

# And You Are Paying for That?

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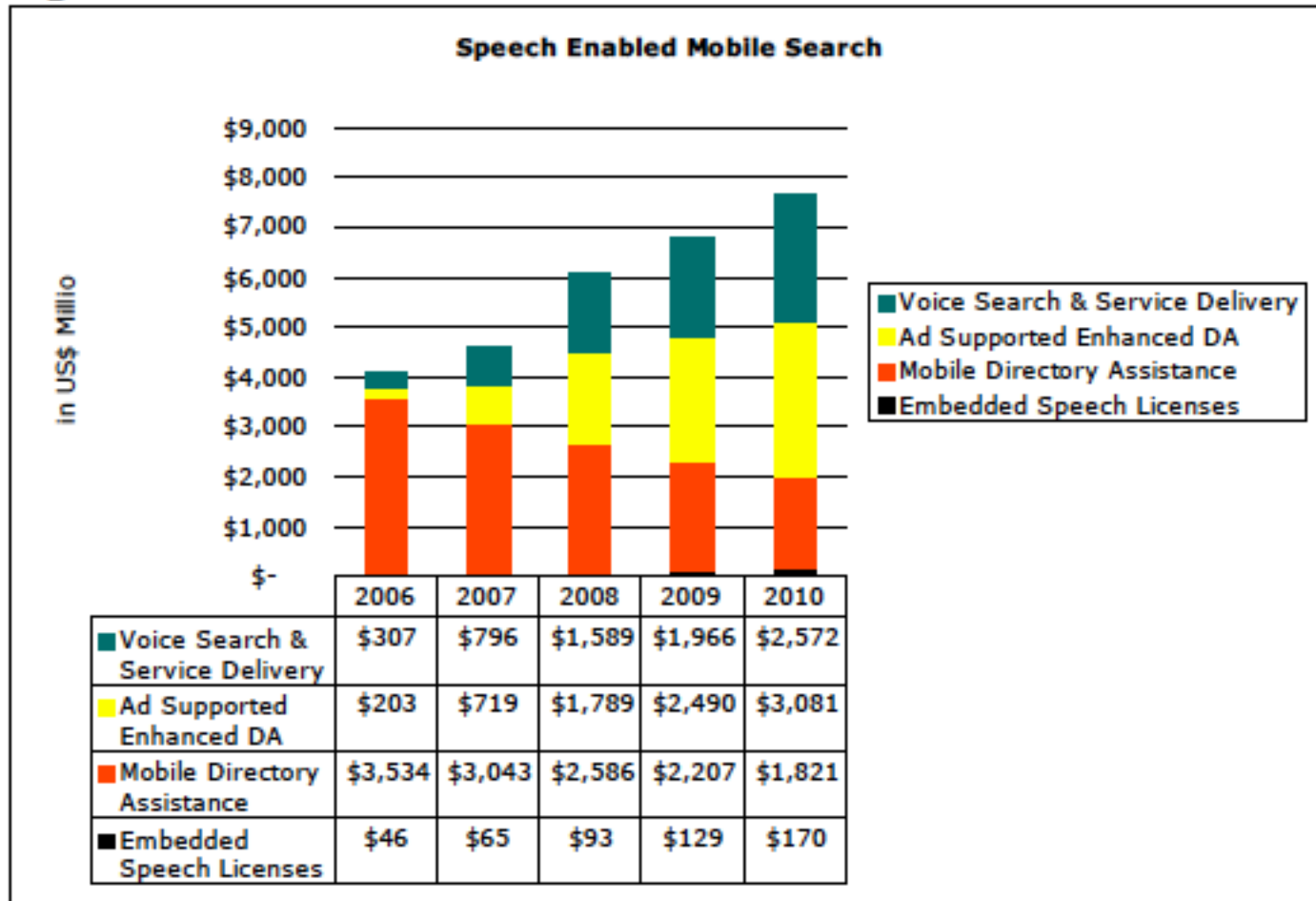
Opus Research

# The Mobile Web

- Search is the prevailing metaphor on the mobile web
- Voice is the “second hand” for mobile applications
- Mobile Search is supplanting directory assistance for finding individuals and businesses
  - More than 4.5 Billion searches in 2008 in North America
  - Much larger traffic flow in Europe and Asia

# Follow the Money!

**Figure 2: Revenue Forecast for SEMS**



**Source: Opus Research (2007)**

# Free Services are Expanding

- V-Enable
- 1-800-Call411 Tellme (Microsoft)
- GOOG411
- 1-800-Free411 (Jingle Networks)
- 1-800-THEINFO (Verizon)
- 1-800-YellowP[ages] (AT&T)

