



# Mobile Television Opportunity

# Mobile Digital Television Headlines



- **Mobile DTV represents major new opportunity for broadcasters**
  - Over 100 MM and growing video capable portable devices
  - 10 MM and growing video equipped cars
  - Clear evidence of consumer demand
- **Mobile DTV broadcast is potentially the best mobile video solution**
  - Cellular networks cannot support video economically
  - Most broadcast technologies do not have the spectrum for video
  - Other services are limited in spectrum and content
- **U.S. Broadcasters formed “Open Mobile Video Coalition” to work collaboratively on realizing the opportunity**
  - Rapidly select and deploy a transmission technology that works
  - Ensure that high demand content is broadcast
  - Encourage hardware manufacturers to develop and deploy devices

# Open Mobile Video Coalition



***280+ Television Stations ... 95MM Homes Passed***

# Open Mobile Video Coalition









## **Mission**

**Facilitate and accelerate the development and deployment of mobile DTV services**







## **Activities**

- 1. Define mobile DTV system requirements**
- 2. Encourage mobile DTV product manufacturing**
- 3. Evaluate various technologies**
- 4. Support consumer research**
- 5. Assessing potential economic models**
- 6. Educating/liaising with other industries/regulators**

# Portable Device Universe

	<b>Penetration</b>	<b>2006 Unit Sales</b>	<b>Comments</b>
	78%	110 mil	<ul style="list-style-type: none"> <li>• 50-60% of phones sold are video capable</li> </ul>
	40%	40 mil	<ul style="list-style-type: none"> <li>• 25% of MP3 player owners have video capability</li> </ul>
	40%	25 mil	<ul style="list-style-type: none"> <li>• Laptop sales represent nearly 40% of PC sales</li> </ul>
	26%	2 mil	<ul style="list-style-type: none"> <li>• Most support only MPEG-2 playback</li> </ul>
	20%	6 mil	<ul style="list-style-type: none"> <li>• Nintendo DS offers DTV card, but for Japan only</li> </ul>
	16%	1 mil	<ul style="list-style-type: none"> <li>• Most PDAs support advanced video codecs</li> </ul>

# Other Mobile Devices

	<u>Penetration</u>	<u>Comments</u>
	240,000,000	<ul style="list-style-type: none"><li>• 8% of HH have in-car DVD system, 12% plan to buy</li><li>• 32% of HH use DVD players in cars</li></ul>
	800,000	<ul style="list-style-type: none"><li>• 9 mil passengers per day (including light rail)</li><li>• Transit TV deployed on 4,000 buses/rail cars</li></ul>
	100,000	<ul style="list-style-type: none"><li>• Clear Channel to offer video in 5,000 taxis in NYC</li><li>• Transmission technology unclear</li></ul>
	40,000	<ul style="list-style-type: none"><li>• 1.6 mil passenger trips per average day</li></ul>
	20,000	<ul style="list-style-type: none"><li>• 1.3 mil passengers per average weekday</li></ul>
	1,200	<ul style="list-style-type: none"><li>• 70,000 passengers per day</li></ul>

# Evidence of Consumer Demand



- **Consumer research indicates significant interest for mobile video**
  - Interest in video highest amongst mobile applications surveyed
  - Various studies show 5-30% of subs would pay ~\$15 for mobile TV
- **Mobile TV launches in multiple countries have seen large demand**
  - US: Over 1 MM subs in on Sprint and Cingular paying \$10 per month for ~25 channels of low quality video
  - Italy: ~500,000 subs paying up to \$35 per month for 5 channels of DVB-H video
  - Japan: ~500,000 free- mobile-DTV handsets sold in first months
  - Korea: 3 MM subs bought TV phones for free mobile TV (T-DMB); 1 MM additional subs paying \$17 per month for 11 high quality mobile pay-TV channels (S-DMB)
- **Analysts forecasting 10-20% mobile video penetration of US mobile phone users by 2010**

