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Contents **Executive summary** To be successful, CIOs must take a systematic approach to organizational design. This includes defining a need for change, understanding the impacts of change across the organization and executing a well-crafted change management plan. CIOs who take this approach will create an optimal organizational structure that will stand the test of time. CIOs who fail to take a systematic approach are doomed to an ongoing cycle of fruitless change, low productivity and frustration for end users and IT. 8 Section 1 Evaluate the current status of the IT organization Reorganization is a traumatic event and should be considered an extreme measure, not to be undertaken lightly. ClOs must carefully evaluate whether reorganization is necessary. Optimizing the IT organization may simply require refocusing on structures, capabilities and roles. 22 Section 2 Design the new IT organization The organization chart is a design tool rather than a communications vehicle. In planning the new organization, put the org chart in a drawer and initiate a design process. Showcase IT effectiveness via structures, competencies and roles Structures that house key competencies and roles showcase the new IT organization's maximized effectiveness. Section 4 Allow for continual, opportunistic change without 48 reorganization CIOs must plan for continual change in the structures of their organization that deliver business value. As the business evolves, so must IT. However, this change can occur without inflicting the pain of perennial reorganizations. Case studies Appendix **Further reading**



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Foreword

Much has been written about the different IT organizational models in use today. The purpose of this report is to outline a decision process that will help CIOs select the organizational structure that best supports their needs, keeping in mind there is no "one size fits all" solution.

Well-designed IT organizations maximize IT's effectiveness. Organizational design is a critical success factor, and most CIOs take on the task themselves, even though they are rarely organizational design experts. Given that CIOs assume the design role for less-than-ideal reasons—chief among them that corporate HR is often not up to the task—this report answers the question, How can a CIO best evaluate and appropriately optimize the IT organization?

Effective IT Organizations: Design Matters was written by members of the Gartner CIO research team, led by Patrick Meehan (vice president and research director) and David Pack (executive partner). They were assisted by Steve Weber (vice president and executive partner), Marc Andonian (executive partner), Vicki van Alphen (executive advisor) and Adrian Quayle (vice president, Gartner Consulting).

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Executive summary

Every CIO needs an IT organization designed to maximize IT's effectiveness. Although the traditional organization chart is a starting point, a reorganization requires a logical design process that addresses business triggers, forges functional structures and teams, and establishes crucial capabilities and roles. A reorganization is traumatic and costly, not to be undertaken lightly. A well-designed organizational structure should endure through changing business models and economic climates with only minor modifications, which minimizes the need for future reorganizations.

Evaluate the current status of the IT organization

Evaluating the organization chart is a typical starting point when considering reorganization, but an org chart contains limited information, primarily illustrating reporting lines. Given the org chart's shortcomings in determining an IT organization's effectiveness, and whether reorganization makes sense, CIOs must go beyond the org chart to evaluate the need and readiness for organizational change, and the degree of required change.

A four-step evaluation process will aid the CIO in giving business context to the triggers that seem to call for reorganization. This process leads to deliberate "go/no go" decision points based not only on the need (or lack thereof) for such significant change, but also on the business's readiness to tolerate change. The evaluation process reveals clear indicators pointing either to reorganization and/or to corrective steps short of reorganization.

Design the new IT organization

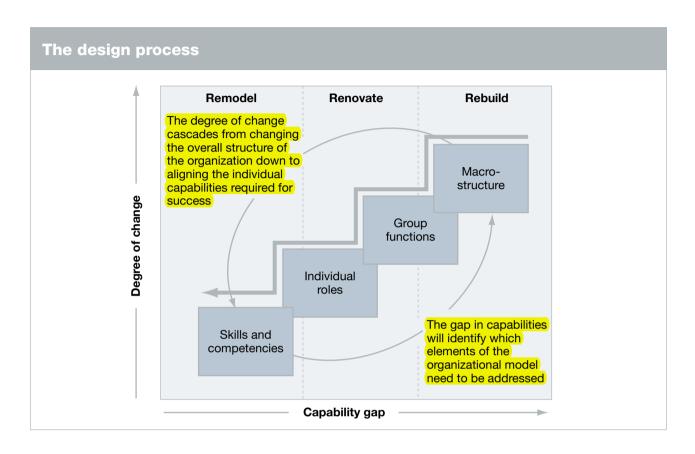
The organization chart is not a design tool but rather a communications vehicle that illustrates reporting relationships and team structures. In planning the new organization, put the org chart in a drawer and initiate a design process that clearly articulates IT's role and then maps to a functional enterprise view.

Clearly articulating the role of IT defines the design program. This report provides ClOs with 10 key questions that will help in articulating IT's enterprise role. An interview guide based on the 10 questions further aids ClOs, enabling them to gather field intelligence through interviews with business leaders.

A critical success factor in organizational design is to draft the role that the enterprise needs IT to play, which may not be the role that the CIO wants IT to play. The best sanity check in this regard is to engage key stakeholders in the design process and circulate the draft model among business peers to gain agreement on it prior to implementation. This also engages the business in supporting future actions, extending accountability for success.

Gartner research suggests that a well-designed organizational structure has a clear architectural foundation developed from sound operational principles. This foundation differentiates between various types of IT support. For example, the part of the IT organization that constitutes the supply side (e.g., provision of core or commodity infrastructure, and desktop and application services such as databases and Web platforms) will probably have a different structure than the part of IT that manages demand-side support. (Demand-side support typically includes technology that differentiates the business, such as business-specific applications.)

Creating and working from a macro-architectural view can help in identifying, articulating, designing, implementing and managing the most appropriate organizational structures (see figure on page 6). Using business process architecture to identify and flow work through the structure can also be a very helpful technique. Such gating procedures lessen the possibility that efficiency will leak out whenever work moves between groups.



Showcase IT effectiveness via structures, competencies and roles

Every organization consists of a macro-structural model, distinct functions and individual roles. The macro-structure defines how IT aligns with the overall business and what competencies will reside inside or outside IT. Functions define how teams of individuals are organized and how they interact to support common processes and outcomes. Roles define the requirements for individuals to operate successfully within their defined function. Three types of structures—those internal to IT, those facing outward from IT and those external to IT—house key roles and competencies that showcase the new IT organization's maximized effectiveness.

Internal IT structures should minimize costs without squelching innovation, delivering 100% on expected services. Such supply-side structures should also optimize the running of the business while providing a forum for continual improvement and innovation. Examples are centers of excellence, key competency groups and IT supply processes.

Structures facing outward from IT into the business stimulate and manage the demand side. They are the keys to IT's optimized business contribution. Examples are relationship management, embedded resources, and business unit CIOs and their organizations.

Structures external to IT keep everyone honest. External structures, typically staffed by both IT and the business, are beholden to neither

because they report to the head of enterprise strategy or development, which guarantees that IT is perceived as part of the enterprise's DNA. Examples include enterprise-level PMOs, business governance bodies and innovation councils.

Allow for continual, opportunistic change without reorganization

CIOs must plan for continual change in the structures of their organization that deliver business value. As the business evolves, so must IT. However, this change can occur without inflicting the pain of a reorganization every few years. The primary communications document that a functional-view design process should produce is a next-generation org chart that presents how IT actually functions within the business, instead of merely outlining who reports to whom.

Because the whole IT organization can't be in continual flux, CIOs must know where to draw the line around structures that model the business organization. These structures must be fluid enough to evolve with the business, without inflicting the pain of frequent total reorganizations of IT.

To keep a pulse on which IT factors may need to evolve across the organization, CIOs should watch four key indicators:

- Efficiency: business process focus
- IT effectiveness: growth contribution
- Morale: the right people in the right roles
- Satisfaction: the CEO takes notice

CIOs should also continually hone their answers to six business questions the CEO might ask about the organization of IT.

Report toolkit—A reference to selected tools in this report

Case studies

BankCo—Rebuilding the organization for efficiency

Black & Decker HHI—IT organizational form following function

CPR—Defining a new structure is easy; managing the reorganization is hard

INPDAP—Creating business process change with IT reorganization

Providence Health Plans— Expeditious organizational remodeling for long-term evolution

Figures

The design process

Considering a reorganization? A four-step decision tree

Total cost of reorganizing: Money, productivity and morale

Next-generation org chart

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Decision Step 1: Assessing the need for change

Summary of the three levels of organizational change

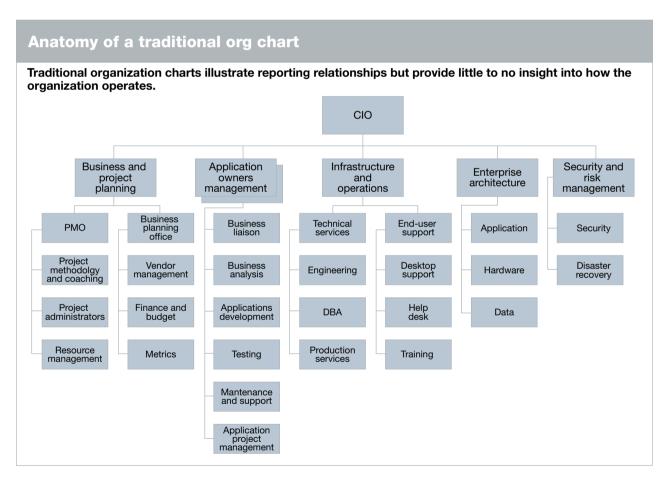
Determining IT's role: Business partner questionnaire

Evaluate the current status of the IT organization

The organization chart is a typical starting point when considering a reorganization. But because it simply illustrates reporting structures, it is of limited use in determining an IT organization's effectiveness and whether a reorganization makes sense. Transcending the org chart involves evaluating the need and readiness for organizational change, and the degree of required change. The evaluation process reveals clear indicators pointing either to reorganization or to corrective steps short of reorganization.

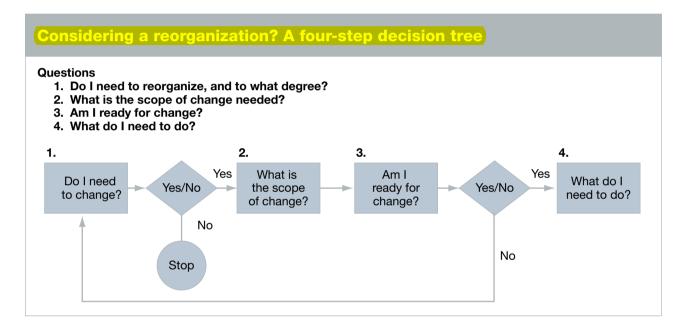
The need for a full-blown reorganization cannot be determined from the org chart alone

The traditional organization chart shows little more than reporting structures, so it gives very little insight into how an organization operates (see figure below). For an IT department, which touches every part of the enterprise—and affects partners, suppliers and customers—an org chart's lack of clarity about critical functions and, more important, about how they support the business, actually impedes evaluation of IT's effectiveness in helping run, grow and transform the enterprise.



Of the 22 CIOs interviewed for this report, only one had academic training in organizational design. Of the remaining 21, only two received significant support and guidance from corporate HR. Although these numbers are not statistically significant, they are fairly typical and suggest a disturbing reality: The vast majority of CIOs embark on a reorganization with little more than their

own instincts to guide them. The good news is that most of the interviewees succeeded with their organizational designs—in the eyes of their business colleagues and their own departments. The figure below shows how they optimized the IT organization using a four-step evaluation and decision process that answers four major questions.



Decision Step 1. Answering yes to one or more of the questions in the table below indicates the need for further exploration. Note that there is no triggering question concerning new CIOs because being new to the CIO role is not reason enough for a reorganization; this is a political move, not a business trigger. Of course, new CIOs are often brought in to change things, in which case the answer to several of these business-trigger questions should be yes.

Decision Step 1: Assessing the need for change				
Questions			No	
1.	Does the average user have a clear understanding of how to initiate IT work?			
2.	Is there a single or unified view of all work requests in the IT organization?			
3.	Is the quality of work compromised because of ambiguous processes or lack of clear accountability for execution?			
4.	Do operational management issues repeatedly keep you from focusing on the business?			
5.	Has the business strategy or operating structure changed significantly?			
6.	Do you have a well-considered and operational multisourcing strategy?			
7.	Do any MA&D activities create a need for major changes in the approach to IT?			
8.	Is IT success largely dependent on a few heroes?			
9.	Is the IT organization undergoing major changes in size/budget/sourcing?			
10.	Is there difficulty in obtaining funding for transformational IT initiatives because of a historic transactional focus?			

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Decision Step 2. Although the evaluation process will indicate whether a need for change exists, it will not address the scope of needed change.

Use the figure below to learn whether a full-blown reorganization is necessary. Retain your

score for consideration in Decision Step 4, as there may be prescribed organizational actions the CIO can execute short of a full-blown reorganization.

	Decision Step 2: Assessing the degree of change						
Red	Reorganization problem statement:						
	What needs to change?	Yes/No	How will they change?	How will you know success?			
Rebuild	IT macro- structure						
	IT functions						
Renovate	IT roles						
Remodel	Skills/ competencies						

Decision Step 3. Although this is the most important of the steps, it is the one that CIOs are most liable to overlook. Even if all indications point to a full-blown reorganization of IT, the CIO should stop the reorganization if the overall enterprise is not ready for such a level of change. All the CIOs interviewed for this report underestimated the change management effort required in a reorganization. Indeed, most cited change management as the No. 1 issue when asked what they would have done differently. And one CIO said that reorganizing IT can have as big an impact on the business as a new ERP system. Since a leading cause of ERP project failure is the inability of the business to absorb the level of change such a system demands, this interviewee saw parallels with an IT reorganization. If the business is not ready, an IT reorganization will fail.

