INTEROPERABILITY:

THE CASE FOR CONSIDERING BEST-OF-BREED REVENUE CYCLE MANAGEMENT SYSTEMS

Executive Summary

We are witnessing a revolution of unprecedented proportions. Hospitals and physician groups are in the midst of a wave of mass IT adoption the likes of which we have not seen before. The decisions being made on major information systems each year amount to tens of billions of dollars.[1] This massive spending translates into thousands of hospitals making monumental decisions that will set the course of their organization for at least the next ten years, and often longer.

Many in the healthcare industry see the Health Information Technology for Economic and Clinical Health (HITECH) Act as impacting hospital technology strategies, and they are partially right.[2] Due to this legislation questions abound which CIOs, CFOs, and clinical leaders must answer: Which vendor do we choose? Which platforms best position us for the future? Do we choose an integrated or interoperable path?

The decisions resulting from these choices are absolutely pivotal to a hospital's future, and these decisions must be made with utmost clarity of thought and foresight. Where some see strictly technology choices, others know them to be, in reality, the strategic business initiatives that will largely dictate the success, or failure, of their organization for years to come. This last point bears reiteration: the technology decisions motivated by HITECH are actually fundamental business decisions which will shape a hospital's operational identity in how care will be delivered and in how business will be executed.

Over the past two years the healthcare industry has trended toward integrated IT systems, where a single vendor delivers most, if not all, of a provider's primary clinical and financial software. However, for some providers in certain situations, maintaining or adopting a blended, or best-of-breed, IT strategy – particularly with regards to the revenue cycle management (RCM) function in health IT platforms – may make the most sense.

The phrase best-of-breed often conjures up thoughts of disparate components plugged into an IT framework. What we are actually referring to is an overarching strategy that stresses interoperability, flexibility, and growth. Many CIOs see an interoperable IT strategy as enabling an easier and speedier path to collaborative care approaches such as Accountable Care. Interoperability also allows organizations the technical agility to take advantage of innovative technologies and adopt them in a timely fashion.

Given the gravity of these decisions, the C-Suite must take great care in performing thorough due diligence and foreseeing the consequences of a chosen IT path, whether an integrated or interoperable strategy is pursued. While the C-Suite has the ultimate responsibility of this momentous decision, it is the organization at large, both clinicians and patients, which will ultimately bear those consequences.

This white paper presents scenarios in which it is wise for providers to seriously consider a best-of-breed approach to their IT and business strategy, particularly in the context of RCM solutions. Specifically, three scenarios will be explored:

1. The total cost of ownership and ROI of healthcare IT systems.
2. The desire to avoid being "locked in" with a single vendor.
3. The evolving impact of Accountable Care on healthcare IT purchases.

The information presented here is a combination of interviews conducted expressly for this white paper, past research conducted by Katalus, and publicly available information.

Scenario #1: Total Cost of Ownership and ROI

Healthcare is changing, and the speed of that transformation has left many providers uncertain of their best strategic path. A complex and dynamic regulatory landscape – including evolving Meaningful Use standards and a renewed focus on the patient experience – has tended to raise as many questions as it has answered.

Amid this climate of uncertainty, some providers are considering sweeping technology changes, but that can be expensive. News sites and magazines are filled with reports of healthcare IT projects that have run or overrun to costs in excess of tens or even hundreds of million dollars. But those direct, upfront costs are only one of the factors that should be evaluated when choosing a healthcare technology solution. Equally important is evaluating the total cost of ownership (TCO) of not just the overall solution, but also its principle components. For instance, while the cost/benefit of deploying a vendor's core clinical systems may make the added expense a worthy investment, that same logic may not hold true for that vendor's RCM system – and as the potential buyer, providers should feel empowered to evaluate each major component on the basis of its own TCO and probable return.

