

Securely Mobilizing the Healthcare Workforce

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It's all about Patient Care

Point-of-care productivity is the single biggest issue in hospitals today. Tools are needed that will provide nurses, technicians, and other patient care providers with critical information at the patient's bedside where they need it, when they need it.

Applications built on wireless technology permit nurses and other providers to be "un-tethered" from centralized administrative stations where desktop computers and wired local area networks typically reside.

Health Care Organizations (HCOs) typically need solutions which enable:

- Immediate access to clinical documentation, patient information, test results, clinical protocols and drug references at the point-of-care including the bedside, in triage, the laboratory, and other patient care stations
- Data entry for intake or output measurement and range checking to be accomplished at the point-of-care
- Real-time adverse drug event monitoring
- The use of bar codes on medications, and supplies to improve quality of care and minimize the chance for possible errors
- Patient bedside admitting, transfer and discharge
- Automatic time stamping of procedures, sample collections and other care events
- Accelerated information processing to speed transaction processing and ultimately reimbursements
- Inventory and supply management
- Asset tracking and location (especially in time-critical needs)
- Patient, equipment and facility file management

What's the common thread?

Wireless networks, mobile devices and sophisticated design and implementation

Wireless networks can be installed faster than wired networks, providing flexibility and increased responsiveness to an organization's needs and changes.

Today, mobile devices have matured to be reliable, scalable, customizable, flexible tools for a wide variety of uses – and they are especially well suited to the information-intensive, highly mobile world of patient care-givers.

A typical approach to wireless services is depicted in the following diagram:



Healthcare clients should look for a solution provider capable of and experienced in providing all of the above services, in order to achieve the Point-of-Care Productivity and Efficiency capabilities listed in the prior section.

HIPAA Remediation: how to get and stay compliant

The HIPAA Security Rule (45 CFR Part 142) only specifies broad implementation standards that must be employed for security... it does not stipulate specifics of implementation. The following table (from the HIPAA Security Rule) states the implementation mechanisms that must be realized for Protected Health Information (PHI, data) transmitted over any communications network (note that there is no distinction between wireless and wired networks).

TECHNICAL SECURITY MECHANISMS TO GUARD AGAINST ACCESS TO DATA THAT IS TRANSMITTED OVER A COMMUNICATIONS NETWORK	
Requirement	Implementation
Communications/network controls (The following implementation features <u>must be implemented</u> : Integrity controls, Message authentication. If communications or networking is employed, one of the following implementation features must be implemented: Access controls, Encryption. In addition, if using a network, the following four implementation features must be implemented: Alarm, Audit trail, Entity authentication, Event reporting)	Access controls Alarm Audit trail Encryption Entity authentication Event reporting Integrity controls Message authentication

Table 1

Customers in the healthcare industry are advised to have their wireless networks (both existing and proposed) analyzed to determine if the above mechanisms have been implemented. The analysis will expose any "gaps" between existing (and proposed) implementations. A solution provider like IntelliMark can perform such an analysis, culminating in a deliverable (assessment report). The gaps will be delineated in the assessment report that will be provided to the client as a part of the assessment analysis. The report will also include recommendations for remediation (resolution) of the identified gaps.

In addition to the "synergistic" efforts concerning wireless networks, healthcare clients may also need to consider whether any of these additional HIPAA related products and services are pertinent:

- HIPAA Compliance Gap Analysis
- HIPAA Compliance Risk Assessment
- Assessment Review and Remediation Planning Services
- EDI Transaction Analysis, Implementation and Testing
- HIPAA Policy and Procedure/Forms Development Services
- Automated Policy Management systems
- HIPAA Primer
- HIPAA Compliance for the Executive
- Establishing a HIPAA Compliance Program
- Assessing Readiness and Compliance of Electronic Communications (EDI)
- Assessing Technical and Physical Security Readiness and Compliance
- Assessing Privacy Readiness and Compliance

Security: how to keep the patient's information secure

Table 1 in the above HIPAA section covers the security related to transmission of PHI (data) over a communications network. In addition to identifying security mechanisms that pertain to the communication of PHI, the HIPAA Security Regulation also specifies implementation practices for three other areas:

1. Administrative Procedures
2. Physical Safeguards
3. Technical Security Services

Thus, healthcare clients may wish to engage a solution provider (like IntelliMark) who can provide assessment services in all of the above areas and remediation services in the areas of Administrative Procedures and Technical Security Services.

In the case of wireless networks (voice and data), one should also consider the security mechanisms that must be implemented including:

- Multi-vendor use of Media Access Control (MAC) address filtering
- Utilizing Wired Equivalency Privacy (WEP)
- Virtual Private Networks (VPNs)
- Ubiquitous Wireless Access Management (e.g. Wavelength)

As well as the new emerging security mechanisms for wireless networks:

- Extensible Authentication Protocol (802.1x) and
- Temporal Key Integrity Protocol (802.11i)
- Systems Integration / Remediation

Today's healthcare organization operates in a dynamic, regulation-intensive environment. Point-of-care productivity and efficiency, while maintaining good old-fashioned bedside care, are paramount. HCOs should seek a solution provider who understands the industry and all the dynamics, and who has the expertise and experience to tie it all together to provide them with the ability to "Securely Mobilize their Healthcare Workforce."

About Intellimark

IntelliMark is a national provider of technology services, enabling clients to improve efficiency, security and regulatory compliance. Their specialties include IT life cycle services for LAN/WAN/Wireless environments and engineering solutions for specific industries. IntelliMark is an alliance partner of Datatrend Technologies, Inc. in the area of designing and implementing network infrastructure solutions for wireless networks for customers in various industries. IntelliMark is pleased to have many satisfied customers, including Saint Edward's Hospital of Fort Smith, AR; Children's Hospital of Arkansas in Little Rock, and Texas Rural Health Alliance.

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