Mergers and acquisitions (M&A) among hospitals and healthcare organizations have been on the rise for several years now. Deals between hospitals, physician medical groups, long-term care facilities, and home health providers abound, with activity levels high in the for-profit sector and the non-profit sector alike.

No part of an organization is immune from change during a merger. Challenges emerge in every department and function, from the clinical staff and human resources to physical plant and revenue cycle management. Health IT faces some of the biggest challenges during a merger, but it can also produce some of the greatest benefits. Out of the enormous complexity of multiple technologies, systems, and data assets can arise a well-integrated, streamlined set of health IT capabilities that can ultimately lead to better care, better outcomes, and lower costs. In this paper, we explain how and why M&A activity is so strong in healthcare, and describe the four basic steps for integrating and modernizing health IT in the context of a merger.

HOW AND WHY M&A IS CHANGING THE HEALTHCARE LANDSCAPE
In the United States, much of this M&A activity is being driven by trends in reimbursement and reform. Hospital and health system executives have stepped up to the challenge of the “Triple Aim of Healthcare Reform” model, addressing patient experience, population health status, and cost reduction with renewed vigor. With emphasis now on accountable care, cost control, and disease management, organizations are increasingly looking to join together so that they have the leverage to address these matters at scale. All else equal, boards of hospitals often feel that their organization can do a better job of reducing risk, improving quality, and increasing stability as part of a larger organization. That is frequently achieved by either acquiring or being acquired.

Waves of consolidation have occurred before in U.S. healthcare. During the 1980s and 1990s, for example, large organizations sought to acquire community provider organizations in an effort to capture greater market share, consolidate operations, and take out cost. Hospitals found that they could save money by combining support functions such as Human Resources and back-office administration, and exercise greater negotiating power over payers and suppliers. The new wave shares some of those intentions but is much more driven by an interest in geographic expansion, increased community presence, and better access to capital. In a world in which providers increasingly will be paid for patient outcomes, organizations are looking to optimize to their strengths and find communities and specialists that complement their overall offering. Some experts have predicted that M&A activity will be particularly high among small, stand-alone institutions that face strong competition, and urban-based community hospitals with high-risk caseloads.

PREPARING THE GROUND FOR IT INTEGRATION AND TRANSFORMATION
Before the IT integration and transformation effort even formally begins, there are things that can be done to prepare the organization for success. As soon as news of the merger hits, communication becomes critical. Information coming from the executive office is often not detailed enough or specific enough to the
concerns of each department’s employees to be of much help. IT department leaders should be able to explain to their own employees the reasons for the merger or acquisition, and in a way that makes it clear why it is in the best interest of the hospital to do this transaction. Employees will be less skeptical and less distracted the more information they have.

If the merger is large or complex, the organization should also consider appointing a Chief Integration Officer for the duration of the transition and granting that person decision-making authority. This person should be in very close communication with the CEO and the CIO. This will enable the CIOs of the participating organizations to continue managing their daily operations without getting pulled into merger-related issues all the time. It is also a smart move if the regular CIO does not have the right personality for bringing two cultures and two departments together.

Finally, before the detailed IT work begins, make sure that the overarching organization has its governance and organizational structure figured out. Without a new and working governance structure in place, the information management strategy will be unclear and any action towards integration or transformation that the IT group undertakes could be going down the wrong path. Similarly, the new reporting relationships should be established and disseminated as soon as possible, so that miscommunication does not hold back the IT effort. To minimize confusion surrounding staff roles and responsibilities, some experts recommend not making any significant changes to staffing in the first six months.

FOUR STEPS FOR MOVING FORWARD

Combining the IT organizations of multiple entities into one may present challenges but it often provides a tremendous opportunity to modernize and optimize capabilities. Additionally, mergers can happen for different reasons. The specific type of integration that is needed may differ based on the reason for the merger. A merger to achieve accountable care may require a slightly different integration methodology than a merger to achieve operational efficiency. Below we describe four basic steps that can be used to guide most transitions (see figure 1). Each is composed of many sub-tasks and sub-steps, some of which will vary based on the unique characteristics and needs of the organizations involved, as well as the purpose of the merger.

Figure 1. The Four Basic Steps to Integrating and Transforming IT During a Hospital Merger

1. Take stock of what you have.

The first step is to take a detailed inventory of your existing application and technology portfolio, including software and hardware in both production and development environments. As you go, take note of opportunities for eliminating or streamlining redundant systems, software, and hardware. Conduct a comprehensive assessment and execute focused, deep dives as necessary. Compile a master list of vendors and vendor maintenance contracts between the two merging organizations, and highlight which are compatible and which are not.

