

Cloud Computing & SaaS in Healthcare

October 2014

Driven by the increased availability of broadband internet ^[1] coupled with cloud services ^[2,3] and hosting facilities, Software as a Service (SaaS) has become increasingly popular over the last decade. Businesses and individuals realized the advantages of subscription model for delivering software: accessibility, scalability and flexibility. Simply sign up for a software service and you can pay only for what you use while you are using it.

Early SaaS Adopters: Healthcare comes in late

Still, while large businesses rushed to deploy SaaS application, healthcare lagged in SaaS adoption for many years ^[4]. In 2012, CDW reported that *“Out of eight industries, healthcare ranked seventh in terms of cloud adoption, just ahead of state and local governments. Large business and higher education ranked first and second.”* In their survey of approximately 150 health IT professionals at that time:

“Overall, 35 percent of the 156 health IT professionals surveyed said their organization was implementing or maintaining cloud computing in 2012, up from 30 percent in 2011.

By comparison, 44 percent of the 157 large business professionals surveyed said their organizations embrace the cloud. ^[5]”

2013 – 2014: Increasing cloud adoption in healthcare

Recent reports on the hospital adoption rate of cloud based systems show increased interest in Software as a Service. According to Formtek, “the healthcare cloud computing market is definitely picking up its pace.

“In 2011, only about 4 percent of healthcare IT providers had adopted some form of cloud computing, but it was at that point that the market started to grow at a healthy rate of about 20 percent each year, and it’s expected to continue until 2017, when it ultimately reaches a market size of \$5.4 billion, based on a report by MarketAndMarket. Those estimates are similar to those published by Kalorama which predicts 21 percent growth of healthcare cloud computing in 2013, reaching \$3.9 billion by the end of this year.”

Forbes.com reported^[6] that a survey done this year by HIMSS (Healthcare Information and Management Systems Society) revealed that “healthcare provider organizations found that 83% of IT executives report they are using cloud services today, with SaaS-based applications being the most popular (66.9%)”

Key take-away statistics from the [2014 HIMSS Analytics Cloud Survey](#) include the following:

- **83% of IT healthcare organizations are currently using cloud services, 9.3% plan to, and 6% do not intend to adoption cloud-based applications** at all with the balance not knowing the plans of their organizations. In aggregate, 92% of healthcare providers now and in the future see the value of cloud services for their organizations.
- 67% of IT healthcare organizations are running SaaS-based applications today, with 15.9% running on an Infrastructure-as-a-Service (IaaS) platform, and 2.4% using Platform-as-a-Service (PaaS) applications.
- Augmenting technological capabilities or capacity (48.2%), making a positive contribution to financial metrics (46.4%) and time to deploy (44.6%) are the three most common ways healthcare organizations measure the value of cloud services.

