

# Preparing for a Successful Software Purchase and Implementation: Infrastructure and Staffing Considerations

According to federal mandate, by 2014, health care providers will be required to use electronic medical records (EMRs) and electronic health records (EHRs) for their patients and residents. With this in mind, it is extremely important for long-term care providers to begin preparing for the EHR mandate now, as it takes some time to change your business.

Long-term care facility administrators and owners need to be familiar with the types of technology available to them now, and unfortunately, many of them are just not aware of the tremendous amount of technology that can help them run their businesses more successfully. According to Health Industry Insights, information technology spending for the U.S. EHR market will increase to \$4.8 billion in 2015 – compared to the \$1.1 billion spent in 2005, a compounded annual growth rate of 15.8%. To ensure that your portion of this nationwide investment in health care information technology is appropriately and wisely spent, you should first consider the infrastructure and IT staff necessary to support any new applications your facility implements.

## Infrastructure Options to Support LTC Software

Facility administrators have three basic options for supporting their software applications:

- Staffing an in-house IT department and implementing on-site infrastructure
- Partnering with a local IT shop with the necessary staff and infrastructure
- Partnering with an application service provider, or ASP



Photo courtesy of American Data

If you have your own IT department and infrastructure, you ultimately have the most control over your systems and will be able to quickly respond to service issues. On the other hand, you also have the expenses associated with paying competitive salaries and other personnel issues. It can also be very difficult to recruit and retain IT professionals with the proper skill sets. In addition, when staffing your own IT department, you need to consider after-hours

support for systems issues – a factor that will become more and more critical as we move toward EHR. Lastly, servers and other equipment require large capital outlays, so this model is probably best suited to large, well-funded organizations.

If you use a local IT service provider for staffing and support, you pay only for what you need when you need it, which can be of benefit for facilities with limited IT budgets. However, keep in mind that these costs may be unpredictable, and you will still need to spend a significant amount of capital for equipment. In addition, these service providers may have little knowledge of the business of long-term care. A multi-site organization may also find it difficult to

centralize its IT functions when using a local service provider, since organizing and integrating data across different locations may be beyond the service provider's capabilities. If you decide to work with a local IT service provider, ensure that the company is staffed by skilled IT professionals with practical experience in centralizing information across multiple geographical locations. Ask the provider for references from facilities where virtual private networks (VPNs) or wide-area networks (WANs) have been deployed.

Your third option is to use an ASP to support your software applications. There are several variations of ASPs, and many different acronyms are used in the industry to describe what they specialize in. SAAS (software as a service) is a new buzzword being used today. In either case, both ASP and SAAS describe some form of information technology outsourcing. An ASP enables facilities to use an application hosted from a remote datacenter. Some ASPs simply provide access to specific software, while others provide a complete Windows desktop, along with any application you might want. SAAS can also provide these services, however, they often publish their own software and charge a monthly usage fee, as opposed to the traditional deployment and installation of the software from CD.

For long-term care providers, using an ASP has many advantages, including:

- Moderate costs
- Predictable monthly fees
- Little or no capital outlay
- Access to IT professionals with experience across many customer environments
- Industry experience (assuming you choose a health care-specific ASP)
- The elimination of staffing concerns
- Offsite data storage
- A scalable solution that can expand and contract with your company
- Access to the most up-to-date software available
- Centralized data

Despite these advantages, it is important to keep the terms of your prospective contract with an ASP in mind. Pay particular attention to the ASP's reactive workload and how it is balanced with other clients. Responses to support questions may not be immediate, but should fall within acceptable, predefined service level agreements.

ASPs differ from conventional local IT shops because they develop their own integrated, proprietary solutions to accompany the line of business software being used. The professional solutions they provide are not a hodge-podge of assorted Internet services and protocols. Rather, they are a highly developed, bundled toolkit of services that are backed up by the broadest bandwidth and customer care systems available. ASPs employ professional staff to integrate state-of-the-art software and maintain highly available networking facilities. In choosing an ASP, potential customers should look for companies who are experienced in the long-term care industry and have strong relationships with the line of business software being used. Other considerations include their ability to support integration with other deployed solutions such as electronic time clocks, tray card and dietary menu software, glucose monitoring, ancillary tracking, and state-specific MDS submission software.