# Yahoo Mobile Voice Search

- Recent launch (late 2008)
- Yahoo search engine with speech input
- Vlingo speech services (IBM)
- Voice adaptive (gets better over time)
- One-handed operation on several platforms
  
- NOTE – More than 10 Million people in the US use mobile web searches more than once a week (Alistair Hill ComScore)

# Google Mobile Voice Search

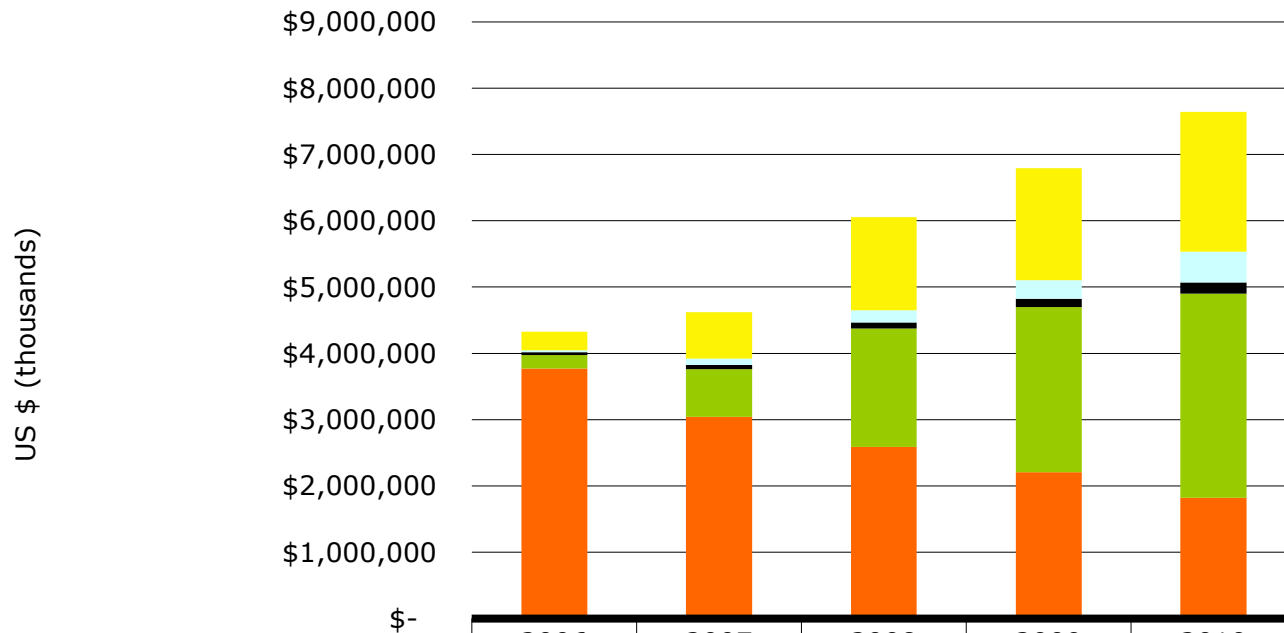
- Launched late 2008 for iPhone
  - More platforms in 2009
- Requests permission to read location
- Voice activated – no keyboard needed
  - Uses speex codec (Freeware)
  - Sends voice to central server
  - Uses data channels for search returns
- Completed Google search return

# Nuance Voice Control 2.0

- Mixed on-device and network speech capability (“Device Agnostic” )
- Command and control and voice dialing local to the device
  - “Call” for dialing
  - “Go to” for other services
- Network based speech for other applications
  - “Find”
  - Transcription services for messaging and email

# Mobile Voice Services

## Speech Enabled Mobile Search



	2006	2007	2008	2009	2010
■ Voice Initiated Service Delivery	\$281,20	\$703,00	\$1,406,	\$1,687,	\$2,109,
■ Voice Search	\$25,763	\$92,650	\$182,54	\$278,76	\$463,31
■ Embedded Speech Licenses	\$46,078	\$64,799	\$92,578	\$128,56	\$170,39
■ Ad Supported Local Search	\$203,00	\$718,84	\$1,789,	\$2,489,	\$3,080,
■ Voice Directory Assistance	\$3,769,	\$3,042,	\$2,586,	\$2,207,	\$1,820,



