

CTIA- The Wireless Association

Presentation for Federal Reserve Bank

Emerging Risks in Emerging Payments

***November, 15, 2010
Atlanta, GA***

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CTIA Member Based Association

- US Wireless Carriers (MNOs)
- Handset/Device Manufacturers
- Network manufacturers
- Platform providers
- Application providers
- Content providers

CTIA – The Wireless Association

Departments

Policy and Regulatory Lobbying in DC

Federal, State, Congress

Trade Show

Exhibitors and Attendees

WIRELESS Show (Spring)

Enterprise & Applications (Fall)

Handset Certification

Testing and Certifying viability
and safety

All Handsets available to
Consumer in US market

Short Code Management CSCA – usshortcodes.com (SMS- Text Messaging)

5 and 6 digit codes using SMS
to deliver programs to US consumers

Other Departments:

Wireless Foundation; **Wireless Internet Development**; Membership; Public Affairs

CTIA's Role in the Industry

CTIA-The Wireless Association® (www.ctia.org) is an international organization representing the wireless communications industry. CTIA advocates on behalf of its members at all levels of government.

The association also coordinates the industry's voluntary best practices and initiatives, and sponsors the industry's leading wireless tradeshows.

Wireless Internet Development department negotiated cross-carrier SMS in the Industry in 2003.

Mobile Finance- Specific Published Work by CTIA Member Group

Mobile Financial Services (MFS) Best Practices and Guidelines

http://www.ctia.org/business_resources/index.cfm/AID/11507

This was a voluntary and joint effort by CTIA member companies. Legal representatives participated. Presented to and accepted by CTIA Board of Directors, January, 2009.

Meant to be a guideline that assists Application Providers background from which to base their development and customer practices.

Important step because the members foresaw meteoric growth in this area.

Mobile Finance- Specific Published Work by CTIA Member Group

- MFS Guidelines/Best Practices (BoD, Jan 2009)
- Ensure that Liability Rests with Mobile Financial Service Providers
- Clear & Conspicuous Disclosures to Users
- Extra Layer of Security for Financial Data
- Fraud Prevention (fraud vs. carriers = \$30-40B annum)
- Compatibility Standards: Networks & Handsets
- Collection, Use and Control of Data
- Customer Service/Complaints

CSCA- Common Short Code Administration

5 or 6 digit numbers

- Random - Assigned by CSC Registry
- Selected - number chosen from available CSCs
- First number can not be '0' or '1', i.e. number range is 20000 to 99999

Leased, not bought

- \$500 per month for random codes, \$1000 per month for selected codes
- Lease periods of 3, 6, and 12 months
- Leases may be renewed
- Leases assigned to content owner

CSC assignment is the first step

- CSC applications must be individually approved by participating carriers
- CSC connectivity must be implemented and tested with each participating carrier
- Commercial terms for CSC applications must be negotiated with participating carriers (ie standard rate or premium)
- The CSCA does not facilitate any step after the CSC number assignment

Payment Types Via Mobile

Juniper Research, October, 2009 – White Paper “Sharing Money the Mobile Way”

Current Payment Methodologies Include:

