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Internet Trends 2005

Mary Meeker

October 12

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October 12, 2005

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Outline

- Perspective
- Communications Changing / Being Changed
- Broadband Meets Mobile Meets WiFi – Around the World
- Broadband / Mobile / WiFi Drilldown
- Closing Thoughts
- Disclosures

Perspective

Global Internet Data Points...

Google	→	7.6B global searches (+74% Y/Y, 5/05); 384MM global unique visitors (+36%, 5/05) per comScore
Broadband	→	179MM global subscribers (+45% Y/Y, CQ2); 57MM in Asia; 45MM in N. America
Yahoo!	→	917MM streaming video (music...) sessions (+119% Y/Y, CQ4)
Digital Music	→	695MM cumulative iTunes as of 9/05; 6MM iPods sold in CQ2:05 (+295% Y/Y)
Personalization	→	40MM+ estimated My Yahoo! users
Blogging	→	27% of US Internet users read blogs, 11/04
Tencent	→	16MM peak simultaneous Instant Message users, China, CQ2
Ringtones	→	\$3B annualized ringtone sales (Informa 5/05) - vs. \$495MM cumulative iTunes sales (7/05)

...Global Internet Data Points

VoIP	→	54MM registered Skype users (9/05) - fastest product ramp ever?
Denmark	→	VoIP minutes > landline voice minutes
Mobile Messaging	→	1.1T SMSs sent with \$50B in revenue in 2004 (Informa 5/05); more emails sent in Japan via mobile than PC (DoCoMo 2005)
PayPal	→	79MM accounts (+56% Y/Y, CQ2); 23MM users (+48% Y/Y)
Mobile Payments	→	4MM+ NTT DoCoMo wallet phone users (CQ1) in Japan
Global	→	N. America = 23% of Internet users in 2005; was 66% in 1995
S. Korea	→	Broadband penetration of 70%+ - No. 1 in world
China	→	More Internet users < age of 30 than anywhere

What We Have Lived Through

Patterns

Company Creation

Boom

Bust

Boom-let

Wealth Creation

Boom-let

Bust

Boom

Top 5 Global Internet Market Cap Leaders

Google + Yahoo! + eBay + Yahoo! Japan + Amazon.com

- \$ 2B = market value - pre-2000 IPO
- \$178B = market value - Nasdaq peak – 3/10/00
- \$ 32B = market value - Nasdaq trough – 10/9/02
- \$261B = market value - 10/3/05

For Google we include \$100MM in post-money valuation

Pace of Change Accelerating

Event	Date (2005)	Approximate Value	Focus
Baidu IPO	8 / 5	\$4B ⁽¹⁾	Flexibility
Yahoo! / Alibaba	8 / 10	\$4B	China
Microsoft / Teleo	8 / 30	--	VoIP
eBay / Skype	9 / 12	\$4B ⁽²⁾	VoIP
Google Financing	9 / 14	\$4B	Flexibility
Microsoft Reorganization	9 / 21	--	Agility
Microsoft / Yahoo!	10 / 12	--	IM Interoperability

Source: Morgan Stanley Research. (1) Market capitalization using first trading closing price. (2) Includes \$1.5B performance based earn-out payment.

Significant Infrastructure Builds...

Capital Expenditures			
(US\$ in Millions)	C2003	C2004	C2005E
Google	\$177	\$319	\$700
Y/Y	375%	80%	104%
Yahoo!	\$117	\$246	\$405
Y/Y	128%	109%	65%
eBay ⁽¹⁾	\$365	\$293	\$396
Y/Y	163%	(20%)	35%
Amazon.com	\$46	\$89	\$172
Y/Y	17%	94%	93%

Source: Company filings, Morgan Stanley Research. Figures exclude capital expenditures from acquired companies.

(1) C2003 includes \$125.1MM purchase of additional office space.

E = Morgan Stanley Research estimates.

...Significant Infrastructure Builds

To organize all the world's information and make it universally accessible and useful.

Communications Changing / Being Changed

Communications (Data and Voice) Changing

1975



Landline Phone

2005

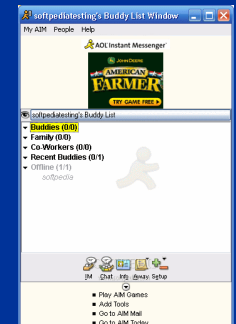
Mobile



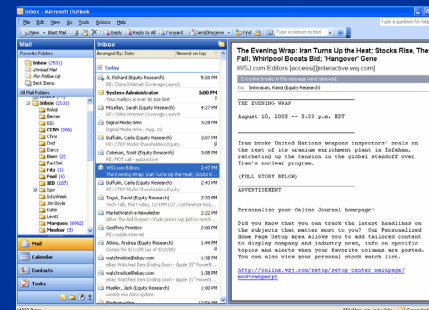
VoIP



IM



Pace of innovation across communication devices, services and networks continues to rise



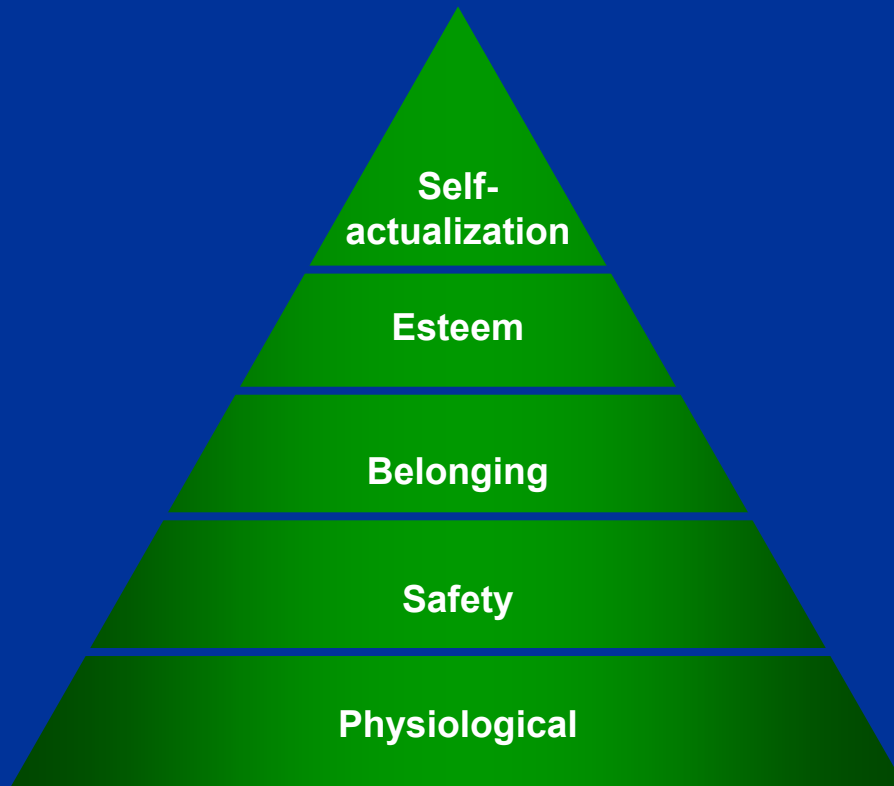
Email



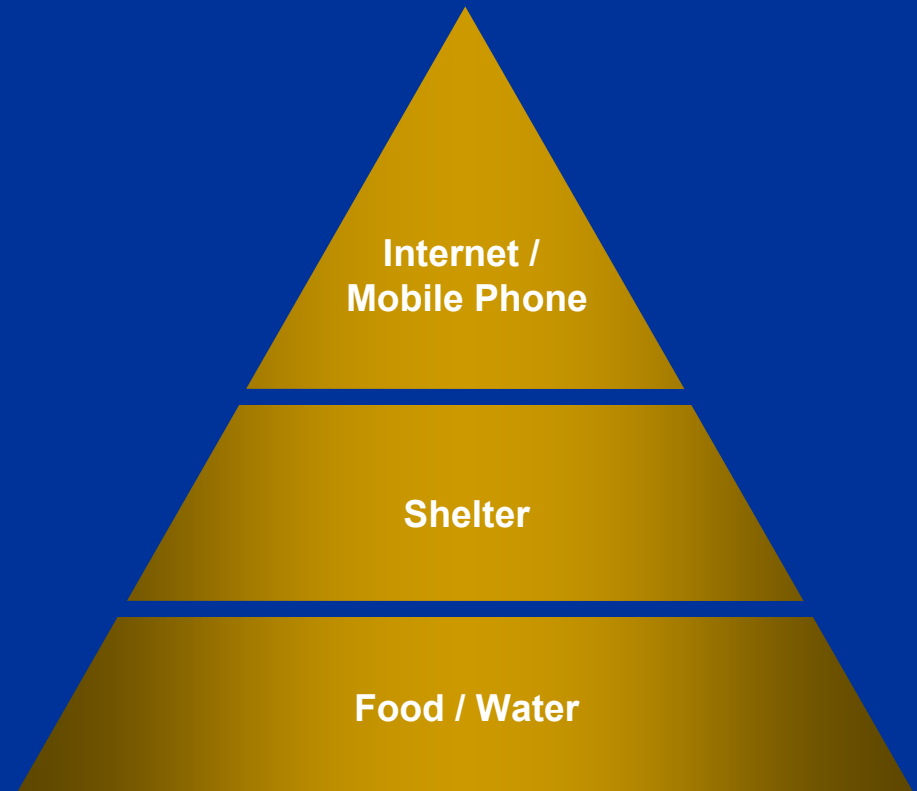
Blogs

Hierarchy of Needs?