# Expanded Services Through Free Providers

- Driving directions (augmented with real-time traffic conditions)
- Movie times and ticket sales (expanding to multiple entertainment venues)
- Restaurant location, reservations and specials
- General entertainment and going-out guides

# What Do People Want to Find?

- US Mobile 411 catalogued searches in holiday shopping in November and December 2007
  - Big name retailers
  - Pharmacies
  - Electronics stores
  - Gaming providers
  - Retail chains
  - Restaurants
  - Gas stations

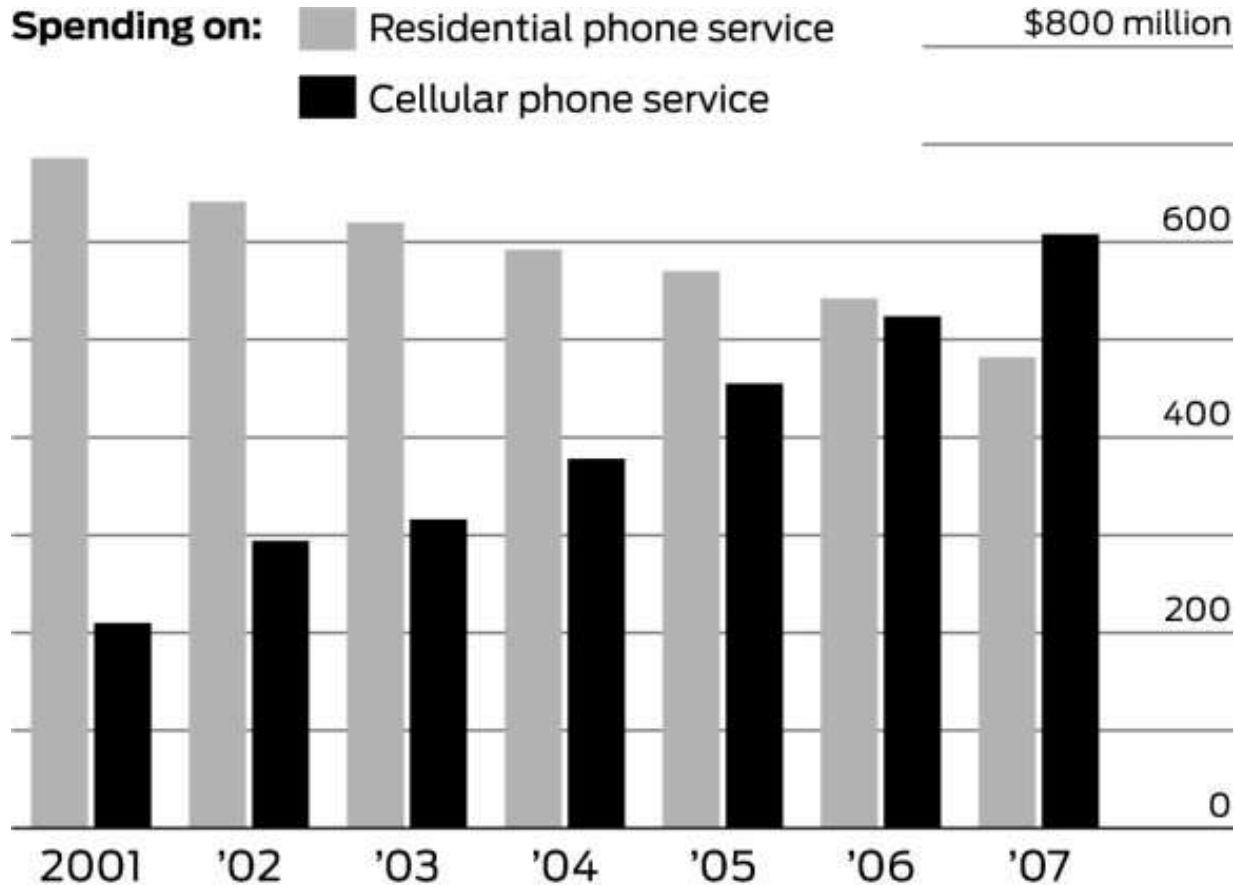
# Major Metropolitan Area Searches

- Wal-Mart
- Target
- Game Stop
- Best Buy
- Walgreens

Mobile Marketing Magazine, 20 Dec, 2007

# Following the Money

## Spending on cell phone service tops landlines



# Mobile DA Queries (per Tellme)

- Restaurants & Bars
- Retail Stores
- Hotels/Lodging
- Movie Theaters, Amusement & Recreation
- Transportation -- Taxis & Airlines