INFORMATION TECHNOLOGY MERGER AND ACQUISITION

by

Ming-Li Bien

Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Science

in the

Information Systems

Program

YOUNGSTOWN STATE UNIVERSITY

December, 2009

INFORMATION TECHNOLOGY MERGER AND ACQUISITION

Ming-Li Bien

I hereby release this thesis to the public. I understand that this thesis will be made available from the OhioLINK ETD Center and the Maag Library Circulation Desk for public access. I also authorize the University or other individuals to make copies of this thesis as needed for scholarly research.

Signature:

Ming-Li Bien, Student	Date

Approvals:

Dr. John R. Sullins, Thesis Advisor	Date

Dr. Graciela Perera, Committee Member	Date

Dr. Stephen Klein, Committee Member	Date

Peter J. Kasvinsky, Dean of School of Graduate Studies and Research	Date

Abstract

This research is about information technology (IT) and merger and acquisition (M&A). In recent years, M&A has been a common tool and a fast way for companies to grow and do business. Thus, M&A activity still continues to flourish despite the current economic downturn. M&A is a business transaction and IT has become an increasingly important part of the business. Studies show that while many M&A have failed for different reasons, the major reason is that the Chief Executive Officer (CEO), the Chief Information Officer (CIO), and the key handler of the M&A project did not bring the IT department on board early in the project, due to lack of understanding of the critical role that IT plays in M&A deals. In order to successfully execute M&A, it is essential to have a well-built IT department as a model for M&A with well thought out governance and policies in order to set a good foundation for a successful M&A project. This paper offers some viewpoints, approaches, and methods to help ensure the success of the M&A project; this paper also illustrates some real world successful examples which show the M&A project's ability to perform the synergy capture which drives most M&A.

Acknowledgments

This research report is my final Master's thesis project that was completed at Youngstown State University in Youngstown, Ohio. This Master's thesis was partially inspired through my work in the computer industry as a computer desktop support technician for many years and later as a computer consultant dealing with many different projects. While working on my Master's degree and working for the Sherwin-Williams Company, I have had the privilege to be involved in an M&A-type project called China Integration Implementation Project Phase II. This project experience has helped me to shape and firm a need to work on this research paper.

I would like to thank my family for their sacrifice and support while I continue to complete my graduate studies at Youngstown State University. I would also like to thank the following people: Dr. John R. Sullins, my advisor, who patiently guided me through the whole process, and Dr. Graciela Prerera and Dr. Stephen Klein, my thesis committee members, who took valuable time from their busy schedules to help me finish this final requirement for my graduate study in Youngstown State University.

In addition, I would also like to thank Mr. Curtis Warren, my manager at Sherwin Williams Company for his support, advice, and encouragement. Last but not least, Mr. Roy J. Dew, my closest friend and mentor who provided me valuable insight and work experiences in completing this thesis.

Preface

Growing up, I dreamed of doing something big and grand in my life. To this day, my thoughts almost always govern my actions. I believe that if I want to be successful, I need a proper and healthy way of thinking and understanding general concepts; this is the way I can achieve my life's vision. I understand that before I can accomplish something great, I need to start small. By living right, working hard, and making the right decisions one at a time, I am approaching my goal, step by step. This is like putting the building blocks together one block at a time. I am reaching my goals while battling obstacles and setbacks on my life's journey. To me, this is the reality. An IT project at work, by the same token, is in some ways similar to that life's reality. I believe that if I treat my life as a big project I will also face many risks, obstacles, and setbacks. I imagine and see my daily work as a miniature project. Each day, I need to have a goal, a vision of the results of the day's work, or of the completed project. With work projects and life projects, success depends on my vision of the end result. In other words, I need to start my project with a goal or an end result in mind. Without a doubt, in a project, there are people who will help me along the way; however, I need to be flexible to deal with problems and situations that will arise throughout the process. I also need the proper skills to lead, manage, and accomplish all the necessary tasks in the project. By putting in my effort one day at a time, like using building blocks, little by little I will be working on meeting deadlines and reaching milestones as fast as possible to save time and money. This requires following the necessary standard procedures and processes in my carefully-planned project. Preferably, the execution of all tasks will occur on time, because I know

that time is money. Above all, my attitude in life is to live in such a way as to avoid failure by learning from others and learning well. Learning well means that I will not have to experience and learn things from failure; rather, I will learn from the strategies of those who are successful. The goal of this research paper is to guide us in employing all of the ideas and principles that were mentioned above; it will help us to learn how to be successful from the experiences of others, and it will teach us to learn from some of the mistakes they have made so that we do not repeat these same errors in our work.

In retrospect, let me tell you how this research paper came about. As a nontraditional student, I started my Bachelor's degree three months before my 29th birthday, after I studied in finance for 5 years and determined that I did not have an interest in a finance-related job as my lifelong career. In college, I took a general education class in micro computing and got a very good grade. I found myself very comfortable and very intuitive in working with computers and programs. As a result, I decided to change my career study to information systems to have an information technology related career that started right out of college back in June of 1993. I really love and am fascinated by what I do every day with computers and problem solving. Not too long ago, after I started my graduate study at Youngstown State University, I took a class in Project Management. This project management class was where my graduate thesis started to take shape; the concept and idea for this research paper started way back when I decided to be information systems major.

Reading my background story, I hope that you can see my point and understand that working through a project is similar to the story of my life. My goal is to apply the many

principles that I have mentioned above to successfully start and finish the project, and to

treat the project as a way of life. In the end, I hope to help all of us to have a vision and

not only view this paper as a guide for handling a project, but also as an aid for running a

better business.

List of Figures

List of Tables

Table of Contents

Basic understanding of the topic and the objectives

Problem Description

In the past 20 to 30 years, a growing number of companies have used merger and acquisition (M&A) as their primary method of growth and competition. M&A has become a main strategy in the business world as many companies have announced M&A deals, even during this difficult economic time. With the unemployment rates at 10% in November of 2009[1], the U.S. Government has announced that this is a trying economy for almost all sectors, businesses, and government entities. However, M&A have continued to show signs of strength based on the total dollar amount; in November 2009 as many as 41 M&A deals have been in the pipeline, valued at $47.5 billion. The total worth of the M&A transactions is even higher than those of the same month one year ago in 2008, which was valued at $19.8 billion and totaled 575 deals altogether. If we compare November 2009's M&A deal with the October 2009's M&A, which was worth $29.8 billion with 522 deals, we can surely conclude that M&A is among the most important events in the corporate world.[2]

Using the above scenario as a backdrop, Rebecca Jacoby, the Cisco Senior Vice President and Chief Information Officer (CIO), in a podcast on February, 23, 2009[3], stated that "in the past couple of decades . . . the lines between . . . business architecture and your technology architecture are very blurred today.   Hence, the role of IT in a business entity has become increasingly important and the relationship between business and IT is becoming closer and closer every day.

Nevertheless, in a 2002 Accenture study, an article titled "From pre-deal to all systems go: Eight practical IT integration imperatives to help drive M&A success,"[4] stated that nearly three-quarters of corporate executives do not recognize the critical role IT integration plays in the success or failure of mergers and acquisitions. In addition, another article called "Growing Talent Globally Six Tips for Succeeding with the Art of Acquisition"[5] points on that only about 25% of M&A deliver the desired business objective. This is a frightening statistic when you consider the technological dependence of today's corporate structures and their operation.

