The ability to respond to these challenges and creatively resolve conflicts can spell the difference between success and failure.

In more mature organizations, solution blueprint planning links the strategy, applications, and infrastructure together in an iterative design. Figure 12.3 shows a multitier model of the different elements of a solution blueprint. The challenge in solution blueprint planning is to try to preserve viable legacy assets, to replace outmoded assets, and to add

new ones — all in the context of a broader infrastructure (SAP NetWeaver) that links them coherently.

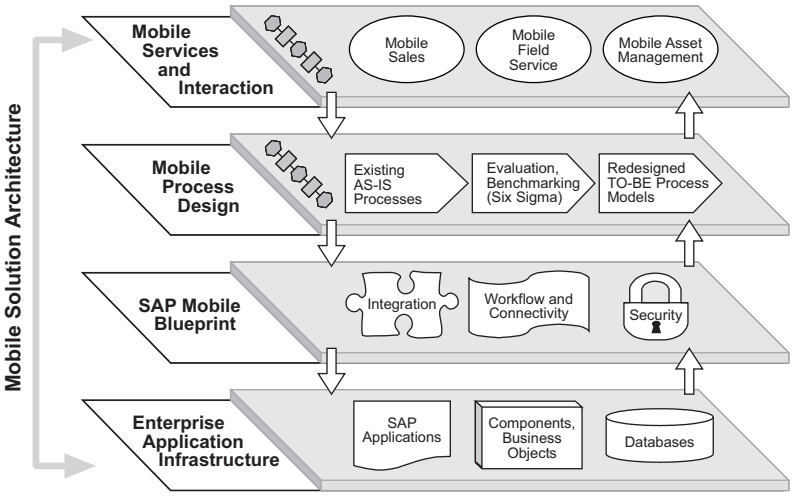

Figure 12.3: Mobile Solution Blueprint

When reviewing your blueprint priorities, be practical and balance expectations with reality. The mobile Internet is supposed to link applications and users effortlessly, ushering in an era of frictionless commerce. In this vision, the role of traditional infrastructure elements — legacy systems, applications, databases, and networks — would be supplanted, enhanced, or bypassed with more efficient technology. Barriers to information would go down, even as the complexity increases.

We have seen these scenarios before. Instead of falling prey to "visionary" rip-and-replace efforts, traditional infrastructure elements have maintained their presence in the corporation. Most companies get 99% of their information from existing applications. Bypassing the existing systems is a fantasy, so spend time thinking through how to integrate and leverage existing applications. That is the hard part of mobile solution blueprints — designing the right integration points.

In our experience, most "great strategies" have failed in linking the new with the old. Laying new mobile processes on top of the existing infrastructure often creates unforeseen problems. Today's typical corporate infrastructure comprises a diverse mixture of application

packages, legacy systems, and functional processes. Integrating them is often the most difficult part of any solution blueprint.

The solution blueprint evolves continuously. It requires considerable discipline to develop one that will survive over the course of the next decade as problems with device usability and slow Web access are overcome. A clearly thought-out and adhered-to blueprint plan helps to ground a company's mobile strategy in the realities of a business environment in flux. It is a living document able to adapt to business and technological innovations that will occur in the near future.

Phase Four: Tactical Execution

Given the relative novelty of mobile business, we recommend companies start with a pilot to test their assumptions and understand the terrain.

Mobile business may require different approaches in design, development, and implementation of applications due to the inherent characteristics of wireless networks and mobile devices. Whenever a new period of innovation begins, software architects, programmers, and managers strain their intuition hoping to gain an understanding of the applications most likely to work.

Mobile business implementations may be quite different from those of e-business. Corporations that want to gain a first-mover edge, whether by being the first to launch new channels, know how much they depend on new application architecture to achieve their objectives.

Usually, the architecture is a mix of costly and aging applications, hardware systems, and networks. Far from making it possible to achieve mobile application goals, it can make a mockery of them.

We often recommend that companies, especially large ones, refrain from leaping headfirst into the unknown, but rather prototype to understand the ROI, integration pitfalls, change management issues, and customer adoption patterns.

