Mobile & BYOD Technology Trends in Healthcare

Mobile devices have found their way into healthcare environments, empowering healthcare professionals with new and innovative ways to provide care. However, these same innovations in care may have left your organization vulnerable to security breaches and data loss. Learn how to support mobile devices while also staying true to your core IT and security policies.
Few industries have been affected as much by the proliferation of mobile devices as the healthcare sector. Some hospitals and clinics were using tablet computing devices years before the iPad was even introduced, and in recent years, the move to consumer mobile devices in the workplace has continued to grow.

The Bring Your Own Device (BYOD) trend is in fact leading to a huge increase in the use of devices such as smartphones and tablets in healthcare facilities. According to a May 2012 report by research firm Gartner Inc., tablets such as the iPad are beginning to appear in larger numbers in healthcare delivery organizations (HDOs).

Gartner says HDOs are moving toward “choice oriented” or BYOD mobile management strategies that aim to satisfy the needs of clinicians without incurring excessive risk for organizations.

Outside of the emergence of electronic health records (EHR), “mobility is one of the most transformational technologies in healthcare,” the Gartner report says.

A Natural Fit

In many ways, mobile devices are a natural fit for the healthcare environment. Professionals including doctors, nurses and technicians are frequently on the move within and between facilities, going from patient rooms to offices to laboratories and other facilities. The ability to easily access clinical applications or data, whether it’s information about patients, conditions, drugs, treatment techniques or other areas, from multiple locations is a huge benefit for healthcare personnel. With the emergence of EHR as a key part of the process of treating patients and maintaining healthcare records, mobile access to information is becoming even more critical for healthcare providers.

Medical professionals can use mobile devices to view patient lab results, order medications or other treatment supplies, remotely monitor patients, prescribe medications electronically, dictate notes and access reference data.

Devices, such as phones and tablets can also lead to greater collaboration among healthcare professionals. Doctors can easily share visual or graphical information about patients and conditions with other medical specialists, and quickly exchange ideas about treatment options with resources around the world.

This expanded access to information and enhanced collaboration can help increase the productivity of medical professionals. But more importantly, it can potentially help improve the treatment patients receive and even save lives.

By using handheld devices such as tablets and smartphones, healthcare providers no longer need to rely solely on bedside terminals, “computers on wheels” or stationary workstations to view patient information, the firm notes. They are opting for newer mobile devices over the use of older devices such as pagers.

Challenges for Healthcare IT

IT executives in healthcare institutions face a number of challenges related to BYOD and the balance between managing devices vs. managing information, some similar to those encountered in other sectors and some that are unique to the healthcare industry.

As in other industries, healthcare IT needs to figure out how to effectively manage and secure the increasing number of mobile devices while at the same time giving users the freedom to be innovative in how they leverage the technologies.
Executives must ensure that tablets and smart phones are protected against data theft and that unauthorized users can’t access corporate networks through these devices.

For many healthcare institutions, the advent of BYOD will result in new ways of thinking about how IT supports users. For years, IT departments have been viewed as a technology gatekeeper that dictates which hardware and software employees can use. But with the emergence of consumer mobile devices, IT needs to be more collaborative, working in conjunction with business leaders and users to identify which products people want to use and how IT can best support those devices.

Another key challenge for healthcare IT is the large and growing volume of devices. Many healthcare institutions such as large hospital complexes are adding hundreds of new devices. While many of these are owned by the organizations, a large number are employee-owned.

Healthcare IT also has to address labor and training. The process of supporting hundreds or thousands of mobile devices is complex and time-consuming for the IT staff. The use of mobile technology often requires additional policies and procedures, and administrators as well as users need to be trained on those policies, terms of use, connecting devices to the network and other areas.

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Perhaps the biggest challenge for healthcare is ensuring that information is secure and that personal devices pose no new threats and risks to the organization. Healthcare data such as patient records is extremely sensitive, and hospitals, clinics and other facilities must make sure that this information is protected from intrusions and exposure.

Aside from the need to give patients assurances that their privacy will be protected, healthcare institutions must comply with regulations such as the Health Insurance Portability and Accountability Act (HIPAA).

Protection company-owned smart phones and tablets against security threats such as hackers and viruses, and preventing breaches against enterprise networks, must be a high priority as well. Organizations need to determine how they can best enforce security policies regarding mobile devices that move in and out of the network, whether policies should differ depending on the roles of users, what they should do if a device is lost or stolen, and whether they have the procedures and technologies in place to recover or wipe those devices.

Healthy Strategies for Information Management

To address these and other challenges, healthcare IT needs to take measures to ensure that they are managing the expanding mobile environment and the BYOD trend as effectively as they can. Healthcare providers need to be responsive to the proliferation of mobile devices in their environment and then deploy a combination of both an IT solution and security policies and procedures that cover all devices.

A traditional approach has been to apply device management, but that conflicts with BYOD users’ desire to control their own devices. Now, there are new solutions that eliminate device management requirements by using “containers” to segregate enterprise information and applications in personal devices. With containerization, people are free to use their smartphones and tablets as they are accustomed to, and access corporate information when needed without putting corporate assets at risk - containers can even be wiped remotely as needed without wiping the entire device. By housing enterprise assets in a secure encrypted data store within the device, containers represent an excellent BYOD solution for mobile computing in healthcare settings.

That means that employees can use their own tablets and smartphones in the work environment and access corporate information via a suite of secure containers that provide the security, manageability and isolation from personal data - thereby preserving the employee’s freedom to use their device as they see fit, yet providing IT a means of fully controlling who and from what devices can access sensitive information.
Access to information generally means access to networks, yet, IT cannot afford the risk of putting personal devices on the company network. So the best solutions provide a secure communications channel to the container apps, eliminating the necessity of dealing with VPN configurations or exposing the device and any malware on it to the network. Keeping devices off the network also reduces the need for device management and makes it more practical to deploy on third-party managed devices, such as those carried by doctors for whom enforcing device-level controls might be impractical or impossible.

This issue tends to be prevalent because physicians are often faced with either carrying devices for each hospital and clinic they serve or needing to have different user IDs and passwords every time they switch to a different hospital network. The physician is highly inconvenienced due to this complexity, plus their personal device is now at risk of being controlled and wiped by several sources. A containerised approach solves this dilemma by pairing the unique identification of the physician’s personal device with the authentication required by each hospital network - so each party is now in control of their own assets.

To help manage the expanding BYOD environment, healthcare institutions should select a solution that best meets their needs, using MDM for company owned devices and user-friendly containers for personally owned devices. And in some instances, even combining the two for maximum security.

An effective solution should give IT the control over who can see what and from which device(s), providing detailed and comprehensive information that is easy to access, delivering the means to enforce policies and prevent data loss.

Containerization delivers the isolation between personal and corporate assets while preserving the “personal” nature of a device. Healthcare workers can access internal applications via a secure browser, documents via a secure document manager and editor and use the secure mail container for sensitive communications. IT is fond of this approach because it enables them to focus on what is most critical: the information.

For BYOD, manage the data, not the device.

In Conclusion

The proliferation of smart phones and tablets is transforming the way healthcare professionals work—how they access data, communicate and collaborate with colleagues, and interact with patients.

Mobile technology has the potential to increase productivity, reduce costs and improve the level of patient care. At the same time, however, the growth of mobile devices and the advent of BYOD can introduce new challenges for healthcare IT. Healthcare organizations that proactively address the challenges and deploy a BYOD-friendly container strategy will likely increase their ability to succeed with these fast-growing technologies.

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