

# M&As: Can IT Make the Difference Between Success and Failure?

## It's About Reducing Risk

Failure to include IT in M&A due diligence activity puts unnecessary pressure not only on the IT organization, but also on the business. Technology due diligence defines business issues and needs that require IT support.

## It's About Increasing Value

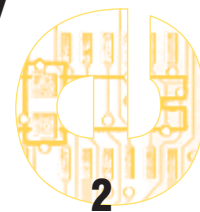
Business operations that plan to leverage components of an M&A require IT support to achieve their objectives. Early IT due diligence positions IT to facilitate the projects that are needed to leverage the new company's operations.

**“Companies that include a technology transition plan in their due diligence process are more likely to operate effectively and manage the technology resources of their new company successfully than those that do not.”**

— Mike Sisco, Guest Editor

## Opening Statement

by Mike Sisco



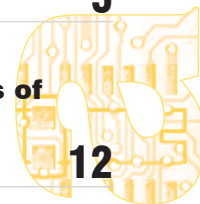
## M&A Technology Due Diligence: A Framework for Assessing the Good, the Bad, and the Ugly

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by Dan Tankersley



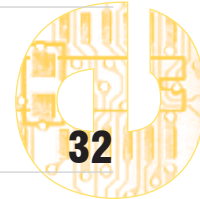
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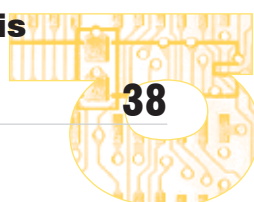
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## Opening Statement

by **Mike Sisco**

With the economy improving, corporate merger and acquisition (M&A) activity is heating up once again. The 1990s witnessed a record number of company acquisitions across virtually all industries — with the number of failures rivaling the number of successes. Over the years, I have witnessed the good and the bad when it comes to company acquisition. On the one hand, I've seen mergers that resulted in significant leverage opportunities for both companies. On the other hand, I've watched large companies suffer terrible losses and even go out of business as they failed to absorb their newly acquired companies effectively.

What is driving these successes and failures? Many would argue that the approach used in the due diligence process has a significant effect on the outcome of an M&A.

Companies planning to acquire other companies have different philosophies regarding the due diligence process. Some conduct only legal and financial due diligence and take the chance that their operations will continue to function seamlessly after the merger. Other companies choose to minimize their merger risks by conducting a more comprehensive due diligence process that will identify key areas that have

technology implications and will require IT support to resume normal operations. In my experience, companies that include a technology transition plan in their due diligence process are more likely to operate effectively and manage the technology resources of their new company successfully than those that do not.

Let's break this down a bit. I have personally managed the technology due diligence and IT transition planning for more than 40 company acquisitions. In most of these situations, the business executives understood the importance of including IT (and other department managers) in the process of evaluating the company in order to develop a smooth transition plan.

Let's face it; merging two organizations together is difficult business. It's even more complicated when the organizations have entirely distinct cultures, use dissimilar technologies, and go about their day-to-day operations in vastly different ways. Anytime you introduce change to an organization, you risk upsetting the apple cart. In other words, there is a good chance you will see an overall decline in productivity and effectiveness until you complete the transformation whereby the two companies become one.

The Model-Netics management training and development program has a great management model called the Change Curve. The essence of this management principle is that when you try to improve something, most of the time you go through a period of decline before the improvement is actually achieved. Figure 1 illustrates the Change Curve, which represents what happens in virtually all M&As, even the successful ones.

When I've been involved in company acquisition projects where IT was called in after the fact, it always seemed to be an uphill battle in which "catch up" became the common theme. Introducing technology change in a company requires planning and time to execute properly. Otherwise, we all know the disastrous results that can take place when technology changes are implemented without sufficient planning. Furthermore, determining what the technology strategy should be and prioritizing



Figure 1 — The Model-Netics Change Curve.

technical initiatives are not simply point-and-click processes. Developing an appropriate strategy that will leverage the M&A takes time and a commitment to understanding many aspects of the business environments of both companies.

When you throw in the emotions and issues that people of different organizations bring with them, you end up with quite a challenge. The people in the two companies are what will make or break a merger. Getting them to buy in to the rationale and objectives of the merger can be a daunting task, and that goes for employees of the acquiring company as well as the acquired company.

Transitions of any type go more smoothly when an organization engages in proper planning and thought. An M&A is no different from any other project in that, to be successful, we need to establish objectives, conduct a proper and thorough assessment, and develop an achievable plan — in this case, to transition the various components of the entities to be merged.

The six articles in this issue of *Cutter IT Journal* provide useful insights concerning the technology, process, and people issues we face when we get involved with an M&A from an IT perspective. There are case studies that bring out the positives of effective planning and the negatives that arise when companies bypass IT during due diligence and planning. In addition, there are many excellent points and techniques to consider that will help make your next M&A a real success.

We begin with Cutter Consortium Senior Consultant Steve Andriole, who provides a framework for conducting an M&A technology due diligence, including many pertinent questions to ask yourself in 12 key framework categories. These questions will be beneficial for experts in due diligence as well as those who are learning about due diligence for the first time. Another interesting feature of Andriole's article is a due diligence "calculator" that will help you assess the likelihood of a successful merger. I think you will find his article and the tools he provides to be very helpful.

Our second article is one you don't want to miss. Claude Baudoin and Stephen Price share several case studies of the many mergers and acquisitions the oilfield services giant, Schlumberger, has worked through over the years. As you might expect, there have been some great successes and others that we all like to call "learning experiences." These learning experiences have led Schlumberger's IT operations group "to design and implement a number of best practices aimed at increasing the efficiency and reducing the cost of the IT activities caused by changes in the corporate structure." Honed through years of M&A activity, these practices have yielded impressive results. The authors also include a short IT due diligence checklist that is a good takeaway from the article.

Next, Dan Tankersley discusses personal experiences on both sides of company acquisitions. To minimize the risk of an M&A, Tankersley

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argues, companies must focus on retaining key employees, assimilating infrastructure support systems as swiftly as possible, and serving customers, some of whom may also be compelled to transition to new technology as a result of the merger. Honest communication with employees and customers is critical to a successful M&A. Tankersley advises: "Keep them informed even if the news is bad."

In our fourth article, Charles Butler and Gary Richardson tell us what CIOs must do to be proactive and informed about the company's M&A initiatives. They make a solid point that IT considerations may not make or break a deal, but company executives who understand the importance of IT in planning the transition efforts have better odds of leveraging a merger or acquisition. They note that the rush to find a competitive advantage often drives M&A activity, but failure to include IT in the early stages can reduce the resulting value of a merger.

Next, Reagan George tells the tale of a merger gone awry. The trouble

began when the acquirer failed to perform IT due diligence *before* the acquisition. By the time George's company (Paragon Business Solutions) was asked to recommend which of two different software applications the acquirer should implement company-wide, the hidden agendas were already in place. George emphasizes the need for an objective, multidimensional IT assessment to ensure that management makes the best-informed technology choices for a newly merged company. But objective information is not enough — politics and "predetermined conclusions" can often dictate the direction of M&A transition action items. George recommends conducting the assessment in the due diligence phase, "when the management team is usually much more motivated to take an objective view" of both companies' IT strengths and weaknesses.

Finally, Tom Carpenter examines the human factors that can significantly impact the merger of two organizations. He argues that many M&A failures can be attributed to

three causes: ignoring the IT culture, overlooking the in-place technology, and underestimating the impact of the project. According to Carpenter, better requirements analysis and, especially, *human needs analysis* are the solution. "To be successful," he suggests, "your solution must help the IT professionals involved to achieve *results*, build *relationships*, have *security*, and receive *recognition*." By tending to these four core human needs, organizations can better overcome their IT professionals' resistance to change and "assist in a smooth transition to the future."

The six articles in this issue of *Cutter IT Journal* provide a variety of insights into the importance of conducting IT due diligence when companies embark on M&A initiatives. Early involvement of the IT organization boosts a company's odds of a successful merger by positioning IT to plan an orderly technology transition that supports business objectives and leverages technical resources.

## IT-Related Litigation: Likely Trends and Recommended Practices

Guest Editor: Ed Yourdon

From projects that are behind schedule and overbudget to ever increasing outsourcing, it's more important than ever for IT organizations to formulate a proactive strategy to protect their IP and ensure that their outsourcing contracts won't degenerate into a litigious confrontation. Next month, we'll explore the litigation-related trends we are likely to face over the next several years and offer proven strategies for dealing with litigation both before and after a lawsuit is filed. You'll get real-world case studies and lessons learned, best practices for minimizing risk, a checklist for acquisitions, and more!

# M&A Technology Due Diligence: A Framework for Assessing the Good, the Bad, and the Ugly

by Steve Andriole

It should come as no surprise that many mergers and acquisitions fail to deliver improved shareholder value. Perhaps the most famous recent example is the Compaq and HP merger and the turmoil that ensued when promised milestones failed to materialize.

There are all kinds of business criteria that should be evaluated prior to a merger or acquisition. Some of the more obvious ones include synergism among the business models, cultures, and processes. But there are also many technology criteria that speak directly to how easy or difficult it will be to integrate and optimize the technology of the companies in question. If the technology infrastructure, architecture, and applications are incompatible, there will be serious — and expensive — problems with integration and optimization. There are also philosophical issues to assess. How is technology acquired? What sourcing deals are in place? How is technology organized? To whom do the technology leaders report?

The problems — as always — are part technical, part organizational, and part human. For years our industry has distinguished among “people,” “process,” and “technology” criteria; M&A due diligence should include these — and additional — factors.

Formal M&A due diligence efforts require a framework for organizing and assessing the due diligence criteria that matter. The framework should include criteria that address all aspects of the technology environment, and it should also accommodate criteria weighting, among other methodological capabilities.

## AN M&A TECHNOLOGY DUE DILIGENCE FRAMEWORK

Figure 1 presents a framework that can be used to conduct formal M&A technology due diligence. The framework identifies the broadly defined criteria that members of the due diligence team will have to consider as they assess the

strengths, weaknesses, opportunities, and threats (SWOT) that the M&A opportunity presents.

The framework also supports a methodology for assessing the criteria and the overall likelihood of M&A success. Frameworks can be used to assess the “current state” in both companies as well as the “end state,” or what happens after the merger or acquisition.

### Definitions

The first step is to define each of the criteria with special reference to the merger or acquisition at hand. Let’s look at the criteria and list some of the questions that the technology due diligence process should pose.

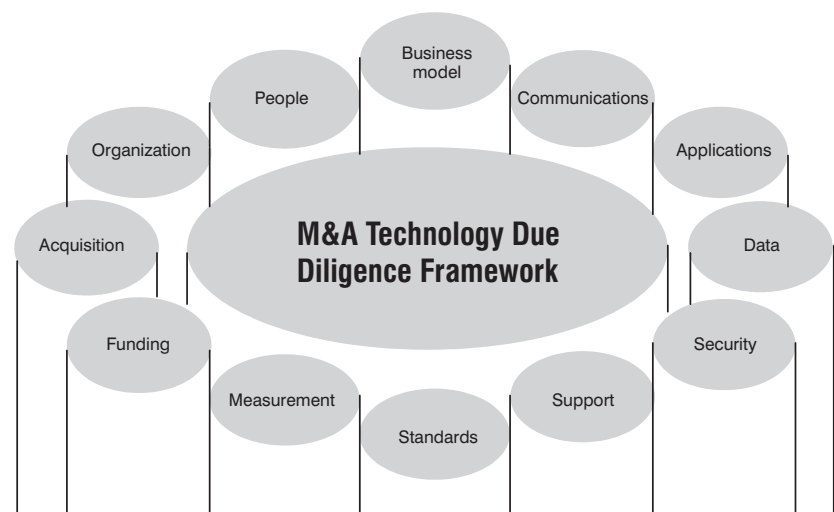


Figure 1 — M&A technology due diligence framework.

#### Business Model

- What's the primary business model we need to support with IT — merger or acquisition?
- How clear is the model?
- Is the business model working?
- What are the supporting business processes?
- How well defined are the processes?
- How well do the processes map onto expense management and profit?
- How well developed is the e-business strategy?
- What are the major infrastructure and applications requirements?

**Do you know where company and customer data is?**

#### Communications

- Is there a network/communications architecture and messaging strategy?
- Is there an overall e-business communications strategy?
- Have customer service, remote access, and network/systems management been redefined around a flexible communications strategy?
- Have the applications evolved with the communications infrastructure?

- Is a network and systems management framework in place?
- Is there a comprehensive wireless strategy?
- Is there a workflow strategy?

#### Applications

- What applications are deployed, and what business functions do they support?
- Are the applications linked with business processes and rank-ordered according to their importance?
- Is the applications portfolio consistent with the business models and processes?
- Is the applications portfolio optimized?
- Is there a standard applications architecture?
- Are there standard transaction-processing platforms?
- Are the applications correctly distributed across mainframes, client-server platforms, and Internet-based platforms?
- Are Web services initiatives underway?
- Are service-oriented architectures in development?
- Are major enterprise resource planning (ERP) applications in place?
- Are major customer relationship management (CRM) platforms in place?

#### Data

- Do you know where company and customer data is?
- Is the data secure?

- Are there common data structures?
- Can the data be migrated?
- Is legacy data accessible via the Web?
- Is there a data integration/warehousing/mart/mining strategy?
- Have data warehouses/marts been deployed?
- Can unstructured data be integrated and mined?
- Have profitable and unprofitable customers been identified and profiled?
- Is an information architecture in place?

#### Security

- Is there a data security program?
- Is there a security awareness and training program?
- Is there a security architecture?
- Are security authentication methods in place?
- Are security authorization methods in place?
- Is a security administration application in place?
- Are there security standards?
- Is there a security risks database?
- Are disaster recovery and business resumption planning programs in place?
- Is firewall technology current?
- Is encryption technology current?
- Are biometric authentication initiatives in place?

- Is there a public key infrastructure architecture?
- Has the company passed its most recent digital security audit?

Support

- Is there accurate data on support spending?
- Is there accurate data on support effectiveness?
- Are service-level agreements (SLAs) in place?
- Are well-defined support processes in place?
- Does accountability exist in the support environment?
- Is support optimally sourced?