The role of the CEO and CIO in M&A

Information is only beneficial for those who understand and are able to make use of it. Let's imagine an M&A project, a project that could deliver results and lead a CEO to where he or she wants the company to go. We can compare the situation to that of driving, where the CEO is a boss and the CIO is a chauffer who takes the boss to where he or she wants to go. First, the CEO communicates with the CIO and reveals the travel plan. All the processes and standards are just like the working pieces in a car. In order to produce the result, the CEO will work with the CIO closely from the first day to the last. The CIO needs to have adequate support and resources from the CEO. This could include getting money from the boss to pay for fuel and making sure the car is properly maintained and functions well. The CEO needs to keep the CIO informed of all the addresses and destinations. The CEO is also to keep in good communication with CIO continually in case any problems arise. The CIO needs to plan the shortest, fastest, and safest routes on the map, (which can be likened to a project plan), to take CEO to all of

the different desired places according to the travel plan. As both of them travel together, they may encounter flat tires, road hazards, or deer running across the path as risks during project time. The driver may also have to deal with weather conditions or road construction that could slow down and delay the project. This means that the CIO needs to plan for a detour and be flexible in dealing with conditions along the way as the project is in motion. There are many similarities between this scenario and those situations that arise in an M&A project.

Two approaches for building the successful foundation of M&A

Based on the study done by the Accenture in 2002[6] statistics show that there is an urgent need to change how top corporate executives think and view IT in order to build the right foundation. To resolve the problem, this research paper proposes two approaches: 1. The top down approach to M&A and 2. The inside to outside approach to ensure the company can be successful in M&A.

These approaches were inspired in part by a document entitled "Growing Talent Globally – Six Tips for Succeeding with the Art of Acquisition"[7] written by Mr. Tim Merrifield, Senior Director of Cisco Internet Business Solutions Group. The six tips are:

"1. Invest in an appropriate business IT governance structure to proactive and comprehensively prepare for and conduct integration efforts., 2. CIOs must establish foundational business and technology fundamentals to guide integration activities., 3., Deploy an appropriately resourced, prioritized, and measured execution team., 4. Make the integration a priority., 5. Invest in post-acquisition integration., and 6. Use the skills necessary for an acquisition on other projects." This article reveals the need to change the

way we think about M&A if we want to be successful in doing M&A deals. It also describes how we can achieve successful M&A by implementing the principle ideas in the articles. This thesis will expand upon few of the tips in this article to create general ideas for improving the success of M&A.

Understanding 1: M&A is all about synergy

As we all know, the main purpose of running a business is to maximize profits. There are many ways to grow a business, but one of the most effective ways to grow a business quickly is through M&A. Recently, many companies have tried M&A to expand their companies, and yet 50% to 70% of the companies failed for many different reasons. For those companies that failed, I believe that while they began their M&A processes with some benefits as their end goals, they failed because they did not successfully capture the so-called "synergies" they thought to gain from these business deals by doing the M&A. This failure may often be attributed to a failure to make IT a part of the M&A process early enough or from the beginning.

Why have companies failed in M&A?

After setup and strengthening the company internally, I would like to show some factual data to support my research. A reputable consulting company called Deloitte Development LLC has conducted some surveys and has made a podcast production called Deloitte Insights (reference). This podcast is published on its company website namely Deloitte Insights, a production of Deloitte LLP, published on Monday, January 19, 2009[8]. According to the podcast, there are 4 common reasons why the companies failed in M&A project activities:

1. They do not have a well thought-out strategy.

2. M&A candidate / target is not good.

3. Poor planning and execution of the integration project.

4. They did not allow IT to play a significant role in merger integration.

Out of all 4 reasons, the last reason is among the major factors for M&A failure. And based on this last reason, we can conclude that merger integration cannot be done without IT. Based on that same podcast, one of the participants, Mr. Mark Walsh, pointed out that in many M&A deals "a very strong correlation between when IT gets involved early and up front with due diligence and really helping to drive the valuation model, IT is often not the showstopper for a deal, but often is a key enabler for synergies, and it the deal premise is based on synergy capture and IT is not involved up front, playing a very active role and making the deal successful."[9]

Examples of lost synergy

An example may be found in the experience of one of my good friend Terry Most[10], who used to work for LTV Steel Company years ago. During the LTV and Republic Steel merger, the company did not bring in the IT until they ran into problems keeping track of inventory with two different computer systems, which they had assumed would allow a 30% reduction of work force after the merger of the two companies as a result of synergy. As a result, they not only did not achieve that reduction, but also had to use more time and labor to login to two different computer systems. Another example is the America Online (AOL) and Time Warner so-called "merger of the century". Due to the

fact they did not capture the synergy intended they recently separated into two companies again.

Understanding 2: M&A primary activity – synergy capture

Defining Synergy in the context of M&A

According to definition, "Synergy (from the Greek syn-ergos, συνεργός meaning working together) is the term used to describe a situation where different entities cooperate advantageously for a final outcome. Simply defined, it means that the whole is greater than the sum of the individual parts."[11] This can also be expressed as a mathematic expression "1 plus 1 > 2". In addition, in the business world, "synergy" is a word that has real meaning when a company is involved in a merger or acquisition business transaction. Synergy is defined as, "a mutually advantageous conjunction or compatibility of distinct business participants or elements (as resources or efforts)."[12]

Benefits of M&A Synergy

According to the real working experiences of and some surveys conducted by a reputable consulting company, Deloitte Consulting LLP, M&A could potentially create many benefits that are listed as follows:

- Increased market share

- Expanded technical and management capabilities

- Reduced costs through economies of scale

- Improved market position

- Increased assets

- Diversification

- Integration along the value chain.[13]

To obtain all the possible benefits listed above for synergy capture, careful and effective planning during the pre- and post-merger stages and carefully execution of the planned integration processes are required. If we do not do our homework thoroughly and if we over-pay to acquire the target company and fail to capture the synergies, the M&A deal should be considered a failure, and should never have gone forward in the first place.

Solution 1: A top down approach that starts from the CEO

Step 1: changing how a CEO thinks about IT.

The CEO of the business is the primary decision maker. Therefore, the CEO needs to understand that while M&A is a faster way to grow business, the risk of failure is also very great and the success rate is rather low. With this in mind, ultimately, we need to find out how and why some companies are successful in their M&A and model our strategies after theirs.

As a starting point, it is extremely important for the CEO and the CIO to make investments and to enact an IT change management guideline with some well-governed structure and process in the business organization. The Change Management Methodology should be used to ensure a structured approach to Information Systems development, implementation/installation, maintenance, and operation. This methodology is in line with our proposed M&A methodology that will help the M&A

project will be more successful. The specific objectives expected include the following:

- To reduce the risk of project failure

- To consider system and data requirements throughout the entire life of the system

- To identify technical and management issues early

- To disclose all life cycle costs to guide business decisions

- To foster realistic expectations of what the systems will and will not provide

- To provide information to better balance programmatic, technical, management, and cost aspects of proposed system development or modification

- To encourage periodic evaluations to identify systems that are no longer effective

- To measure progress and status for effective corrective action

- To support effective resource management and budget planning

- To consider meeting current and future business requirement

The purpose of IT change management, for example, is to help foster better business and IT decision-making by setting up a good way for the company to have project control and oversight. From the business management decision making point of view, IT change management not only allows project control and oversight but also tracking progress, realignment of project priorities between different departments, and control of the budget to supply adequate resources to support the project. From the IT decision making point of view, the IT change management will allow IT to focus on cost and efficiency to make

sure all the project is in line with the business' strategic interests, compliant with government regulation, and also meets the technical requirements of hardware and software that business need to use. As a result, the M&A project is controlled and supported by this IT change management, which should create a standard formula / model that can be applied repeatedly. These IT change management standards would also be scalable and measurable when applied to any size M&A project. IT change management gives the company a way to be flexible, to adapt to change, and allows for constant improvement.

