Networking and Health Information Exchange
Unit 9b
Privacy, Confidentiality, and Security Issues and Standards

Slide 2

Access Control

- Who or what is allowed access to a particular resource and what level of access are they allowed
- Terminology
  - Identification
  - Authentication
  - Authorization

Slide 3

Access Control Best Practices

- Separation of duties
  - Require more than 1 person to perform an action
- Least privilege
  - Only give user the access they need
Access Control Models

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

Access Control Types

- Logical
  - Access to data files, programs and networks
  - Access Control Lists (ACLs)
  - Account Restrictions
  - Passwords
- Physical
  - Access to physical locations
  - Locks
  - Badges
  - Mantraps

ACLs

An ACL is a list that is associated with file, directory or object that lists who has access to it and what access they have.
**Account Restrictions**

- Account expiration
- Time of day
- Login location

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**Passwords**

- Combination of letters, numbers and special characters
- Recommend upper and lower case characters
- The more characters the better
- Should be changed frequently

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**Password Should Never**

- Should never be written down
- Should never be a word in a dictionary, words spelled backwards, common misspellings, and abbreviations (English or other languages)
- Should never substitute letters with numbers
- Should never contain personal information
  - Social engineering
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One-time Passwords (OTP)

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Physical Access Control

- Location
- Doors

Key in knob  Deadbolt  Cipher lock  RFID

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Slide 12

Physical Access Continued

- Video surveillance
- Access log
- Mantrap

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Slide 13

Biometrics

- Fingerprints
- Faces
- Hands
- Irises/Retinas
- Behavioral
  - Keystroke
  - Voice
- Cognitive

Slide 14

Authentication Practices

- Layering
- Multi-factor
- Single Sign-On (SSO)

Slide 15

Virtual Private Networks (VPNs)
Security Policies
A collection of policies that lay out specific rules and requirements that must be followed in order to provide a secure environment.