

# Marine VSAT Market Overview



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VoyagerIP Presentation  
Irish Industry Space Day  
2<sup>nd</sup> September 2015

# Material and Related Research Reports

- Euroconsult – Wei Li, Senior Consultant
- Maritime Telecom Solutions by Satellite (Prospects to 2024)
- High Throughput Satellite Systems (Prospects to 2022)
- Mobile Satellite Communications Market Survey (Prospects to 2024)
- Prospects for In-Flight Entertainment and Connectivity (Prospects to 2024)

# Maritime VSAT Marketplace 2015

- **11,000 VSAT KU & C band Terminals**
- **Market Growth of 13% since 2010**
- **121,000 Addressable Vessels**
- **70 + Global VSAT Providers**
- **€2,500 per month is the average spend per Vessels**
- **Market Size: Europe 31%, North America 29%, Asia Pacific 20%, Middle East & Africa 13% and Latin America 7%.**

# Why VSAT On Board

- Vessel Type
  - O&G
  - Leisure (Super Yacht)
  - Passenger (Ferries)
  - Fishing
  - Merchant
- Key Driver
  - MIS / Crew Welfare
  - Entertainment / Communication
  - Entertainment / Communication
  - Regulatory / Crew Welfare
  - Operational / Crew Welfare

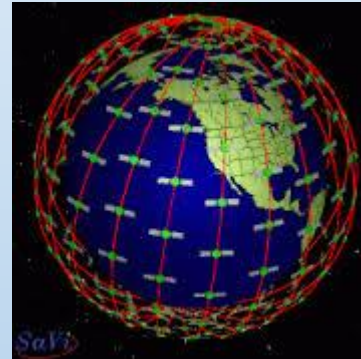


# Marine VSAT Capacity Overview

- HTS expected to increase to over 65Gbps by 2016
- North Atlantic and Pacific leading the way
- Ka- Band to grow from 1Gbps in 2012 to 40Gbps by 2016
- Ku- Band to grow by 300% to 2020
- Different strokes for different folks
- Inmarsat and Intelsat leading

# Emerging Technologies

-  – Helium Balloons
  -  – Drones, Ka-Band Satellites, Lazer
  -  – 4,000 LEO Satellites - 2020
  -  – Qualcomm Virgin Group – 648 LEO – 2017
  -  – Chinese/US venture – L-Band DMB – Asia/Pacific
  -  – Australian – M2M 2017
- Note: Very Challenging Financial model

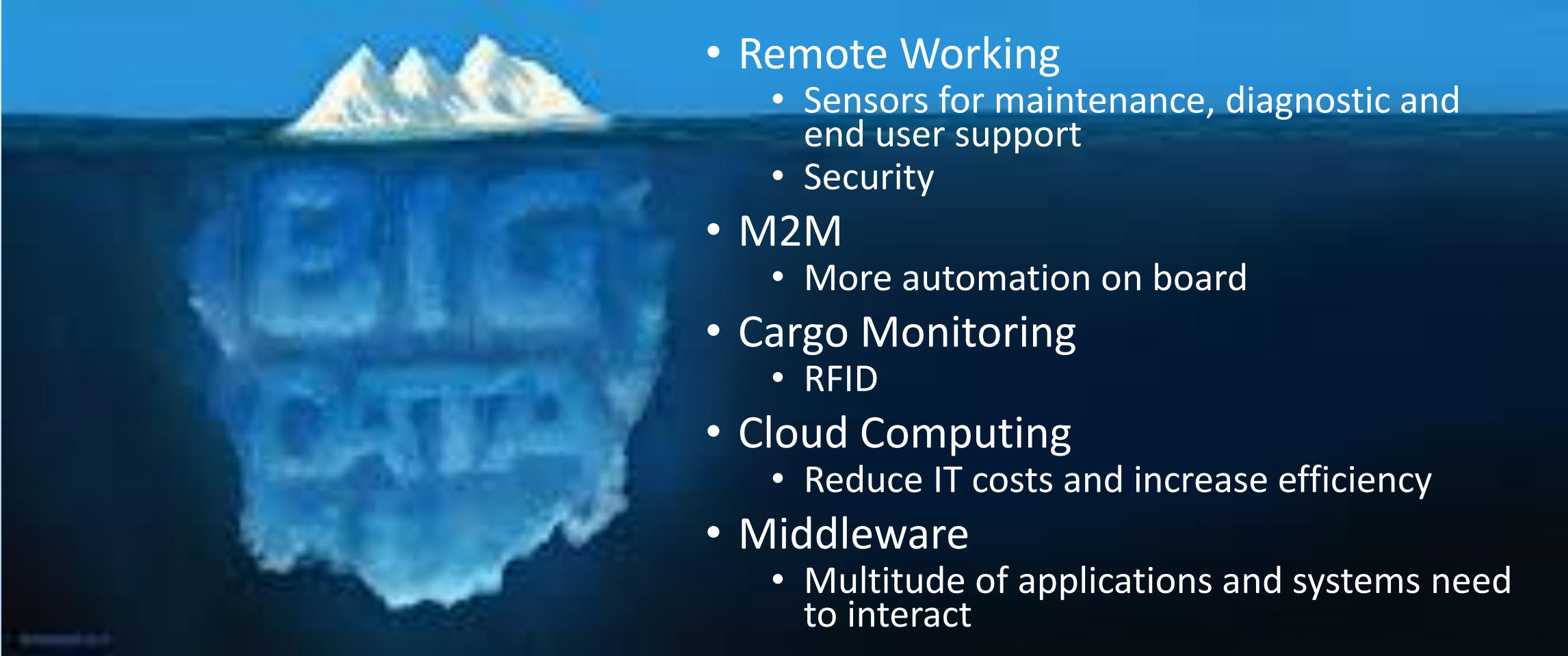


# HTS Market Forces



**Price per Mbps will reduce**  
**Customer base will diversify and expand**  
**ARPU likely to remain static**  
**Customers retention difficulties**  
**More services and application driven**

# Big Data Services & Applications

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- An iceberg floating in the ocean. The small tip above the water represents the visible data, while the much larger mass below the water represents the hidden Big Data. The background is a clear blue sky and dark blue ocean.
- Remote Working
    - Sensors for maintenance, diagnostic and end user support
    - Security
  - M2M
    - More automation on board
  - Cargo Monitoring
    - RFID
  - Cloud Computing
    - Reduce IT costs and increase efficiency
  - Middleware
    - Multitude of applications and systems need to interact



# Marine Satcom Service Provider Revenue

➤ 2009 - €750m

➤ 2014 - €1,084M

➤ 2019 - €1,600M