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Internet Trends

April 12, 2010

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Internet Trends Outline

- Stock Market Update
- State of the Internet…

  Mobile Will Be Bigger Than Desktop Internet in 5 Years
- Mobile Internet Deep Dive

Stock Market Update

Stock Market = Often a Leading Indicator of Economic Growth

Russia +225% vs. 36-Month Low / India +120% / China +85% / USA (S&P500) +76%

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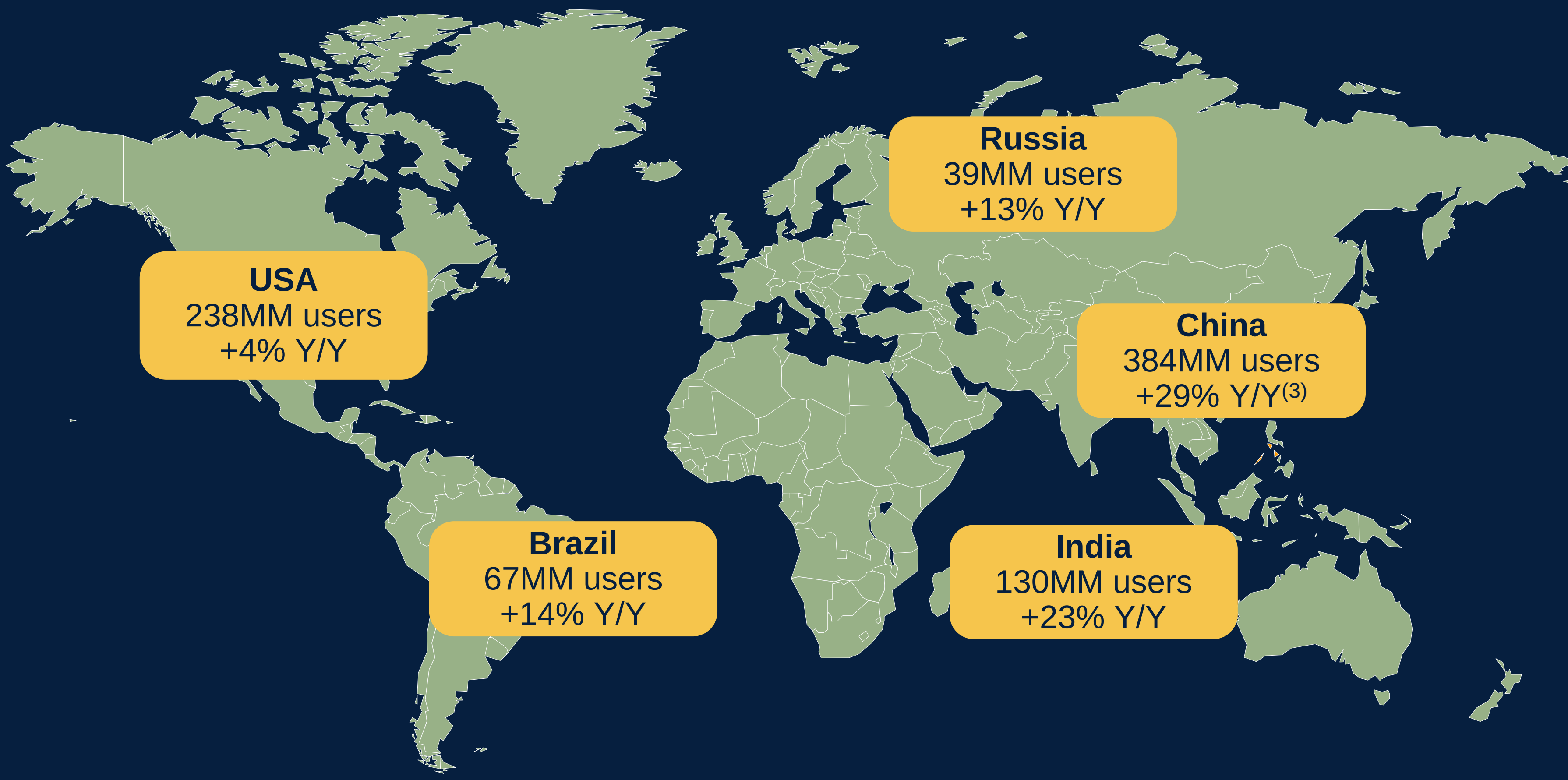
Note: all indices start at a value of 100 on 4/5/07; data as of 4/5/10; Source: FactSet.

State of the Internet…Mobile Will Be Bigger Than Desktop Internet in 5 Years

State of the Internet –
Usage Growth Remains Robust – 5 Countries = 48% of Users

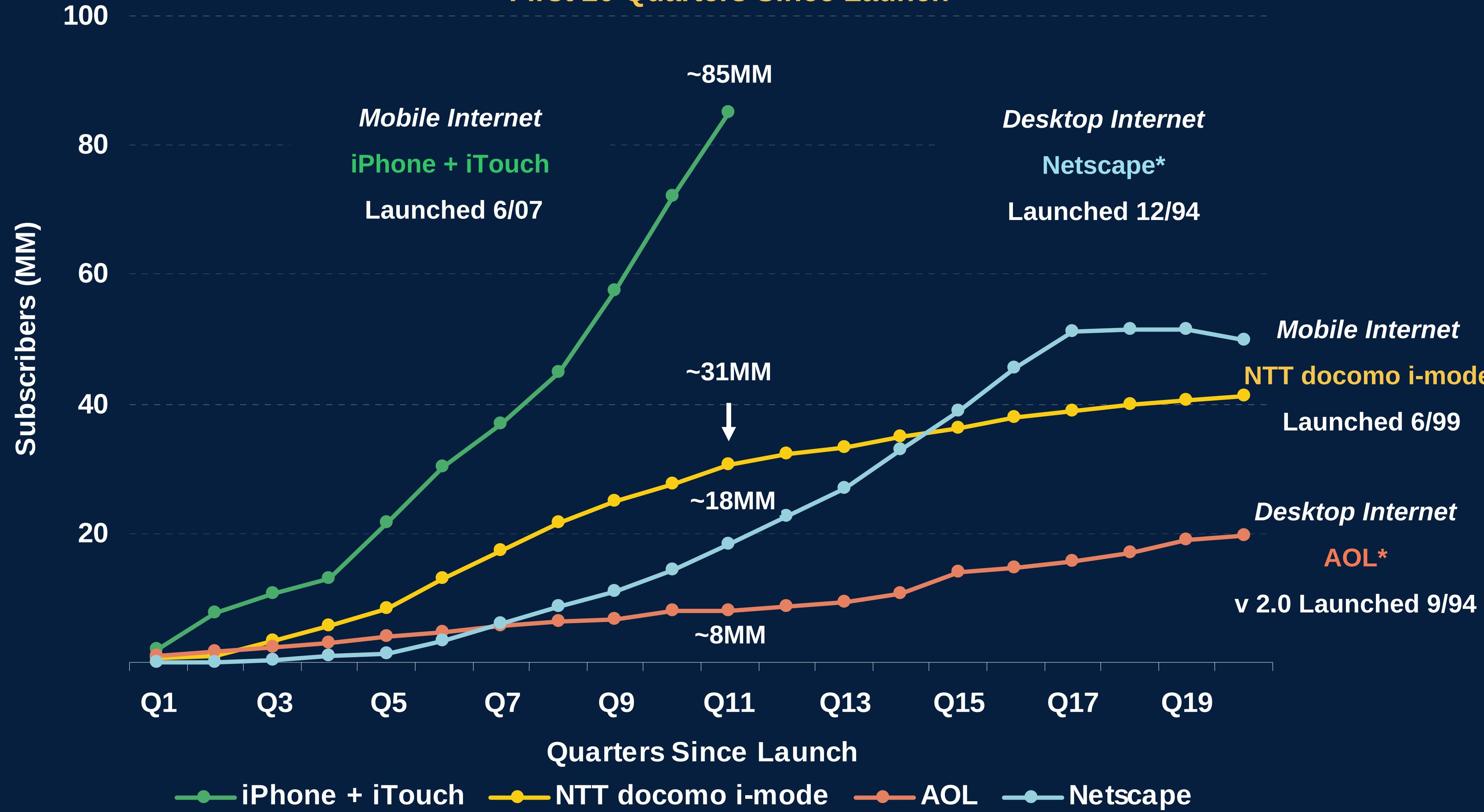
Global Internet Stats in 2009E
1.8B Users, +13% Y/Y[1]; 18.8T Minutes Spent, +21% Y/Y[2]



Source: 1) Internet user stats are estimates by Morgan Stanley Research; 2) time spent data per comScore global 12/09; 3) China Internet uer stats per CNNIC, 1/10.

Mobile Internet Ramping Faster than Desktop Internet Did – Apple Leading Charge

iPhone + iTouch vs. NTT docomo i-mode vs. AOL vs. Netscape Users
First 20 Quarters Since Launch



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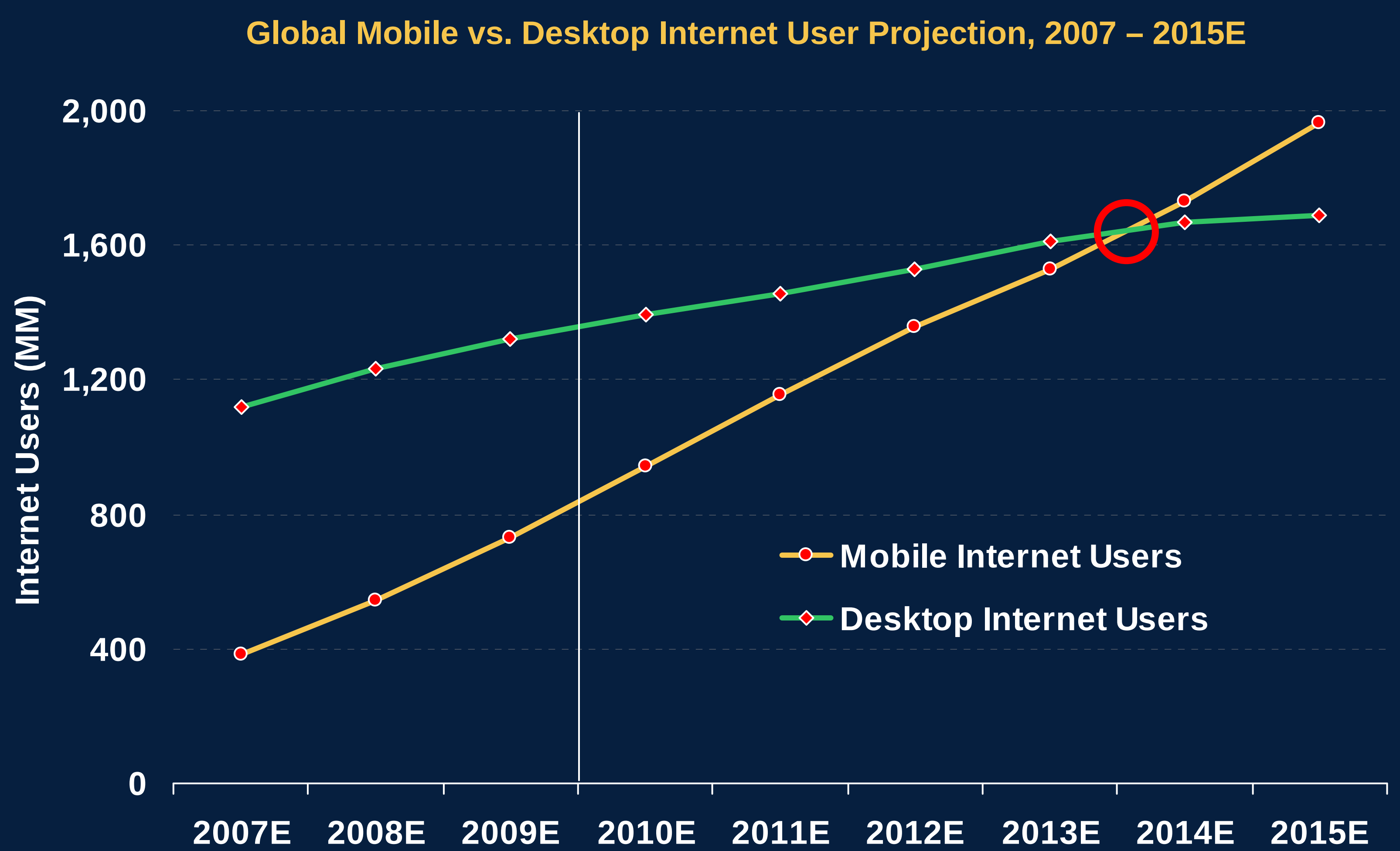
*Note: *AOL subscribers data not available before CQ3:94; Netscape users limited to US only. Morgan Stanley Research estimates ~50MM netbooks have shipped in first 10 quarters since launch (10/07). Source: Company Reports , Morgan Stanley Research.*

Mobile Users > Desktop Internet Users Within 5 Years



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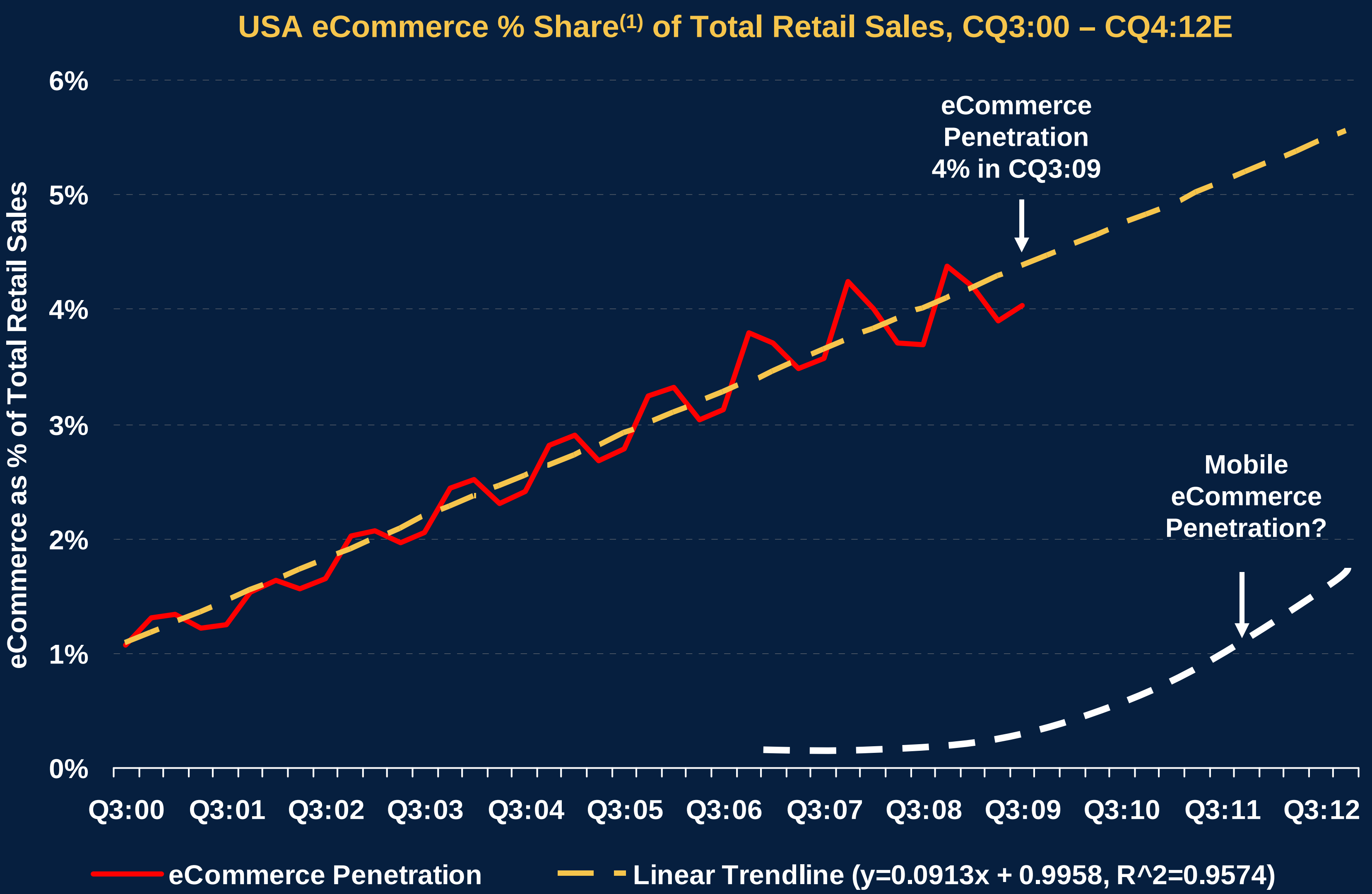
Source: Morgan Stanley Research.

Online Commerce Gaining Share vs. Offline –
Online at 4% of USA Retail, Mobile Should Get to Same Level Much Faster



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Note: (1) Adjusted for eBay by adding eBay US gross merchandise volume and subtracting eBay US transaction revenue; Source: US Dept. of Commerce (CQ3:09), Morgan Stanley Research.