Note that the decision tree (see page 11) returns to the beginning of the process if the enterprise cannot tolerate the change at present. In this case, the CIO should periodically re-evaluate the need for change and monitor the enterprise climate for change tolerance.

Decision Step 3: Are you ready for change?

- 1. Have the issues you wish to address through reorganization been clearly articulated in writing?
- 2. Can you clearly demonstrate how changes in the business operations model will impact the IT organization, and how reorganization will optimize results?
- 3. Is there understanding and consensus around the current and future roles of IT in the enterprise?
- 4. Can successes resulting from the reorganization be tangibly defined and measured?
- 5. Has the impact on internal and external partners been assessed, quantified and accepted by all?
- 6. Does IT and business leadership understand and accept the need for change?
- 7. Are staff resources needed for this reorganization available, and can they be dedicated to the task?
- 8. Have you identified and secured the best person to lead/manage this critical change initiative?
- 9. Are related business, organizational and project risks understood and accepted by IT and the business?
- 10. Are you willing to sponsor this project?

Decision Step 4. As mentioned, a reorganization is traumatic both to IT and the enterprise, and should not be undertaken lightly. The average IT department reorganizes every four years. Some do so as frequently as once a year—a clear waste of time, energy and resources. Decision Step 4 is designed to help CIOs determine conditions that warrant a reorganization, and whether stopping short of a reorganization would be a more efficient use of resources.

To understand what needs to change, refer back to the scoring in Decision Step 2. If it was determined that the business is ready for change, then proceed to validate the degree of required change using the Summary of the Three Levels of Organizational Change figure on page 18. This summary stresses consideration of remodeling and renovation in order to avoid unnecessary reorganizations. If a full-blown reorganization is needed, Section 2 of this report outlines the design process (think of a full-blown reorganization as a third-level rebuilding of IT; the two levels short of this are remodeling and renovating).

Reorganization means different things to different people. It is important to gain clarity and consensus on what a reorganization means to IT and the enterprise, and what specific benefits people expect from it. Also important is to understand the impacts, costs and risks of reorganization. Ideally, you want to get the expected benefits with the least amount of change.

If a reorganization is in order, the solution contains no simple fixes; it demands a complete redesign process as outlined in Section 2. The point here is not to reorganize IT unnecessarily—a remodeling or a renovation may be all that's needed. As one CIO put it, "If your house is a mess and you can never find anything, taking a sledge hammer to it isn't going to solve the problem. It will only make it worse."

The rest of this section describes remodeling, renovating and reorganizing/rebuilding in greater detail.

The two levels short of a full-blown reorganization

Remodeling

This approach typically focuses on renewing or re-energizing the organization. In remodeling a house, you might repaint, refinish kitchen cabinets or install new flooring, counters or appliances. Remodeling in IT typically involves changing key leaders, consolidating similar functions and support staff with similar duties, improving an existing process, or updating applications or supporting software. An IT remodeling can also involve extension of key functionalities or incorporation of new technologies in order to improve existing projects (adding automated software testing tools/suites to an existing software quality assurance program is an example of the former). One could characterize this type of reorganization as a new and improved version of the original.

The risks and costs of remodeling IT are low, and the time frames are short. There is rarely any significant adverse impact on productivity, and most participants are excited about the changes. The organization benefits from re-engagement and sharper focus on best practices and outcomes that drive organizational performance and productivity. The level of business approval required for remodeling is low, as are pre-selling activities. Often, customers are happy because remodeling can mean they get more effective and efficient service and support (see the Providence Health Plans case study on page 74 in the Appendix).

Renovating

Renovating is a mid-level approach that results in an overall update or upgrade of the organization to accommodate new or changed usage. To return to our analogy, a home renovation could involve stripping a room down to its studs, removing and replacing the cabinets and fixtures, and perhaps redoing associated plumbing and electrical wiring. In IT, renovation involves changing fundamental IT/business processes and building structures to support and manage them. Examples of organizational changes characteristic of renovation include implementation of: portfolio, program or project management practices; enterprise architecture practices; ITIL or COBIT service management; or a business center of excellence. Each of these requires fundamental changes in IT. Staffs are often consolidated and realigned in a renovation and may undergo fundamental changes in job responsibilities. New staff, processes, tools and technology may also be required to implement the new model.

For a renovation to succeed, business training and communication plans must be developed and implemented, along with a troubleshooting program to ensure that work doesn't stop while people get accustomed to the new approach. The magnitude of change means that the business must be fully engaged and participative in the process—its buy-in is essential to success. There is considerable risk that work will fall through cracks between the old and new organizations, so it is essential to have a centralized issue-resolution support team in place during the 30- to 60-day cutover period. It is also important to check with customers periodically to identify, report and resolve problems quickly (see the CPR case study on page 60 in the Appendix).

A full-blown reorganization's impact

Rebuilding

The rebuilding approach to reorganization is the most severe, appropriate in only a handful of circumstances, such as when the business finds itself in a major retransformation or retooling as a result of MA&D, major market shifts or the emergence of a disruptive competitor (see the MTR case study on page 68 in the Appendix). Rebuilding requires dismantling of the old structure, followed by the design and construction of a new one. Some assets, such as people and technology, can usually be salvaged, but the main structure is built with new materials in order to achieve a new objective for a new business.

In rebuilding a house, the main structure may be torn down, leaving only the foundation and perhaps one or two walls. A new and different floor plan may be used, and the house may be rebuilt with totally new materials (e.g., with stone or

brick siding rather than wood). The owners must find temporary quarters while rebuilding occurs. Rebuilding requires paradigm shifts in how the family lives and works, both during the transition and after they move into the new home.

The changes that result from rebuilding an IT organization are equally significant. Therefore, before rebuilding occurs, the business and IT units, other staff and customers must understand and agree on the approach and the expected benefits. This requires extensive communication and coordination, along with a well-developed what-if scenario planning model to anticipate and troubleshoot issues.

Rebuilding an IT organization usually means radical changes in infrastructure, the data center and staff sourcing (e.g., outsourcing, BPO and multisourcing), with all the attendant risks and potential benefits. Often, existing positions are eliminated and new ones are created. In extreme cases, some or all of the staff may be asked to reapply for jobs in the new organization. New employees are hired, and everyone must learn new methods and approaches, including how to work successfully as a team and deal with new leadership. Obviously, the changes are drastic, and the risks are high, which is why rebuilding should never be undertaken lightly.

Enterprises considering an organizational rebuild would be wise to engage HR, and possibly external organizational development and change management expertise, as an integral part of the process. They must prepare for a noticeable drop in productivity and be able to tolerate the ramp-up time people need to get on target with the new approach (see the BankCo case study on page 56 in the Appendix).

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Summary of the three levels of organizational change					
	Remodel	Renovate	Rebuild		
Emphasis	Update/refresh	Make it better, faster, bigger	Make it new		
Scope	Small	Medium	Large		
Cost	Low	Medium	High		
Time	Days	Weeks	Months		
Risks	Few	Moderate	Major		
Productivity drain	Low	Moderate	Significant		
Recovery time	Short (days/weeks)	Moderate (weeks/months)	Long (months/years)		
Communications needed	Memos	Memos	Full program		
	Conference calls	Conference calls, town halls	Plans/presentations— internal and external		
Business buy-in required	Not needed	General/conceptual	Full commitment and engagement		
Business focus	Efficiency and effectiveness	Efficiency and effectiveness	Efficiency and effectiveness		
		New or augmented capability/capacity	New or augmented capability/capacity		
Impacts	Intradepartmental	Interdepartmental and interdivisional	Enterprise and external customer/partner		

The total cost of reorganizing

All of the CIOs interviewed for this report said that the financial cost of reorganizing IT was minimal. In fact, one said he actually saved money on salaries and benefits because some of his more expensive staff left the organization.

The largest financial cost in a reorganization involves reduction in force and recruitment to fill newly identified role and capability gaps. However, all CIOs agreed that such outlays had far less impact than two key components less easily quantified: productivity and morale.

Even the most flawlessly executed reorganization impacts productivity and morale. This cannot be avoided, but it can be minimized through constant communication. All parties, in IT and across the enterprise, need to know on an ongoing basis:

- What is changing?
- Why is it changing?
- What benefits of change can we expect?
- How will change affect the daily activities of individuals and groups?

Leaving staff with lingering questions or doubts will only deflate productivity and morale—the hidden costs of reorganization. The depth of a productivity drop, and the recovery time required, increase with the complexity of the reorganization. The relationship is not linear, but it is almost exponential (see figure opposite).

One CIO described a poorly planned and communicated reorganization that occurred early in her career. Although productivity returned to expected levels after four months, 18 months elapsed before morale was fully restored, and along the way there was high IT staff turnover and dramatically reduced IT user satisfaction.

The CIOs identified vigilant communication as a key success factor in a reorganization. It addresses the many contributors to a drop in productivity, including:

- Poor understanding of the new organization and supporting rationale
- Poor understanding of personal roles and performance expectations
- Inadequate training in the new methodology/processes
- Poor instructions for how to do the work, or poor assessments of how well it is being done
- Mixed messages about an individual's role in the new organization and the security, opportunity and value associated with it
- Lack of clarity about what to do with questions or concerns
- Feelings of inadequacy or fear stemming from changes in personal control

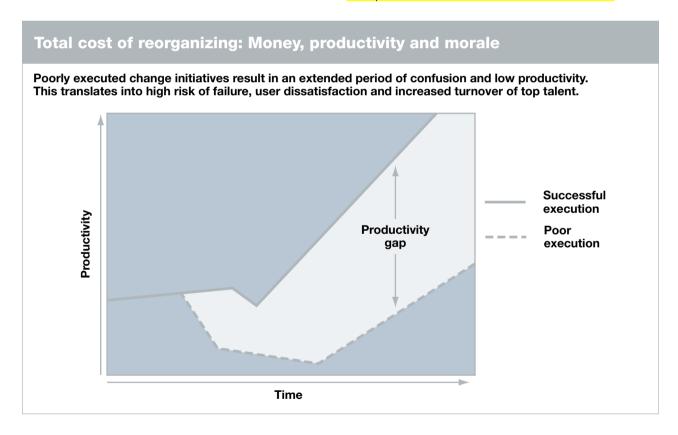
• Vigilant communication can occur through formal and informal channels, but in either case, leadership must be accessible.

And leadership must be truthful in answering questions such as:

Is my job at risk because of the reorganization? Yes, but you bring value, and we'd like to find a way to leverage your skills.

 Is my employment with the organization at risk? Yes, your current role will likely be outsourced; or No, your current role will likely be outsourced, but we have a new role identified for you.

People often find it harder to deal with ambiguity than with the hard truth. Much of the productivity drop associated with a reorganization can be attributed to chatter or personal concern about the impact. In summary, reorganizations must be designed, developed and executed with integrity, and problems must be dealt with head on.



Design the new IT organization

The organization chart is not a design tool but rather a communications vehicle. In planning the new organization, put the org chart in a drawer and initiate a design process that clearly articulates IT's role and then maps to a functional enterprise view.

Articulating IT's role defines the design program

A real estate developer who owns a valuable piece of land seeks to maximize the return on this enhanced asset. To do so, the developer needs a design program that answers the questions: What will we build and why? What kind of structure will deliver the maximum return?

In a major city, a busy corner may have retail businesses and offices. The savvy developer might decide that what's really needed here are a private health club and luxury condominiums catering to the top-earning executives within a 10-block radius. This developer has established the market-driven role the building will play in the urban fabric.

Similarly, the savvy CIO should take a market-driven design approach that determines what the enterprise needs IT to be, not what the CIO wants IT to be. The CIO's first step is to gauge his or her understanding of IT's present and future role (see figures opposite).

Role of IT: CIO's self-assessment					
Questions		Disagree	Somewhat agree	Strongly disagree	
1. IT is proactive in bringing solutions to the business					
2. IT staff understand our business strategy and environment					
3. IT leadership has a permanent seat at the BU planning tab					
4. IT is viewed as more than a technology provider					
5. Business units seek IT's input on planning- and strategy-re					
Disagree = 0 Somewhat agree = 1 Agree = 3 Range = 0 - 15	l 0 – 5 tnership 6 –10 11 – 13 der 14 – 15)			

IT's enterprise role

IT plays multiple roles within the enterprise and usually demonstrates characteristics of each of the following role types. However, there is typically a dominant role type as defined by the business units supported.

Role type	Characteristics
Transactional	"Order taker"; business dictates needs, and IT fulfills on requests; IT is focused on technology and operational efficiencies
Business partnership	IT partners with the business to understand and document business needs and requirements; IT may recommend alternate solutions
Consultative	IT understands both business and technology issues and trends; IT is proactive in recommending solutions to the business that help drive competitive advantage and success
Strategic leader	IT is viewed as a strategic leader within the enterprise and partners with business units in the development and execution of enterprise business strategy and planning

The second step, akin to the real estate developer's market-driven design program, is to actively engage business partners in discussions that determine IT's role. The goal here is to look beyond preconceived notions as to what IT should be (just as the developer looked beyond the obvious retail/offices solution) to uncover an unknown or innovative solution (the developer's private health club and condo solution). Use the interview guide below in your peer fieldwork.

