

CLOUD COMPUTING IN HEALTHCARE

THE HIE CHALLENGE

2011

Facilitating Collaboration and Interoperability

Presented By:

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Introduction

Since 2002, POCP has been helping companies, non-profits and governmental agencies answer their HIT questions.





- Cloud Computing is the technology that uses virtualization to provide customers with a user-provisioned, incrementally charged, nearly infinite computing resource.
- The customer does not have to deal directly with the physical computers, storage devices, and networks that power that resource.

"One report from McKinsey counts 22 different definitions [of Cloud Computing] then proceeds to make a 23rd." Drivers of Datacenter Growth, Part 2: Virtualization and Cloud Computing by Mark A. Monroe



From <u>The Big Switch</u> by Nicholas Carr

- "A hundred years ago, companies stopped generating their own power with steam engines and dynamos and plugged into the newly built electric grid."
- "Today, a similar revolution is under way. Hooked up to the Internet's global computing grid, massive information-processing plants have begun pumping data and software code into our homes and businesses."
- "This time, it's computing that's turning into a utility."

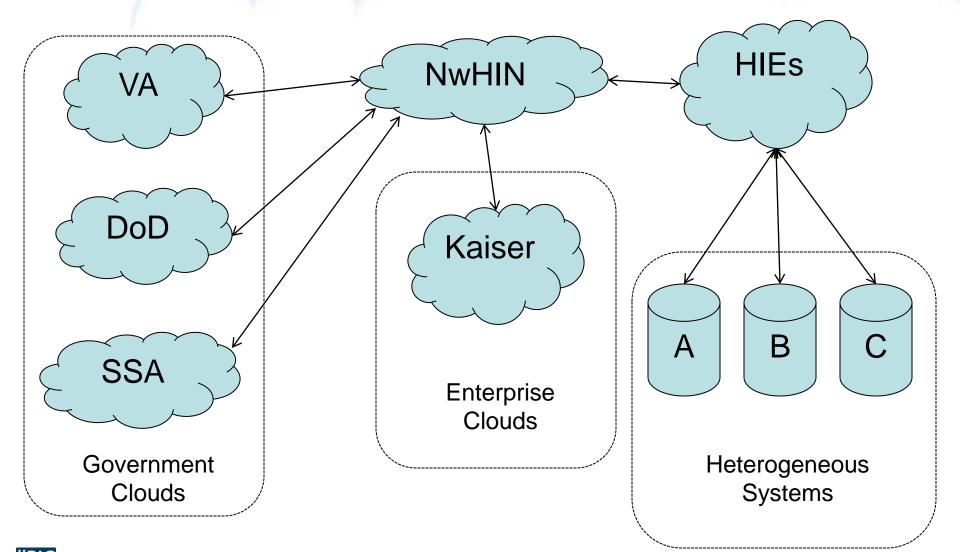


Cloud "as-a-service" offerings

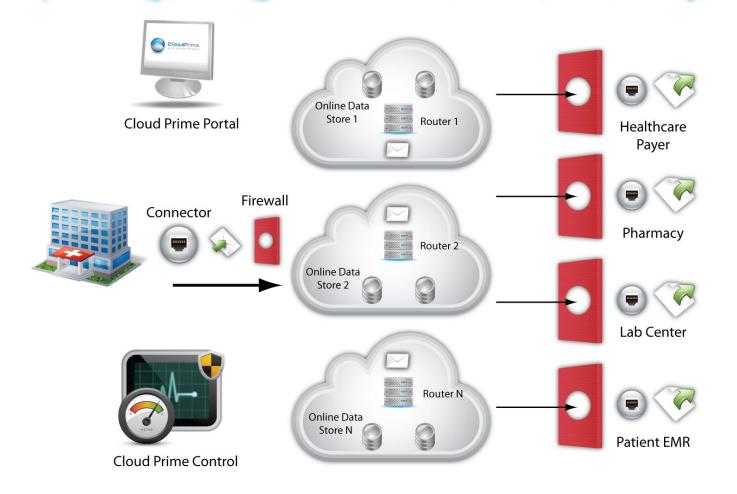
- Infrastructure as a Service (laaS)
 - User provisions his own processing, storage, networks, and other fundamental computing resources.
- Platform as a Service (PaaS)
 - Users deploys his own applications created using programming languages and tools supported by the provider.
- Software as a Service (SaaS)
 - User uses provider's applications running on a cloud infrastructure.
- User does not manage or control the underlying infrastructure including network, servers, operating systems, storage, or even individual applications.



US Healthcare "System" Network Architecture



CloudPrime Architecture



http://info.cloudprime.net/Cloudprime-Blog/?Tag=cloud+based+messaging



Tampa General Hospital

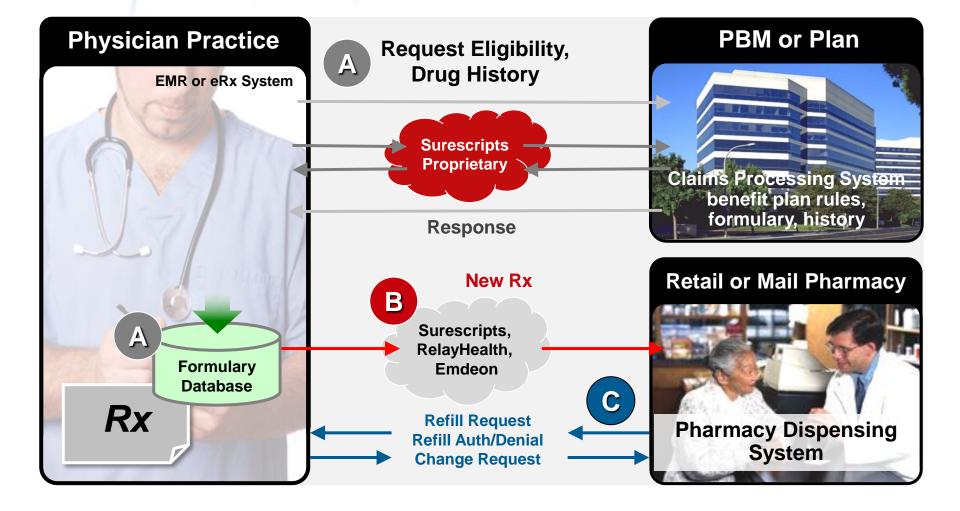
- Adopting cloud-based services for staff and physician collaboration
- "Tampa General Hospital's physicians, nurses and support staff are on the go often, and they want the ability to work wherever they are, no matter what PC, browser, or device they're using."
- Microsoft cloud-based service will supply Office, SharePoint, Exchange, and Lync. Microsoft provides the deployment, maintenance and ongoing IT support.

Shane Ochocny, Technology Architect, Tampa General

http://blogs.forbes.com/microsoft/2011/03/10/better-cloud-collaboration-better-healthcare/



ePrescribing Interoperability



North Texas Specialty Physicians





Cloud Computing Survey

- One-third of healthcare organizations responding to a CDW survey said they are implementing or maintaining cloud-based systems.
- In the healthcare sector:
 - 37 percent have developed a written strategic plan for adoption of cloud computing
 - Among those who are implementing or maintaining cloud systems, 88 percent have successfully reduced the cost of applications moved to the cloud. These users reported an average savings of 20 percent.
- Thirty-seven percent of healthcare respondents are in the discovery (investigational) stage; the next largest group is in the implementation stage (25 percent), according to the survey.

http://www.cmio.net/index.php?option=com_articles&article=27970&publication=56&view=portals