Often a newly consolidated organization will discover that it has redundant technology across data centers, clinical and financial systems, storage and server environments, IT services, and archiving systems. Even in cases where the two merging organizations use the same vendor, there are likely to be differences in system versions and configurations. Few, if any, of the two organizations’ technologies will be seamlessly compatible. Many decisions will need to be made about which settings should be the new standard.
Key areas in which a CIO is likely to face redundancies include:

- **Applications:** This includes clinical and revenue cycle systems, financial applications (e.g., Peoplesoft, Lawson), departmental applications, integration engines and interfaces and data warehouses. Redundancies in these areas are not easy to eliminate and will take a long time to switch over.

- **Technology Platforms:** This includes mainframes and servers, storage systems, archiving and backup systems, wide area networks (WANs) and local area networks (LANs), mobile devices (tablets and handhelds) and desktops (laptops, PCs, terminals, printers, and other specialized devices). These are likely to be very diverse, but they have known life cycles of their own, so refreshes can be achieved more quickly.

- **Staffing:** This includes management and staffing. It is important to focus on the skill sets and experience, not just an employee’s place in the organizational chart. Consider which skills are needed most right now, and which will be needed most in the future. Identifying staffing redundancies is a very sensitive issue. Be especially aware of union requirements, if applicable. Reassigning an employee frequently makes for a win-win situation.

- **Services:** This includes application maintenance and support, desktop support, help desk, technical services, WAN/LAN management, cybersecurity, and other system administration functions. Take stock of all IT services and recognize that many of these will be prime candidates for centralization. Be open to the possibility that the new organization may be better off contracting for some services to be provided by trusted third parties.

- **Processes:** This includes IT strategic planning, steering and IT business unit prioritization committee structures, and the internal IT service management framework covering incidents, problems, release, change management, and other processes. Taking inventory of processes requires the right people being in communication with each other, as de facto processes are not always captured effectively in written form.

Accuracy during the “inventory” stage is important. For that reason, senior leadership should support a culture of honesty and openness during this phase. Employees may discover facts about the organization or its systems that are unpleasant. They should be comfortable with reporting newly discovered gaps, misconfigurations, missing or unaccounted for assets, or other bad news. The goal of this assessment is to know what you really have, not just what you think you have on paper.

**2. Plan what the new reality will look like and how you will get there.**

With a detailed inventory now complete, the next phase is to plan what the new merged organization will be. A key piece of advice is to focus on value creation. IT leaders should have an understanding of what the hospital’s overall rationale for the merger is — to improve clinical quality, expand access, etc. — such that they can tailor the technology and integration choices accordingly. The planning phase is the opportunity to “bake” integration-friendly features into the architecture from the ground level.

First and foremost, figure out a plan for the people involved. Creating a new IT organization structure means addressing how job titles, positions, and reporting relationships will change. Work closely with Human Resources to ensure that the proposed plan fits with the structure of the overall organization. Wherever changes will occur in leadership style, team-based versus individual recognition, or time horizons, be open and responsive to staff concerns. Few things are more critical to a successful integration than ensuring happy and cooperative people.

Identify which systems and platforms will be central as you plan to modernize and consolidate. Identify the resources that will be needed for the merger—in terms of personnel, equipment, and software. Wherever possible, plan to pare down to one system. In almost all cases, you will want to consolidate staff and skills down to one IT department. Other areas in which full consolidation is particularly helpful include any end-user system that supplies patient information data to back-end systems, and the enterprise master patient index. Houston-based Memorial Healthcare System, for example, reduced physical records storage
by 30 percent and netted savings of $1.2 million by consolidating medical records and cross-referencing a master patient index\textsuperscript{6}. Upon reviewing the results of the first step — taking stock — it likely will be discovered that there are some areas in which the two organizations do not have the technological capabilities that they need in order to realize their goals. Build into the plan the acquisition of those capabilities, whether developed internally or sourced from a vendor.

Planning for consolidation also means reviewing processes. Depending on the hospitals involved, there may be many manual processes to deal with\textsuperscript{7}. Organization size is not necessarily an indicator of how many processes there are; even small hospitals and health systems can have many disparate processes across facilities. Planning to automate these in the newly merged organization can result in attractive cost savings.

