RBAC and HIPAA Security

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Session Objective

- **Challenges**
- **HIPAA Requirements**
- **Seven Steps to HIPAA Security**
- **Access Control**
- **RBAC**
  - Information Access Control Security Policy
  - RBAC System Characteristics
  - Developing a RBAC Solution
  - Getting Started
  - Implementation Challenges

Challenges

- Increasing demand for moving mission critical applications on-line
  - **This requires access to PHI based on the user's function**
- Identities of authorized users and transactions are constantly changing
  - **Organizations require a solution that supports robust authorization capabilities**
- Number of users and applications is increasing within most organizations
  - **Requires a scaleable solution to manage authorized access**

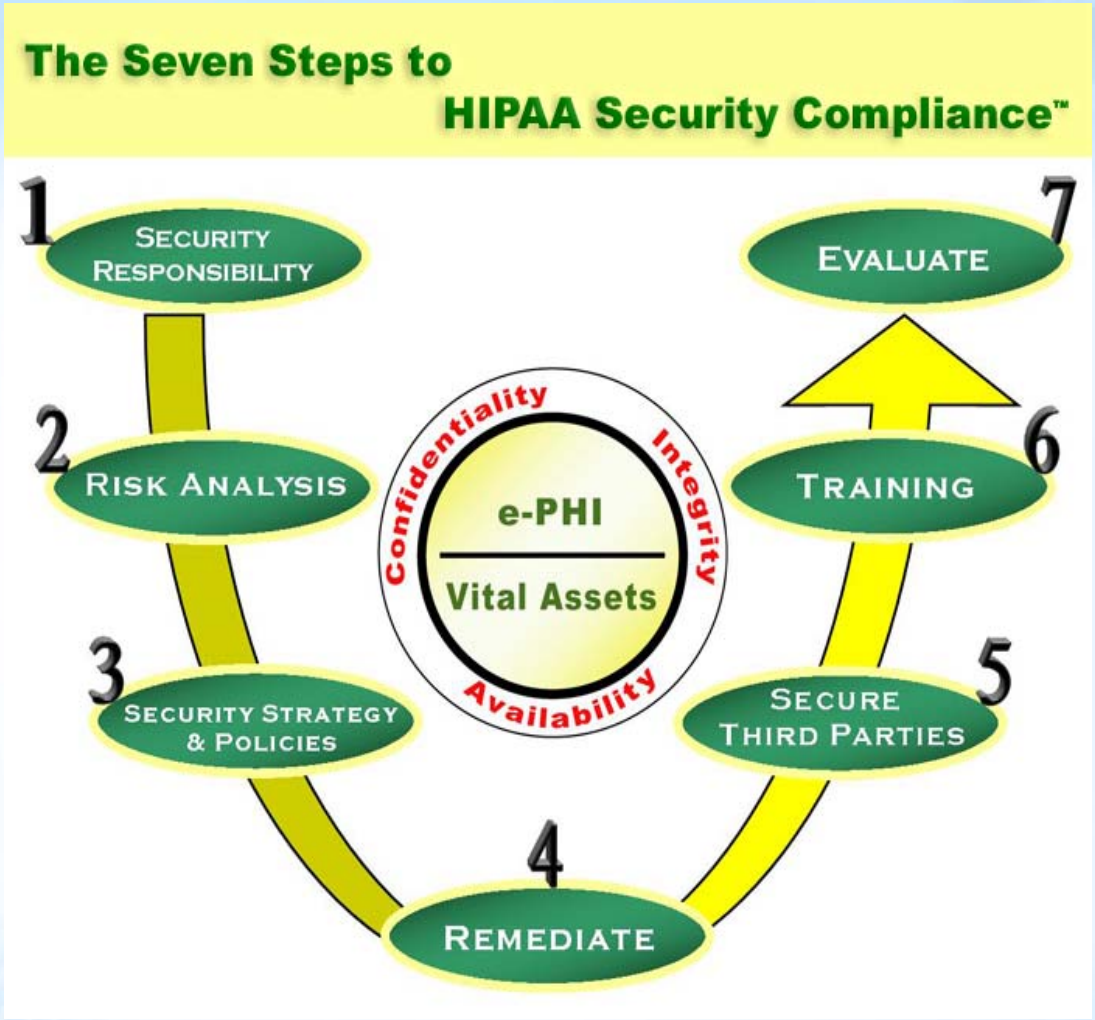
Privacy's Minimum Necessary

- **HIPAA Privacy Rule requires that the covered entity must identify:**
  - Who needs access to PHI
  - What type of access and if there are to be any restrictions associated with such access
- **Central aspect of the Privacy Rule is the principle of "minimum necessary" use and disclosure**

Security's Access Control

- The Final Security Rule requires these standards to be implemented:
  - **Information Access Management**
    - Access Authorization
    - Access Establishment and Modification
  - **Access Control**
    - Unique User Identification
    - Emergency Access Procedure
    - Automatic Logoff
    - Encryption and Decryption

Seven Steps to HIPAA Security



Access Control

- **Access control, also referred to as authorization, refers to:**
  - What the user can do
  - What the user can access
- **Access control enables businesses to restrict individual access to resources**
  - Allowing access only by privileged entities with a business need to access
- **Defense-in-depth:**
  - Authentication
  - Access control

Types of Access Control

- Role Based Access Control (RBAC)
- Discretionary Access Control (DAC)
- Mandatory Access Control (MAC)
- Context Based Access Control

RBAC

- **What is RBAC?**

  RBAC allows disclosures to authorized users while preventing disclosures to unauthorized users
- **Stems from:**
  - Minimum Necessary Standard for HIPAA Privacy
  - Access Control Standard in Security Rule

Why RBAC?

- Using RBAC has several advantages compared to other access control mechanisms
  - **Simplifies access definitions, auditing and administration of security access rights**
  - **The delegation of access rights does not occur at the discretion of any user (even the security administrator)**
  - **Users are given only the access privileges necessary to perform their duties or role**
  - **Updates can be done to roles instead of updating privileges for every user on an individual basis**

Security Policy

- **First develop the Information Access Control Security Policy**
- **Objective of policy**
  - The confidentiality and integrity of information assets stored within systems must be protected
  - Only authorized users must have access to specific defined, documented and approved systems and applications
- **Clearly articulate RBAC requirements**

Getting Started with RBAC

- **Step 1:** Define all roles within the organization
- **Step 2:** Next step is to do a complete inventory of all active applications
- **Step 3:** Identify the RBAC solution to meet objectives

- ***Carefully plan the implementation to ensure successful operation!***

RBAC System Characteristics

- **The characteristics of an RBAC system are:**
  - "Roles" map to organization structure
  - Each "role assigned minimum access privileges
  - Each employee then assigned one or more roles that determine their level of access

RBAC Solution Requirements

- **Any RBAC product solution must support requirements such as:**
  - Scalability
  - Inheritance
  - Multiple roles
  - Types of access
  - Auditing and logging
  - System administration
  - Customization

Implementation Challenges

- **RBAC policies and procedures must be clear, complete and rigorously followed**
- **Specifically:**
  - Lay out the procedures for access requests
  - Establish an approval policy for modification to procedures
  - Establish an approval policy for user ID requests
- **Establish a firm timeline for RBAC implementation**

Thank You!

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