Only hard-won experience in the trenches will give companies this knowledge. As Theodore Roosevelt once said:

> It is not the critic that counts, not the man who points out how the strong man stumbled…The credit belongs

> to the man who is actually in the arena…who strives valiantly, who errs, and often comes up short again and again…if he fails, at least he fails while daring greatly so that his soul shall never be with those cold and timid ones who know neither victory nor defeat.

Step-by-Step Guide to Mobilizing Processes

RFID, wireless data, wireless Internet, wireless Web, pervasive computing, mobile computing, mobile commerce, mobile business — all point to the same thing: process change. Every mobile solution is at its core a systematic business process change management effort. You are changing the old ways of doing certain things and replacing them with newer, automated ways.

Like every change initiative, a mobile solution does not just happen; it must be designed with the users in mind and implemented systematically. In other words, certain existing processes (for example, field service) have to be literally disassembled into their fundamentals and reassembled to meet new objectives.

Disassembling paper-based processes and reassembling them as mobile processes is the theme of this section. To undertake this effort, you have to understand the current process inefficiencies that cause time, resources, and money to be wasted. Eliminating waste and creating new value implies a willingness to redesign the current way of doing things.

To bring about effective change, you must first understand the unique situation. The rest of this section guides you through the steps necessary to create and implement an optimum mobility-driven process change strategy. We use an iterative yet simple model to guide you in this process. The Six Sigma DMAIC process — define, measure, analyze, implement, and control — should help you to channel these mobile change management efforts.

If you already have picked a business process to be mobilized, then it is time to get your hands dirty.

Define the Problem — The Strategy

Always start with the users (the buzzword for this is customer centricity). Figure out what they want and how to better satisfy them. Take a 50,000-foot view to identify the key output variables (the buzzword for this is critical-to-quality) and list what is important to customers. Do you understand your customer's pain?

Defining the problem means collecting, defining, and communicating all the background information on the current product, process, work environment, and customer or end user. The detailed steps for defining your problem follow.

Clearly state the business context. Define the scope of the business context. Delineate your boundaries clearly (Who are the customers? What are the outputs? Who are the suppliers? What are the inputs? What are the expected outcomes?). The output of this step is a project charter (What do we want to accomplish?). For instance, in a project involving digitizing field service, the project charter is to reduce end-to-end problem-to-invoice process cycle time from an average of 3 days to an average of 24 hours.

Be the customer (or user). Take a moment and look at your organization from the customers' perspective. What do they see? Mobilizing any process requires you to look at the processes from the customers' perspective, not yours. In other words, study processes from the outside in. By understanding the transaction lifecycle with customer needs in mind, you can discover what they are seeing and feeling.

Voice of the customer (VOC), a customer interview and analysis technique, is a useful method for gathering firsthand information about what the customer is looking for. With this knowledge, you can identify areas where you can add value or improve from their perspective.

Map the current process. What broad steps (composite processes) are needed to serve a customer? Assess and map the high-level flows of products, programs, services, information, and payments as appropriate and based on the end-to-end services. Without knowing how you or customers complete an activity at least at the high level, you will never know how to change it for the better.

Figure 12.4 illustrates the yawning gap between expectation and reality. Why does the gap exist? After several years of evolution, process flows tend to get complicated as time progresses. Companies buy other companies; they sell off some companies. They grow from 100 to 10,000 employees. Workflows become convoluted. The challenge usually is to think of new ways to simplify those flows.

