

# The Enemy Within

## Security in the Mobile World

### Mobile Trends to be Aware of

#### Fort Wayne Chapter IIA

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# Learning Objectives

- ▶ Learn why mobile intelligence is important
- ▶ Be able to identify security trends and risks in mobile computing technologies at the consumer and corporate levels
- ▶ Learn various tips to protect your data

# Security Disclaimer

- ▶ There is not enough time to discuss all issues in mobile information technology security, therefore it is not a deep dive and should be understandable by all
- ▶ Leading trends and issues (not all inclusive)
- ▶ Dialog not lecture (questions welcomed)

# About Us

- ▶ **C<sup>2</sup> Information Technology Advisors** serves growing companies, generally in the middle tier, where Information Technology may not be their core business. These companies have a significant investment in their technology infrastructure, may not employ a full time CIO, but recognizes the importance Information Technology plays in achieving their goals.
- ▶ **C<sup>2</sup> Information Technology Advisors** is focused on the strategic decision making process
- ▶ Our mission will be to help our partners achieve their vision through people optimizing technology

# The Saying Goes

- ▶ Keep Your Friends Close...

# The Saying Goes



# Where Are Your Mobile Devices?

- ▶ Take out your mobile devices and place them in front of you
- ▶ ALL OF THEM!

# Where Are Your Mobile Devices?

- ▶ In your pocketbook or purse
- ▶ In your pocket
- ▶ Over your heart
- ▶ Caressing your backside
- ▶ **Sleeping with you each night**





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MOBILE, STUDIES

## 79% Of People 18-44 Have Their Smartphones With Them 22 Hours A Day [STUDY]

By Allison Stadd on April 2, 2013 12:00 PM



Quick: what's the first thing you do when you wake up?

Yawn? Hit the snooze button? Go to the bathroom? Brush your teeth?

If you're like 80% of 18-44-year-olds, the answer is "check my smartphone."

A new [IDC Research report](#), conducted online with data from 7,446 Android and iPhone users ages 18 to 44 during a week in March, reveals some eye-opening mobile social media intel.

Facebook sponsored the report, so [our sister site AllFacebook.com](#) has the story from that angle, if you're interested.

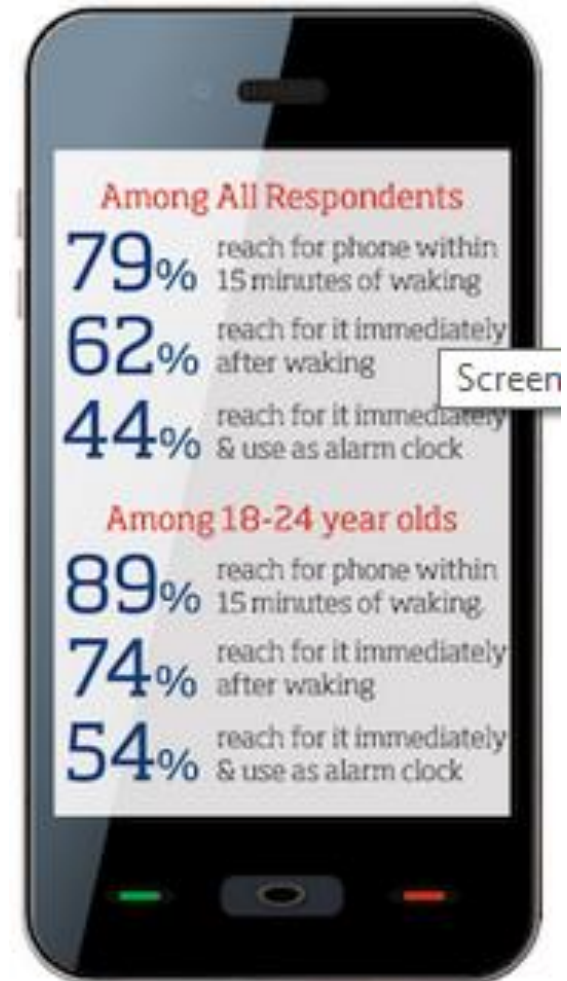
But here's the lowdown from a less Facebook-specific perspective:

49% of the entire U.S. population uses a smartphone. By 2017, the percent of smartphone users is expected to reach 68%.