Most project management methodologies (e.g., Plan-Do-Check-Act, Plan-Collaborate-Deliver, etc.) are serviceable for guiding IT leaders through an integration. However, it is important during the planning phase to emphasize the importance of analyzing the IT environment and application portfolio in terms of the business value it delivers. As you enter the planning phase, consider also the questions posed as part of the following three-dimensional model\textsuperscript{8}:

- **Goal Alignment**: How well are your IT processes and systems aligned with your business goals? Are your investments effectively targeted to help you do the things you’ve identified as critical to your organization’s success?
- **Performance Optimization**: Are your applications reliable, robust and performing well without costing too much to maintain?
- **Service Mix Optimization**: Are you exploiting the available service delivery models such as managed services and business process outsourcing to maximize your competitive advantage, improve your responsiveness, and align costs to usage?

During planning, it is important for IT leaders to understand the expectations of the hospital board. Sometimes a board might declare a vision in which all patient operations, technologies, and processes are to be fully unified within a relatively short timeframe\textsuperscript{9}. Other times, it is the expectation that the two merging organizations will retain (to a certain extent, at least) their individual identities and brands. In the first case especially, executives and IT leaders need to be sure to prepare a realistic timeline. Nothing breeds frustration like uncertainty and misaligned expectations in new relationships\textsuperscript{10}.

A hospital merger may or may not be the right time to plan and execute a conversion to a major electronic health record. In time, it will most likely be desirable for the two entities to standardize on a single EHR. Aside from the obvious clinical benefits, switching to a common EHR early on could eliminate the need to combine and translate between multiple reporting systems. During a merger, this is easier if one of the organizations is already using the desired system. If neither entity is using the desired EHR, however, then it may be wise to wait\textsuperscript{11}. Ultimately, this decision will depend on what resources are available, what other health IT priorities are already on the table.

Not all past investments or vendor relationships may have a place in the new order. Some projects or attempts at innovation may have been promising at one time, but have since fallen out of strategic alignment. The planning phase is an opportunity to jettison any unnecessary tools, add-ons, systems, and devices and prepare the organization for a fresh future. Things that are deemed out of alignment for hospital IT may still be usable or deployable to other parts of the organization if you identify them early enough.

The planning phase is also a good time to make preparations for divesting unwanted risk and liabilities. Reviewing the organization’s security risks and needs should be part of every stage of the integration process, but it is helpful to have a concerted security in the early stages, prior to system transformation.
When Hospitals Merge: Turning Challenges into Opportunities for IT Excellence

3. Transform systems and people to the new reality.

After the assessment and planning phases have been completed, transformation begins. Although this phase puts into place the new “one company” ideal, it is important to ensure that the needs and concerns of both entities are taken into consideration. It is common for team members to not feel fully invested until the new reality is up and operational, so be sure to maintain good communication and emphasize the benefits to everyone of the transformation.

For many applications and platforms, integration and transformation is very much a process of modernization—it is a system-by-system process of deciding which functionality to add, which platforms to leverage, and how to connect the pieces together. Coordination with senior leadership and key stakeholders is critical to making the transformation smooth.

In regular IT projects, there are often options to do extensive customization and write new code. In modernizing applications in a merger context, however, writing new code is often not a reality for healthcare providers. Many applications are provided by third-party vendors and either cannot be customized easily or at all. As you look at vendor solutions, it is important to know what can and cannot be customized, and what will require the purchase of additional systems. As you make transformation decisions with vendors, keep your existing contracts close at hand. Understand the terms, including discounts on upgrades and penalties for early cancellation.

Other key tips and things to remember during the transformation phase include:

- **Use automated tools wherever possible.** Advanced automation tools are now available that can significantly accelerate the transformation process. These tools use models and simulations to simplify transformation and overcome normal barriers such as translating between source and target languages in applications.

- **Play with the order in which you integrate.** There are no hard-and-fast rules about the order in which applications should be integrated. Every organization's transformation will be slightly different, based on resources and priorities. Some organizations centralize staff and integrate revenues very early, while others wait. The same applies to technology, where it can make sense to combine email and communications platforms very early, and data warehouses later on.

- **Document changes and keep plenty of backups.** Documenting the transformation process may seem to slow progress at first, but it will help keep the transformation moving smoothly and it can later prove valuable in demonstrating compliance with laws or incentive programs. This diligence extends to backups and other recordkeeping. Records still within their retention period should be backed up securely. Automated scanning, if not already in use, can also smooth transformation process.