E-Commerce -
USA Online Penetration = 4-6% and Rising

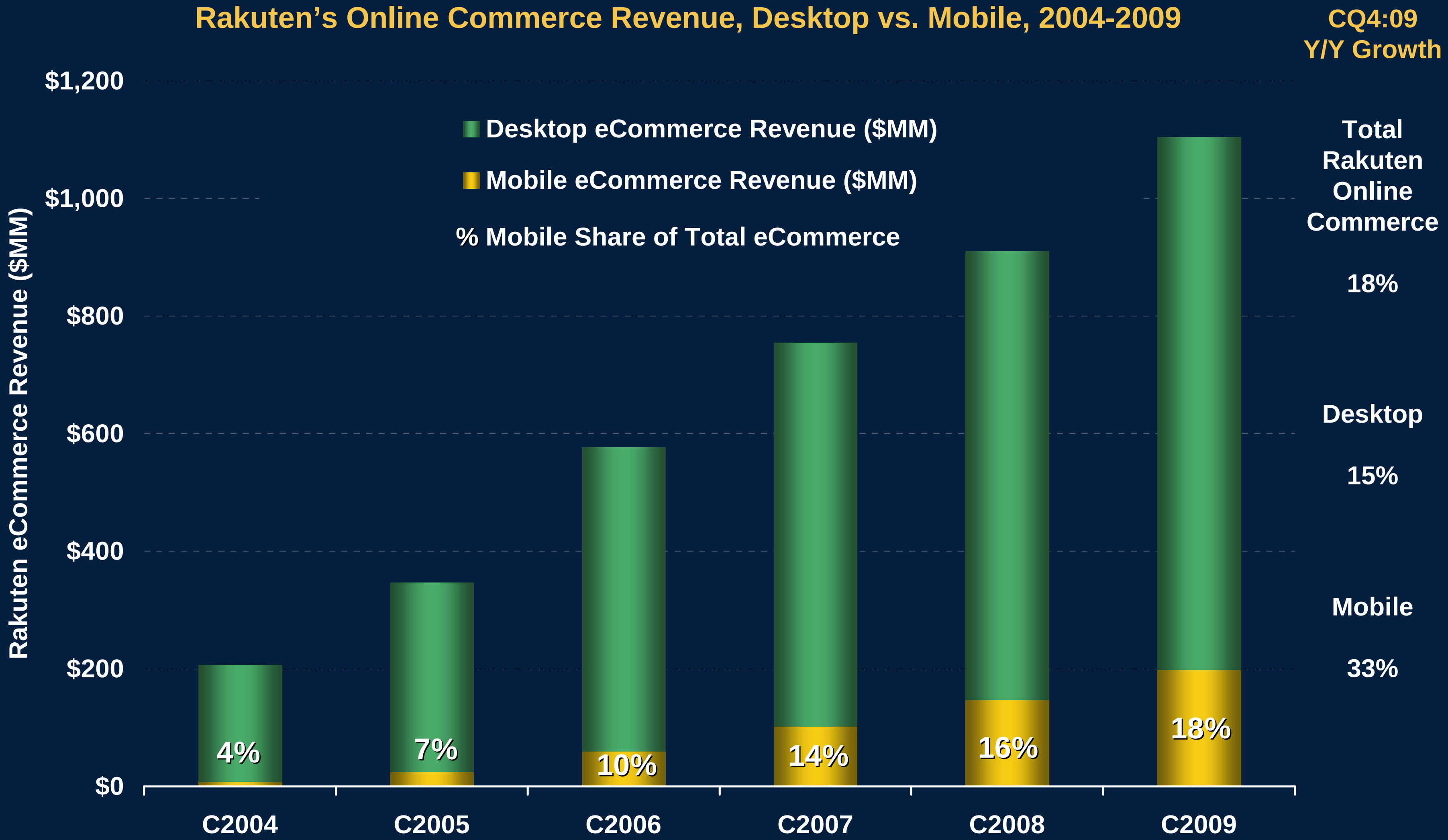
Categories' Online Penetration of US Retail Market, 2007

>20%		10 - 20%		<10%	
Computer products	45%	Toys / video games	19%	Home furnishings	9%
Other event tickets	27%	Baby products	19%	Cosmetics / fragrances	9%
Books	24%	Consumer electronics	18%	Sporting goods / apparel	8%
Music / video	24%	Office supplies	13%	OTC meds / personal care	6%
Gift cards / certificates	21%	Flowers / cards	12%	Appliances / tools	5%
		Jewelry	11%	Pet supplies	4%
		Apparel / footwear	10%	Auto / auto parts	2%
		Movie tickets	10%	Food / beverage / grocery	1%

Note: (1) Our proprietary adjusted e-Commerce sales & Census Bureau's quarterly total retail sales data suggest ~4% penetration, Forrester claims 6%.
Source: The State of Retailing Online 2008 (Forrester Research).

Mobile Commerce Outlook = Japan Shows Way –

19% (and Rising) of Rakuten's CQ4:09 Online Commerce Revenue Derived from Mobile



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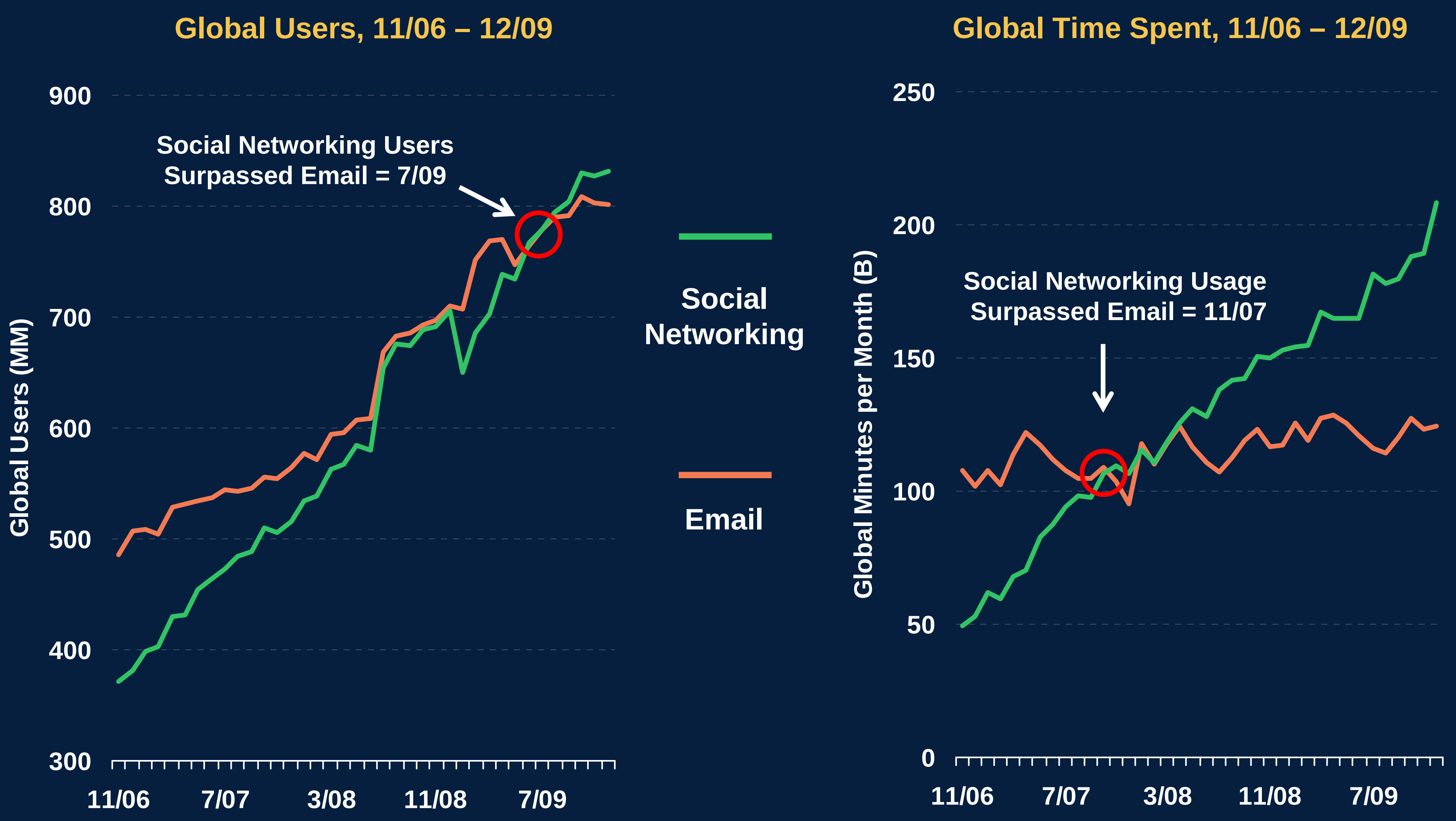
Note: Rakuten Ichiba is Japan's leading eCommerce company, eCommerce revenue excludes travel, includes books and auctions. Source: Company data, Nema Naoshi, Morgan Stanley Research.

Communications –
Social Networking > Email Usage…



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Source: comScore global, Morgan Stanley Research.

Connectivity = Cloud Computing
Consumers Expect to Get Their Stuff 24x7 from Palms of Their Hands

Music in the Cloud

Video in the Cloud

Photos in the Cloud

Apps / Documents in the Cloud

Shopping / Stuff in the Cloud

User Generated Content

Facebook is the leading repository for user-generated photos / videos / comments / links to music / social games

Unified Digital Locker

Professional Content

Leading repository TBD

Apple iTunes? Amazon.com? Netflix? Hulu? Spotify?

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Note: Apple iTunes yet to offer full length media streaming. Source: Company websites.

Mobile Internet Deep Dive

Mobile Internet - Overview

1. **Wealth Creation / Destruction is Material in New Computing Cycles – Now in Early Innings of Mobile Internet Cycle, the 5th Cycle of Last Half Century.**
2. **Mobile Ramping Faster than Desktop Internet Did and Will Be Bigger Than Most Think – 5 Trends Converging (3G + Social Networking + Video + VoIP + Impressive Mobile Devices).**
3. **Apple Leading in Mobile Innovation + Impact, for Now – Depth of App Ecosystems + User Experience + Pricing Will Determine Long-Term Winners.**
4. **Game-Changing Communications / Commerce Platforms (Social Networking + Mobile) Emerging Very Rapidly.**
5. **Massive Data Growth Driving Carrier / Equipment Transitions.**
6. **Growth / Monetization Roadmaps Provided by Japan Mobile + Desktop Internet.**

- 1 -

Wealth Creation / Destruction is Material in New Computing Cycles – Now in Early Innings of Mobile Internet Cycle, the 5th Cycle of Last Half Century

Tech Cycles Tend to Last Ten Years
Entered Next Major Computing Cycle – Mobile Internet – 2 Years Ago

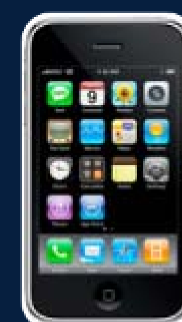
Mainframe
Computing
1960s

Mini
Computing
1970s

Personal
Computing
1980s

Desktop Internet
Computing
1990s

Mobile Internet
Computing
2000s



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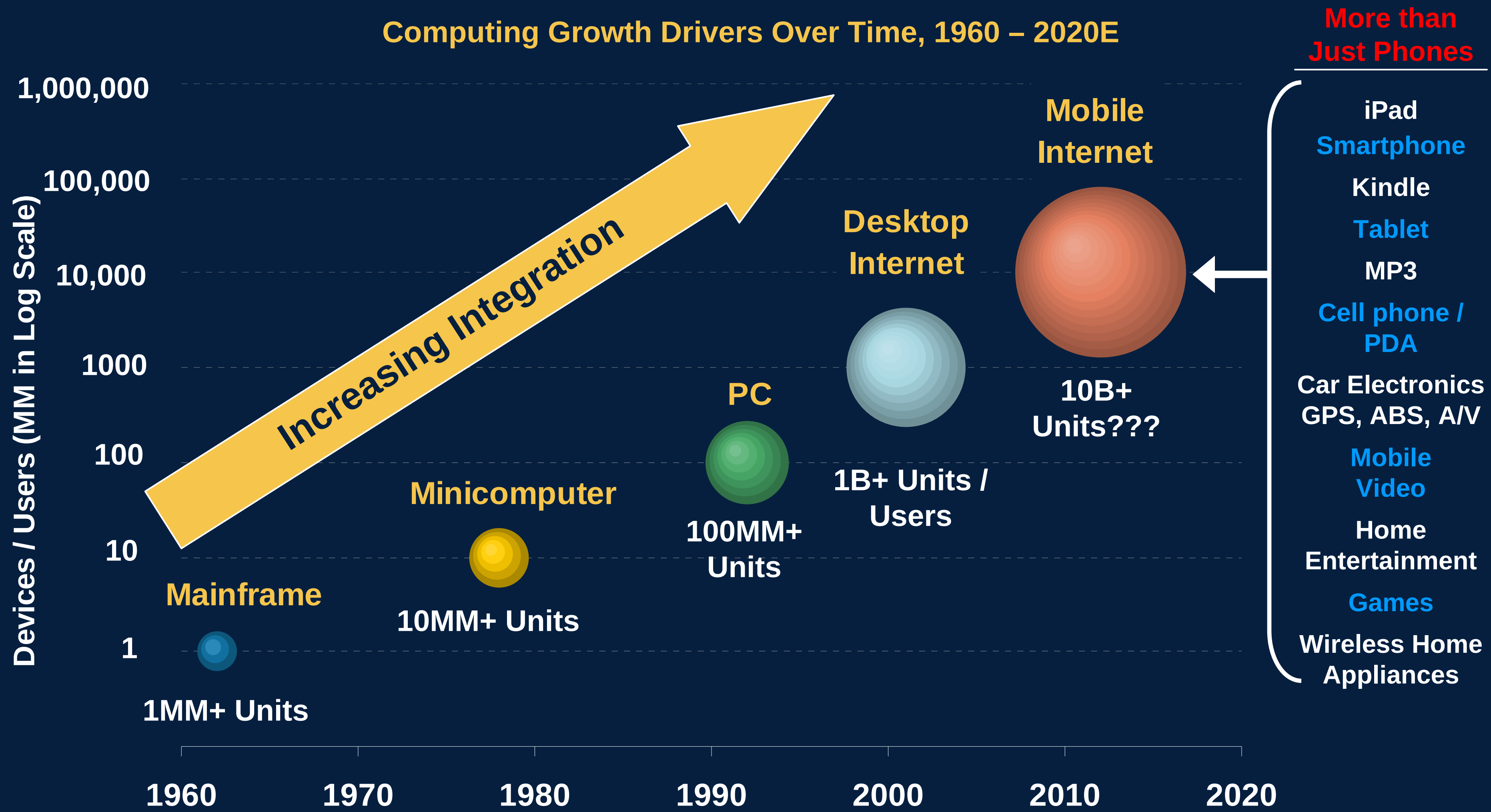
Source: Computersciencelab.com, Wikipedia, IBM, Apple, Google, NTT docomo, Morgan Stanley Research.

New Computing Cycle Characteristics

Reduce Usage Friction Via Better Processing Power + Improved User Interface + Smaller Form Factor + Lower Prices + Expanded Services = 10x More Devices



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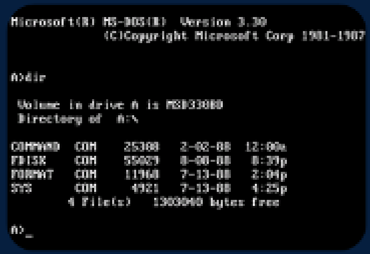
Note: PC installed base reached 100MM in 1993, cellphone / Internet users reached 1B in 2002 / 2005 respectively; Source: ITU, Mark Lipacis, Morgan Stanley Research.

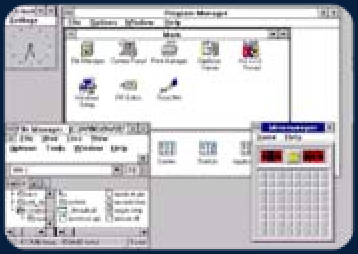
User Interface + Device Usage Evolution Over Past 30 Years

User Interface

Text



Graphical



Touch

Input Device

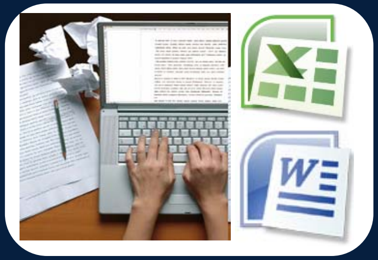
Keyboard

Mouse

Fingers

Device Usage

Content Creation



Communication

Content Consumption

Technology Wealth Creation / Destruction Cycles

New Companies Often Win Big in New Cycles While Incumbents Often Falter

Mainframe Computing 1960s

New Winners

- IBM
- NCR
- Control Data
- Sperry
- Honeywell
- Burroughs

Mini Computing 1970s

New Winners

- Digital Equipment
- Data General
- HP
- Prime
- Computervision
- Wang Labs

Personal Computing 1980s

New Winners

- Microsoft
- Cisco
- Intel
- Apple
- Oracle
- EMC
- Dell
- Compaq

Desktop Internet Computing 1990s

New Winners

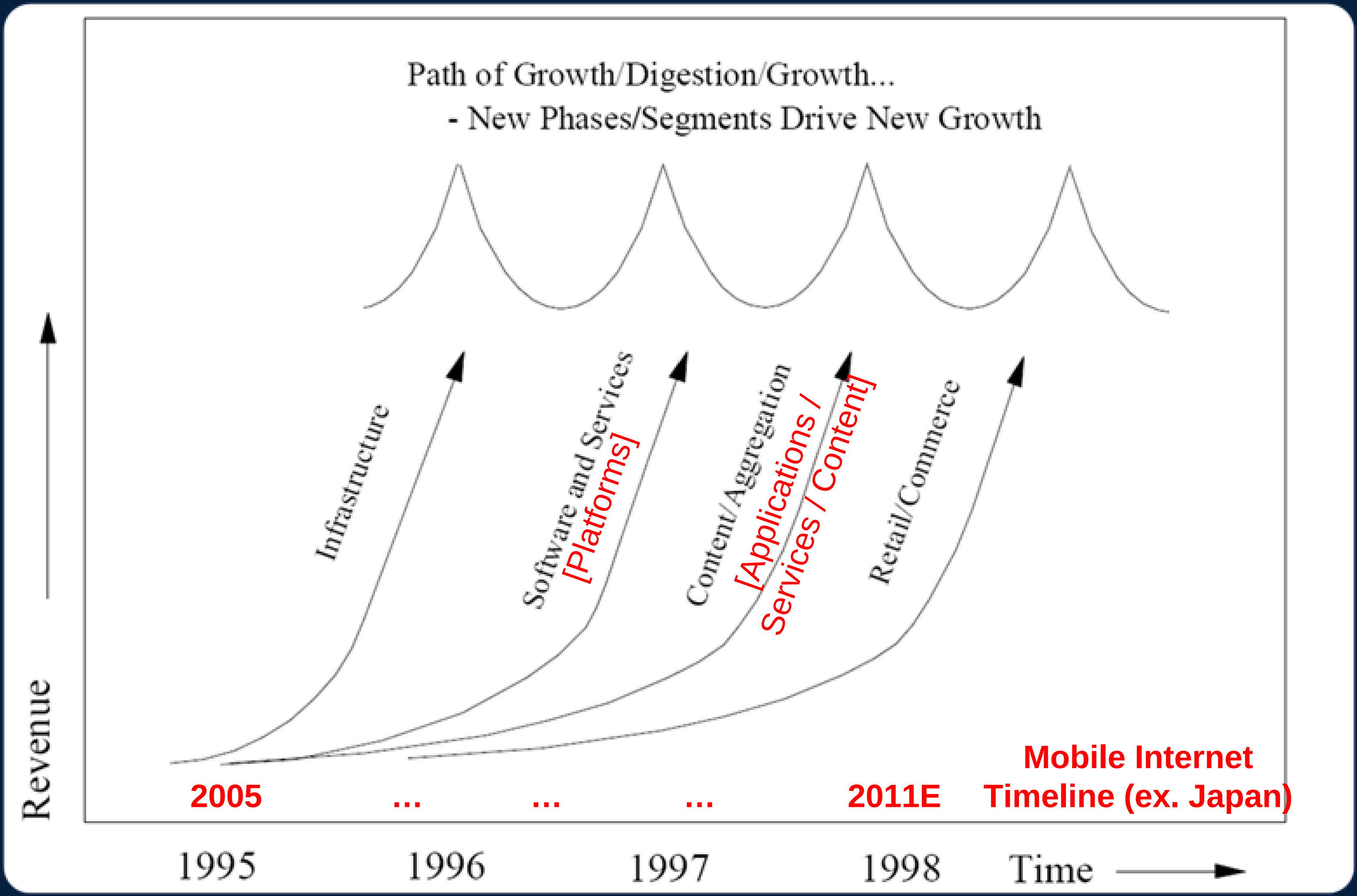
- Google
- AOL
- eBay
- Yahoo!
- Yahoo! Japan
- Amazon.com
- Tencent
- Alibaba
- Baidu
- Rakuten

Mobile Internet Computing 2000s

Note: Winners from 1950s to 1980s based on Fortune 500 rankings (revenue-based), desktop Internet winners based on wealth created from 1995 to respective peak market capitalizations. Source: Factset, Fortune, Morgan Stanley Research.