1943 - Maslow



2005 - ? ;)



Created for discussion purposes and perhaps a bit of humor. Not intended to discredit Maslow's hierarchy of needs which we believe to be accurate.

Broadband Meets Mobile Meets WiFi – Around the World

Just Another Computing Cycle?

4 major computing cycles over past 50 years

Mainframe → Minicomputer → PC → PC Internet (Narrowband)

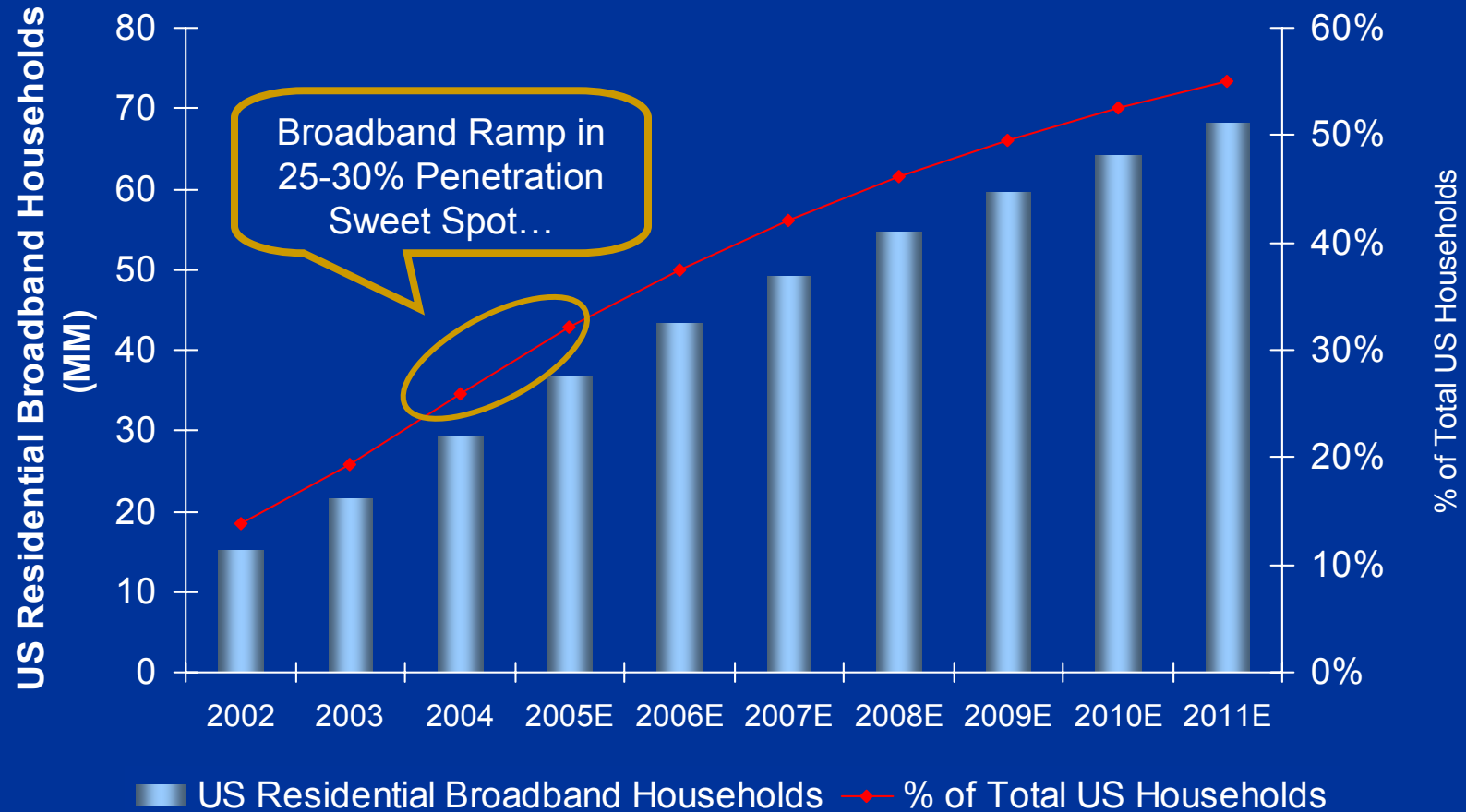
In / entering 2 most profound cycles ever

PC Internet (Broadband) → Mobile Internet

Why now?

- 1) Broadband becoming pervasive
- 2) Internet-enabled mobile devices becoming pervasive - in effect, becoming small / functional computers
- 3) Global technology innovation may be at all time high

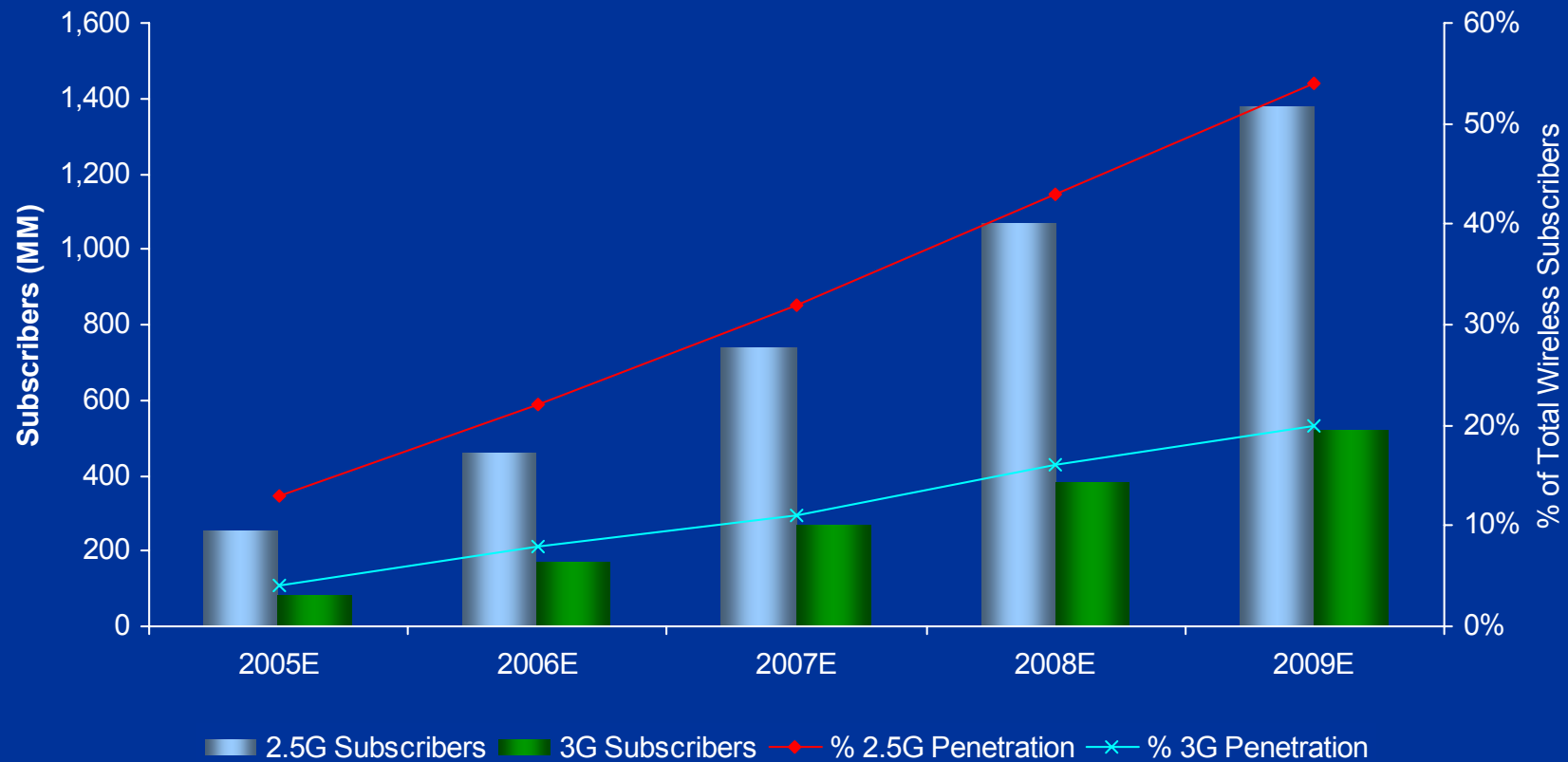
Broadband Becoming Pervasive



Morgan Stanley Research.