Working with more than two dozens hospital CFOs, Katalus designed a comprehensive model for evaluating the long-term TCO of healthcare IT systems. Using this model as a guideline, hospital executives can begin to understand the long-range financial impact of software purchases – and in turn determine whether the cost of a given module is reasonable for the expected return. The table below gives a sampling of elements currently included in the Katalus TCO model. Those elements that are typically missing from today's status quo costing models are indicated in italics:

As an example of the sometimes unforeseen total cost of major IT systems, consider just one element from the Katalus model: system upgrades. As Figure 1 describes, with large integrated systems, the cost of major platform upgrades can reach nearly 50 percent of the original software expense, often consuming most of an organization's IT budget for a certain amount of time, leaving little available funds for other initiatives. In contrast, heterogeneous environments often allow for flexibility in planning and budgeting major system upgrades. But with either approach, the cost of these upgrades is just one aspect of TCO that should be carefully considered before a major IT investment.

Varying Upgrade Costs
(as % of initial contract value)

Figure 1
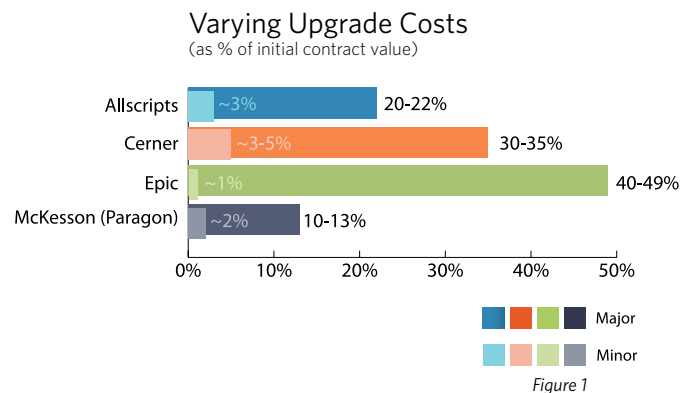
Using the Katalus model, some organizations may determine that a wholesale, single-solution replacement of their clinical, financial and administrative systems is warranted. Others may find that only replacing one or two elements of that mix, or combining best-of-breed components from several vendors, will lead to a stronger overall return. Either way, the lesson for hospital executives is to have an honest and frank discussion about the true total cost of ownership of any software solution they are considering.

When it comes to the critically important, and enormously expensive, decision regarding system replacement, cost is only one-half of the HIT equation. A thorough evaluation of healthcare technology must also include an assessment of the expected return

Key Elements of the Katalus TCO Model

SOFTWARE	STAFF	INFRASTRUCTURE	SERVICES	OTHER
Acquisition	DBA	Server Software	Implementation	Cost of Capital
Implementation	System Administration	Server OS	Data Conversion	Other Fees
Maintenance	LAN/WAN	Workstations	Interfaces	*Third-party Content*
Reporting	PC Support	Data Centers	Education	
Upgrades	Communications	Hardware Maintenance	*Project Management*	
Modules (*including Decision Support and Analytics/BI*)	*Temporary Contractors vs. Permanent Hires*	Internet	*Upgrade Support*	
	Hiring Costs	Remote Administration		
		Server Maintenance		
		Hardware Renewal		
		Security		

Source: www.HospitalTCO.com

3

on investment (ROI). The ROI of maintaining an interoperable RCM solution can be drastically different than ripping and replacing an RCM module as part of an enterprise purchase. Choosing to rip and replace existing systems in order to migrate to an integrated platform is undeniably an expensive proposition. But the more important consideration remains, is it worth it? Will the cost deliver a tangible benefit, a strong ROI? For some providers, the answer is no. "The ROI of switching from a best-of-breed to an integrated solution would take several years to be realized," confirms Chuck Podesta, CIO at Fletcher Allen Health Care, which has a blended IT environment, including an electronic health record (EHR) from one vendor and an RCM system from another.

FLETCHER ALLEN HEALTH CARE
- 562 Beds
- 39 Ambulatory Sites
- Revenue Cycle Solution: GE Centricity
- EHR: Epic EpicCare

In fact, Podesta has conducted a comprehensive internal analysis to compare the cost of thoroughly upgrading his current revenue cycle solution versus installing a brand new solution as part of an integrated hospital information system. In this analysis, the cost to install a new module would have been 10x the price of simply modernizing the current product.

