

# Mobile Data Security

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# Increasing information security risks with handheld devices

- Easily lost, misplaced or stolen
- Paradigm shift in computing and data flow
- Emerging technologies in mobile comm.
- Usage in various sectors
- Proactive / reactive



*Courtesy: Mobile Comm. by J. Schiller*

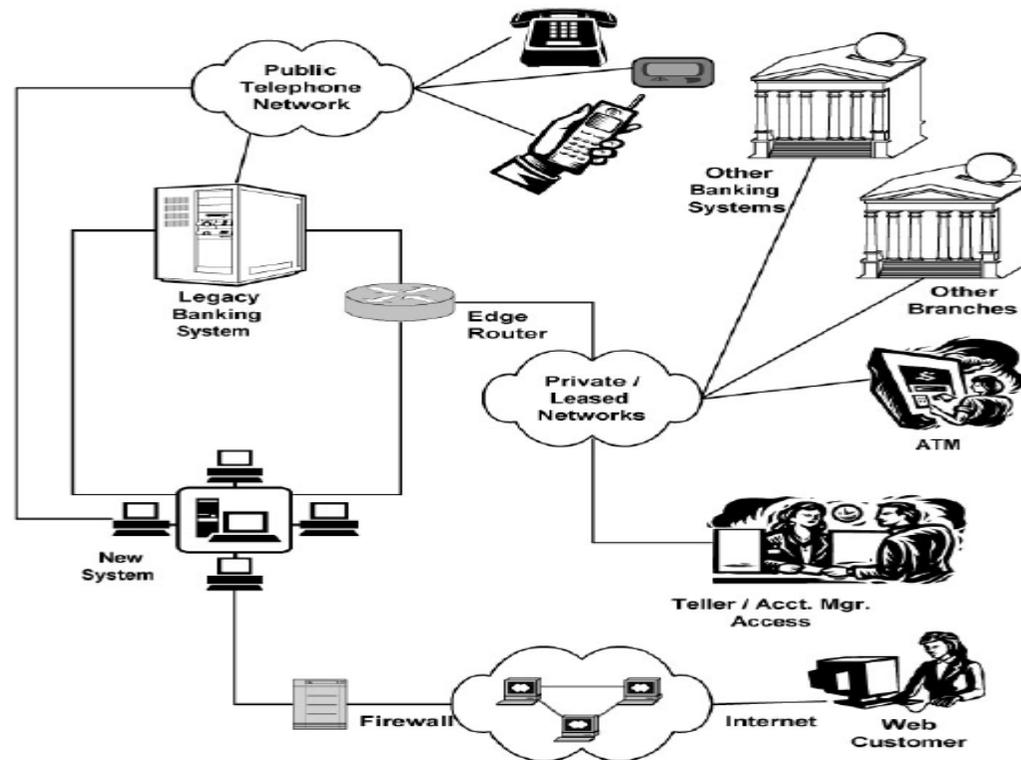
# Paradigm Shift

- Smart phones (multiple functionalities,)
- One to Many / Mobile Ad hoc Network (MANET)
- Data everywhere
- Software Defined Networks (SDN)
- Data Centric Services
- Mobile Cloud



# Extension of ERPs

- Boundaries of traditional Enterprise Resource Planning (ERPs) & Integrated Information Systems (IIS)
- In memory analytics (Business Intelligence- BI)



*Courtesy : LSSA by  
Jeff Garland*

# IPv6 – Internet of Things

- Thousands of logical addresses available
- NAT and IPv4/IPv6 transition/translation issues
- Mobility management with IP
- All-IP networks
- Always -on networks (4G)
- New Services