Determining IT's role: Business partner questionnaire

- 1. Which of the following best describes your current view of our IT organization?
 - Transactional provides basic IT services and fulfills requests from the business
 - Business partnership—understands business issues and partners with business units to define problems and solutions
 - Consultative—understands both the business and technology issues facing the enterprise and is proactive
 in providing solutions that increase competitive advantage
 - Strategic leader—sets strategic direction for both IT and BUs
- 2. Which of the following best describes your desired role for IT?
 - Transactional provides basic IT services and fulfills requests from the business
 - Business partnership

 —understands business issues and partners with business units to define problems
 and solutions
 - Consultative—understands both the business and technology issues facing the enterprise and is proactive
 in providing solutions that increase competitive advantage
 - Strategic leader—sets strategic direction for both IT and BUs
- 3. I know whom to contact in the IT organization, and when, to resolve operational issues.
 - · Strongly disagree
 - · Somewhat disagree
 - Somewhat agree
 - Strongly agree
 - Comments:
- 4. I know whom to contact in the IT organization, and when, to get ongoing project/service information.
 - Strongly disagree
 - Somewhat disagree
 - Somewhat agree
 - Strongly agree
 - Comments:
- 5. I know whom to contact in the IT organization, and when, to engage in BU planning activities.
 - Strongly disagree
 - · Somewhat disagree
 - Somewhat agree
 - Strongly agree
 - · Comments:

Determining IT's role: Business partner questionnaire (continued)

6. IT is responsive to my BU needs.

- Strongly disagree
- Somewhat disagree
- · Somewhat agree
- Strongly agree
- Comments:

7. There are no redundant functions or roles between my BU and IT.

- · Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree
- Comments:

8. IT is proactive in bringing solutions to the table that we can implement and use.

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree
- · Comments:

9. IT clearly understands the issues facing my BU.

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree
- Comments:

10. Which of the following should IT focus on first?

- Providing services at the lowest possible rate
- · Being quick and responsive to the changing needs of our business
- Comments:

The third step is to re-evaluate preconceived notions of IT's role. Based upon the fieldwork with business peers, identify what has changed using the figure below and, most important, make a clear determination of the role the enterprise needs IT to play (see the Pepperdine case study on page 70 in the Appendix).

Role of IT: CIO's self-assessment (reality check based on peer interviews—has the role changed?)

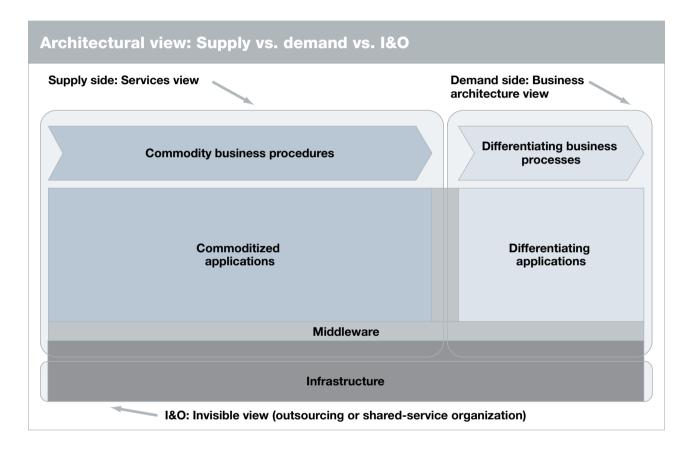
Questions	Disagree	Somewhat agree	Strongly disagree
1. IT is proactive in bringing solutions to the business			
2. IT staff understands our business strategy and environment			
3. IT leadership has a permanent seat at the BU planning table			
4. IT is viewed as more than a technology provider			
5. Business units seek IT's input on planning- and strategy-related issues			

Disagree = 0 Somewhat agree = 1 Agree = 3 Range = 0 - 15 Answer key
Transactional 0 – 5
Business partnership 6 –10
Consultative 11 – 13
Strategic leader 14 – 15

Sketching a macro-architectural view focuses organizational segments on supporting IT's role

All of the interviewed CIOs took a functional view of their IT organizations, emphasizing the segments that support the role IT plays in the

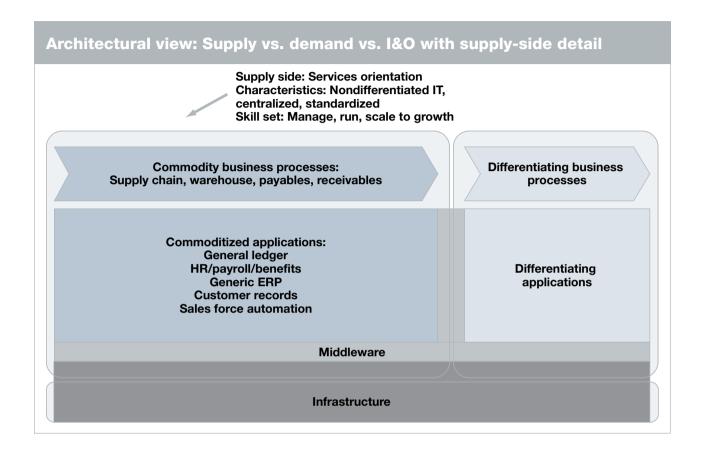
enterprise. Several CIOs created three organizational segments to facilitate this emphasis: infrastructure and operations, nondifferentiated or commodity applications, and differentiated IT—the last on the demand side, which provides competitive advantage via IT (see figure below).



Supply-side segment

The supply-side segment is characterized by a services orientation of commodity IT applications (see figure opposite). These applications are necessary to run the business but do not provide any form of competitive advantage. CIOs whose IT enterprise role scores as transactional and/or as a low-level business partnership should focus their design attention on this segment.

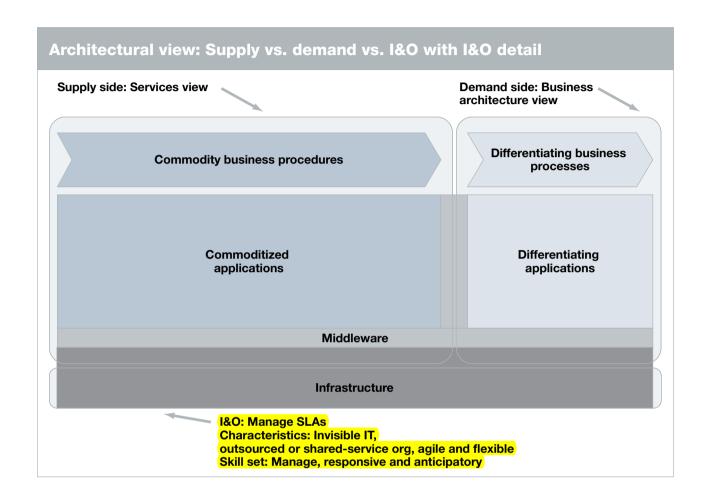
Successful CIOs, however, did not organize by application. Instead, they created an IT services portfolio and organized along those lines. This is comparable to the engineering that enables a building to stand and function, such as the specifications for steel, concrete, glass, etc. FinancialCo organized to focus on the supply side with better IT services and stronger business relationships (see the FinancialCo case study on page 64 in the Appendix).



The infrastructure and operations (I&O) segment

The I&O segment is largely invisible to the enterprise but critical to its functioning (see figure opposite). Again, it does not provide any form of competitive advantage. CIOs whose IT enterprise role scored as purely transactional should focus their design attention on this segment. In successful reorganizations, even those where the focus was on IT operational credibility, CIOs organized this segment to address what most of them saw as inevitable: either outsourcing the I&O segment or turning it over to a shared-service organization.

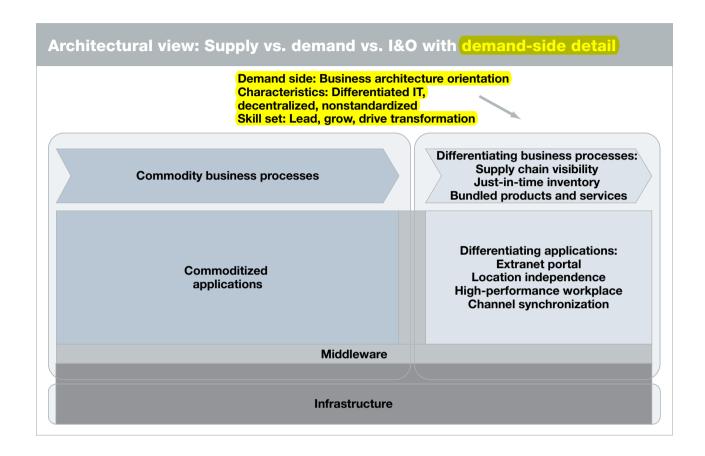
Like the foundation, plumbing, electrical wiring and communication system in a building, I&O is fundamental—people assume that infrastructure and operations, though unseen, are there and functioning 100% of the time. Just as the work of constructing a building's infrastructure is done by subcontractors, the I&O segment of an enterprise requires work that is generally outsourced to specialists.



Demand-side segment

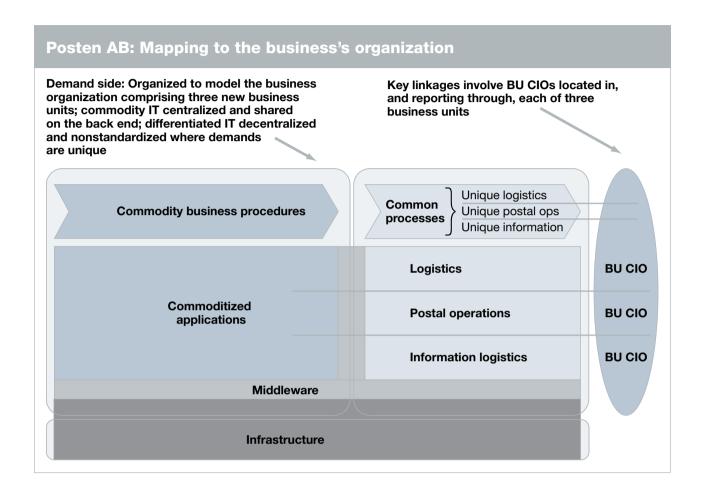
The demand-side segment develops and supports differentiated applications and processes that sustain the growth and transformation engines of the business (see figure opposite). This segment is the face the enterprise presents to its workers, partners and customers. It could be thought of as the part of the enterprise that "touches the money." CIOs whose IT enterprise role scored as consultative or as strategic leader should focus their design attention on this segment (especially those in the latter category). In successful reorganizations, CIOs mapped this segment of their IT organization to mirror the organization of the business. For example, if the business was organized by product sets, IT would organize to support product sets. And if the business was organized regionally, IT would organize to support regions.

Returning to our real estate developer's private health club and luxury condos, it is the demand side that defines this project's differentiated market position, which no doubt maps precisely to the target market's specifications with features such as open-plan kitchens, breathtaking views, baths with steam showers and whirlpools, family rooms with complete entertainment systems and direct elevator access to the private club. Black & Decker HHI organized the demand side to exactly mirror the business organization in order to optimally stimulate and manage IT's business contribution (see the Black & Decker case study on page 57 in the Appendix).



Align the demand side to mirror the appropriate business operational view

CIOs using a design process with a functional view emphasized that the demand side must model the business organization. As one CIO put it, "The IT organizational view should transparently overlay the business architecture. You shouldn't be able to tell the difference between the two organizational structures." Posten AB, the Swedish postal system, established three lines of business. The CIO's response was to create three structures linking IT to these lines, each with its own business unit CIO (see figure opposite and the full Posten AB case study on page 72 in the Appendix).



Showcase IT effectiveness via structures, competencies and roles

Organizational structures target employee impact; roles define what employees deliver within that structure; and competencies define how employees perform. Clarifying the where, what and how of the organization removes the mystery surrounding IT's contribution to the enterprise while showcasing its effectiveness.

Internal IT structures should control costs without squelching innovation

The three organizational segments—supply side, I&O and demand side—cannot operate as disjointed or independent entities. They need linking mechanisms that permit the entire organization to act in concert. While conducting the interviews for this report, it became clear that CIOs were using organizational structures not only to link the three segments but also to house key roles and competencies (see "Defining critical competencies" on page 46). The figure opposite shows how internal IT structures serve two purposes: minimizing cost while delivering 100% on expected services. Such supply-side structures should optimize the running of the business while providing a forum for continual improvement and operational innovation. INPDAP created such structures to drive an increased level of business process-centricity, as well as to package infrastructure and operations for potential outsourcing (see the INPDAP case study on page 66 in the Appendix).

Commodity business procedures Differentiating business processes

Commoditized applications Middleware Infrastructure

Internal IT structures

- Centers of excellence
- Key competencies group
- IT supply process center
- IT operations center

Roles

- Business analyst
- Project managers
- Integration engineers
- Systems analyst
- Application development analyst
- Network engineering
- Web engineering
- Capacity planning
- Telecom engineer
- System architect

Competencies

- Business process knowledge
- Information systems knowledge
- Project management
- Results orientation
- System development life-cycle knowledge
- Problem solving
- Process orientation
- Results orientation

Structures facing outward from IT manage demand and maximize IT's contribution

The IT organization cannot exist in isolation within the enterprise; like the three organizational segments, it must be solidly linked in. Outward-facing structures, critical to growing and transforming the business, ensure that differentiated IT remains differentiated by stimulating, managing and quantifying the business impact of the demand side. The figure opposite shows how outward-facing IT structures—fully integrated relationship management, embedded resources and, in the largest enterprises, business unit or divisional IT groups—keep IT agile and responsive as demands from the business evolve. DentalCo accomplished complete demand management by implementing externally facing structures that work to identify the next generation of healthcare (see the DentalCo case study on page 62 in the Appendix).

