Industry Survey Results:
Critical Healthcare Messaging on Smartphones & Tablets
Introduction

Over the past few years we've seen smartphones and tablets change healthcare communications at a rapid pace. But along with these new technologies come new challenges for management, IT, and telecommunications personnel. Some of these challenges include:

- Determining which personnel will use smartphones and tablets
- Determining which types of smartphones and tablets to support while continuing to use many other types of communication devices such as pagers
- Determining who should pay for the devices and data plans
- Determining how to insert these devices in the mix of critical communications
- Ensuring messages are sent securely and meet HIPAA requirements

In July 2011, Amcom Software surveyed more than 600 healthcare organizations about their use of smartphones and tablets in critical communications. Survey participants were from hospitals of all sizes across North America and included clinical leadership, IT, telecommunications, and call center management titles. The survey was conducted to better understand how mobile devices are making an impact in critical healthcare communications, and how organizations are addressing some of the challenges stated above. Amcom Software conducted a similar survey on the use of smartphones in October 2010. In this document, you will find a summary of the results from the recent survey and see how the use of smartphones has changed in nine months’ time.

Key Findings and Responses

PERSONNEL NEEDS

In healthcare, different staff members tend to need different types of communication devices based on their roles. Incorporating smartphones alongside other types of devices enables organizations to support the varied requirements of different staff members.

The survey results show that nearly 90% of respondents currently have some portion of physicians, IT, and hospital administration or clinical management using smartphones for work-related communications. Penetration of smartphones is less among nurses and housekeeping staff. These staff members are primarily using other devices, including Wi-Fi phones and pagers. As long as messages reach the right people on the right device at the right time, patient safety can be protected and staff can be satisfied.

As far as tablets go, it is still unclear as to the role and impact they will have in the healthcare industry, but the statistics show that nearly 50% of respondents have physicians and the IT department at their facility using tablets. Many physicians are using tablets as an easily accessible research and teaching tool. Instead of having to use a computer that is attached to a workstation, many doctors use tablets to share videos, data, and research with patients and their families regarding their health condition right at the bedside.

In addition to smartphones and tablets, healthcare organizations need to communicate with a variety of other devices, including pagers, traditional cell phones, desk phones, Wi-Fi phones, Vocera® badges, email systems, and more. Even though many facilities are seeing staff members wanting to consolidate to a single device, typically a smartphone or tablet, it cannot be an all-or-nothing transition. Some staff members will be able to consolidate while others continue to use pagers or Wi-Fi phones based on their roles. This means hospitals will continue to face the requirement of supporting a variety of communication devices for the foreseeable future and will need to consider messaging to these different devices from a single source where possible.
DEVICE TYPES
Hospital IT and telecommunication departments are experiencing a growing number of personnel requesting messages be sent to them on a specific type of smartphone or tablet. The challenge becomes whether to select a single platform or multiple types?

The survey data shows that BlackBerry® smartphones currently lead the pack in the healthcare industry, but have lost some of the market share over the past nine months. Both iPhone® and Android® picked up this market share and are expected to continue to grow in healthcare in the next couple of years, with the end result being a very diverse mix of device types. This diversity magnifies the problem for many healthcare IT departments, resulting in the need and requirement to support different smartphone types.

As far as device types leading the tablet pack, the survey shows the Apple® iPad® is the current leader by a large majority. There isn’t as much volatility expected with tablets as with smartphones. The reason for this may be because tablets are so new, and many healthcare organizations are unsure of the role that they will play two years from now. By contrast, the presence of smartphones is not as new, and trends are emerging.

PAYMENT FOR DEVICES AND DATA PLANS
Along with determining an approach for supporting smartphones and tablets comes the challenge of who is going to pay for the devices and data plans. The question of who should pay for smartphones was an issue for 45% of survey respondents. These results are very similar to what we saw last year, meaning the industry has not developed any sort of standard practice.

We’ve seen several different models within hospitals, and the survey statistics support our experience with regards to who pays for the smartphones and plans. The results show there are primarily four different models used:

- 29% require staff to pay for them directly
- 29% use a combination of payment by staff and IT
- 25% have the IT department purchase and bill back to the individual departments
- 16% use the IT/Telecom budget

MESSAGE SECURITY
Security has always been noted as a concern when it comes to healthcare communications given the sensitive nature of the information being communicated. Many of the messages that are sent to smartphones and tablets throughout hospitals today are being sent via SMS/text messages and email. This poses a big problem for organizations in meeting HIPAA and HITECH Act regulations. Solutions like Amcom Mobile Connect excel in this area by sending encrypted messages, which are then decrypted by the application on the smartphone.

Survey Results
In next few pages of this document, you’ll find some of the actual questions that participants were asked in the survey and the results for each question.
Does your facility currently send job-related alerts (pages) to personnel on their smartphones? Tablets?

As depicted in the smartphone graph on the right, the slight majority of survey respondents (50.5%) are currently sending job-related alerts or pages to personnel on their smartphones. Meanwhile, only 15% of respondents are using tablets for job-related alerts in their hospitals.

