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**IT'S A BANDWIDTH-HUNGRY WORLD**

DELIVERING A REVOLUTIONARY USER EXPERIENCE WHILE EMPOWERING SERVICE PROVIDERS TO MEET THE GROWING SUBSCRIBER DEMANDS. NORTEL LEADING THE EVOLUTION.

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**BUSINESS MADE SIMPLE**

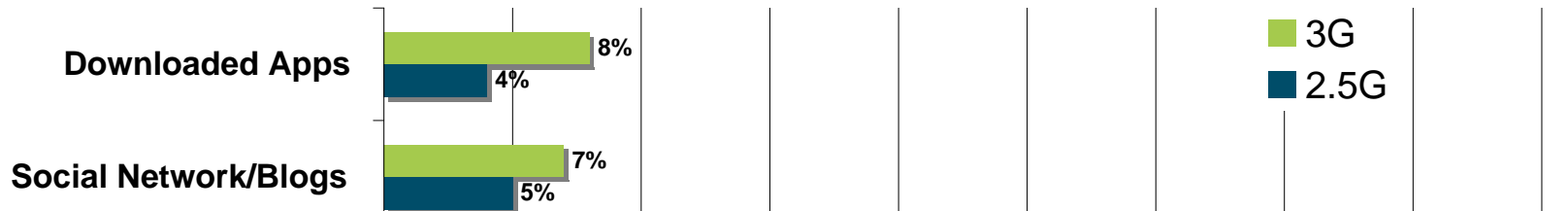


# 2009 Market

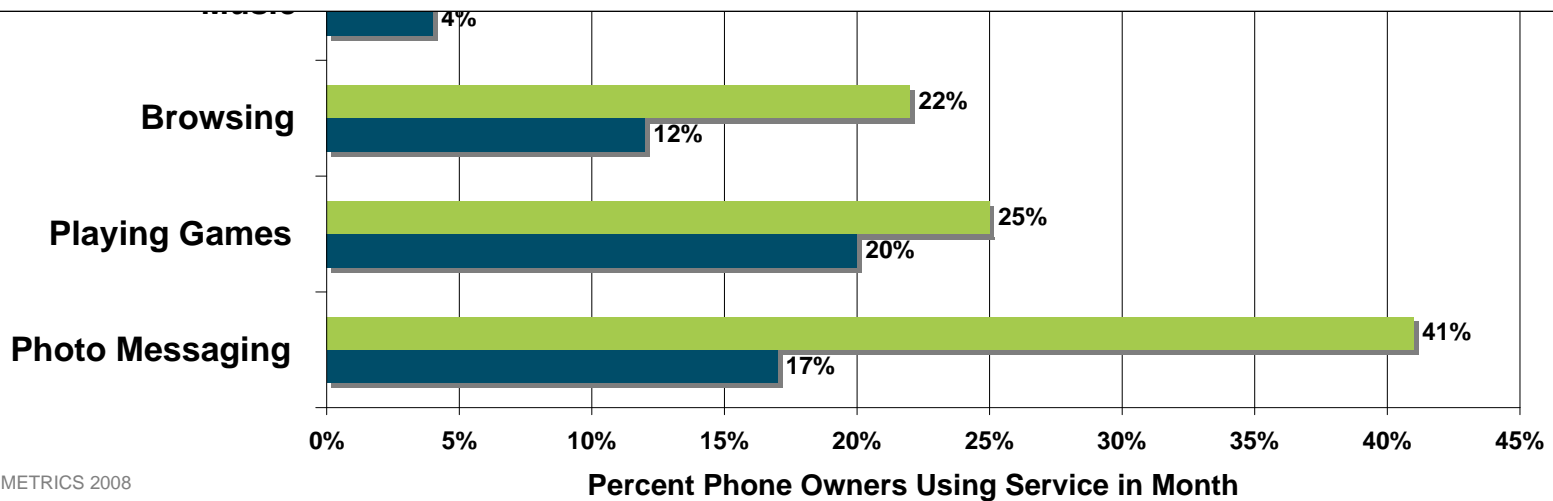
- **Economic Influences**
  - Wireless not immune, consumers and operators likely to manage spend closely
  - VC and Private equity limitations
- **Benefits of focused Business Models**
  - ✓ Unlimited players, Regionals, Verizon, ATT
  - × Tier 2, MVNOs,.....
- **Wireless ARPU flat lining**
  - Competition and economics pressure offset by data arpu improvements
  - Mobile advertising models emerging
- **Regulatory Transition**
- **Network Performance Focus**
  - DO Rev A, HSPA+, WiMax, LTE
- **Device Innovation**
  - Dueling Ecosystems and Operating Systems