Step 2: changing the relationship between the CEO and CIO.

The CEO and CIO must share the same vision in the organization. Support from the CEO and cooperation between the CEO and CIO ensure a higher probability for the success of the M&A. When the CEO understands the important role of IT in today's business world and insures that IT is involved from the beginning of the M&A project, possible failure may be avoided. To ensure the M&A 's activity is smooth and successful, the CEO needs to have the vision and understanding to position and prepare IT for the M&A, and to lead with the right policies and governance to give the M&A a good foundation. Later in this paper, I will give some sample suggestions in a CIO "to-do-list". After all, it isn't just using correct standards and procedures that help us to be successful in these M&A activities; in many ways, good leadership with the right skills, proper attitudes, thoughts, and devotion to the project, along with hard work, are needed to complete the project successfully.

Solution 2: Inside to outside approach that starts from the CIO

Step 3: Leadership from the CIO in preparing IT for the M&A

Tim Merrifield, in his article entitled "Growing Talent Globally – Six Tips for Succeeding with the Art of Acquisition[14]", has developed the concept that the primary way that the CIO can ensure the success of the M&A is to set up a standard process in corporate IT governance structure and policies to build up a "repeatable, measurable and constantly improving " model for the M&A to produce the end product of the base company, for every one of the M&A activities that the company participated in. This model should not only be repeatable but also scalable to be able to fit into any different size of the M&A target company. Based on the different strategies the end result may be different, but the model process would be run the same way in every M&A deal. This will allow all of the people involved in the M&A to know what the target company would be like even before the activities started, and to have a very good idea of the end status when the M&A job was done. As the standard process is applied each time, we can also learn from each different experience to modify, continue to improve, and refine the standard procedures.

As an effective leader, the CIO does not need to control all of the details that are going on in the department. A good vision of a leader is more important than the processes; the guidance and direction of the leader is more than control and management. Leadership style and clear communication of ideas for people to understand, follow, and take action are the keys to the success of the business and the M&A project.

On the other hand, the CIO does need to have a vision and clear understanding of the

current and future trends in IT. This will help the CIO to invest his or her time and be

able to focus on the foundation and effectively guide and lead the department by the

governance he has put in place. The governance would touch on many aspects to help

integrate complex business processes that become more and more technologically

dependent to interwoven with technology. With vision and governance, the CIO should

pass on the vision and objective to all the people who work under him or her, and the CIO

should motivate people by the achievement of the end goal with some sort of ownership

of the project. The primary job of the CIO is to help people to start the project with the

end product in mind. Using guidelines like IT change management will help people stick

to the standard yet remain flexible in doing their work. For example, with a specific date

scheduled to end the M&A project, IT change management will remain flexible on the

execution of the project by supplying needed resources to meet the deadline and make

adjustment during the project at any time in managing resource. In the end, the CIO

leads the department proactively and is able to anticipate and prevent risks as well as

react to the situations when they arise.

Understanding that working closely with the CEO enables the CIO to interact

quickly from the higher levels in the business organization plays an important role in

helping establish a successful business. As the CEO understands the importance of

investing money to prepare and support IT to help position the company to obtain that

competitive edge and grow stronger and faster, the CIO would, then, be able to function

with adequate resources to accomplish more and act faster in the M&A processes. In

addition, the CIO or business executives and management need to do their homework and

be more granular in working and planning the M&A deal. By doing so, it will reduce the risk of having the synergies diminish and slip away in the M&A processes to avoid the synergy lost in the example of LTV steel or AOL and Time Warner merger deals.

A "To-Do List" for the CIO

There are many things for the CIO to think about in building a foundation inside the company to pave the way to a successful M&A.

The Role of Enterprise architecture

After years of working in the IT industry, I am convinced of the importance of building an enterprise IT architecture within the IT department. The main function of enterprise architecture (EA) is to promote the effective management and operation of IT investments and services within a company. The EA describes the information needed to carry out these business functions and processes; identifies the system applications that create or manipulate data to meet business information needs; and documents the underlying technologies (i.e. hardware, software, communications networks, and devices) that enable the generation and flow of information. The EA is an essential tool for taking a strategic approach to planning and managing IT resources and making maximum use of limited IT dollars.

The benefits of EA

The defined EA provides the following benefits:

- Ensures the alignment of IT with company strategic business goals so that business needs drive technology rather than the reverse

- Identifies redundancies, and thus potential cost savings

- Highlights opportunities for streamlining business processes and information flows

- Assists in optimizing the inter dependencies and interrelationships among the programs and services of various component organizations as well as with external agencies

- Ensures a logical and integrated approach to adopting new technologies

- Promotes adherence to organization wide standards including those for systems security

- Pinpoints and resolves issues of data confidentiality, integrity and availability.

With the benefits of EA in mind, a few practical decisions would include the following:

- Choice of software applications and database platform

- Choice of PC workstation hardware vendors based on support and operation cost, warranty and long-term stability, and sustainability for future support

- Software operating system platform and licensing contract, cost, and long-term support

- Choice of network hardware vendors based on support cost, hardware warranty and long-term stability, and sustainability for future support

- Printing hardware and support contract, hardware warranty

- Choice of software and hardware for the enterprise backup solutions

- Network and telecommunication

- Data center and help desk support functions

The role of project management

Due to the ever-changing nature of the IT, there is a need for principle understanding in project management. Gary L. Richardson and Charles W. Butler, authors of a book entitled "Readings in Information Technology Project Management"[15], pointed out the following 7 areas would be important for the CIO to focus on. The 7 problems domains are:

1. New system development

2. Legacy systems

3. Data

4. Infrastructure

5. Operations

6. Human resources (HR)

7. Technology management.

Since M&A is a project by its basic nature and deeply involved with IT and some other areas, I would like to point out 7 problem domains in project management with M&A in mind where the CIO might pay attention to minimize the potential issues and set some standards in these 7 areas.

1. New systems development: This is to create a new system from ground up. The main problem for this kind of project is cost. It ranges from 10 % to 50% of the total IT budget depending on the size of the company. These systems should be designed in such a way that the systems can be repeatable and scalable to fit the needs of the corporate enterprise.

2. Legacy systems: The problem of this area is the cost to keep the legacy system environment and keep it running. Although some companies do not see this kind of task as part of a M&A project, if these kinds of systems are not managed well, they will not function properly after the M&A, to the detriment of the company.

3. Data: Data management-related hardware and software upgrades and applying fixes and any other activities for the data system should be treated as a project. A well-managed data system is a good start for a successful M&A.

4. Infrastructure: This includes the collection of all the hardware, software and network telecommunications required by the company to operate. This is a very important area in the M&A standard. It helps bring the target company in and merge two companies into one company.

5. Operations: In any company, there are different groups that keep the company functional. Operations are to keep all the systems that are already installed in running conditions. Processes and procedures needed to be set to keep this area working correctly.

6. Human resources (HR): Upgrading the IT professional skill base to help the IT

organization and user community is important. This is definitely helpful for the M&A project when a knowledge baseline is set for all the resources needed for the project.

7. Technology management: This is a process of "managing the evolution of technology in the organization."[16] This is a good area to research and to take advantage of; when a standardized assessment process is in place to help identify which key technology will help us speed up the M&A process.