Which of the following issues prevent your organization from sending job-related alerts (pages, codes, other critical messages) to smartphones today? Tablets? (For individuals who answered “no” to the first question)

Of the individuals who stated they do not currently send job-related alerts to smartphones, nearly 60% said funding and budget challenges prohibit implementing smartphone messaging in their hospitals. This was also the number one issue which prevents sending job-related alerts to tablets. Many survey respondents indicated security/encryption challenges and determining who should pay for the phones and data plans as reasons for not messaging to smartphones and tablets. While security/encryption challenges are an issue for simple SMS messages, pager applications like Amcom Mobile Connect encrypt all communications.

How are job-related alerts (pages, codes, other critical messages) sent to smartphones today? Tablets? (For individuals who answered “yes” to the first question)

Of the survey participants who stated they currently send job-related alerts to smartphones, 77% said the messages are sent via SMS (text message). Sending job-related alerts via email was the highest category for tablets with 73% of respondents stating they use it as a method of delivery. Many of the individuals who selected “other” with regards to smartphones stated they are currently using a simple phone call or voicemail application to send messages. The use of SMS and email is somewhat surprising due to the communication security requirements in healthcare. Pager applications, used by 45.8% of respondents, handle the message encryption and also provide a full audit trail of messages.
Who is currently responsible for paying for smartphones (device and voice/data plan)?

As depicted in the graph on the left, there is not a general trend as to who pays for smartphones and the monthly service associated with them. A large portion of respondents (29.2%) stated that staff purchase devices directly. Following closely behind this, 29% said a combination of staff and IT are paying for smartphones and service.

Who uses smartphones and/or tablets in your hospital for work-related communications?

Nearly 90% of survey respondents stated that smartphones are being used by physicians, IT staff, hospital administration, and clinical management for work-related communications in their organizations. A large portion of the physician and IT groups (nearly 50%) are also utilizing tablets for work-related communications.

Which of the following devices do personnel currently use to receive job-related alerts (pages, codes, other critical messages) at your facility? Which devices do you expect to be used two years from now?

Pagers rank number one in the types of devices that are currently being used to receive job-related alerts. Two years from now, it’s expected that the number of pagers in use will decrease slightly and e-mail on computer and wireless in-house phones will surpass pagers with 75% of organizations sending job-related alerts via these methods. The big take-away from this is that communications will remain diverse and a strategy of being able to communicate with a diverse array of devices from one system is essential in the future.
Of the personnel who use smartphones or cell/feature phones for work-related communications, which types of devices are currently used? Which types of devices do you expect to be used two years from now?

BlackBerry currently ranks number one among survey participants with 40% of hospital personnel using BlackBerry smartphones. However, respondents stated they expect BlackBerry smartphone usage to decrease within the next two years. iPhones are currently used by 24% of personnel in the healthcare industry but are expected to surpass BlackBerry in the next two years. Additionally, the use of Android devices is expected to increase in the future, while regular cell phone use is expected to decrease.

When comparing the results with last year’s survey, the number of BlackBerry users in the healthcare industry has already begun to decrease, going from 44% to 40%. Similarly, iPhone and Android’s share of the market increased over the past nine months while regular cell phone use has already decreased.

Of the personnel who use tablets within your organization, which types of devices are currently used? Which types of devices do you expect to be used two years from now?

Over half the survey respondents stated the Apple iPad is currently used and expected to be used two years from now within their organizations. Usage of the Windows® tablet is expected to remain stable over the next two years with nearly 10% of survey respondents stating personnel are currently using them.
Amcom Mobile Connect

Fast, accurate communications are the underpinnings of patient care and safety. Yet, it’s become cumbersome because today’s hospital staff carry a myriad of devices including wide-area pagers, code pagers, smartphones, and other devices. With Amcom Mobile Connect™, hospitals can simplify communications and strengthen care by using smartphones and tablets for code alerts, patient updates, lab results, consult requests, and much more.

Many organizations are undertaking a long-term approach to replacing the majority of their pagers. This means supporting a variety of communication devices for the foreseeable future. An approach like this enables some staff members to consolidate devices using smartphones and tablets while others may continue to use pagers as required. Amcom Mobile Connect enables you to do what makes sense based on your staff and messaging requirements.

Key Benefits of Amcom Mobile Connect:

- Separates critical messages from less important emails and SMS messages
- Automatic delivery and read receipts for messages, as well as a full audit trail of all communications
- Active acknowledgement of message and free-form text response
- Supports a variety of devices to accommodate hospital-employed and independent physicians
  - BlackBerry®, iPhone®, Android®, Cisco®

Conclusion

While many healthcare organizations are making way for smartphones and tablets to support critical communications, they are also keeping tried-and-true contact devices such as pagers in the mix. The variety of available device options works to support the diverse needs of each type of staff member who has to be considered in the communications process, whether that person is an administrator, physician, nurse, housekeeper, or supply technician. The key is having an integrated system behind the scenes to support everyone using his or her preferred device. This makes it possible to improve patient safety and care by getting the right message to the right person at the right time on the right device.
About Amcom Software

Amcom Software, a subsidiary of USA Mobility, Inc. (Nasdaq: USMO), connects people to each other and to the data they need. This helps organizations save lives with communications that are faster, more accurate, and more efficient. Amcom Software's unified communications technologies include solutions for contact centers, emergency management, mobile event notification, and messaging. The company's products are used by leading organizations in healthcare, hospitality, education, business, and government. By continually developing its industry-leading technologies, Amcom Software has rapidly grown and solidified its market leadership.