# Application usage is proportional to bandwidth available

Service Penetration, 3G v. 2.5G Phones, April 2008, US

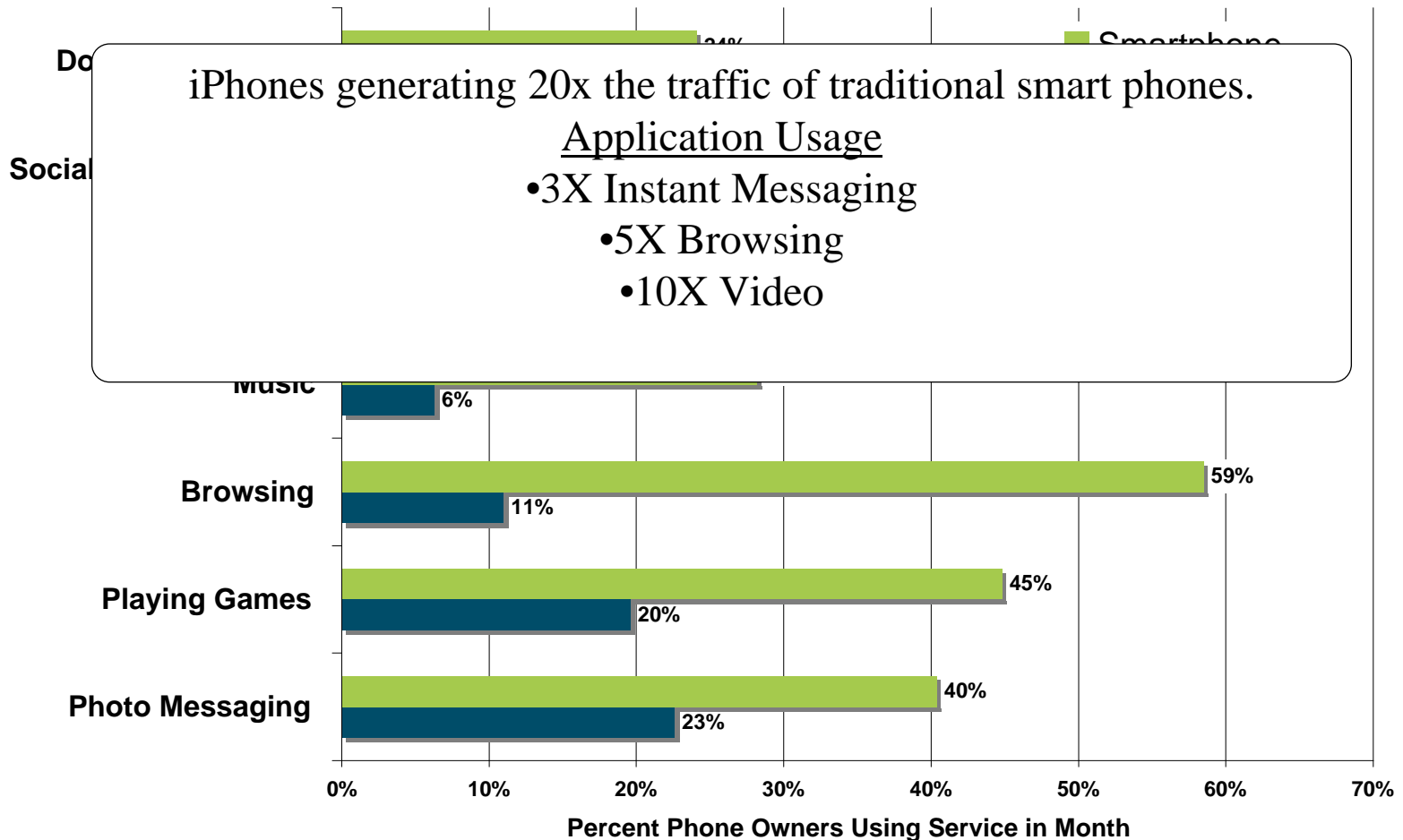


Verizon, which leads U.S. wireless operators with its 60 percent 3G subscriber penetration, saw the most growth in 3G usage and the most data revenue — \$2.6 billion for the quarter.



