INTELSAT. Epic NG

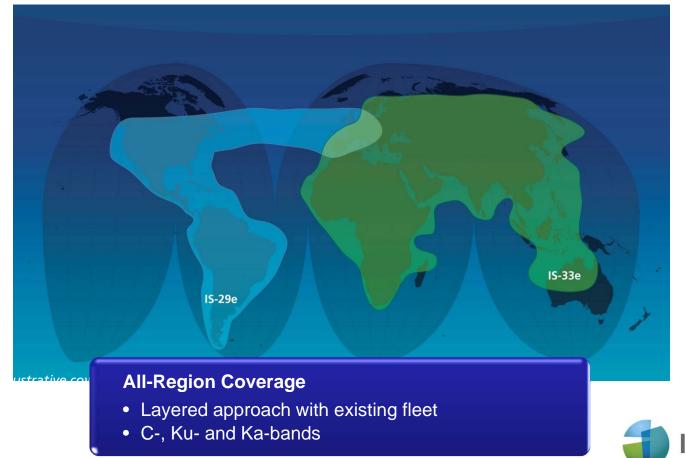
The Future of Satellites

Alex Epshteyn

Senior Principal Regulatory Engineer

Intelsat Epic^{NG} Innovation in C-, Ku- and Ka-bands

A high-performance, next-generation satellite platform that delivers global high throughput technology without sacrificing user control of service elements and hardware



ELSAT.

Supports Customer Applications in Four Sectors



INTELSAT SATELLITE & TERRESTRIAL INFRASTRUCTURE & SERVICE-SPECIFIC APPLICATIONS





High Performance Satellite Platform

High Capacity High Efficiency High Throughput High Performance Multi-band Resilient and Secure Open Platform Backward Compatible Flexible Complementary Overlay All-region Coverage

Intelsat Epic^{NG} Value Proposition Open Architecture









Open Architecture

- Backwards compatible with existing terminal infrastructure
 - No need to re-invest in terminal infrastructure
 - Freedom of equipment and manufacturer choice
 - Lower total cost of ownership
- Customer equipment and control

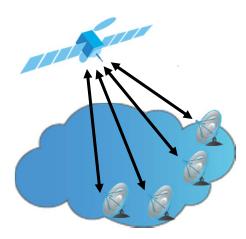


Intelsat Epic^{NG} Value Proposition Flexibility across All Applications

Europe & MENA



Intelsat Epic^{NG} Value Proposition Connectivity





Star Topology

Mesh Topology



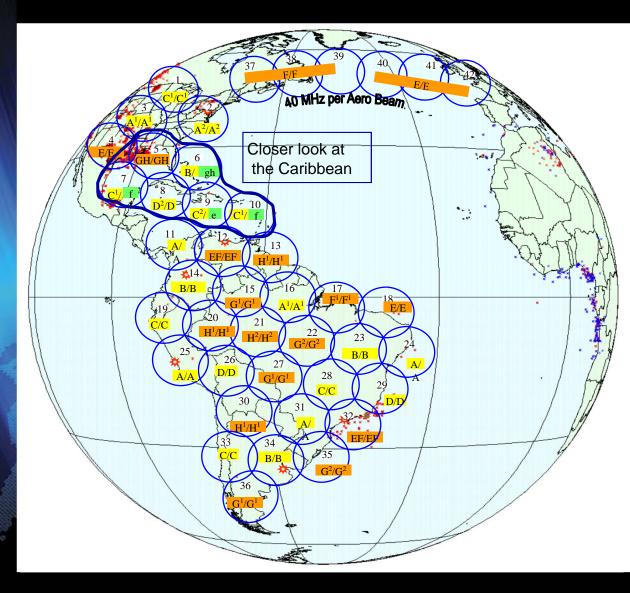
IntelsatONE Terrestrial Network

Connectivity

- Multi-band capability
- Supports star, mesh & loopback topologies
- Integrated with IntelsatONE terrestrial infrastructure