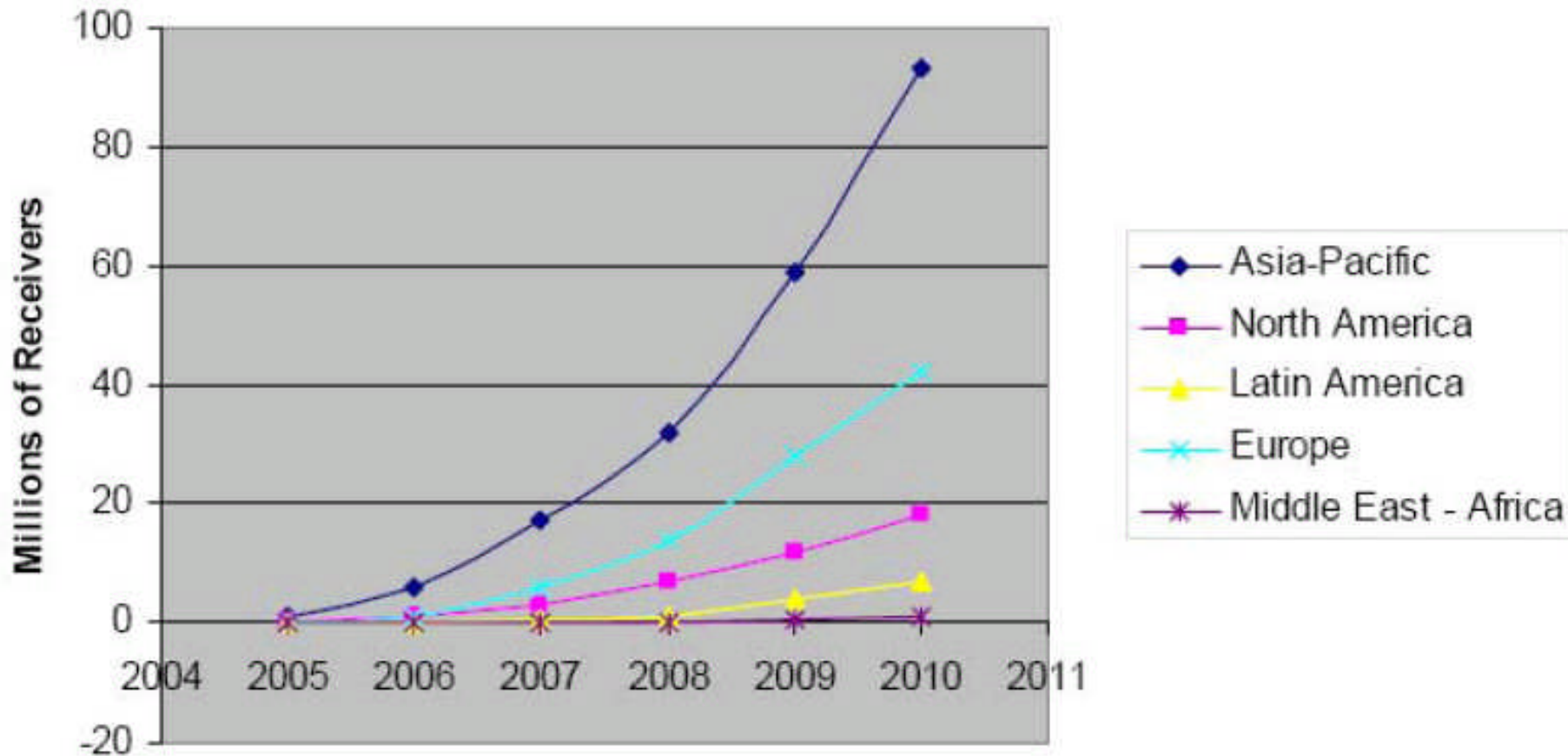
# Limited U.S. Mobile TV Delivery Options



	<u>Current Status</u>	<u>Video Capability</u>	<u>Bandwidth Cost**</u>	
<b>Unicast</b>	<b>Cellular Data</b>	Built out	Very limited	Very High
	<b>WiMax</b>	Planned	Very limited	Very High
	<b>WiFi</b>	Very spotty	Very limited	High
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<b>Broadcast</b>	<b>Satellite Radio</b>	Built-out	No	Low
	<b>Digital Radio</b>	Largely built out	No	Low
	<b>MediaFLO/ Modeo/Hiwire</b>	Partial build out	Yes, but limited spectrum	Medium
	<b>Digital TV Spectrum</b>	In Development	Yes, and spectrum available	Very Low

\*In likely deployment configurations \*\*Per user \*\*\*Estimate for A-VSB, MPH  
Source: Freescale, CTIA, NAB, Qualcomm, WiFi Planet

# Mobile TV Forecast by Region



***Asia / Europe are Fertile Mobile TV Markets for Device Makers.  
Need Clear Industry and Consumer Demand to Build U.S. Market.***

# Required Ecosystem for Success



## Broadcast Equipment Makers

- Investment to productize and cost reduce products

## Broadcasters

- Unified support to motivate ecosystem

## Standards Bodies

- Rapid approval process
- Quick, clear IP licensing

## Chip Companies

- R&D investment to develop receivers for required standards

## Service Operators

- Investment in content and marketing to build demand

## Device Makers

- Investment in device development and marketing roll out

# Target Timeline