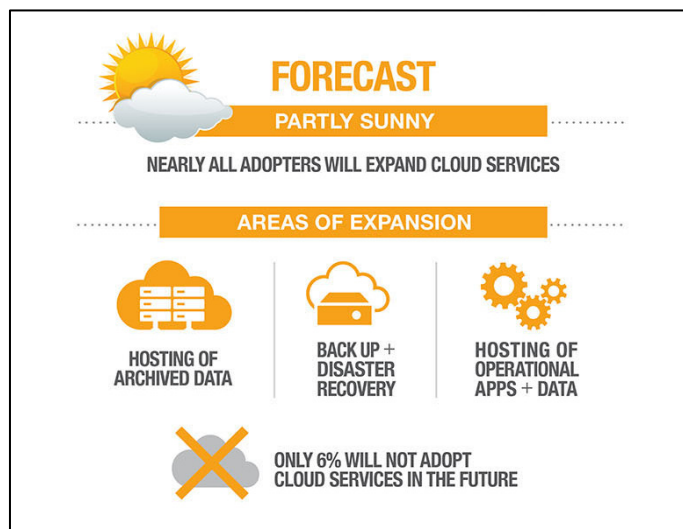
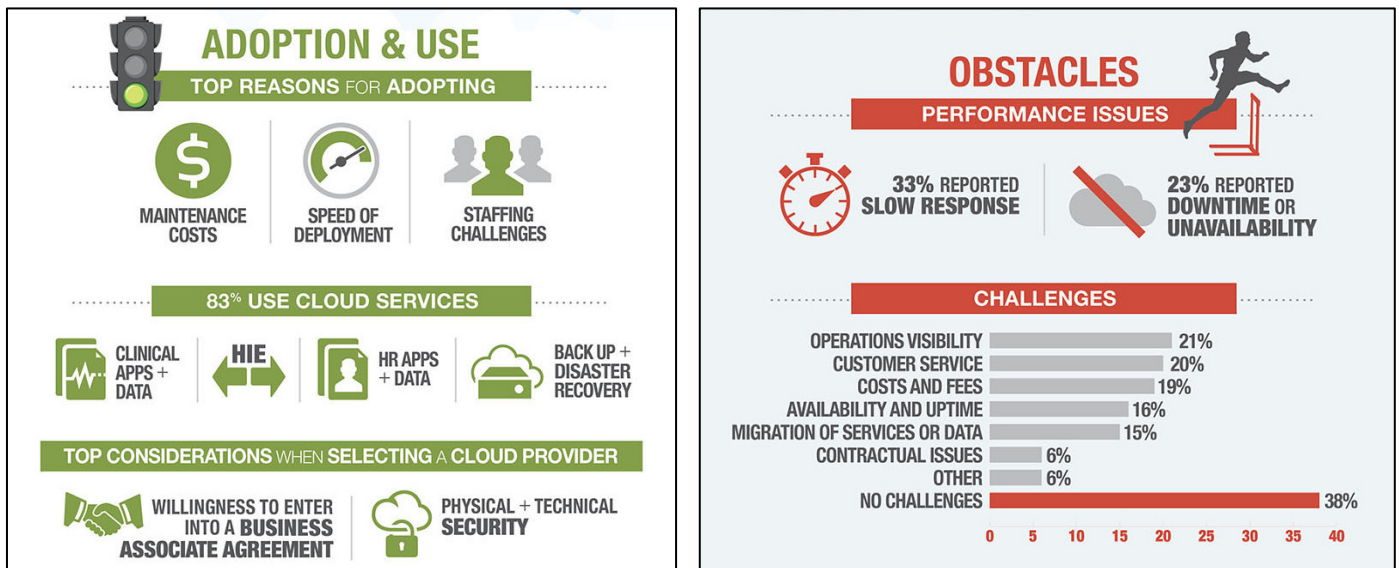
Drivers for Healthcare in the Cloud

- The same article/survey (Forbes/HIMSS) included this table that shows how healthcare organizations measure the value of cloud services.

How has your organization been able to measure value as a result of your adoption of cloud services?	Frequency	Percent
Augmentation of Technological Capabilities or Capacity	27	48.2%
Financial Metrics	26	46.4%
Time to Deploy Solution	25	44.6%
Greater Workforce Productivity	19	33.9%
Streamlined Business Processes	19	33.9%
Improved Information Security/Reduced Risk Posture	16	28.6%
Better Regulatory Compliance	12	21.4%
Other	8	14.3%
Total	56	100.0%

HIMSS Summary: Cloud Apps in Healthcare

In summary, healthcare providers and institutions will adopt cloud-based SaaS solution because of the advantage of cost and speed of deployment.



EMR in the Cloud

Taking a look at the largest providers of Electronic Medical Record (EMR) software solutions shows that most of the major players offer a cloud-based solution. In this summary provided by Capterra, all of the top 5 EMR companies and 15 of the top 20 offer a cloud solution.

<http://www.capterra.com/infographics/top-emr-software>

References

[1] Internet and Broadband use – Pew Research Foundation statistics
<http://www.pewinternet.org/fact-sheets/broadband-technology-fact-sheet/>

[2] Cloud computing definition
Cloud computing is internet-based computing in which large groups of remote servers are **networked** to allow sharing of data-processing tasks, centralized data storage, and online access to computer services or resources. Clouds can be classified as public, private or hybrid.
http://en.wikipedia.org/wiki/Cloud_computing

[3] SoftServe definition of cloud computing
<http://www.softserveinc.com/softserve/media/materials/successful-strategies-for-implementing-saas-cloud-solutions-in-healthcare.pdf>

[4] Health Slow to adopt
<http://www.fiercehealthit.com/story/cloud-adoption-slower-healthcare-other-industries/2013-02-15>

[5] CLOUD CAUTION
<http://www.crn.com/news/cloud/240154694/cloud-caution-healthcare-market-slowly-adopting-cloud.htm>

[6] Forbes article that references HIMSS survey
(<http://www.forbes.com/sites/louiscolombus/2014/07/17/83-of-healthcare-organizations-are-using-cloud-based-apps-today/>)

[7] link to HIMSS article:
<http://www.himssanalytics.org/about/NewsDetail.aspx?nid=82161>

[8] Summary from HIMSS in Forbes article
<http://www.forbes.com/sites/louiscolombus/2014/07/17/83-of-healthcare-organizations-are-using-cloud-based-apps-today/>