Standards

- Are desktop, laptop, PDA, cell phone, and messaging standards in place?
- Are the desktop, laptop, PDA, cell phone, and messaging standards enterprise-wide?
- Are communications hardware and software standards in place?
- Are the communications standards enterprise-wide?
- Are application development standards in place?
- Is there a standard applications architecture?
- Are standard project, program, and risk management standards in place?
- Has the value of standards been quantified?
- Are there ongoing “religious wars” over standards?

Measurement

- Is there accurate and timely data on how the computing and communications infrastructure is performing?
- Is measurement a part of the reporting culture?
- According to stakeholders, how well or poorly does technology support the business?
- What is the perception of IT performance in the company?
- How does this performance benchmark against the industry?
- Can processes be measured?

Funding

- What is the charge methodology for technology? Fee-based? Chargeback? Other?
- Is the rate determination program “negotiable”?
- Is there enterprise/business unit balance in charging?
- Are any events “centrally funded”?
- Is the inhouse technology organization financially competitive with outside providers?
- Who pays for infrastructure upgrades?
- Is technology moving toward a shared-services model?

Acquisition

- Are “core competencies” well or poorly understood?
- How varied is the technology acquisition strategy?
- What is the prevailing sourcing strategy? Outsource, insource, or cosource?

**What is the perception of IT performance in the company?**

- Can sourcing effectiveness be measured?

Organization

- Is the technology organization aligned with the business?
- How do the business units perceive the technology organization?
- Are internal customer satisfaction surveys administered?
- Does the CIO report to the CFO or the CEO? Other?
- Is the company current in its regulatory compliance requirements?
- Is technology governance strong or weak?
- Is there a technology council?
- How are technology disputes resolved?
- How is R&D managed?

People

- Are the current skill sets well understood?
- Have future skill sets been identified?
- Are skills gaps well understood?
- How are technology professionals recruited, developed, and retained?
- What’s the attrition rate?

	Score (1-10)		
	Us	Them	Together
1. Business model			
2. Communications			
3. Applications			
4. Data			
5. Security			
6. Support			
7. Standards			
8. Measurement			
9. Funding			
10. Acquisition			
11. Organization			
12. People			

Figure 2 — Unweighted due diligence calculator.

	Weighting Factors	Score (1-10)		
		Us	Them	Together
1. Business model				
2. Communications				
3. Applications				
4. Data				
5. Security				
6. Support				
7. Standards				
8. Measurement				
9. Funding				
10. Acquisition				
11. Organization				
12. People				

Figure 3 — Weighted due diligence calculator.

- How does the attrition rate compare with the industry's?
- How are technology professionals incentivized?

These definitions and questions are, of course, flexible. Each business will have a different set of definitions and questions that speak directly to the vertical space that the company occupies as well as regulations that govern the industry in question.

### Calculations

The calculations for assessing the likelihood of a merger's or acquisition's success are straightforward. The easiest approach assumes that each of the 12 technology criteria is as important as any other, and thus all the due diligence criteria should be weighted equally. Obviously, another approach involves weighting the criteria according to their relative importance. For example, you might determine that the most important criteria are applications and data synergy. Or you might decide that standardization of the computing and communications environment is the most important criterion. Regardless of the approach you take, you will need to convert judgments about each of the criteria into a quantitative value, usually on a scale of 1-10.

Figure 2 presents an unweighted due diligence calculator. Figure 3 presents a slightly more complicated calculator that includes criteria weighting. Note that there are assessments for "us," "them," and "together." These distinctions are extremely important.



Why assess yourself? Context is critical. A merger or acquisition creates a good opportunity to assess how well (or poorly) you're doing in the 12 areas. It also obviously requires an assessment of the merger or acquisition target. But perhaps most important is the "together" assessment: if the combined technology assessment is low, then a red flag should appear. It may be that the combined effect in a specific area is negative. For example, imagine a situation where your technology environment is nonstandardized and the merger or acquisition target is even more varied. The combined effect is chaos. Similarly, while you might source most of your technology expertise inhouse, your merger or acquisition partner might outsource everything. How do you reconcile these approaches to technology acquisition?

The outcome of the calculations — as we'll see in the example below — is a quantitative expression of the "flavor" of the current state and expected end state of the merger or acquisition. Flavor? Not a definitive answer? The framework and calculators help managers understand the M&A issues that they will have to address immediately, in the short term, and in the longer term. Because the weights and scores are based upon empirical data and subjective judgments, there will always be some room for interpretation. At the same time, there will be some clear issues and challenges that result from, for example, major differences in areas such as standardization,

sourcing, security, and/or organization.

**A Real-World Example**

Let's look at an example to demonstrate how this approach can be implemented. Aspects of this exercise are derived from some actual acquisitions conducted while I was at CIGNA Corporation in the 1990s. During that time, several acquisitions occurred, and the technology organization conducted due diligence regarding the "fit" between the acquirers and the acquirees. This example draws from the due

diligence conducted around the acquisition of a healthcare company, which was designed to increase revenue and — of course — reduce expenses, improve market share, increase earnings, and so on and so forth.

Figure 4 demonstrates how the methodology can be applied when weights are not used. Figure 5 demonstrates how weighting can influence the outcome of a due diligence assessment.<sup>1</sup>

The most interesting thing about the exercise is how much worse

<sup>1</sup>Note that the overall results of the unweighted and weighted exercises are the same. This is because the weights in Figure 5 are pretty evenly distributed, meaning the relative importance of the due diligence criteria was fairly equal. If the weights had been more widely distributed, the results would have been different.

	Score (1-10)		
	Us	Them	Together
1. Business model	7	5	6
2. Communications	4	7	6
3. Applications	9	2	5
4. Data	8	9	9
5. Security	9	1	5
6. Support	9	1	5
7. Standards	9	9	10
8. Measurement	6	6	6
9. Funding	7	8	9
10. Acquisition	8	2	4
11. Organization	9	8	9
12. People	6	6	6
<b>Total</b>	<b>91</b>	<b>64</b>	<b>80</b>

Figure 4 — Illustrative (unweighted) technology due diligence exercise.

	Weighting Factors	Score (1-10)		
		Us	Them	Together
1. Business model	.10	7/.70	5/.50	6/.60
2. Communications	.05	4/.20	7/.35	6/.30
3. Applications	.10	9/.90	2/.20	5/.50
4. Data	.10	8/.80	9/.90	9/.90
5. Security	.10	9/.90	1/.10	5/.50
6. Support	.05	9/.45	1/.05	5/.25
7. Standards	.10	9/.90	9/.90	10/1.0
8. Measurement	.05	6/.30	6/.30	6/.30
9. Funding	.05	7/.35	8/.40	9/.45
10. Acquisition	.10	8/.80	2/.20	4/.40
11. Organization	.10	9/.90	8/.80	9/.90
12. People	.10	6/.60	6/.60	6/.60
<b>Total</b>	<b>1.00</b>	<b>91/7.80</b>	<b>64/5.30</b>	<b>80/6.70</b>

Figure 5 — Illustrative (weighted) technology due diligence exercise.

the acquiree was than CIGNA in many areas. The business model of the acquiree was synergistic but not perfectly so. For example, the company was still committed to multiline insurance offerings, while we were not. The net effect was a loss of some of our business model's focus.

On the other hand, their communications technology was better than ours. We would actually upgrade our communications technology through the acquisition, principally because of the acquiree's use of the Web to communicate with their customers. Unfortunately, their applications were woefully old; it would be expensive to maintain these legacy systems and even

more expensive to integrate them into our applications portfolio.

The overall database environment was pretty much a wash: we had solid database technology and platforms and so did they. They were slightly better than we were because they had successfully deployed a data warehouse that integrated a lot of their disparate customer data. However, their security architecture was weak, while ours was solid. The net effect of the integration would reduce the overall security effectiveness substantially — which would require an additional investment to get it back to where it was prior to the acquisition. The same was true of support.

Both organizations were quite standardized and measured the technology environment in meaningful ways. Funding, acquisition, and people skills were similar as well. But we found major differences in the way the two companies acquired technology products and services. We were far less inclined to outsource than the acquiree, which had some long-term outsourcing contracts in place — contracts that we would inherit. It would cost a considerable amount of money to dispense with these.

Given the scores, you might wonder why the acquisition took place at all! Remember that this due diligence process focused exclusively on technology issues. Clearly, the business issues overshadowed the technology ones.

## ROOM FOR INTERPRETATION

Due diligence is part art and part science. The discussion here has focused mostly on the science — the methodology you can use to organize an M&A due diligence exercise. There are, however, other considerations. Some of the longer-term strategic considerations are hard to quantify, as are judgments about management expertise and specific technology skill sets. Does this mean that dashboards are as useful as calculators? Of course not, but there's room for interpretation and judgment in the due diligence process.

Above all else, the discussion here about frameworks, calculators, and

methodology suggests that it's possible to organize and structure the due diligence process and that, far from being definitive, the process should be seen as directional. While numbers don't lie, their real value lies in the trends they expose. The "us," "them," and "together" assessments focus discussion around where you are today, where the M&A partner is, and what the combined effect of a merger or acquisition will be.

Perhaps surprisingly, there will be instances where the combined entity is worse than each of the companies independently. Does this mean that the merger or acquisition should not occur? Not necessarily, although it does indicate where extra effort will be required to make the event successful. It also highlights major philosophical differences between the companies. Some of the major ones include how companies approach sourcing, organization, and the management of people. It's much better to understand these differences before a merger or acquisition takes place than after one is well down the road.

Finally, it's important to note once again that *technology* due diligence is but one part of the overall M&A due diligence process. There are business criteria that often

overshadow technology ones. Keep in mind that once all the technology, business, marketing, financial, and other criteria are identified and defined, they too should be weighted according to their relative importance. The results of all the due diligence exercises can then be integrated into one overall score to determine if the merger or acquisition is a "go" or a "no-go."

*Stephen J. Andriole is a Senior Consultant with Cutter Consortium's Business-IT Strategies Practice and a contributor to its Advisory Service. He is also the Thomas G. Labrecque Professor of Business Technology at Villanova University, where he conducts applied research in business technology convergence. Dr. Andriole is also the founder and CTO of TechVestCo, a new economy consortium that focuses on optimizing investments in information technology. He was formerly the Senior VP and CTO of Safeguard Scientifics, Inc. and the CTO and Senior VP for Technology Strategy at CIGNA Corporation, where he was responsible for enterprise architecture, computing standards, the technology R&D program, and data security, as well as the overall alignment of enterprise IT investments with CIGNA's multiple lines of business. He has directed large R&D programs in government, industry, and academia. Dr. Andriole's career began at the US Defense Advanced Research Projects Agency, where he was the Director of Cybernetics Technology. He is the author or coauthor of more than 25 books on IT, technology management, and command and control.*

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# Finding Method in the MADness: Case Studies of IT's Role in Mergers, Acquisitions, and Divestitures

by Claude R. Baudoin and Stephen Price

During "MAD" (mergers, acquisitions, and divestitures) preparation, senior management always thinks of involving Finance, Human Resources (HR), and Legal, but rarely IT. In our combined 45 years of experience at Schlumberger, we have documented successes and problems that arose in several acquisitions and divestitures of divisions of this large multinational company. These experiences consistently point to unnecessary difficulties, including financial and security risks, that arise when IT is not involved in MAD efforts early on. Conversely, we have seen cases in which early involvement of IT resulted in a smooth integration process and direct, tangible savings.

Based on this experience, we have developed some general principles about the role IT should play in MAD activity and have taken organizational steps to institutionalize these principles. The key management principle is to include IT in the due diligence process. Moreover, at a technical level, our IT operations group has codified three best practices:

1. Early integration of acquisitions in the corporate directory
2. Phased introduction of network connectivity

3. Secure practices for continued access to Schlumberger enterprise applications by a divested entity during a transition period

In the future, we believe that the technology aspects will become easier to handle, thanks to virtual private networks (VPNs) and service-oriented architecture (SOA). The process and organization issues therefore will become the key challenges, even more than they are today.

## CORPORATE CONTEXT

Schlumberger ([www.slb.com](http://www.slb.com)) is the world's premier oilfield services company, with over 52,000 employees and annual revenues of approximately US \$14 billion. We operate in approximately 100 countries, with personnel of as many nationalities.

Like most multinational or large companies, we have conducted a significant number of mergers, acquisitions, and divestitures over our 75-year history. We can discern three phases:

1. The company expanded from its initial focus on the "wireline logging" business (making measurements in oil wells by lowering strings of sensors at the end of a measurement cable) to become a provider of diverse services supporting the

entire lifecycle of a well. This was largely done by acquiring other companies that performed seismic surveys, drilling, "logging while drilling," well testing, completion and production, and so on.

2. Starting in the 1960s, Schlumberger also launched a diversification into sensors, metering, semiconductors and chip testing, CAD/CAM systems, smart cards, and so forth — technologies in which we had developed expertise based on our oilfield work and which we believed we could profitably apply elsewhere. This move to diversify culminated in the acquisition of a 26,000-employee IT services company in 2001 but ended when Schlumberger focused back on its core business. By 2004, through a series of divestitures, we had become a pure oilfield services company again.
3. Subsequently, we have continued to perform smaller acquisitions to add specific capabilities to our oilfield services portfolio.

We should note that these phases are not sequential. For example, in 2000-2001, we were almost simultaneously divesting a drilling business (Sedco Forex), acquiring a non-oilfield division (SEMA), and expanding into seismic studies

(WesternGeco partnership with Baker Hughes International).

## REALITY IS COMPLICATED

A company would never omit consideration of financial or legal issues before embarking on an acquisition, a partnership, or a divestiture. The buyer always examines the “books” of the seller in fine detail in order to make sure that there are no hidden liabilities and that the acquisition will provide a good ROI. The lawyers not only examine any history of lawsuits and the content of contracts that might represent hidden liabilities, but they also review the intellectual property portfolio to detect opportunities and threats. HR is often called in to gather data and review local requirements on staff transfers, compensation, pensions, and the like. Facilities management is asked to look at the buildings occupied by the acquired company: age, safety, length of leases, opportunities to consolidate with other facilities of the acquirer close by, and so on.