Mobile Internet Likely to Follow Timing & Development
Patterns of Desktop Internet Market

Timing & Development of Internet Market Segment – From Our 1996 Internet Retailing Report



Note: Original chart (black text) from Morgan Stanley's Internet Retailing Report, published in 1996. Red text augmented in 11/09.
Source: Morgan Stanley Research.

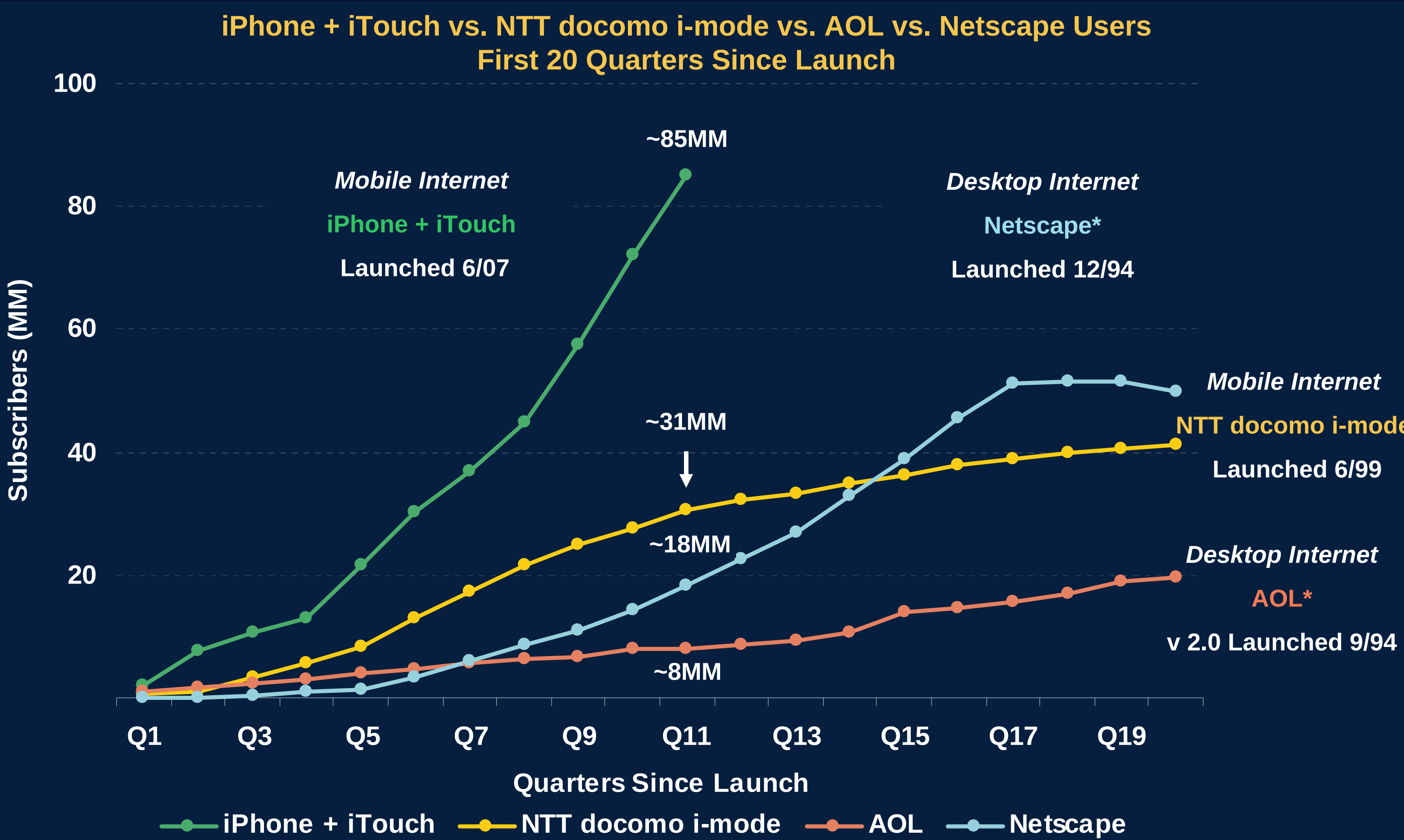
- 2 -

Mobile Ramping Faster than Desktop Internet Did and Will Be Bigger Than Most Think –
5 Trends Converging (3G + Social Networking + Video + VoIP + Impressive Mobile Devices)

Regarding pace of change, we believe more users will likely connect to the Internet via mobile devices than desktop PCs within 5 years

Mobile Internet Outpaces Desktop Internet Adoption

iPhone + iTouch Users = 11x AOL Users 11 Quarters After Launch



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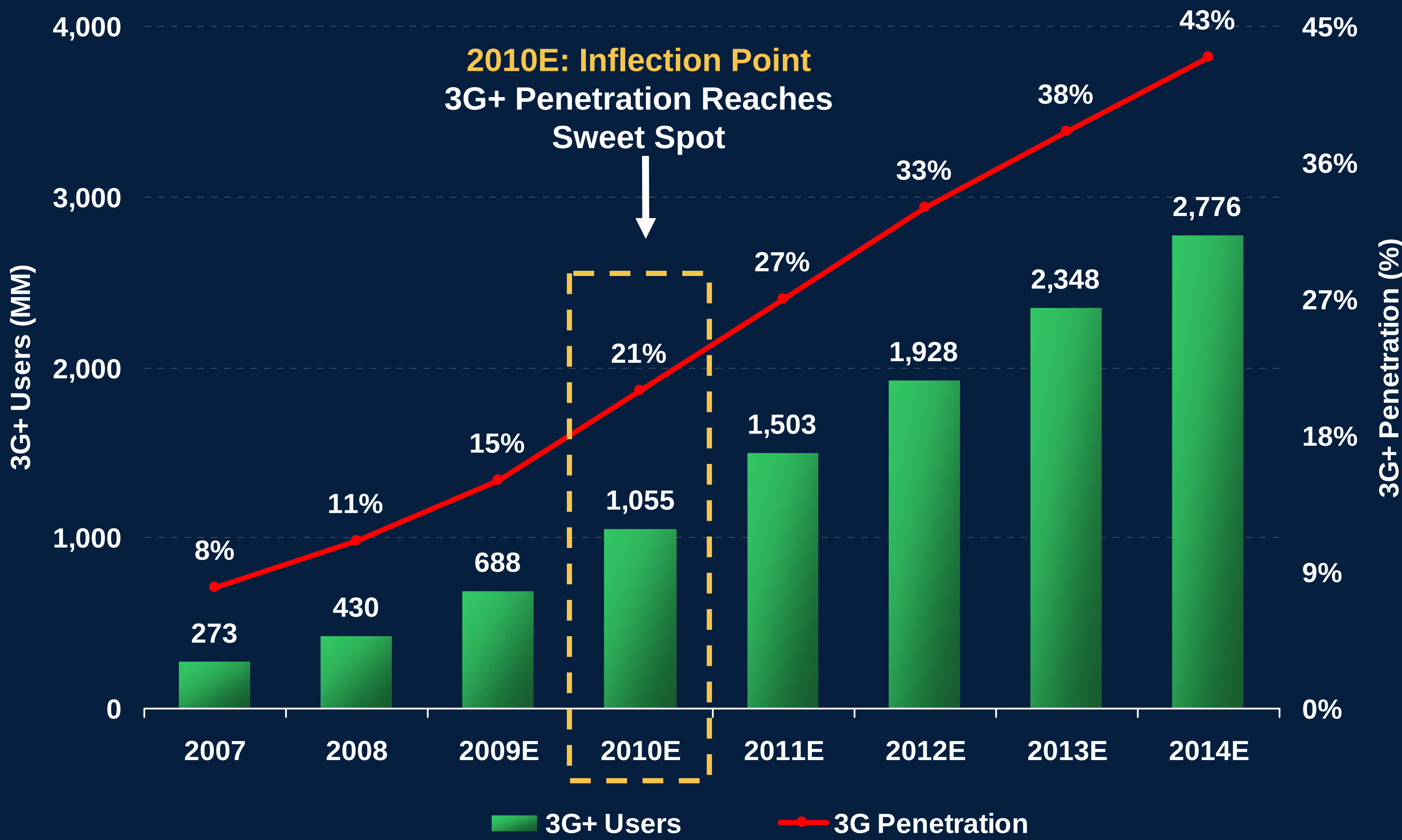
*Note: *AOL subscribers data not available before CQ3:94; Netscape users limited to US only. Morgan Stanley Research estimates ~50MM netbooks have shipped in first 10 quarters since launch (10/07). Source: Company Reports , Morgan Stanley Research.*

3G Adoption =
Hitting Inflection Points

Global 3G Subscribers =
2010E 'Mainstream' Inflection Point, Penetration >20%

Global 3G+ Subscribers & Penetration, 2007 – 2014E



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Note: 3G+ technologies include WCDMA, HSPA, TD-SCDMA, 1xEV-DO, LTE and WiMax.
Source: Ovum Estimates, Morgan Stanley Research.

3G Penetration Inflection Points Vary by Region
W. Europe + N. America = 2007–2008, ROW = 2010E-2014E

3G* Connections & Penetration by Region, 2007 – 2014E

(All connection numbers in 000s)	2007	2008	2009E	2010E	2011E	2012E	2013E	2014E
Western Europe	79,617	126,724	205,962	299,220	381,422	448,691	499,686	549,615
3G Penetration	17%	25%	39%	54%	67%	77%	85%	92%
Japan	72,690	88,434	101,320	110,823	116,581	120,463	123,217	124,770
3G Penetration	72%	84%	91%	96%	98%	99%	99%	100%
Asia / Pacific (ex. Japan)	50,163	83,514	151,192	295,230	482,981	693,995	918,063	1,135,626
3G Penetration	4%	5%	7%	13%	19%	25%	31%	37%
North America	53,307	83,460	116,575	145,683	177,451	204,835	231,271	260,575
3G Penetration	20%	29%	38%	46%	54%	61%	67%	74%
Eastern Europe	8,785	19,918	40,944	72,321	120,291	139,960	166,288	199,977
3G Penetration	2%	5%	9%	16%	26%	29%	34%	40%
Middle East & Africa	5,781	18,424	50,409	91,085	165,564	239,805	309,251	383,238
3G Penetration	1%	3%	7%	12%	19%	25%	30%	35%
South & Central America	3,126	9,265	21,875	40,448	59,107	80,087	100,027	122,258
3G Penetration	1%	2%	4%	7%	10%	12%	15%	17%
Total	273,469	429,739	688,278	1,054,810	1,503,397	1,927,837	2,347,804	2,776,058
3G Penetration	8%	11%	15%	21%	27%	33%	38%	43%

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Note: Regions ranked by 2008 absolute numbers of 3G connections. 3G technologies include WCDMA, HSPA, TD-SCDMA, 1xEV-DO, LTE and WiMax. Source: Ovum Estimates, Morgan Stanley Research.*

3G Growth Concentrated in Developed Markets –

USA Now Leading in Users + Innovation (Surpassed Japan Users in CQ1:09)

Rank	Country	CQ3:09 3G Subs (000)	3G Penetration	CQ3 3G Net Adds	3G Sub Growth Y/Y	3G Sub Growth Q/Q	3G Net Adds Y/Y Growth	3G Net Adds % of 3G Subs	% of Global 3G Net Adds	2G + 3G Net Adds (000)	Implied 2G Net Adds (Losses) (000)
1	USA	112,090	41%	8,994	50%	9%	11%	8%	22%	3,058	-5,937
2	Japan	97,548	90	2,735	15	3	-17	3	7	1,002	-1,733
3	Korea	35,570	75	1,721	22	5	0	5	4	839	-882
4	Italy	27,817	34	1,044	19	4	-14	4	3	-1,660	-2,705
5	UK	23,674	31	1,964	47	9	8	8	5	269	-1,695
6	Germany	22,260	22	1,851	40	9	18	8	5	147	-1,704
7	Spain	22,014	41	1,822	40	9	-6	8	5	411	-1,411
8	France	15,669	27	1,332	66	9	8	9	3	831	-501
9	Australia	13,678	56	989	37	8	3	7	2	700	-289
10	Indonesia	13,644	10	1,401	61	11	4	10	3	1,639	238
11	Poland	12,300	28	176	66	1	-86	1	0	414	238
12	Taiwan	8,318	33	1,600	92	24	84	19	4	483	-1,117
13	Malaysia	7,222	25	942	131	15	50	13	2	786	-155
14	Brazil	7,084	4	1,354	287	24	60	19	3	5,495	4,141
15	Russia	6,183	3	959	203	18	-9	16	2	6,942	5,984
16	South Africa	5,769	11	355	86	7	-13	6	1	1,181	826
17	Portugal	5,259	35	285	27	6	-18	5	1	155	-130
18	Saudi Arabia	4,991	15	493	46	11	42	10	1	2,698	2,204
19	Canada	4,757	22	447	62	10	-6	9	1	310	-138
20	Sweden	4,683	40	271	30	6	-23	6	1	66	-205
21	Netherlands	4,612	24	479	42	12	84	10	1	278	-201
22	Austria	4,340	40	390	49	10	17	9	1	123	-267
23	Israel	4,279	46	650	61	18	182	15	2	110	-540
24	Romania	4,207	15	292	63	7	33	7	1	456	164
25	Greece	3,245	17	90	101	3	-66	3	0	471	381
26	Egypt	3,229	7	325	86	11	6	10	1	3,809	3,484
27	Hong Kong	2,909	30	132	19	5	-27	5	0	159	26
28	Singapore	2,896	44	157	24	6	-21	5	0	106	-50
29	Philippines	2,870	4	246	46	9	-23	9	1	1,365	1,118
30	China	2,850	0	1,460	--	105	--	51	4	25,187	23,727
	Top 30	485,967	20%	34,958	41%	8%	9%	7%	86%	57,827	22,869
	Global	528,301	12	40,426	43	8	14	8	100	163,785	123,360

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*Note: *Informa reports a lower global 3G subscription # vs. Ovum due to the exclusion of 4G and the use of different sources. 3G includes CDMA 1x EV-DO and Rev. A / B, WCDMA, HSPA; Source: Informa WCIS+, Morgan Stanley Research.*

3G is Key to Success of Mobile Internet
But Wireless Options – Across-the-Board – are Growing Rapidly



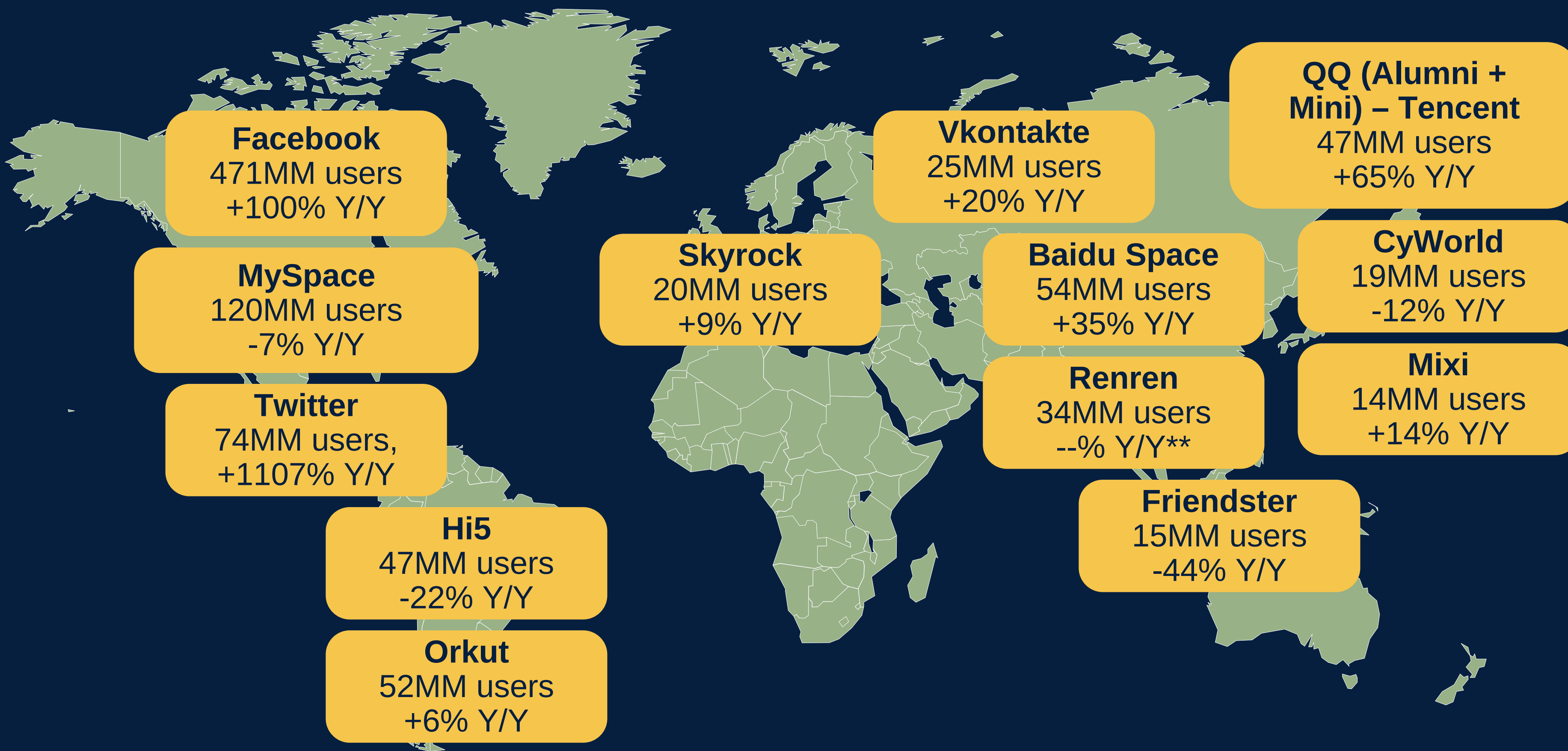

- **GPS** – 421MM+ chipsets sold in 2008E, +57% Y/Y; Cell Phones / PDAs = 60% of GPS shipments.
- **3G** – 485MM global users, +46% Y/Y in CQ2, >11% mobile user penetration, rising to 44% by 2013E…Japan / W. Europe / USA already >30% penetration.
- **Wi-Fi** – 319MM chipsets sold in 2008E, +42%Y/Y with 862MM installed base; estimate 60% of iPhone / iTouch usage may be on Wi-Fi, providing a crucial (and ~10x faster) offload to stressed 3G networks.
- **Bluetooth** – 1.3B Bluetooth-enabled units shipped in 2008, +45% Y/Y; 2B+ Bluetooth devices in use.