And what could provider organizations like Fletcher Allen expect from such a large investment? According to hospitals and clinics with whom we have spoken, not a lot – at least in terms of quantitative ROI. The average accounting performance of organizations with a best-of-breed RCM versus those with an integrated clinical and financial solution tend to be very similar:

	Best-of-Breed	Integrated
A/R Days	High 30's to Mid 40's	Mid 30's to Low 40's
Cost of Collection %	5-7%	5-8%

Clearly, in this situation, it would be difficult to justify a massive RCM replacement as part of an expensive integrated system purchase. Obvious advantages in areas outside of the metrics mentioned previously would have to be present in order to justify a rip-and-replace strategy over modernizing an existing, functional best-of-breed revenue cycle module.

In addition, independent research verifies that organizations that utilize best-of-breed RCM solutions are able to be not only competitive, but also claim a spot among the best-performing organizations. For example, of the top 10 billing offices, 8 utilize GE's Centricity Business, a best-of-breed RCM system. Additionally, 13 out of the 17 Best Hospitals (as ranked by *US News and World Report*) also employ a best-of-breed revenue cycle system.[3] Such accolades speak well to the ROI potential of utilizing best-of-breed RCM solutions.

Scenario #2:
Avoiding Vendor Lock-In

Buying into an enterprise-wide integrated hospital information system is an all-consuming commitment that extends beyond the software that is being acquired. Hospitals and multi-specialty groups thus committed become fully invested in their chosen vendor's development roadmap, with little available flexibility outside of that path. As one CIO, who has an integrated patient accounting and clinical solution, mentioned, "One drawback of having an integrated RCM is that we are now more dependent on the vendor and less independent as an organization, which, in essence, gives us less control over our own processes." Hospitals like the one represented by this CIO, which choose to invest in a completely integrated IT environment, sometimes feel as though they lose some organizational independence and become, to a certain degree, extensions of the vendor to which they've attached themselves. This results in a shift of identify for the hospital.

Maintaining a blended environment creates a certain degree of healthy competition among the supplying vendors, effectively giving the customer a greater degree of latitude during negotiations on contracts and services.

An article from *CIO Update* says it this way: "Often with lock-in, you do not get a chance to bid out and earn the best pricing. It can also cause higher costs because it is harder to price out an integrated stack. Also, if the vendor fails to deliver on the promised support in a timely fashion, it's your business, not theirs, that is on the line – at least in the short term."[4]

A recent survey in *Healthcare IT News* also highlighted the dangers of losing flexibility in vendor negotiations. The survey recounted 12 reasons why organizations pay too much for health IT. One featured point tackled the harsh reality of vendor lock-in: "Once healthcare organizations lock in to a vertically integrated technology supplier, they must deal with a supplier that now has monopolistic pricing controls…. Technology suppliers understand this and fully leverage that added power to incrementally drive up prices…."[5] This same survey shows that healthcare organizations pay an average of 17 percent more for IT than do companies in the other 29 industries that were sampled.

Additionally, an interoperable IT configuration also gives a provider organization greater flexibility in innovating on their own. Allen Salmieri, CIO at Pacific Medical Centers, confirms this sentiment: "While I can see advantages for both sides of this issue, having a blended environment can give a site more flexibility to innovate for emerging trends."

PACIFIC MEDICAL CENTERS
- 150 Physicians
- 12 Locations
- Revenue Cycle Solution: GE Centricity
- EHR: Epic EpicCare

In extreme cases, the idea of locking all of a hospital's data into one vendor's closed system can even present more serious challenges. As one EMR blogger notes, "Certainly there are people's lives involved in [healthcare IT] and so it's a different animal all together. If I can't transfer my music from one MP3 to another it might be unfortunate, but having a loved one die because the right healthcare information was stuck in a closed system is a much more serious issue and one that should require careful consideration."