With the uptake in the adoption of electronic charting modules, the ASP's popularity is also on the rise, and I believe it will become an even more popular option for long-term care facilities as technology becomes increasingly important to the industry. Instead of building and maintaining your own internal IT department, I recommend that you outsource your technology needs to an ASP if it meets the needs of your business model. An ASP bears the burden of building, implementing, and distributing customized applications with backend databases to internal facilities and external business partners. Consider this analogy: Choosing an ASP over maintaining your own IT department is like using commercial air transportation instead of owning your own airplane. With that said, ASPs are not the best fit for everyone. The largest health care providers can often assemble a talented IT staff to provide a more customized solution for its facilities at the same cost of outsourcing its operations to an ASP. ASPs should be considered by small to mid-sized long-term care operators, especially those that are geographically dispersed or in a growth mode.

## Software Selection

Once you have identified the optimal infrastructure and staffing model for your facility, you can then begin to evaluate the available software solutions in the market. Among the most important features to consider is interconnectivity between the software's modules. Your utmost concern should be the timely, reliable, and accurate flow of data from your clinical platform to your financial or billing platform, to ensure that your facility is paid for the services it provides. Information should move seamlessly from silo to silo between your software applications. You can ensure this interconnectivity between systems by purchasing an integrated solution from one vendor, or you can develop interfaces between "best of breed" applications, so long as you have an IT group to support those interfaces. It is most important to avoid any manual processes for communicating information between your systems; the higher the level of manual intervention, the more error-prone – and labor-intensive – your process becomes. Manual processes can negate the benefits of implementing technology in the first place.

It is also vital that your chosen software solution be flexible enough to accommodate changing regulations and business practices. Partner with a vendor that monitors regulatory changes and makes the necessary adjustments to the software's features and functions. Your primary business is caring for your residents; you should not monitor and make those changes yourself. In addition, some software allows "user-defined edits" that will allow you the flexibility to customize the software to your particular business needs. For instance, if it is important for your organization to assign a bed to each resident upon admission, a user-defined edit could prompt users to enter a room number when creating a new resident record.

The software you purchase should also have significant reporting capabilities to meet your needs. Most software packages have multiple reporting features, but basically the same information is needed to manage both small facilities and large facilities. Specific examples include:

- Accounts receivable aging
- Average length of stay
- Average RUG
- Admits/discharges
- Staffing hours PPD
- Falls
- Overtime analysis
- Pressure ulcers
- Resident mix
- ADL scores
- Weight change

That said, most long-term care facilities do not have the resources to run and monitor the important reports. One value of an ASP or an internal IT department is the ability to "push" the relevant information to the decision-makers on a timely basis. One way in which they can do this is via user-specific, customized reports, delivered over e-mail.

Finally, cost should not be your primary consideration during a software purchase. If it is, you may get a short-term gain, but incur a long-term loss should the software not perform to your expectations or needs.

## Budgeting for a Software Purchase

It is difficult to determine a ballpark number for what a facility can expect to spend on a new software implementation. Software costs in this industry vary dramatically, often depending upon the sophistication of the software. Your total costs will also depend upon whether you want to purchase the software, lease it, or pay a monthly licensing fee. However, if you do purchase one of the more sophisticated software packages, and decide to hire your own IT staff and buy the necessary hardware, you could be looking at costs well over \$100,000 per facility.

Utilizing software in conjunction with an ASP can make for a more predictable monthly fee, while allowing you access to a full-service IT department without the challenges of building your own.


In budgeting for your software purchase, do not skimp on training. Make sure you are getting a complete training program from your vendor, which will ensure your return on investment. Your users should receive initial training, as well as follow-up education after the implementation. I would also recommend developing a "train the trainer" program, through which you identify one or more end-users with a demonstrated aptitude for the software to train other users.

## Conclusion

There is no question that the topic of technological implementations in long-term care is a vast one, and one not easily covered in a brief article. Each facility has varied needs from those of the next, hence, it is important to carefully assess your needs before purchasing or implementing a new software application. However, by considering the issues outlined in this article, you will be better prepared to make a well-informed purchase and to ensure a smoother implementation at your facility. ■



Photo courtesy of MDI Technologies

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## WHERE TO FIND Long-Term Care Software:

Vendor	Reader Service Number	Vendor	Reader Service Number
Achieve Healthcare Technologies	3	Health Care Software, Inc.	27
ADL Data Systems, Inc.	4	HealthMEDX	28
American Data	6	Hi-Tech Software Solutions	31
American HealthTech	7	Ideal Software, Inc.	33
Answers on Demand	8	Keane Care, Inc.	36
Artromick, International	9	LINTECH, LLC	53
CareTracker by Resource Systems	13	MDI Technologies	54
Concurro Inc.	14	Momentum Healthware	55
e-Health Data Solutions	21	Optimus EMR, Inc.	56
eHealth Solutions, Inc.	22	PointClickCare	57
ExactMed Solutions	24	QuickCare Software Services, LP	58
Health Care Information Solutions	25	SOS Corporation	60