**Mobile Phone**

**Output Devices 1 -12**



**GSM Modem**



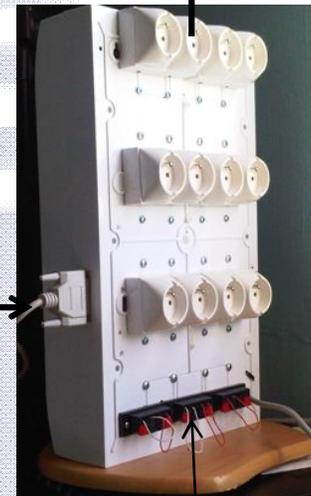
**Electronic Interface**



**GSM Operator and SMSC**



**SMS Gateway,  
Electronic Interface Application  
and  
MySQL Database  
Installed on PC**



**Input Devices 1 - 5**



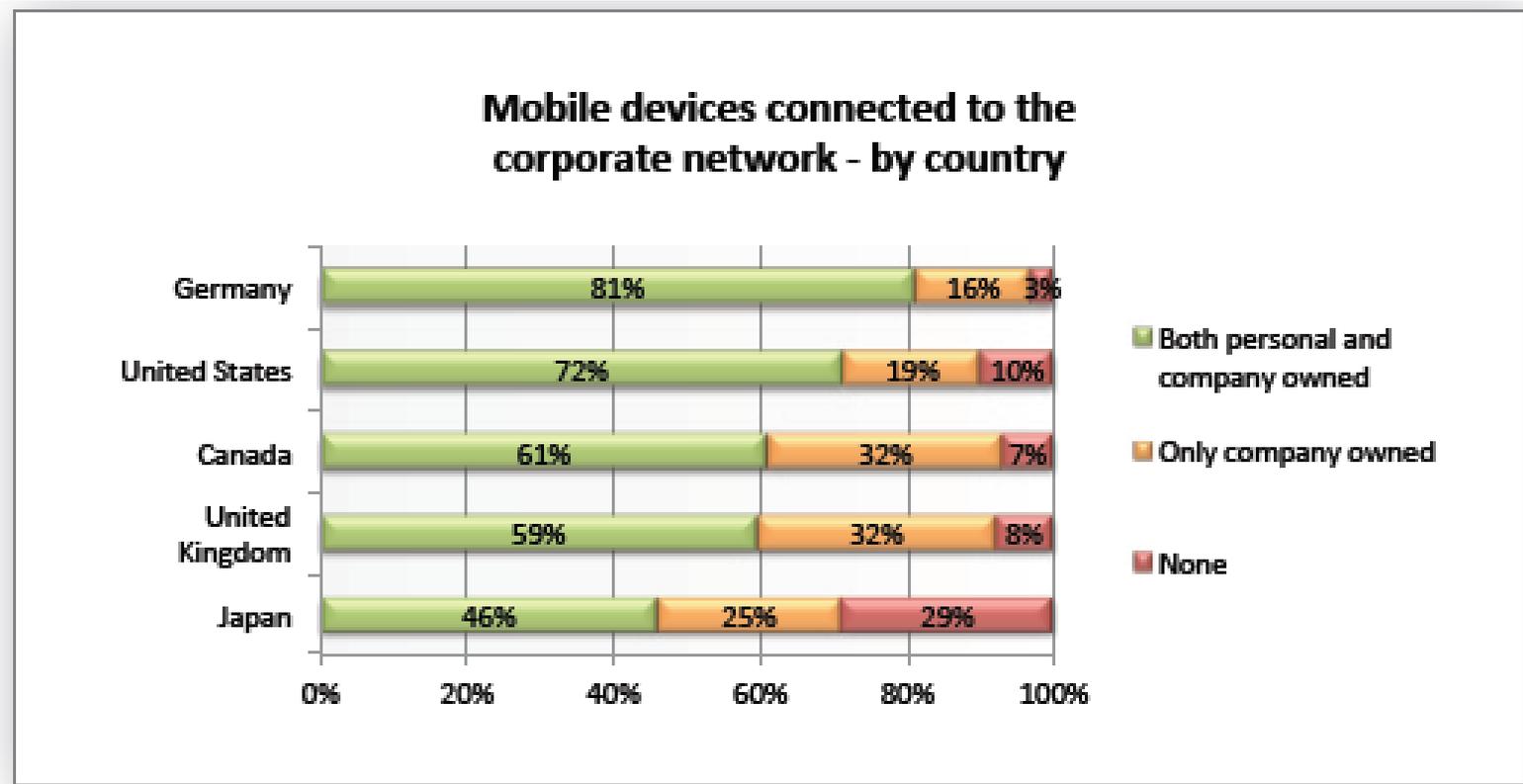
# Mobile Apps / API

- Shift from browser to apps. ( Online or Offline)
- Huge market for Application Programming Interface(API) & Enterprise Apps. Store( EAS)



# Bring Your Own Device (BYOD)

- Growth in use of personal mobile devices at work



*Courtesy: ©2012Dimensional Research*

# Mobile Data

login credentials

Enterprise info.

Images

Corporate e-mails

SMS/MMS

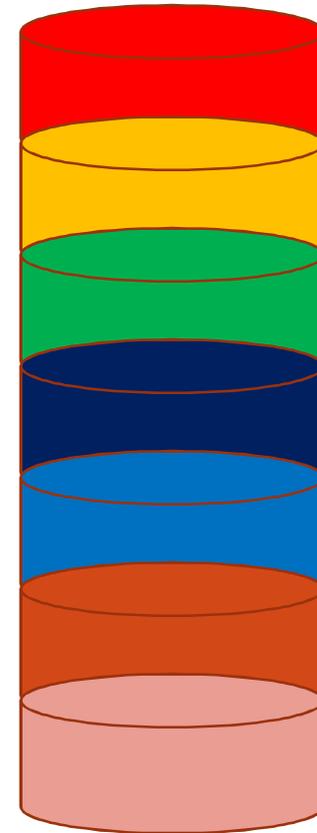
Notes

Strategic partners details & info.