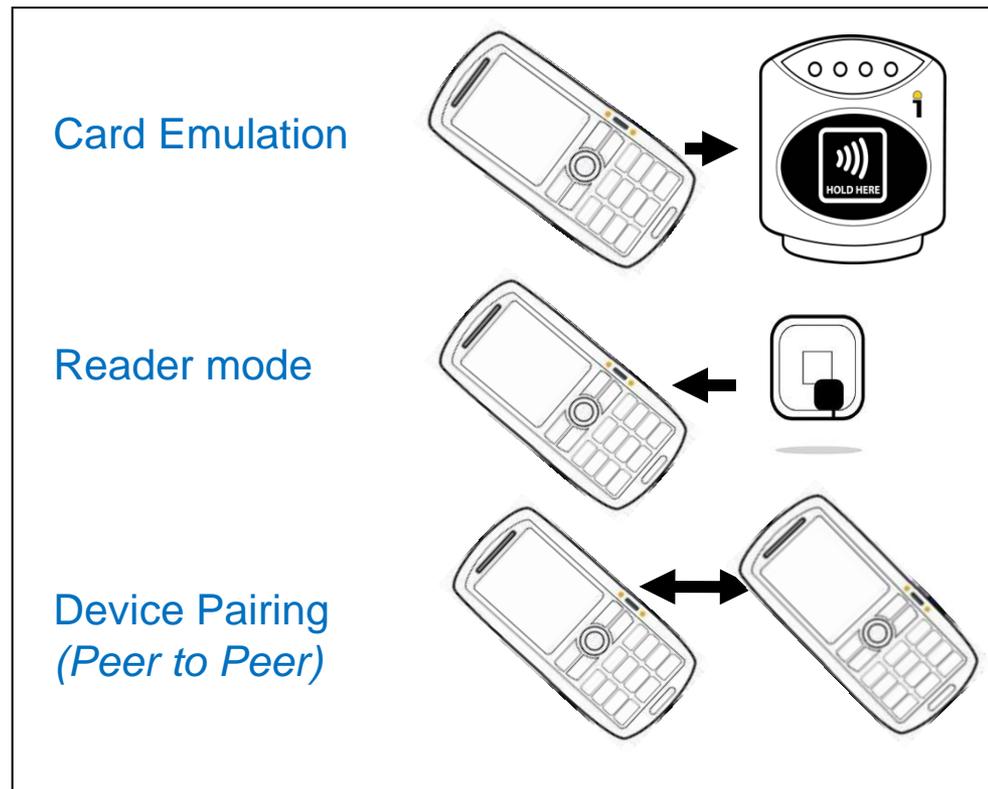
Mobile Payment Segment/ Scheme	Description	Example/ Providers
Remote Digital/ Payment to phone Bill	Run by Operator & aimed at low value payments for mainly digital content	Most Operators
Remote Digital/ Premium SMS	To pay for Digital content & for interactive TV	Content Providers such as Jamster & TV companies
Remote Digital / Mobile Web & WAP Billing	Non-SMS based payments for mobile web digital content via WAP billing	UK's Payforit
Remote Digital & Physical/ SMS – mobile Wallet & Account based	SMS based using a pre-registered account and/or mobile wallet	PayPal Mobile, SmartPay Jieyin & PayMate
Remote/ P2P Person-to-Person	SMS based transfer of funds between two mobile phones to redeem for cash or goods. Can be by SMS, downloaded application, account based or via phone browser.	Obopay, Globe Telecom and Trumpet
Remote Physical/ Mobile Web & WAP billing	Mobile web browser user interface with WAP billing	mPoria, Rakuten, Digby
Point of Sale/ Text & PIN & Bluetooth	Text-based and Bluetooth transactions at the physical storefront	PayMate, Vodafone New Zealand, ROLLCOM
Point of Sale/ Contactless (NFC)	“Wave & Pay” scheme where phones are waved in front of reader, e.g. NFC or FeliCa	NTT DoCoMo, MasterCard PayPass and Visa

What is NFC

Near Field Communication

offers an automatic and secure RF link between electronic devices.
(mobile phones, PDAs, computers , payments terminals, etc.)

- Derived from Contactless Smart Card Technology
- Any NFC device can act as a reader and as a card
- It works via standards (NFC Forum)



What are the Carriers doing in NFC ?

