



Matching Transponder Provision & Service Supply to Regional and Global E&P Demand

-- James Taylor, Vice President Satellite Sales

Avanti is an innovative UK satellite operator using latest satellite technology to meet a growing market

- 12 years experience in satellite industry and listed on the London Stock Exchange (Enterprise value £100m+)
- Launching first European satellite, HylasOne, in 2009 – 3 more to cover EMEA & Asia by 2012
- Heritage of commercial delivery to BNSC, ESA and EC R&D projects
- Operating services for customers with satellite broadband, data networks, in-store TV and digital signage into Europe
- Shareholders include Caledonia, Hermes, Aberdeen, Framlington



Key: ■ Ka-band - inner beam ■ Ka-band - beam edge ■ Ku-band beam edge

Key Market Issues

- ❑ Capacity crunch meets the credit crunch
 - Demand outstripping supply
 - Pricing increasing
- ❑ Oil and gas operations more bandwidth hungry
- ❑ FSS capacity being consumed by DTH TV channels
- ❑ C-band clash with terrestrial wireless frequencies

Satellite Design Considerations

- ❑ Coverage
- ❑ Capacity
- ❑ Complexity

WEIGHT!



Number of transponders?

Steerable beams?

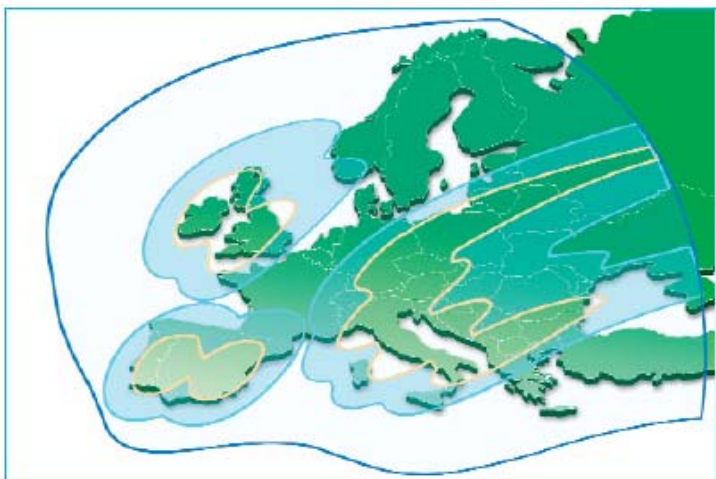
Size of beams?

Shaped beams?

Spectrum usage – C, Ku, Ka?

Power?

HylasOne... Next Generation Satellite



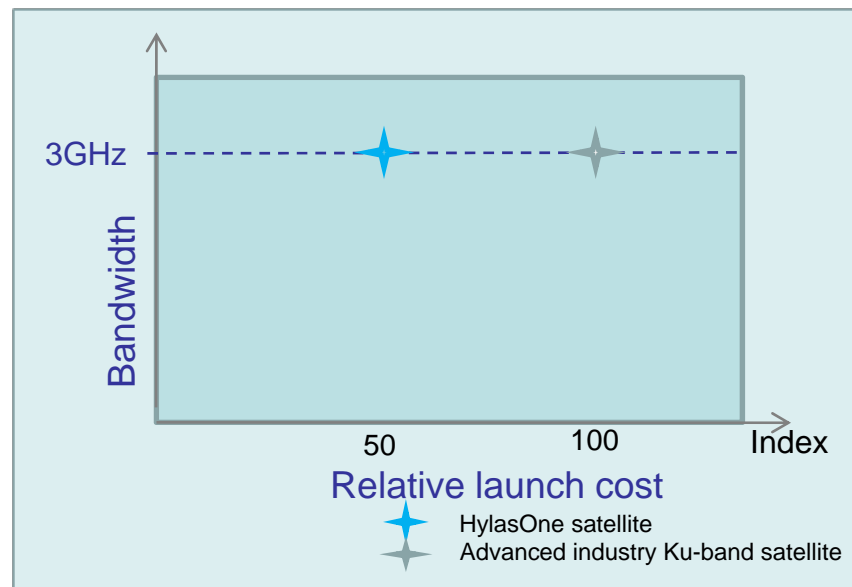
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BENEFITS

