



Advance Clinical & 'Meaningful EHR' via Enterprise Portal Solutions: HIS and Portal – Working Together

Empower your future by leveraging your HIS investment.

The 1990's was the decade of Hospital Information System (HIS). HIS became the center of our business operations by providing employee access to information that was consolidated and coordinated in one application. Now, a decade and a half later, many healthcare organizations want to extend the reach of their HIS to Advance Clinical and EHR applications and also to their clinical partners outside the organization. Getting the right information into the right hands, at the right time, in the right place (Physician, 8PM, Home with family), and in the right format (portal, PDA,) is defining the next level of productivity. It is about providing integration & access and making information truly useful to everyone up and down the entire information chain.

This of course, has been and still is easier said than done. The problem is that HIS system architecture is based on accounting and transaction processing, not *information access, management, and data movement*. It is essentially a number cruncher, not a data mover/integrator. As such, gaining universal access and sharing information is not HIS's strong suit. In many cases, it cannot, for example, be attached to email, external databases, and non-HIS applications. It's like using a wrench to hammer a nail. It will do the job, but not very efficiently.

Clinical Drivers

Prior to the Internet revolution, working with HIS was primarily the responsibility of finance and IT managers whose focus was information sharing inside the organization. However, with today's increasing pressure to add more services and better manage cost, the task now involves line-of-business managers who have a greater concern about improving the bottom line. It is their duty to balance the increase in business functionality with a corresponding step function jump in labor cost. Their goal is to do more with less, a lot less.

Most smart organizations seek out new technology for two basic reasons – competitive pressures and sound bottom line. What is of key importance however that is in many cases just upgrading or migrating to a new version of HIS will not achieve this objective? At an architecture level these HIS do not offer the robustness that is required to meet the competitive pressure of the marketplace. Also since their DNA is designed to be transaction oriented rather than intelligent data management, their ability to lower clinical cost and enhance clinical care process is quite limited.

Adding Portal Functionality

One of the best and perhaps easiest ways to stay on the advance technology curve is to add state-of-the-art portal functionality to the HIS environment, by taking a "holistic" approach to both internal and external market needs. By leveraging both new and existing HIS functionality at the same time, you have a good chance to minimize cost, risk, & upheaval in the organization and still stay above the technology curve. There are several reasons for adding a universal portal. As we move outside the basic HIS domain, issues of presentation, security, compliance, data intelligence and integration become more complex and expensive. By leveraging web service features found in a properly designed and easy to- use portal, you can keep your costs in check. Add in the built-in cascaded security model that addresses authorization, authentication, and integrated workflow to manage process-based compliance. As you can see, you have a strong compelling argument for a Portal strategy.

Taking this approach, not only facilitates but can provide easy access to both HIS and non- traditional HIS functions such as, Document Imaging, Advance Clinicals, Diagnostic Systems, Legal EHR, and Business Intelligence. It also does so much more, quickly, and at considerable less cost.

The Strategic Focus

In our pursuit for a competitive advantage, it is important to recognize the strategic nature information plays in our thinking. As such, we need to move away from "quick fixes" and become more strategic with an approach that is more in line with market demand and customer expectations. Consequently, a contemporary portal architecture needs to consider the following high level business criteria and objectives:

Accessibility. All systems application (not just HIS) must be dashboard driven (push technology), visible, and easily accessible (single access point) by more people – inside and outside of the organization. Portals can help to distribute work and information to the "point of impact". Employees can function at multiple locations with easy to use web applications. Patients can view and process their own billing information without waiting for customer service. Lab Outreach Customers can place their own orders & view their own fulfillment orders and hospitals can schedule specimen pick-ups in real-time. Information latency can be reduced to zero.

Flexibility and Scalability. A business has to be flexible to keep up with ever changing customer needs. Agility must be an inherent part of the portal architecture, as it cannot limit timely and effective responsiveness. A portal that scales well and provides consistent customer experiences is critical.

Online Service Offerings. As business grows, customers will place more value on information based services. Hence, the portal architecture must support a wide variety of functionality to accommodate both in-hospital users and external partners and customers.