Source: 3G subscribers data per Informa, Wi-Fi usage estimates per AdMob, Wi-Fi shipments by Wi-Fi Alliance; installed base per iSuppli, assuming 4-yr replacement cycle; Bluetooth shipment per iSuppli, installed base per The Bluetooth Special Interest Group; GPS shipment per Future Horizons. Picture sources: Howstuffworks.com, Boy Genius Report, Cisco, Letsbuy.com.

Social Networking =
Consumers Want to Connect via
Wired + Wireless Internet

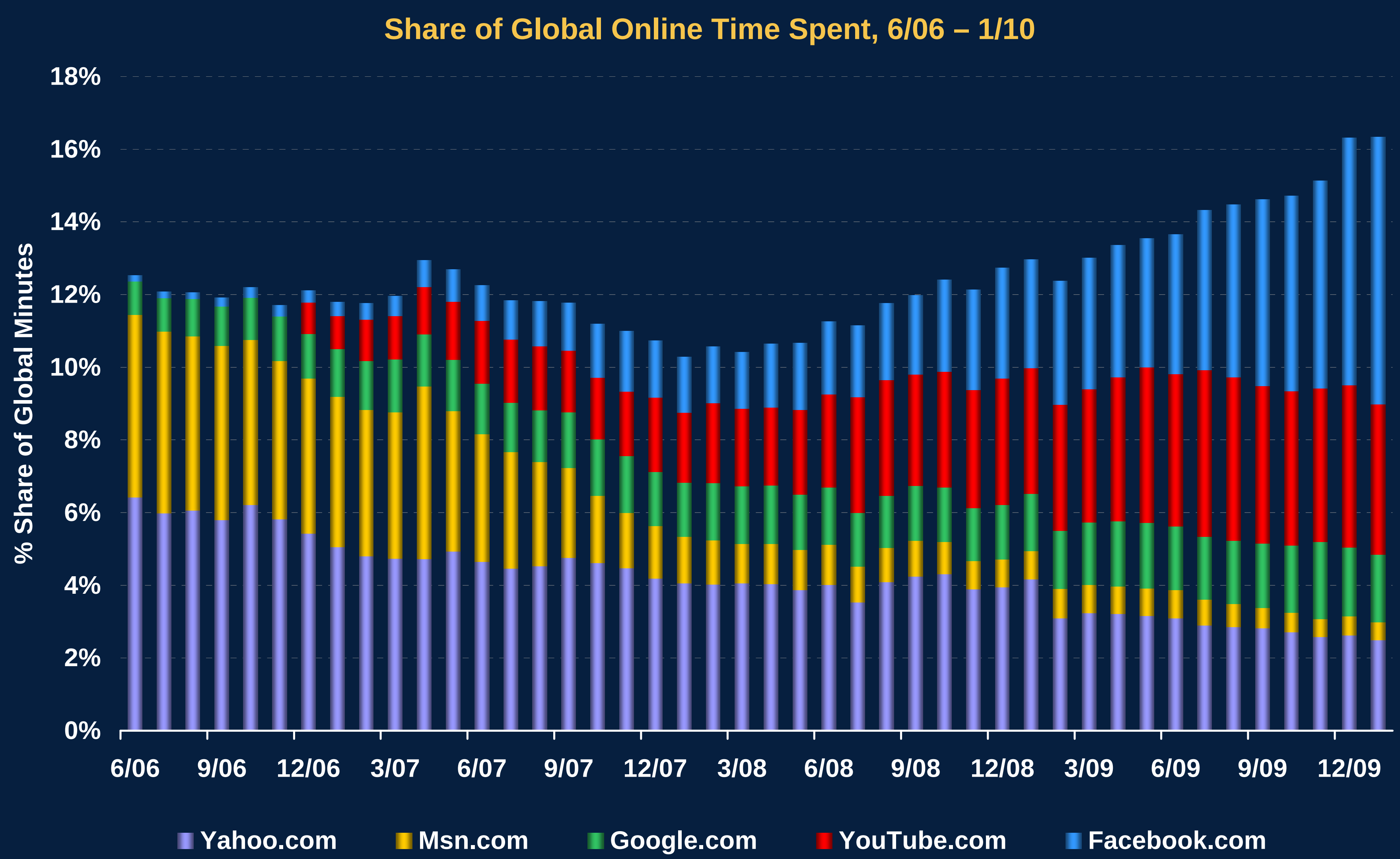
Social Networking –
Global Phenomenon, Facebook Leading, Though Many Regional Strongholds

Global Social Networking Web Sites*
859MM Unique Users, +32% Y/Y; 232B Total Minutes, +50% Y/Y, 1/10



*Note: *Global social networking websites exclude application-based networks such as IM networks. **Renren Y/Y data not available. Usage stats are 'unique visitors', per comScore global 12/09, may differ materially from company-disclosed 'registered accounts' stats. Other notable social networks include Windows Live Profiles, 56.com, Deviantart, Digg, Buzz Media, and Bebo. Source: comScore 1/10, Morgan Stanley Research.*

Facebook (+ YouTube) =
Largest Share Gainers of Global Online Usage Over Past 3+ Years



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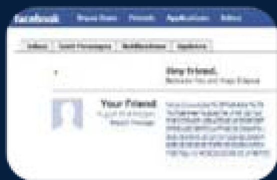
Source: comScore global, 1/10.

Facebook = Garnering Rising Share of Communications

Unified Communications + Multimedia Creation Tool / Repository in Your Pocket

Messages



VoIP Calls

Chat

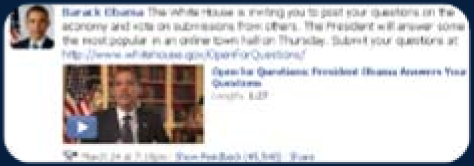
Play Games

Connectivity / Presence provided by Mobile Phone

Wall Posts

Status Updates

Share Videos / Music / Photos / Stories



Source: Facebook, how-to-travel-the-world.com.

Companies / Brands Leveraging Facebook –
Social Influence Marketing With Millions of Fans

Rank	Top 20 Brands / Products	# of Facebook Fans
1	Texas Hold'em Poker (Zynga)	16.5MM
2	Mafia Wars (Zynga)	11.4MM
3	Facebook	8.0MM
4	Starbucks	6.5MM
5	Coca-Cola	5.1MM
6	YouTube (Google)	4.7MM
7	Oreo (Kraft)	4.4MM
8	Skittles (Mars)	4.2MM
9	iTunes (Apple)	3.9MM
10	Nutella (Ferrero)	3.8MM
11	Disney	3.4MM
12	Victoria's Secret (Limited Brands)	3.2MM
13	Pringles (P&G)	3.1MM
14	Kinder Surprise (Ferrero)	2.7MM
15	Adidas Originals (Adidas)	2.7MM
16	Live Messenger (Microsoft)	2.6MM
17	Ferrero Rocher (Ferrero)	2.6MM
18	Red Bull	2.5MM
19	Playfish	2.1MM
20	NBA	2.1MM

Note: Top 20 fan pages ranked by # of fans, excludes 'people' (like Vin Diesel / Lady Gaga) and 'activities' (like 'I ♥ Sleep'). Data as of 4/8/10. Source: Facebook.

Salesforce.com =
Introducing Cloud + Social Networking to Enterprises

- Founded in 1999 with the goal of "making enterprise software as easy to use as a websites like Amazon.com"; updated goal in 2010 to make enterprise software as easy as Facebook.com.
- Product portfolio includes Sales Cloud (centralized client database & analytics); Service Cloud (custom service application suite); Custom Cloud (platform for customized 3rd-party applications); Chatter (social platform for enterprise collaboration);
- 2MM paying subscribers in 1/10, +35% Y/Y; $1.3B revenue in FY2009, +21% Y/Y.
- 230K 3rd-party developers, +85% Y/Y; 145K custom applications, +45% Y/Y; 17B transactions in FQ4:09, +40% Y/Y.

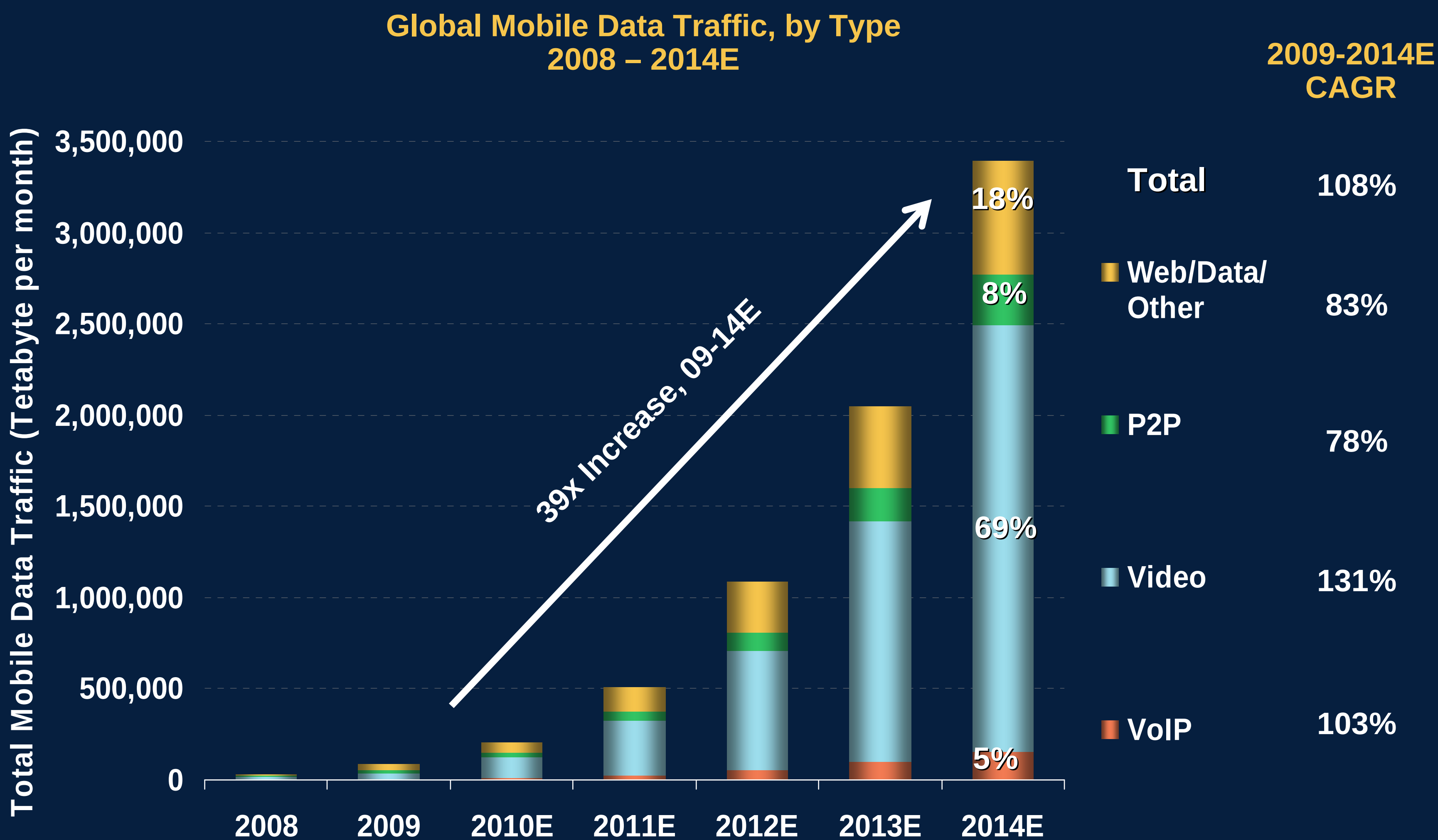
Source: Salesforce.com.

Video =

Consumers Want to Find + Select + Watch

Video via Wired + Wireless Internet

Video Driving Rapid Growth in Mobile Internet Traffic
Mobile Data Traffic to Rise 39x by 2014E (108% CAGR)



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Source: Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2009-2014, 2/10.

VoIP =

Consumers Want to Chat

(via Voice + Messaging + Video)

via Wired + Wireless Internet

If VoIP Leader Skype Were a Carrier, it Would be Largest 'Carrier' in World
521MM Users (+41% Y/Y) & 12% of Cross-Border Calling Minutes (34% Video-Enabled)

Rank*	Company	Type	Region	Subscribers (MM)	Y/Y Growth	Blended ARPU (US$)	Y/Y Growth	Market Cap ($B)
1	China Mobile	Wireless	China	493	19%	$11	-10%	$192
2	Vodafone	Wireless	Europe	303	23	37	3	123
3	Telefonica Moviles / O2	Wireless	Europe / LatAm	206	9	41	-9	137
4	*China Telecom*	*Wireline*	*China*	*194*	-9	*11*	*4*	*38*
5	America Movil	Wireless	LatAm	194	13	13	4	80
6	Telenor	Wireless	Europe / Asia	172	8	20	-3	24
7	T-Mobile	Wireless	Europe / USA	150	6	37	-3	64
8	China Unicom	Wireless	China	145	10	6	-4	32
9	Orange	Wireless	Europe	129	9	50	0	69
10	Bharti Airtel	Wireless	India	111	43	5	-22	25
11	*China Unicom* (1)	*Wireline*	*China*	*108*	*10*	*9*	*-18*	*32*
12	MTN Group	Wireless	Africa	*108*	*34*	*15*	*-2*	*28*
13	Mobile TeleSystems	Wireless	Europe	101	2	8	-28	20
14	Orascom	Wireless	Africa / Asia	89	12	6	-11	24
15	Verizon Wireless	Wireless	USA	86	6	51	-2	86
16	AT&T Mobility	Wireless	USA	82	9	51	1	155
17	Telkom Indonesia	Wireless	Asia	80	32	3	-13	19
18	Telecom Italia Mobile	Wireless	Europe / LatAm	72	2	37	2	30
19	VimpelCom	Wireless	Russia	61	20	13	7	6
20	NTT docomo	Wireless	Japan	55	2	61	-8	64
21	*AT&T* (2)	*Wireline*	*USA*	*54*	*-3*	*80*	*-1*	*155*
22	*Deutsche Telekom*	*Wireline*	*Europe*	*54*	*-2*	*62*	*0*	*64*
23	BSNL (3)	Wireless	India	52	44	3	-35	--
24	Turkcell	Wireless	Europe	49	-4	13	-24	15
25	China Telecom	Wireless	China	47	--	8	--	38
	Total			**3,195**	**10%**	**$23**	**2%**	**$1,520**

Skype (5)

521MM <u>Registered</u> Users

(+41% Y/Y)

** Ranking is based on subscribers. Subscribers / ARPU data as of latest quarter (CQ3:09 or CH1:09 for some carriers who report on semi-annual basis). Market Cap as of 11/17/09. Total market value excluding duplicates = $1,231MM; (1) China Netcom merged with China Unicom in 10/08; (2) AT&T / Verizon / DT's wireline ARPU is revenue per RGU (revenue generating unit) and include business lines; (3) BSNL is owned by the Indian government. (5) Subscriber figure for Skype is registered user amount as of CQ3:09, cross-border calling minutes as of C2009, per Telegeography. Source: Company Reports, Telegeography, Morgan Stanley Research.*

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Google Voice
Putting User in Control of Voice Communications via IP Networks

- Google Voice – Launched in 3/09, gives user a universal address book + single telephone number, to which all calls to user's home / office / cellphone can be forwarded
- Voicemail transcription + SMS + future integration with Gmail + $0.02 per minute International VoIP call(1)
- Google Voice mobile app launched for Android / BlackBerry in 7/09, offers full native contact / dialer / SMS integration

Universal Address Book / Transcribed Voicemail / SMS on the Web

Fully Integrated w/ Android Dialer / Address Book

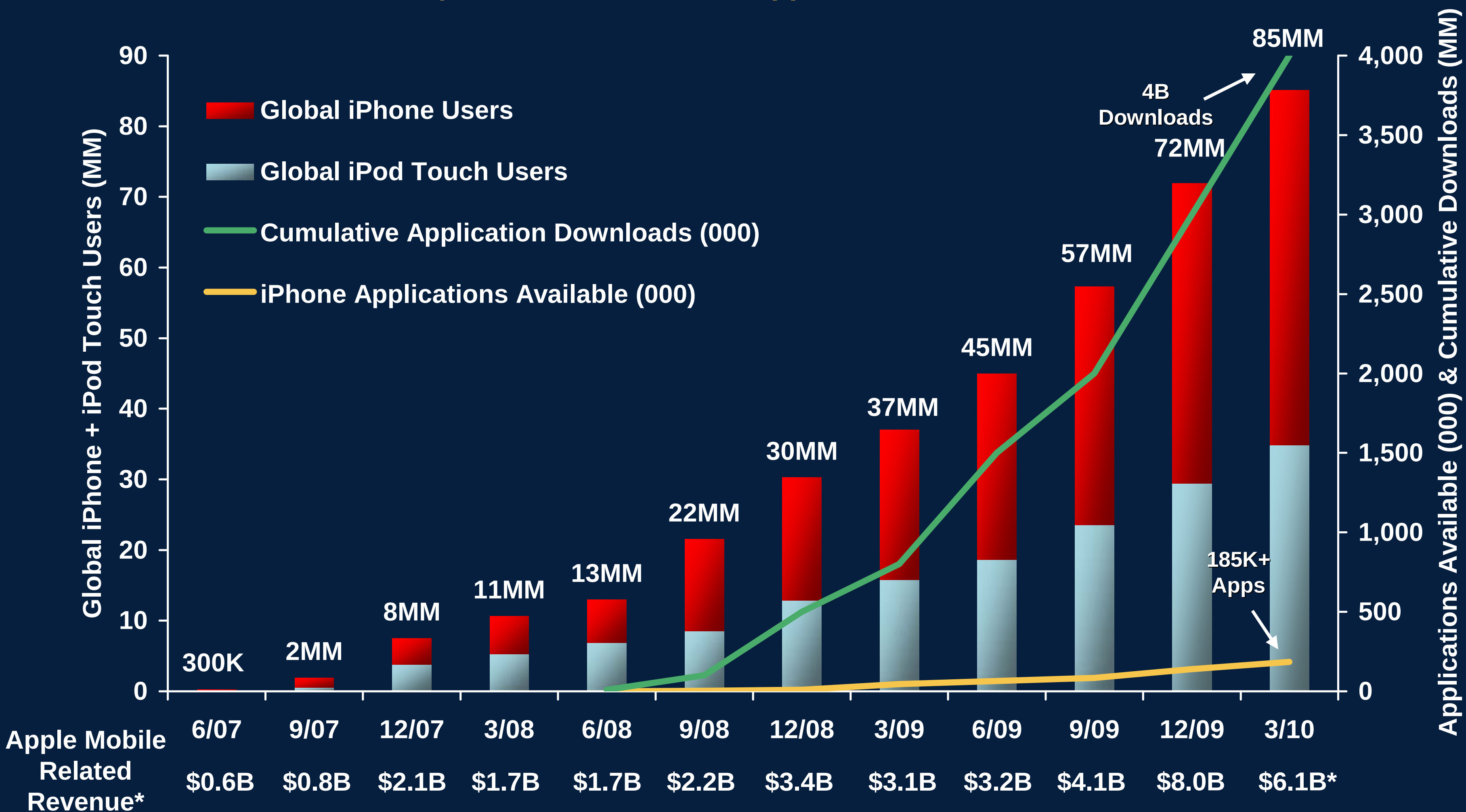
Note: (1) $0.02 per minute rate apply to selected countries. Source: Google.