Creating the M&A playbook

In order to perform M&A successfully, the CEO and CIO need a repeatable and scalable plan. This is an M&A "playbook with many different variations, according to a collection of articles written by Deloitte M&A Consultative Services that were published in a book called Wired for winning? Managing IT effectively in M&A. In one of the articles called "The role of IT in M&A"[17] the author pointed out that there are four important stages in M&A. They are:

Stage 1: Strategy

While conducting my research, I came across many articles that consistently emphasized the importance for the CEO, CIO, and key people in the M&A project to know and understand as early as possible what the key intention of the M&A deal is. This allows them to begin the M&A project with the end product in mind. In the beginning, the CIO must perform research to study and pick an M&A target company. This is also the best time to ask questions and decide if we are going to integrate the target company into the existing company, or to manage and operate the company as an independent wholly owned subsidiary and just consolidate financial reporting and human resources.

Stage 2: Due diligence

This is a time to collect important information about the target company. The information is needed to help the company carrying out the M&A to decide how to obtain the maximum synergy for the strategic interests. This also helps us to gain an understanding of the big picture at the end of the process. There are a several factors that lead to successful due diligence:

- Form an IT integration team early in the due diligence process

- Get the right people on the team- both internally and externally. These are the people that have cross-functional knowledge and experience with the abilities to envision the end result to move and finish the project.

- Set a broad due diligence scope- This includes assessing the risk and IT environment and identifying potential synergies.

- Set the baseline- This is the level of the knowledge that require to move forward with the M&A process.

Stage 3: Post-merger IT integration planning

This stage starts after due diligence is complete. Based on my work experience, it is never too early to begin your integration planning. This is similar to how the head start program works. In many ways, the success of the M&A depends on speed, so it is crucial that IT participates early on in the M&A planning stage. Later in the paper, I will show an example that will illustrate how we can quantify the work and do forward and backward integration planning, and obtain adequate resources for the work needed to achieve the target day.

According to the above article "The role of IT in M&A"[18], there are four models or approaches that can be used during post-merger integration in most of the M&A transactions. They are:

- Consolidation – This calls for the rapid and efficient conversion of one company to the strategy, structure, processes and systems of the acquiring company.

- Combination – This means selecting the most effective processes, structures and systems from each company to form an efficient operating model for the new entity.

- Transformation – This entails synthesizing disparate organizational and technological pieces into a new whole.

- Preservation – Supporting individual companies or business units in retaining their individual capabilities and cultures.

Stage 4: Execution

This final stage is for all of the people in the M&A project to follow the playbook checklist or script to finish the M&A project. Based on the M&A approaches chosen during the previous stage, there will be different focus tasks planned out in the playbook. The four different models also have their own success factors and potential causes of failure. This stage mostly is doing a wrap-up job with finishing touches through speedy and careful work.

Case Studies and examples

Case study 1 – The Cisco Model of M&A.[19]

As has been described above, almost all corporate executives view the acquisition of other companies as an important strategy and opportunity for offering customers new products with less time and effort spent to reach new markets and establish client base, thus increasing revenue. The primary goal of mergers and acquisitions is to attempt to merge two companies together, resulting in 3 times or more revenue than a single company can generate to capture the so-called synergy.

One case study company, Cisco Systems, Inc., which was founded in December 1984 with only two people, has acquired more than 115 companies since 1993 and grew to a head count of 51,840 by 2006[20] In fact, Cisco IT for many years has learned to deal with the challenge of how to integrate new networks, IT systems, and applications. Cisco knows how important it is to standardize the M&A processes. As the Director, Technology Innovations, Cisco Internet Business Solutions Group, Tim Merrifield, said "Each decision that each internal organization makes about integrating acquired company

has a ripple effect on other organizations, so you have to work carefully."[21]

Cisco IT, one of the key examples of the successful M&A, has developed core principles and a process-driven approach for integrating the networks, data centers, systems, and applications of acquired companies into the Cisco IT infrastructure. Throughout each project, the Cisco teams consider how the integration activities may be a catalyst for change within the new company in order to increase the acquisition's value.

I. CORE INTEGRATION PRINCIPLES

In support of my business management approach using Cisco study example, it is with minor differences from the Deloitte LLP that I previously described in this paper, Based on the case study, Cisco IT has defined many principles to address main issues to help successfully merging IT infrastructures and services, as well as decision-making and organizational activity. The 6 principles are 1) Infrastructure and application architecture, 2) Organizational alignment, 3) Financial models, 4) Governance, 5) Communication models and 6) Team Structures.

Infrastructure and application architecture:

In the beginning of the integration process, there is a need to define the baseline standards and plans. There are three key objectives to the integration plan: 1) Merge all acquired company's sites onto the single parent corporate network, 2) Deploy the parent company's products and technologies at the new sites, replacing existing equipment as appropriate, 3) Follow consistent rules for all user IDs and service entitlements for integrating network transport, voice services, applications, data centers, client computing, systems and network security, and management of external service providers and other

31

vendors.

Of all the standards to be followed, there is also the recognition that exceptions may
need to be considered during the beginning stage. "Integrations can be optimized if you
start with the assumption that the standard process will always be followed unless there is
a valid business reason for making an exception,"[22] says Merrifield.

Organizational alignment:

When we try to bring two companies together, organizational alignment is one of the
main tasks we face. During and after the integration process, all of the IT staff involved
need to have clearly defined roles and responsibilities to meet the overall business goals.
At the same time, organizational alignment must also consider the differences between
the two companies; for example, special consideration may be needed in certain
geographic areas or company divisions.

Financial models:

During the acquisition processes, establishing clear agreements between the two
companies is important. Understanding what would be paid for, how the accounting
department would record all of the costs, and how it would impact the company budget
during and after the acquisition is very important.

Governance:

There is a need to define and clarify decision-making participation, processes, and
authority for employees in the newly combined company in the IT organization. This
must cover "1) Strategic planning, 2) Architecture oversight and enforcement, 3)

Application development methodologies, 4) Data and information security policies, 5) Legal and regulatory compliance (e.g., Sarbanes-Oxley, data privacy), 6) Internal audit alignment and accountability, and general policies for IT services, processes, procurement, contractual obligations, and setting priorities."[23]

Communication models:

There is a need to proactively plan appropriate, relevant, and targeted communication about the integration plans and time lines. Communication plans should allow for customization and consider cultural concerns in the acquisition and integration processes.

Team Structures:

There is a need for a standard team of people to handle integrations in order to execute the M&A as a normal business process. First, employees bring the wisdom of prior experience to each new integration effort, which saves time and reduces problems. Secondly, employees expand their knowledge every time they are involved in an integration project and continue to improve the integration practices and processes. There is a long-term benefit to having a full-time team established and fully devoted as the M&A resource. This is one unique way with which Cisco handles their M&A deals.

A core team for M&A typically includes a technical integration leader, projects manager, technical lead, and business analyst. There is also an infrastructure team that includes employees who address issues and needs in specific areas of the IT infrastructure. The global business processes team defines the broader business issues that affect the IT integration (Figure 1).