A company’s information technology and information systems represent similar levels of risk and opportunity, yet these are rarely considered during the early stages of MAD activity. The prevalent attitude has been “Let’s decide on the acquisition or divestiture, then we’ll tell IT to ‘make it so.’ They should be able to plug or unplug the cables easily enough.”

Of course, the reality is much more complicated. Some of the issues IT faces during MAD include:

- The cost and technical difficulties of merging and separating computer networks
- Software licenses, including the ability to audit the legality of all the acquiree’s licenses or the costs of renegotiating licenses with suppliers after a split
- Migration to a common standard, whether it be a PC platform or a back-office application
- Security issues
- Training the users to a new set of policies and procedures
- Understanding not only what needs to change in an acquiree’s infrastructure, systems, or enterprise architecture, but also what capabilities the company may offer in the areas where they have better practices, equipment, or software
- Dealing with an imposed timetable that may not be realistic from an IT perspective
- Other divisions from the same group had sales and service personnel colocated in branch offices belonging to the division we were selling. Moving them immediately was impossible for reasons of cost and network connections.
- The acquiring company was mostly in the US, and its few European offices had no computer network. By contrast, the division we were selling was mostly based in France, and its various locations needed to remain connected to each other after being separated from the Schlumberger network. However, the acquirer had no experience with the European network providers and technology choices.
- The planned sale date was only two months after the announcement, because the parties expected no serious regulatory issues. These two months were essentially July and August — not the best time to call for “everyone on deck,” especially in Europe, where most of the action was to take place.

In the stories that follow, we will encounter “the good, the bad, and the ugly” with respect to IT’s involvement in MAD.

### Case A: Always the Last to Know

In June 1988, Schlumberger announced its intent to sell a division making retail gasoline pump systems to a US-based company. The IT organization of the Schlumberger group containing that division learned about the sale the same day as the general public. We rapidly found several serious issues:

- The sale contract assured the acquirer that there were no Y2K issues in the systems made by the division in question, but IT had not been consulted in making this statement.
- In order to maintain business continuity, the contract offered continued access to the Schlumberger Information Network (SINet) for six months — but at a rate that was well

below the cost of providing the infrastructure and the service.

As a result of these problems, the IT organization (in both companies, but especially at Schlumberger) spent a rather stressful summer trying to put everything in place for a successful separation that would not hamper the new entity's operations. By the end of August, things were looking grim; then, fortunately, the sale date was pushed back by one month due to other late tasks. By early October, the separation was essentially complete,<sup>1</sup> but two security risks remained: ex-employees shared with us offices in which there were network connections to SINet, and some of them required continued access to Schlumberger business systems that had not yet been replicated. It would take several more months (well into 1999) to clean up these remaining issues.

### **Case B: Not Invited**

In early December 1999, the IT director for a division of Schlumberger heard a rumor about the impending acquisition of a small startup company in Canada. He requested information and "a seat at the table" but was turned down. The acquisition was announced at the end of January 2000 and was effective immediately; the first IT visit to the new location took place in March. By

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<sup>1</sup>Peter Watkins, the Europe IT Manager for the Schlumberger Test & Transactions group at the time, deserves much credit for this result, which under the circumstances was a remarkable accomplishment.

August 2000, the new entity was still not connected to the Schlumberger network.

While a three-month delay in the IT due diligence process cannot fully explain a seven-month delay in connecting the new division to the network, it certainly contributed to it. Another factor was that Schlumberger had just created a separate group in charge of its global network infrastructure, and its processes for network provisioning were not yet well established.

### **Case C: Trial by Fire**

In March 2001, Schlumberger acquired a large international IT services company with approximately 26,000 employees operating from 223 sites in 30 countries worldwide.

As the IT due diligence information was limited (which is somewhat ironic, considering the nature of the company being acquired), an initial discovery project was run from March to June 2001. Its objective was to determine the scope and current status of the newly acquired infrastructure, leading to a complete integration plan. It quickly became apparent that there were significant differences in culture and policies between the two companies:

- The acquired company was run as a federation of largely independent national entities, each of which organized and managed its internal infrastructure as it saw fit. Consequently, infrastructure models, hardware, software, and support organizations varied enormously among the different

countries. Moreover, there was no central IT management team able to provide comprehensive information about the whole organization — our approach had to be country by country.

- Although the overall group operated in many countries, the culture was far from international, leading many countries to question the value of being connected to the Schlumberger global network. "Why would we want to communicate with anyone outside our own country?" was the prevailing attitude.
- The acquired businesses had independently connected a large number of external customers to their sites for joint development projects, software support, and the like. On the Schlumberger network, by contrast, customer connectivity was limited to a small number of Secure Connectivity Centers in key locations worldwide, following strict design and operations rules.

This mismatch of practices and cultures raised a number of serious challenges before we could integrate the new IT services business into the highly secured and centrally managed Schlumberger Oilfield network. Further constraints surfaced when senior management made it clear that the integration could not impact the day-to-day business of either group, so a drastic redesign of either SINet or the acquired networks was not a possibility.

Eventually, a team of 60 Schlumberger IT consultants

from all over the world worked for 18 months to complete the infrastructure integration. The challenges they faced during this particular acquisition — and the subsequent divestitures three years later — really laid the foundations for the Schlumberger IT team to look at all the issues around MAD activity and to develop permanent technical solutions for managing these activities in a professional manner.

**Case D: Lucky Break**

We turn to a case that could easily have turned out like Case B but ended up being a success story ... by accident! In mid-1997, Schlumberger decided to acquire a small Massachusetts, USA, company that made chip inspection systems. Once again, there was no intent to involve IT in the due diligence phase, but an indiscretion leaked the information to the IT director, who went to the general manager of the acquiring division and explained, successfully this time, the importance of his being involved. As a result, he was able to join a due diligence visit in October 1997. While it was legally forbidden to interfere in any way with the functioning of the acquisition target at that time, the discussions still yielded two important results:

1. We learned that there was a plan to spend \$450,000 to replace an obsolete PC-based accounting system with a minicomputer-based enterprise resource planning (ERP) package. We explained to our future colleagues that we had

an ERP system with spare capacity in place in our factory in southern California and that it was already used remotely by another location in Ohio, similar in size and complexity to the Massachusetts operation. As a result, the management of the target company postponed their decision, and the company was later successfully added to the existing joint system.

2. A team of two people took care of local IT support. We were able to share with them enough general, nonconfidential information about our IT practices and facilities to generate their enthusiasm and full cooperation with the integration project. With them on board, we were able, after the acquisition was completed, to “remote control” most of the actions that needed to be performed with respect to connectivity, security, and user training.

**Case E: Best-Case Scenario**

Our final case study illustrates how quickly integration can be achieved when best practices are followed. In May 2005, Schlumberger Oilfield Services acquired a specialized manufacturing company in the UK:

- Within three days of the acquisition, all the new employees were added to the corporate directory. As a result, they were able to securely access the Schlumberger network.
- Within 10 days of signature, the site was connected using an authenticated proxy solution.

- Less than one month later, the site was fully integrated onto the network, with all employees having new e-mail accounts. Integration into the internal manufacturing, quality management, and safety systems was well advanced.

With the key infrastructure and mandatory business systems in place early on, executives are much better positioned to focus on business synergies and optimizing the benefits that the new acquisition brings. Unnecessarily prolonged activity on the basic issues only hinders achieving these objectives.

**BEST PRACTICES**

Our experiences with MAD, including the above cases, have led us to design and implement a number of best practices aimed at increasing the efficiency and reducing the cost of the IT activities caused by changes in the corporate structure. These best practices can be divided into three categories: infrastructure, processes, and organization. But first, it is important to clarify the requirements.

**Acquisitions.** The key for acquisitions is to enable the newly acquired employees to access corporate systems, tap into our knowledge repositories and technical communities, familiarize themselves with their new business environment, and feel part of their new parent company. Conversely, Schlumberger personnel need to effectively collaborate with their new colleagues. This enables the

planned business synergies to materialize in the shortest time frame.

**Joint ventures (JVs).** JVs require the ability to grant access to a restricted set of corporate services, often for only a selected group of staff. As this requirement varies from JV to JV, both the access controls and the accessible services need to be easily managed. As JV agreements can change rapidly, the integration may be very limited (compared to an acquisition), resulting in an “arm’s length” relationship.

**Divestitures.** In the case of divestitures, the divested entity must have decreasing access to Schlumberger services over an agreed time frame, in order to maintain business continuity until it is fully integrated with its new owner. The gradual transition of the divested entity is managed under a Transition Services Agreement.

### **Infrastructure**

Given our high level of acquisitions, divestitures, and JV formation, we have found it more practical to put in place specific permanent infrastructures that can handle the different requirements of each of these events, rather than trying to handle each event on an ad hoc basis.

Identity and access management is key. Specific fields in the employee entries in the corporate directory control all IT rights of users. Uploading the necessary data for all the new employees is therefore a key first step after an acquisition. Once new employees have directory records, they must

pass an online IT security test, which qualifies them for full access to the network and familiarizes them with the strong IT security culture of Schlumberger.

We are using a three-phase model of IT integration for new acquisitions:

**Phase 1: secure remote connectivity.** Secure, controlled remote access to the Schlumberger intranet and applications can be provided through a Secure Sockets Layer VPN gateway — the same facility that allows Schlumberger employees to connect from home PCs, airport kiosks, and so forth. The focus is on ensuring that even a contaminated PC cannot easily infect the Schlumberger intranet.

**Phase 2: authorized proxy solution.** The newly acquired company connects via a Schlumberger managed router and their own ISP connection to the network. Prior to this, the new site is audited and must meet a minimum level of IT security requirements. Onsite employees use their network as they did before. However, when they try to connect to the Schlumberger intranet, they must authenticate using their Schlumberger directory ID and password. Once Phase 2 is implemented, the IT focus can shift to any outstanding IT security concerns.

**Phase 3: full connectivity.** Once the new acquisition meets all the requirements of the IT security audit, by which time it will usually have its permanent Schlumberger network connection in place, then the additional authentication step

can be removed and employees can fully access the network. Once full connectivity is in place, the focus of the IT integration tasks can shift to other matters such as harmonization of the hardware and software installed base, incorporating the site into the corporate IT support model, and so on.

For divestitures, we have also developed a model to address the requirement of divested divisions to maintain access to designated Schlumberger services as they gradually transfer to a new owner or become independent. Prior to sale, we write a Transition Services Agreement that specifies which services are required and for how long. We then use a separate Web interface designated for non-employees — the Transition Services Gateway — to control access to these services. This gateway can be configured to accommodate multiple simultaneous divestitures — users from each company see a different “menu” of services once they authenticate themselves. This same gateway can also be used to provide restricted access to JV personnel.

### **Processes**

With the appropriate architecture in place, the real key to effective integration of acquisitions and separation of divestitures is not so much the technology as the processes behind it. The IT function is often the first working contact an acquired company has with their new parent, especially as IT increasingly acts as the facilitator of the integration of all the other functions. The professionalism of the IT



staff and the handling of the IT integration process are therefore ideal opportunities to make important first impressions.

Our experience shows that the efficiency of the eventual integration directly depends on the level and completeness of the due diligence done. A large amount of information affects more than one corporate function: for example, details about the target acquisition's facilities will be required by Facilities, IT, and perhaps Finance. In an efficient due diligence process, this information should be collected once and securely shared by all functions that require it (see sidebar). In order to achieve this, the M&A team at Schlumberger has developed a secure Web-based shared workspace to which both members of this team and external advisors can be given selected access to participate in particular transactions.

Once armed with all the necessary information, it should be possible to estimate the cost of the entire integration effort, which is often overlooked or grossly underestimated. We have developed a methodology to estimate this cost, which is then provided to the M&A management team. In some cases, these costs could even cause an acquisition to be reconsidered if the ROI was marginal in the first place. We often say that IT is the "canary in the coal mine": if IT finds the air of the acquisition target hard to breathe, this could be a warning flag that all other aspects of the buyout may well be doomed, too.

## IT DUE DILIGENCE: A CHECKLIST FOR ACQUISITIONS

**IT governance.** See what the organization chart and reporting line of the IT organization look like. Who are the people in charge of policies, standards, security, sourcing, and support? Are any of the functions outsourced, and if so, to whom and at what cost? What are the business model and requirements going forward?

**Security.** Find out about policies and standards, employee training, auditing and enforcement practices, authentication and access control methods and tools, physical security of computer rooms and network access points, remote access security, strength of passwords, antivirus measures, antispam measures, personal firewalls on PCs, home PC usage, laptop theft prevention, and so on.

**Business systems.** Make a list of systems used for ERP, HR, Finance, CRM, and the like. Should these systems be kept or eliminated, and if kept, what connections are needed to properly integrate the business processes they support?

**PC/workstation standards.** Take an inventory of hardware and software, the operating system mix, existence of a "standard image" and its deployment process, proof of ownership of software licenses, and so on.

**WAN connectivity.** Document the existing network architecture, connections to the Internet, Web presence (domain names), and connections to customers and partners, among other things. From this information, determine the best interim and permanent options for connecting the acquired entity to the SInet.

**LAN connectivity.** Find out whether LANs conform to Schlumberger standards for servers, cabling, network switches, and the like.

**Telephony.** Inventory private branch exchange and voice-mail solutions, carrier contracts, and cell phone policies and plans. What savings can be realized by moving the facilities and employees to the contracts already in place at Schlumberger?

**Training.** Immediately after the acquisition closes, determine who will need to be trained on what, when, and where.

Integration activities are often slowed down by delays in obtaining decisions that could have been taken prior to closing. Holding pre-closure meetings where these decisions can be made greatly speeds up the integration. In the particular case of Schlumberger, where the corporate directory records control the access employees have to all systems, it is critical to acquire all the necessary personnel data (as allowed by applicable data protection laws) and map it to the Schlumberger organizational

structure, verifying it and approving it even before the closing signature. This data can then be immediately uploaded into the HR information system upon closure and the new directory records generated within hours. Using the phased access described above, new personnel can have access to the corporate network very rapidly, with all the ensuing benefits — not to mention getting a positive impression of their new owner's capabilities.