Outward-facing IT structures, roles and competencies Differentiating business processes Commodity business procedures Commoditized applications Differentiating applications Middleware Infrastructure Outward-facing IT structures **Roles** Competencies • Relationship management • Architecture Business enterprise knowledge **Embedded resources** Decision support specialist Change advocate Client partnership **Business unit CIOs and** Business analyst organizations Business process consultant Innovation Business relationship • Strategic technology planning

Structures external to IT keep everyone honest

The most successful CIOs, and those whose IT roles were strictly characterized as strategic leader, organized with structures external to IT (see figure opposite). Although not 100% IT-focused, these structures truly blend IT and the business—enough to blur the lines between the two. The figure opposite diagrams how structures such as business governance, business architecture and enterprise-level PMOs—all staffed by both IT and business people—can concern themselves with the confluence of IT and the business, yet be beholden to neither because reporting is normally to the head of enterprise strategy or corporate development.

As a result, these structures are depoliticized from a success/failure point of view, and so can work with and guide IT and the business more effectively (see "Using the PMO to gather data on IT's contribution to the business" on page 46). Even more important, they give the CEO and executive management transparency into transformational business activities. Although they are beyond the organizational control of CIOs, we discuss them because they reflect a management trend CIOs must consider in designing their organization: that certain key IT resources may require organizational structures that support IT's interests but lie outside of IT.

Structures potentially external to IT and their roles and competencies Differentiating business processes Commodity business procedures Commoditized applications Differentiating applications Middleware Infrastructure Structures potentially external to IT Roles Competencies • Business governance · Financial analyst • Business growth expertise Change advocate **Enterprise-level PMO** Business analyst, senior Innovation councils Project manager, senior Innovation **Business architecture** Strategy analyst • Strategic business planning



Using the PMO to gather data on IT's contribution to the business

One of North America's leading insurance companies relies on a PMO for objective project-based data on IT's contribution to the business.

"In addition to the usual operational metrics and service-level agreements," says the CIO, "my primary business contribution measurement comes from the business units, based on collaboration and delivery of business projects. The public measurement and related communications originate not with me, but with the PMO."

The PMO's location in corporate development not only ensures IT alignment with corporate strategy, it also facilitates accurate communication of IT's contribution to product innovation and customer channels. The office is collaboratively staffed, with each project having an IT and a business lead. The monthly report to all business unit heads and to the executive team comprises:

- Context-briefly describes the project
- Status-notes the interplay of time, cost and quality
- Problems—presents problems and sets future expectations
- Solutions—describes how IT is handling problems

For a complete discussion of PMO structures, see the March 2006 Gartner EXP Premier report, *Taking Your PMO to the Next Stage*.

Defining critical competencies

Most CIOs pointed to the following critical competencies as key to the success of the three types of structures (internal to IT, outward-facing and external to IT). How do competencies differ from skills? Competencies, they said, are about how someone does a job (communicating, working in a team, building relationships), while skills are about what someone does in a job (coding, documenting, troubleshooting). Skills are easy to develop and to test but are poor predictors of performance. Competencies are difficult to develop but are good predictors of long-term performance.

Business enterprise expert: Solicits information on enterprise direction, goals and industry competitive environment to determine how his or her own function can add value to the organization and to customers. Makes decisions and recommendations clearly linked to the organization's strategy and financial goals, reflecting an awareness of external dynamics. Demonstrates awareness by providing clear explanations for actions taken relative to customer requirements, needs and industry trends.

Business process expert: Identifies, documents and monitors key business processes needed to achieve successful business results. Maps and documents processes. Develops framework for process improvement.

Defining critical competencies (continued)

Change advocate: Identifies and acts on opportunities for continual improvement. Encourages prudent risk taking, exploration of alternative approaches and organizational learning. Demonstrates personal commitment to change through actions and words. Mobilizes others to support change through times of stress and uncertainty.

Client partner: Assesses and develops strategies for meeting the needs of internal and/or external clients. Seeks information about, and identifies, opportunities to support and enhance critical client business functions and processes. Defines expectations. Matches business requirements to new or existing products and services.

Information systems expert: Maintains and applies up-to-date knowledge of discrete and integrated information systems elements (hardware, software, network).

Initiative taker: Voluntarily takes the first steps to identify and address existing and potential obstacles, issues and opportunities.

Innovation expert: Improves organizational performance through the application of original thinking to existing and emerging methods, processes, products and services. Exercises sound judgment in determining how innovations will be deployed to produce return on investment.

Problem solver: Anticipates, identifies and defines problems. Seeks root causes. Develops and implements practical and timely solutions.

Project manager: Applies project management principles and practices required to plan, manage and implement projects and programs. Manages physical, financial and human capital resources, considering budgetary and cost implications, as well as risks, of project decisions.

Process-oriented performer: Achieves desired results by taking a systematic approach to work and by following defined work processes. Can successfully operate within the organization's governance framework to achieve repeatable results. Makes recommendations to improve organizational performance through modification of existing processes or introduction of new ones.

Results-oriented performer: Sets and accomplishes challenging goals. Defines standards in terms of doing what is appropriate and doing it well. Competes resourcefully and takes calculated risks to achieve results.

Strategic technology planner: Develops plans that meet the architecture/technology needs of the organization. Incorporates business priorities, strategies, goals, emerging technologies, industry trends and economic viability.

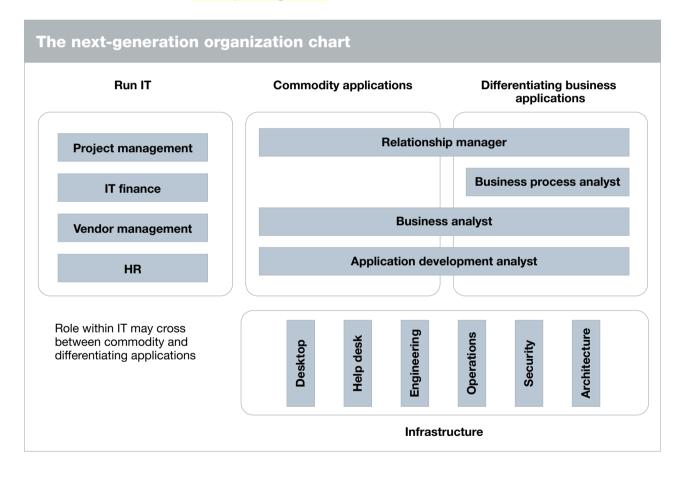
System development life-cycle expert: Applies knowledge of how technology solutions progress through life-cycle phases of requirements analysis, solution design, development, testing, deployment and decommission.

Allow for continual, opportunistic change without reorganization

CIOs must plan for continual change in the structures of their organization that deliver business value. As the business evolves, so must IT. However, this change can occur without inflicting the pain of reorganization every few years.

The next-generation org chart

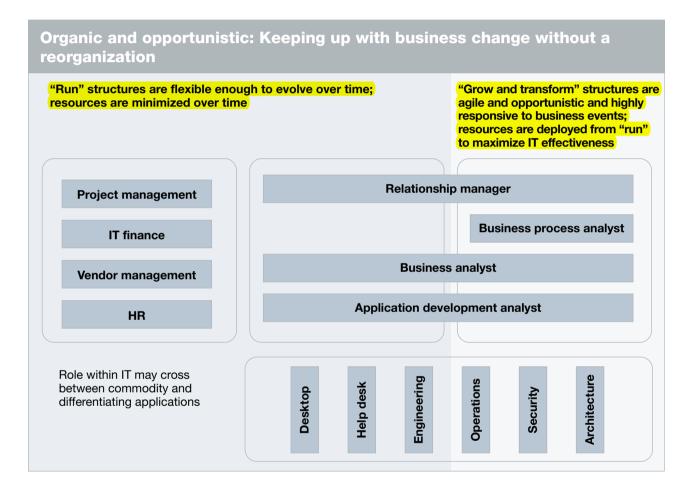
The primary communications document that a functional-view design process should produce is a next-generation org chart that presents how IT actually functions within the business, instead of merely outlining who reports to whom. The next-generation org chart (see figure below) complements the traditional org chart. Together the charts give a more complete picture of reporting relationships and the workings of IT, helping the CIO more effectively plan how segments and structures should evolve, and whether certain ones should be more or less locked down to minimize operating costs.



Evolutionary and opportunistic structures

Because the whole IT organization can't be in continuous flux, CIOs must know where to draw

the line around structures that model the business organization. These structures must be fluid enough to evolve with the business without inflicting the pain of frequent total reorganizations of IT (see figure below).



Success indicators

To keep a pulse on which IT factors may need to evolve across the organization, CIOs should watch five key indicators:

- Efficiency—Is the current structure efficiently providing services consistent with the process design and with business expectations? Are there ongoing efforts to minimize costs without compromising agreed-upon service levels? Does pursuit of efficiency opportunities require reorganization or simply project/process work?
- Effectiveness—Does IT contribute adequately to enterprise growth and profitability? Is technology bringing incremental value to the organization in a way that drives revenue, market share and market position? Are shortfalls in effectiveness the result of lack of engagement, underfunding or structural deficiencies? Does the structure need to change, or do new functions, capabilities or people simply need to be added?
- Morale—Are employees actively and positively engaged in their work on behalf of the enterprise? Are the right people in the right roles? Do they understand how they fit into the big picture—where they make a difference? Do they work well together, and do they trust their management and leadership? Does the organization understand the root causes of morale issues? Will the reorganization really address these causes?
- Productivity—Are projects, as reported by the PMO, adhering to time, cost and quality measures? Productivity is also closely linked to morale; if morale is suffering, expect time and quality measures to suffer.
- Satisfaction—Does IT have a solid, clear and meaningful 360-degree understanding of client satisfaction with its services? Has there been adequate study of identified issues and whether proposed changes will sufficiently address them? Will investment in fixes only create new issues, and have these been discussed?

The figure opposite summarizes data sources for success metrics. As CIOs monitor their progress, they should continually hone their answers to six business questions the CEO might ask about the organization of IT (see figure on page 54).

Metric Definition and data source Efficiency Process-centric; maximized deployed resources Effectiveness Return on newly deployed resources Morale IT employee survey Productivity PMO reports on time/cost/quality Satisfaction IT user survey

Role of IT: Six business questions the CEO might ask about the IT organization

Questions to ask	Why it's important
How would you like IT to perform?	Operational? Contributory? Partnering? Transformational? All of these are relevant, but do you know what the business needs IT to be?
What particular needs have you identified that are not being fulfilled by IT?	The CEO wants to know you are out in the business, working with your peers to ensure that the IT organization is stimulating creative demand.
What risks do you see in IT, and how might those risks affect the business?	IT is part of the DNA of the organization; nothing can run without IT services. CEOs care about risk and want to know you are mitigating it.
If you had 20% extra to invest in IT, how would you reprioritize?	 CEOs care about effective deployment of resources; they will want to see how you think about support- ing growth by deploying resources.
How do you envision the future of the IT organization? What activities are staff not doing now that you'd like them to grow into?	 CEOs want the IT organization to move from supply of basic services to product, service and channel innovation.
How do you see the CIO role growing? Will you always be the single point of contact?	CEOs are seeing the rise of business unit CIOs and dispersed IT organizations and need to know if this is in your planning.

Conclusion

To ensure that the IT organization functions at maximum effectiveness, CIOs need to think like their CEOs as they consider the following:

- Is IT playing the role it needs to play? Is the role of IT evolving, and if so, is it a slow evolution or is there an inflection point on the horizon?
- Continually assess the growth needs of the business, and identify additional IT needs that accompany business growth.
- Always try to use IT to mitigate business risk. Communicate frequently regarding risk, especially as the business grows or changes.
- If IT had a budget of 20% more, what would be the best way to spend the extra money?
 Better yet, if IT could realize cost savings of 20% from better operational efficiency, how would the IT organization change, especially as it invests in differentiated IT?

- Continually assess how the IT organization can grow—not in budget or employee numbers but in its ability to help grow and transform the business. Stay focused on capabilities.
- Continually assess the CIO role: How is it changing, and is it becoming too big for one person to handle? Also continually assess whether an office of the CIO, or perhaps a CTO role, is warranted to offload increasingly tactical responsibilities.

Monitoring these issues will keep the IT organization fresh and in lockstep with business growth. If each is addressed on a regular basis, the IT organization will not only grow with the business, it will also have less need for the painful inflection point of a full-blown reorganization.

Appendix: Case studies

Case Study:

BankCo-Rebuilding the organization for efficiency

A large international financial services group that wishes to remain anonymous, BankCo offers a wide range of banking, bank assurance and wealth management products and services. It has billions of U.S. dollars in assets and millions of customers.

"If you have no strategy, you're like Alice in Wonderland—you get lost," says the CIO. "This is how it was before our reorganization. We had no idea where the business was going, so we were just reacting to requests from the business units. We had a very centralized model that served the many business units, including retail banks, insurance companies, and corporate and investment banking concerns. We tried to do everything on a priority basis, but if your business unit wasn't seen as a priority, you would never get any attention." But just a year after embarking on a transformation program, IT is delivering superior service to all the units with fewer people and lower costs.

Setting the goal

"Before the transformation, we were very inefficient," explains the CIO. "We had an IT staff of 2,500, but the business wasn't happy with our delivery capabilities—the on-time, on-budget aspects of delivery. We had issues with availability, stability and project delivery, and we were deemed quite expensive.

"We didn't dive right into an organizational restructuring. We worked with a consulting company to help us re-examine our IT organization and related processes. They looked at every aspect of IT—its operation, processes, etc.—from every angle you can imagine. They evaluated the situation and benchmarked it. I led a two-year project to break everything into a dozen work streams in order to design a future model. Each work stream was centered on particular goals, such as efficiency, cost savings and other financial benefits. The overarching idea was to align delivery closer to the business and to set up centers—combinations of similar business units—that we could serve in a way that gave everybody a fair share of attention."