C-Suite executives who go "all in" with a single vendor spanning the entire enterprise are literally "betting the house" on that vendor delivering everything that will be needed for the next ten years. Budgets, careers, and future investments will be influenced or dictated by such a decision – all tied to a single vendor. To invest in a sole-source solution is to be invested in a single roadmap. In order to make that investment the C-Suite must have supreme confidence that the vendor is focusing resources on the areas which matter both now and in the future in terms of emerging trends. Those areas must also be of high importance to the acquiring organization.

Vendors that provide integrated, sole-source solutions that span the enterprise must make resource decisions all the time that affect the product roadmap. Often one area of development will take resources that could be invested in another part of the platform. This situation brings up a scenario that CIOs think about frequently, that of an integrated vendor deciding they can be successful with under-featured components of their platform because they think their customers won't migrate to competitive solutions. This is an especially apt point today regarding RCM solutions, given the massive emphasis placed on the adoption of clinical systems. However, this situation is not a healthcare-only issue, as CIOs across many industries share the same concern. A CIO at the annual Oracle OpenWorld conference voiced the following, "I will always want to have a range of companies… because technology keeps changing, so what guarantee will I have that one large vendor can keep pace?"[6]

Dedicated systems vendors, those who deliver best-of-breed solutions for specific markets, can deliver a higher level of functionality and bang-for-buck into products than may be possible for an integrated systems vendor since the integrated platform must serve the entire continuum of

care. As the ancient strategist Sun-Tzu declared, if some-one "sends reinforcements everywhere, he will everywhere be weak."[7]

For provider organizations looking to avoid being locked in with a single vendor – from both an IT and a strategic busi-ness standpoint – a best-of-breed approach is an essential consideration.

Scenario #3:
The Impact of Accountable Care

Reducing our massive healthcare spending through care coordination is a regularly featured element of today's healthcare initiatives, and for good reason: As shown in Figure 2, growth in spending for healthcare has skyrock-eted as a percentage of GDP.[8]

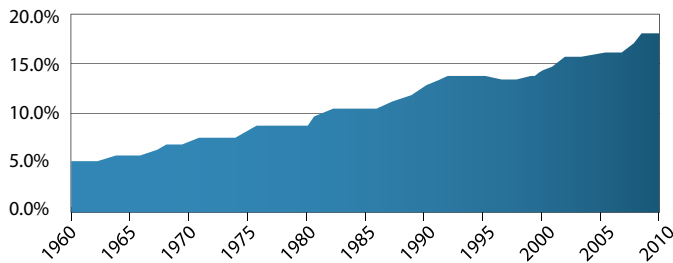National Health Spending as a Percentage of GDP

Figure 2

According to the Health Care Cost Institute, rising prices are a primary driver of overall healthcare spending. In 2011, growth in prices for many healthcare services outpaced both inflation and growth in utilization, as shown in Figure 3.
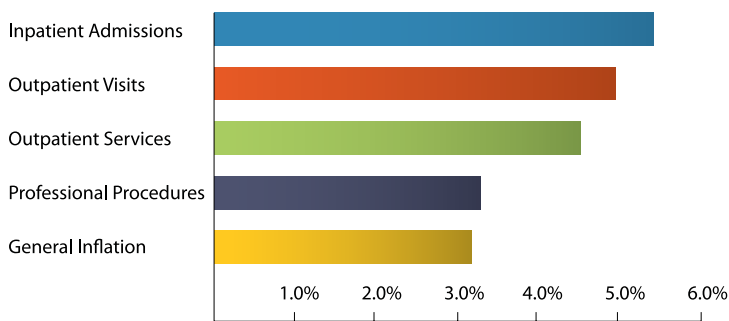
% Rise in Prices 2011

Figure 3

One of the provisions in the Obama Administration's Af-fordable Care Act that is intended to help curb those rising costs is the creation of a new type of healthcare entity, the Accountable Care Organization (ACO).