Software license ownership, status, and contractual obligations should

be established very quickly to ensure a smooth transfer of ownership and maintain compliance. An early and accurate inventory allows faster integration of the acquisition under corporate software purchasing agreements, thus reducing the risk of unnecessary expenditure on new licenses as well as the risk of noncompliance with vendor contracts and regulations. In the case of divestitures, it is important to decide which licenses will be retained by the parent company and which licenses will be transferred to the spinoff or acquirer (and at what cost). This will, at minimum, avoid creating compliance issues for the divested entity and prevent subsequent legal claims.

Figure 1 charts the phases in the overall process for an acquisition. (Divestitures are slightly simpler but similar.)

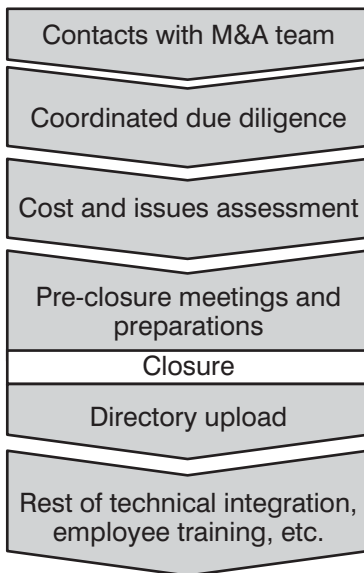


Figure 1 — Integration workflow.

**Organization**

As the earlier case studies indicate, good communication between the M&A team and the IT function is vital. At Schlumberger we have addressed this by creating a dedicated position on the IT staff to handle all matters relating to MAD projects, with reporting lines shown in Figure 2. This role acts as the single point of contact for all IT matters (and often many others!), from the start of an acquisition or divestiture until the successful integration or completed separation. A key aspect of this role is regular contact with our M&A team, which provides confidential advance warning of new projects. This avoids some of the surprises and ensuing difficulties described above in Cases A and B.

**LOOKING AHEAD**

As we look at the future of our company and the general trends in how

businesses evolve, it seems that MAD activity is here to stay or will even increase. Startups form and often get acquired by larger corporations, while specialized divisions get spun off when their parent company has grown too much and decides to refocus. As a matter of fact, we see a trend toward what we call “enterprise deconstruction”: a loose federation of clients, suppliers, partners, and our own divisions pursuing common goals — in our case, ensuring the optimal discovery and recovery of oil and gas.

It turns out that from an IT perspective, two trends have accompanied this more dynamic business situation:

1. At the enterprise application level, SOA (and its essential technical component, Web services) is allowing companies and divisions to connect

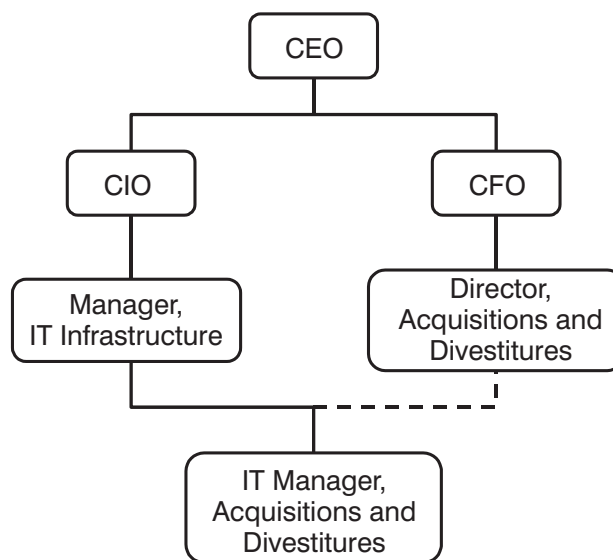


Figure 2 — MAD organization chart.

their business processes without necessarily having to change applications or use proprietary integration techniques.

- At the infrastructure level, VPNs and networking techniques such as Multiprotocol Label Switching allow more flexible network architectures than was the case just a few years ago.

The “just in time” appearance of these new technologies and architectures is probably not accidental. Cumbersome integration processes created frustration with the old techniques and a need for more flexible integration architectures, and the industry responded by inventing these new ways to integrate the network and application layers. Figure 3 compares the traditional “rip and replace” process of integrating two companies with a more flexible one based on these more recent capabilities. An interesting benefit of new approaches such as SOA and VPN is that if an acquired company is spun off or sold several years later, there is again much less disruption, since its original applications and network have largely been left intact.

Adopting new, more flexible IT architectures will ease the pain, but success or failure of acquisitions and divestitures, from an IT point of view, will continue to depend above all on good planning and execution.

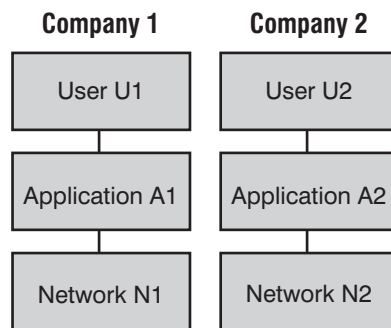


Figure 3a — Separate stacks before acquisition.

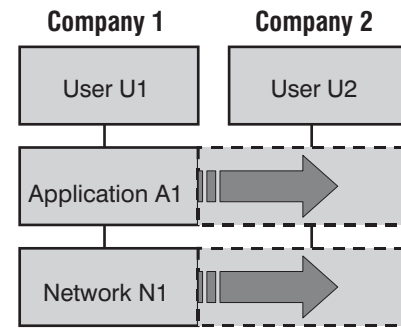


Figure 3b — Traditional integration: “rip and replace.”

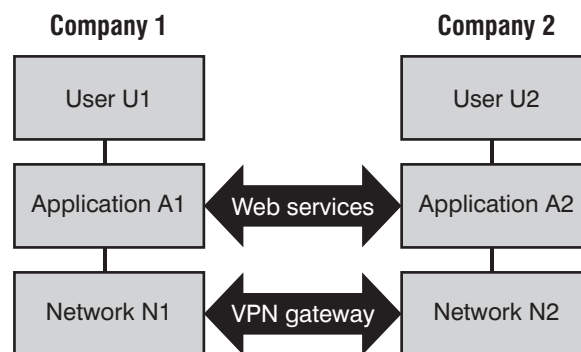


Figure 3c — New architectures minimize disruption.

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# Minimizing the Risk of an M&A

by Dan Tankersley

## THE PLAN'S THE THING

How does one minimize risk, reach stability, and leverage the acquisition of new assets? Whether you have a new leadership team, have acquired the assets of a company, or have merged with another company, you must have a plan for employees and customers and for how the acquisition will make the new company stronger. Proper assessment, planning, communication, and execution of your plan are the four keys to success (see Figure 1).

Technology can, and often does, play a key role in allowing a company to achieve the ultimate goals of being a market leader, enabling

employees to contribute more, and delivering higher profit margins. Not having a technology plan in place when merging companies can lead to delays in meeting goals and even to a complete failure of the business.

I have worked in five companies that were acquired and was a manager in four of the acquired companies. In three of the five acquisitions, the acquiring company conducted due diligence on the technology. In the other two, the acquiring company focused on adding market share to its business without regard for the technology currently in place. I have also been on the acquiring side in numerous

company acquisitions and managed the assimilation process of the technology for many of these.

As Figure 1 shows, due diligence ultimately touches all four success factors and is integral to merging two companies. Failure to execute on any of these four elements jeopardizes a merger.

Minimizing risk in a merger focuses on three areas: employees, infrastructure support systems, and customers. Unless key employees are there to provide services, you will have unhappy customers, which can lead to withholding of payments, additional cost, and reduction in profit.

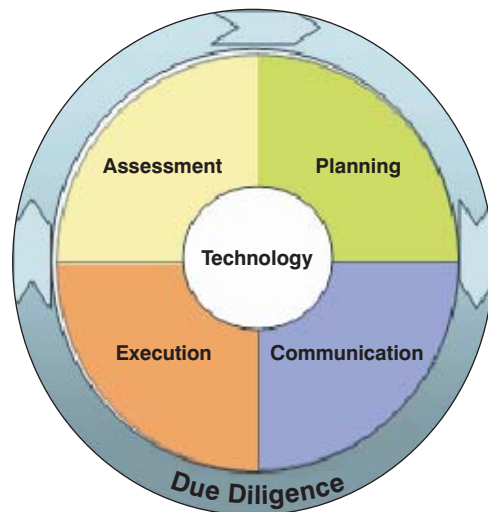


Figure 1 — Major factors in a successful merger.

## PREVENTING BRAIN DRAIN: THE EMPLOYEES

Each time management changes, either through a merger and acquisition or when new leadership takes over, employees begin seeking assurance that they will have a future with the company. They will ask themselves the following questions:

- Should I begin looking for a new job?
- How will the organization change?
- Is the new leadership credible?

- Can they assess, plan, communicate, and execute on their plan?
- What's in it for me if I stay?

The better employees are usually the first to leave. They are in demand and can find jobs faster; they will take a bird in the hand versus two in the bush. Fear, uncertainty, and doubt can be very stressful for them, especially if they are kept out of the communications loop. Most technology people are detail oriented and need information. Keeping key technology employees in place requires proper planning and communications. Keep them informed even if the news is bad.

### **The Voice of Experience**

Of the five situations in which I worked for an acquired company, I only knew where I personally stood three times. The first acquisition was an asset purchase. I was a software developer and was told the acquiring company did not need additional developers. The acquiring company made some efforts to help find jobs for the displaced people, but it was not a priority for them. I needed to find a job in a matter of weeks. I received no severance, I had no assurance of another job — it was very intimidating for me at the time. Fortunately, one of the customers we serviced decided to hire me to start their own software development staff. In the end, everyone found a job, but it was a time of immense uncertainty.

In the second acquisition I was told that my position was secure, and it was. I was left guessing in the third and fourth acquisitions, although I was fairly certain that I would be retained, since I held a management position that I felt would still be needed after the acquisition. However, the positions were not high enough to warrant an employment agreement, so there were no guarantees. Neither company did any due diligence on the technology or communicated a plan. It was obvious after each of the acquisitions that they had not considered how the technology would be handled, since they were focused primarily on growing their customer base.

In the last acquisition I was told my position was not needed. I was also told my division would be shut down since our unit was not strategically aligned with the plans of the acquiring company. However, there was a major difference between this acquisition and all of the others. After delivering the bad news, they also told me if I stayed and managed the transition that I would be compensated and that every effort would be made to ensure I would have ongoing employment with the acquiring company or another company. Could I believe what I heard? I did, because this particular company had a history of doing this with the other companies they had acquired. They had a technology plan, and they effectively communicated the plan.

Because there was a technology plan in place, risk was minimized

**In the end, everyone found a job, but it was a time of immense uncertainty.**

for each of my employees and our customers. Since I was the general manager of the division, I was asked who the key employees were and what was needed to ensure that we could continue serving our customers until we were ready to close the division. The acquiring company got me involved, and we openly discussed issues and needs for communicating the plan and providing severance pay, employment options, and outplacement assistance as employees began to search for new jobs. Because the acquiring company got me involved, my trust and confidence in them grew quickly, and I'm sure that my own employees perceived this as we began implementing the transition initiatives.

When we met with the employees, we communicated the bad news that the division was going to close, but we were also able to provide each of them with answers to the question "What does this mean to me?" There is no way to eliminate all the fear and uncertainty, but we were able to eliminate most of it because we had a well-thought-out transition plan, could elaborate on the severance options, and assured employees that we would communicate any changes well in advance so they could plan appropriately.

What was the outcome? No one left earlier than expected, and everyone ended up with a good position in another company. Minimizing the employee risk paid dividends in goodwill for the acquiring company, the employees, and the customers.

**I have observed several individuals who have tried to fight the new organization and preserve their power base. I have not seen any of them succeed.**

I was so impressed with the integrity, planning, communications style, and approach of the acquiring company that, when they offered, I took the position of managing newly acquired companies and assimilating them into the mainstream of the company. It was one of the most rewarding positions I have held because we were able to assure people that we were trustworthy, we cared about them, we had a plan, and we communicated with them both the bad and the good news from the beginning. Because I had been in the acquirees' shoes, I could also relate to the emotions and uncertainty that come with being acquired. It was also rewarding in that we did not lose a single key employee from more than 20 technology groups as we acquired new companies.

### **See Things from Their Point of View**

If you are an employee of a company that's being acquired, try to step outside of your position and take an objective view of how you would organize the company if you were a senior manager in the acquiring company. Whatever course the acquiring company takes, help them achieve the goal even if it means your position will be eliminated. Your maturity in working with the acquiring company may help you find a better position. When I was offered the position of managing newly acquired companies, I was told that one of the main reasons I got the job was the maturity I demonstrated when told that my position would be eliminated and my division would be closed. I have observed several individuals who have tried to fight the new organization and preserve their power base. I have not seen any of them succeed.

### **UP AND RUNNING: THE INFRASTRUCTURE SUPPORT SYSTEMS**

One of the early challenges in any acquisition, once the employee risks are minimized, is to begin assimilating or transitioning infrastructure support systems such as personnel systems, accounts receivable, accounts payable, and financial reporting systems. Employees must continue to do their jobs and serve customers, but they must also be able to enter expense reports and time-sheet data and request needed supplies.

Management needs to incorporate financial information from the new company into standard reporting applications as soon as possible in order to get a clear financial picture and monitor the financial progress. Failure to assess, plan, communicate, and execute on these infrastructure tasks can lead to chaos.

Attention to these issues is even more important if the acquiring company is public and the acquired company is private. Having proper financial tracking and reporting in place is key to complying with the US Sarbanes-Oxley Act. Implementing well-defined processes and software applications that can guide users in their proper use will enhance the adoption of new processes and enable employees to contribute sooner.

One key to faster employee contribution is to establish a training program that outlines the company mission, defines core values, describes the various divisions and how they contribute to the company mission, and trains employees on the mechanics of using the infrastructure systems. Most employees want to know how they will add value to the company. Their reporting manager should spend time with them explaining how they will contribute to the new company's success. Understanding this will enable them to quickly assimilate.