Impressive Mobile Devices =
Apple's iPhone + iTouch + App Store Launches Over Past ~3 Years Created the Spark for Mobile Internet Liftoff as Microsoft's Launch of Windows 3.0 did for the PC in 1990 and the Netscape Browser (and its IPO) did for the Desktop Internet in 1995

Apple iPhone / iTouch = Fastest New Tech Device / Ecosystem Ramp in History

Great UI + Developer Tools + Hardware + Distribution + Powerful Connectivity (Wi-Fi + 3G)

iPhone / iTouch Ecosystem – Subscribers, Apps Available & Downloads, 6/07 – 3/10



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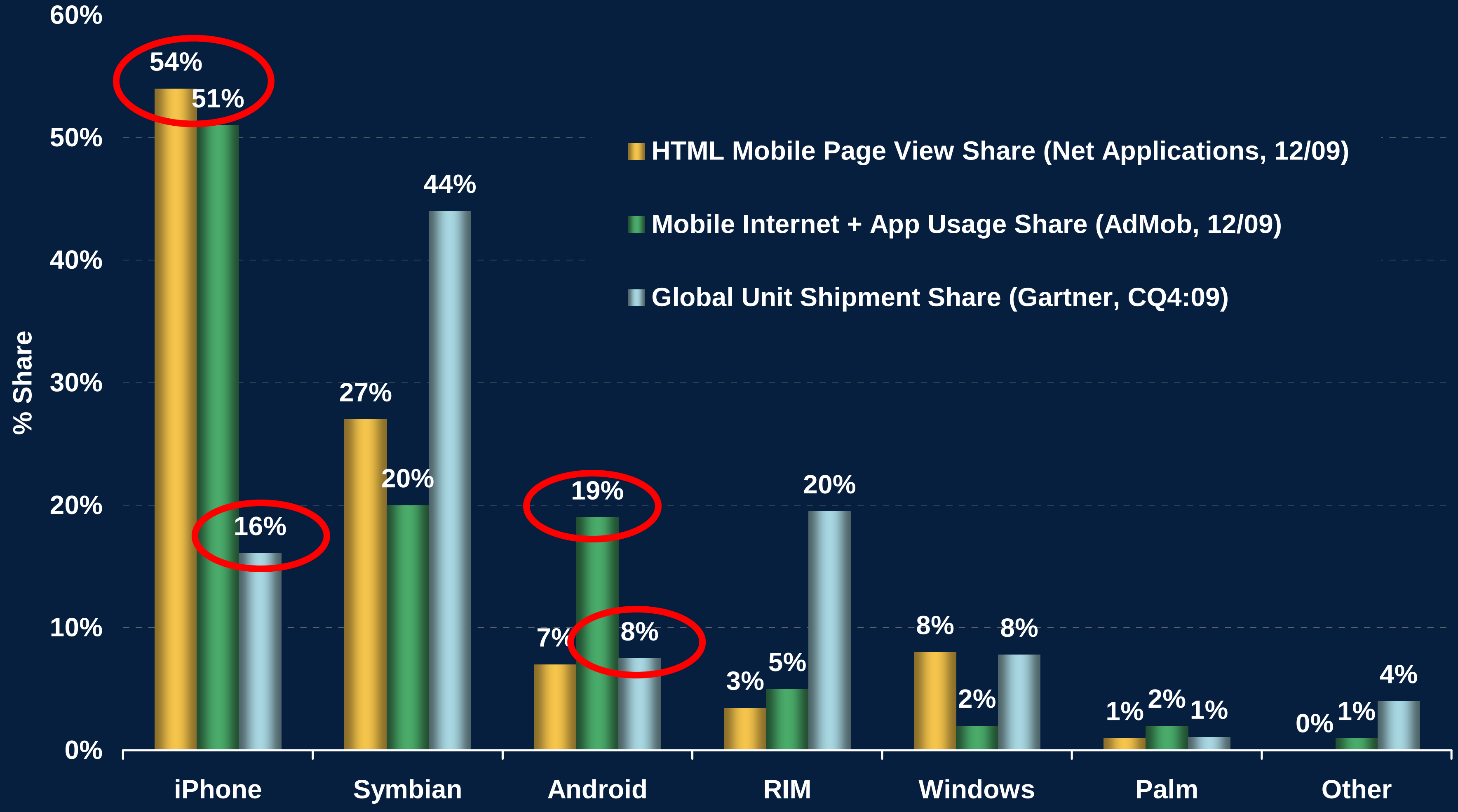
*Note: *Mobile related revenue include iPhone + iTouch + iTunes content revenue; CQ1:10 revenue are estimates by Katy Huberty. Source: Apple, Morgan Stanley Research.*

- 3 -

Apple Leading in Mobile Innovation + Impact, for Now – Depth of App Ecosystems + User Experience + Pricing Will Likely Determine Long-Term Winners

iPhone + Android Mobile Internet Usage Much Higher than Shipment Share = Implies High Probability of On-Going Share Gains Based on Consumer Voting

Global Smartphone Share of HTML Mobile Page View / Mobile Internet + App Usage / Unit Shipments



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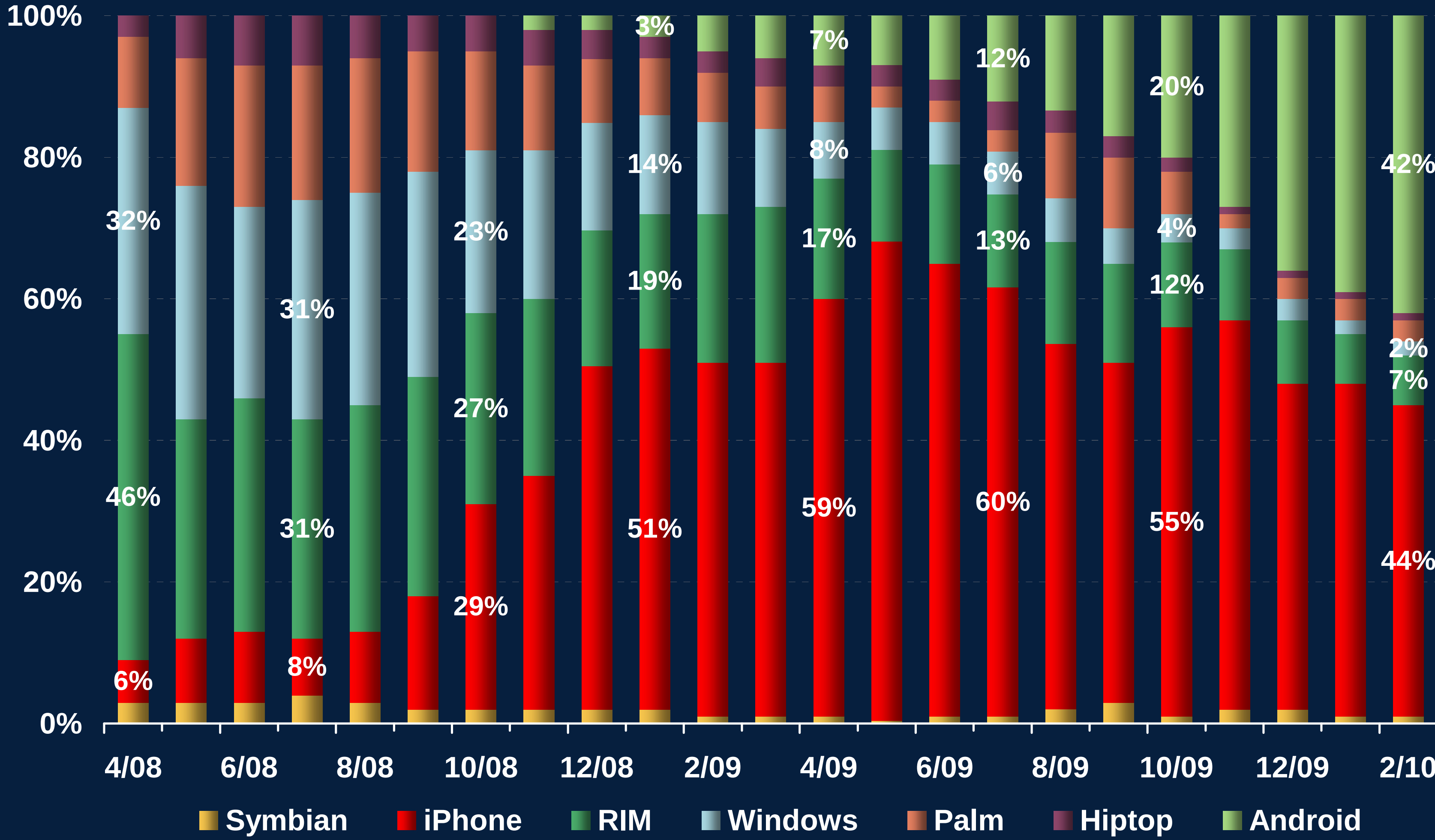
Note: Net Applications collects data from ~160MM monthly visitors on mobile devices that render full HTML pages and JavaScript. Visits to WAP pages are excluded.
Source: AdMob Mobile Metrics Report (12/09), Net Applications (12/09), Gartner (CQ4:09).

iPhone + Android Gaining USA Mobile Internet Usage Share – While RIM + Windows Mobile + Palm Losing Share

USA Mobile Internet Usage Share by Smartphone Opearting System
4/08 - 2/10



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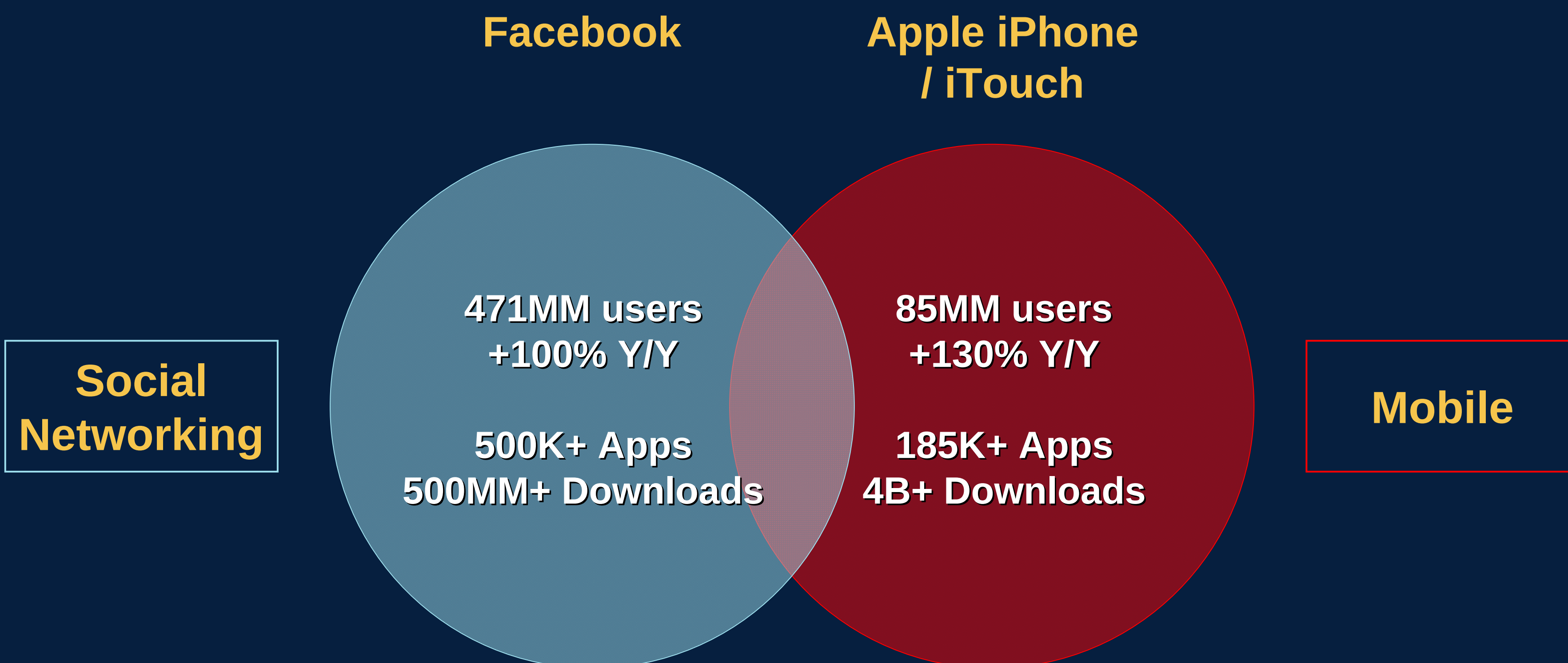
Note: Usage share represents % of total ad requests coming from the operating system, data may not be representative.
Source: AdMob, 2/10.

- 4 -

Game-Changing Communications / Commerce Platforms (Social Networking + Mobile) Emerging Very Rapidly

Facebook + Apple iPhone / iTouch =

Driving Independent / Overlapping Innovation / Usage in Social Networking + Mobile Platforms



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Note: Data as of 4/10. Source: PC World, comScore, Facebook, Apple.

Facebook = 500MM+ App Downloads

Vibrant Developer / Application Platform Ecosystem = 500K Apps*, +10x Y/Y

Category	# of Applications	% of Total	Top 100 Apps' Monthly Active Users (MM)	# of Apps w/ 1MM+ MAUs
Games	13,537	23%	418	56
Lifestyle	4,778	8	42	8
Utilities	4,604	8	59	8
Education	2,279	4	66	5
Entertainment	2,015	3	76	11
Business	1,981	3	5	1
Sports	1,431	2	5	0
Just For Fun	400	1	44	10
Friends & Family	61	0	37	3
Overall*	59,427		752	102

Note: Category breakdown per Facebook, one application can belong to multiple categories or belong to no category; Overall statistics per AppData, which reports a lower active apps count than Facebook's reported 500,000+ apps "built to date".*
Source: Facebook, AppData as of 1/10, Morgan Stanley Research.

Apple iPhone / iTouch = 4B+ App Downloads (+4x) – (~47 per User) – Games + Entertainment + Books Lead

Category	# of Apps	% of Total	# of Paid Apps	Paid as % of Category Total
Games	26,434	18%	17,935	68%
Entertainment	21,181	14	15,481	73
Books	20,931	14	19,159	92
Travel	9,300	6	8,118	87
Utilities	8,964	6	6,296	70
Education	9,437	6	7,766	82
Lifestyle	8,593	6	6,055	70
Reference	5,692	4	4,681	82
Music	4,933	3	2,705	55
Sports	5,486	4	4,332	79
Navigation	3,395	2	2,712	80
Productivity	3,478	2	2,513	72
Business	3,278	2	1,662	51
News	3,629	2	2,354	65
Health & Fitness	3,020	2	2,347	78
Social Networking	2,542	2	1,285	51
Photography	2,417	2	1,698	70
Finance	2,008	1	1,261	63
Medical	1,799	1	1,366	76
Weather	622	0	490	79
Total	**147,139**		**110,216**	**75%**

Note: Data as of 4/10.
Source: Mobclix, Apple iTunes, Morgan Stanley Research.

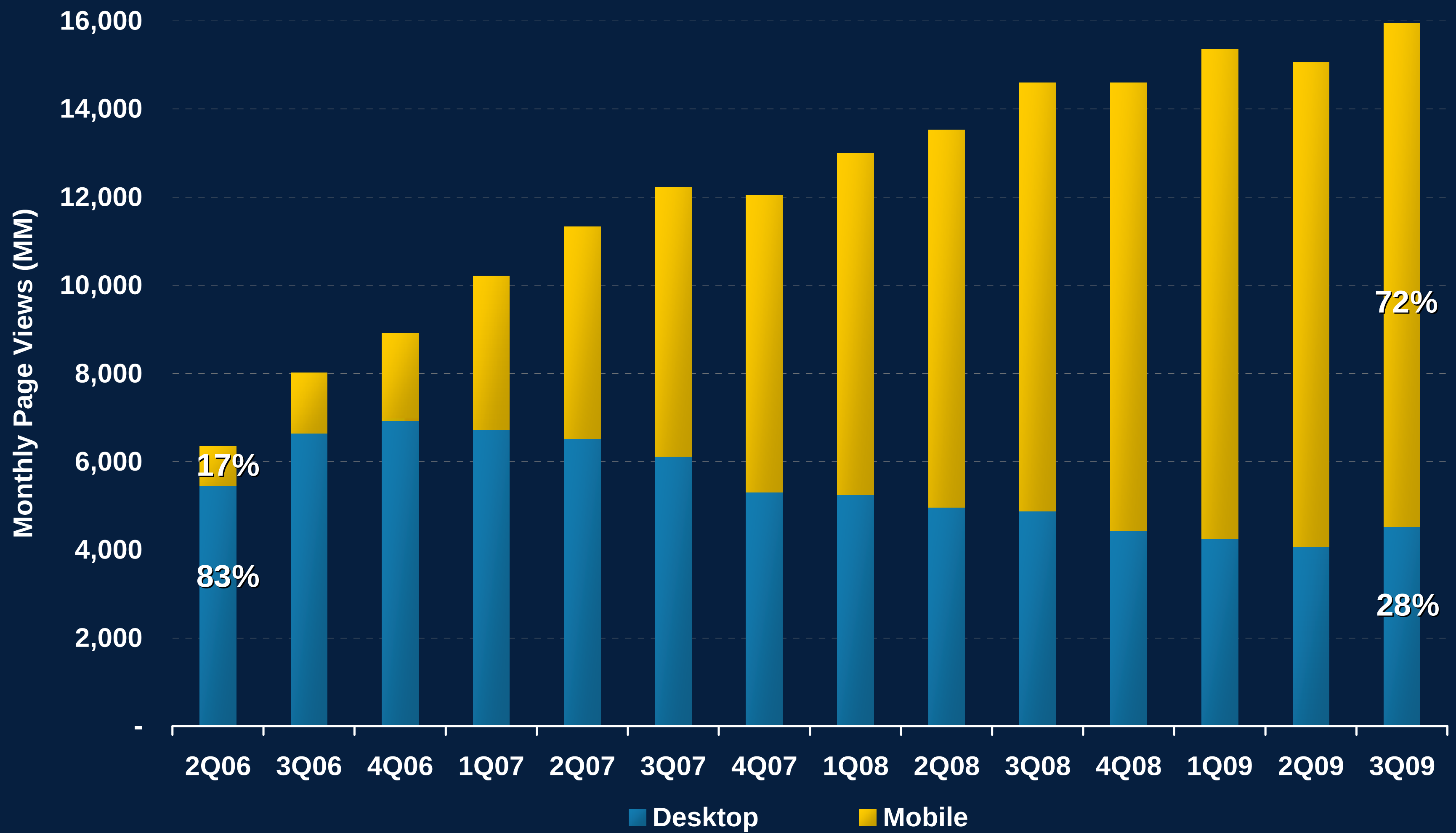
Apple iPhone / iTouch – Facebook is Most Downloaded of Top *Free* Apps

Name	Category	Description
Facebook	Social Networking	Mobile front-end of the online site, allows users to chat / send messages / share photos + interests
Google Earth	Travel	Users can view aerial maps of any available city / area, using touch screen to zoom in /out
Pandora Radio	Music	Creates customized interent radio stations that stream music based on songs / artists users like
Tap Tap Revenge	Games	Rhythmic music game in which user taps and shakes screen to create certain beats of a song- includes online play
Shazam	Music	Application identifies artist / song title / album for songs playing on other audio devices
PAC-MAN Lite	Games	3D remake of the classic game utilizes touch screen controls
Backgrounds	Entertainment	Large selection of iPhone backgrounds that can be uploaded into your phone background library
Touch Hockey: FS5	Games	Interactive air hockey game that allows users to play solo or online against friends
Labyrinth Lite Edition	Games	Users employ sensitive tilt controls to move ball to the end of the puzzle in this remake of the classic wooden puzzle game
Flashlight.	Utilities	Fills screen with bright white light to use as flash light

Source: Apple. 8/09.

