



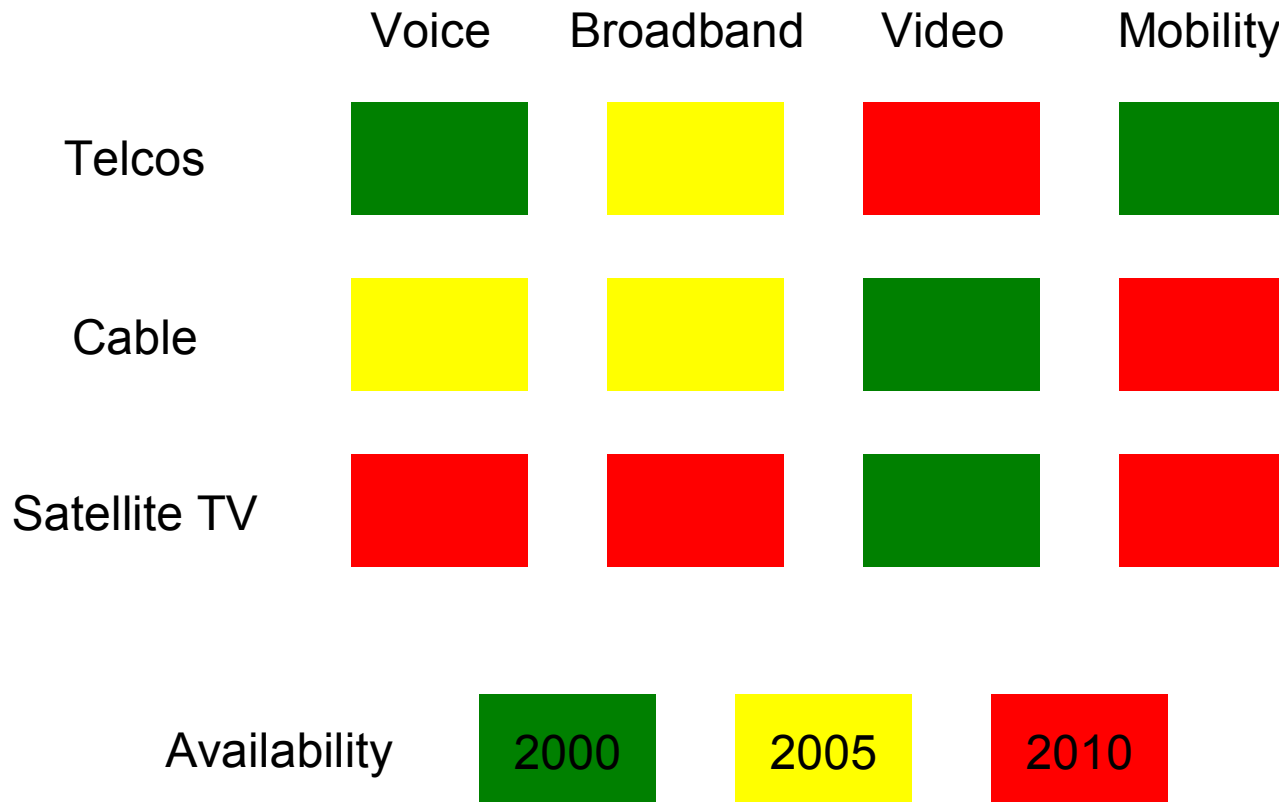
# **Building the Complete Wireless Portfolio – What is the Role for MSS?**

ISCe Conference 2006

Tim Farrar

June 13, 2006

## We still have some way to go to create the “complete” quadruple play



Wireless may be used not only to provide mobility, but also to fill other gaps in the wireless portfolio



## What role could MSS play?

- “Dual mode cellular handsets, capable of receiving both terrestrial and satellite signals initially may cost \$5 to \$10 more than a regular terrestrial-only cellphone, but shouldn’t be heavy or bulky”<sup>1</sup>
- “MSV’s goal is to provide ubiquitous cellphone service nationwide and ‘blazingly fast’ Internet access at ‘reasonable cost anywhere you are’”<sup>1</sup>
- “The cornerstone of MSV's integrated network approach is the concept of ‘Transparency’, defined as the use of integrated satellite and terrestrial technology on standard wireless devices that are substantially similar to current PCS/cellular devices in terms of aesthetics, cost, form factor and functionality”<sup>2</sup>

Although ATC was originally assumed to be focused around handheld phones, the regulations do not prevent a Wi-MAX approach using in-home gateways

<sup>1</sup>Gary Parsons, Chairman of MSV, quoted in Barron’s, June 2005

<sup>2</sup>MSV website at [www.msvlp.com/nextgen/differentiation.cfm](http://www.msvlp.com/nextgen/differentiation.cfm)