A technology plan for combining infrastructure support systems cannot be overlooked. One large carpet distribution and retail sales company learned this

lesson the hard way when they acquired another major carpet company without first having a technology plan for merging the two companies' infrastructure support systems. The acquiring company had no good strategy for operating the business units successfully once they were merged, and ultimately the diversity and issues they inherited overwhelmed them. They were not able to get control of their costs fast enough, and the situation spiraled out of control. What was the end result? They filed for bankruptcy because they were not able to manage the merged businesses.

### **KEEPING THEM HAPPY: THE CUSTOMERS**

Once an assimilation plan is in place for infrastructure support systems, you must also have a technology plan for serving customers. This is critical if the acquired company uses proprietary software to deliver services to their customers. In many cases the customers will need to migrate to the technology of the acquiring company, unless the acquired company has a technology the acquirer does not have that is necessary to maintaining customer service. Even then, there will be probably be some overlap, and a technology plan must be developed to transition the customer base unless the decision is to operate the newly acquired company as a wholly owned subsidiary and let it run "as is."

The first step in developing a customer transition plan is to assess

the differences in the overlapping technologies and identify what updates must be completed before the customer base can be transitioned. The second step is to develop a customer communications plan and outline the need and benefits — from the customer's perspective — for migrating to the new technology. Remember, just because this migration is good for your company doesn't mean the client views it the same way. Change is difficult, so expect some resistance. The third step is to execute the transition, and the final step is to follow up and provide support as needed.

Using these principles, one company I worked for was able to successfully transition more than 40 customers to new technology in a few months. We successfully migrated the customers *and* maintained a strong client relationship through proper planning, communication, training, and support once the migration was complete. Customers did not face undue hardship related to the migration, and more importantly, they were able to continue business as usual in serving *their* customers.

### **PLAN TO REDUCE RISK**

A merger or acquisition is a risky proposition. A technology plan to reduce overlap in software for infrastructure or business applications is necessary to achieve cost savings as quickly as possible without impacting service to employees and customers. Completing appropriate due

diligence and developing a technology plan prior to completing the acquisition helps eliminate financial surprises and outlines how the assimilation of the technology for the merged company will impact employees, customers, and profitability.

Failing to include technology in due diligence increases the risk and can lead to a business interruption or discontinuation, as the carpet company discovered. Had the company performed a technical due diligence, they may have recognized the additional investment needed to integrate the infrastructure systems of the newly merged company.

Minimizing risk requires due diligence to assess what will be acquired, to achieve stability, and to plan for assimilating the new company's technology and support systems. Proper communication and execution of the plan will help companies achieve leverage and profitability goals. As with any business strategy, organizations must be flexible and make adjustments as discoveries are made. However, due diligence and planning help eliminate major surprises, minimize risk, and achieve targeted rewards.

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# Adventures in M&A Wonderland

by Charles Butler and Gary Richardson

The rapidly changing domestic and international business environment has produced numerous mergers and acquisitions. Companies acquire or merge with other companies for specific business reasons, anticipating savings from the economies of scale associated with eliminating or integrating redundant systems. Since the prevailing business strategy is to grow both market share and global presence, M&As are often incubated and given life in a very short time frame. Thus, the challenge for today's CIO is how to proceed rapidly through the associated system integration. In order to accomplish this challenge, the CIO must:

- Manage existing standalone systems
- Select standards from the companies' total software inventory
- Integrate, modify, or eliminate similar systems
- Build new systems

In an M&A, all of these activities come in rapid fire, and the CIO must be proactive in order to navigate a successful journey.

## OBJECTIVES

What does it mean for the CIO to be a proactive, informed participant and navigator? In this article, we will investigate M&As from the IT business and CIO perspectives. This investigation begins by reviewing IT business opportunities associated with an M&A. This background knowledge is an essential element for enabling the CIO to custom-develop a successful roadmap that specifically takes into account:

- Stage-by-stage strategies and tactics for business and IT managers
- Likely roadblocks that threaten the ultimate destination

A CIO must provide clear direction to the IT staff throughout this process. In doing so, the CIO details what business management should expect from IT management when evaluating related constraints and opportunities.

## THE IT BUSINESS PERSPECTIVE

During an M&A, there are four areas that offer unique opportunities for IT business review and assessment. Our professional experience with this process suggests that most organizations do not always seize

these opportunities effectively. Therefore, many organizations achieve suboptimal results.

## Global IT Review

When two or more organizations are considering integrating with each other, it is possible to evaluate a broad spectrum of IT options for business alignment, organization, and operation. The transition process will require some element of change, and employees are often concerned that these changes will affect their jobs (which may well be the case). Senior leadership must manage this uncertainty to avoid excessive turnover during the change process.

Regardless of the underlying personnel fears, this window in time offers a unique opportunity to execute a global IT review, which would encounter even greater resistance during steady-state periods. The result of such a review can help formalize the goals of the new organization, improve business alignment, and implement needed structural changes for a more effective future IT organization.

## Governance

According to the IT Governance Institute, "IT governance is the responsibility of the board of



directors and executive management. It is an integral part of corporate governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives" [4]. During an M&A, existing weaknesses in global IT governance are highlighted when decisions are fragmented among various stakeholders. In order for the governance process to work, individuals, roles, and decision-making processes need to be clearly specified so that the myriad decision areas are governed effectively and efficiently. Among these decision areas are application portfolio integration, infrastructure determination, data organization, organization structure, and personnel changes.

In many cases, decisions are generated using a senior governance board to oversee the entire IT process during a merger and to orchestrate delegation of responsibilities. The net result can be of strategic value to the organization in that senior management becomes actively involved in the IT evolution during the merger.

### Process Refinement

The IT organization is designed to deliver and maintain critical information for the organization. From an abstract viewpoint, this design involves a delivery infrastructure, data processing and storage capability, applications support, and other supporting activities. Within each of these functional

areas, it is important to recognize that any organizational restructuring should first involve a review of new, underlying support processes. In some cases, the existing processes will be ineffective and will need to be changed. In other cases, the existing processes may be overkill, too expensive for the new organization's needs. In both situations, the goal should be to match the desired process to the proper service level for the new organization.

The practical limitation to process refinement is the time horizon that is dictated by altered and expanded business functions. Frequently, new processes will be implemented before the official merger or acquisition is complete. In any case, the business often dictates shorter time horizons than the IT department can manage. Some observers have characterized this state as changing the pistons in the engine while it is running. Regardless of the approved time frame, there will generally be a requirement for the phasing of selected process changes due to resource limitations or other business constraints.

In today's organizations, the bias toward outsourcing often enters into this phase. The decision might be to go from two discrete processes into one external outsourced equivalent. As an example, a process decision for two organizations, A and B, could be outlined by one of the following four options:

1. A and B processes are merged into A when A is judged to be better.
2. A and B processes are merged into B when B is judged to be better.
3. A and B processes are redesigned into a newly defined C (internal or external).
4. A and B processes are left essentially as is with some Band-Aid interface.

These types of process decisions must be explicitly made for each underlying IT activity.

**In some cases, the existing processes will be ineffective and will need to be changed. In other cases, the existing processes may be overkill.**

### Infrastructure and Applications Standardization and Consolidation

Once the broad principles of migration are defined and approved through the governance process, it is an easier task to define the new IT infrastructure and applications operational requirements. From a best practice viewpoint, the basic idea should be to standardize and homogenize the new organization's infrastructure and applications portfolio. If feasible from a timing and resource perspective, the value in standardization is to decrease the total cost of ownership. More

specifically, the new organization should pursue the following design principles:

- Homogenize internal and external networks into a single entity (vendors and technology).
- Consolidate and standardize servers and desktops into a single technology and vendor.
- Consolidate and standardize data sources into a minimal collection of technologies and vendors.
- Consolidate and standardize purchased applications, including financials, HR, and logistics software.
- Create a single, integrated help-desk environment.
- Consolidate and standardize utility licenses using new economies of scale for price negotiation.

**The gaming industry provides another example of how these opportunities can be exploited.**

Certainly, the goals listed above are desirable, but accomplishing them will challenge the resources and skills of the new organization. It is important to recognize that there will be user resistance to these changes. So effective management and communications techniques such as negotiation, retraining, and user groups should be utilized to minimize user resistance.

Compass Publishing B.V. in the UK has performed several analysis, standardization, and consolidation projects across various industries. Its results provide an empirical basis for quantifying the possible outcomes of effectively pursuing the opportunities identified above. In its findings, Compass reported the following cost reductions [2]:

- 33% reduction from an overall consolidation of infrastructure
- 8% reduction from server, license, and WAN consolidation
- 20% reduction from application development standardization
- 17% reduction from a rigorous review in matching service levels to business requirements
- 4% reduction from procurement standardization for hardware and software

The gaming industry provides another example of how these opportunities can be exploited. Two 2004 mergers, Harrah's Entertainment with Caesars Entertainment and MGM Mirage with Mandalay Resort Group, yielded the two largest consolidated gaming businesses in the world. By standardizing architectures for infrastructure, applications, and data, Harrah's IT business perspective was enhanced by [5]:

- Lowering costs by adopting new platforms that offer power at cheaper prices
- Improving operational efficiencies by generating

more revenues with leaner IT operations

- Collecting more customer information
- Bringing in flexible IT architectures to replace aging legacy technology

In similar fashion, Mirage used its business technology organization and IT staff to reconstitute several key IT resources that fell within the above opportunity areas [5]:

- Combining the back-office accounting and human resources systems
- Integrating the property-management systems
- Porting legacy applications from IBM AS/400s to Windows-on-Intel platforms

These successes demonstrate the importance of recognizing and acting upon the IT business opportunities offered during an M&A. What strategies do companies utilize to realize these gains? There are no hard-and-fast rules, but as we will see, there are several important management strategies to accompany the technical goals outlined earlier.

### **SUCCESSFUL IT STRATEGIES, STAGE BY STAGE**

In order to achieve the anticipated gains, collaboration between business and IT management is critical. Generally, IT management must recognize that an M&A is driven mainly by a prevailing corporate mandate to grow market share and geographic presence. Companies

that choose to proceed quickly through integration are far more likely to realize merger objectives and less likely to experience difficulties.

IT is often negatively impacted by the merger process, at least in the tactical operational period of the first two years [7]. Once a merger process is initiated, swift action is required in terms of vision, money, people, and technology. When possible, IT management should avoid picking and choosing best-of-breed technologies from the various players. IT management should address the feelings and emotions of the professional staff while selling the new company vision [1].

In a study of IT's role in M&As, it was found that most mergers go through three major stages: strategy, valuation, and transition [3]. In each of these stages, IT expertise support is critical.

### **The Strategy Stage**

In the strategy stage, one company is targeting an acquisition. During targeting, the would-be acquirer conducts a discreet organizational investigation and analysis. If the initial merger intent is revealed, then the intellectual property of the target company is at risk. IT technical knowledge within both organizational groups is a vital component of a successful merger. These critical skills and operational knowledge need to be kept in place using appropriate incentives. Failure to do so will negatively impact the overall process and create additional merger costs.

An acquisition requires consolidation of not only communications channels but also the technology that supports business operations. No matter how appealing the financials are, a target candidate's systems can hinder acquisition success if modification and integration take too long. A premature mass exodus of intellectual capital will negatively impact post-acquisition integration, which is why IT management must be involved early in the evaluation stage in order to identify the intellectual property risk associated with technical staff and business operations. During the evaluation stage, IT management can evaluate:

- The quality and reliability of the targeted company's infrastructure
- The process importance of its application portfolio
- The skills and knowledge of its IT staff
- Historical details that are essential to understanding today's operations

### **The Valuation Stage**

During the valuation stage, the financial statements of both companies are analyzed. From this analysis, a new projected budget is constructed and new financial goals are established. The newly merged organization will require IT support to achieve the financial goals associated with its new business model. While the business analysis should focus on customer and supplier bases in order to yield

a stronger company, IT management must assess the following:

- The ease or difficulty of integration
- Opportunities for growth
- Potential savings
- Potential liabilities
- The IT labor situation

The financial implications of these factors should be integrated into the projected business financial structure. For example, high or low integration cost will affect the projected revenue and cost streams. IT staff mobility is also an important factor. If there is a hot market for IT labor, massive defections can impact the financial incentive package for key personnel or increase integration costs.

### **The Transition Stage**

Transition is the period of actually combining the business processes of two companies into a new merged entity. During this stage, IT management and practice must be flexible. Interrupting ongoing IT maintenance and development projects can result in opportunity losses and morale problems.

An acquisition might be legally declared at a specific calendar time, but if you turn out the IT lights, then the business processes may go dark. Speed is critical and changes must be swift. Having representatives from each IT applications team meet frequently with key business unit clients is imperative for a smooth transition. At these meetings, participants can

identify issues and analyze scheduled implementation activities for dependencies and risks. Decisions regarding transition issues are often made through the governance process, as it acts as the arbitrator among conflicting organizational interests.

### POTENTIAL ROADBLOCKS

If the two businesses are to merge together and reap the efficiency of combined processes, then one or both organizations must be prepared for massive changes. Furthermore, if the companies try to accomplish a consolidation without first understanding all IT implications, then the merger is headed for trouble. There are several basic IT-related organizational issues to be considered [6]:

- Operating systems compatibility and future standards
- Data consolidation requirements
- User training requirements for new or evolving systems
- Renegotiation of commitments to vendors
- Reevaluation of commitments to existing projects
- Review of current outsourcing contracts
- Assessment of electronic links to customers and suppliers
- Alignment of existing IT strategic goals within the new company
- Resolution of national languages in data and applications

- Processes for currency conversion
- Harmonization of cultural differences

While merger-related technology infrastructure changes are being made, the market climate may well require an IT response to external market factors. Therefore, IT management must implement planning and operational processes that account for planned merger activities in parallel with dynamic business model changes. Often, this multitasking is implemented under the auspices of IT governance.