Japan Social Networking Trends Show Importance of Mobile – Mixi Mobile Page Views = 72% vs. 17% 3 Years Ago

Mixi's (Japan's Leading Social Network) Monthly Page Views, Mobile vs. PC, CQ2:06 – CQ3:09



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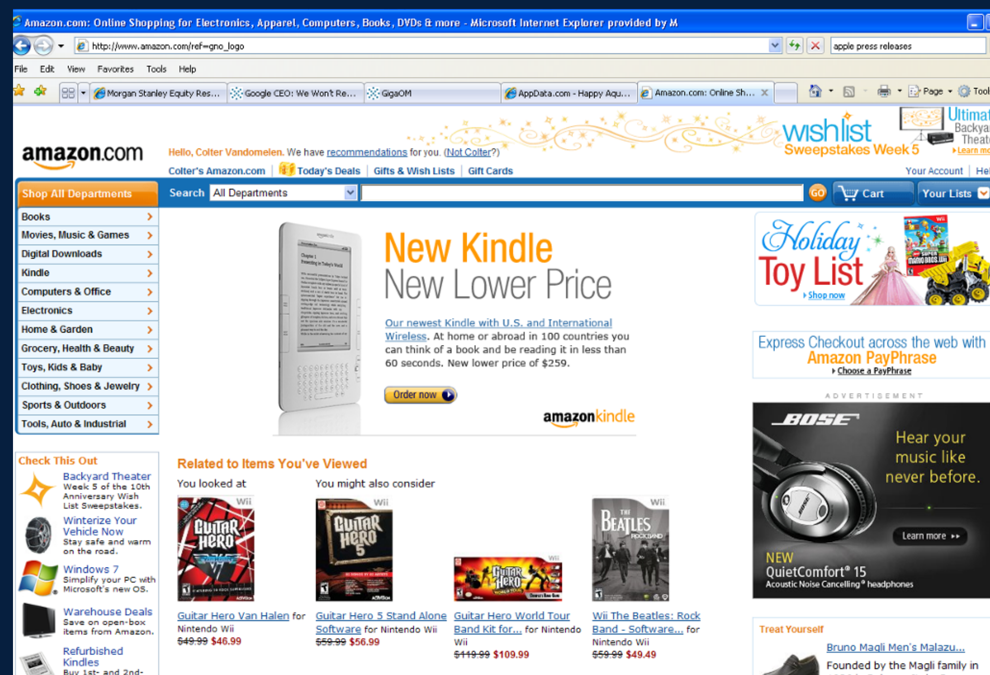
Note: Mixi is one of Japan's leading social networking sites on PC and mobile with 18MM registered users as of 9/30/09. It monetizes mobile usage via sales of avatars, customized homepages and other premium services. Source: Company reports, Morgan Stanley Research

Amazon.com Revolutionizing Commerce –
With Constant Product Improvements

Amazon.com in 1995

Amazon.com in 2009

Search Suggestion | **1-Click Purchase** | **Same Day Shipping…** | **…Or Free Shipping**

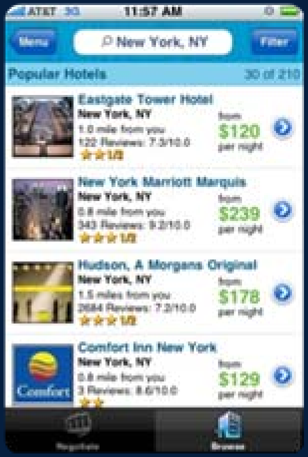


Mobile Barcode Scan | **Customer Review** | **Recommend-ation Engine** | **3rd-Party Selling**

Mobile Revolutionizing Commerce –
With Constant Product Improvements

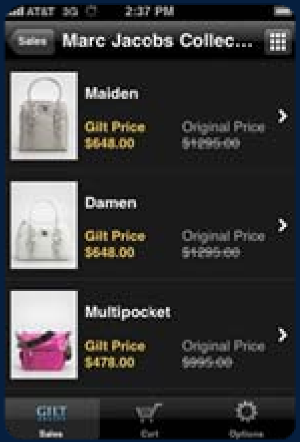
- ***Location-Based Services*** – Enable real-time physical retail / service opportunities
- ***Transparent Pricing*** – Instant local + online price comparison could disrupt retailers
- ***Deep Discounts*** – Invitation-only time-based selective sales gaining traction
- ***Immediate Gratification*** – OTA (over-the-air) instant digital product + content delivery

Location-Based Services
Priceline.com iPhone App
Finds hotel deals in your area

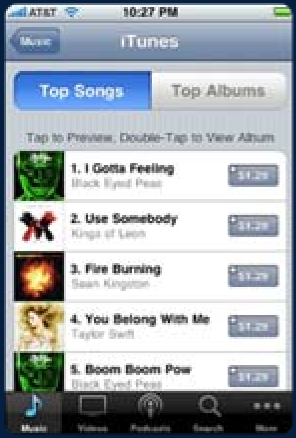


Transparent Pricing
ShopSavvy Android App
Comparison shopping among online + local stores

Deep Discounts
Gilt iPhone App
Designer handbags Up to 70% Off



Immediate Gratification
iTunes Store on iPhone
Music / video / apps delivered wirelessly



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Source: Company Reports, Morgan Stanley Research.

Location-Based Services –
Zipcar Combines Mobile Internet + GPS to Disrupt Car Rental Business

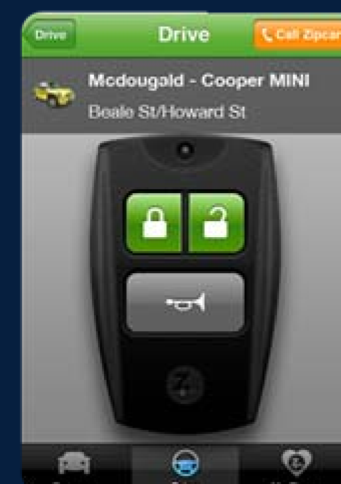
- Free app allows users to find Zipcars / reserve Zipcars / unlock Zipcar and drive away on iPhone (25% of Zipcar members are also iPhone users, per Zipcar survey).
- App engages GPS and Google Maps to display available Zipcars near current location / near any location you search, making results more relevant.
- Make reservations online while on-the-go (uses payment information from Zipcar.com member profile) / unlock car using iPhone + 3G / Wi-Fi.

Find the Zipcar Closest to You

Sort Zipcars Based on Time Availability / Model

Review / Reserve the Zipcar You Want at the Right Price

Unlock the Zipcar Using Your iPhone



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Note: In order to lock / unlock car with iPhone, user must scan ZipCard to unlock door at the start of the reservation.
Source: Wired, IntoMobile, Morgan Stanley Research.

Transparent Pricing -
Likely to Disrupt Retail

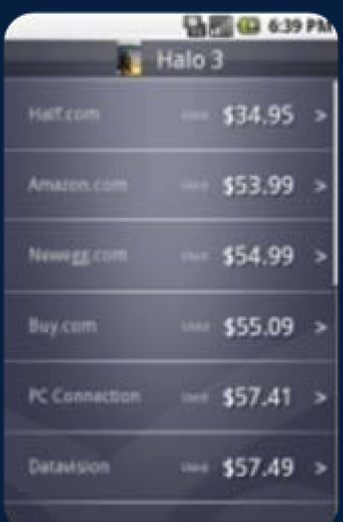
- ShopSavvy app allows mobile users to scan product barcodes (using mobile digital camera) and retrieve best pricing information from web + local stores in <30 seconds.
- For web results, user can go to site or email link to friends…for local results (via GPS / cellular tower geo-locating), user can see store locations / get directions / call stores.
- Additional functions include price alerts (notifies user when price is cheaper / hit user's preset price target) / wish lists / search history.

Step 1:
Tap Search

Step 2:
Scan Barcode

Step 3:
See Results

Step 4:
Click to Buy



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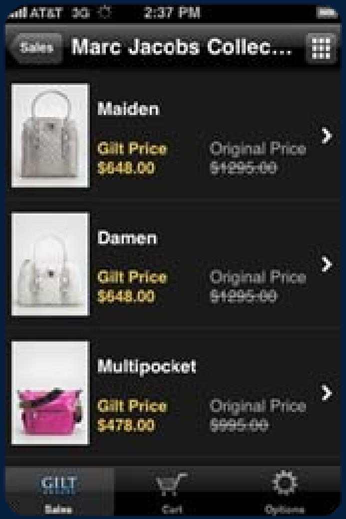
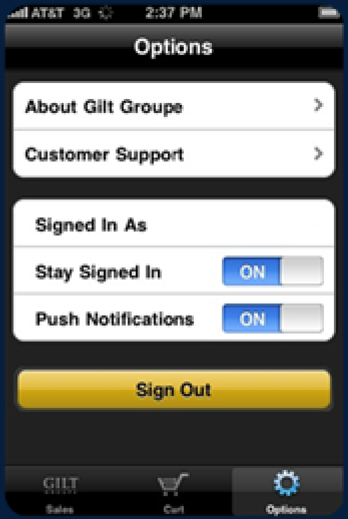
Source: Big In Japan, Morgan Stanley Research.

Deep Discounts –
Invitation-Only Time-Based Selective Sales Gaining Traction

- Gilt offers online ‘flash’ sales of designer apparel at deep discount prices for limited time frame.
- Launched in 2007, 1.2MM unique visitors in USA in 12/09, up 78% Y/Y, per Compete.
- Provides brands with more control over quantity / time-frame / pricing in online invite-only settings vs. offline discount chain stores.
- Incentives help drive viral growth – $25 credit when referral makes first purchase.
- Mobile application pushes the latest deal to the palm of consumers in real-time.

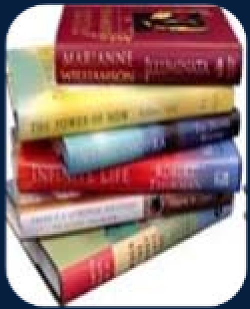




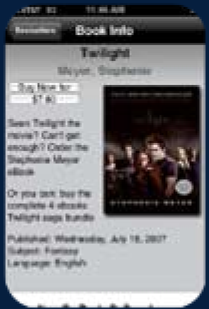
Source: Gilt Groupe, Compete.

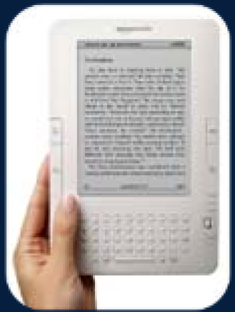
Immediate Gratification –
OTA (Over-the-Air) Instant Digital Product + Content Delivery

Print Books Physical Distribution circa 200AD



eBook on Phone / Kindle Wireless Delivery in 60 sec circa 2007

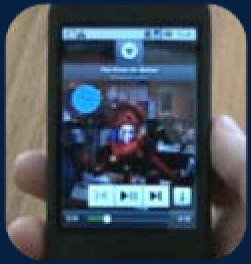




Analog Cassette circa 1970s

Physical Audio CD circa 1990s

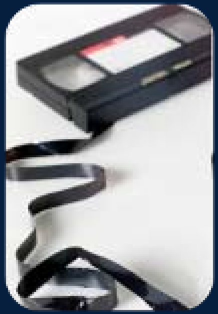
Digital Audio Streaming on Mobile Phones circa 2008



Nintendo GameBoy Physical Cartridge circa 1989

Digital Games Purchase Over 3G / Wi-Fi circa 2008

Analog VHS circa 1970s



Physical VCD / DVD circa 1990s

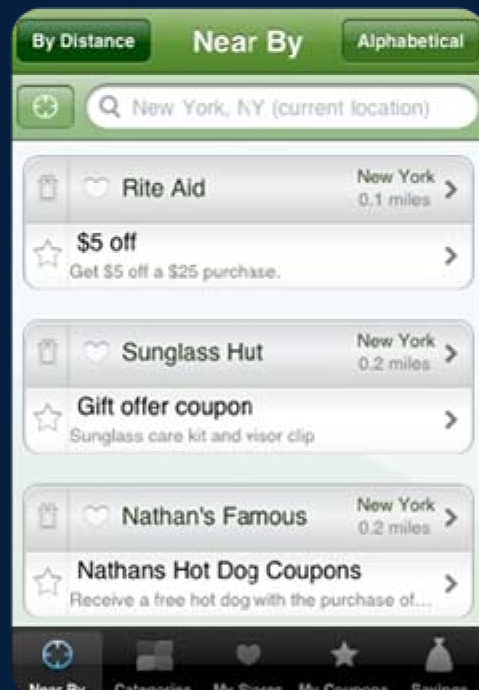
Digital Video Streaming on Mobile Phones circa 2008

Source: Nintendo, Apple, Amazon.com, Google, Spotify, CBS Interactive.

Mobile Coupons –
Potential to Generate Retail Store Traffic / Sales

Coupon Sherpa –
Discounts Granted by Scanning Barcodes on Smartphones While at Store Checkout

mobiQpons –
Coupons Displayed on Smartphones Based on Proximity to Stores



Yowza!! –
Coupons Shared with Friends

Source: Company Data, Morgan Stanley Research.

Branded Mobile Apps –
Could Drive Incremental Store Traffic / Purchases

Chipotle iPhone App –
Locate, Order and Pay for Tacos / Burritos on Smartphone…and Skip the Line When You Pick Up

Starbucks Card on iPhone –
Management of Starbucks Credits + Barcode Scanning for Easy Checkout (Limited Availability*)

Morgan Stanley

*Note: *Barcode scanning for easy checkout currently only available in Seattle, WA, Cupertino, CA, and Mountain View, CA.*
Source: Company Data, Morgan Stanley Research.

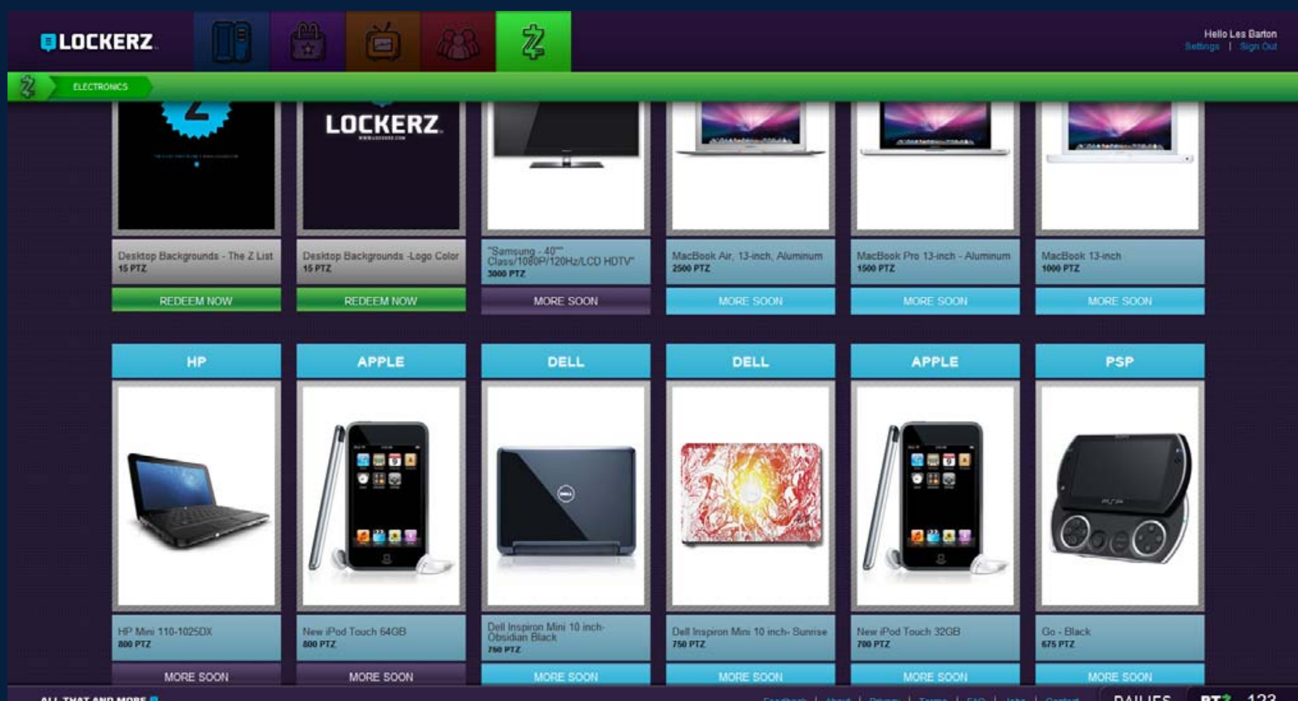
Mobile Push Notification –
Enables Effortless Monitoring of Real-Time Transaction Process

eBay iPhone App –
Manage Transactions on Smartphones

eBay iPhone App –
'Auction Ending Soon' Reminder Pushed to Smartphones

Lockerz –
Social Rewards Program

- Free invitation-only social network / eCommerce / content discovery site where members earn reward points they can redeem for free products (including consumer electronics / apparel) and events…by logging in / watching ‘promotional’ videos / playing games / completing surveys / inviting friends.
- 8MM registered users as of 1/10 (still in beta); 150MM+ page views per month.
- Targets 14-25 year olds; launched in private beta in 3/09, expected to open to public in CH1:10E; backed by Liberty Media.