Mobile Broadband in Early Stages

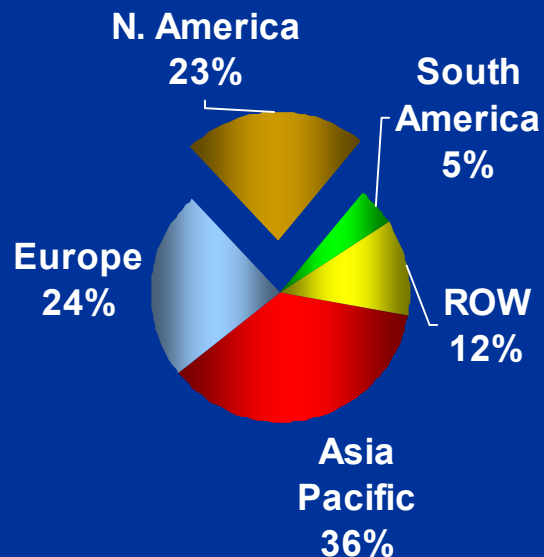
Global 2.5G / 3G Penetration



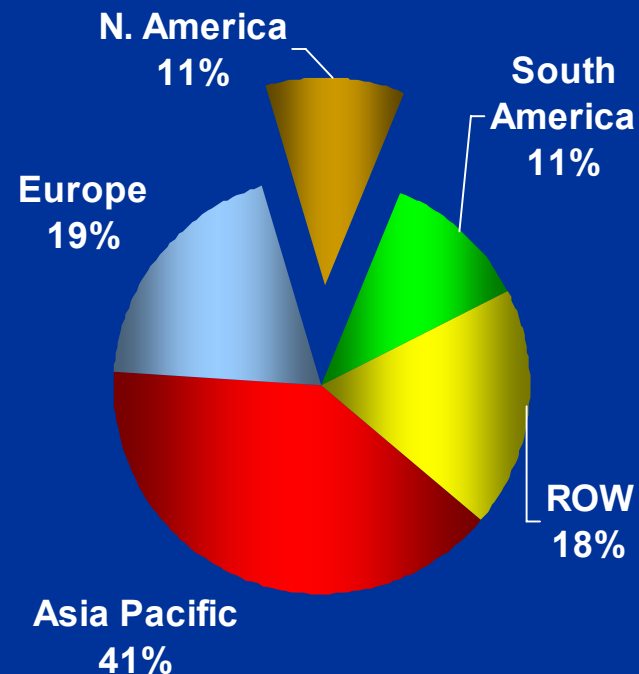
Source: Morgan Stanley Telecom, Internet Research.

Global Tech Usage / Innovation at All Time High

Internet Users – 1B
C2005E ⁽¹⁾



Mobile Subscribers – 2B
C2005E ⁽²⁾



(1) Source: Morgan Stanley Research.

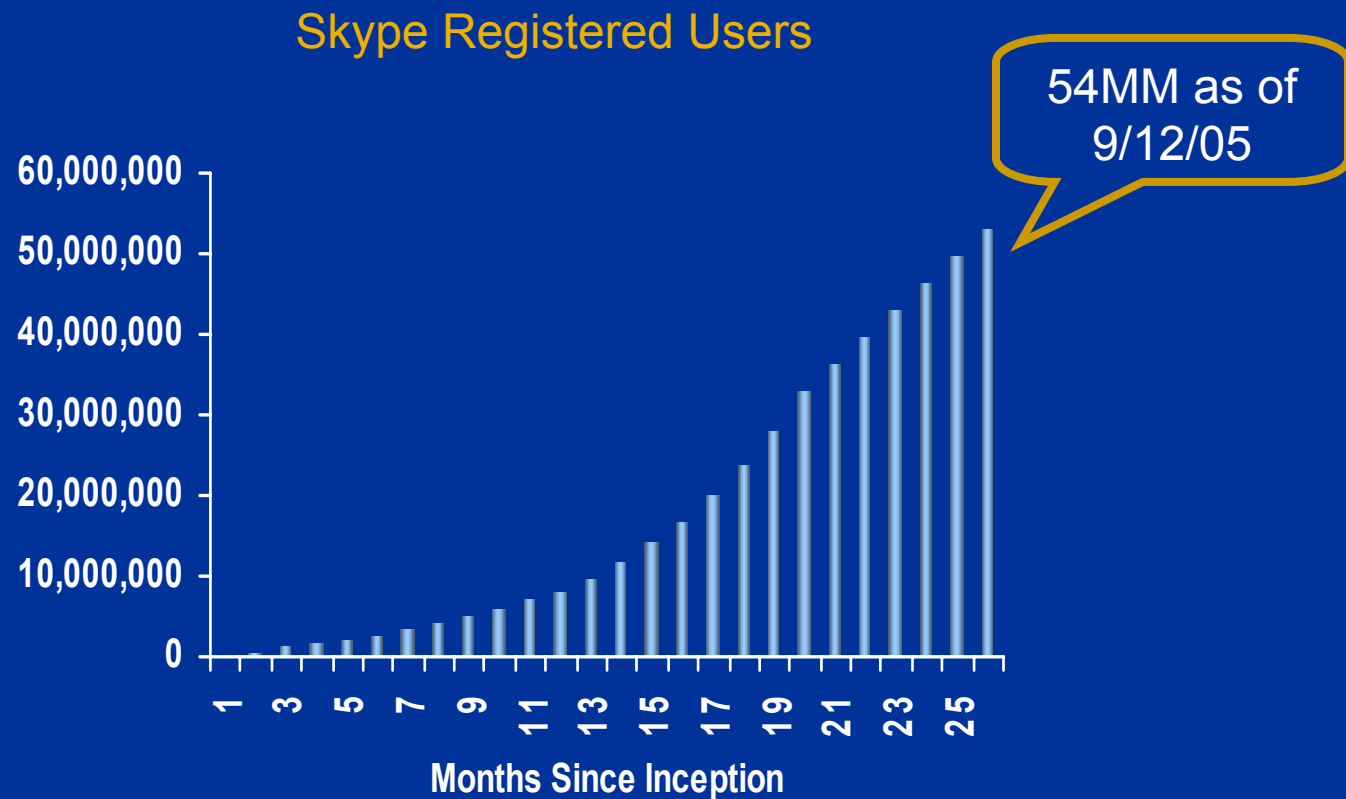
(2) Source: Morgan Stanley Communications Equipment Research: Scott Coleman, John Marchetti.