Figure 1. Three teams of Cisco employees from IT and other departments plan and execute the integration of each acquired company. (Diagram source: Cisco Internet Business Solutions Group)
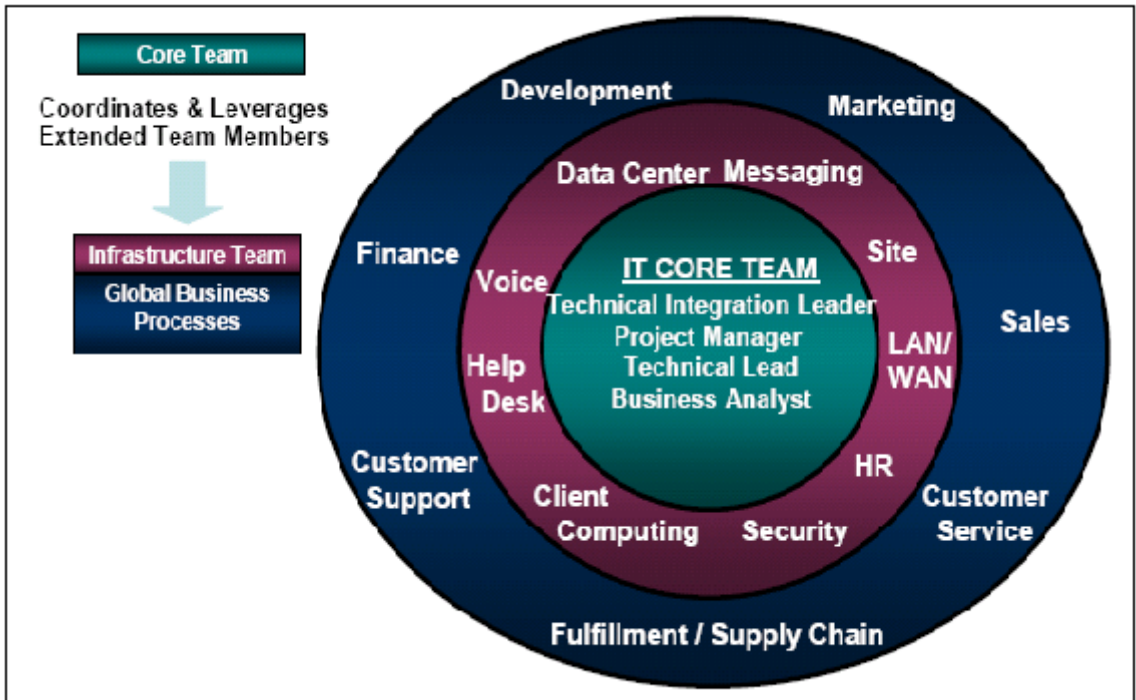
II. BASIC STEPS OF INTEGRATION PROCESS

After defining the integration principles, there are some basic steps that need to be defined for the integration processes. These processes are grouped into 6 conceptual stages that correspond to the major deal milestones. (Table 1)

Table 1. 6: Stages of the Cisco IT process-driven approach to integrating an acquired company.

Integration Processes		Stage	Deal Activity	Tasks
Discovery and Due Diligence	Integration Planning	1	Preparation	Scope assessment, business modeling
		2	Pre-Announcement Planning	Detailed due diligence and initial integration planning
		3	Pre-Close Planning	Final integration planning
Execution		4	Transition	Activation of employees, resources, and integration activities
Ongoing Operations		5	Integration	Planned integration activities are completed and measurement initiated
		6	Monitoring	Ongoing measurement and action initiated toward new activities that increase the value obtained from the acquisition

Stages 1 and 2: Discovery and Due Diligence

The processes in Stages 1 and 2 are completed before the pending merger or acquisition deal is publicly announced. For this reason, it becomes the most important process. During this process, integration team members begin to gather essential information, prioritize tasks, and plan communications and schedules. Standardized checklists and questionnaires are used to identify the following:

Table 2. Due diligence scope

	Scope
	The integration goals and business drivers
	The new company's sites and special facility needs; business applications and systems; and security requirements
	Customer commitments, regulatory issues, and legal considerations
	Contracts for original equipment manufacturer (OEM) products, services, and outsourced functions
	The new company's IT team expectations, employee assignments, governance practices, relationships, and policies
	Determination of whether a "shadow" IT presence or separate IT control will be necessary on a temporary or permanent basis

	Evaluation of short-term procurement decisions and interim processes
	Key stakeholder interviews—often held at the new company's site—also identify integration concerns and company cultural issues.

The due diligence processes lead naturally into the planning of actual integration activity. This planning would start just before the deal is announced and continue until the day the deal closes.

Stages 2 and 3: Integration Planning

Integration planning begins with an assessment of the existing IT infrastructures, elements, and services in the new company. Initial decisions are made about whether the major IT components will be fully integrated into the new company environment, partially integrated, or remain separate with limited if any integration (Table 3).

Table 3. The initial integration plans assess all key areas of the new company's existing IT infrastructure.

IT Infrastructure Area	Assessment
Transport	Global and regional LAN/WANs; IP migration status and plans; network connectivity (wired and wireless).
Voice	Existing systems, services and contracts for voice telephony, voice mail, and mobile phones.
Data Center	Locations, utilization policy, and capacity planning, identification of data center elements such as servers and storage; business continuity and disaster recovery capabilities
Client Computing	Standards and support for desktop and notebook PCs as well as related email, calendaring, file sharing, and printing services. Also defines user entitlements for remote intranet access, personal digital assistants (PDAs), and other advanced IT services.
Security	Policies and deployments for firewalls and other security elements.
Vendor Management	Existing contractual obligations, planned capital purchases, and business plans that will create new requirements for IT.
Applications	Core financial, human resources, and project tracking applications; employee portals; sales

During this stage, the team members develop detailed plans for integration resources, costs, and schedules. They may also provide limited consulting to the acquired company's staff about contracts, purchases, and vendor relationships that may be

established prior to the deal's closing date. Any exceptions to the company standards are identified and the decision is made about whether the integration will be completed as a rapid cut over or as a gradual migration. One part of the planning addresses what will happen on the first day after the acquisition closes and the new company begins to operate as one company. This effort is conducted as joint IT and business planning, and covers:

- Meeting the central processing and communications needs of sales, finance, operations, and customer support groups

- Deploying core communications and collaboration systems for voice, data, contact center, and messaging

- Launching IT leadership and governance activities

- Delivering information and training to the new employees

- Managing PCs and user accounts as well as employee and contractor access to the network, applications, and IT services

Stage 4: Execution

In Stage 4, the integration plans are finalized and the integration processes begin when the acquisition deal closes. These processes include:

- Activating resources to begin the tasks identified in the final integration plans.

- Deploying interim services for core communication and collaboration activities, such as interim network access through a wireless LAN or VPN.

37

- Delivering on site training and support as needed, including special support for selected personnel or tasks.

- Transferring client computing and LAN support to new company's internal support groups.

- Taking responsibility for vendor management and control of the acquired company's fixed assets.

Stages 5 and 6: Ongoing Operations

After the initial integration activity is complete, the acquired company operates as a part of the newly formed company. Work continues as needed to resolve any remaining issues related to the IT integration activity, vendor relationships, or management and governance.

The integration team conducts a post-integration analysis and review to identify lessons learned and additional focus areas for future integration efforts. A formal turnover meeting is held for each IT service and application to resolve any remaining issues around ownership, accountability, or alignment. The team also reviews client satisfaction surveys and prepares all required legal documentation for proper retention.

If an office or other site of the acquired company is to be closed, the team follows standard processes for appropriately terminating the affected assets, services, and contracts, archiving data, and decommissioning systems.

Objective / Results /Benefits

Defined principles, standard processes, and consistent actions and decisions for

integrating acquired companies have yielded significant business and technical benefits

for new companies. The major business benefits include:

- Shorter time to gain the value expected from each deal

- Ability to pursue more deals, more quickly and at lower risk

- Faster and less disruptive integration efforts

- Increased cultural integration and sense of inclusion for employees of the
  acquired company

- Increased probability for achieving the synergies and value expected from the
  acquisition

- Decreased complexity and higher efficiencies for integration activity

- Deepening of an organization's integration experience

Framework elements tie together the success of new company's business and IT

integration activity. These elements provide a proactive, "guide and architect" approach

to integration planning compared to the traditional approach of "respond and react." By

using this framework, Cisco is able to accelerate during integration process and achieve

economies of scale, cost reduce cost, and business process to remain its flexibility.