# Smartphone users are browsing and gaming

Service Penetration, Smart v. Feature Phones, April 2008, US



# Mobile Application Penetration

Paid Usage..at least once a month



## Application

MMS  
Ring tones



**A. > 30% Penetration**

Wallpaper, Screensavers  
Ringback Tone  
Mobile email  
Mobile Info Services  
Full Track Downloads



**B. > 20% Penetration**

Mobile Gaming  
Mobile Search  
Music Streaming  
Mobile TV Video  
Banking personal Finance



**C. < 20% Penetration**



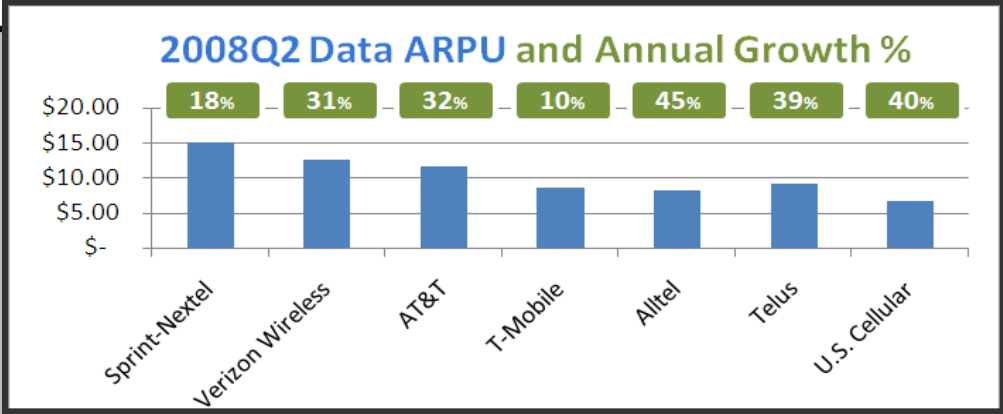
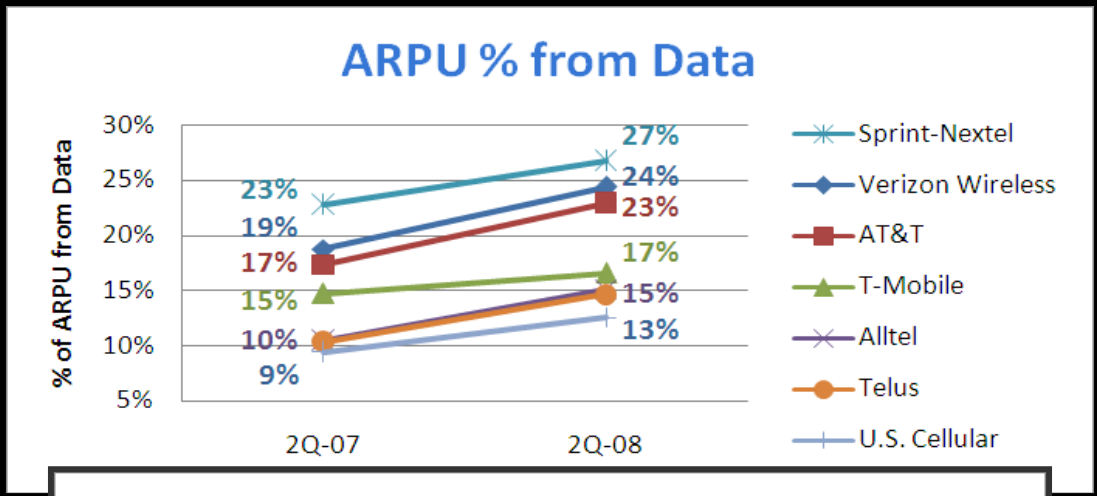
Navigation  
Mobile Social networking  
Push to Talk  
Video telephony  
Location Based Services  
Mobile Adult Services



**D. < 10% Penetration**

Gartner, Dataquest Insight: Overview of Consumer Mobile Applications, 2008; Sandy Shen et al

# Market Trends & Requirements



**Wireless Data Very Relevant  
Wired Internet Setting Usage Expectations**

# Key Market Attributes Summary

.....good news....not so good news



- **Encouraging Usage Trends**

- Accelerating PDA / Smartphone
- Deep market penetration of existing applications
- Key emerging application sets with strong consumer interest

- **Challenging Value Expectations**

- Internet net based value perspective
- Ad based model still evolving
- Off network applications, side loading
- Unlicensed access to subscriber