Convergence of Internet / Mobile – US Lags

Country	Mobile Phones (MM)	Internet Users (MM)	Mobile Phone to Internet User Ratio	Installed PCs (MM)
China	363	100	3.6 : 1	53
US	177	211	0.8 : 1	207
Japan	88	78	1.1 : 1	55
Germany	69	51	1.4 : 1	39
UK	54	37	1.5 : 1	26
Italy	54	32	1.7 : 1	16
S. Korea	37	32	1.2 : 1	27

Euromonitor, CNNIC, World Bank, Morgan Stanley Research – June 2005 estimates

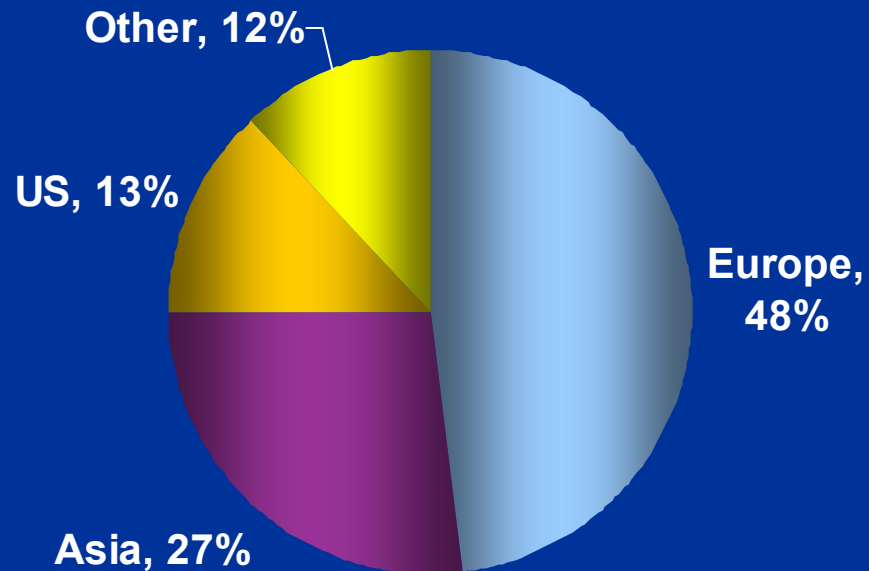
Skype (VoIP) – Fastest Growing Application Ever?



(1) Source: Company Data, Morgan Stanley Research.

Skype – 87% of Usage Outside N. America

Skype Revenue Distribution – Q2TD



eBay + Skype

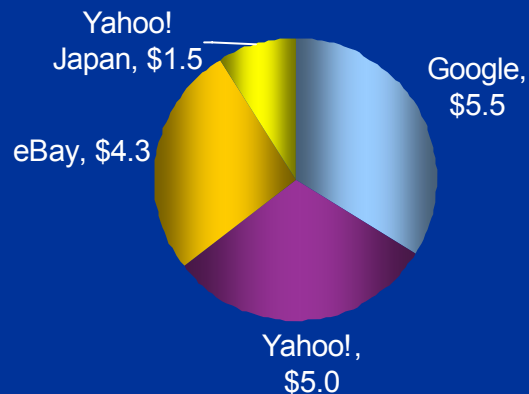
- Best example (along with VeriSign / Jamba) of leading US-based technology company purchasing a leading non-US technology that had leadership in foreign markets with intent, in part, to bring technology into US market
- More - potentially a lot more - to come...

Broadband / Mobile / WiFi Drilldown

Broadband Internet vs. Mobile Internet Revenue

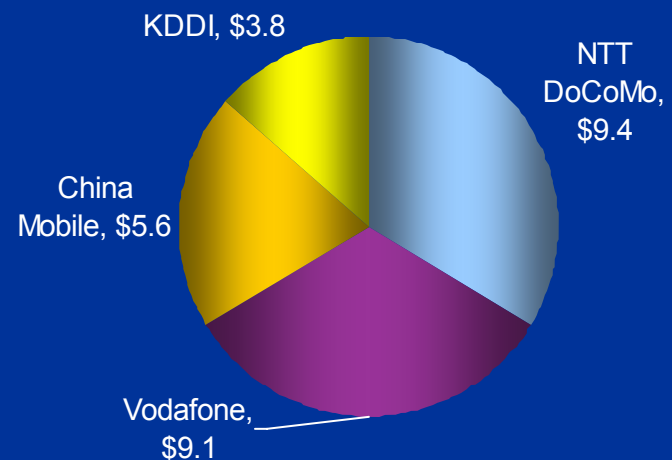
Broadband Internet CQ2 Annualized - \$16B

(Figures in US\$ Billions)



Mobile Internet Data CQ2 Annualized - \$28B (Majority SMS/MMS related)

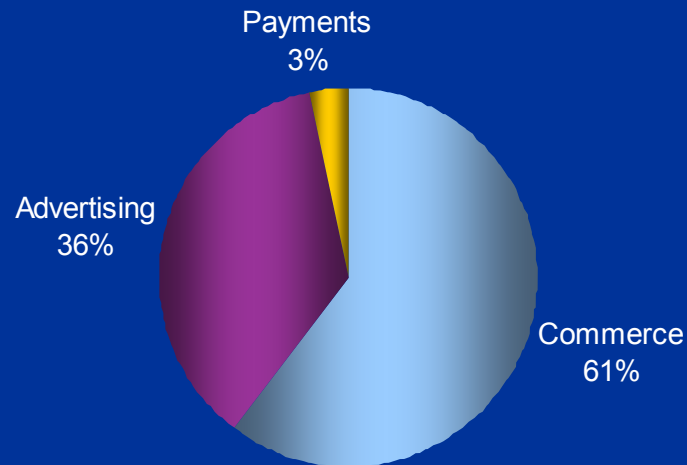
(Figures in US\$ Billions)



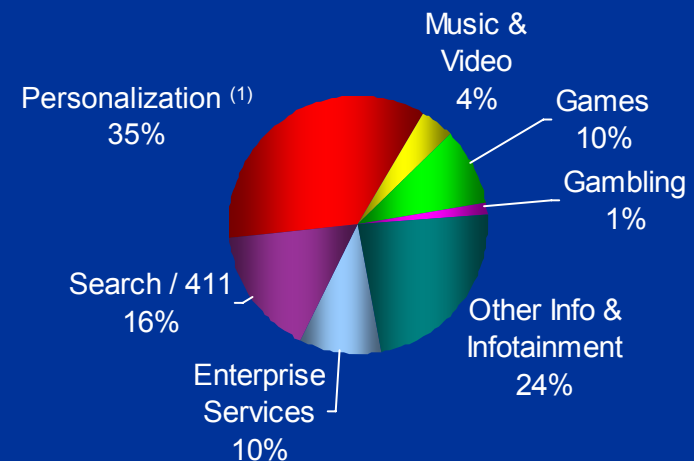
Source: Top four revenue generators for broadband Internet and mobile data. Left Chart - Morgan Stanley Research Estimates, Right Chart - Company Filings.

Broadband Internet vs. Mobile Internet Revenue Composition

Top 10 Internet Companies - Revenue Composition
CQ2 Annualized - \$28B



Revenue Composition - Mobile Internet
C2005E - \$19B

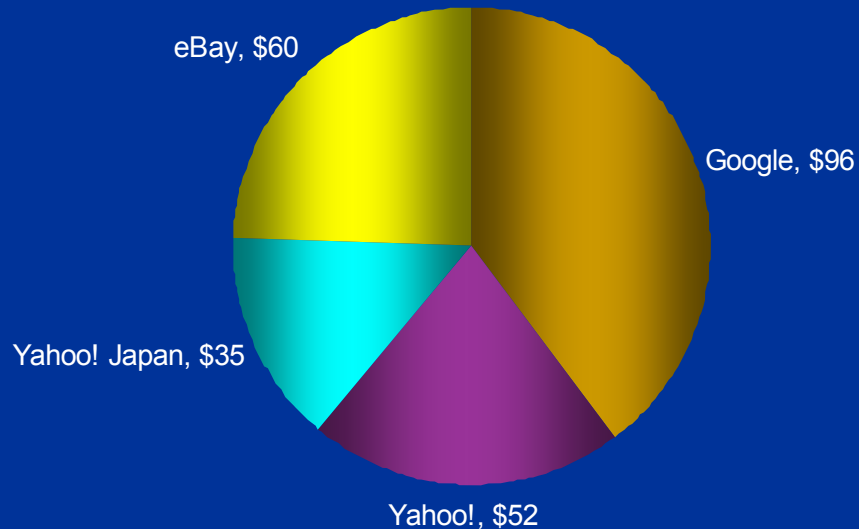


Source: Left Chart - Morgan Stanley Research estimates: includes revenue from Google, eBay, Yahoo!, Yahoo! Japan, Amazon.com, T-Online, InterActive, Time Warner (AOL only), Microsoft (MSN only), and Rakuten. Right Chart - Morgan Stanley Research estimates, Global Data. Informa (5/05), Ovum (5/05). (1) Personalization includes ringtones, wallpapers, and screensavers.