Figure 2. An integration framework helps Cisco IT maintain a proactive approach to
assimilating a newly acquired company. (Diagram source: Cisco Internet Business
Solutions Group)
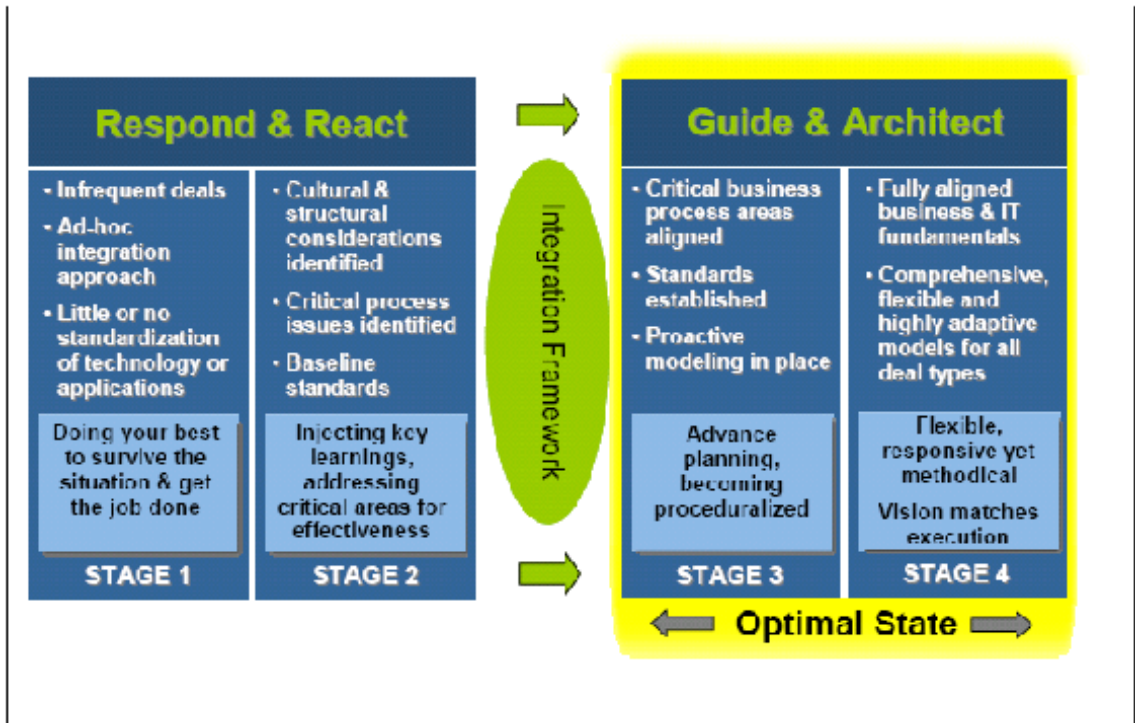
The major technical benefits of the Cisco IT approach to integration include:

- A single corporate network and a standard IT infrastructure and application architecture, which reduce operating costs as well as management and support requirements.

- A fully aligned IT organization and well-defined governance structure that helps to clarify roles and responsibilities and simplify decision-making.

- Repeatable, scalable processes that can be reused in most new acquisition integration projects, reducing the time and disruption involved.

Lessons Learned

In this case study, Cisco IT has gained and identified many valuable experiences in handling many acquisitions.

Treat acquisition integration as a normal business activity.

This is one of the main recommendations we can reach in this paper. This is a way to help the make M&A deals successful for the reasons described above.

Apply a holistic approach.

Approaching integration planning holistically significantly increases the probability of success. This approach means involving all parts of both companies in a single, high-level team (e.g., finance, human resources, IT, operations, and sales), not distinct groups working on separate functional areas with minimal interaction.

Follow a structure to integrate quickly and consistently.

Rapid and structured integration of acquired companies helps to achieve the expected business value. Thus, the company can save money and time.

Build integration expertise.

A post-project analysis identifies lessons that can be applied to future integration plans and activities. Consistency in processes and team membership also build integration expertise with each new acquisition.

Next Steps

As Cisco continues to expand its business through acquisitions, Cisco IT will continue to apply, as appropriate, the integration practices and processes described in this case study.

Side note from Case Study 1

As I mentioned before, there are different approaches to M&A. One of the

approaches is to run the company as a separate business unit. A good example of this model is the Cisco flexibility model in handling Linksys M&A. The company is managed separately, independent of the primary organization and only with consolidated financial reporting.

Comparison of different approaches

In the case of Cisco, the Linksys model may appear to be easier upon initial review. However, this may signify that a longer-term requirement for operating and maintaining two entire IT enterprise architectures, thus synergy from an IT perspective is lost.

An additional case study: Developer Diversified Reality (DDR).

Years ago, I was able to work for a company called Developer Diversified Reality (DDR) in Beachwood, Ohio to assist in one of the M&A deals by supporting the day to day operation while the M&A was in process. DDR followed a two-part parallel process that worked side by side during the M&A project.

One process dealt with the business and the other IT. Generally, the business at the very beginning would conduct a study to find a suitable business entity to acquire. As soon as the business decided to carry out a merger, the chief executive of DDR called in the IT director to start the IT processes. While the business was starting the M&A processes, there were key representatives from the legal department, the IT director, and others involved in the meetings. IT began a well-developed script to carry out the step-by-step processes. At the discovery / due diligence process, the IT team (consisting of network / server, database DBA, telecommunication, accounting / human resource

people) identified the complexity of the computer systems in the target company.

To give a simplified example of a complex M&A project, one of the important tasks was to set up a server in the computer lab to run a same database of the target company to convert the database and to import data into the non production but identical database system of DDR. The IT director would meet with the same IT team member to determine how many employees and hours (man/hours) were needed to complete the whole M&A integration project. After the total man/hours were found, the IT director met with the vice president in charge of the merger to determine the end date of the project for backward planning. With the total full time employees on hand and the end date determined, the IT director, then, calculated how many consultants with different skill sets were needed to bring in to help the M&A. The IT team members that met in the M&A regular meeting would be in charge of their respective area and would be the leaders in charge of those consultants. The IT director then met with business management to check the progress of business processes and to coordinate and check the IT team's progress by meeting with the IT team regularly. This ensured the timeliness of the project end date and the availability of resources up to the deadline.

As another side example, due to DDR's uses of enterprise architecture as software application and hardware guiding standards, based on the strategic interest of the company and by the analysis report, all of the computer equipment was replaced by the standard DDR PC and server computer hardware with standard computer imaging. The target company's computers were sold and properly disposed to the recycling vendors. Throughout the M&A project, the business process in the guide key and the IT process

were acting as a supporting role to enable the project to align well so that both processes

ended on the same target date.

Figure 3. The DDR M&A process time lin

Simplified M&A process timeline
For Developer Diversified Realty

Business process   IT process

M&A strategy development

Research /Target screening

Business Due Diligence
Ready to buy
M&A business process begins   IT Becomes involved here

                                   IT Due Diligence= identify
Negotiations   the complexity of systems
Regulatory   and quantify required effort
Legal and all   and calculate /estimate the
Other considerations   man/hours for M&A. Total =
                                   1,360 m/hrs.