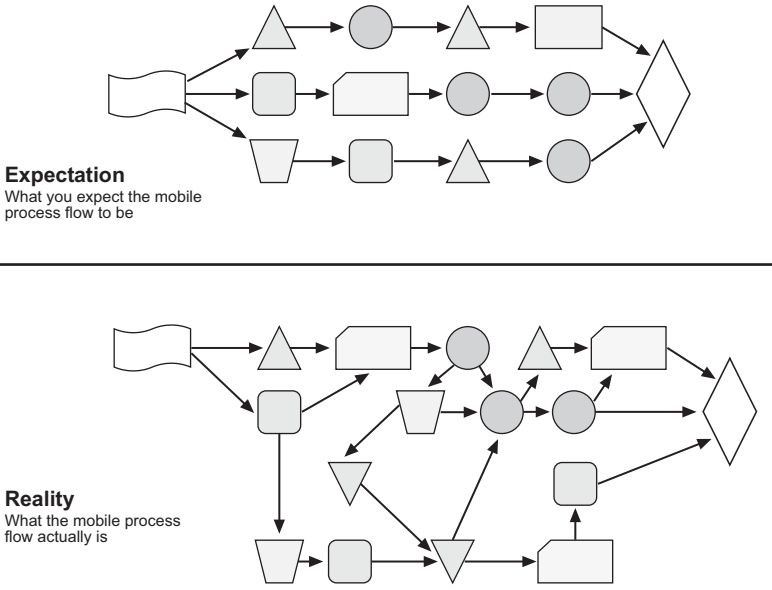

Figure 12.4: Process Expectation versus Reality

Measure — Process Analysis

After you finish defining the high-level process, you must begin studying the details. Developing the detailed process decomposition is the foundation of mobilization. It keeps efforts grounded in reality.

The detailed steps include:

Draw an AS-IS map. Start with current state and validate boundaries, values, company outcomes, vision, and mission. Adjust the initial assumptions as necessary to reflect reality. The output summarizes current reality in a visual map that allows the whole organization to see the opportunity. Understanding the assumptions behind a process is

extremely important. Certain processes are the way they are for a reason. Not understanding these reasons will create problems downstream.

Drill down. Take each portion of the current state and drill down one layer to the next level of processes, flows, components, or influences. Drilling down one layer makes the interaction of the various flows more apparent and allows more data to be gathered and analyzed. Drill down is a long, tedious process and often the step where firms begin to lose interest. Extracting details of the different ways tasks are being done in the real world takes quite a bit of detective work.

Conduct a process walk-through. What is causing the process to break down or be inefficient? What causes variations? Variation is what you encounter when you walk up to the counter and get great service once and lousy service another. Variability is the enemy of consistency and customer satisfaction. Overlay the soft stuff (workforce issues) with the hard stuff (technical components) of the flow not already captured and mapped. Validate the existence of the connections and the decision points of the process decomposition structure.

Perform linkage analysis. Capture relevant data that is measured in terms defined by the company and understood consistently (to prevent data comparison flaws). That is, capture the metrics or information available for each piece and analyze the behaviors that each generates. Conduct assessments to capture other data elements and to create a comprehensive view.

Talk to the people who actually perform the work that you are studying as they are the most knowledgeable about how to improve the workflow and eliminate variation. Then start measuring and refining. Remember to measure current customer satisfaction constantly because that is your ultimate measure of success.

Analyze and Improve — Solution Blueprint

The next action is to develop a practical TO-BE map for what you would like to achieve in the near future. To reach this point, you have to change your processes to maximize customer satisfaction and identify performance gaps and improvement objectives. This often involves

slicing and dicing the AS-IS data to understand the existing process conditions and problems that create customer dissatisfaction.

The detailed steps include the following:

Conduct a process analysis. Analyze and capture bottlenecks, flow, value inhibitors (whether social or technical), costs, risks to flow, and risks to success criteria. Group these findings into priorities and analyze them to understand how they affect service and wait time, resources, and money. Prioritize the list of changes into short term and long term and assess the impact of each proposed process change.

Create an ideal state. The ideal state should include process, technical, and social elements. Perfection is impossible, but reaching for it stimulates breakthrough thinking and analysis that will create a more robust future state.

Develop a version map. Take your ideal state and work backwards. Create a TO-BE version map achievable in a relatively short-term window (six to nine months) based upon that ideal state. Versioning is a commonly used method of moving towards an ideal state.

Conduct a feasibility analysis. Assess and analyze the gaps in the ability to achieve the next version. Create a balanced set of metrics for success and confirm behaviors generated conform to the future state directives.

Simply tweaking the old work processes may not be enough to implement these changes. You may have to invent new ones.

Implement — Tactical Execution

Customer-centric design is consistently giving the customer what they want, when they want it. Once the root causes of problems are determined, the goal is to implement solutions that minimize, reduce, or eliminate them altogether. The detailed steps follow.

Design the mobile platform. Establish and implement actions, programs, or events to create value and eliminate inefficiency in order to achieve the future state.