Broadband Internet vs. Mobile Internet Valuations

Pure Play Broadband Internet - \$242B

(Figures in US\$ Billions)



Pure Play Mobile Internet - \$2B

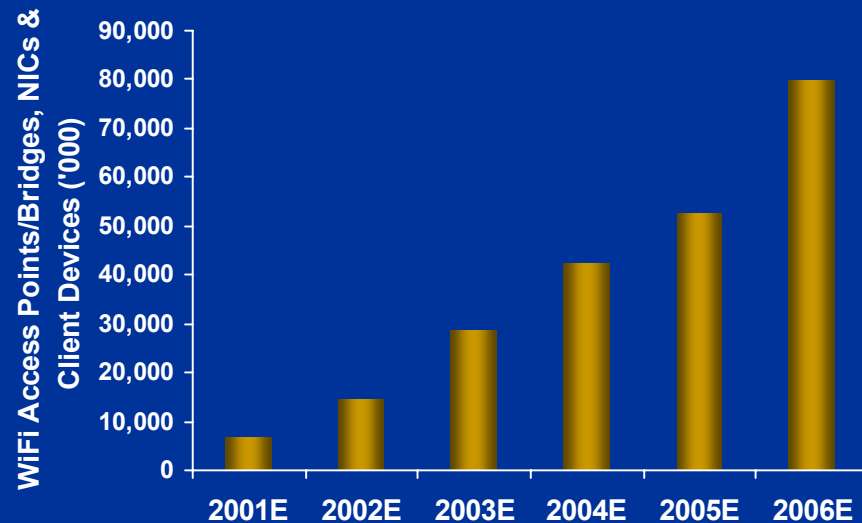
(Figures in US\$ Billions)



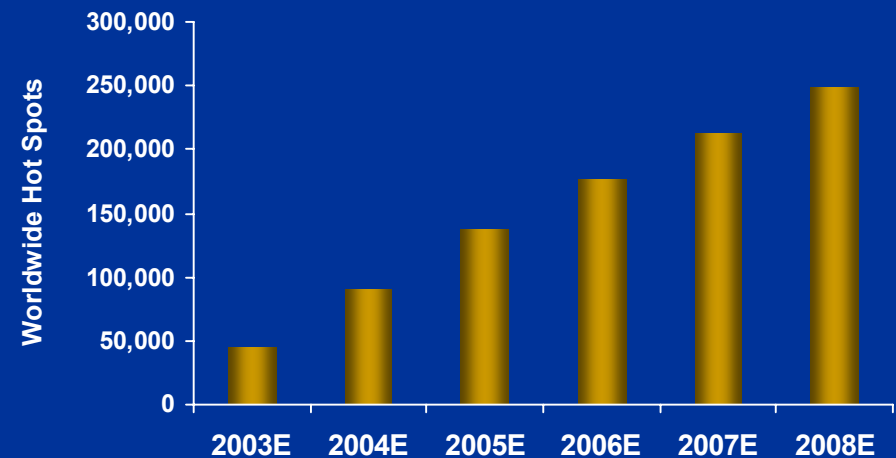
Source: Morgan Stanley Research, based on pricing data as of 10/3/05.

WiFi Usage Ramping

**US WiFi Access Points/Bridges,
NICs & Client Devices**



**Worldwide Available Hotspots
by Region, 2003E-2008E**



Left Chart Source: Morgan Stanley Research Estimates: S. Coleman, J. Marchetti. Right Chart Source: IDC (12/04)

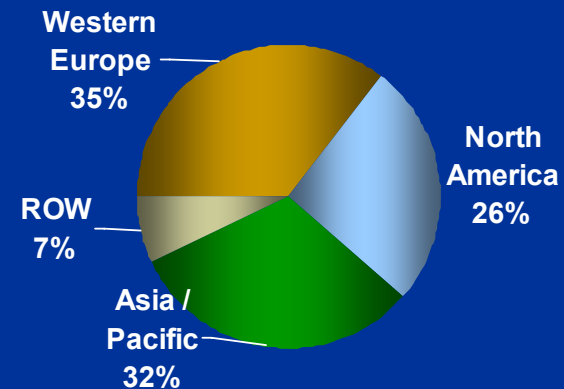
WiFi (or Equivalent) – Glue for Ubiquitous Connectivity?

- Boingo & T-Mobile Hot Spots - 18K+ each
- Search 'Omaha, Nebraska' - 10 Boingo Hot Spots

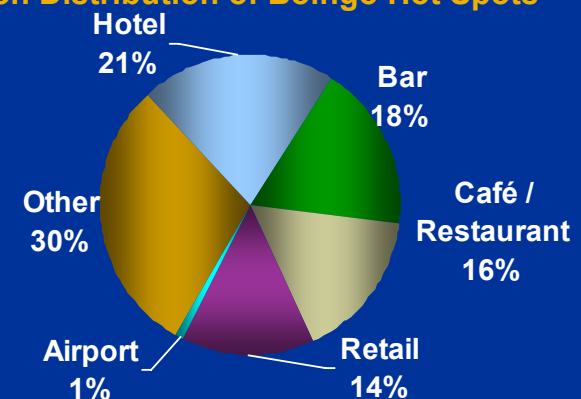
10 Locations found in Omaha

Location	Description	Address	Details
Barnes & Noble	Bookstore	7400 Dodge Street Suite 325 Omaha, NE 68114 Map & Directions	
Barnes & Noble	Bookstore	3333 Oakview Dr Omaha, NE 68144 Map & Directions	
Doubletree Hotel Omaha Downtown	Hotel	1616 Dodge Street Omaha, NE 68102 Map & Directions	Hotel Lobby
Embassy Suites Hotel Omaha-Downtown-Old Market	Hotel	555 South 10th Street Omaha, NE 68102 Map & Directions	Lobby and Public Area Wireless Access Powered by Wayport
Hawthorn Suites Omaha	Hotel	11025 M Street Omaha, NE 68137 Map & Directions	In-Room, Lobby, and Public Area Wireless Access Powered by StayOnline
OMA - Omaha Airport/Eppler Airfield	Airport	4501 Abbott Drive Omaha, NE 68110 Map & Directions	Signal available at Southwest Gates 16 & 17 in North Terminal, Northwest Gates 1, 2 & American Snack bar (Gate 4) in the South Terminal. Coverage (pre-security) available at Omaha Steak Shop, Hangar Lounge and center of Main Terminal.

Worldwide Available Hotspot Share by Region, 2004 ⁽¹⁾



Location Distribution of Boingo Hot Spots ⁽²⁾



(1) Source: IDC(12/04). (2) Source: Boingo Wireless (9/05).

Closing Thoughts

Watch What Global Younger Generation Does

Mobile Content, Services



[UMPAY]

Web OS Programs



Social Networking



Social Tagging



User-Generated Content Increasingly Relevant...

Yahoo! Movie Reviews

Batman Begins (2005)

► Movie Main Page

Movie Overview

[Showtimes & Tickets](#)

[DVD/Video Info](#)

[Trailers & Clips](#)

[Cast and Credits](#)

[Awards & Nominations](#)

Reviews and Previews

[Critics Reviews](#)

[User Reviews](#)

What's New
Exclusive - [Kate Holmes and Tom Cruise on the red carpet](#)
[the 'Batman Begins' world premiere](#)

The Critics:
B+
15 reviews

Yahoo! Users:
A-
15281 ratings

Christopher Nolan's film explores the origins of the Batman legend and the Dark Knight's emergence as a force for good in Gotham. In the wake of his parents' murder, disillusioned industrial heir Bruce Wayne (Christian Bale) travels the world seeking the means to fight injustice and turn fear against those who prey on

[Watch the Trailer](#)

The Critics:
B+
15 reviews

My Grade:
Rate this Movie!
Select grade to the right
[write a review](#)

Yahoo! Users:
A-
15281 ratings

A
B
C
D
F

eBay Feedback Ratings

Seller information

[selling2u-half](#) (256 ★)

Feedback Score: 256

Positive Feedback: 96.0%

Member since Nov-15-01 in United States

Google Video Search

Google Video BETA

conan o'brien

[Search](#) [Preferences](#)

Video

[Late Night With Conan O'Brien](#)
Alto Matt Damon, actor Henry Potter, Randy Newman perform...
Ly like, a monicle star! When I try e ay have - they're not - S...
That they did. Ere are the kind e - the >> **Conan** "the path of two" >> Well, when you go ngs Blic unials, so - so that >> **Conan**...
XNTV - NBC Network - Fri Jan 7 2005 at 12:37 AM PST - 59 minutes