Source: [http://www.mediabistro.com/alltwitter/smartphones\\_b39001](http://www.mediabistro.com/alltwitter/smartphones_b39001)

# Mobile Trends

- ▶ 79% Of People 18–44 Have Their Smartphones With Them 22 Hours A Day
- ▶ 79% Of All Respondents Reach for the Phone Within 15 minutes of Waking



# What is a Mobile Device?

- ▶ A mobile device, which is also referred to as a handheld, handheld device or handheld computer, is a pint-sized computing device. Mobile devices usually come with a touch or non-touch display screen and sometimes, even a mini keyboard. <http://mobiledevices.about.com/>
- ▶ a portable, wireless computing device that is small enough to be used while held in the hand; a hand-held <http://dictionary.reference.com/>

# What is a Mobile Device?

- ▶ Really?!
  - ▶ a wireless computing device designed to be moved frequently. Mobile devices usually come with an interface (touch or non-touch), display screen, and sometimes, even a mini keyboard and it uses a communication protocol (usually TCP/IP) to communicate through the internet to other computing devices or services
- ▶ source: C<sup>2</sup> IT Advisors

# What is a Mobile Device?





# What's Your Mobile Device?

- ▶ List the different ways you use your mobile device

# What's Your Mobile Device?

- ▶ Phone
- ▶ Camera / Scanner
- ▶ GPS / Map
- ▶ Wallet\*
- ▶ Books / Reader
- ▶ Music player
- ▶ Address book
- ▶ POS register
- ▶ Physician / health monitor
- ▶ Appointment book / Calendar
- ▶ Alarm clock
- ▶ Passkey
- ▶ Video and audio recorder
- ▶ Calculator
- ▶ Game console
- ▶ Remote car starter
- ▶ Security system

# Trend – Push Notification w/GPS





# Trend – Privacy

- ▶ The Hansel & Gretel effect
- ▶ Tracking
- ▶ Data Brokering



# Trend – Privacy

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# Trend – Mobile Threats

- ▶ Viruses
- ▶ Social Engineer (email and text)
- ▶ MITM – Man In The Middle (Transport)
- ▶ MITB – Man In The Browser
- ▶ Smarter hackers (selective, trickier)
- ▶ Gullibility and Greed
- ▶ Personal Impatience
- ▶ Free economy
- ▶ Bad Apps