According to the Centers for Medicare & Medicaid Ser-vices (CMS), an ACO is a voluntary collection of hospitals, physicians, and other care providers who agree "to be held accountable for improving the health and experi-ence of care for individuals and improving the health of populations while reducing the rate of growth in healthcare spending."[9]

In short, an ACO is a structure that provides greater care co-ordination for patients while also lowering overall healthcare spending. Once the ACO reduces spending below a certain threshold, a shared savings plan plan kicks in between the members of the ACO and CMS.

Care coordination plans, whether organized around an ACO or some other concept, require an interoperable IT strategy in order to be successful. By their nature, ACOs will constitute a blended ecosystem of various solutions on a large scale. Tracking essential cost, quality, and performance measures across heterogeneous IT environments (disparate databases, applications, data streams, etc.) will be critical to making an ACO efficacious. Connectivity and collabora-tion, along with interoperability, are the new watchwords of healthcare. As mentioned by athenahealth's CEO in a recent blog post, these concepts call into question the long-term wisdom of purchasing an integrated system whose "primary benefit is that it only connects to itself."[10]

In the ACO model, investment in a powerful and flexible RCM solution is essential. Dr. Simeon Schwartz at WEST-MED Medical Group believes that "many facilities do not experience the full potential of their RCM system because they do not invest enough in the solution." WESTMED's software and organizational investment has allowed them to make the exceptional seem routine. Take just three key operational metrics: 28-30 A/R days, net revenue over

6

99%, and 3% for cost of collection – exceptional numbers by any measure.

WESTMED MEDICAL GROUP
- 225 Physicians
- 9 Locations
- Revenue Cycle Solution: GE Centricity
- EHR: GE Centricity

Dr. Schwartz at WESTMED believes that a top-flight best-of-breed RCM solution provides a more ACO-ready platform when compared to many integrated solutions. "Our revenue cycle solution has improved our ability to track everything," he says. In fact, those individuals and facilities highlighted in this white paper believe that a best-of-breed strategy for revenue cycle better positions their organizations for ACO requirements than would a system that is part of an integrated site-specific solution. Chuck Podesta at Fletcher Allen agrees: "With continued investment in gearing their solution towards ACO analytic utility, I think GE could be the best-of-breed leader in that area.

The financial management aspects of building and operating an ACO are extremely complex. On top of that, the industry is not yet sure how exactly an ACO is meant to operate. The business model is not yet established. Will it be bundled-care contracts or episode-of-care? Will it be done on a multi-provider basis? How will capitation, pay-for-performance initiatives, DRG reimbursement realignment, and per diem all impact the shared savings model? Working with a solution that is extremely focused on managing these payment models, in whatever form they eventually emerge, will become ever more critical to the growth of an organization.

RCM solutions that are part of an integrated platform may not have the flexibility to change quickly to focus on the financial pains that invariably occur when a new reimbursement market emerges, as will be happening over the coming months and years. Integrated vendors will be focused on shoring up trouble spots across the entire platform, while a best-of-breed RCM vendor can make sure that the hospital is well served in one of its most pressing requirements – making sure it is staying ahead of its financial needs.

In an ACO, hospitals must share much more than basic clinical data. They must also share modified business processes. John Glaser, CEO at Siemens, pointed out much the same in an article on ACOs when he stated, "Targeted interoperability might start as a discussion about connecting EHRs, but it will move quickly to a discussion about shared or consistent processes,"[11] which would include areas such as business analytics and other organizational performance metrics. An optimized RCM solution, interoperable across multiple enterprises, will provide a critical cornerstone in the ACO. Indeed, the need for interoperable systems becomes more pressing as the battleground for improved healthcare delivery and cost containment continues to shift beyond the four walls of individual hospitals and clinics.