[Late Night With Conan O'Brien](#)
After Samuel L. Jackson, actress Maria Thelma, Tegan and Sara perform...
...T? Chocolate is better in color O-uh, no. No... Ball (Sobbing) a licensed professional will help you decision that's right for you. H a song from their latest...
album, please welcome Tegan and Sara. O- out of my mind O- my mind O- O- out of my mind O- I was walking asking >> **Conan**...
XNTV - NBC Network - Wed Jan 12 2005 at 12:37 AM PST - 59 minutes

[Late Night With Conan O'Brien](#)
After Daniel Hanneberg, actress Sherry Ryan, They Might Be Giants perform...
XNTV - NBC Network - Tue Feb 1 2005 at 12:37 AM PST - 59 minutes

[Late Night With Conan O'Brien](#)
After Jett Williams, actress Sherry Ryan, Nellie McKay performs...
XNTV - NBC Network - Wed Dec 29 2004 at 3:04 AM PST - 56 minutes

[Late Night With Conan O'Brien](#)
After Jett Williams, actress Sherry Ryan, the Stills perform...
XNTV - NBC Network - Tue Dec 28 2004 at 3:04 AM PST - 56 minutes

[Late Night With Conan O'Brien](#)
Conan, Bill Barretta & J... perform...
coming up nex >> Joel from NBC studios in new York, it's - tonight - with Max Weinberg And the Max Weinberg 7. Now, here's your host, **Conan O'Brien**! Cheers and applause! captions paid for by NBC studios - captions by video - www.Video.Com O-! Cheers and applause! | applause | >>

Blogs

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JUNE 21, 2005

RED ON RED: Iraqi insurgents battling the foreign fighters, while Marines look on.

ZIMBABWE UPDATE: It just gets weirder:

NATURE, Zimbabwe (NY) - Zimbabwe police have extended a deadline to a network of the urban poor to the vegetable gardens they rely on for food. The police are threatening to demolish the gardens, or force the poor to leave the city. The police are threatening to demolish the gardens, or force the poor to leave the city.

Amazing that Mugabe has any support left.

SOME THOUGHTS ON CONFUSION about Fandom.

BELTWAY BLOGROLL is a new Blog by Daniel Glover of The National Journal. content is open to nonpoliticians.

NORN GRAYS: I have never seen, in all the voluminous discussion since the late, shifting from the anti-war camp (perhaps) I just haven't read widely and mistakes and available mistakes, or mistakes and available mistakes... It is a misunderstanding could have been carried out, altogether smoothly and unproblematically. motivated more by an impulse to oppose than by a desire for the understanding.

engadget

Search

Podcasts sponsored by

Tuesday, June 21, 2005

[Apple's new iPod \(iTunes interface\)](#)

Podcast: [iTunes 5.0](#)

We've seen a lot of editorial content lately in recent years, mostly of the "business" variety. Computer content, on the other hand, is still a relatively new phenomenon. It's a new way to get the news, and it's a new way to get the news. It's a new way to get the news, and it's a new way to get the news. It's a new way to get the news, and it's a new way to get the news.

[Watch DVD Trailers](#)

[woot!](#) **2.0**

one, day, one, deal!

[Read it](#)

[The Sony MIA 9000, one of Sprint's first DVD cellphones?](#)

Related entries: [Cellphones](#)

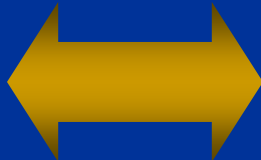
Morgan Stanley

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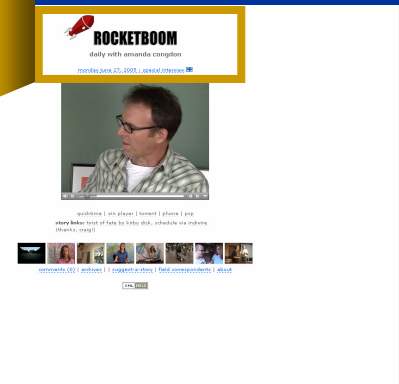
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...User-Generated Content Increasingly Relevant

Tencent Instant Messaging (PC / Mobile)




Vlogs



Content / User Experience Continues to Improve...


Music Video of the Day

The Best of All Genres



Rob Thomas - [Lonely No More](#)
Exclusive Live Performance

Top Videos: 04/11/2005



1. [Oh - Featuring Ludacris](#)
Clara

2. [Wait](#)
Ying Yang Twins

3. [Obsession - Featuring Ba...](#)
Frankie J

4. [Do Somethin'](#)
Britney Spears

5. [Feel Good Inc](#)
Gorillaz

find video

more at [Yahoo! Music...](#)

STAPLES THE DESK APPRENTICE that was easy... ROTATING ORGANIZER

Search Type: Web Images Video Local News Products

Search: Yahoo! Search

Yahool Games Review - Jade Empire

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Check Email New mail

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Music Video of the Day

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Britney Spears

5. [Feel Good Inc](#)
Gorillaz

find video

more at [Yahoo! Music](#)

Weather

New York, NY 50...58 F

Stanford, CA 49...72 F

Search by Zip Code or City

Inside My Yahoo!

General Health Tip

Lead Photo



Car Bomb Blast Kills 8 in Iraqi Mosque
Iraqis inspect the site where a car bomb exploded Friday, April 22, 2005 at a police said. The blast happened during midday prayers, in the capital's mosque of Khalid Mohammed.

ESPN.com

Friend: The right stuff - 20 hours ago
Edwards' passion, work ethic make him No. 1 by Tom Friend

ESPN.com's mock draft - 1 day ago
ESPN.com's 2005 mock draft by ESPN.com

Sources: UNC's Felton, May to declare for draft - 12 hours ago
Both expected to sign with agents by ESPN.com news services

Chiefs acquire Surtain for second-round pick - 64 minutes ago
Former Dolphin to sign 7-year deal worth \$50.8M by Len Pasquarelli

Artest first up as Pacers get Aug. 1 trial date - one hour ago
Five players involved in brawl given trial date by Associated Press

Destination Spotlight



Escondido
Read more at [Yahoo! Travel](#)

Things to do
Shopping
Entertainment
More...

Find more destinations: Go

Wired News

All the News That's Fit to Wiki - 6 hours ago
Six months after launching an experimental site that lets anyone become a reporter, organizers of the Wikipedia encyclopedia are finding the news business is a far cry from running a reference website. By Joanna Glasner.

Cave Farming Yields Big Crops - 6 hours ago
Caves are the new Midwestern farmlands. A former limestone quarry and underground warehouse grows crops better than greenhouses or the outdoors, and could host pharmaceutical crops. By Kristen Philipkoski.

We'll Always Have ICQ - 6 hours ago
The demise of a friendship has our columnist wishing it were harder to break up online. Commentary by Regina Lynn.

Vue les Blog! - 6 hours ago
Blogging is huge in France, thanks to the country's cafe culture and penchants for writing and expressive democracy. By Robert Andrews.

Gizmodo

ESPN.com

Friend: The right stuff - 20 hours ago
Edwards' passion, work ethic make him No. 1 by Tom Friend