- Higher power = reduced CPE requirements = lower costs
 - 66cm two-way antenna / 45cm receive only (broadcast)
- Higher power = higher data rates
 - 2W amplifier = >4Mbps (66cm)
- Frequency re-use = greater bandwidth resource = lower bandwidth costs

SPECIFICATION

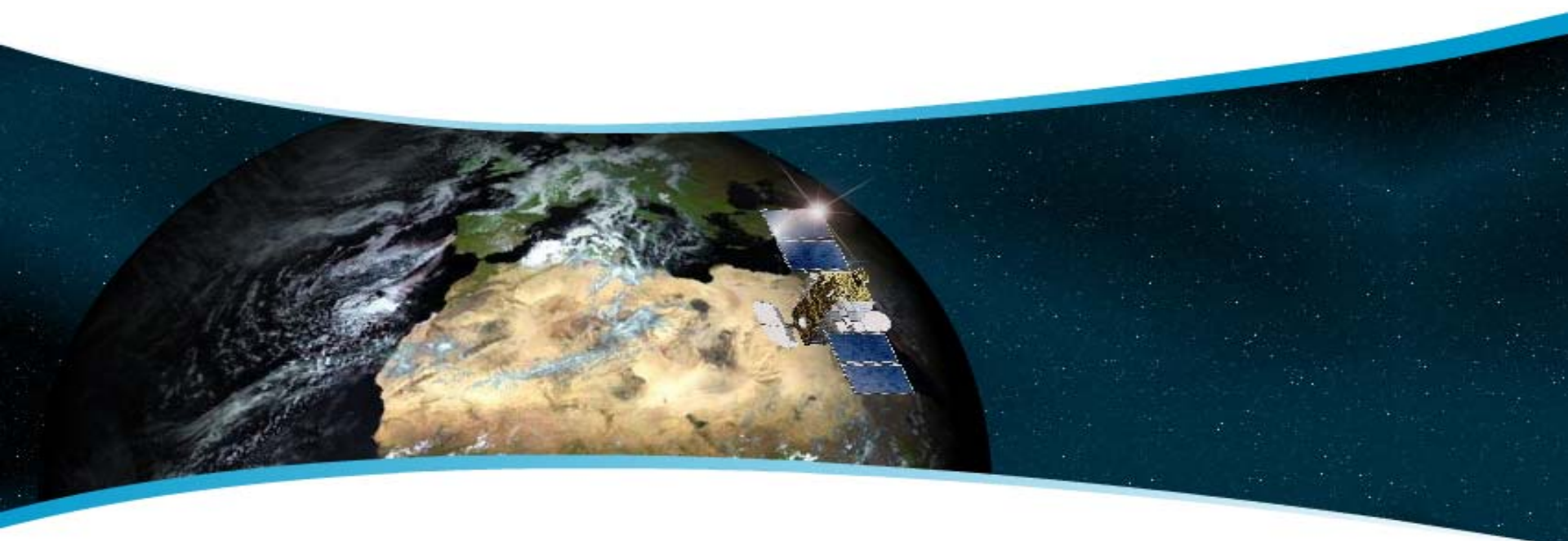
- Very high power (62dBW) Ka & Ku band satellite = 2-3 times more powerful than any other satellite over Europe
- Up to 3GHz capacity
- 15 year lifetime



Avanti Meeting demand of O&G

- **Build and launch more satellites**
- **Speak to Oil & Gas service providers to ensure coverage of right areas – regular planning meetings**
- **Make capacity more competitive by increasing availability of capacity, using more efficient coding and lower CPE costs**
- **Interconnect points at the terrestrial level – e.g. O&G to have central switching POP in Aberdeen, London Telehouse, etc.**
- **Make interconnections with fixed line and terrestrial wireless services simple**
- **Improve bandwidth management techniques**

Thank You!



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