Transforming to align closer with the business

"We wanted to create an environment that was more process-oriented and more aligned with the business," the CIO says. "We divided the centralized IT group, creating technology centers with specific areas of focus such as support functions, retail banks, financial services and the needs of international companies. Each center has a technology officer or 'mini-CIO' who reports to me, but reporting also occurs on a dotted-line basis to the business unit in order to bring people closer to the business. My job is to make sure the technology officers look at business processes end to end so that we grow the right capabilities for delivering business value. So far it's been fairly successful.

"What we called the facilities environment is now divided into services and infrastructure. The two parts of this group are responsible for problem management, change control, vendor management, continuity, etc. We moved the application support capability into the services environment to separate it from the project delivery capability. We had found that when these two functions were performed by the same people, deadlines were often missed because of maintenance responsibilities. However, splitting the group into project and maintenance areas met with a lot of resistance.

"To alleviate this, we created a competency center for all the application people. Now part of a matrix organization, people belong to the area in which they actually work, such as the services or the project area, but they also belong to a particular competency. The competency area looks after career planning, performance management, remuneration, training, etc. To give people incentive to move into the maintenance area, we provided quite a substantial allowance. We also committed to transfering them out after 18 months if they chose. Many people found this program attractive, and it's been very successful. For example, most of those who move into the services area stay there.

BankCo-Rebuilding the organization for efficiency (continued)

"Once we defined the overall structure, we created a head of strategy and architecture role. The goal was to fill in the capability gaps in order to manage the strategy, get closer to the business and create a cohesive architecture that would support the strategy. As requests and strategic needs came from the business into IT, we could then execute them within our design and governance processes. Now, a year later, we are delivering superior service with better service levels. We are measurably more efficient with far fewer people, and we cost less as well. Overall, the reorganization has been a success."

Success factors

"We worked hard to get corporate sponsorship," adds the CIO. "This included getting the CEO on the governance forum. Aside from me, we took 100 people out of their IT and business-area jobs, assigning them to work on the project full-time. We were dedicated to this program for a year and a half; we had the executive sponsorship and the money. Obviously we had goals to meet, so we were governed and monitored closely. Without a dedicated team, goals and governance, I would not have taken the job, because then you're simply setting yourself up for failure."

Based on an interview with, and material from, CIO, BankCo, March 2008.

Case Study:

Black & Decker HHI—IT organizational form following function

Black & Decker is a global manufacturer and marketer of quality power tools and accessories, hardware and home improvement products, and technology-based fastening systems. Founded in 1910 and headquartered in Towson, Maryland, U.S.A., it has manufacturing operations in 11 countries and markets products and services in more than 100. Black & Decker has 27,000 employees and revenue of \$6.5 billion. Hardware and Home Improvement (HHI), one of three autonomous business units, accounts for \$1.2 billion in annual sales.

"I had just moved into the role of CIO (for the HHI division), which by itself does not necessitate a reorganization," says Scott Strickland. "I did have more latitude in executing one, but when I looked at the business of the HHI IS group, I couldn't figure out how each area worked. I didn't understand each function, the directors' responsibilities, their metrics or their customer base.

And I'm not sure they understood these factors any better than I did." Strickland put away the org chart and reorganized IS by redesigning it around business processes. The details of organization design flowed from his functional and business-oriented mind-set.

Fighting the "it's always been that way" mentality

"I inherited from my predecessor an organization that was merely servicing the business," explains Strickland. "We were selling services to the business in a subservient model. The business gave us requirements, and we delivered on them. I brought in the directors and asked them to explain what was going on in their organization and what they were responsible for—and why process A occurred in their organization but not in somebody else's.

Black & Decker HHI-IT organizational form following function (continued)

"There was finger-pointing, questioning of me and answers of the 'it's always been that way' variety. The boundaries between teams were not at all clear. My pure technology team, though, was very clear on their roles—sometimes too clear, meaning they weren't engaging with the business because they weren't on the front end of any projects. If they did become engaged at some point, it was often too late to have helped set the direction and requirements. So they were seen as pushing back on the organization.

"There were stale skill sets and change-resistant people. Many people lacked a customer-service mentality, which is something you can't easily teach. So I knew I would have to remove a lot of people in the organization. That provided a great opportunity to reorganize what used to be position A into position A plus B."

Designing by function

"I sat down with each of my business counterparts: the VPs of marketing, sales, finance, etc.," says Strickland. "They were, in a loose sense, my customer base. I asked what they were trying to do and how IS could make it happen. This gave me a set of requirements that framed the role of IT. On the one hand, I had an organization that wasn't functioning well and wasn't clear on its own responsibilities. On the other, I had a set of requirements. I knew that our existing organization couldn't fulfill the role I had defined."

Having defined IT's role within the unit's business, Strickland identified his boundary conditions—what could not be changed without exceeding the organization's capacity for change (e.g., the network that the three business units shared). "I looked at each boundary condition to ensure there weren't any issues from a business process standpoint," he says. "I did the same with each aspect of my IS organization and used this functional view to pinpoint where we needed to change in order to fulfill our role. I was designing my organization around business processes or groups of processes—in other words, designing by function.

"For each function, I established a center of excellence (COE). My vision for the IS people in each COE was for them to understand the business as well as they did the systems supporting the business. I wanted to ensure that we had a career path for people within IS, so I mapped out career paths that I could communicate to the rest of the organization. On the infrastructure side of the hard-core technology area, I had architecttype titles. For the rest, I chose titles that mapped themselves to the business. My analyst titles, for example, map very well with what's going on in finance. They have a financial analyst, I have a systems analyst; they have a senior financial analyst, I have a senior systems analyst. I tried to set it up so it made sense to the business because it's hard for people to understand what an architect or a lead programmer does.

"But we just weren't large enough to build our own PMO. Still, I had roles that would roughly correspond to some of those in a PMO, and I created and mandated steering committees that could draw on both business and IS resources for major projects—a virtual PMO."

Form following function

The functional design and COE structure made it easier to identify key capabilities and roles. "One of the key capabilities is business process expertise," says Strickland. "I expect a certain level of business process expertise in any area. If you're sitting in the financial systems COE, then you should be able to talk to me about the general ledger—how we close it, post transactions, back them out and so on. Leadership was another big capability gap we needed to fill. To me, a leader is a visionary with an ability to inspire excellence and with competence in softer skills such as communication and adaptability.

"At the director level, I created only one new role. At lower levels in the organization, I created several new roles, but they basically combined roles that already existed. I also removed some old roles and changed the location of others. For example, there were cases

Black & Decker HHI-IT organizational form following function (continued)

in which I combined the programmer and business analyst roles and moved them from California to a plant in China, Mexico or elsewhere in the U.S. We are a manufacturing organization, and I wanted my people in that joint business analyst/programmer role to be closer to the business itself and closer to their end customers.

"We identified key metrics for every role that was created. The ability to do so was a litmus test—if we could come up with key metrics, then the role was probably a meaty one that owned an appropriate amount of business processing or technology. If we couldn't come up with enough metrics, then maybe that role didn't need to exist.

"The intent was to formulate, structure and deliver the reorganization within my first 60 days and then execute against it. It would be check-pointed through organizational assessments once every nine to 12 months. The reorganization, furthermore, was engineered to effect a turnaround in mind-set. I planned to use my organization design as a communication vehicle, telling the rest of the business what I was doing in IS, who was leaving and staying, what positions were now open. The delivery of this information began the day I announced the reorganization. I let people go that morning and published the organization design that afternoon.

"I left some aspects of the organization design unknown because I knew that, as I hired new directors, they would want to put their own stamp on it. They'd want to adjust their part of the organization, or they might take a slightly different view of how it needed to function. I knew the design would evolve, but it was good enough for the next six to nine months, giving me a good start that I could change later."

Critical success factors

Strickland is convinced that "the main success factor was the focus on business process. Because form

followed function, I could easily communicate the organization design to the business and to IS people. The response generally was, 'I understand. This will help fix some of my problems.' I could show it to the guy running the ERP systems and he would say, 'I understand the role design, the responsibilities I'll have and the metrics that will be applied to my performance. It's clear what the scope of my position is, so Tom and I won't fight anymore when warehousing doesn't work.' The ease with which I communicated the design made the business feel like it had a partner. People in the business now knew who their go-to person was.

"HR was integral to everything I did. I took the project plan to the VP of HR, who reviewed it to make sure I wasn't missing anything. We also discussed how to announce the change. Should we put it on people's calendars or get everybody together? There were pros and cons to both approaches, but we finally decided to invite everybody. I had considered outsourcing the help desk as part of the reorganization, but the VP of HR felt this would be too much change at once, causing performance issues and increased absenteeism. He advised me instead to use my credibility and the patience the business would be willing to extend as I made the changes over time.

"I almost wish, however, that I had made the initial changes faster. There was a lot of uncertainty about roles, and I was very open about the fact that we needed to do more as an organization. We weren't servicing the customer, delivering on our projects, being predictable, etc. I made all this very clear from the day I took over. If at the start I could have removed some of the fear from the reorganization, I think it would have been easier for everybody. But sometimes you just have to bite the bullet and do it."

Based on an interview with, and material from, Scott Strickland, CIO, Black & Decker HHI, March 2008.

CPR-Defining a new structure is easy; managing the change is hard

Established 120 years ago, Canadian Pacific Railway (CPR) serves principal business centers in Canada, the U.S. Midwest and the U.S. Northeast with rail and intermodal freight transportation services. CPR has 15,000 employees, and 2007 revenue was CN\$4.7 billion (US\$4.69 billion). The company is headquartered in Calgary, Alberta, Canada.

"Change is tough," says CIO Allen Borak. "There is an interesting contradiction in changing the IT organization. You have a group of senior IT people who lead change within the business every day, but when it comes time for them and their teams to change, it's not so simple. Coming up with a new structure is the easy part of the equation; managing the change is much harder.

"Restructuring around an outsourcing model required significant changes to how the IT group is organized and what internal IT people do. Achieving process improvement and aligning the new structure with business goals required focusing on the functional structure and the details of role design. These new structures and designs are only useful if they can effectively be put into practice—and the success of this depends on managing people and change."

Configuring the organization

"Although the Alberta economy was booming, the railway wasn't performing at the level we knew it was capable of," explains Borak. "We had to get leaner both as a business and in terms of IT. A new CEO was focusing on accountability within the lines of business. As CIO, I wanted to get the IT organization closer to the business and make sure we were accountable in the same way as all other areas of the organization.

"We had been operating with both a formal and an informal IT model. I had my IT organization, with all of my direct reports, but there were also a lot of shadow groups around the company—people in operations, marketing, finance and other areas doing system design, data analysis and reporting and other IT functions. They reported directly to the business units and had no structural connection to IT. We spent a lot

of time rounding up the IT people in these shadow groups, which enlarged the IT organization by a third."

CPR offered a voluntary retirement program and downsized by 20%. To meet its goals, the company also needed to look at organizational options. Attrition and a tight skills market led to an outsourcing decision that moved application development and support offshore.

Designing the details

"We had to make sure this new outsourced model contained the right processes, skills and organization to realize benefits," says Borak. "On the operations side, we are aligned around ITIL and have good processes. But on the applications side, our processes were not as well defined to effectively operate with the outsourcers. We needed to improve how we interfaced with the business, identified opportunities, gathered business requirements, completed documentation, interacted with the outsourcer, ran tests—the whole set of processes.

"To facilitate the reorganization, we formalized the role of a business analyst. Before, this function was part of a lot of peoples' jobs. We made it a distinct role that would work with the business from the front end of projects—helping develop specs, for example—all the way to assisting with tests and managing change. We found that people we had brought in from the shadow groups had more business than IT skills and were excellent candidates for the business analyst role. Up to this point, people working with the business had responsibility for application support but not development. Now the business analysts supporting each business unit are responsible for all support and development in their respective areas. So the marketing and sales people, for example, feel they really have one person they can go to for answers, which is a very positive change.

"To further improve application processes, we added two roles to the existing vendor management group and staffed them with senior people to manage the two major application outsourcers. Day-to-day issues and problems are managed at the LOB level. Every

CPR—Defining a new structure is easy; managing the change is hard (continued)

month, we meet with the vendor management leads and the vendors to review status, trends and plans at a more strategic level.

"We also created a new portfolio management role. Our IT committee, which is our senior-level steering committee, had matured in its understanding of technology and wanted to manage more strategically. The members were asking us questions we just couldn't answer without a portfolio management perspective.

"When I looked at how we were supporting the business—IT leads for operations, marketing and sales, and corporate—I realized our own internal IT needs were not well serviced. We had always been the shoemaker's children. So I thought, why not follow the model and create another service group for IT separate from the corporate group? Now when I have an IT need, whether it's renewing infrastructure or getting a new application to support the way we do things, I can go to our IT service group. We're actually treating ourselves as customers."

Managing change

"I had a pretty good concept of what I wanted the new structure to look like," says Borak. "We tested it with a few people I had identified as key decision makers. I also chatted with senior leaders in the business to get their perspectives on what was and was not working. We tested the structure with our HR group and then got input from our IT committee. The IT committee was not too concerned about the structure but was very interested in whom we put in the various roles.

"I thought we had a tremendous communications program, using different media and events to keep people informed. But at the end of the day, getting the message across can seem like an unending task. My leadership team helped work out and communicate the structural and design details. The real challenge has been with the next level down: their direct reports. Getting these people to understand and rally around the changes has been difficult. The roles of many of these people have changed significantly. Some had been

project leads with a team of 20 working on big development projects. Now, with development outsourced, their team might consist of two or three analysts.

"Although some have adapted well to this very different model, some have not. We still have challenges getting the middle-management group completely engaged. In hindsight, maybe the best thing I could have done was sit down with each one every week and walk them through what was going on.