ESPN.com's mock draft - 1 day ago
ESPN.com's 2005 mock draft by ESPN.com

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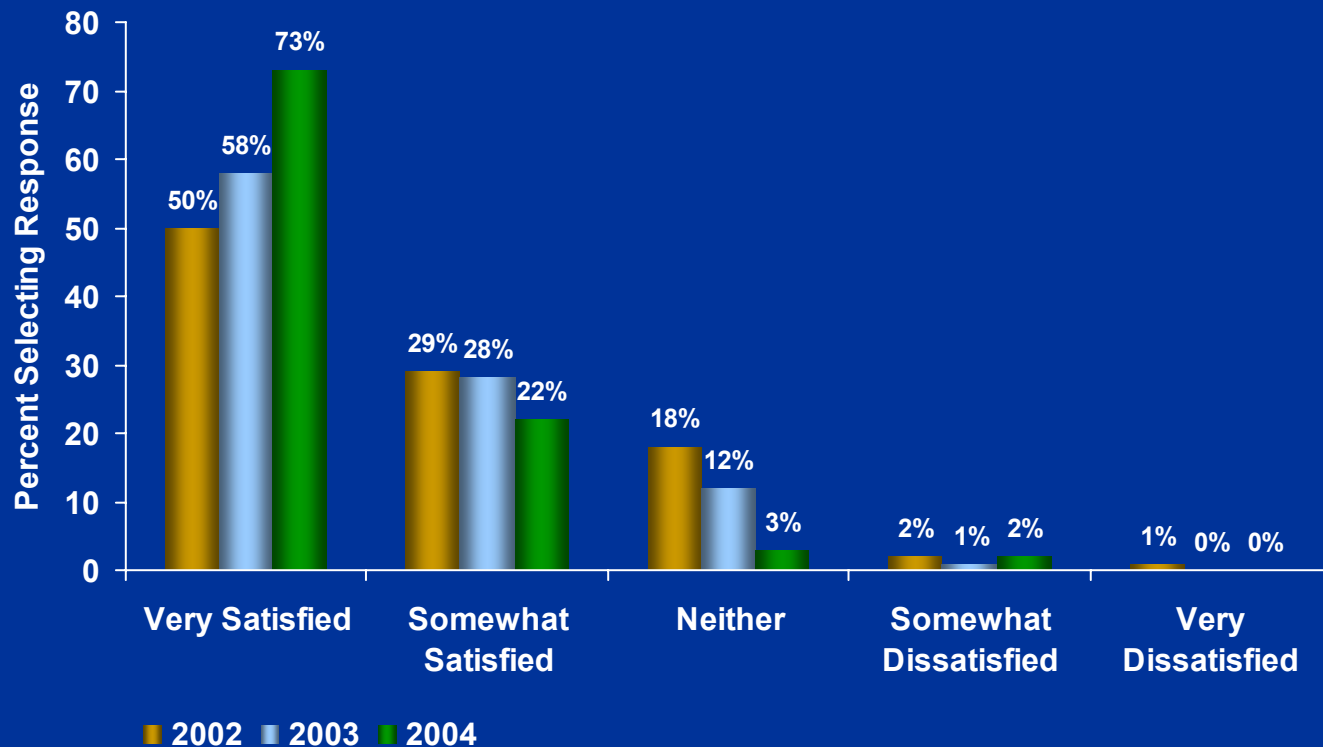
Morgan Stanley

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...Content / User Experience Continues to Improve

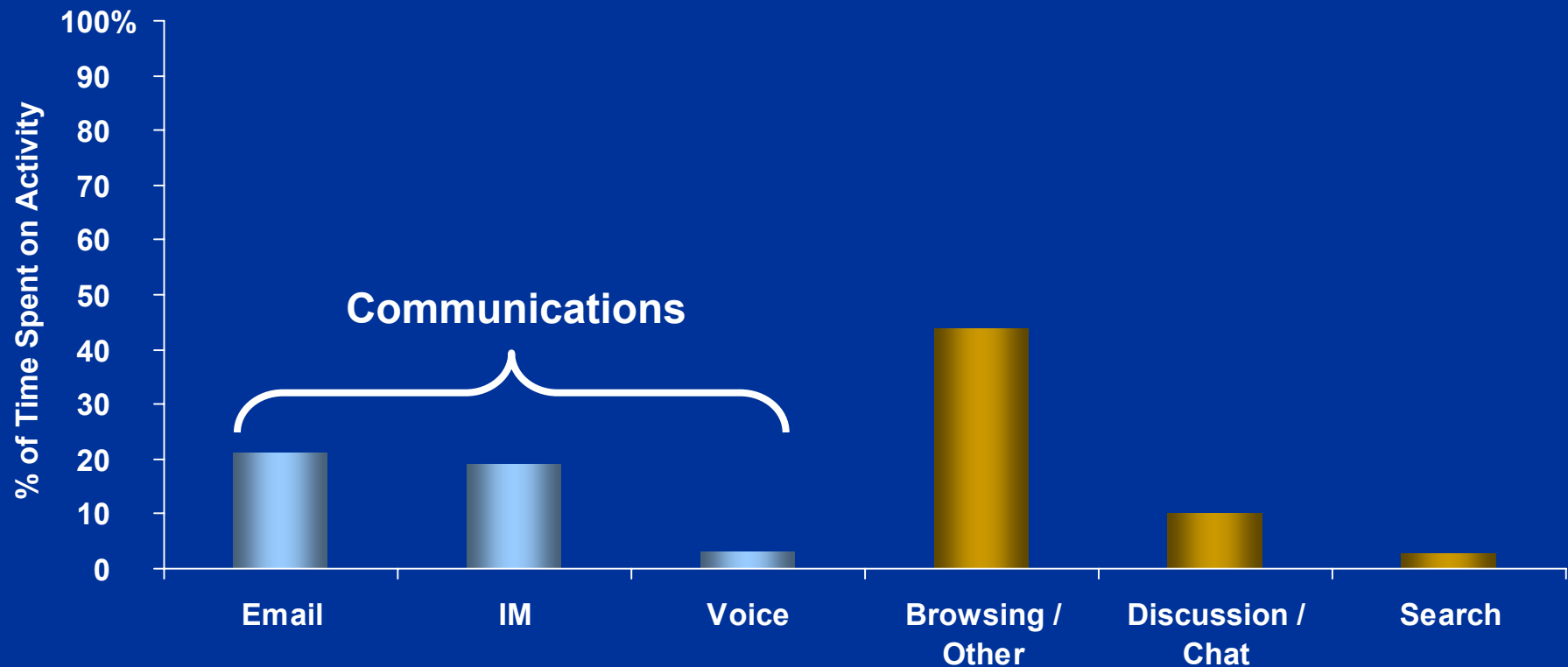
Consumer Satisfaction with Merchants in CQ4 Holidays



Shop.org/BizRate Research Online Holiday Mood Study
BizRate Research, a Division of Shopzilla
Conducted By Shop.org and BizRate Research

Wave 2 Dates
2002: 12/2 – 12/3
2003: 12/1 – 12/2
2004: 12/6 – 12/7

Communications = 44% (& Rising) of US Online Usage



Source: comScore Media Metrix, based on average minutes per visitor by category (8/05). Browsing / Other includes general web-surfing activity not listed in other categories, including anything from news sites (cnn.com) to retail (Amazon.com) to job sites.

Next Generation Global Communication Hubs?

Internet Sites

MSN
Unique Visitors ⁽²⁾
(420MM)

Google ⁽¹⁾
(384MM)

Yahoo!
Unique Visitors ⁽²⁾
(379MM)

eBay ⁽¹⁾
(187MM)

Amazon.com
Active Customers ⁽²⁾
(50MM)

AOL
Subscribers ⁽²⁾
(30MM)

MySpace.com ⁽¹⁾
(21MM)

Search Engines

Google Search ⁽¹⁾
(218MM)

Yahoo! Search ⁽¹⁾
(207MM)

Email Providers

Yahoo! Mail ⁽¹⁾
(219MM)

MSN Hotmail
Active Accounts ⁽²⁾
(205MM)

Google GMail ⁽¹⁾
(27MM)

IM Services

MSN Messenger Active
Accounts ⁽²⁾
(180MM)

Yahoo! Messenger ⁽¹⁾
(95MM)

AOL Instant Messenger
(AIM) ^(1, 3)
(64MM)

ICQ ⁽¹⁾
(31MM)

VoIP Services

Skype / eBay
Registered Users ⁽²⁾
(54MM)

Payments

PayPal / eBay
Accounts ⁽²⁾
(79MM)

- **Convergence is happening (~10% of Yahoo! IM sessions end in phone call). Opportunities exist for non-mobile players to leverage existing subscribers.**
- **Who has the most valuable customer base as transition occurs? Who will have it when it is over?**

(1) Source: Unique Visitors, comScore Media Metrix (5/05).

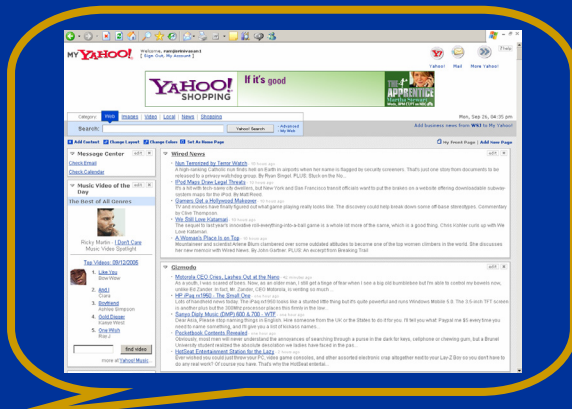
(2) Source: Company Reports, as of CQ2:05. MSN data as of 10/12/05. Yahoo! data computed by taking total Yahoo-MSN figure (275MM) and subtracting MSN portion. Skype data as of 9/12/05.

(3) Source: Company Web site, as of 4/04.

(4) Note: For IM, Radicati Group cites Global IM Share as follows: AIM (56%), MSN (25%), Yahoo! Messenger (19%), versus the methodology above, which yields: MSN (53%), Yahoo! Messenger (28%), AIM (19%), excluding Skype and ICQ.