# Trend – Mobile Threats



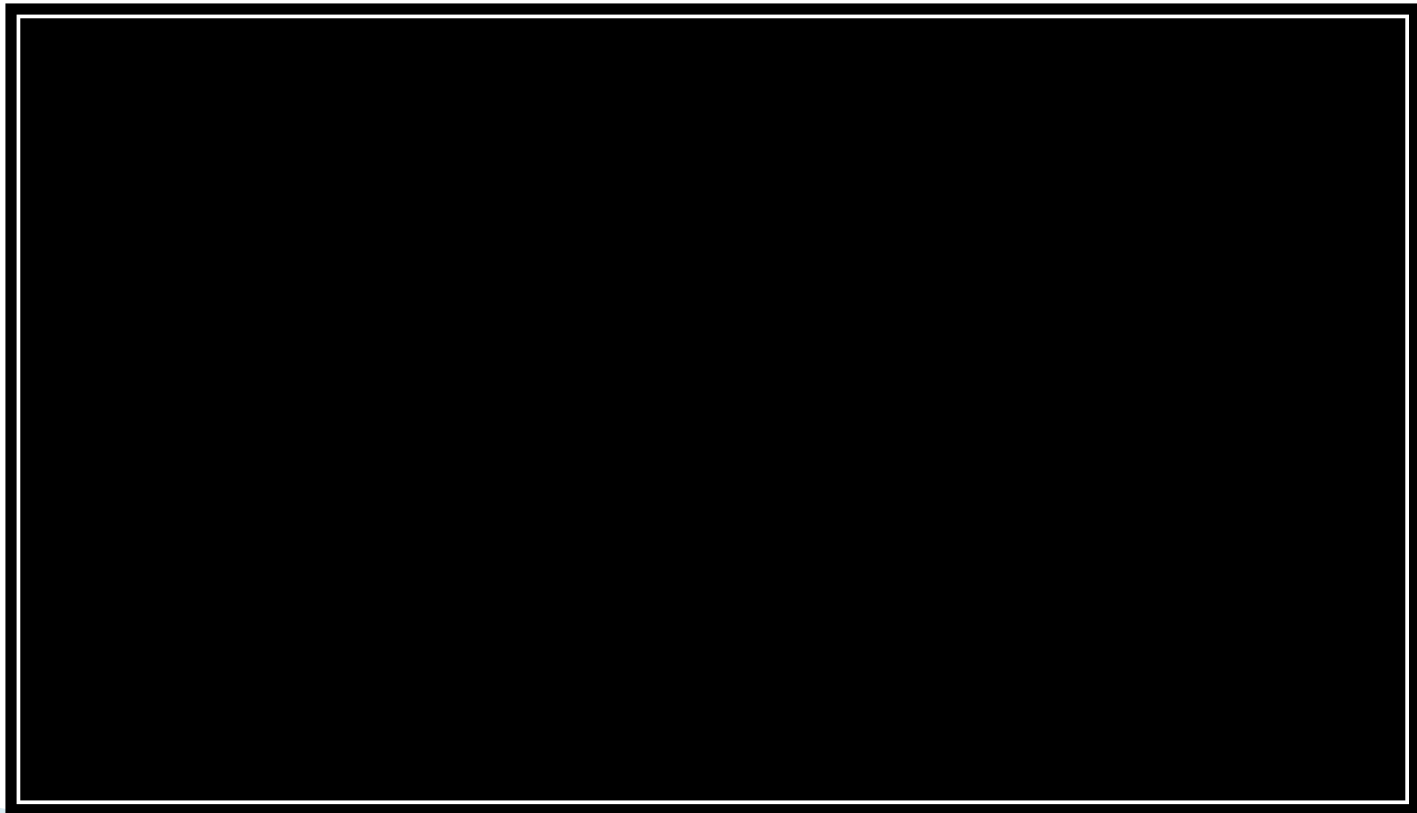
# Trend – Speed

- ▶ Leapfrog Technologies



# Trend – Mobile Commerce

- ▶ NFC – Near Field Communications
  - Google Wallet and Coin





# Trend – Mobile Commerce

- ▶ NFC – Near Field Communications
- ▶ Google Wallet
- ▶ Onlycoin
- ▶ iPay



# Trend – Cloud





# Trend – Wi-fi

- ▶ We have a strong desire to be connected.
- ▶ Maybe too strong!

# Trend – Wi-fi



# Trend – Managed Security

- ▶ The Black Phone
- ▶ BYOD – getting stronger
- ▶ MDM – Mobile Device Management
  - Define
  - Restrict
  - Monitor
  - Wipe

# Trend – Policies and Legal

- ▶ Slow to catch up
- ▶ No “one size fits all”
- ▶ Getting tighter
- ▶ The right to be forgotten

# Trends – Audit

- ▶ It is getting harder
  - 3<sup>rd</sup> and 4<sup>th</sup> party agreements
  - Co-mingled data
  - Consumerization of IT
- ▶ Must stay current with trends to be effective

# Trend – Harden Networks

- ▶ Responding to increasing threats
- ▶ Responding to potential government intervention
- ▶ Responding to increasing regulations
- ▶ More secured links (SSL) and encryption
- ▶ Stronger firewalls, virus and spam protection
- ▶ Patch management
- ▶ Virtual Desktop and remote services
- ▶ Multi-factor authentication

# Tips

- ▶ Change you mindset about security
  - Once posted – never gone
  - We are constantly being hacked
  - We are constantly being tracked
- ▶ Complex password protect everything you can
- ▶ Skip the “remember my password” options
- ▶ Change your passwords often



# Tips

- ▶ Drop off the grid
  - Unplug the batteries / Faraday case / cover your camera
- ▶ Stay current on security breaches and trends
  - Listen to the media reports
  - Follow security releases
  - Develop a security aware model
- ▶ Use certified eDisposal
- ▶ Read the fine print EULA



# Tips

- ▶ Consider what is truly needed in the cloud
- ▶ Check the logs / statements / reports regularly
- ▶ Personal hotshot
- ▶ Use 110V
- ▶ Improve contract review (3<sup>rd</sup> and 4<sup>th</sup> party)
- ▶ Leverage Mobile Data Management tools



**KEEP  
CALM  
AND  
DO YOUR  
WORK**

# About Your Speaker

- ▶ Clifford Clarke, CEO C<sup>2</sup> IT Advisors
- ▶ MBA, PMP, CISM, CGEIT, CRISC
- ▶ Serial Entrepreneur
- ▶ Experiences in small organizations and Fortune 100 companies
- ▶ Work with local, national, and international organizations

## C<sup>2</sup> Information Technology Advisors

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