Smartphone Smart Card

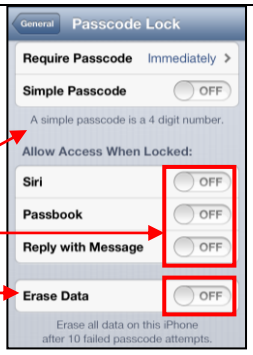
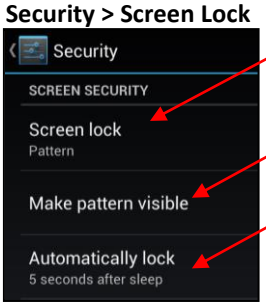
Smartphone 061013_1600

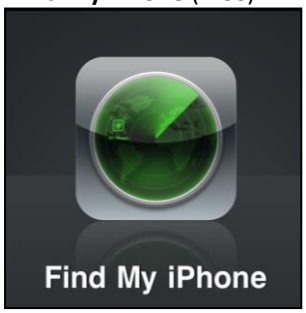
Smartphone -Do's and Don'ts

- Malicious individuals may gain physical access to your smartphone. Protect your device with a password and run apps such as *Android Lost* and *Find My iPhone* to help you recover lost or stolen smartphones.
- Malicious emails and text messages can infect your smartphone with malware. Run anti-virus software periodically on your device.
- The camera and microphone can be remotely activated. Do not take a smartphone near classified information, and remove the battery before discussing any sensitive information.
- Wireless networks may be insecure and subject to monitoring. Use VPN when accessing wireless networks, and do not access sensitive information over wireless networks. Turn off Bluetooth when you are not using it to prevent hackers from exploiting your device.
- Apps that you download may gain access to the data stored on your smartphone. Check to see if the app will access your personal data and read user reviews of the app to see if other users experienced trouble after downloading.
- Apps can track your location. Turn off location services to avoid unwanted location tracking.

Physical Access and Malware Threats

Use the following settings and recommendations to minimize security risks posed by your smartphone and protect your personal data.

<table>
<tr><th>Threat</th><th>iPhone 6.1.3</th><th>Android 4.1.2</th></tr>
<tr>
<td>Physical Access Threats – To prevent others from accessing data on your smartphone, set up a passcode to protect your information. Android has multiple passcode styles including pattern, PIN, password, and face recognition while the iPhone uses alpha-numerical codes and PINs.</td>
<td>Navigate Settings > General > Passcode Lock
Create a complex password containing letters and numbers
Block Access
Optional Setting
 
</td>
<td>Navigate Settings > Security > Screen Lock
 

Use a password or pattern. Avoid using face recognition.
Uncheck
Always auto-lock your devices</td>
</tr>
<tr>
<td>Lost or Stolen Phones - It is reported that on average 113 cell phones will be stolen every minute in the United States. Download apps such as Find My iPhone or Android Lost to locate, lock, or control your data remotely. These apps allow users to manage data on their smartphones from internet webpages accessed via desktop or portable device.</td>
<td>Find My iPhone (Free)
 

Capabilities:
• Remote Lock
• Erase Data
• GPS Locator
• Sound Alarm
• Send Text Message to Phone
• Backup Data Through iCloud Storage</td>
<td>Android Lost (Free)
 
Capabilities:
• Remote Lock
• Erase Data
• GPS Locator
• Sound Alarm
• Send Text Message to Phone
• Activate Camera
• Read Texts Sent
• View Call List</td>
</tr>
<tr>
<td>Malware – Your smartphone is vulnerable to malware from emails, websites, and downloaded apps. Between 2011 and 2012 alone, smartphones had an increase in malware attacks by over 1,200% with Android being the most susceptible. Download third-party security apps such as Virusbarrier and AVG's Antivirus Security to prevent malware from stealing your information.</td>
<td>Virusbarrier ($0.99)
 

iPhones are not readily susceptible to viruses. Use this app to prevent passing malware to your contacts.
Capabilities:
• Scan for spyware, adware, and Trojans
• Scan emails and PDF files before sending</td>
<td>Antivirus Security (Free)
By AVG
 

Capabilities:
• App Scanner
• File Scanner
• Website Scanner
• Text and Call Blocker
• Remote Lock
• Erase Data Remotely
• GPS Locator
• Kill Slow Tasks</td>
</tr>
</table>

Best Practices

- Updates for smartphones' operating systems are sent out frequently. Install the updates immediately to maximize your protection.
- Jailbroken phones allow malicious apps to bypass vetting processes taken by the app stores. Never jailbreak your smartphones.
- Write down the manufacturer and the serial number of your phone when it is purchased to help identify devices if lost or stolen.
- Avoid linking social networking services like Facebook and Twitter to your smartphones to prevent personal information aggregation.
- Change passwords on your phone frequently (approximately every 6 months) to maximize security.