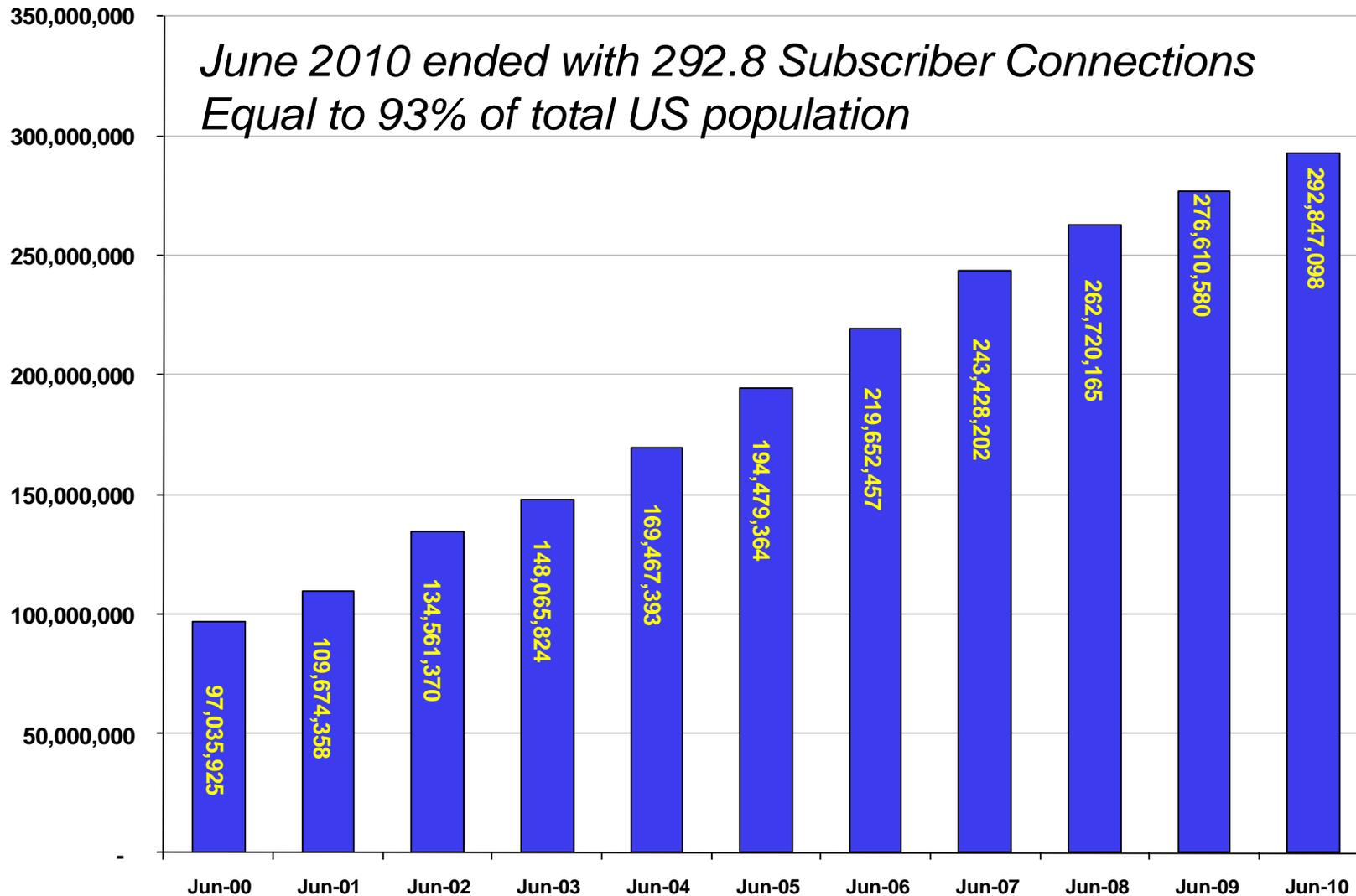
The Rumor Mill....