                                   Ongoing meetings in IT dept

Ongoing meetings Between business And IT

                                   3 full-time employees
                                   Network = 240 m/hrs
                                   Database + accounting = 960
                                   m/hrs
                                   Communication = 160 m/hrs

                                   Calculate the business hours
The backward planning   Bring in more resource if needed
                                   To meet the end date

Paper work and planning

M&A end date:Dec. 31, 2009

44

Recommendations and Conclusions

This paper reaches the conclusion that effective IT integration will yield a positive outcome and capture synergy in M&A deals. Specifically, the following recommendations are made:

1. The vision and understanding of leaders are important in picking the right target company for M&A.

2. Good strategy and good decision making based on the information provided from the due diligence stage with the aid of IT department is important for the success of M&A.

3. Detailed planning with standardized processes and procedures is one of the keys to successful M&A.

4. A well-funded M&A project with adequate support resources can help ensure a successful M&A.

5. Passionate, devoted, experienced, and well-qualified M&A team members are crucial to the success of the M&A.

6. Time is money. Meeting the milestones and deadlines during a M&A project is a key to a successful M&A. For example, missing an accounts receivable billing cycle due to the accounting system converting issue is a major problem for any business.

Learning from methods and formulas that are proven successful will help us to be successful in M&A deals as well. These ideas are supported by the Cisco and DDR case studies, as well as by Deloitte in the book called Wired for winning? Managing IT

effectively in M&A[24]. It is a book I strongly recommend people to read its entirety. In addition, a study done by Accenture, one of the world's leading companies in management and technology services also supports my findings. Accenture's research findings also[25] support the Cisco and DDR practice in M&A activities. In Accenture's research and surveys, eight important elements were identified. They are:

1. Drive the IT integration program based on a vision of future IT capability

Out of all of the survey answers, 71% confirmed that they have a vision of future IT capability established. Hence, a vision of future IT capability is extremely important to integrating IT for multiple mergers It builds a set direction towards a common goal with different people working together. This vision also acts as a reminder in difficult times and helps business leaders to see the outcome after the M&A. Finally, it helps to find the missing pieces needed after a gap analysis is done in reaching the goal and obtaining the value of the M&A deal.

2. Involve IT early in business discussions about the (M&A) deal.

Out of all of the survey answers, 67% stated that they do not have much or any early IT involvement. Many companies have IT come into the picture only after the public announcement. Those companies that did bring the IT department on board early at the pre-deal stage did gain some advantages financially and were able to achieve some good return on sales, on assets, and on net worth, based on the three-scale analysis.

3. Perform an IT due diligence before the deal is signed.

Out of all the survey answers, 59% of the companies did an IT due diligence to find

out the risk, cost, and benefit from the target company before the deal. This reflects 70% of the success rate in IT integration from all of the companies that performed due diligence. Those who did not carry out the due diligence only had an 18% success rate.

4. Engage in detailed IT integration planning.

Out of all the survey answers, 46% of the companies have planned in detail. This contributed to the likelihood of successful IT integration for many of the companies. The research also pointed out that it is the CIOs responsibility to bring finance, accounting and human resource (HR) people to involvement in the integration for successful M&A.

5. Appoint a dedicated IT integration team and manager to oversee the IT integration.

Out of all the survey answers, 73% of companies with a full-time IT manager handling the project were successful in the M&A. Those companies without a dedicated person assigned only had a 40% success rate. And for those companies that were successful, 58% had a dedicated IT integration team in place.

6. Use experienced staff to manage the IT integration.

Out of almost 50% of the companies involved in the survey, less than 10% reported that they had experienced people complete the IT integration. Out of all of the companies that reported successful IT integration, 64% had over 10% of the experienced IT workers. Without a doubt, having people who know how to do the migration and integration increases the success rate of the project and speeds up the process significantly.

7. Use external staff to help execute the IT integration activities.

Nearly 50% of the companies involved in the survey used outside IT staff to aid the M&A project. Yet the results show that companies that used outside IT services were more successful. Only 39% of the companies reported successful worked without external IT staff aid in their IT integration process.

8. Engage in IT cultural change and human performance related programs.

During the survey, two major challenging issues were identified: 1). Human and 2). Cultural. For CIO and managers, it is not easy to find a good leader who not only manages things but also manages people well. It is more difficult to manage the latter, yet is more important to manage people well. This is why I have promoted change in how we view things from the beginning of this paper. To me, action always follows the way we view things, and those actions will bring us to success or failure depending on how much we understand the tasks that lie ahead.

References

1. Blatman, Peter Mark Walsh and John Powers. Wired for winning? Managing IT effectively in M&A. Deloitte LLP. 2008.

2. Chang, Richard A, Gary.A. Curtis, and Justin Jenk, "From pre-deal to all systems go: Eight practical IT integration imperatives to help drive M&A success." Accenture [Accessed December 2, 2009]

<http://www.accenture.com/Global/Research_and_Insights/Outlook/By_Alphabet/FromS uccess.htm>

3. Chang, Richard A., Gary.A. Curtis, and Justin Jenk, "Keys to the Kingdom: How an Integrated IT Capability Can Increase Your Odds of M&A Success" Accenture Innovation 2002. p. 7 –27.

4. Cisco Systems Inc. 2009. 23 Feb. 2009. "IT For the Upturn" Podcast [online]. [Accessed 1 Dec. 09]. Available from World Wide Web:

<http://newsroom.cisco.com/dlls/podcasts/transcripts/Transcript_RebeccaJacoby_230209 _PrGDtd2.pdf?vs_f=htmlpage&vs_p=Cisco%20CIO%20Rebecca %20Jacoby&vs_cat=news&vs_type=podcast&vs_action=podcast_transcript>

5. Cisco Systems Inc. Cisco history on the website. [available on the World Wide Web] [Accessed on 3 Nov. 2009.]

<http://newsroom.cisco.com/dlls/corporate_timeline.pdf>

6. Deloitte LLP, Deloitte Insights. 2009. 19, Jan. 2009. "Unlocking the Benefits of the Deal: How IT Can Capture M&A Synergies" Podcast [online]. [Accessed 13 Oct..

09]. Available for download from World Wide Web: <

http://www.deloitte.com/view/en_US/us/Insights/Browse-by-Content-

Type/podcasts/Technology-

Podcasts/article/f0255a1264001210VgnVCM100000ba42f00aRCRD.htm>

7. Merriam Webster's Online Dictionary. <http://www.m-w.com/dictionary/synergy>

8. Merrifield, Tim March 3, 2009 "Growing Talent Globally- Six Tips for

Succeeding with the Art of Acquisition." [Accessed December 2, 2009] Available on the

World Wide Web:

<http://www.cisco.com/en/US/solutions/ns340/ns414/ns859/the_art_of_acquisition.html>

9. Most, Terry. Personal conversation. December 2, 2009.

10. Papini, Jessica. "November Starts Strong for M&A." The Wall Street Journal.

[online]. 3 Nov. 2009. [Accessed 15 Nov. 09] Available from World Wide Web:

<http://online.wsj.com/article/SB125728363274626211.html>

11. United State Bureau of Labor Statistics news release. [Accessed 1, Dec. 2009]

Available from World Wide Web: . <http://www.bls.gov>

12. Richardson, Gary, and Charles W. Butler. Readings in Information Technology

Project Management. Boston: Thomson, 2006. p. 4 – 6.

