- Filename: eccouncil-ceh31250-v12-17-3-1-ios-security.md
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## iOS Security

## **Objectives:**

- Apple iOS
  - · Released in 2007
  - Runs on Apple exclusively
  - App Store
  - Has many security features built-in
    - Secure Boot
    - Face ID | Passcode | Touch ID
    - Code signing for 3rd-party apps
    - Sandboxing
- Jailbreaking
  - Gives users root access to OS
  - Pros
- Removes sandbox restrictions
- Install 3rd-party unsigned apps
- Cons
  - Warranty voided
  - Malware Infection
  - Brick the device
- Jailbreaking Techniques
  - Tethered
    - Devices boots normally
      - May get stuck in a partially booted state
        - Device must be tethered to computer and re-jailbroken
          - Use the 'boot tethered' feature of jailbreaking tool
  - Semi-Tethered
    - Device boots normally
    - If jailbroken functionality is required, device must be tethered to a computer and jailbreaking tool must be used
  - Untethered
    - Device will be in 'jailbroken' state even after reboots
    - Doesn't require the help of a computer
      - The kernel is now patched
  - Semi-Untethered
    - Similar to Semi-Tethered
    - Device boots normally
    - Device can be patched without a computer
      - Patch is applied by an app on the device
- Jailbreaking Tools
  - Hexxa Plus

- iOS Hacking and Hacking Tools
  - Info Gathering Tool
    - Network Analyzer Pro
  - Trustjacking
    - Attacker can remotely read messages, emails, and sensitive info, etc
      - Apple mobile devices can sync with iTunes over Wifi
        - 'Trust this device'
          - Attacker gets victim to plug mobile into computer
            - Click 'yes' to trust this device prompt
              - Attacker can now access victim data through iTunes 'Wifi Sync

- iOS Malware
  - https://www.theiphonewiki.com/wiki/Malware\_for\_iOS
  - https://www.washingtonpost.com/investigations/interactive/2021/nso-spyware-pegasus-cellphones/
- iOS Hacking Tools
  - Pegasus
  - Elcomsoft Phone Breaker
    - https://www.elcomsoft.com/eppb.html
  - Spyic
    - https://spyic.com/
- iOS Security Defenses
  - Don't Jailbreak
  - Use screen lock
  - Don't install untrusted 3rd-party apps
  - Don't side-load apps
  - Updates/Patches
  - Don't open links/attachments
  - Use VPN
  - o Don't use random Wifi
  - Enable Location services / Find by Device
    - Find my iPhone
  - Use a password manager
  - Disable services like wifi/bluetooth/location when not in use
  - Use a mobile security suite
    - Trend Micro Mobile Security
    - Norton Security for iOS
    - McAfee Mobile Security
      - Should have anti-spyware