### A CIO PERSPECTIVE

Before he re-entered academia, Gary was managing director of information technology at a *Fortune* 500 company. During his tenure, the company completed a number of multinational mergers. Charles has consulted with companies that also completed mergers. In order to provide a real-world perspective, we will answer five key managerial questions based on our own experiences:

1. From a business perspective, when executive management begins to formulate the economics of the merger, what major factors with regard to infrastructure and applications should be considered?
2. From an IT operational perspective, what should executive management understand in order to be better informed about the constraints and opportunities that IT will present to the merger?

3. How should the CIO be involved in the initial merger evaluation so that executive management can be adequately informed of constraints and opportunities?
4. From an operational perspective, what should executive management do to enable IT management to absorb a merger and position the technology to meet the new business objectives?
5. From a planning perspective, what should the CIO do to formulate a transition plan designed to move from two infrastructure and application portfolios to one infrastructure and application portfolio?

### What Should Executive Management Know About IT Infrastructure and Applications?

Infrastructure and applications have both positive and negative potential for the merger, and their value is a critical factor in merger decisions. Thus, the CIO must know — and communicate to executive management — the value of infrastructure and applications.

Clearly, all high-quality infrastructure and applications should be evaluated for their potential positive value if they can be retained and serve as a single architectural solution for the new company. Likewise, the professional staff that operates them should be evaluated in similar fashion. Conversely, a poor application or infrastructure environment will detract from the target firm's value. A best-of-breed strategy might be required, and the

resulting analysis of individual technologies and adoption of selected ones can be complex, abstract, and time-consuming.

Let's consider an example of application value. Gary's company once acquired a firm whose legacy portfolio was given a business value based upon the fact that it included state-of-the-art process control software with a high business value to the merged organization. Unfortunately, the business representatives did not understand that the acquired firm had valued the code in object format. In this situation, access to only object code would mean that the selling organization's representative would be legally responsible for maintaining future code changes. This restriction was clearly not intended in the merger and would have been a poor business decision.

Unfortunately, this valuation escaped the business and legal staff review and eventually cost US \$10 million to correct. Subtleties such as this object code example exemplify why IT management needs to be involved in the valuation discussion. Clear understanding of the IT environment and its technical configuration can be legal elements of a merger agreement.

### **What Should Executive Management Understand About IT Constraints and Opportunities?**

Executive management must understand the balance between technical constraints and opportunities inherent in the merged organization. One thing IT

management can provide is an assessment of the technical and process compatibility of the two environments. Executives need to know that IT consists of a plethora of skills, tools, and capabilities. The probability that two organizations have selected the same portfolio of products and services is extremely low.

Any decisions regarding the selection of tools, applications, protocols, database software, and programming languages must also take into account associated human skills. The cost of human skill transfer can be high, as can the severance packages for releasing professionals with the wrong skill sets. IT executives must be knowledgeable about both technical selection of products and services and the human support equation for the targeted operational environment so they can explain the implications to executive management.

### **How Should the CIO Be Involved in the Initial Merger Evaluation?**

The keyword here is "involved." Too often, IT involvement is an afterthought. In one acquisition during Gary's tenure as managing director, an executive manager approached him and said, "We just bought XYZ Company, and I need you to take a look at it and see what needs to be done." Obviously, the die was cast, and all that was left was to figure out how to Band-Aid the two entities together.

Gary's company typically acquired smaller companies in which the

**Executive managers know that data can be fed from one computer to another, but they often do not know at what cost.**

model was to incorporate them into the larger mother company. However, in this case, the acquisition was for a much larger, dissimilar organization. The two sets of information systems did not match, and massive amounts of data had to be integrated. Earlier IT involvement would have revealed that the two companies did not match well and that the merger would thus entail much higher-than-anticipated costs. In this case, the two organizations truly operated different business models, and the acquired company had long-term IT environment challenges because of its diverse application suite and disparate infrastructure strategy.

This merger highlights the importance of involving the CIO in M&A due diligence. In regard to data architecture, format, and content, executive managers are often insensitive to the problems of compatibility. They know that data can be fed from one computer to another, but they often do not know at what cost or what other consequences can result. So, by providing executive management with a review of the business data architecture, the CIO can offer vital insight into the extent of the integration task.

### **What Should Executive Management Do to Enable IT?**

The biggest problem IT faces in an M&A is the requirement to absorb the new entity in the time period the business units desire. Business managers do not always understand why a complete infrastructure and applications merger takes more than a couple of months. In large mergers, the likely time frame to complete IT integration resolution is measured in years. However, the importance of immediate business operation dictates an associated, short-term IT integration approach.

**People become territorial about “their” systems, and choosing one system over another means that one group loses.**

Minimizing these expectation gaps requires working together to define what is needed to operate the new entity and then to define ways to deliver the solution in a timely manner. IT solutions tend to be technically elegant; however, the business operational groups are more inclined to value a solution that is “good enough.” Both parties could be wrong in their assessment, but both need to understand the implications of alternate views. Thus, executive management should support a multidimensional

integration approach, one that meets short-run business requirements *and* longer-term tactical integration.

### **What Should Be IT’s Role in the Transition?**

We have written in this article about various factors to be considered when merging the IT environments of two organizations. The first step in this process is to identify the infrastructure and application portfolios involved and assess the attributes of each major component. When one organization has all of the best IT resources, then adoption of this superior architecture is desirable. Otherwise, a best-of-breed approach will be required. A second step is to develop a staging plan for migration to a desired future state. The future state implies that key decisions have been made and communicated to all concerned. Finally, an infrastructure design is formulated to support the application requirements.

As simple as these statements make it sound, merging two organizations is far from easy in the real world. People become territorial about “their” systems, and choosing one system over another means that one group loses. Selection decisions are a natural breeding ground for conflict, and IT must assist business units in an objective review of their technology choices with an eye toward business goals. In order to minimize conflict, it is important that the users become involved in system reviews as part

of the decision-making process. Consequently, IT management must couch decisions in business and IT terms, using appropriate input from both sides. Choices that are viewed as arbitrary and that are not properly communicated cause long-term ill will.

As an example, both of us were involved in the selection of a best-of-breed choice between an ancient nightly polled DOS system with major data integrity problems and a state-of-the-art satellite-based Web system with a single database. Clearly, the newer system was technically better and instantly delivered higher-quality data into the corporate financial system. The new system was not liked as well in the business units, however, because the response time was slower — a failing that could have been resolved if the business case had supported higher expenditures. Taking more time to explain the merits of the online system might have aligned the business and technical interest.

### **CONCLUSION**

In our experience, it is common to find limited due diligence on the IT front prior to a merger agreement. A rush to find a competitive advantage or an attractive market position has driven mergers since the late 1990s. This rush, coupled with the fact that IT is often ignored, will frequently reduce the resulting value of the subsequent merger. We feel that many business leaders

do not understand the value that exists within the technology domain of their organizations.

IT considerations do not usually make or break an M&A. Fundamental business logic should always come before systems consideration. Given sufficient time and money, the IT infrastructure, applications, data, and organizations are generally integrated into a new merged business. Nonetheless, any executive who goes forward with M&A strategic plans without an adequate understanding of the IT issues is acting on insufficient knowledge. This can compromise the overall merger value, resulting in a business model or IT operation that might not successfully meet the goals and financial position sought for the new business.

Evaluation of the IT component is a critical success factor for merger strategy, valuation, and transition. For every type of merger, there must be a distinct strategy for restructuring the IT organization, infrastructures, and applications. Each strategy must address the degree to which managers should plan to merge personnel and architectures. If the post-merger synergy is to produce a stronger new company, then plans for IT personnel, technologies, and management style must be formulated as part of the planned future company.

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i hate to say i told you so ...

# Why Due Diligence Should Include IT: A Case Study

**By Reagan George**

In early 2004, my company, Paragon Business Solutions, Inc. (PBS), was engaged to help a large biotech firm with several management issues that stemmed from their acquisition of a competitor that was exiting the blood products industry. The company did not perform an IT due diligence during the due diligence phase of the acquisition. Consequently, after the deal was consummated, the company was faced with integration issues that were not addressed either during or immediately after due diligence.

The acquisition resulted in the client's owning a second central testing laboratory facility; an integrated distribution center including a fleet of refrigerated trailers, tractors, and drivers; and approximately 60 donor centers. PBS successfully evaluated the two central testing laboratories, recommended closing the least efficient one and spinning off the truck line to a national delivery service; we then negotiated an outsourced product shipping solution. In addition, PBS was asked to evaluate the integration of the acquired donor centers. That work effort and process form the subject of this case study.

## CLIENT SITUATION

The acquisition I'll be discussing doubled the number of donor centers for one of the US's largest blood products companies. Unfortunately, the newly acquired donor centers utilized a software suite that was 180 degrees different from the one the existing donor centers used.

The existing donor centers used Software Package 1 (SP1), a suite of donor management system software products for the blood products industry that was essentially a distributed system. Each remote donor center operated independently. The central data center was used as a centralized backup and consolidation point for data that originated in each remote location, and this consolidated data was used in financials and data warehouse applications. As with most distributed systems, the total cost of ownership (TCO) was relatively high. One key assumption in SP1 was that each remote donor center was required to ship product directly to customers. As a result, each donor center maintained a large freezer for storing product until shipments were tested, packaged, and shipped.

The acquired donor centers, on the other hand, used Software

**Unfortunately, the newly acquired donor centers utilized a software suite that was 180 degrees different from the one the existing donor centers used.**

Package 2 (SP2), a suite of software products that was essentially a centralized system. The data center housed both the application and database servers, meaning the donor center location had limited functionality if either the data center or network was down. As with most centralized systems, much like the hosted model today, the TCO was relatively low. SP2 was designed with the assumption that donor centers would ship product daily to a centralized distribution center. Consequently, each donor center maintained a small, less expensive freezer that held, at the most, several days' storage.

## THE PROJECT

Given the vast difference between SP1 and SP2, PBS was engaged to determine which software platform the client should adopt company-wide. When we asked whether the client had already made a decision



and was simply looking for a third-party confirmation, we were told that this was an up-front, objective evaluation and that our recommendations *would* influence the client's decision.

**Covering All the Bases: Our Methodology**

The PBS team wanted to utilize a variety of techniques to evaluate the various facets of the software environment presented to us. We felt that this approach would ensure objectivity and allow for the most robust evaluation for the client. Where possible, the team used internal resources (subject matter experts [SMEs]), as donor center support staff from both groups were very knowledgeable.

**The SYMLOG Survey**

In order to get a feel for each vendor's organizational dynamics, the PBS team surveyed each vendor's organization using SYMLOG (www.symlog.com), a well-respected values-based tool developed by Frederick Bales of Harvard University. The main thrust of SYMLOG is to determine how the organization measures up to previously identified norms called the Most Effective Profile (MEP). The tool has been used successfully to evaluate more than two million organizations worldwide.

The results of the analysis showed that both vendor organizations tended to group around the MEP, leading the team to determine that — at least according to SYMLOG — Software Vendor 1 (SV1) and Software Vendor 2 (SV2) were both fairly effective organizations, probably owing to their small size.

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**The RFP**

The team then created a detailed request for proposal (RFP) and submitted it to both vendors. The client was going to enter into a strategic relationship with the winner, and thus we wanted to assess the vendors on a set of common evaluative points: the current features and functions of their respective packages, management issues, future directions, and financial conditions.

At the same time, we implemented our Software Evaluation Model (SEM) (see Figure 1). This tool

is used to compare multiple decision components, the values of which may be objective (e.g., license costs) or subjective (e.g., ease of use). By weighting the components based on their relative importance to the client (see Figure 2), the model adjusts the raw scores into a more meaningful weighted score. It is these weighted scores that allow for an objective comparison between complicated alternatives (see Figure 3). According to the SEM process, SV2's solution came out on top (Figure 4).

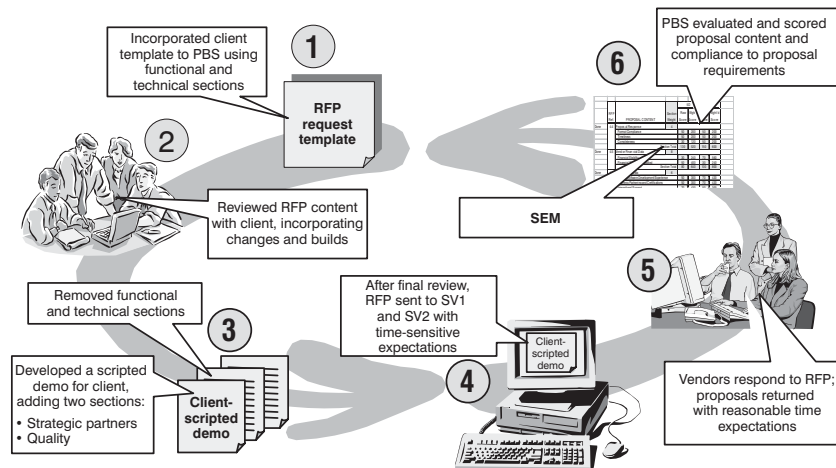


Figure 1 — PBS's Software Evaluation Model (SEM).

Weighting	Scoring
2 = Minimal weight	0 = Response missing from proposal
4 = Low	10 = Does not meet criteria
6 = Medium	30 = Minimal specification
8 = High importance	50 = Meets criteria
10 = Mandatory requirement	70 = Exceeds criteria
	90 = Outstanding functionality

Figure 2 — Client-approved weighting and scoring values.

**TCO Analysis**

Since the team had access to fairly good historical cost data, we determined that a TCO analysis with a five-year time horizon would be useful for the client. We had accurate infrastructure configurations and related cost data, including

network architecture. The detailed RFP gave us accurate licensing, conversion, and training cost data.

Based on the client's historical cost data and the vendors' RFP responses, the team showed that SV2's solution was \$6 million cheaper than SV1's (see Figure 5).

Naturally, the team considered this a significant finding.

**Implementation Plan**

Each vendor was asked to provide the implementation plan that they would follow if they were the successful candidate. SV2 submitted a plan that was so high level as to be meaningless from our point of view; it gave us no clue as to how the vendor would approach the replacement of their competitor's hardware, software, and data. But at least SV2 provided a plan — SV1 elected to ignore the request entirely. Therefore, SV2 took this category by default.

Missing product strategies severely hinders client's ability to plan future technology implementations.

