DATAART

Could cloud-based EHRs have detected Ebola?

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When Dallas Presbyterian Hospital initially attributed its mishandling of America's fist Ebola patient to its EHR system, it triggered a wave of discussion on the effectiveness of EHRs, highlighting provider dissatisfaction and the usability of such systems.

While the hospital walked back the statement (undoubtedly after the vendor, Epic, took strong exception with the claim) the discussion is important as new EHR technologies emerge. Simply put, a cloud-based, software-as-a-service EHR would have likely helped the hospital avoid the mistake, even if the client-based server EHR isn't technically to blame.

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Vice president of
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That's the view from Dan Piekarz, vice president of business development, life sciences, for DataArt, a custom software firm heavily involved in health IT and the life sciences.

"It became pretty apparent that it may not be a glitch or bug," he said. "What they had was a bad configuration."

It's not unique to Dallas Presbyterian, either; most hospitals configure their EHR systems to specifically fit the work flow of their facilities, which in turn creates a disjointed system where certain things – in this case travel history – are easily overlooked.

And that, he said, is an inherent flaw of server-based client systems versus a cloudbased software that removes much of the configuration and maintenance of an EHR system.

"In essence, you have a system that is so large, so complex, if you don't have someone overlooking it, you run into these problems," Piekarz said. "Because of the week, they're basically breaking some of the core aspects of the system.

Beyond that, because of the way Epic is client server based, if this was a more modern approach to EHRS like software-as-a-service, where the vendor had the ability to actually go out and look, they can see a specific configuration in place and see the problem," he added.

The benefit of a SaaS approach is it's much more easily controlled.

"You would see something happen to one client maybe because of configuration , solve it for one client and identity who's at risk – you can do that with a SaaS because you have access to the database in your cloud," he said.

Scores of EHR companies are going forward with the cloud-based approach, among them athenahealth, QPID Health, Practice Fusion, and dozens of others. But most hospitals are still wedded to the client-based server approach because of Meaningful Use and the subsequent implementation and investment that came with that.

"With the client-server focus approach, it's now in the client's hands to figure out, and I think that's one of the key issues," Piekarz said, adding that while Meaningful Use was a

laudable goal, "it doesn't seem to working as well as the industry envisioned, but it's a great vision."

Another key problem is whether EHR systems can talk to each other – the lofty vision of inderoperablity – and client-based servers make that much more difficult versus a cloud-based approach. Of course, a host of other challenges prevent true interoperablity, among them a patchwork of differing state regulations and HIPAA compliance, to name just a couple.

On top of that, a good deal of hospital systems either still are or have traditionally been leery of the cloud, with legitimate concerns over security and stability.

"A lot of clients are afraid – can we rely on the internet of this critical part of our business?" Piekarz said. "I think that's probably the biggest issues holding back hospitals today. I think it's the fear of being in a system where you don't control the network that your EHR is on. I think that gets a bit scary."

The technology is heading in this direction, but it's not quite there yet, Piekarz said.

I think there's going to need to be certain advancements on the way to ensure hospitals have the bandwidth."