

## Comparing EHR Architecture Sources: ASP vs. Locally Hosted vs “Hybrid”

	ASP	Locally Hosted	“Hybrid” - ASP with User-Owned Servers
<b>Minimum Support Requirements</b>	<ul style="list-style-type: none"> <li>High bandwidth internet access (T1 or T3)</li> <li>Redundant systems for internet access at each site (such as DSL access from another provider and failover systems in place)</li> <li>Formal emergency plan for internet connectivity problems</li> </ul>	<ul style="list-style-type: none"> <li>Systems administrator or IT consultant available during business hours</li> <li>Formal disaster recovery plan</li> <li>Formal policies for backing up data and regular testing of data restore systems (including a plan for taking copies of data off-site regularly in case of physical damage to the data center)</li> <li>VPN/other secure, high-bandwidth network connection between sites</li> <li>Formal contingency policies in case of loss of connectivity between sites</li> </ul>	<ul style="list-style-type: none"> <li>Same as ASP.</li> </ul>
<b>Pros</b>	<ul style="list-style-type: none"> <li>Fewer IT staff needed at CHC</li> <li>ASP vendor manages backups, virus control, and load balancing.</li> <li>Professional service offerings in business continuity and disaster recovery..</li> <li>Option may exist to access data securely without configuring special network connections (such as VPNs) between sites.</li> <li>Greater technical expertise on requirements of maintaining software.</li> <li>Software upgrades and patches may be included as part of hosting cost.</li> <li>Less hardware configuration required for implementation.</li> <li>ASP vendor can increase server speed and size as needed.</li> </ul>	<ul style="list-style-type: none"> <li>No up-front monthly fee for database hosting. Most ongoing costs are incurred in-house, in the form of network maintenance and IT staffing.</li> <li>Increased control over software configuration</li> <li>More control over when software upgrades are performed</li> <li>Sense of greater control over data, since the database is being stored in-house and maintained by the center’s IT staff</li> </ul>	<ul style="list-style-type: none"> <li>All advantages of dedicated hardware and vendor hosting.</li> <li>Lower ongoing subscription price because hardware is purchased and owned by end-user (e.g. price quoted by eCW in March, 2008 was \$75/provider/month, whereas ASP was \$100/provider/month).</li> </ul>
<b>Cons</b>	<ul style="list-style-type: none"> <li>Monthly fees for application and database hosting</li> <li>Fees may increase over time.</li> <li>Reliable, high-bandwidth internet connection can be costly.</li> </ul>	<ul style="list-style-type: none"> <li>Requires more network support</li> <li>Health center is responsible for ensuring that data backups are performed, recovery plans are tested regularly, and that security, virus protection, and all hardware-related configuration and maintenance is addressed.</li> <li>As health center and/or application requirements grow, migration to a new server may be expensive and time-consuming.</li> </ul>	<ul style="list-style-type: none"> <li>Same as ASP</li> </ul>

## Differences between ASP and Traditional Software Models<sup>1</sup>

Key Differences	ASP	Traditional Software
<b>Hosting and Support</b>	<i>Summary:</i> The application is hosted at a remote location. Another organization assumes full responsibility for supporting the application and related hardware.	<i>Summary:</i> The application is installed locally at the physician practice. The practice is responsible for server maintenance, troubleshooting, data back-ups, and security.
Network difference	Accessed via a network connection. Requires 100% connectivity to the Internet.	Accessed locally. Internet or network connection not required, unless user has multiple sites..
Hardware differences	Same hardware, but hosted remotely.	Same hardware, but installed locally.
Software differences	Requires either a Web browser or a small software application that is installed on all local workstations or computers.	Requires the application to be installed on all local workstations or computers. If user has multiple sites, requirements are similar to ASP.
Support differences	Includes implementation, training, and help desk support. Application service (e.g., implementation of upgrades) and hardware support (e.g., application server maintenance) also included.	Vendor support is typically limited to implementation, training, and help desk support.
<b>Ownership and Payment</b>	<i>Summary:</i> The health center “rents” the application and makes regular monthly payments during the contract period.	<i>Summary:</i> The practice has a perpetual license to use the application and makes payments up-front or it finances the initial licensing costs over a period of time. Maintenance costs are typically 18% of initial licensing fees.
Contract terms	Typically a three-year commitment.	Contract covers initial purchases and ongoing maintenance. No term commitment.
Data ownership	Health center owns its data.	Health center owns its data.

<sup>1</sup> Fortin J. and MacDonald K. (2006). Physician practices: Are application service providers right for you? Prepared for California Healthcare Foundation by the First Consulting Group, p 13.