"HR provided as much help as they could, but unfortunately, after a couple of downsizing phases, HR is in more of a transaction-processing mode. Most of their organizational design and effectiveness skills have been lost. We did bring in an outside consultant who was invaluable in helping us shape both our overall change plans and our communications program. Most good managers have a sense of what to do, but this person really put the needed structure around the whole thing.

"So from the standpoint of productivity and morale, it was a tough year—even for people who knew what was going to happen to them. It was worse for the person in the next cube who didn't know his or her fate, or maybe this person was going to leave and knew it, and also knew you would stay. All of this affects people.

"I've told people we won't be making any more major changes this year. We'll focus on getting them comfortable in their jobs and getting this outsourcing model ingrained into how we do business. We're going to give people stability and let them re-energize. At the end of the day, it comes back to the reality that change is a journey. As much as we would like to have staff get on board with a new model, or system or process right away, people need time to adjust. I am very proud of what my team has accomplished and how far we have come. The road is long but when you have the right people its makes for a much smoother ride."

Based on an interview with, and material from, Allen Borak, CIO, CPR, March 2008.

DentalCo-Organizing for information and for change

DentalCo is a nonprofit corporation that wishes to remain anonymous. The largest dental benefits provider in a western U.S. state, it employs 340 and provides dental care to 2 million people through employer-sponsored programs.

"There is an enormous amount of information now available to businesses, and IT is structurally changing in a way I can't predict," says DentalCo's CIO. "We need to be prepared for the next generation of healthcare, even though we don't know exactly what form it will take. This means organizing for information and for change. I'm just trying to make sure we are flexible right now. We'll see where we go from here."

DentalCo senior management had been going through a corporate planning exercise as part of the five- to 10-year planning cycle. They had done some scenario planning and wanted to make sure that the IT organization was structured for scalability, and for what they saw—from the perspective of an oral health leader—as the next generation of healthcare. The CIO, who is new to the role, has the advantage of a fresh outlook.

"I was able to study the existing structural organization—the operations, engineering and applications groups—from the point of view of a third party," the CIO says. "I had an outsider's perspective, yet I was a partner who could go in and actually change the organization. This gave me a good sense of operational efficiency, control parameters and personnel issues such as human capital management. It helped me answer the question, 'Where does IT want to go?' and identify what had to be re-factored or tweaked to improve the current baseline.

"A lot of things, such as data collection and reporting, were structurally distributed across business units. Very inconsistent data collection and reporting environments had evolved, both with little interaction between teams in terms of shared process. This was seen as a prob-

lem with the organization as a whole. The consensus was to look at the problem in a new way—to consolidate and make some drastic changes so that, if the business moved further into information services and away from a transaction environment, we'd be better prepared for the next generation.

"We looked at what else IT provides and where complaints were coming from in the business units. What we heard was: 'I need more reporting. I need more information at my fingertips to do my job now that it involves more than just transactions. The group administrators and our clients want to know what is happening—they want information about their health-care.' So we asked ourselves, 'What is IT's role here?' And it became clear that the business units could not collectively attack this problem as efficiently as IT could.

"Taking a functional view, we looked at the business unit requirements. We also looked at them from other points of view, asking questions such as: What business are we in now? What business do we think we will be in, or want to be in, five years from now? What are market forces driving us toward? What are the regulatory issues going to be? How do we manage all this?

It became clear that providing an information service is as vital a component of what we do as is the processing of a transaction and the payment of a claim. The pressing need was to get better at providing an information service. So the questions now were: How would we structure the organization to satisfy that need, and what is the best way to deliver on it? And because we expect significant business changes in the future, we decided to organize ourselves around being a change entity.

"We created a center of excellence to centralize functionality, and we consistently applied best practice

DentalCo-Organizing for information and for change (continued)

technology there. We designed it to be cyclical—the technology, processes and practices would eventually be distributed back into the business units. The center would then shift focus and start again, but we'd try to do more than fix today's problems. Because of the way healthcare is evolving, the center needed to be an analytical resource poised for the future.

"To sum up, reorganization is a fluid process. We've got expectations and goals today based on things the

company needs, given its current state and strategic planning. However, I expect that in two years we're going to be in a much different state, both in terms of current capabilities and strategic needs. The IT organization will have to change accordingly. There will always be a natural ebb and flow. I don't see what we're doing now as permanent."

Based on an interview with, and material from, the CIO, DentalCo, March 2008.

FinancialCo – Reorganizing to improve services and business relationships

FinancialCo, a company that wishes to remain anonymous, provides financial services to households and businesses. Its online customers alone account for millions of product and service enrollments. Headquartered in the U.S., FinancialCo has 100,000 employees, with offices in many states and foreign countries. A recent merger gave it a significant presence in the U.S. auto finance market.

The division created by FinancialCo's acquisition of an enterprise with an automobile financing unit was organized not according to the usual absorption process but to reflect a focus on services and a partnership between the unit's IT department and the division's business side. The service orientation of the resulting organization is more evident in processes and employee attitudes than in the org chart.

"This was not a typical merger," says the newly appointed CIO of the auto finance division, who came from the acquired company. "Had the typical merger occurred, our organization would have been mapped into the appropriate functions of the parent company, and most, if not all, of our infrastructure, data center, equipment and many of our jobs would have gone away.

"But we had created a number of efficient, customized solutions and an infrastructure that did not exist within the parent company. And this enabled us to keep our organizational structure largely intact. Before the merger, the parent company's auto division IT group had been organized with three separate pillars: the CIO, the CTO and operations. Their CIO took the position of COO for the merged division, with the intent of streamlining it. This leader has done a wonderful job helping reorganize people's thoughts around IT services and how they should be delivered.

"I was promoted to CIO a month after the merger announcement and had definite ideas about how to organize my group. I wanted to continue some of the processes that we had set up within the acquired company as part of a transition from an engineering role to a business operational role. The foundational approach I took focused on how we provided services to the

lines of business. That was the No. 1 criterion I used to create a structure.

"My focus has been to understand the services and applications for each business function and organize to deliver them in the best way possible. We created a service-oriented architecture to bridge the gap between the older mainframe applications and the newer Web front ends needed to provide business services to the call center and other areas. This greatly simplified our ability to provide business functions, and we began to proactively seek out different business workflows to automate.

"We still had to struggle with disconnects between business SMEs (subject-matter experts), IT operations and business users. We have a business relationship services group with SMEs who are very knowledgeable about the business operations side of their particular line of business. This group is responsible for making sure all the business units are aware of what IT is doing, and for facilitating requests presented to IT—whether project or service requests, whether small or large. In other words, their task is to focus the requirements on the business needs and services.

"IT's reputation in the parent company had been highly dependent on how the business SMEs communicated to the user community, but they hadn't been very effective. To help resolve the situation, we created a UAT (user acceptance testing) group that is completely outside the QA function and reports through the development group. The UAT comprises individuals from IT and select members from the field. They test any new solutions or changes and fill communication gaps before rollout. This is done primarily for large initiatives, and it's helping immensely in preparing those in the field to utilize the solution or change.

"Creating a partnership with the business is the best thing we've done. One of our biggest challenges in providing services has been deciding how to market them and make sure the customer understands the challenges of delivering a given service. The business customers usually put together a process or spreadsheet and ask IT to automate it. Then it becomes a

FinancialCo – Reorganizing to improve services and business relationships (continued)

matter of communicating why we can't do more or why it is taking so long. You end up holding their hand, walking them through the process of defining the requirements and convincing them how important it is to deliver a solution that is flexible and accommodates future requirements.

"A partnership with the business creates an environment where there is no animosity; nothing is just dropped over the fence. But we are still continually communicating at the executive level and educating others about what it takes to be successful in a partnership model with IT. Within the IT organization, we have a great talent pool. However, the philosophies of people can create problems. Either you believe in having a partnership or you don't. That's what makes the difference in what you do on a daily basis.

"If you look at the top level of my org chart, the structure seems typical—you would not be able to tell we are organized for services. But if you go down a level, you not only see the business relationship services; you also see that we are structured to help the operations, production, marketing and other business-oriented groups.

"It wasn't just IT that had to change. The business line has evolved, too. As I've mentioned, the COO was familiar with the processes within IT and with how we were restructuring. He has worked with the business side to create centralized business operations functions with a clear separation between operational and production activity, and between sales and marketing activity. This clear delineation between the groups managing servicing, collection and recovery makes it easier for me to provide services to all of them.

"My next challenge is the architecture group. Right now, architecture is done as an IT function within the different areas; it's not integrated with the lines of business. The envisioned evolution is to bring the executive levels into a form where we become an architecture group that looks at what is happening across the business unit, creating a road map for things shared and not shared by IT and the lines of business. Along with that, I'll always be looking at how we can streamline and create efficiencies in each of our groups."

Based on an interview with, and material from, the CIO, auto finance division, FinancialCo, April 2008.

INPDAP—Creating business process change with IT reorganization

Istituto Nazionale di Previdenza per i Dipendenti dell'Amministrazione Pubblica (INPDAP—National Institute of Pensions for Officials of the Public Administration) was established in 1994 to merge pension funds managed by the Italian Ministry of Treasury. The institute serves 3.28 million state, civil and military employees, as well as employees of local authorities. It disburses 2.36 million pensions and manages 60,500 loans and 2,000 mortgages. In 2003, the institute spent €42.6 billion (US\$65.8 billion) on pensions alone.

Well-designed IT reorganizations can not only maximize IT effectiveness, they can also play a direct role in optimizing the enterprise's business processes. Choosing organization design details—the crucial capabilities and roles that populate the functional structures and teams—affects the operation of the new IT organization and can lead to a re-engineering of the business.

"The IT reorganization was actually planned as a business change program," says Marco Staderini, president of the INPDAP board. "We were addressing business process issues remaining from the merger of the different pension funds in 1999."

The merger that created INPDAP resulted in what Staderini describes as "a typical technically oriented IT department whose focus, driven by management, was on making processes work. We had to ensure that there were no interruptions in the critical, time-sensitive processes that had serviced our customers. For example, we could not miss end-of-month payments. This operational view of IT was reinforced by the fact that much business knowledge was embedded in systems maintained by our two main service providers. IT was not considered strategic to the business.

"Even though operations were maintained, business unit executives were not happy with the systems, some of which were not integrated. For example, the data exchange between the system that collected money from the employees and the system that calculated and paid the pensions, was done using physical tapes.

But more important, BU executives said the systems were not doing what they needed. Automation was incomplete, and some processes were inefficient."

To his new role, Staderini brought a different view of the strategic value of IT, mapping out a three-phase project that used the reorganization of IT to drive business process change. The project's objectives:

- Close the capability gap, and bring the business knowledge embedded in the service provider's applications and infrastructure back in-house.
- Evolve the technology to fix outstanding merger issues and upgrade systems.
- Improve business processes with a technology and process redesign program.

"The first phase of the reorganization created a single, centralized IT department with the CIO reporting to the general director (equivalent to a CEO)," says Staderini. "In phase two, a year and a half later, this basic model was split into two separate units: infrastructure and operations (I&O) in one and applications in the other. Part of the long-term vision was to outsource noncore business activities—for example, forming an infrastructure group enabled us to create conditions that gave us something to outsource. At the same time, the split into I&O and applications sent a clear signal to the business units that IT would focus on building the infrastructure while completely renewing applications.

"Now after two years, we are in the third phase. The IT I&O unit is ready to be outsourced, though the final decision is still pending. We also created a unit in charge of business organization, process management and IT applications. It represents a big change in IT structure, handling business process design."

New roles and skills were needed to enact this organizational macro-model, especially in the process and applications units. "On the application side, we outsourced application development," explains

INPDAP—Creating business process change with IT reorganization (continued)

Staderini, "so programmers, developers and others have had to move to the new role of relationship manager. They now work with the business units to get business requirements, ensuring that we implement the right business processes. They have also assumed the roles of project manager and vendor manager to ensure appropriate development by the outsource group.

"This did not work well at the beginning because the business people owned the relationships with other agencies and systems. The relationship managers needed to interact directly with these entities on a demand-management or service-desk basis. In keeping with the nature of a public sector agency, we instituted a formal mechanism for creating role descriptions and processes, and we provided various aids to smooth the changes. People who can't or don't wish to change to the new roles and processes can request transfer to more administrative jobs.

"Before the reorganization and process re-engineering, IT investments came out of the IT budget, with no accountability on the part of the business units for the investments they requested. In the new model, we are considering a more decentralized or federated approach, in which a business unit or group of business units requests investment funding. The goal is to make the business units accountable and responsible for their investment decisions. Infrastructure investments will remain as pure IT budget, subject to IT management.

"The business is very pleased with the results. It was focused on clear business outcomes enabled by the processes and supported by the systems. The investment for the overall transformation program was €180 million [US\$278 million]. Savings generated so far have been more than €100 million [US\$154 million]. So the program will rapidly pay for itself."

One of the keys to success has been the involvement of upper-level management. As Staderini explains, "Throughout the reorganization and transformation, the general director and I have been the main sponsors and

leaders of this program. We have been the businessfocused leaders of this IT-intensive transformation, which was never really viewed as an IT or a business change program. Rather, it is a program that uses IT as a lever to change business processes."

Another key to success was to focus on the business while reorganizing IT. To maintain this focus, one of Staderini's first steps was creating a team to conduct a formal assessment. The team examined all business areas to determine how well IT covered business processes. Analysis of the assessment led to three transformation initiatives: rationalization of the infrastructure, prioritization of areas requiring complete re-engineering of applications, and providing IT process support in areas where none existed.

Although the team produced detailed output, this was not a detailed IT plan. The initiatives were described using business language that clearly specified what IT needed to do—whether it was to develop or re-engineer a system or use something from the outside. This approach made it easy to communicate the intended changes to the business units and enlist their support.

