Healthcare Everywhere : How Communications IT Can Solve the Health Care Crisis

By Becky Bracken

Accuracy and efficiency are what communications IT bring to any industry. And there is no industry more in need of a IT facelift than medicine. Modern medicine can do amazing things. But trying to get records sent to a specialist across town, or even paying a hospital bill, can sometimes seem like an impossible task.

"mHealth can be one of the keys to redefining and reinvigorating our struggling healthcare systems, as well as enhancing the healthy lifestyles and longevity of our citizens," Jon Fredrik Baksaas, CEO, Telenor Group says. "The telecommunications industry is well-positioned to play a central role in the evolution of mobile health solutions worldwide."

Even one of the cornerstones of so-called Obamacare is a switch to electronic medical records. Undoubtedly, there is a play for almost every SP willing to jump into the fray.

A report from the Telenor Group and the Boston Consulting Group estimates that about 30 percent of smartphone users are likely to use wellness apps by 2015. And for governments--most notably the United

States--looking to drive down the cost of health care, remote access to centralized electronic health records can reduce administrative burdens by 20 to 30 percent.

The report identifies seven categories of mHealth applications: Public information/education; Public wellness; Patient monitoring/compliance management; HC worker information/education; Diagnostic and treatment support; Public health surveillance/tracking; and Remote data recording/ access.

Large carriers like Verizon believe they can transform the way medicine is delivered. It recently entered into a strategic partnership with Health Evolution Partners and launched Health Evolution, a program dedicating to transforming the delivery of health care. The carrier even has a chief medical officer on staff, Dr. Peter Tippett. "Strong collaboration across

the health care ecosystem is essential to enabling health IT transformation," Dr. Tippett says. "Verizon is committed to building strategic relationships to help spur the adoption of connected health technologies."

Telemedicine and the Cloud

The sheer quantity of data generated by Telemedicine and always-on monitoring is going to require vast amounts of storage in the cloud where it can be accessed and updated in real time. And with critical life and death decisions being made based on the data being available anywhere, anytime, network infrastructure is a first critical step.

BT and it's supercharged virtual private network for the UK's NHS is the largest of its kind. The N3, one of Europe's largest private networks with more than 1 million health care providers using it daily. In October of 2011, BT announced it more than doubled the capacity of the N3 private broadband network to more than 250 terabytes of data a month--equivalent to nearly 55,000 standard DVDs worth of data.

"This is an important development for healthcare professionals who use internet-based applications to help provide effective healthcare to their patients, and will greatly benefit GPs, consultants, nurses, radiographers and anyone else in the NHS who uses the internet to access medical information," John Abbott, BT's chief executive for N3, said.

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A May 2012 survey of Western Europe healthcare

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providers by IDC shows healthcare organizations starting to seize the cloud opportunity, shifting away from traditional IT implementations supported by their own infrastructures to a new paradigm in which IT is available as a service.

"There is still a low propensity to allocate a significant share of the IT budget to the cloud, and the next 12 months will still be characterized by a toe-in-the-water approach," Silvia Piai, EMEA research manager, IDC Health Insights says. "But results show that healthcare organizations across Europe are aware of the potential benefits that cloud can deliver, and they are willing to explore it. Cloud can provide advantages in self-service, scalability, flexibility, pay-as-you-go, and improved time-to-value of technology, but European CIOs are also aware that before seizing the cloud opportunity they need to understand how to mitigate the implicit risks."

The report, titled the report titled "Cloud in the Western European Healthcare Sector: Trends and Strategies for 2012 and Beyond" adds that privacy concerns are slowing private-sector cloud growth, but public sector cloud is on the rise and that the creation of public-sector-specific infrastructures can

help overcome legal issues around data protection.

Amdocs sees the same trends emerging in telecommunications for health care, according to Michel Arrede, Head of Marketing, Amdocs Connected Home.

"Software as a Service (SaaS) and cloud-based technologies associated with intuitive user interfaces and a rich portfolio of various home accessories are opening-up new possibilities for consumers to improve their health & wellness, but also to easily monitor and automate their home, as well as to control their home energy spending from the convenience of their smartphone, tablet, PC or even a connected TV interface, all this at an affordable price," Arrede says.

Home Health

Today there are 860 million individuals worldwide with chronic conditions and around 75 to 85 percent of healthcare spending is on chronic condition management, according to Amdocs.

"Innovation in the connected home domain is helping individuals with the following chronic conditions to live healthier lives by connecting them to their care team through a more efficient exchange of personal health information," Arrede says.

Diseases including diabetes, sleep apnea, asthma COPD, medication tracking and more can be monitored remotely from home.

A predominant driver of home health, particularly in the developed world, is a aging population.

Innovation in the connected home is helping the elderly live independently longer through the exchange of personal health and safety information that connects them to their family and care team. Everything from activity levels to blood pressure can be monitored and sent to a health care provider through innovation in the connected home.

Now caregivers can reach out and treat patients far beyond the hospital. AT&T recently signed an agreement with Valued Relationships Inc. to deliver a remote patient monitoring service to manage chronic diseases and help reduce hospital readmissions. The end-to-end managed service is scheduled to be available in the third quarter of 2012.

The system enables the real-time monitoring of all sorts of data to improve recovery and prevent relapses and hospital visits. Healthcare providers provide a list of patients to AT&T, and VRI will equip, train, monitor and respond to alerts for one monthly price. It also offers reminders to take medicine and

perform other tasks. Data is captured wirelessly through connected personal health devices such as blood pressure cuffs, weight scales and pulse oximeters and sends it over a highly-secure network to care representatives.

Simple Solutions Can Make the Difference

Simple communications technologies like SMS text messages and voice calls can deliver real-time, critical information quickly and easily, offering access to medical care even in the most remote areas and cut down on the burden of travel.

The BCK/Telenor report gives the example of a 26-year-old pregnant mother in India living in a remote village without access to doctors or hospitals.

"With the assistance of a mobile phone, she can receive timely birth-related information and advice and become aware of any signs of danger during her pregnancy" the report says. "Thanks to this information, she has a successful delivery and both mother and child go on to lead healthy lives."

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