RFP Ref.	Proposal Content	Section Weight	SV1		SV2	
			Raw Score	Weighted Score	Raw Score	Weighted Score
4.11	<b>Development and strategy</b>	<b>10</b>				
	Five-year development plan		10	100	50	500
	Plan effectiveness		10	100	10	100
	Prior release support		50	500	50	500
	Update history and plans		30	300	30	300
	<b>Section Total</b>		<b>100</b>	<b>1,000</b>	<b>140</b>	<b>1,400</b>

**Comments:**

- No discussion with hardware/software vendors of future technology platform alignments.
- No discussion about using new/emerging standards such as .NET, Linux, XML, Web services, and EJB.

Figure 3 — SEM proposal content page.

**Face-to-Face Interviews**

The client decided to conduct their own face-to-face interviews with the vendors. The client convened a representative set of team members who had relationships with the

SV2 accumulates highest point total.

RFP Ref.	Proposal Content	Section Weight	SV1		SV2		SV1	SV2	Ideal	
			Raw Score	Weighted Score	Raw Score	Weighted Score	Weighted Percent	Weighted Percent	Weighted Score	Weighted Percent
4.4	Proposal response	4	130	520	150	600	2.1%	2.4%	1,080	4.4%
4.5	Vendor financial data	8	80	640	100	800	2.6%	3.2%	1,440	5.8%
4.6	Background data	6	80	1,320	100	1,560	5.4%	6.3%	2,160	8.8%
4.7	Quality control	8	200	1,600	200	1,600	6.5%	6.5%	2,880	11.7%
4.9	Partner assessment	8	80	640	100	800	2.6%	3.2%	1,440	5.8%
4.10	Centralized/distributed environments	10	80	640	100	800	2.6%	3.2%	1,800	7.3%
4.11	Development strategy	10	100	1,000	140	1,400	4.1%	5.7%	3,600	14.6%
4.12	Migration strategy	8	80	640	100	800	2.6%	3.2%	1,440	5.8%
4.13	Pricing	8	160	1,280	210	1,680	5.2%	6.8%	5,760	23.4%
4.14	Contract for services	6	50	300	50	300	1.2%	1.2%	540	2.2%
4.15	Global solution	8	100	800	60	480	3.2%	1.9%	1,440	5.8%
4.16	Source code agreement	6	80	480	100	600	1.9%	2.4%	1,080	4.4%
	<b>Proposal Content Total</b>		<b>1,220</b>	<b>9,860</b>	<b>1,410</b>	<b>11,420</b>	<b>40.0%</b>	<b>46.3%</b>	<b>24,660</b>	<b>100.0%</b>

Figure 4 — SEM summary page.

vendors. The unanimous opinion from the vendor meetings was that SV2 won the interview category. The SV1 group had displayed a conceited attitude about their customers and their product, and there were serious disconnects between the company's rank and file and the newly installed management.

The Customer Perspective

The team wanted to include a customer perspective of each vendor. Since there was a body of opinions about each of the vendors, it was apparent from interviews with the client that SV2 prevailed in the customer perspective category.

Functional Gap Analysis

As each support staff had excellent subject matter knowledge of the two packages, it was fairly easy to perform a functional gap analysis of SP1 and SP2. It was obvious that SP1 included many more functions, and therefore it won this category.

Yet there were factors that the PBS team felt mitigated the seemingly large gap in functionality between the packages. For instance, the design of SP2 allowed customers to easily add to the base package any functionality they required. SP1, on the other hand, was designed in such a way that it was difficult to add functionality, and it therefore had a great deal of embedded functionality that a specific customer may or may not need. Indeed, there seemed to be functionality in SP1 that no donor center would ever use.

SV2 appears to be less expensive by US \$6 million over five years.

SV1 Cost Categories	Five-Year TCO	Capitalized	Recurring Costs				
			Year 1	Year 2	Year 3	Year 4	Year 5
Donor center	\$6,691,000	\$979,000	\$1,075,200	\$1,159,200	\$1,159,200	\$1,159,200	\$1,159,200
Main data center	\$9,576,000	\$0	\$1,915,200	\$1,915,200	\$1,915,200	\$1,915,200	\$1,915,200
Training	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Data migration	\$361,514	\$0	\$361,514	\$0	\$0	\$0	\$0
Miscellaneous	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$16,703,514</b>	<b>\$979,000</b>	<b>\$3,426,914</b>	<b>\$3,074,400</b>	<b>\$3,074,400</b>	<b>\$3,074,400</b>	<b>\$3,074,400</b>

SV2 Cost Categories	Five-Year TCO	Capitalized	Recurring Costs				
			Year 1	Year 2	Year 3	Year 4	Year 5
Donor center	\$8,796,730	\$144,730	\$1,663,200	\$1,747,200	\$1,747,200	\$1,747,200	\$1,747,200
Main data center	\$1,200,000	\$0	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000
Training	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Data migration	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0
Miscellaneous	\$84,000	\$0	\$84,000	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$10,155,730</b>	<b>\$144,730</b>	<b>\$2,062,220</b>	<b>\$1,987,200</b>	<b>\$1,987,200</b>	<b>\$1,987,200</b>	<b>\$1,987,200</b>

Figure 5 — Total cost of ownership (TCO) over five years (in US dollars).

FDA Approval

Both packages supported donor center management Standard Operating Procedures that were approved and validated by the US Food and Drug Administration (FDA), so the evaluation team called this category a draw.

**Dismantling the Goalposts: Project Execution**

The project team felt that the methodology we brought to the project would have given the client a complete picture of the required tradeoffs and enabled them to make an informed decision about the two software packages. As the project progressed, however, we realized that the client had no intention of leaving the process alone.

It became obvious to the PBS team early on that the client's management was predetermined to influence the decision toward

**The client began to alter our proposed methodology, steering away from any evaluation that would show their favored vendor in an unfavorable light.**

SV1's package. This was not just client bias, which we encounter at many stages in our evaluations. Generally speaking, people want to keep what they know, stay in their comfort zone, whether it is good for the company or not; we've come to expect such resistance. This was something different. The client began to alter our proposed methodology, steering away from any evaluation that would show their favored vendor in an unfavorable light, such as structured demonstrations of the software and anonymous surveys of the

vendors' existing customer base. All the while, the client reassured the project team that they were only altering the methodology to save time and money.

At the same time, unbeknownst to the team, the client's management had decided to retain the acquired asset's MIS director to be our SP2 SME. This individual quickly discerned the acquirer's negative attitude toward SP2, and he was not about to buck the majority decision of those who had just hired him. From that point on, he no longer provided good information about SV2's product. We had to rely on his now ex-staff, who had also begun to suspect that the decision had already been made.

**On the Merits:  
Our Recommendation**

PBS recommended that the client implement SV2's offering. This was based on our objective review of the various categories the PBS team had reviewed and evaluated.

Figure 6 shows that SV1's product excelled in only one category, that of functionality. The PBS team reported accurately that SV1 did exceed in this category. However, the team believed that the functional gaps identified were of minimal operational consequence, especially since SV2's package had been used to successfully manage donor centers nationwide for years.

**You Can Lead a Horse to Water:  
The Client's Decision**

The client decided to go against our recommendation and implement SP1 in the acquired donor centers. Their feeling was that by closing some duplicate centers, thus reducing the acquired centers from 60 to 45, the TCO would be reduced to an acceptable level. The investment in infrastructure was considered "free money," since the corporate parent had made a large amount of funds available to handle contingencies related to the acquisition. This decision turned out to have some unintended consequences.

**THE AFTERMATH**

Once the decision was made to implement SV1's package in the newly acquired donor centers, an issue surfaced that brought the existing donor centers to a full stop. The client discovered that their decision to use the centralized distribution center, which was highly integrated with the SV2's donor center software, would not work with SV1's logistical software.

The main problem was an obvious discrepancy between the six-digit barcode used throughout SP2 and the 10-digit barcode used in SP1. (Structured demos of the software would have revealed this incompatibility, but as I mentioned earlier, the client's management would not allow us to conduct them.) A previous FDA consent decree meant that the centralized distribution center had only two options for solving the problem: maintain their current system or use their manual backup procedure, which, from a product volume standpoint, was unworkable.

Each month, thousands of liters of product passed through the distribution center, where they were batched based on protein and antibody characteristics and sent either to the client's production facility (where the products were used as feed stocks for highly complex products for the medical industry) or to other pharmaceutical or biotech companies. Production at these facilities comes to a complete halt when the feed stocks don't arrive. Unfortunately, PBS was

Category	SV1	SV2	Notation
SYMLOG MEP survey	✓	✓	
RFP proposal evaluation		✓	
TCO		✓	
Time for implementation		✓	
Vendor's visit		✓	
A customer perspective		✓	
Functional gap analysis	✓		
Standard Operating Procedures	✓	✓	

Figure 6 — Decision scorecard.

never asked to evaluate the integration issues surrounding the donor centers, the distribution center, and the manufacturing plant. While the impact of the barcode problem on the downstream supply chain was not part of this case study, we must assume it was considerable.

In fact, the incompatibility forced the existing donor centers to completely alter their shipments to the distribution center and plant facilities in both the US and Europe. This disruption lasted around six months and cost the company an estimated \$4 million in revenue.

The only viable solution was to immediately install SV1's logistical package in every acquired donor center and at the centralized distribution center. This took around six months and cost another \$2 million. Remember, this was in addition to the estimated \$6 million difference in the five-year TCO that resulted when the company decided to convert the remaining acquired donor centers to SP1. In the end, client management's biased decision to implement SP1 company-wide incurred \$10-12 million in extra costs that could have been avoided had they chosen SP2, the objective winner of our extensive evaluation. Of course, our *ex post facto* evaluation would not have been necessary if the client had done IT due diligence in the first place.

## LESSONS LEARNED

Clearly, IT due diligence should be done prior to making the decision to acquire an asset. Moreover, this due diligence should include all aspects of the information technology environment. IT is too integrated and too important for the future state of the company to be omitted from the due diligence process or for that process to be restricted or compromised in its scope.

Oftentimes, people assume that "to the victor belong the spoils." But just because the acquirer was successful, it does not necessarily follow that they have the best technology and processes. Only an unbiased evaluation can make that determination. Engaging an independent third party to give you a truly objective evaluation can counteract inhouse bias, hidden agendas, and rank incompetence.

As PBS's experience shows, however, the time for this evaluation is during the due diligence phase, when the management team is usually much more motivated to take an objective view of the asset and the situation surrounding the decisions being made. By the time we were called in to do the evaluation in this case, the winner had already been determined. What the client's management was looking for was justification for their decision, not the best decision for the company.

**This disruption lasted around six months and cost the company an estimated US \$4 million in revenue.**

Even though the IT due diligence process may not alter the decision to buy an asset, it can influence what the acquiring company offers for that asset. The budget for effectively integrating the acquired company must contain an objective estimate of IT integration efforts. IT due diligence can also have a significant impact on how long it takes for the company to achieve its merger objectives. With IT becoming more and more integrated into the fabric of business, especially with large international enterprises, the transition services that must be in place on day one can be developed as part of the IT due diligence effort. For all these reasons and more, IT due diligence is money, time, and effort well spent.

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# The Importance of Human Needs Analysis in the Due Diligence Process

by Tom Carpenter

A common mistake in project management — whether the initiative is as large as a corporate merger or as small as installing a new software package on 20 computers — is the lack of consideration of the human factors related to IT employees. Without effective human needs analysis, you're likely to run into an invisible brick wall. This wall is invisible because we do not consider it a factor, but it is an important factor just the same.

Imagine this scenario:

*You are Sandra Teaford, the IT director for a large company that has just acquired another smaller company. Your organization, Overhead Cables 4U, develops cabling used in the manufacture of garage doors and other pulley-driven doorways. The company you've just acquired, The Cabled Warehouse Company (TCWC), was a direct competitor within the niche market of large warehouse overhead doors. You've been asked to merge the information systems of the two organizations, with a focus on consistency across the eventual joined entity. TCWC will be operated as a separate division of the organization with their own IT staff and will take over all large warehouse overhead door business.*

*As your first act, you meet with the IT manager of TCWC to discuss the systems currently being used and their preexisting plans for the future. Your organization is primarily a Microsoft shop, and you quickly learn that TCWC uses Novell technologies, as well as Linux. Foreseeing a compatibility issue between the systems, and knowing that TCWC has just 327 desktop computers and 18 servers compared to your 2,100 desktop computers and 136 servers, you decide to force a conversion to Microsoft technologies in the newly acquired company.*

*The merger seems to be going well until you enter your office one day to see a copy of the most recent financial reports for the Warehouse Doors division (formerly TCWC). According to the report, earnings are down by 37% for the most recent quarter, and production is down by 31%. There is a note attached asking you to stop by your CEO's office.*

*When you walk into the office, the CEO directs you to sit down and begins to communicate the state of the Warehouse Doors division. He says that there seems to be tremendous resistance to the new network and wants you to resolve the problems within 60 days. He also tells you, "It's not just the users. The IT*

*manager tells me that the morale of the techs is very low. We've got to do something about this, Sandra."*

What happened? The answer, in this case, is simple. Sandra did not determine the requirements for the IT systems in the TCWC organization, and, specifically, she did not consider the human needs of the IT professionals. She probably also assumed that since the parent company had so many more desktop computers and servers that it was logical to convert the smaller company to the Windows platform. While this assumption is often true, it does not allow for the reality that IT employees are humans, and humans often have difficulty dealing with change.

## REQUIREMENTS AND HUMAN NEEDS ANALYSIS (BRIEFLY) DEFINED

A requirement is something that must be in the final product if it is to provide the expected value. *Requirements analysis*, then, is the all-inclusive process of determining the requirements of a project. This includes requirements discovery, categorization, and feasibility analysis. If you want to get an ROI from your requirements analysis, you won't want to skip any of these steps.

By *human needs analysis*, I mean the analysis of the needs of those who must accept your systems and solutions. To be successful, your solution must help the IT professionals involved to:

1. Achieve *results*
2. Build *relationships*
3. Have *security*
4. Receive *recognition*

These four core human needs must be met, and your solution should be presented in a way that logically addresses these needs.

