



Mobile Security



The Mobile World

Mobile Phones - an inseparable part of day to day life

- Nearly 6 billion mobile phone users
- Close to 1.5 billion smart phones, 1.75 billion by 2012.
- Utility Applications coming up fast, controlling lifestyle...
- Mobile Money: Transactions to reach almost \$630 billion by 2014, up from \$170 billion in 2010.
- Mobile Health Care- 500 million user by 2015
- Mobile Data Backup/Storage, enterprise connectivity
- Mobile e-learning: A new approach to education & Knowledge.
- Location Based Services



The Mobile Security Scenario

- **Threat to Mobile Phones Security is on the Rise**
 - **Manifold rise of mobile malware** (viruses, worms and malicious software) : more than doubled in 2011 from 2010
- **Number of Smart Phones are growing**
 - Total shipments in 2011 -491.4 million units, up 61.3 percent from 2010 , **31.8% of all phones.** (IDC – Feb' 12).
 - Prediction - 686 million smart phones will be sold in 2012, 38.4 percent of all handsets shipped (IDC – June' 12)
- **Yet most smart phones and tablets have little security protection.**
 - Only 4% smart phones & tablet shipped in 2010 had some form of mobile security downloaded and installed.
- **This is expected to change – THIS HAS TO CHANGE.**
 - US \$759.8 million – expected spent on security in 2011 alone,
 - Growing at 44 percent annually to be worth US \$3 billion in 2015.



What is Threatened ?

Some of the most threatened Mobile Applications are:

- Money Transfers, Mobile Commerce.
- Data Stored on Phone.
- Remote Data Storage OTA: Access, Transmission.
- Mobile Health Care
- OS Platform: make the mobile itself useless.
- Other utility Apps: Maps, LBS.
- Games, other entertainment apps.



What is the Threat?

- **Sources**
 - Malicious applications
 - Spyware
 - Phishing
- **Channels**
 - Social Networking
 - Bluetooth
 - Wi-Fi Hotspot
- Botnets

How?

Intentional & Malicious Vulnerabilities

- Malware hidden within seemingly safe Apps –
 - Attack OS,
 - Develop Rogue Apps
- Attacking stored Data

Unintentional Vulnerabilities

- .Users' Dependent
 - Not using password protection or weak passwords.
 - Download Apps without verification of source.
 - Unprotected use of mobile internet.
- Programming Practices & Programming Languages



So-How to handle ?

At the core :

- Wireless Intrusion Detection System (WIDS) &
- Wireless Intrusion Prevention System(WIPS).

To Focus at:

- Strong Mobile platform.
- Encryption software.
- E-Services that Protect Privacy.
- Mobile Access confidentiality.
- More...

Way Forward

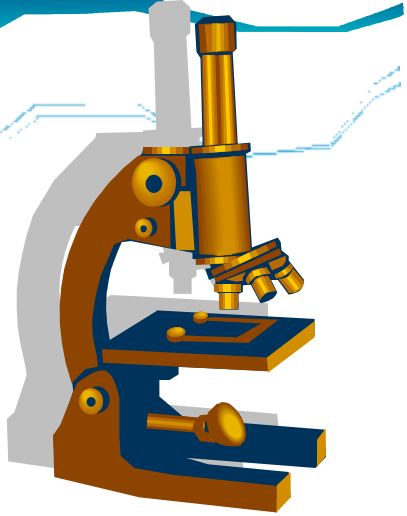
- Collaborative efforts:
 - Centralized Body (like ITU)
 - Regulate:
 - Policies, Standards, Tools & Test Beds.
 - Coordinate
 - Consolidate: Capture, compile
 - Available & Ongoing work :
 - IAG to help through Core Working Group (CWG) and Extended Working Groups (EWG)
 - Focused Objectives
 - Structured Management



Key Points to Ponder?

Society is at a Technology crossroads. It's critical to see mobile security as an overall information risk issue that adversely impacts the society. in an unusually heavy manner. Treating it in any other way will only serve to prolong the problem.

Every decision you and the other stakeholders make regarding mobile security, either moves the world closer to secure & safer mobile usage or farther away.



Thanks