<http://www.mobilebusinessbriefing.com/article/smart-cards-need-smart-phones>

Published: Tuesday 10 August 2010

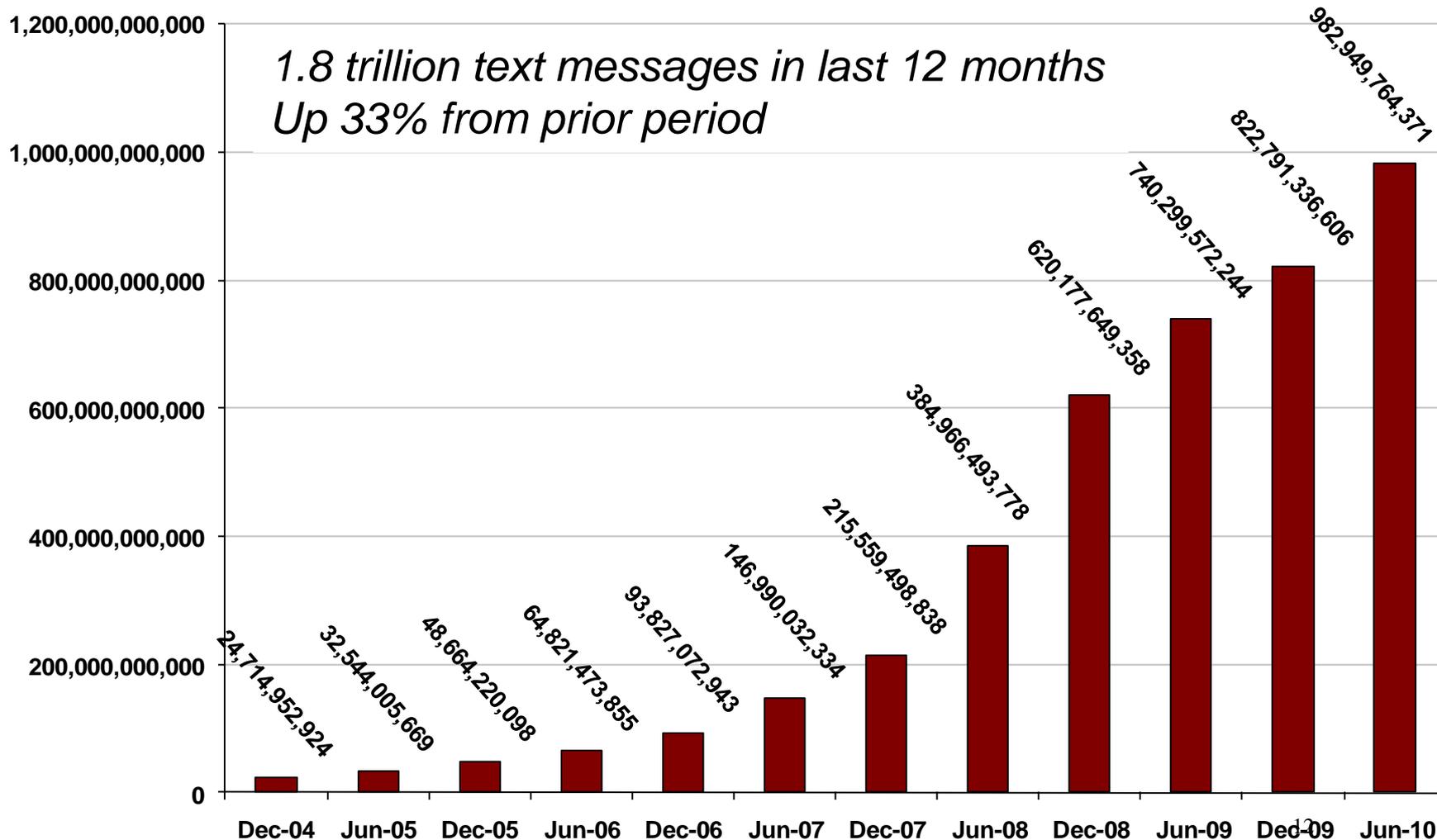
- **The Mercury project has yet to be officially confirmed by any of the parties involved, though AT&T and Verizon Wireless are understood to be equal partners in the venture, with Deutsche Telekom's T-Mobile USA owning a smaller stake.**
- **The three operators are reportedly now searching for a CEO to lead the initiative.**
- **Barclays and US credit card firm Discover are also thought to be on board to process the payments made using the service.**
- **The smartphones used in the pilots are expected to use embedded NFC technology to facilitate contactless payments, though there has been no word to date on who will make these devices.**
- **Read today's blog on the story [here](#).**

