



Securely Yours LLC

We secure your information
world

www.SecurelyYoursllc.com



Mobile Security Features



What are the new security features in Android KitKat 4.4 and IOS 7?.

IOS Feature 1

Single Sign-on

- Previously available for multiple apps developed by same developer (e.g. Google Apps)
- Now available for all Apps
- Some constraints:
 - Kerberos enabled platform and application
 - Still have to provision the device and send profile
- <http://www.youtube.com/watch?v=E3Mec7Hj2So>



IOS Feature 2

Restricting opening of attachments

- Restrict attachments to open within approved apps (e.g. you can open an attachment in corporate email vs. personal email)
- Restricts data leakage
- Prevents users to take a picture of confidential information and post it on Facebook



IOS Feature 3

Default Data Protection

- When a passcode is configured, Apple used to protect the data using hardware encryption, but it was left for developers to protect application data (choice of encryption)
- Now, by default everything is encrypted



IOS Feature 4

Per App VPN

- Instead of a VPN for the IP address, now the VPN is per App.
- Different Apps can connect to different VPNs
- Not fully tested yet, but I think we would be able to VPN to a payroll provider for payroll app and a bank for a banking application and both apps could be used interchangeably



Securely Yours LLC
SecurelyYoursllc.com

iOS Feature 5

Activation Lock

- Currently, the Find My iPhone feature allows you to locate and secure your lost iOS device using the Find My iPhone app on another iPhone, iPad or iPod touch, or by visiting iCloud.com on your computer.
- Unfortunately, it has a major drawback. The thief can turn off your iOS device and restore it to prevent you from using the Find My iPhone features.
- iOS 7 includes a new feature called Activation Lock. In iOS 7, turning off Find My iPhone or erasing your device requires Apple ID and password. It will also continue to display the custom message displaying your contact number, even after your device is erased. This should make it a major deterrent for thieves and make the Find My iPhone feature fool proof.



iOS Feature 6

iCloud Key Chain

- In iOS 7, Safari's AutoFill feature has been extended to remember account names, passwords, and credit card numbers. Safari will automatically enter them when you visit a site to sign in or shop online. The keychain will also be synced via iCloud to all your iOS devices running iOS 7 and Macs running OS X Mavericks. Apple says the information will be stored using 256-bit AES encryption.
- Safari will also be able to generate a unique, hard-to-guess password like password management apps like 1Password.
- Unfortunately, this feature will be extremely useful only for users who use Safari on their computers and iOS devices. If you prefer using Chrome, then this feature is useless



Other IOS Security Features

- Private Browsing
 - Easy to set private browsing on Safari
- Fingerprinting
 - Two factor Authentication
 - Still issues with it
 - Hackers
 - Ease of use
- Recent news of SIRI bug unlocking the phone
- Recent news about “Kill Switch” available on all phone by 2015
<http://www.cnn.com/2014/04/16/tech/mobile/ctia-phone-kill-switch/index.html>



Android Feature 1

Multi-user profiles.

- Android 4.2 introduced multi-user
- Different members of an organization can have their own profile, complete with app, home screen, and setting independence.
- Granular control over the other user accounts on the device



Android Feature 2

VPN Security

- On multi-user devices, VPNs are now applied per user.
- Allow a user to route all network traffic through a VPN without affecting other users on the device.
- Always-on VPN - VPN can be configured so that applications will not have access to the network until a VPN connection is established.



Android Feature 3

Application permissions & verification

- App permissions display on installation have been improved in version 4.2+. Permissions have been organized into groups that are more easily understood by users.
- “Verify Apps” feature that will screen apps by an application verifier, before installation. App verification should alert the user if the app could be harmful.



Android Feature 4

Key Chain and encryption

- Android 4.0 supports full file system on-device data encryption(introduced in Android 3.0 only for tablets)
- Android 4.0 introduced the Key Chain which allows applications to use the system credential storage for private keys and certificate chains.
- Improved cryptographic algorithms



Other Android Security Features

- Wi-Fi support for WPA2-Enterprise networks
- Android sandbox reinforced with SELinux:
- Improved support for secure NFC-based transactions
- Android now supports FORTIFY_SOURCE level 2, and all code is compiled with those protections.
- Android 4.4 also includes fixes for various Android-specific vulnerabilities
- Recent news about “Kill Switch” available on all phone by 2015