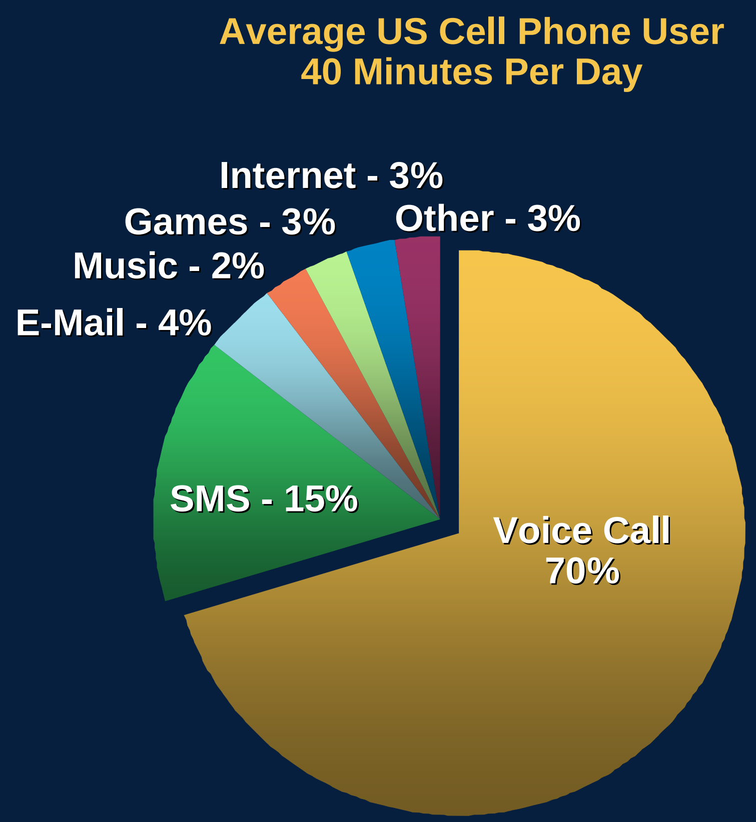
Source: Company Data.

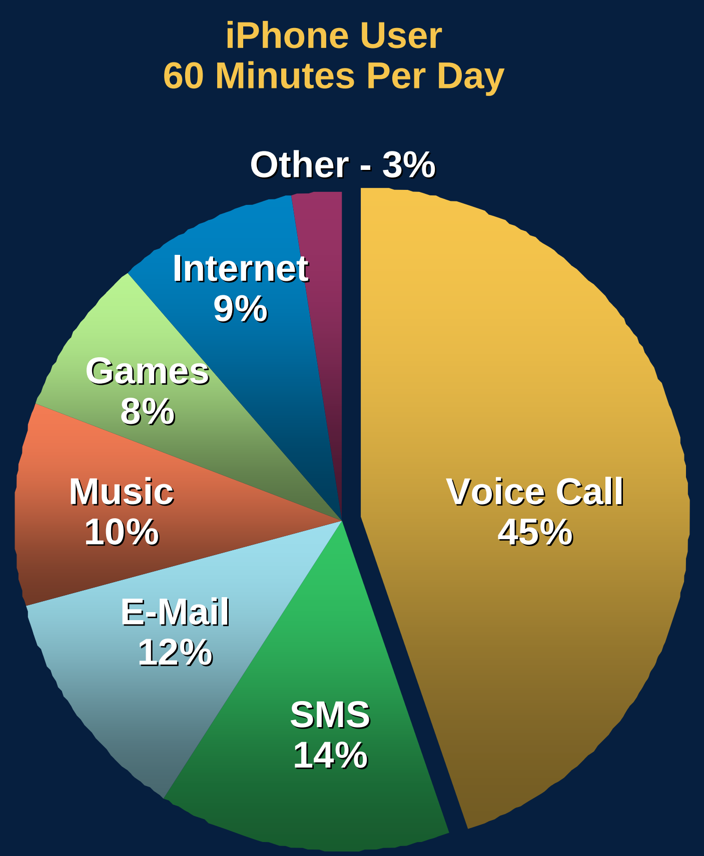
- 5 -

Massive Data Growth Driving Carrier / Equipment Transitions

Increasingly, Mobile Phone Usage is About Data, Not Voice = Average Cell Phone = 70% Voice…iPhone = 45% Voice

Daily Usage Breakdown, % of Time Spent on Each Activity





Note: CTIA estimates average voice call time per day is 27 minutes, assuming 70% of total time spent is on voice call, per iSuppli, total average time spent on cell phone is approx. 40 minutes per day. iPhone time spent per day is our estimates.
Source: iSuppli ConsumerTrak survey, 10/08, Morgan Stanley Research.

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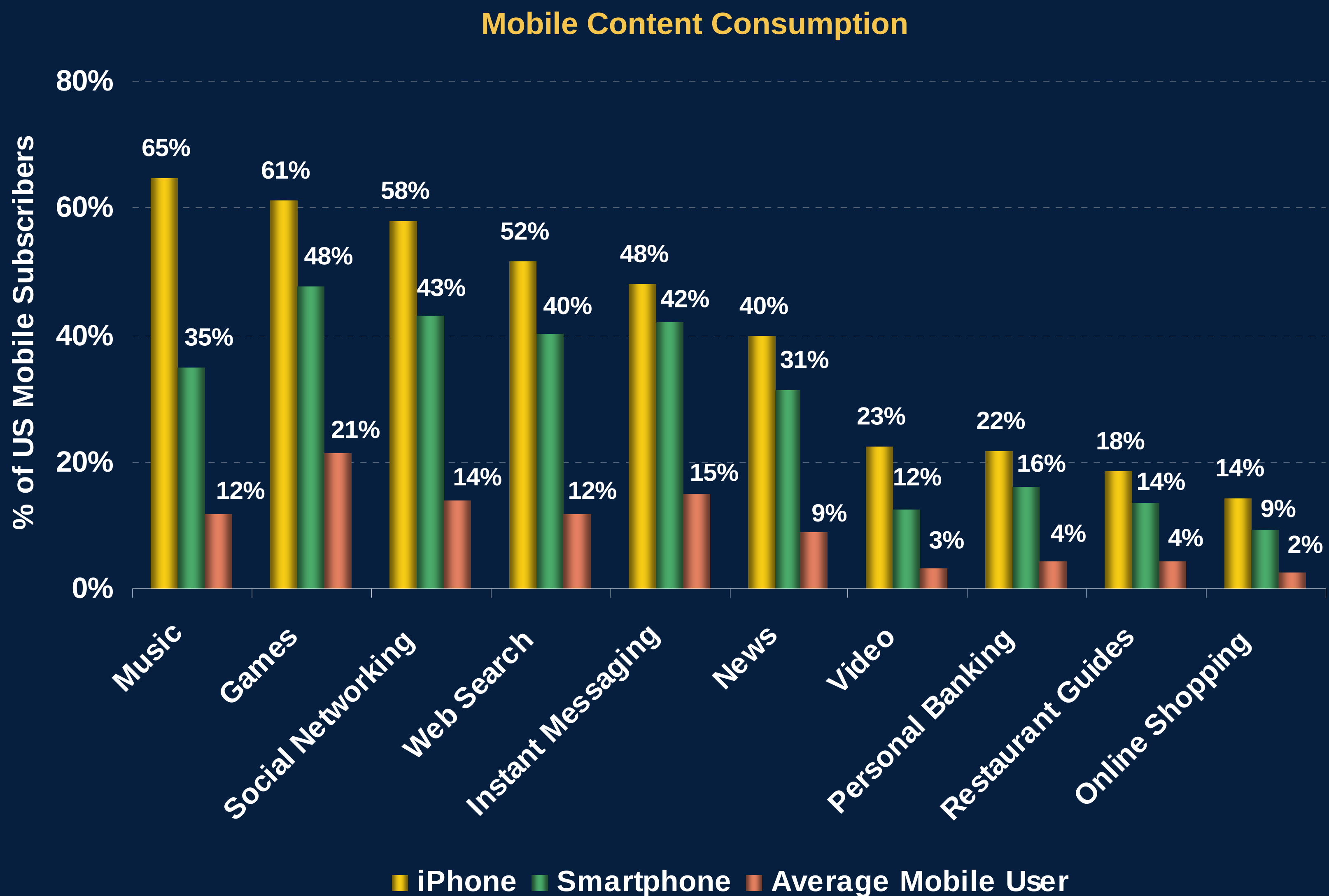
iPhone Users Use Data / Internet Far More than Average Mobile Users



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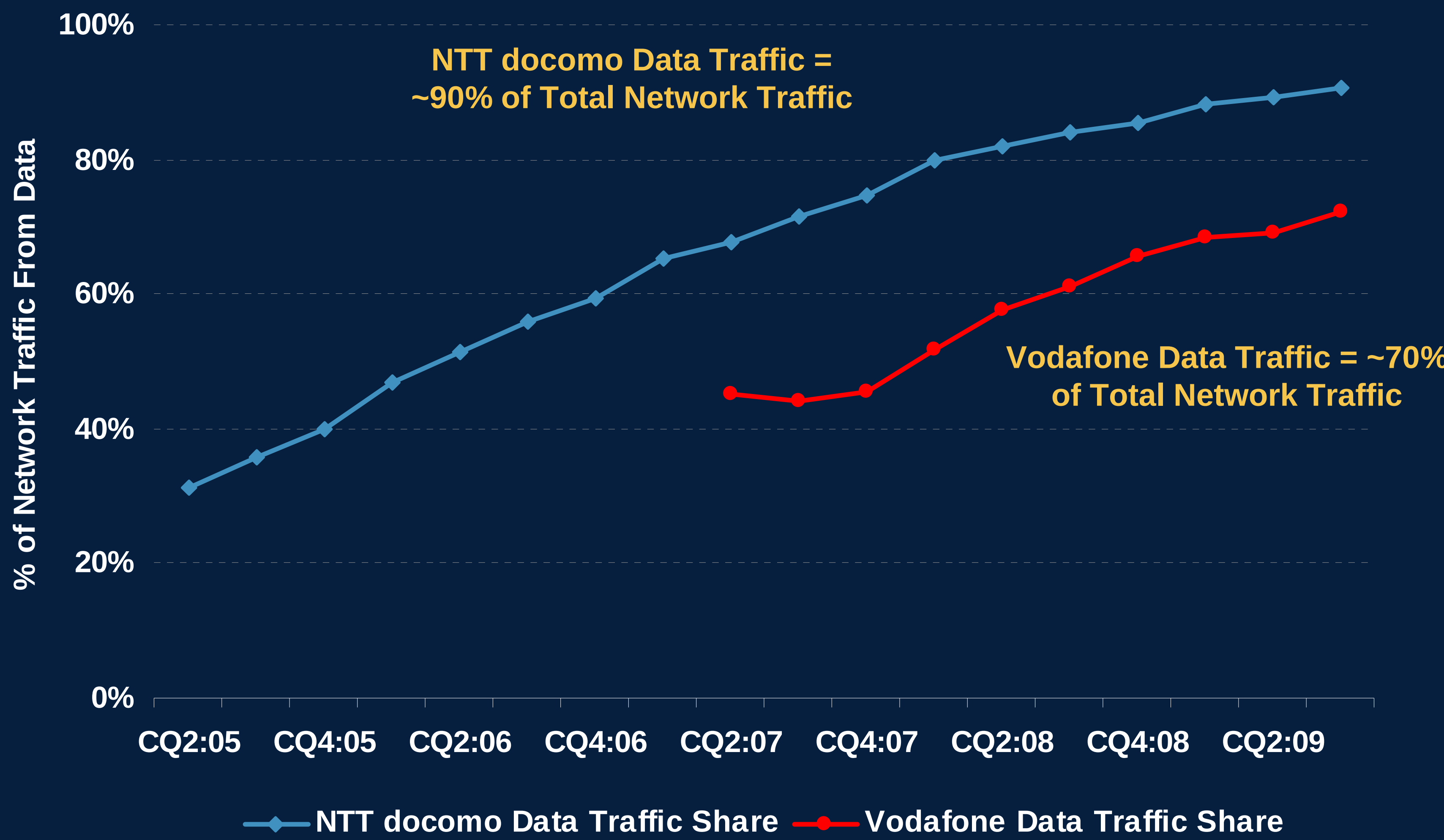
Note: Percentages reflect share of users that accessed websites / applications in a given category at least once a month. Data was collected using a 3 month average for the period ending 9/09. Source: comScore MobiLens 9/09.

Data = Increasingly Dominating Network Traffic Share for Wireless Carriers in Developed Markets



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Note: Assumes voice calls = ~12 bits / second of traffic; Vodafone traffic data not available prior to CQ2:07.
Source: Company Reports, Morgan Stanley Research.

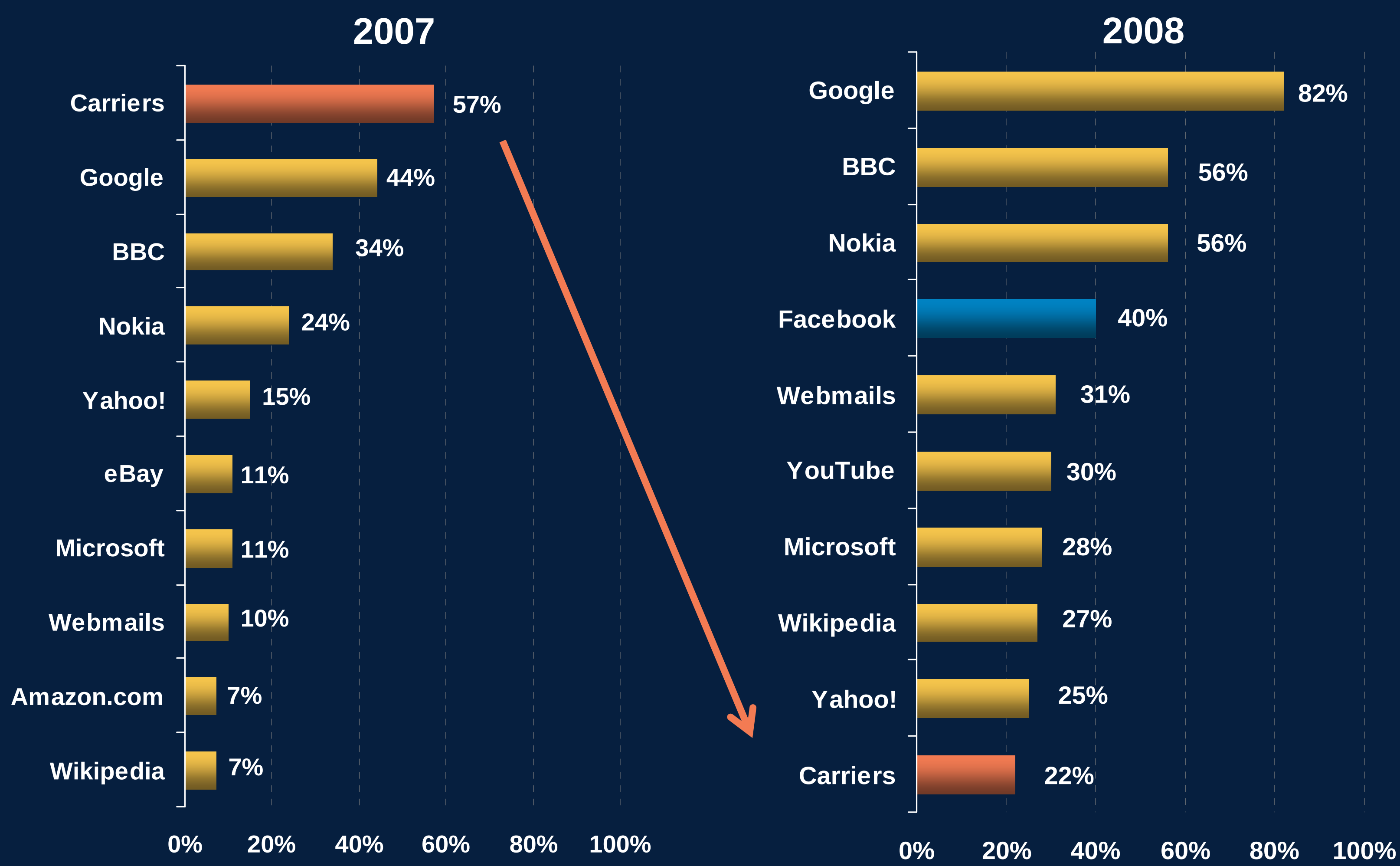
- 6 -

Growth / Monetization Roadmaps Provided from Japan Mobile + Desktop Internet

When Consumers are Empowered by the Internet, Usage Changes Can Occur Very Quickly

Carrier 'Walled Gardens' Collapsed Extremely Rapidly –
UK Mobile Users Are Fleeing from Carriers' Portal Sites

Mobile Web Sites' Share of UK Mobile Internet Users



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Note: Share of users refers to the percent of users who have accessed these sites on a mobile phone during each year; i.e. 82% of UK mobile Internet users accessed Google in 2008, up from 44% in 2007. Source: Nokia Siemens Networks, Nokia UK Smartphone Study.

Advertising Dollars Ultimately Follow Eyeballs

$46 in Annualized Ad Revenue per Internet User vs. $28 in 2005 vs. $0 in 1994

	1995E	2005E	2009E
Global Internet Ad Revenue	$55MM	$18B	$54B
Ad Revenue per User	$9	$28	$46
Global Internet Users	6MM	644MM	1.2B

Source: Global online ad revenue per Juniper Communications (1995), ZenithOptimedia (2005 & 2009). Internet users per MS estimate (1995) and comScore (2005 & 2009). We note that comScore reports a lower global Internet user # than International Telecommunications Union.