Consumer Metrics – Total Estimated Subscriber Connections

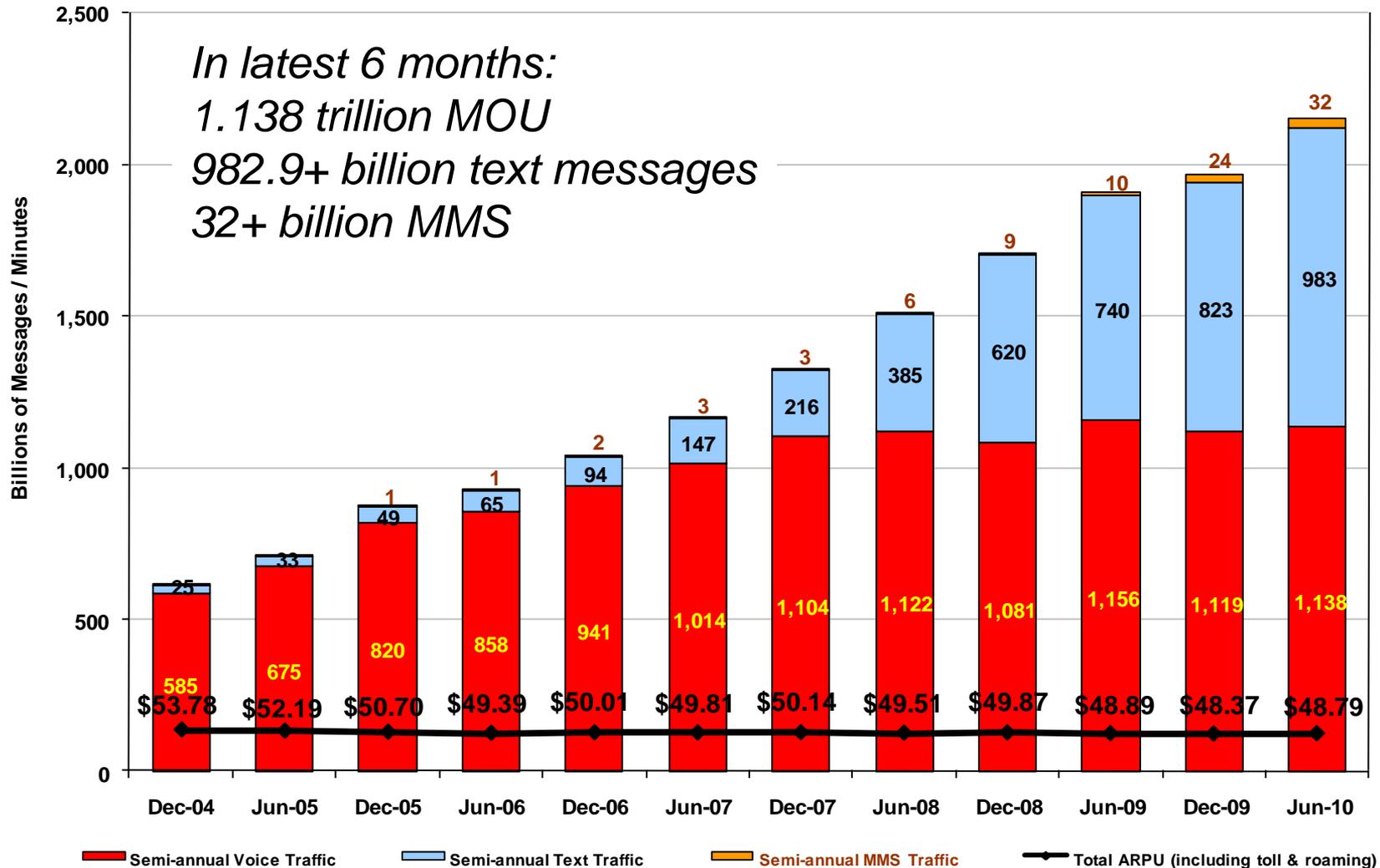


Traffic Measures – Six-Month Texting Traffic (includes IM)

Reported Six-Month Text Traffic Grows 33% Year-Over-Year



Semi-Annual Traffic Measures – Voice & Data



Consumer Metrics – Devices and Users

Based on sequential questions:

- 279.5 mm total reported subscribers

(overall survey) (292 mm– Estimated total)

- 264.5 mm data-capable handsets
– (up 7.5 million)
- 243.7 mm SMS-capable devices
– (up 5.3 million)
- 243.5 mm web-capable handsets
– (up 5.1 million)
- 61.2 mm Smartphones & PDAs
– (up 11.4 million)
- 12.95 mm wireless-enabled laptops, netbooks, & wireless broadband modems
– (up 1+ million)

100%	ALL
95%	Data
87%	SMS
87%	WEB
22%	Smart phones
4%	'net Books'

CTIA

Wireless Internet Caucus

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An Initiative of CTIA–The Wireless Association®

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Thank You