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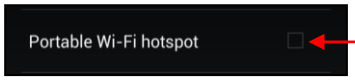
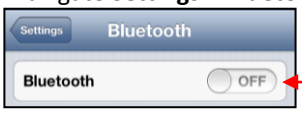
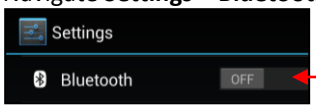
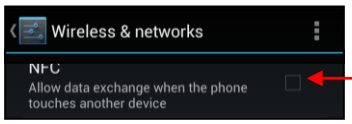
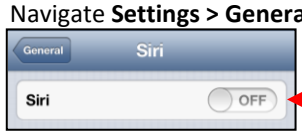
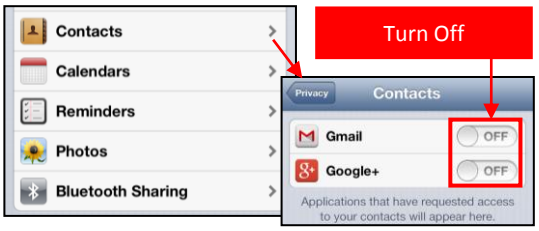
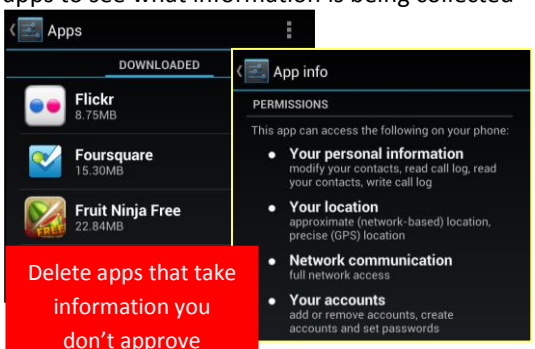
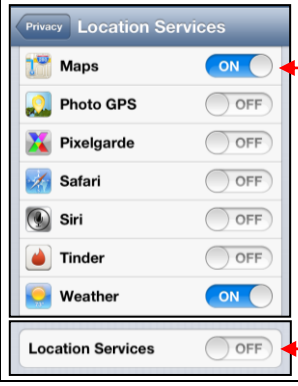
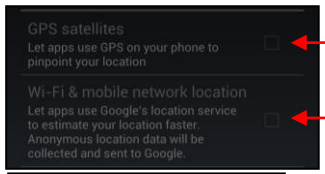
Wireless Connections and App Security Settings

Threat	iPhone	Android
Wireless Networks – Information transmitted via public Wi-Fi networks can be intercepted by third parties. Avoid using public wireless networks when possible and always use a VPN client to encrypt your online transactions.	Navigate **Settings > Wi-Fi**  Disable Wi-Fi when not in use  Enable Network Permissions Navigate **Settings > General > VPN** to enable and establish a VPN connection	Navigate **Settings > Wi-Fi** to manage connections  Disable Wi-Fi when not in use Navigate **Settings > More > Tethering & Portable Hotspot** and disable **Portable Wi-Fi Hotspot**  Uncheck Navigate **Settings > More > VPN** to enable and establish a VPN connection
Bluetooth – Bluetooth involves the wireless communication of two devices within a close proximity. When Bluetooth is enabled, hackers may be able to access the connection to your device and retrieve your contacts, calendars, emails, messages, and photos without your knowledge. Avoid using Bluetooth and disable it when it is not being used.	Navigate **Settings > Bluetooth** to disable services  Disable Bluetooth when not in use Navigate **Settings > Personal Hotspot** to disable broadcasting a personal internet connection.  Never share your internet connection	Navigate **Settings > Bluetooth** to disable services  Disable Bluetooth when not in use Navigate **Settings > More > NFC** to manage Near Field Communications settings which can be used to transfer data via touching devices together.  Uncheck
Data Retaining Apps – Downloaded applications frequently collect users' personal information to sell to third party data aggregators. Native applications such as Siri and Google Now will also collect data from users which may include name, email address, credit card numbers, contacts, and device information. These services also record and catalogue the audio during sessions. Avoid using these voice recording services.	Navigate **Settings > General > Siri**  Disable Siri Navigate **Settings > Privacy** to view and manage which apps are using specific information.  Turn Off	Navigate **Settings > Apps** and review individual apps to see what information is being collected  Delete apps that take information you don't approve
Location Threats – The majority of apps will ask permission to track your current location. Users should avoid granting permission to these apps when possible and turn off all location tools when they are not in use. It is also important to note that pictures taken with smartphones retain location information within EXIF data. Never upload pictures taken from your smartphone to social networking sites.	Navigate **Settings > Privacy > Location Services**  Only grant access to apps that require a location to function Disable location services when not in use	Navigate **Settings > Location Access**  Uncheck when location services are not in use  Only grant access to apps that require a location to function

Smartphone Useful Links

A Parent's Guide to Internet Safety	www.fbi.gov/stats-services/publications/parent-guide
Microsoft Safety & Security	www.microsoft.com/security/online-privacy/social-networking.aspx
OnGuard Online	www.onguardonline.gov/topics/social-networking-sites.aspx
Privacy Rights Clearinghouse	www.privacyrights.org/fs/fs2b-cellprivacy.htm#smartphonedata

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www.novetta.com