New Business Models are Often Created During Technology Changes

China (Owing in Part to Tencent's Success) Shows 'Virtual Goods' Can be Big Business – $2.2B in 2009E Revenue & $24 Annual ARPU

Virtual Goods Sales in China, 2006E – 2013E

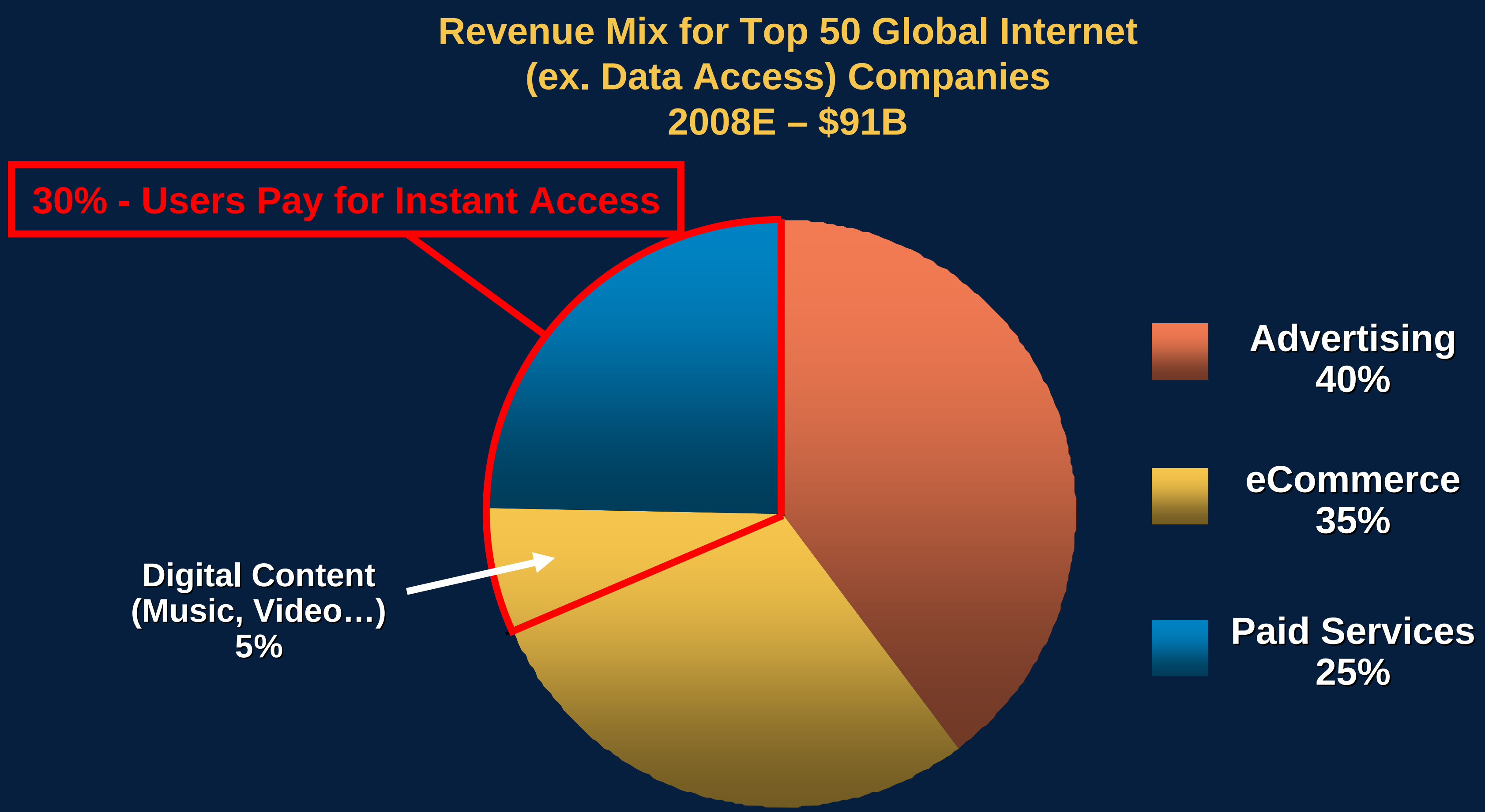
	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E
Total virtual item sales ($MM)	**$547**	**$889**	**$1,464**	**$2,207**	**$3,132**	**$4,307**	**$5,763**	**$7,359**
Y/Y Growth	--	*62%*	*65%*	*51%*	*42%*	*38%*	*34%*	*28%*
Game virtual item sales ($MM)	**$296**	**$490**	**$841**	**$1,288**	**$1,858**	**$2,564**	**$3,418**	**$4,439**
Y/Y Growth	--	*66%*	*72%*	*53%*	*44%*	*38%*	*33%*	*30%*
Paying gamers (MM)	18	26	37	46	55	64	74	84
Y/Y Growth	--	*44%*	*43%*	*25%*	*20%*	*17%*	*15%*	*14%*
ARPU (US$ per Month)	$1	$2	$2	$2	$3	$3	$4	$4
Y/Y Growth	--	*15%*	*20%*	*23%*	*20%*	*18%*	*16%*	*14%*
Non-game virtual item sales ($MM)	**$252**	**$399**	**$623**	**$918**	**$1,274**	**$1,743**	**$2,346**	**$2,920**
Y/Y Growth	--	*58%*	*56%*	*47%*	*39%*	*37%*	*35%*	*25%*

Morgan Stanley

Note: ARPU is average revenue per user. Non-game virtual items include virtual gifts / ringtones / wallpapers / avatars + accessories. Source: Richard Ji, Morgan Stanley Research estimates.

In-Place Billing Systems (with likes of Carriers + iTunes) Should Create Better Monetization Opportunities than Experienced on Desktop Internet

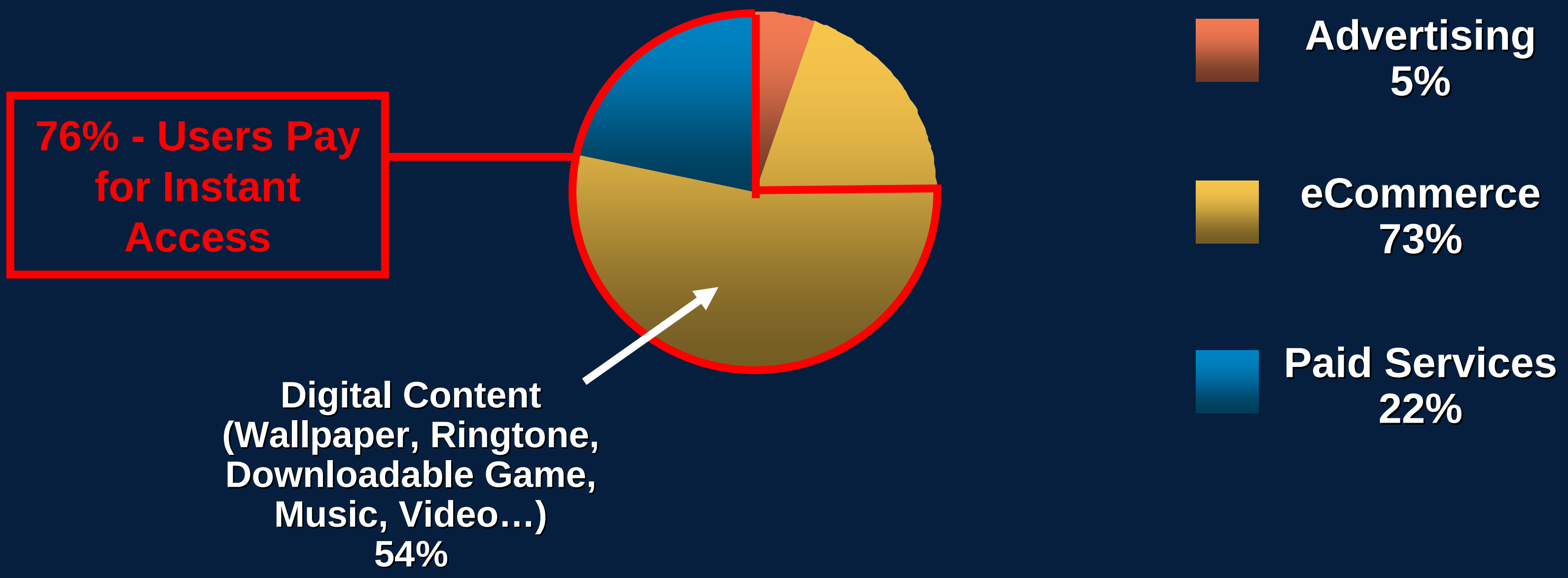
Advertising + eCommerce (Vendor + Advertiser Paid) = Dominate Desktop Internet Revenue…



Note: eCommerce is limited to online retail goods sales; paid services include online banking, travel services…; top 50 global Internet companies ranked by 2008 revenue. Source: FactSet, company data, Morgan Stanley Research.

…While Premium Content Revenue (User Paid) = Dominate Mobile Internet Revenue

Revenue Mix (ex. Data Access) for Global Mobile Internet
2008E – $37B



Note: eCommerce is limited to online retail goods sales; paid services include online banking, travel services; Source: IDC, eMarketer, Juniper Research, Morgan Stanley Research.

Why Are Users Willing to Pay So Much More for Content on Mobile Devices than on Desktop PCs?

Users Are Willing to Pay for Content On Mobile Internet Owing to…

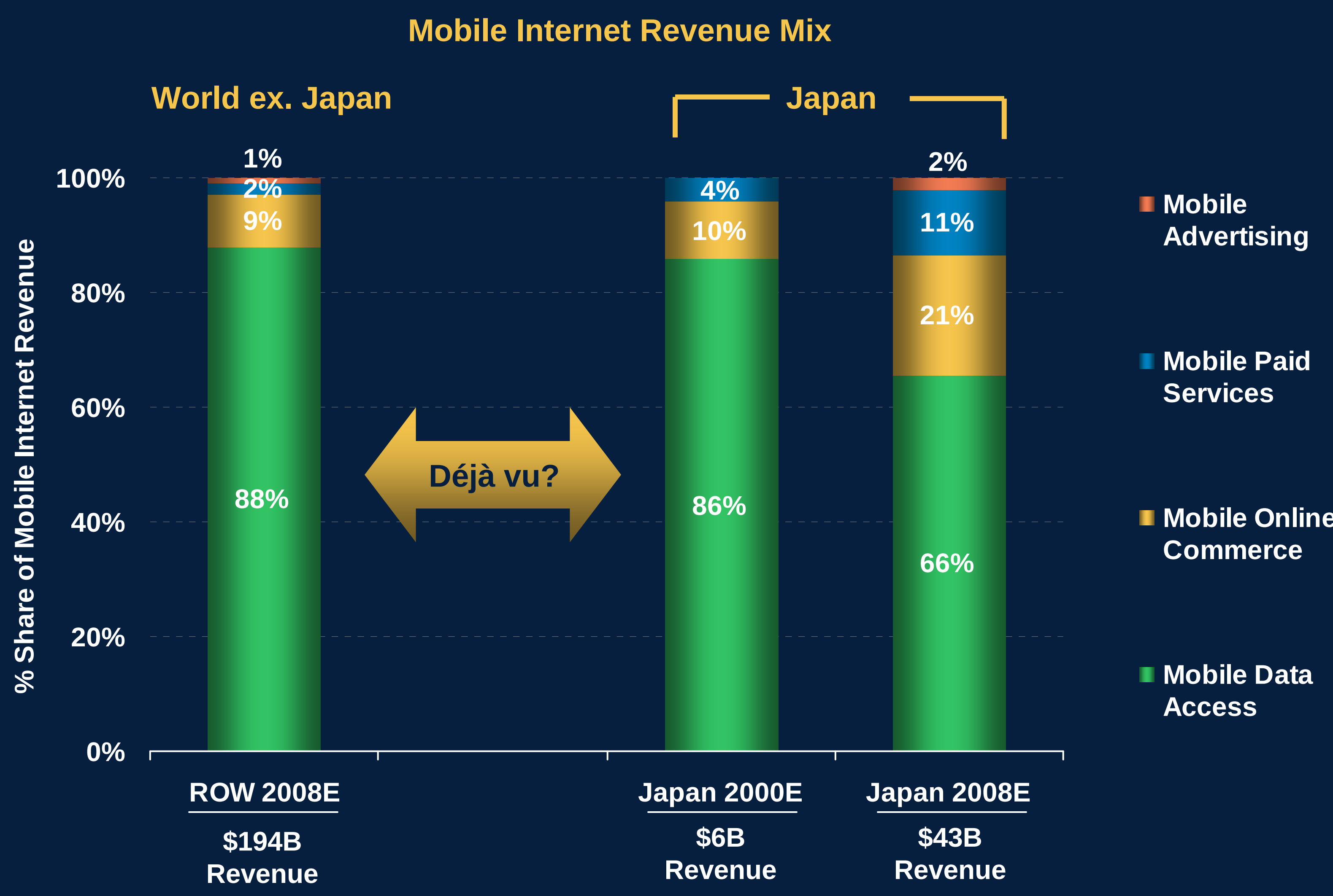
- Easy-to-Use / Secure Payment Systems – 'Embedded' systems (like carrier billing + iTunes) allow real-time payments;
- Small Price Tags – Most content / subscriptions carry sub-$5 price tags
- Walled Gardens Reduce Piracy – Content exists in proprietary environments, difficult to get pirated content onto mobile devices
- Established Store Fronts – Carrier decks / iTunes store allow easy discovery / purchase
- Personalization – More important on mobiles than desktops

Users are LESS Willing to Pay for Content On Desktop Internet Owing to…

- Difficult-to-Use / Fragmented Payment Mechanisms That Are More Susceptible to Security Issues – Too many payment options for vendors / consumers + widespread fraud
- Often Expensive + Cumbersome to Purchase Legal Content – $15+ per movie / DRM protection limits usage
- Open Internet + Piracy – Most content in digital formats is available for free (newspaper / pictures) or for illegal download (music / video / applications)
- Lack of Centralized / Large-Scale Marketplace for Legal Content Discovery / Purchase – Few players beyond iTunes + Amazon.com

Rapid Mobile Internet Growth in Japan Over Past Decade Sheds Light on How Internet Monetization May Develop in Rest of World (ROW)

ROW's Mobile Internet Revenue Mix in 2008 = Japan's in 2000 – Data Access = 66% in Japan vs. 88% in ROW in 2008



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Note: Mobile online commerce includes retail sales of physical goods and digital / virtual goods such as ringtones / wallpapers / avatars; Source: Nema Naoshi / Hironori Tanaka for Japan data, Morgan Stanley Research.

Rapid Ramp of Mobile Internet Usage Will be a Boon to Consumers and Some Companies Will Likely Win Big (Potentially Very Big) While Many Will Wonder What Just Happened

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(as of March 31, 2010)

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Equal-weight/Hold	1095	43%	348	46%	32%
Not-Rated/Hold	15	1%	4	1%	27%
Underweight/Sell	373	15%	87	11%	23%
Total	2,525		764		

Data include common stock and ADRs currently assigned ratings. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley or an affiliate received investment banking compensation in the last 12 months.

Disclosure Section *(continued)*

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Disclosure Section *(continued)*

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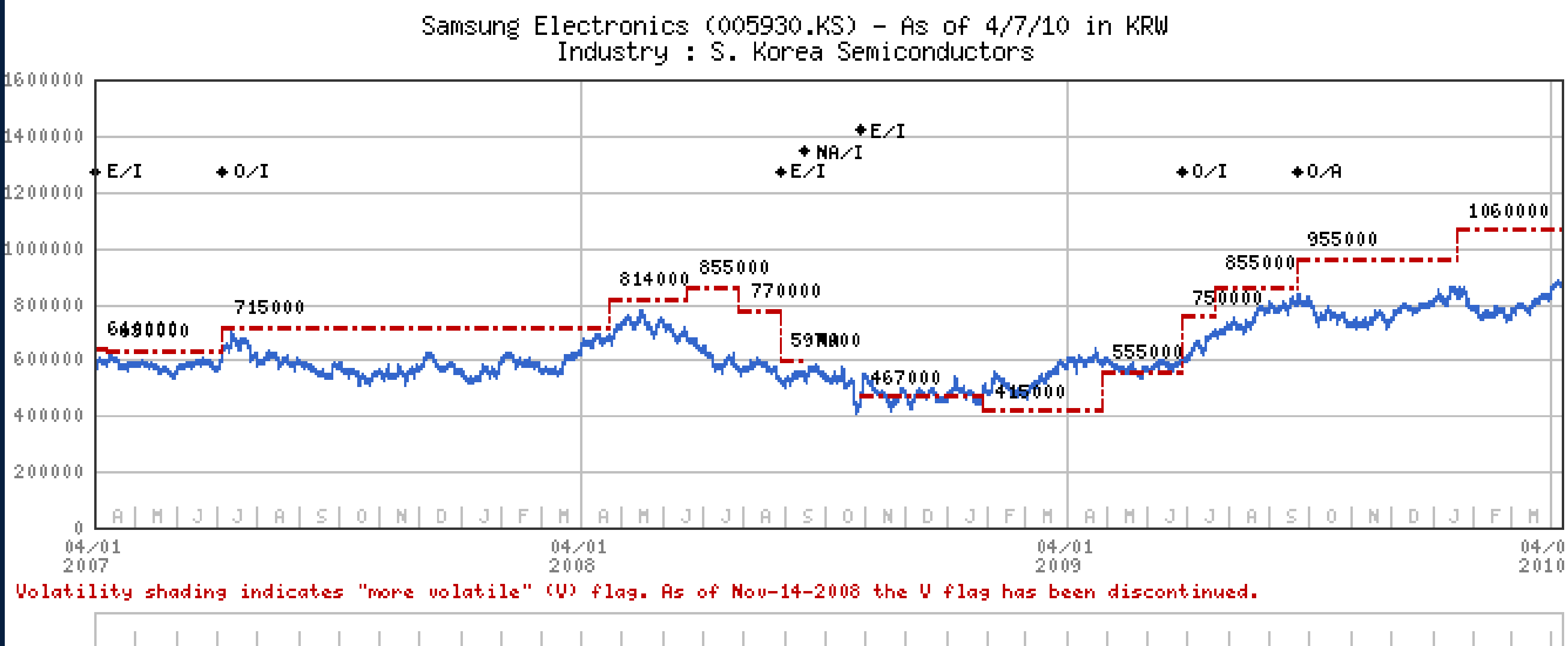

Stock Rating History: 4/1/07 : E/I; 7/6/07 : O/I; 8/28/08 : E/I; 9/16/08 : NA/I; 10/27/08 : E/I; 6/26/09 : O/I; 9/21/09 : O/A

Price Target History: 6/23/06 : 640000; 4/10/07 : 630000; 7/6/07 : 715000; 4/21/08 : 814000; 6/20/08 : 855000; 7/28/08 : 770000; 8/28/08 : 597000; 9/16/08 : NA; 10/27/08 : 467000; 1/28/09 : 415000; 4/27/09 : 555000; 6/26/09 : 750000; 7/21/09 : 855000; 9/21/09 : 955000; 1/19/10 : 1060000

Source: Morgan Stanley Research   Date Format : MM/DD/YY   Price Target   No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst)   Stock Price (Covered by Current Analyst)

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