### Feasibility Analysis

Part of both requirements and human needs analysis is feasibility analysis. This is where, in the most basic sense, we ask: Is this solution feasible? Can it be done with consideration of the technical requirements and human needs?

There are many methods and processes used in requirements analysis, and there are equally as many good resources to help you master these. Therefore, I want to focus on human needs analysis for the remainder of this article.

I believe feasibility analysis is the most important part of requirements analysis and that it plays a crucial role in human needs analysis. The reason can be summed up in the words of Daryl Conner, from his enlightening book *Managing at the Speed of Change*: “To manage change well, you must use sober selling as your approach” [1]. In other words, don’t overpromise when it comes to what your IT

project will deliver. It is tempting to present your solution and simply expect the IT employees to accept it without winning them over. While this behavior might save you from a battle and much effort today, it will create a greater war tomorrow, one that you will ultimately lose.

To perform feasibility analysis related to human needs, answer the following questions about each technology change you are making:

- Is there a clear plan that demonstrates milestones and deadlines? (results)
- Do strong relationships exist in the current work teams? If so, can the relationships be leveraged? If not, can you create new teams and foster relationship development among those teams? (relationships)
- Do you have a communications plan that clearly outlines the roles of all individuals in relation to the new system? (security)
- Is there an opportunity for people to receive recognition as you evolve through the system implementation or corporate merger? (recognition)

This list of questions will get you started, and I’m sure there are others you’ll need to ask in more specific situations. As you can see, feasibility analysis forces you to ask some hard questions about your environment and, more specifically, your technology professionals. The focus is on the four core human needs that we can logically address in the workplace.

**Feasibility analysis forces you to ask some hard questions about your environment and, more specifically, your technology professionals.**

The result of feasibility analysis will be, almost without exception, the discovery of human needs that must be addressed. The deliverable of this feasibility analysis should be a strategic action plan for dealing with the human needs surrounding your project. This action plan should include:

- A strategic communications plan
- A team-building plan
- An implementation plan

The **strategic communications plan** will include the core of your message. This message should be shaped in a way to foster interest and desire and to provoke as little rejection as possible. The strategic communications plan should also include the people who must be involved in the communications and at what stage they should be involved. Recognition-oriented employees will benefit from this plan’s focus on recognition events throughout the project’s lifecycle.

Your **team-building plan** will outline opportunities for team-building among existing and new teams. These events do not have to be expensive offsite investments. They can be as simple as coding competitions and team meetings. These

team-building opportunities will help keep the relationship-oriented employees' commitment levels high.

The **implementation plan** serves an extremely important role. It clearly communicates when major milestones and key deadlines will be reached throughout the merger or implementation project. This document will benefit those with a results orientation. Those with a security orientation will be helped by knowing the role they will play at key points in the project.

Together these three documents will help you bring continual focus to the four core motivators.<sup>1</sup>

### **ANALYZING THE FAILED MERGER**

Now let's go back to the failed merger between Overhead Cables 4U and TCWC. There are many reasons why merger and acquisition projects fail in the IT portion of the endeavor. I'd like to cover three such reasons and show you how to avoid them in most situations. These three reasons are:

1. Ignoring the IT culture
2. Overlooking the in-place technology
3. Underestimating the impact of the project

#### **Ignoring the IT Culture**

One of the most frequently overlooked areas of analysis is that of subcultures, which is a very important factor for those of us

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<sup>1</sup>For more information on the four core motivators, see [2].

in IT. This is because different IT groups have very different cultures, and the culture of any particular IT group is usually different from that of its host company.

If you are involved in a corporate acquisition or merger, you must consider the cultures of the IT groups in each company. A company's culture is composed of its shared beliefs, behaviors, and values. Within IT, this includes our chosen toolsets, because we form a strong attachment to the toolsets we use most frequently. I'm sure you've seen or heard of a Linux tech who swears no other technology is useful or a designer who insists that you just can't design effectively on a PC as opposed to a Mac. The reality is that we become biased toward what we are most comfortable with, to the point that we do not really look at the alternatives.

It is also important to recognize the link between this behavior and the need for recognition. If we reject a technology that our IT professionals are committed to, they feel we are rejecting them and, therefore, not recognizing the value they bring. IT professionals can become highly committed to a technology, just as doctors or lawyers can become highly committed to a solution related to their profession.

My background is in managing network infrastructure and operating system rollout projects, as well as software development. Because of this, I have maintained my technical expertise over the years. However, this technical expertise

is in the area of Microsoft technologies, because that is what I've used in all the environments I've supported.

Some years ago, I had the opportunity to compete with a Unix guru in a showdown at a weekend user group event. We were asked to bring our computers and be prepared to "one-up" each other. The Unix guru would perform something on his computer, and then I would have to do the same. In 10 iterations, he was unable to stump me.

Next, it was my turn. I was sure I would stymie him as I jumped into the graphical interface. After all, this is the advantage and power of Windows over Unix. After 10 iterations of my best tricks, however, he was also un-stumped. In the end, it was a stalemate. The only thing we proved was that neither of us knew much about the other's favorite operating system.

This story illustrates how committed to their preferred systems IT professionals can be. In our merger case study, it is highly possible that there was great resistance to learning the Microsoft technologies over the Novell or Linux systems. It is also possible that TCWC's IT group put little effort into using the Microsoft technologies in order to "prove a point."

#### **Overlooking the In-Place Technology**

It is very important to remember that people do not always use technology in the way we think they will. This is significant in situations like our case study merger. The



Novell and Linux systems may be highly customized, offering capabilities to the user community that cannot be provided without tremendous learning curves in the Microsoft environment. Remember, capability is the combination of technical ability, system features, and willingness. If you are willing and the system has the features but you lack the technical ability, you are not capable. This is a common occurrence in corporate mergers when one entity is forced to adopt the systems of the other.

You must also look at the user community more directly. Users may have invested great effort to master the interfaces to the existing systems. Will they be willing to invest that effort again to reach the same levels of efficiency with the new systems? The commitment of the user community cannot be overlooked. There have to be compelling reasons and tangible benefits for users to stop what they are doing and make large-scale changes in how they operate.

### **Underestimating the Impact of the Project**

The third and final possible reason for failure that we'll look at is underestimating the impact of the project. There are multiple points of impact that must be considered, some of which were discussed in the previous section. These impact points include:

- The user community (emotional/social/practical)
- The IT community (emotional/social/practical)

- Procedural (processes and methods)
- Technical (hardware/software/infrastructure/security)

When I talk about the user and IT communities being impacted in a practical way, I am referring to the impact the merger has on them outside of their emotional or social realities. In other words, if they are expected to use a different technology that requires four steps to do what used to be done in three (assuming the steps take the same amount of time), they cannot be expected to perform at the same speed.

The procedural impact may also require changes to non-IT equipment or facilities, such as packing equipment or room size. This has to do with the fact that a change in process may demand a change in physical space requirements.

Technical impact points are usually the easiest to analyze, but they must not be overlooked. Will the current infrastructure provide the needed bandwidth? Will newer authentication methods be needed to provide security across the new WAN? Technical impact points can be very expensive on paper, but I would suggest that the greater cost is often in the user and IT community impact areas.

### **AVOIDING FAILURE**

We've now seen the three likely points of failure in our case study. How can we prevent these failures

**There have to be compelling reasons and tangible benefits for users to stop what they are doing and make large-scale changes in how they operate.**

through the effective use of human needs analysis?

Requirements analysis will demand that you discover the needs of both companies from a technological perspective. The very process of this investigation shows the acquired company that you care about their needs, and this will help reduce the levels of resistance. However, it will not be enough if you do not conduct human needs analysis.

When merging two or more IT cultures, the project managers must take into account the feelings of all groups. There will be fears and concerns that should be addressed. Managers should make an effort to inventory the skills of all IT employees and determine how those skills can be used in the most effective way. The most important thing to remember is that IT professionals can become very committed to a technology, and taking it away from them completely can cause them to disconnect from the organization. This disconnect will result in lowered productivity and, possibly, the loss of some employees. While I am not suggesting that all technologies should be maintained, I am suggesting this must be

considered when an IT professional will be retained as an employee.

As part of due diligence, ensure that you include people in your requirements analysis. Human needs analysis can be seen as independent from requirements analysis or as a subset of the same. However you look at it, if you need high productivity levels, you will need high levels of morale, and thus these IT culture issues will become a very important part of your project planning.

Requirements analysis will reveal the ways the existing technology is being used. This will force you to do the opposite of “ignoring in-place technology.” As you analyze the existing systems, you will determine the requirements of future systems. You will also uncover many human needs issues in this process.

The third problem, underestimating the impact of the project, will be diminished greatly by the process

of requirements and human needs analysis. While you are performing this analysis, you are painting a detailed picture of the impact the project will have on the organization.

## CONCLUSION

Without effective human needs analysis, IT projects are set up to fail. This is particularly true in M&A projects, but it is not limited to these large-scale situations. This analysis will help you solidify the demands of the project, limit the scope throughout the work cycle, and communicate a realistic picture of what your project can provide.

IT really can make the difference between success and failure in an M&A. When effective requirements and human needs analysis techniques are employed, the IT department can bring great value to the process and assist in a smooth transition to the future.

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# IT Due Diligence in M&As: Minimize Risk and Maximize Opportunity

In far too many mergers and acquisitions (M&As), companies conduct only legal and financial due diligence — but rarely evaluate their IT exposures. However, with business units more dependent on technology than ever before, it is especially important to conduct IT due diligence during an M&A to ensure the continuation of operations during and after the transition.

The new Cutter Consortium report *IT Due Diligence in M&As: Minimize Risk and Maximize Opportunity* by Mike Sisco explains the importance of IT due diligence and guides you through the seven essential steps for conducting an effective, successful IT due diligence assessment in your organization. Whatever role your organization is playing during the M&A, you'll walk away with three IT due diligence deliverables — budget data, the IT due diligence report, and a technology transition and support plan. And you'll learn how these deliverables will help you effectively operate and manage the technology resources of your new company.

## This report will help you:

- Understand IT's role in an overall due diligence effort.
- Conduct a due diligence discovery that identifies risks, opportunities, and issues that have technology implications and will need IT support.
- Develop a transition and support plan that ensures your IT strategy aligns with company and "customer" needs.
- Prioritize your projects using the IT project priority hierarchy pyramid.
- Avoid risk and take advantage of business opportunities.
- Understand the key components of an IT due diligence report.
- Ensure your IT support needs are managed correctly after the M&A is complete.
- Understand the four key discovery elements of stability, supportability, scalability, and cost.

You'll also get diagrams and charts illustrating the key points made in this report. These include the IT project priority hierarchy pyramid; IT due diligence discovery templates; an IT business assessment guide; the IT due diligence and assimilation process; and the acquisition process model.

After reading this report, you'll have a clearer understanding of IT's critical role in achieving a smooth transition in both IT support and non-IT transition efforts.

Develop a transition and support plan that is logical, achievable, and addresses the needs of the business in the best manner possible!

Order your copy of *IT Due Diligence in M&As: Minimize Risk and Maximize Opportunity* today and save 10%!

For more information or to order this report, visit [www.cutter.com/bookstore/itduediligence.html](http://www.cutter.com/bookstore/itduediligence.html) and use priority code 67R\*003INS to take advantage of this special offer!

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# Cutter IT Journal

Part of Cutter Consortium's mission is to foster the debate of, and dialogue on, the business technology issues challenging enterprises today, to help organizations leverage IT for competitive advantage and business success. Cutter's philosophy is that most of the issues that managers face are complex enough to merit examination that goes beyond simple pronouncements. Founded in 1987 as *American Programmer* by Cutter Fellow Ed Yourdon, **Cutter IT Journal** is one of Cutter's key venues for debate.

The monthly **Cutter IT Journal** and its weekly companion *Cutter IT E-Mail Advisor* offer a variety of perspectives on the issues you're dealing with today. Armed with opinion, data, and advice, you'll be able to make the best decisions, employ the best practices, and choose the right strategies for your organization.

Unlike academic journals, **Cutter IT Journal** doesn't water down or delay its coverage of timely issues with lengthy peer reviews. Each month, our expert Guest Editor delivers articles by internationally known IT practitioners that include case studies, research findings, and experience-based opinion on the IT topics enterprises face today — not issues you were dealing with six months ago, or those that are so esoteric you might not ever need to learn from others' experiences. No other journal brings together so many cutting-edge thinkers or lets them speak so bluntly on issues such as:

- Proving the value of IT ROI
- The give and take of offshore outsourcing
- The value of high-quality data
- The evolution of agile project management
- When and how to kill a dying project

**Cutter IT Journal** subscribers consider the **Journal** a "consultancy in print" and liken each month's five or six articles exploring a single topic to the debates they participate in at the end of a day at a conference — with every participant in the conversation forcefully expressing his or her viewpoint, backing it up with data and real-life experience.

Every facet of IT — application integration, security, portfolio management, and testing, to name a few — plays a role in the success or failure of your organization's IT efforts. Only **Cutter IT Journal** and the *Cutter IT E-Mail Advisor* deliver a comprehensive treatment of these critical issues and help you make informed decisions about the strategies that can improve IT's performance.

**Cutter IT Journal** is unique in that it is written by IT professionals — people like you who face the same challenges and are under the same pressures to get the job done. The **Journal** brings you frank, honest accounts of what works, what doesn't, and why.

Competition remains intense in the high-tech world. Budget cutbacks and short deadlines have become the norm. You need advice and experience you can rely on. Put your IT concerns in a business context. Discover the best ways to pitch new ideas to executive management. Ensure the success of your IT organization in an economy that encourages outsourcing and intense international competition. Avoid the common pitfalls and work smarter while under tighter constraints. You'll learn how to do all this and more when you subscribe to **Cutter IT Journal**.

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## Mike Sisco, Guest Editor



*Mike Sisco is the CEO and founder of MDE Enterprises, Inc., an IT management training and consulting company. Prior to starting MDE, Mr. Sisco was an IT manager and CIO for more than 20 years. He has led more than 40 IT due diligence projects and has developed multiple processes and tools.*

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