Develop project management structure. Create necessary project management infrastructure (including organizational structure) to ensure leadership, integration, course corrections, validation, and accountability for the changes. Analyze risks, change management issues, and other inhibitors of successful implementation.

Control and Learn — Versioning

A critical part of execution is the ability to evaluate and learn. In this step, the firm analyzes before and after data, monitors the overall project, and documents the overall user acceptance. The detailed steps include:

Manage change. Establish a change management program to get adoption. Simply implementing the applications and taking a "build it and they will come" approach usually fails. People tend to resist imposed change; thus, overcoming it requires a deliberate strategy. Create a marketing and communication plan to ensure stakeholder enrollment, ownership and accountability for all actions and ongoing analysis.

Analyze the return on investment. What value did your efforts yield? Quantifying the ROI is a great way of forcing everyone involved to understand that there is a financial goal that anchors process mobilization. Based on the ROI, decide on a renewal period to revisit and adjust the future state (a continuous versioning view) on the path to the next state. To make this happen, you need to collect detailed data on mobile process performance.

Learn. Repeat the entire process for the next version, but reflect first. Usually, managers have little or no time for reflection. This important step helps articulate various dysfunctional underlying dynamics that are causing problems.

In summary, designing a mobile solution requires making choices in seven areas. It requires specifying *what outcomes* are to be produced and deciding *who* should perform the tasks, *where* they should be performed, and *when*. It also involves determining under which circumstances *(whether)* each of the tasks in the field should be synchronized with the back end, *what information* should be available to users, and *how thoroughly* each task needs to be performed.

Summary

"People who get on in this world are the people who get up and look for the circumstances they want, and, if they can't find them, make them."

— George Bernard Shaw

Why is it that when you have two companies with the same capital assets and a similar number of employees one struggles and the other grows steadily? The difference in operational performance comes from how work gets done: how companies do what they do, how they operate using mobile technology. The quality of the mobile strategy and its execution are the difference between success and failure.

The answers to five questions — why, what, when, where, and who — form the foundation of mobile solution strategy. A constantly changing business environment makes mobile strategy more, not less, important to business success. Yet we can safely predict that many organizations will fail to create effective mobile business strategies. As a result, these firms risk investing valuable resources in poorly conceived initiatives that will at best return mediocre results.

Established firms must decide for themselves whether to spend time and money carefully defining a mobile strategy. If they decide to do so, the time has come for their management to understand the potential of new mobile applications and begin the necessary planning to integrate them into their business processes. If they choose not to pursue a mobile initiative, competition and new entrants most likely will.

Finally, when creating a mobile solution strategy, a company must plan as though it is confronting a moving target. Hence, what matters is the ability to adapt the plan to market and customer reactions rapidly and smoothly. Flexibility is thus a cardinal principle of mobile solutions, but it will be of benefit only if it is bound by a rigid disciplinary framework. Flexibility and discipline, however, are not easy to combine. In many cases, they can be achieved only at each other's expense. The next decade promises to be a very interesting one.

About the Authors

Ravi Kalakota, Ph.D., is the CEO of E-Business Strategies. Dr. Kalakota holds the distinction of having co-authored the bestsellers e-Business: Roadmap for Success and Frontiers of Electronic Commerce. He has consulted extensively with Fortune 1000 companies such as SAP, Sun Microsystems, Intel, Guidant, and AT&T, and is a sought-after speaker. Previously, Dr. Kalakota has held the Georgia Research Alliance Chair in E-commerce at Georgia State University, the Xerox Chair in Information Systems at the Simon Graduate School of Business, University of Rochester, and also taught at the University of Texas at Austin.

Paul Kurchina is regarded as an SAP visionary and a leader in exploiting SAP technologies. Currently, Kurchina is driving Process/Application Architecture and the Mobile/RFID program for TransAlta, a global electrical generation and marketing company. Since joining the Americas' SAP Users' Group (ASUG) in 1993, he has held multiple leadership positions in enterprise portals, plant maintenance, utilities, production strategies, and enterprise architecture. He is currently leading an SAP NetWeaver Mobile Influence Council within the SAP user community. Kurchina became actively involved in the SAP world in 1993 through previous positions at Ontario Hydro and PricewaterhouseCoopers in which he developed and launched large-scale IT initiatives.

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