According to Staderini, a third key to success was the unique approach to process change. Instead of adopting a traditional business process re-engineering followed by a large software package implementation, INPDAP followed an incremental process change road map. New application design or legacy re-engineering was leveraged to identify specific process improvements and to achieve end-to-end, cross-BU process consistency. IT reorganization—specifically the creation of clear boundaries between IT operations and infrastructure, application development and process design—was used in a tactical way to generate accountability in the management of IT and to communicate a new IT focus and role to the BUs.

Based on an interview with, and material from, Marco Staderini, president of the board, INPDAP, March 2008.

MTR-Reorganizing and redefining a merged organization

The government-owned Mass Transit Railway (MTR) Corporation was established in 1975 to construct, run and manage the Hong Kong mass transit system. It became a public corporation in 2000, with the Chinese government maintaining a majority stake, and has 13,000 employees. Aside from running its own rail system, MTR invests in and builds railways in other parts in the world. It's also involved in property development and management (including the shopping-mall business) and provides consulting services. In 2006, MTR reported a profit of HKD15.18 billion (US\$1.9 billion).

In 2004, the Chinese government encouraged a merger of MTR and the Kowloon-Canton Railway Corporation (KCRC). Operating within government parameters, MTR leased KCRC's assets and absorbed its 6,500 employees. Although MTR CIO Daniel Lai did not significantly reorganize the merged IT departments in structural terms, he did use the merger as an opportunity to redefine the IT organization and integrate it with the business.

The merger

KCRC and MTR merged to reduce competition costs, take advantage of economies of scale and improve operational efficiency and productivity. KCRC, a 100-year-old rail company, had been entirely owned and operated by the Chinese government, while MTR was a publicly traded corporation, with the government holding 70% of shares. Each organization had 6,500 employees and assets of HKD100 billion (US\$12.8 billion).

As the biggest shareholder, the Chinese government played multiple roles. From a government perspective, it viewed the merged railway as a public service. From a shareholder perspective, it wanted a reasonable return on investment. The government's regulatory role also made it responsible for providing a safe, reliable transportation network. Discussions between the two companies—framed by government parameters, a minority shareholder vote, and legislative debate and approval—produced an agreement whereby MTR

leased all KCRC assets, paid the government a fee for the right to operate and combined the employees of both organizations. MTR now runs the merged rail lines as a true commercial enterprise.

Structural reorganization

"The government had established some parameters for our merger discussions," Lai explains. "Among other things, it wanted job protection for front-line staff. When the merger agreement was finalized, we combined the two workforces. Four thousand of the 6,500 KCRC people were classified as front-line staff. Because the government considered this a merger of equals, not an acquisition, every individual had to be treated the same way. For quite a while, starting on day one, we operated in a dual mode, where every committee had a joint chairmanship and every task force had representatives from both sides of the merger. Still, our motto was, 'One company, one goal, one team.'

"As we proceeded, we took the opportunity to redefine the organization. This was done in two stages. The first defined the new organizational structure in terms of positions, with descriptions developed for each position. The second took a more functional view of the organization, creating roles that defined a more business-focused organization.

"In the first stage, we put together a task force, led by me and my KCRC counterpart, composed of IT people from both organizations, our HR department and a consultant. Structurally, the MTR and KCRC IT organizations were similar, with IT operation and service, technical support, data center operation, and application and information areas. Although KCRC did not have anything corresponding to MTR's management services group—which provides administrative, procurement, quality and program-management support—we were able to keep this effective department. MTR's centralized application development group was selected over KCRC's decentralized one. There were few other structural changes.

MTR-Reorganizing and redefining a merged organization (continued)

"One of the task force working groups defined and wrote up all job descriptions and specified the number of positions required in the new organizational structure. Once our recommendations were accepted by the management committee, we mapped all positions in the two organizations into the new structure to determine the level of each employee. There was a voluntary separation plan that was quite successful, but we still needed to go through a selection process, starting at the top, to meet our staff reduction target."

Redefining the organization

"In the second stage," Lai says, "we redefined the organization by creating or changing roles, groups and even terminology so that the focus was more on business than technology. For example, we created a new IT enterprise architecture group. Though small, it's responsible for business and IT alignment—ensuring that the system application architecture and the infrastructure architecture meet business needs. To move the organization even closer to the business, we defined a new business relation manager role for our system managers.

"New projects are no longer 'IT projects'; they're 'IT-enabled business projects,' which reflects the new emphasis on the business. We give each new project its own virtual organization. I'm on a project steering committee headed by the most senior person in the business department. We have a business system manager role, filled by a person from the business, to serve as the change agent for any transformation.

"The IT project manager is one of our system managers, but this person's role is really that of business

relationship manager, responsible for delivering the solution and managing the project from the IT perspective. This setup creates a triangle: the business sponsor executive is on top, while the business system manager (from the business) and the business relationship manager (from IT) are at either end of the base. The latter two are responsible for the whole transformation—delivering the system; putting in the right process, procedures and training; and ensuring that the changes are effectively managed. Our success stems partly from the roles we defined for the projects and partly from getting lots of users to participate in the process. Some projects have drawn users from multiple departments, creating many connection points for the business relationship managers.

"Communicating the new organization could not have been done with a few pages covered in boxes. The whole organization was changing—first to an interim organization to complete the merger, then to the new and redefined organization. We created a task force to focus on communicating the merged organization, the culture and the changes. However, from the IT perspective, we still had to find a way to communicate the changes to the business. We took a multichanneled approach. Very senior business people on the IT steering committee served as one channel. Business system managers and other users on the project teams were another channel. We also communicated much of what we were doing through the business relationship managers. They have been key to our business-centric redefinition."

Based on an interview with, and material from, Daniel Lai, CIO, MTR, May 2008.

Pepperdine University - Prepping the IT org to get a seat at the table

Pepperdine University is an independent university with 8,300 students in five colleges and schools including a law school, a graduate school of education and psychology, the Graziadio School of Business and Management, and a school of public policy. Founded in 1937, Pepperdine offers courses at its main campus in Malibu, California, U.S.A.; at four graduate campuses in Southern California; and at campuses in Germany, England, Italy and Argentina. In 2007, the university reported \$1 billion in net assets.

Dr. Timothy M. Chester, Pepperdine's CIO, inherited a highly siloed IT group viewed by the university strictly as a service provider. The changes Chester made focused less on the org chart and structure of his organization than on the skills, roles and culture needed to transition from pushing technology tactically to helping people accomplish their strategic goals with technology.

"There was a time when, even if we had been offered a seat at the table, we would have failed," says Chester. "We didn't have the competencies required to be successful. You have to prime the pump and get the organization prepared to operate at the business and strategic levels. The pump gets primed by the kinds of people you hire, how you nurture them and how you help them achieve success in the new model. Once the organization operates at this level, you can focus on winning seats at the table to make IT really successful."

Starting with technology-centric fiefdoms

"When I started," says Chester, "IT had all of the symptoms that come with a highly siloed organization. Everybody had a little fiefdom. Nobody talked to anybody else, and there wasn't any collaboration, even on major things. When something didn't go right, all the little fiefdoms pointed fingers at each other. But the biggest problems weren't structural.

"The whole perception of what makes an employee valuable was skewed to the technical. To be valuable, you needed to have really super technical skills. Unfortunately, such skills were often acquired at the expense of caring about end users and thinking about business problems.

"The staff didn't have a clear, consistent definition of what constitutes meritorious performance. Nor did they fully understand where they stood in the organization, what opportunities for advancement were available and what they needed to do to advance. Raises were often the result of employee blackmail: 'Give me a raise or I'll leave!' Staff costs were going up and being paid for through attrition. The head-count reductions were foiling attempts to do more strategic things."

Priming the pump

According to Chester, "We are an organization in transformation. Currently we are on the wrong side of that gap between an organization managing technology by dropping it off and one that helps people accomplish their goals through technology. It's a tough, tough transformation."

This kind of transformation, furthermore, doesn't lend itself to an org chart. Chester didn't change the structure; he changed the operational model from separate fiefdoms to one resembling a federated hybrid model. As he describes it, "The biggest change is not in the org chart itself. That is far less important than the people you work with, the problems you're focused on and how you solve them together. We're a much flatter organization now in terms of who we work with and the relationships we have day to day. We're involving our end users and collaborating on process and day-to-day work, especially in the areas we work with most: finance, human resources, and the provost and senior academic leadership."

Chester has found that real transformational changes occur in the softer, interstitial spaces among roles, capabilities, services and other aspects of reorganization—rather than in the harder, more obvious, traditional places. One of his first goals was to refocus the staff on the new nature of their jobs. "We had to do some basic things to empower the staff so that they would know what they were responsible for," he says. "Then we set up clear criteria that would tell people whether they were succeeding. When I became CIO, we had consultants everywhere and it was very chaotic. They would hire a consultant to analyze a problem and tell the organization what to do about it. As a result, no

Pepperdine University - Prepping the IT org to get a seat at the table (continued)

one in the IT organization was taking ownership of anything, no one understood who was in charge, and no one was thinking for themselves.

"We got rid of all the consultants and a director who wasn't able to adapt to this new approach, and we made the staff accountable for the performance of the areas they managed and gave them the authority necessary to be successful. We told them the criteria for success and the measures by which they would be evaluated. We worked with them on internal processes—how to approach problems, collaborate and make decisions. The staff has stepped up and taken ownership, and as a result they are succeeding. They know who's in charge, what their responsibilities are and how to escalate or change direction when they need help.

"In an IT organization, training and advancement opportunities are the pillars of morale and employee retention. To let people know their advancement options and the criteria for proceeding, we defined career ladders and a competency framework. We are halfway through reclassifying everyone in the organization, including the management team, by their place on those career ladders. We gathered all the training money and set up a council composed of middle-grade staff—the people in the trenches—to define a transparent process for divvying it up. The directors compete for that money based on a variety of factors, and the council divides it up according to our priorities.

"One of the key competencies we identified was: to be more involved and influential on the business side, you have to speak the language. We were woefully unprepared in this area—even if the leadership had wanted us to be more strategic, we would not have succeeded until we remedied the situation.

"We've also changed how we hire. We're no longer looking just for superior technical skills. Rather, we look for someone with excellent analytical abilities who can communicate well orally and in writing, and we look for talent in understanding problems from an end user's perspective. Then we teach such people as much about technology as they need to do the job. While we've had real success with this approach, it has been an issue with some of the older staff. We've had to deal with the few who weren't invested in seeing the new

model work because it would bring an end to gaining superiority based on technical skills alone.

"As for end-user feedback, it drives what we do, but it cannot be anecdotal. We were in that vicious circle where IT is viewed as a free service provider. People asked us to do nonstrategic things, and they wanted more than we could deliver. Without benchmarks and success criteria, IT is viewed as successful only when it is popular. The way to stay popular is to say yes to everything; but then you become overburdened, and either you can't deliver or you under-deliver. Because you're nice, they cut you some slack once in a while, but eventually you spiral to the bottom. We were close to the bottom when I arrived.

"To avoid this, we put in place a set of benchmarks and service quality measures. Now I can go to my budget meetings with the senior leadership and say, 'Here's scientifically valid data that shows how end users think we're doing. Here are the needs they say are important, and here's the investment we're asking from you to help us deliver. Next year I'll come back with the same set of benchmarks to see whether we're successful, and you can hold me accountable for the results.'"

Making progress

Chester sums up the state of Pepperdine's IT reorganization: "We defined an approach and a process that have gotten us on the right path, which we constantly reassess. The goal is to make continuous improvement a process in and of itself, obviating the need for another major reorganization.

"You never make as much progress as you'd like, but I think we're moving forward strongly. Certainly we've accomplished a significant amount this year. We're filling most vacancies with people from an internal succession pool and have raised our retention rate. More important, we're working on strategic initiatives and providing new capabilities throughout the organization, especially in our prime market space—the classroom—which we're extending in interesting ways."

Based on an interview with, and material from, Dr. Timothy M. Chester, CIO, Pepperdine University, February 2008.

Posten AB-Big changes aren't necessarily reflected on an org chart

Posten AB is the Swedish Postal Service. Founded in 1636, it operates as a government-owned limited company and has more than 30,000 employees. To stay competitive in the deregulated Swedish postal market, Posten has undergone large-scale organizational changes and rationalizations in the last decade. With revenues close to SEK30 billion (US\$5 billion), it is one of Sweden's largest corporations.

"We moved the org chart boxes around quite a bit, but in reorganizing from a system to a business-process perspective, we made big changes that you won't see on an org chart," says CIO Joss Delissen. Posten's move to a centralized organization model had relieved its 2003 financial difficulties, but in the ensuing three years, this distanced the enterprise from its customers—a factor that reduced flexibility for growth in a very competitive environment. Although Posten reorganized structurally around a federated-hybrid model, the real reorganization was one of mind-set.

Having IT at all the right tables

Delissen was hired as CIO to accelerate change within IT. Six months later, Posten was being reorganized from a functional organization into an organization with three business units: one focused on logistics, another on the traditional letter business and the third on information logistics and graphics (the enterprise has the largest printing factory in northern Europe).

"There wasn't much time to work through many options, but I was convinced that IT needed to change in line with the changing business," says Delissen. "I took the opportunity to split IT into a delivery-oriented part and a part that is much closer to the business. I wanted to focus a lot more on architecture and standards and generally strengthen the leadership of the IT function.

"Best practices say that you can't create an IT organization that's truly part of an integrated leadership team unless you're at the table and contribute to business strategy. It doesn't work as well if you report to some-

one else. You need to be one of equals. Each business unit lead needs to have a team around the table that he or she fully trusts, and IT must be part of each of those trusted teams. We wanted to have IT at all the right tables.