Clips/Videos

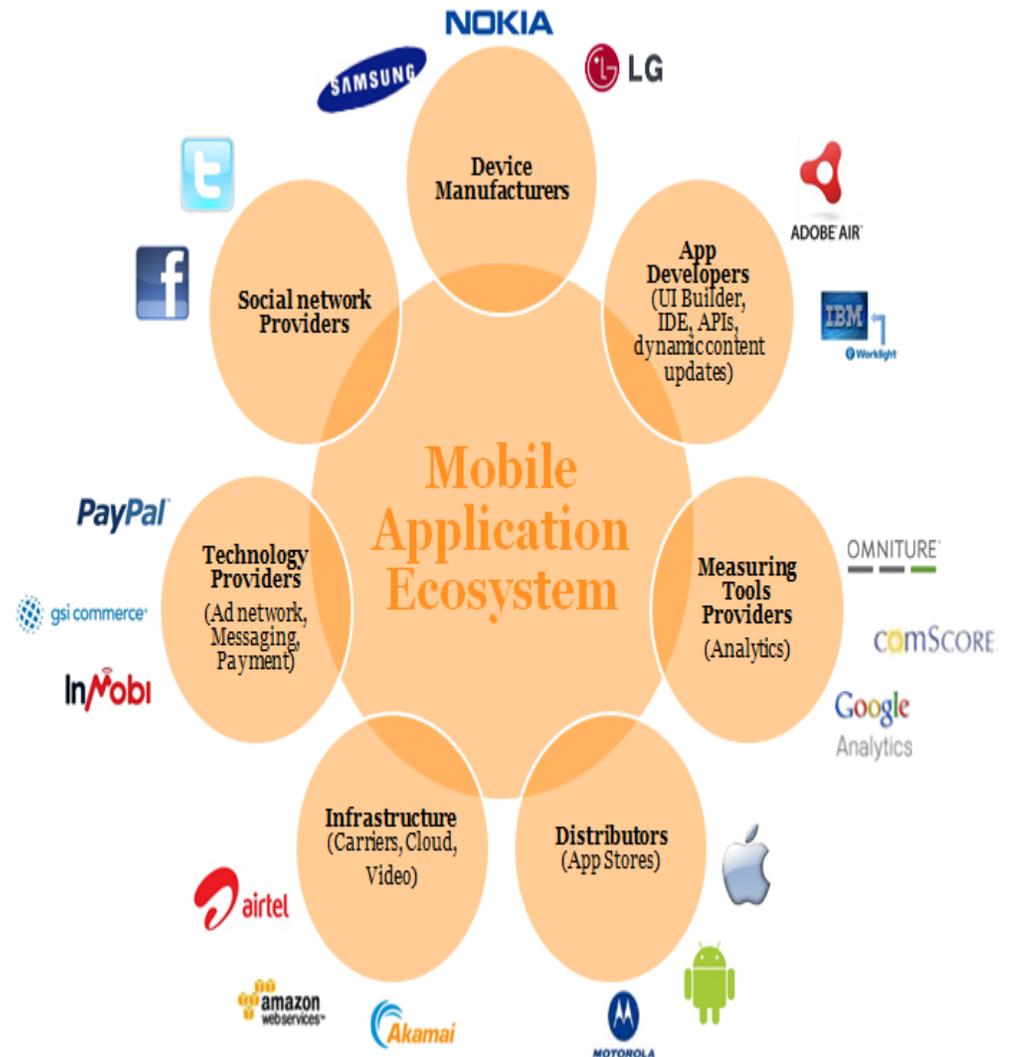
Customer info.

Web logs



# Mobile Data EcoSystem

- Operators
- End users
- Citizens
- Government Agencies
- Business Community
- Content Provider
- Cloud Service Provider



# Preventive measures

- Lack of employees awareness about security policies
- Hackers
- Security Policies for the mobile work force
- Legislation
- Mobile Audit
- Secure Apps
- Secure networks
- Anti-virus



# UTM expertise ( 2002- 2012)

- Development of secure Apps
- White Hat / Reverse Engineering
- Mobile Auditing Framework
- Mobility Management
- Forensics
- Mobile VoIP / VPN
- Data Recovery /Extraction
- Technology transfer
- R&D



*Thank You*