## What will it cost to deploy?

- MSV contract with Boeing: \$1,082M for three satellites + ground network (\$1.1B for development, construction and launch of 2 North American satellites, not including potential \$250M cost for additional ground spare)
  - terrestrial network estimated at \$20M to \$60M per market, total cost of \$500M to \$2.6B depending on technology, number of markets and service offering
- ICO contract with SS/L: \$188M for first satellite + \$112M for launch, ground spare estimated at \$180M to \$225M
  - “substantial additional capital” required for ground network
- Terrestar: estimated at \$400M-\$500M for first satellite, including launch
- Inmarsat: \$1.5B for first two I4 satellites + ground spare
  - \$140M for launch of third satellite + \$30M-\$60M for additional Earth stations
- Iridium and Globalstar’s first generation LEO systems: \$3B-\$4B
  - ‘incremental replacement’ would probably cost <\$2B spread over 5-8 years

If all six systems are built out then the space segment cost alone is \$6B-\$8B



## What is it worth?

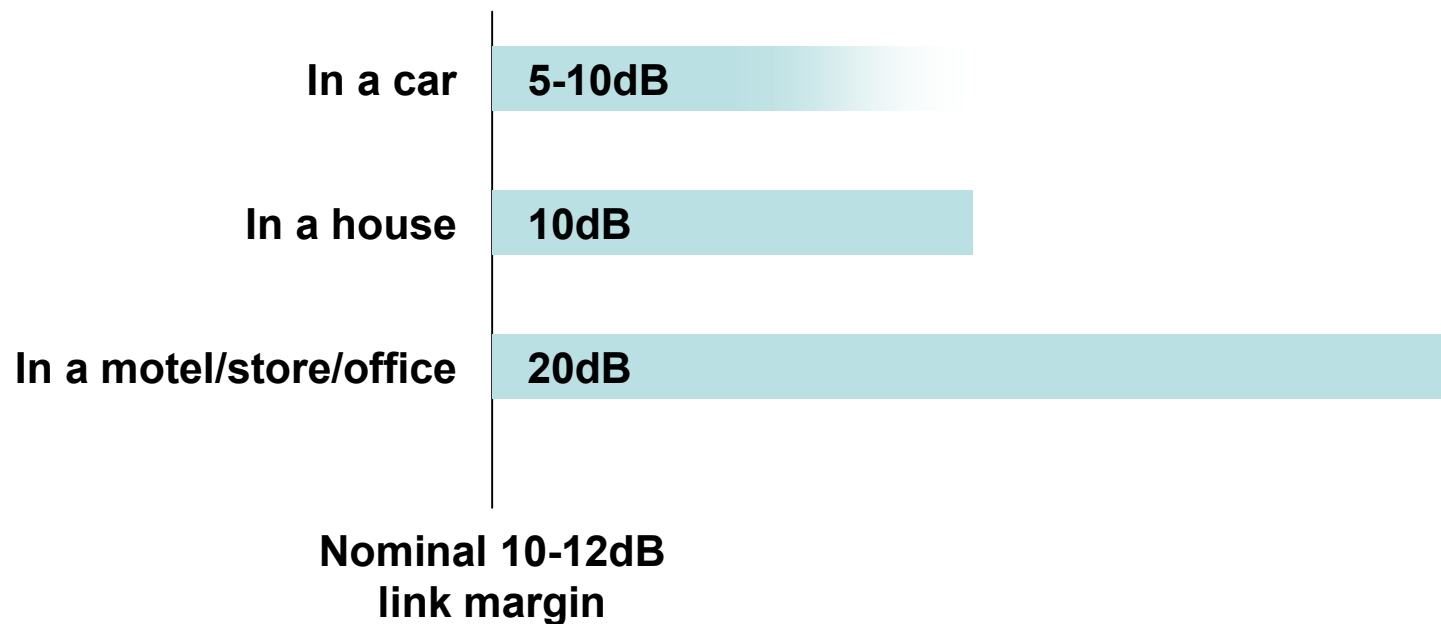
- Historic PCS valuation quoted in ICO bond offering is \$1.64/MHz-POP
  - on this basis the 141MHz of spectrum allocated to MSS could be worth up to \$70B in the US alone
- Estimates for upcoming AWS auction (90MHz of spectrum) are that it will raise \$8B-\$15B, equating to \$0.30-\$0.60/MHz-POP
- Current market valuation for Motient (owner of stakes in MSV and Terrestar) is ~\$0.18/MHz-POP
  - proposed swap of MSV/Terrestar stakes with SkyTerra is based on valuation of \$0.25/MHz-POP (giving MSV a valuation of ~\$2.3B)
  - recent Jefferies analyst report has target value of \$0.50/MHz-POP for US ATC spectrum

Is ATC spectrum worth more or less than AWS spectrum –  
is the MSS component a value-enhancer or value-destroyer?



## Is MSS service quality sufficient to provide “ubiquity”?

### Additional power required for reliable satellite coverage



Will users expect their satellite phone to work inside a car or a building?

Source: Goldhirsh & Vogel (1998), TMF Associates estimates



## Contact us

Tim Farrar  
Telecom, Media and Finance Associates, Inc.  
3705 Haven Avenue, Suite 113  
Menlo Park  
CA 94025

Tel: +1 650 839 0376

Cell: +1 650 642 5195

Fax: +1 650 839 0375

Email: [tim.farrar@tmfassociates.com](mailto:tim.farrar@tmfassociates.com)

For more details about our recently published report on ATC, visit

[www.tmfassociates.com/ATC](http://www.tmfassociates.com/ATC)

