



# **The Traville Group**

Providing True BD Growth to Satellite-Oriented Businesses

## **NextGen VSAT Services: Strategies for Thriving in the Space 2.0 World**

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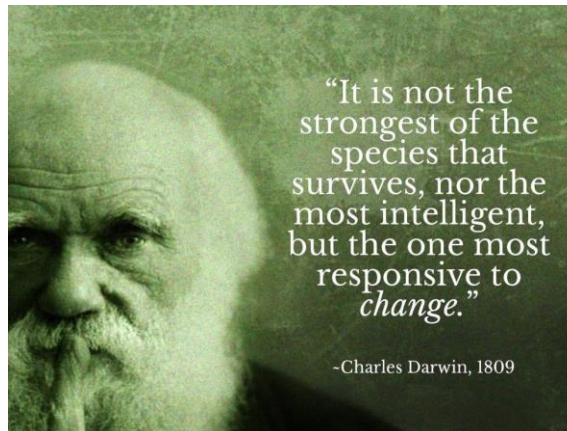
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# Darwinism and SatCom Revisited

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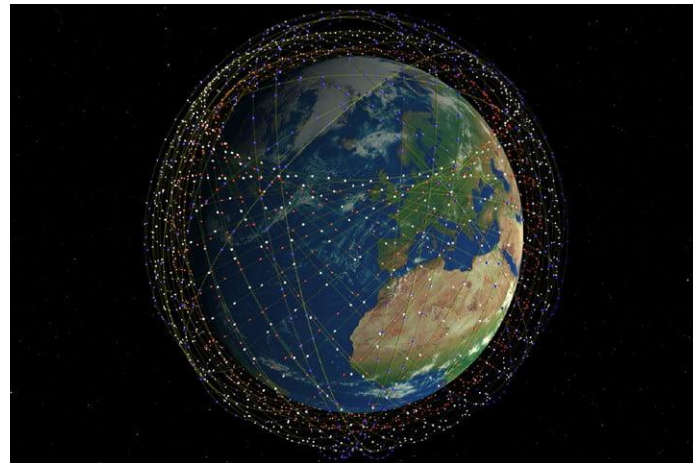
- For service providers to succeed today true Darwinism should be embraced.
  - The winners will be the ones who are the fittest in the market and can adapt the best to the changing environment in the satellite world
    - Fittest meaning financially, technically, and incorporating creativity
- Changes are the air today in the service provider market
  - Many VARs embracing HTS GEO- EPIC, SES, Quantum, Telstar Vantage, etc.
  - Implementation/Incorporation of SES O3b/MEO service
  - Some announcements of relationships with LEO partners
    - i.e., Intelsat with OneWeb, SkyPerfect/Hispasat with LeoSAT, Global Eagle with Telesat
- More change to come as smallsat and new launcher technologies develop and create new markets
  - i.e., IoT comms by Kepler Communications (Canada) and Hiber (Netherlands) using cubesat technology



# To Survive: Incorporate Creativity

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- **Be Practical / Not Rocket Science / Keep it simple**
- **Include HTS technology in your offering – this is a MUST!**
- **Think Hybrid - create satellite systems that combine the satellite infrastructure with other comms infrastructures**
  - Use of Wifi/4G/LTE/Microwave/Fiber (terrestrial technologies) along with VSAT
    - Maritime model – offering Wifi (via terrestrial) while in port
    - Airline model (future) – offering better connectivity on the ground (Wifi via 4G/LTE or 5G) with seamless move to satellite after takeoff
    - Land model – consider microwave technology or fiber to augment satellite
- **Think ahead to the near future...**
  - **Think about 5G and how you will compete**
  - **Watch SpaceX developments**



Starlink (SpaceX) Constellation

# Successful Example of Incorporating LEO

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- **October 18, 2018: In flight broadband connectivity test from Global Eagle plane (Albatross) with Telesat LEO and with Gilat technologies**
  - Completed LEO-to-GEO-to-LEO satellite transitions using LEO Phase 1 satellite and ANIK F3 GEO satellite with Global Eagle's Ka-band System integrated with Gilat GLT-1000 modems
  - Validated Global Eagle's specialized antenna tracking capabilities on LEO Phase 1 satellite during flight tests
  - Maintained multiple air-to-ground two-way videoconference sessions during satellite transitions and observed secure cloud and VPN applications
  - Observed the shortest-ever connection time of only 19 milliseconds round-trip time from aircraft to ground equipment with 100s of Mbps throughput



*Conclusion: LEO will be a game changer for IFC*

# Enjoy this time and plan accordingly

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- **Think about incorporating new technologies into your medium term/long term plan**
  - **Employ people who understand the landscape to help**
    - Hire some younger people too
  - **Look at**
    - Satellite/constellation type (GEO/MEO/LEO)
    - Antenna technology (FPA vs. parabolic)
    - Modem types (some are more innovative than others)
    - Competing delivery technologies (Wifi,4G/LTE, microwave, etc)
  - **Think about cubesats and their applications**
- **If partnering,**
  - **Look at organizations with strong heritage within company or its employees**
  - **Do your research – work hard to determine what’s real and what’s not**
  - **Beware of people/companies that have suspect reputations or history of failing its customers and/or employees**
- **Enjoy learning about the changes in the industry**
  - **Spend each day learning something new**
- **This is an exciting time - Do not panic. Embrace it and Enjoy it.**