Business System Growth. A portal must be able to help the business grow in any direction. As business expands, business systems must not become a burden. They must operate in a stable and efficient manner that does not deter access to information.

Portal implementations that support these objectives will typically produce a return on investment for the organization and move the organization and operating costs closer to becoming a *peak performance organization*.

Choosing the Right Portal

Portal selection is a business analysis process as a pure software purchase. Core to this approach is recognition that today, there are two types of systems that are required to run a successful healthcare business – front line high workflow/high productivity portal applications and your HIS which acts as a set of back office applications. It is important not to mingle these systems or treat them similarly. Why? Because forcing your HIS back office to also handle front office work typically leads to expensive modifications and difficult upgrade paths. Too often business logic that governs agile front-end processes gets coded by the more rigid back-office systems, creating a form of “access grid-lock”. For this reason it is important to avoid proprietary point solutions and truly look at a more unified way to provide a portal access.

We recommend starting with a high-level discovery session that reviews current business processes in conjunction with any plans for future growth. By taking time to outline a business’s overall strategy and matching it with available portal technology, all possibilities can be evaluated up front. Then priorities can be established to provide a unified presence based on time, funding, and return-on-investment.

A portal infrastructure should provide the following:

- A single, secure location to go for all online services.
- A consistent user interface, regardless of changes on the back-end.
- Lower maintenance costs by unifying user accounts and web servers.
- Better ability to rollout new applications to multiple locations/clients.
- Lower application support costs by providing easy to deliver portal-based integration.

- A way to present back office content directly to the user and easily integrate it to related front line applications.

One of the most important reasons why a unified portal-based interface is so important is that your web presence should be as familiar to customers and partners as it is to the employees. If relationships and personalized service are an important value proposition, the same experience should be shared by all who are online throughout your entire portal.

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The Portal BVA Process

Once the initial direction for your portal access is established, the next step is to conduct a Portal Business Value Assessment. A typical BVA starts with gathering the company vision, perceived business needs, and other preliminary information through a series of executive and line-of-business manager interviews. This information is then used to answer the following questions in a three phased workshop.

- What could we or should we do with a portal? How will it work with our HIS?
- What might the portal experience be for us? For our Customers and Partners?
- How can we financially justify our portal?

The final step is to build a Day-in-the-Life demo of say a physician/provider. This becomes the “selling tool” that is used to gain consensus and additional support as well as provide a hands-on look at “your portal” in action.

The Bottom Line

An easy-to-use portal, unlike your HIS, is no longer a nice-to-have, but a business

requirement. Working together hand-in-hand, these two “separate but equal technologies” serve as the activity hub for the business. A portal is the front door through which physicians and patients will pass to get to your HIS and other key information systems. As such, it has to be both welcoming and protective.

You have two choices. First, you can wait for the HIS vendors to redesign & rebuild their products around portal technologies, which in most cases will take a decade if they start today. Second, you can add these advance functionalities by implementing the right portal architecture today. For the first choice, when it becomes available, it is too late for most organizations. The second intelligent choice is available today.

The right portal will also pay for itself several times over by reducing costs while increasing quality of care, customer service, and driving new business. It also closes the gap between what an organization hopes to do and what it actually provides. It can deliver the results that will stimulate the imagination for developing new ways to provide new services and increase the bottom line.

HIS still reigns as the core business application and rightly so. It does all of the back office lifting. Because of its importance, access is usually limited to internal users for security and customer sensitive reasons. The challenge is not to work around its limitations, but to get your HIS and Portal working together as part of a unified solution.

Next Steps

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Disclaimer: Portal is a highly successful emerging technology which is being rapidly deployed by many progressive organizations around the world. TSG has taken these ideas and applied it successfully in the healthcare setting. Content in this document consist of ideas and thoughts from many different organizations within and outside healthcare that have had success with Portal solutions.

TSG's Advance Clinicals and EHR Portal Strategy—Innovative, Intelligent & Integrated