- **Don’t wait too long to offer training.** The earlier that staff begin to receive training, the more empowered and engaged they will be in the transformation process. In addition to classroom learning, use real-world training examples outside of the classroom, and role-based training scenarios customized to the recipient. Early training can also help identify potential problems that can be avoided before they are solidified in place. Don’t forget to train employees on new policies and rules in addition to the new processes and workflows.

Finally, do not allow the hospital’s current operational and financial performance to suffer during the transformation phase. It is common during a merger for focus to shift away from daily operations to the integration, causing a loss in “momentum.” To this end, consider establishing special roles for monitoring quality, consistency, and performance throughout the transformation and empowering the people in those roles to raise concerns as necessary.
4. **Monitor and manage the new reality.**

Keeping systems running smoothly in the new, post-integration environment is not to be taken for granted. Effective ongoing management in this phase requires persistent skilled leadership, clear communication, attention to governance, and constant measurement and adjustment because everything is, in a way, new — the systems, the processes, and the teams. Although you have likely been able to conduct some consolidation, the overall size and scope of responsibility in leading the health IT function has undoubtedly increased. The staff is larger, new systems likely have been added, and the entire footprint of the operation is almost certainly larger and more geographically dispersed than before.

Managing the new reality means monitoring the “vital signs” carefully and not losing track of day-to-day management duties. From a more long-term perspective, the CIO should remain a part of the strategic thinking team. This will help avoid the all-too-common situation after the post-merger dust settles in which labor and support costs will gradually rise, systems will fall out of step with clinical and financial needs, and security risks and other challenges emerge.

Getting help from outside sources is often an effective way of ensuring that new arrangements continue to go smoothly post-transformation. Where gaps in capabilities or skill sets might have been revealed after the transformation phase, trusted third parties can bring expertise, speed the transition, and complete the change more quickly than can be accomplished in-house. Areas such as application management, software life-cycle management, and cybersecurity are good candidates. When shaping the future state, consider that healthcare IT vendors are undergoing a consolidation, too.

Careful monitoring can turn a merger or acquisition from a management challenge to a system-improving, care-enhancing, cost-reducing opportunity. Some experts caution that in the immediate term following a merger (i.e., the first 12 to 24 months), the gains and synergies may be small. Over time, though, a successful IT integration effort between two organizations will create value and improve the position of the new venture in the market.

**SUMMARY**

Steering an organization through a merger is as much an art as it is a science. There are many critical aspects to the process—communication, assessment, planning, execution—but success is far from just a matter of checking off the right boxes. As IT leaders work through each phase described above, they need to keep the long-term strategic view in mind, and maintain a good sense of how every decision affects those who matter the most, which are the patients and clinicians. For newly merged organizations that make it through the experience successfully, such a transformation can bring tremendous value to the community.

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REFERENCES

2 Gamble, M. “10 Lessons From leaders Who Have Merged or Acquired Hospitals” Becker’s Hospital Review, February 3, 2011
4 Speidel, F. “Super Size Me: Hospital Mergers Raise Health IT Considerations” HIT Consultant, December 26, 2013
5 (Andrews, J., 2013)
6 “M&A in Health Care—Opportunities Abound, Risks Loom” Towers Watson, 2013
8 Dunn, L. “5 Tips for Leading a Hospital Through a Merger or Sale” Becker’s Hospital Review, December 20, 2010
9 McLaughlin, J. “5 Pitfalls to Avoid in Hospital Mergers and Acquisitions” Becker’s Hospital Review, January 18, 2013
10 Bowman, D. “How to Ensure Tech Stays Top of Mind During a Hospital Merger” FierceHealthIT, March 3, 2014
11 (Ibid.)
12 (Speidel, F., 2013)
14 “When Hospital mergers Make Sense” McKinsey & Co., 2013
15 (Iron Mountain, 2012)
16 (Ibid.)
17 (Towers Watson, 2013)
18 “Reshape Your Application Portfolio” CSC, 2013
19 (Towers Watson, 2013)
20 (Speidel, F., 2013)
21 Epstein, J. “Creating a Single EHR: During a Merger, or Later?” Hospitals & Health Networks, March 11, 2014
22 (Gamble, M., 2011)
23 “Ten Things Most Vendors Won’t Tell You About Modernization” CSC, 2013
24 (Epstein, J., 2014)
25 (Gamble, M., 2011)
26 (Iron Mountain, 2012)
27 (Ibid.)
28 (McKinsey & Co., 2013)
29 (Dunn, L., 2010)
30 (Gamble, M., 2011)
31 (Iron Mountain, 2012)
32 (Gamble, M., 2011)
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