Appendix

Deloitte's Merger & Acquisition Methodology

M&A strategy	Target screening	Due diligence	Transaction execution	Integration	Divestiture

- M&A management office
- Synergies & cost reduction
- Customers, markets & products
- 360° Communication
- Organization & workforce
- Functional integration
- Location & facilities

Deloitte's M&A IT Methodology

Due diligence			Integration/divestiture			
1 IT infrastructure	**2** IT applications	**3** IT supplier management	**1** IT PMO	**2** IT infrastructure	**3** IT applications	**4** IT supplier maintenance
Plan, conduct and finalize IT infrastructure due diligence	Plan, conduct and finalize IT applications due diligence	Plan, conduct and finalize IT supplier management due diligence	Plan and establish PMO structure and activities for IT	Develop and implement plan for IT infrastructure, detailing tasks, activities, resources, and cost figures	Develop plan and execute activities related to IT applications	Create and implement overall sourcing and procurement plan

Note: The M&A IT methodology is specifically designed to help address the challenges of the IT function during due diligence, integration or divestiture.

1 United State Bureau of Labor Statistics news release. [Accessed 1, Dec. 2009] Available from World Wide Web: <http://www.bls.gov>
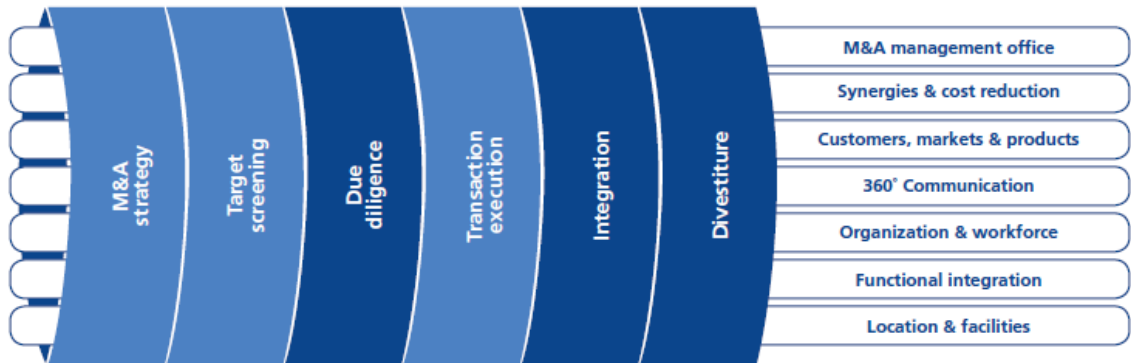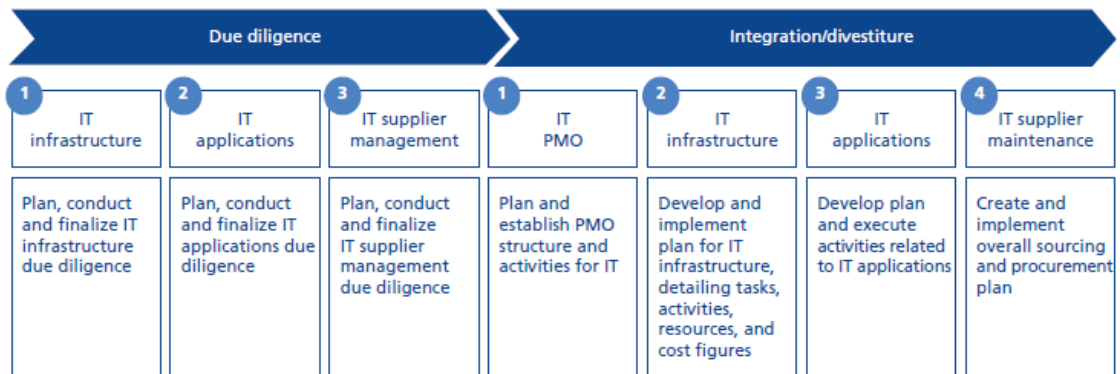
2 Papini, Jessica. "November Starts Strong for M&A." The Wall Street Journal. [online]. 3 Nov. 2009. [Accessed 15 Nov. 09] Available from World Wide Web: <http://online.wsj.com/article/SB125728363274626211.html>

3 Cisco Systems Inc. 2009. 23 Feb. 2009. "IT For the Upturn" Podcast [online]. [Accessed 1 Dec. 09]. Available from World Wide Web: <http://newsroom.cisco.com/dlls/podcasts/transcripts/Transcript_RebeccaJacoby_230209_PrGDtd2.pdf?vs_f=htmlpage&vs_p=Cisco%20CIO%20Rebecca%20Jacoby&vs_cat=news&vs_type=podcast&vs_action=podcast_transcript>

4 Chang, Richard A, Gary.A. Curtis, and Justin Jenk, "*From pre-deal to all systems go: Eight practical IT integration imperatives to help drive M&A success."* Accenture [Accessed December 2, 2009] <http://www.accenture.com/Global/Research_and_Insights/Outlook/By_Alphabet/FromSuccess.htm>

5 Tim Merrifield, March 3, 2009 "Growing Talent Globally- Six Tips for Succeeding with the Art of Acquisition." [Accessed December 2, 2009] Available on the World Wide Web: <http://www.cisco.com/en/US/solutions/ns340/ns414/ns859/the_art_of_acquisition.html>

6 Chang, Richard A., Gary.A. Curtis, and Justin Jenk, "Keys to the Kingdom: How an Integrated IT Capability Can Increase Your Odds of M&A Success" Accenture Innovation 2002. p. 7 –27.

7 Merrifield, <http://www.cisco.com/en/US/solutions/ns340/ns414/ns859/the_art_of_acquisition.html>

8 Deloitte LLP, Deloitte Insights. 2009. 19, Jan. 2009. "Unlocking the Benefits of the Deal: How IT Can Capture M&A Synergies" Podcast [online]. [Accessed 13 Oct.. 09]. Available for download from World Wide Web: < http://www.deloitte.com/view/en_US/us/Insights/Browse-by-Content-Type/podcasts/Technology-Podcasts/article/f0255a1264001210VgnVCM100000ba42f00aRCRD.htm>

9 Deloitte LLP, Deloitte Insights, Podcast.

10 Most, Terry. Personal conversation. December 2, 2009.

11 http://en.wikipedia.org/wiki/Synergy

12 Merriam Webster's Online Dictionary. <http://www.m-w.com/dictionary/synergy>

13 Blatman, Peter Mark Bussey, and Jeff Benesch "The role of IT in M&A." p.31 in a book called Wired for winning? Managing IT effectively in M&A. 2008 Deloitte Development LLC

14 Tim Merrifield, March 3, 2009 "Growing Talent Globally- Six Tips for Succeeding with the Art of Acquisition." [Accessed December 2, 2009] Available on the World Wide Web: <http://www.cisco.com/en/US/solutions/ns340/ns414/ns859/the_art_of_acquisition.html>

15 Richardson, Gary, and Charles W. Butler. Readings in Information Technology Project Management. Boston: Thomson, 2006. p. 4 – 6.

16 Richardson, p. 4 – 6.

17 Blatman, The role of IT in M&A. p.32 -34

18 Blatman, The role of IT in M&A. p 33

19 Cisco Systems Inc. 2006. "How Cisco IT Standardizes the Acquisition Integration Process." p. 1-7.

20 Cisco Systems Inc. Cisco history on the website. [Available on the World Wide Web] [Accessed on 3 Nov. 2009.] <http://newsroom.cisco.com/dlls/corporate_timeline.pdf>

21 Cisco Systems Inc. 2006. How Cisco IT Standardizes the Acquisition Integration Process. p. 1.

22 Cisco Systems Inc. 2006. How Cisco IT Standardizes the Acquisition Integration Process. p. 2.

23 Cisco Systems Inc. 2006. How Cisco IT Standardizes the Acquisition Integration Process.. p. 2-3.

24 Blatman, Peter Mark Walsh and John Powers. Wired for winning? Managing IT effectively in M&A. Deloitte LLP. 2008.

25 Chang, Richard A. Keys to the Kingdom p.4.