Conclusions

The purpose of this white paper is to encourage hospital executives to have a candid discussion about the long-range cost, benefits, and ROI of their healthcare IT choices. In particular, it highlights scenarios in which the maintenance and adoption of best-of-breed, or blended, IT environments would merit serious consideration, particularly where RCM solutions are in discussion. While there have been many arguments presented in the industry regarding the advantages of fully integrated solutions across the clinical and revenue cycle venues, there are also many voices which support the adoption of interoperable, best-of-breed IT strategies. A number of industry trends support this interoperable vision, including:

- *Budget Tightening:* Healthcare has been affected by the global financial crisis, which has resulted in an explosion of cost-cutting proposals and measures. Many budgets have been frozen or reduced already, and with staggering national debts looming, future cuts to healthcare are all but guaranteed. Hospitals

therefore have to scrutinize IT investments to a greater degree than in the past. This effort includes comparing the total cost of ownership – and ultimately, the ROI – of adopting an integrated platform versus an interoperable, blended strategy.

- *The Need for Flexibility:* Healthcare changes. New regulation, new requirements, and new trends continue to evolve the market. A best-of-breed approach can give a hospital or clinic the needed flexibility to execute the innovations necessary to meet new challenges. That flexibility also provides a certain amount of leverage in vendor negotiations to help keep contracts and pricing structures on par with market realities.

- *Interoperability:* Increasingly, requirements for health IT are affected by drivers that reside outside any single facility's walls. Whether the discussion revolves around health information exchanges (HIEs), ACOs or some other form of collaborative care, modern healthcare technology strategies are largely being defined by a provider's ability to achieve performance improvements in conjunction with other provider organizations. That kind of cross-industry collaboration lends itself to an interoperable approach to IT.

Ultimately, the decision to consider open, interoperable, and best-of-breed IT systems is more about management philosophy than it is about technology. Hospitals that value flexibility, the enablement of more rapid alliances and acquisitions, the utilization of solutions built expressly for their given roles, and the ability to drive much of their own innovation will find themselves sacrificing much if they move down the path towards complete integration and closed-IT systems. Not only will they sacrifice IT benefits, they may also sacrifice an important part of their organizational identity.

In the end, when it comes to making long-range technology investments, the answer may be different for each organization and its executives, but the path should always be the same: look critically, discuss openly, and choose wisely.

About Katalus

Katalus helps healthcare organizations grow through a unique mix of cloud-based software solutions and strategic consulting. Our clients are found in North America, Europe, and Asia. The principals of Katalus have worked with hundreds of healthcare organizations, vendors, and other consulting firms across the globe.

Katalus
50 Red Pine Dr.
Alpine, UT 84004
USA
+1-801-692-1532
www.katalus.com

Appendix

[1] http://www.informationweek.com/healthcare/electronic-medical-records/healthcare-it-spending-to-reach-40-billi/229500682

[2] http://www.hhs.gov/ocr/privacy/hipaa/administrative/enforcementrule/hitechenforcementifr.html

[3] http://www.sage-growth.com/wp-content/uploads/2012/05/Q6_gehc-white-paper-8rev.pdf

[4] http://www.cioupdate.com/trends/article.php/3910481/Vendor-Lock-in-versus-Best-of-Breed.htm

[5] http://www.healthcareitnews.com/news/top-12-reasons-organizations-pay-too-much-health-it

[6] http://www.zdnet.com/will-customers-forget-vendor-lock-in-concerns-for-oracle-7000005062/

[7] http://classics.mit.edu/Tzu/artwar.html

[8] http://blogs.cfainstitute.org/investor/2012/07/11/the-economics-of-obamacare-part-2-analyzing-the-u-s-health-insurance-system/

[9] http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO_Summary_Factsheet_ICN907404.pdf

[10] http://www.athenahealth.com/blog/2012/11/13/stop-spending-billions-on-closed-ehr-systems/

[11] http://www.hhnmag.com/hhnmag/HHNDaily/HHNDailyDisplay.dhtml?id=7450001203

Figure 2 http://www.healthcostinstitute.org/files/HCCI_HCCUR2011.pdf

Figure 3 http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO_Summary_Factsheet_ICN907404.pdf

Interoperabilty: The Case for Considering Best-of-Breed Revenue Cycle Management Systems