"The choice was between decentralized and federated. We were heavily centralized, and we didn't want to shift too much to the other side, even if some of the decisions would be easier. The middle ground seemed to provide the best of both situations, even though the pushes and pulls in a hybrid structure take more energy to define and maintain. We decentralized only the components of central IT that addressed differing needs of the business units to avoid ending up with three sets of technologies. Used in this way, the hybrid is the natural choice.

"We filled the seats at the business unit tables with internal and external IT people who had backgrounds appropriate to the particular BU. They understand the unit's business aspects, processes and customer interactions, as well as its specific IT needs. Organizationally, a business unit CIO is part of the BU, reporting directly to the BU lead. Each also reports on a functional dotted line to me. There was a lot of internal debate on which was the best way, but we opted for a very clear BU line of command."

Supporting a business process perspective

"Everything that has to do with technology and applications, with suppliers and with the process framework, we kept centralized," says Delissen. "But we decentralized the roles involved in understanding business processes and information needs, and in serving as the main translator from the BU into the IT organization. These roles include the project leader, business architect, business analyst, information analyst and a number of roles that we call, for lack of a better name, process-IT-responsible people. Having these new roles enables us to focus on delivering business-process-focused applications while reducing complexity and driving toward standards.

Posten AB-Big changes aren't necessarily reflected on an org chart (continued)

"Like many companies that have been around for a while, we have lots of different technologies and systems. If we were merely to decentralize all our applications, we would have solidified complexity that doesn't need to be there. So we decided to keep all applications, whether shared or not, in one place. Still we constantly look at how we can simplify by consolidating and moving to fewer applications. To guide our decision making, we created a five- to 10-year view of where we are heading, which we use consistently to determine where every project fits in. This answers questions such as: Can I also use this business project as a vehicle to move toward my application-architecture vision? This is a continuous change process as we move toward an optimal architecture.

"The key challenge of my IT leadership team is to keep everybody on the same page from a process, architecture, and technology and standards perspective. This is where I'm driving all of the common elements and coordinating the business unit CIOs. They need to feel that IT leadership is helping them do their job."

Learning from hindsight

"Because hindsight is 20/20, there are three things I would now do differently," admits Delissen. "First, while I had many, many meetings with the IT teams in different formats during the translation process, I would spend more time on this. Second, I would recruit earlier

and more aggressively to get the right IT resources faster. Third, I would treat the business-to-IT translation functions as leadership roles; we're doing this now, and I want to emphasize that people in these roles should be viewed as in the same category as architecture and project leaders."

Delissen adds, "We got rid of a lot of stovepipes, did resource pooling, organized to provide shared-service applications and traded some system, solution and IT architects for more specific business-to-IT translators. The response from the business units has been, as was expected, 'Why can't we decentralize more?'

"Except for the basic structure, we've made a number of adjustments since the initial reorganization. There's always something one can do better. We worked a lot on the infrastructure—sorting out, getting a more specific strategy and moving toward a multisourcing setup. The next stage is a deep dive into the application side to understand and define the criteria for strategic inhouse initiatives and working with partners. I anticipate simplifying and thinning out both shared services and the centralized infrastructure. We have clear application and information architectures to help determine elements we can keep common to the business units, even though they have a lot of differences."

Based on an interview with, and material from, Joss Delissen, CIO, Posten AB, March 2008.

Providence Health Plans - Expeditious organizational remodeling for long-term evolution

Providence Health Plans (PHP) is a U.S. not-for-profit health insurance company providing healthcare coverage to 260,000 commercial, Medicare and Medicaid members. PHP employs 45,000 and serves five states: Alaska, Washington, Montana, Oregon and California. It is a subsidiary of Seattle-based Providence Health & Services, a healthcare system managing 26 hospitals; 35 non-acute-care facilities; physician clinics; a liberal arts university; a high school; and other health, housing and educational services. Begun in 1985 as The Good Health Plan of Oregon, Providence Health Plans has 550 employees and reported net income of \$45 million in 2006.

"I had no idea my predecessor was going to leave until about a week before she did," says Bruce Wilkinson, CIO of PHP. As the director of technology, he applied for the vacated position and was named interim CIO. "Aside from my expanded scope of responsibility," he says, "I needed to focus on enhancing skill sets, improving business process and filling opportunities in the leadership ranks. That's a lot to do, and I didn't have much time." Wilkinson's "reactionary but engineered" approach, as he puts it, created an organization designed to evolve around skill sets and strategic business areas, but he's confident "the basic structure should last."

First steps

"We had just gone through many technology changes and had redone our core application environment," explains Wilkinson. "As director of technology, I had completely redesigned and overhauled the data center as we changed from a dumb-terminal mainframe architecture to a client/server architecture. Now, as CIO, I suddenly had an expanded scope. On the applications side, we had very few client/server developers and only three developers working on new applications using Web and database technologies, but we still had all of the COBOL programmers.

"The project management office (PMO) needed to upgrade its standing within the business. I needed to refocus this office on more of a business process

engineering approach for it to be a service to the business people and help them accomplish their goals more efficiently.

"It was the department's needs at the leadership level that really got me thinking about reorganizing. We had been running a very lean leadership team, now down to just two of us at the director level. With so many direct reports, I was concerned about giving a reorganization the attention it deserved. We had also just installed a new claims system and were going through the initial challenges this presented. There were only a couple of us who had the authority and experience to make decisions. We really needed to repopulate the leadership gene pool in the department. I was trying to fill this leadership gap as one of the first steps in the reorganization."

Finding the right size and structure

"I created four director positions," says Wilkinson. "I knew I needed more than two directors to provide the right amount of backup and experience, so I finally settled on four: director of the PMO, director of applications, a director of technology to replace me, and director of a new business process engineering area. Since adding these positions, one director has left and the business process engineering director has taken over the applications area. Having three directors is a comfortable number, but four was the right number to start with. Deciding how to restructure an organization is always a bit of guesswork coupled with experience. Everything is a percentage play."

Designing the details

"I staffed the four director positions from internal candidates," Wilkinson says. "Then, as a team, we worked out all the roles and responsibilities, and the details of the reorganization. In the PMO, for example, we needed to focus on the project management and relationship manager roles. We hired a couple more experienced project managers to replace the two I had made directors. We followed this principle throughout, including in the applications area—defining the role

Providence Health Plans – Expeditious organizational remodeling for long-term evolution (continued)

and capability criteria, then filling positions with people who would be improvements and serve as role models.

"Each business unit has an IS buddy it can call to get through to the appropriate IS service or to address a business need. The buddy role is not a dedicated job but rather a business relationship management function performed by our directors and managers."

Success factors

Having recently risen to CIO, Wilkinson faced significant challenges. "I was the new guy, not some seasoned CIO coming in from outside, so I lacked credibility at this level," he says. "I had also created four director positions. That generated some organizational concern and pushback. I realized I needed to put together a presentation that captured what I wanted to do and its value to the business. The presentation explained how the reorganization would help improve services. I then talked my peers through each piece of the organization. There still might have been skepticism, but they approved the plan and now seem happy they did.

"Part of the reorganization's success arises from transparency. We meet every month with the finance people, including the CFO and the accounting director, to go through all the project funding and to review all spending. This is a big change from the way it used to be. Now everybody knows what's happening—where the money came from, where it's gone, how it's being deployed and how other resources are being deployed across the whole organization. The data is always available for anyone to look at and question. This is also true on the governance side, where our transparency keeps us aligned with business priorities. We make all phases of our project work for the business transparent as well. We even try to keep them informed about technology decisions we make, without a lot of techno-babble."

Wilkinson concludes: "We may have started in a reactionary mode, but ultimately the reorganization really was engineered. There have been more organic changes over the last few years, with different areas evolving as we bring in new skill sets. There isn't much structural evolution, though who knows what will happen in the next few months? Other than skill-set evolution and changing our focus to areas that become more strategic as our business changes, the present structure should last—for a while anyway."

Based on an interview with, and material from, Bruce Wilkinson, CIO, Providence Health Plans, March 2008.

Further reading

Gartner EXP reports

Aron, D. and Mesaglio, M., *Achieving Success With Shared Services*, G00156249, Gartner EXP Premier report, March 2008

Colella, H. and Hunter, R., *Strengthening the Core of IT*, G00150743, Gartner EXP Premier report, July 2007

Hunter, R., *Business Performance Is the Value of IT,* G00148819, Gartner EXP CIO Signature report, April 2007

Hunter, R. and McDonald, M., *Getting the Right IT: Using Business Models*, G00153252, Gartner EXP CIO Signature report, November 2007

Hunter, R., Nunno, T. and Waller, G., *Leading Enterprise Change*, G00132935, Gartner EXP CIO Signature report, October 2005

Gartner EXP HR reports

Berry, D., Mok, L. and Walker, A., "Planning and Managing Change in the IT Organization," Quarter 4, 2006

Hogan, L., Jones, R., Levin, J. and Mok, L., "Structuring for Success: Building Blocks for IT Organization Design," Quarterly Trending Report, Spring 2003

Mok, L., "Leading IT Organization Change: Moving Beyond Change Management," Quarterly Trending Report, Fall 2004 Walker, A., "Creating a Successful Human Capital Management Strategy, Part Two: Human Capital Interventions—Organization, Job Family and Role Design," Quarter 3, 2004

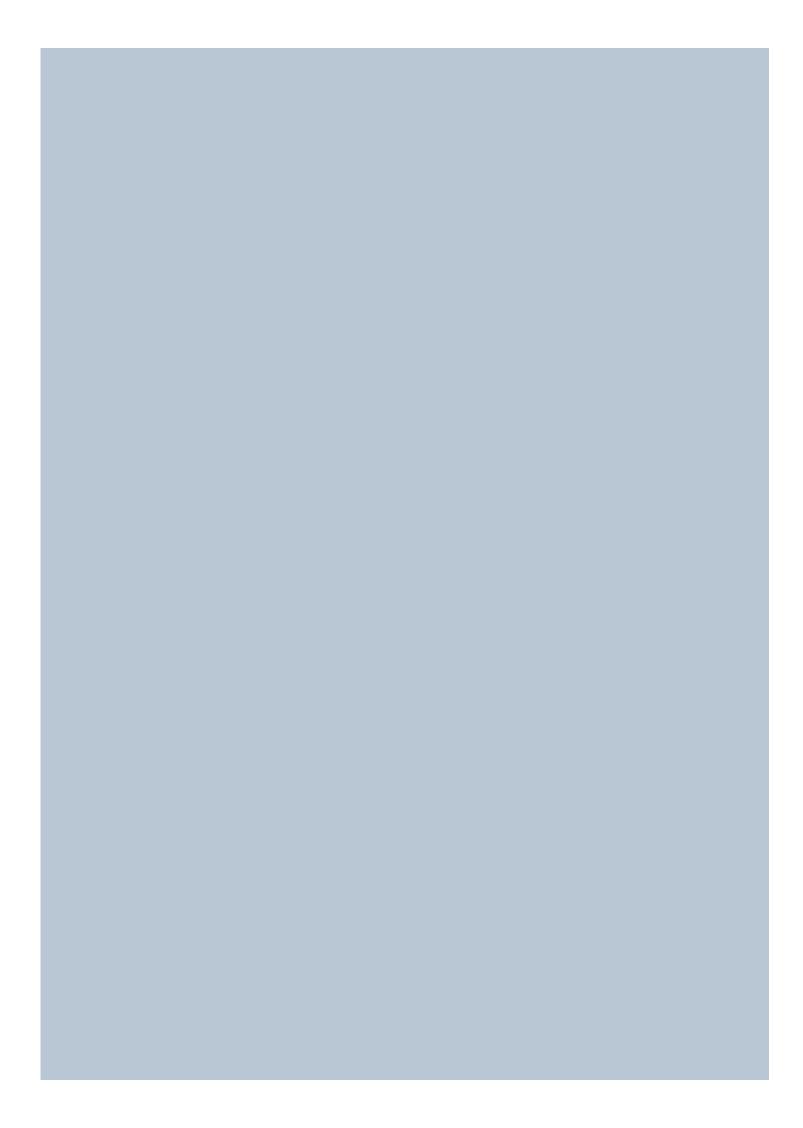
Core research

Kitzis, E. and Gomolski, B., "IT Organizations Are in Transition," G00153363, 17 December 2007

Mahoney, J. and Roberts, J., "Twelve Core IT Management Disciplines Build IT Organization Performance," G00159000, 25 June 2008

Young, C., "Raising IT's Credibility: The Gartner IT Management Competency Framework," G00151141, 2 December 2007

Young, C., "Six Steps to Process-Based IT Organizational Design," G00143151, 18 October 2006



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Gartner EXP Premier Reports

Going Green: The CIO's Role in Enterprisewide Environmental Sustainability May 2008

Achieving Success With Shared Services March 2008

Making the Difference: The 2008 CIO Agenda January 2008

IT and the Art of Corporate Planning November 2007

Making Decisions Right September 2007

Strengthening the Core of IT July 2007

Strategic Information Management Mav 2007

Mastering IT Portfolio Management
March 2007

Creating Enterprise Leverage: The 2007 CIO Agenda
January 2007

Building the Next-Generation IS Workforce

Spend Less, Get More: 25 Cost Containment

October 2006

High Value, High Risk: Managing the Legacy Portfolio

September 2006

Working With the Board of Directors

July 2006

Success With Standards

Taking Your PMO to the Next Stage

Growing IT's Contribution: The 2006 CIO Agenda

Building Business Smarts in IS
November 2005