Mobile-PC Becoming New Client-Server Model?

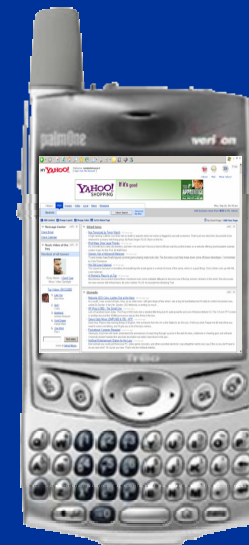
Server



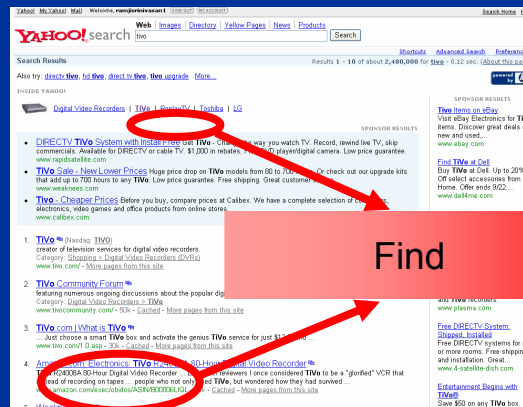
User programs
content on PC

Abbreviated
version of
content syncs
wirelessly with
mobile device

Client

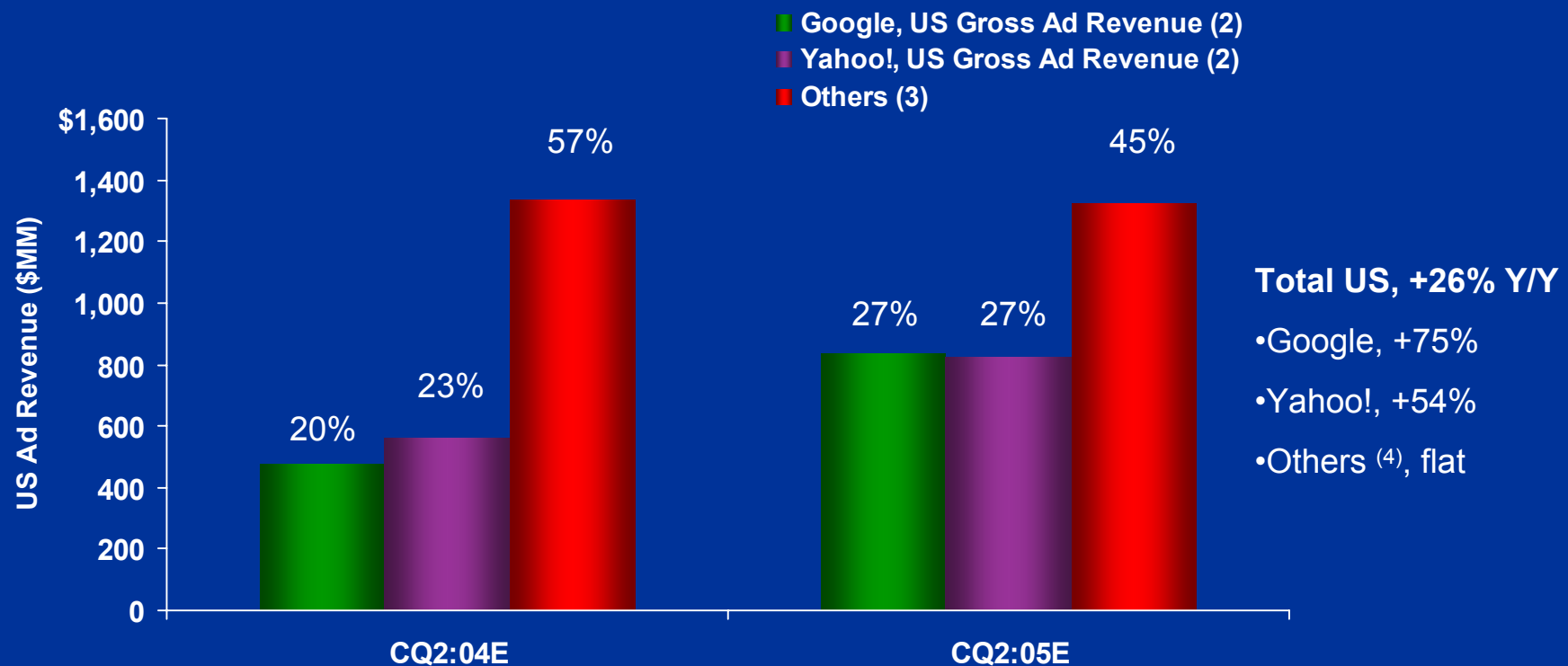


SFO - Will There Be a Difference Between Advertising / Marketing / Selling?



SFO – Future Role of Google / Yahoo!?

US Online Ad Revenue Mix ⁽¹⁾



(1) Source: Ad revenue totals from IAB/PriceWaterhouseCoopers Interactive Advertising reports.

(2) Calculated as reported revenue multiplied by the reported percentage of US Ad Revenue.

(3) Calculated as the difference between total IAB US revenue and the sum of Google, Yahoo! gross revenue.

(4) Assuming that TAC of Google and Yahoo! was included in others total, this segment would have been up 16% Y/Y.

Power of Google / Yahoo! Ecosystems

- While Google generated \$1.4B in gross online advertising revenue in CQ2 it **PAID OUT** \$494MM to thousands of partners like AOL, Ask Jeeves and iVillage
- While Yahoo! generated \$1.1B in gross online advertising revenue in CQ2 it **PAID OUT** an estimated \$378MM to thousands of partners like MSN, ESPN and *The Wall Street Journal*

\$674 in US Ad Spend for Newspaper Home vs. \$145 for Internet?

Medium	2004E US Advertising Spending (\$B)	US Households (MM)	US Ad Spending / Household (\$)
Promotions	\$101	99	\$1,022
Direct Telephone	91	105	865
Newspapers	48	72	674
Classifieds	17	55	302
Direct Mail	51	99	514
Broadcast TV	45	108	416
Radio	20	60	334
Cable TV	18	74	240
Magazine	21	99	216
Yellow Pages	15	99	151
Internet / Online	10 ↑	66 ↑	145 ↑
Total	\$420	881	\$4,575
Average	42	88	458

Morgan Stanley Research, PricewaterhouseCoopers, IAB, Jupiter Research, McCann-Erickson, RAB; Newspapers include Classifieds. Promotions (\$101B) include: incentives (\$27B), promotional products (\$22B), POS (\$17B), specialty printing (\$8B), coupons (\$7B), premiums (\$6B), promotional licensing (\$6B), promotional fulfillment (\$5B), product sampling (\$2B), and in-store marketing (\$1B). Households may use multiple advertising mediums.

Email is 'Free' - What About Voice?



Image Source: www.pw-x.com/unified.htm.

\$1 Content – Make it Up On Volume?

- Very low-priced downloadable digital content (including the likes of ring tones and iTunes), assisted by easy-to-use payment systems (from the likes of mobile operators and PayPal), is generating billions in revenue.
- Maybe, just maybe, if one has truly great low-priced content – and makes it very easy to search / find / obtain (SFO) - one can make it up on volume...

Innovation / Network Effects Will Drive Usage Growth

- Broadband
- Mobile
- User experience
- Search
- Personalization with more effective targeting
- User-generated content (RSS, blogs, reviews, video, images, audio...)
- Music
- Payments
- Short- and long-form video
- Interactive entertainment
- VoIP
- Local
- Pay per call
- Digital Rights Management (DRM)
- Ubiquitous connectivity

Changes Just Beginning

- We believe first ten years (1995-2005) of commercial Internet were a warm up act for what is about to happen
- Opportunities / dislocations will be significant
- John / Tim – thanks for helping keep us informed! ;)

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Coverage Universe			Investment Banking Clients (IBC)		
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	712	35%	273	39%	38%
Equal-weight/Hold	925	46%	322	46%	35%
Underweight/Sell	394	19%	98	14%	25%
Total	2,031		693		

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

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Overweight (O). The stock's total return is expected to exceed the total return of the relevant country MSCI index, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the total return of the relevant country MSCI index, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the total return of the relevant country MSCI index, on a risk-adjusted basis, over the next 12-18 months.

More volatile (V). We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in this report is 12 to 18 months.

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Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

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