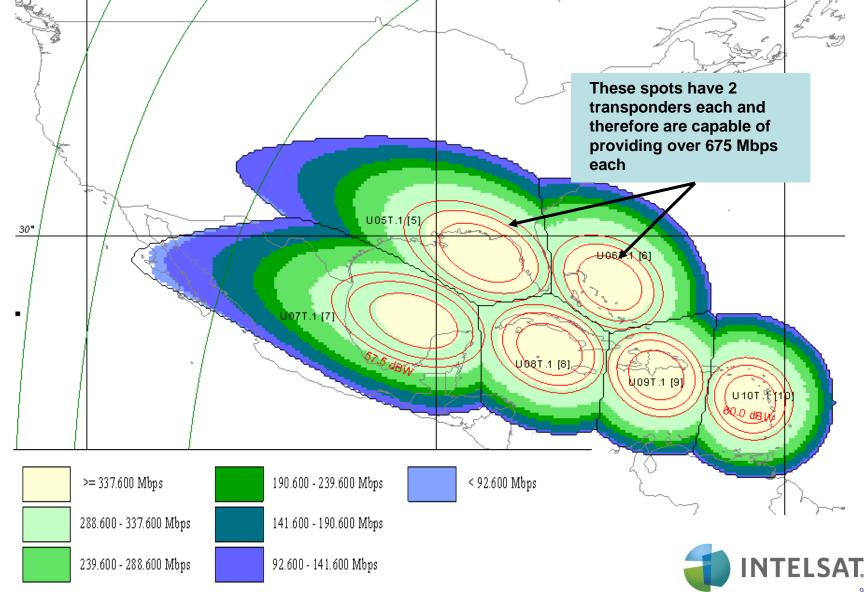


IS-29e: Ku-band User Beams + DTH Beam + Steerable Beams + Channelizer





IS-29e: Throughput per Transponder into a 1m. Terminal on NGS in the Caribbean



INTELSAT. Epic NG

for Cellular Backhaul

The Role of Fixed Satellite Services for Cellular Backhaul (2000-2011)

- Satellite options of today:
 - Provide last-mile connectivity required to reach the most remote locations
 - Foster population welfare and improved quality of life
 - Allow for rapid deployment
 - Provide resiliencies needed to meet SLAs at edges of hybrid networks

Standard kits to support BTS-BSC link:

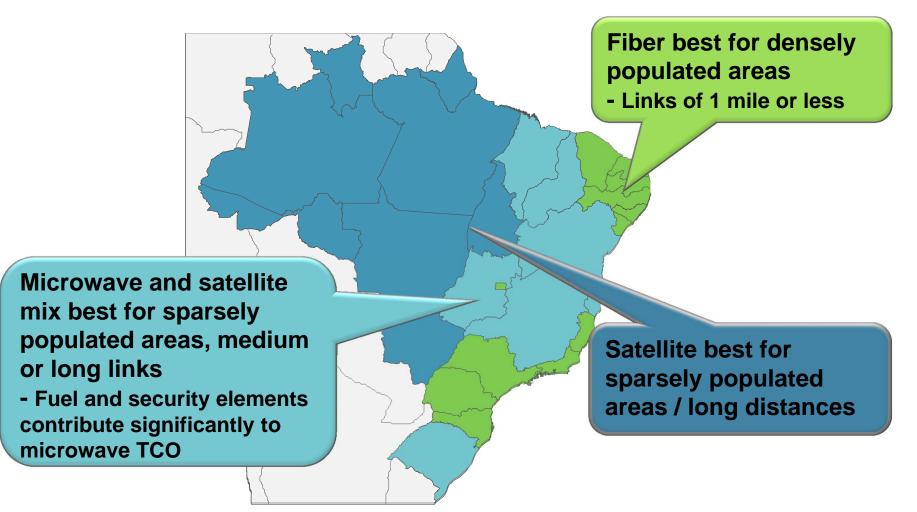
C-band: 2.4m antenna / 20W HPA

Ku-band: 1.2m antenna / 5W HPA





Roles of Fiber, Microwave and Satellite to Support Cellular Backhaul Requirements





The Role of Intelsat Epic^{NG} for Cellular Backhaul

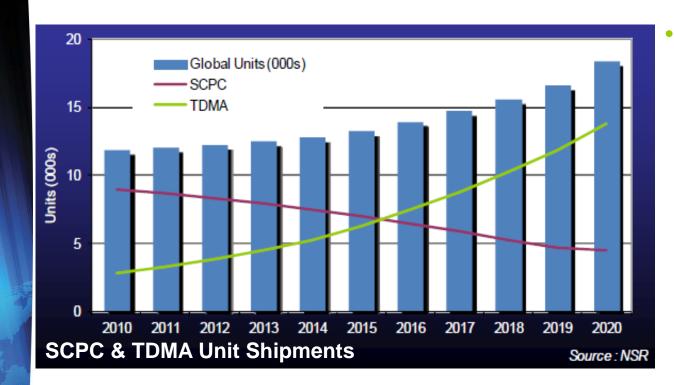
With 3G and 4G Networks, Intelsat Epic^{NG}

- Provides high throughputs required to support increased per-user and backhaul bandwidth requirements
- Allocates bandwidth dynamically for asymmetric multimedia requirements through application specific routing
- Allows load sharing of links in times of high traffic load per site and/or congestion in network

Intelsat Epic^{NG} Alters Total Cost of Ownership

- New economics lower revenue per site barriers
 - Support thin routes with low ARPU users
- Smaller CPE footprint allows low-power solar options
- Provides viability to use satellite links as primary/backup solutions for backbone links due to increased throughputs and better economics

Bridging from Today's FSS Solution to Intelsat Epic^{NG}



Intelsat Epic^{NG} provides comparable economics to microwave solutions

- Over 50,000 satellite modem purchases between 2012-2015 to support cellular backhaul
 - New equipment plus legacy purchases are compatible with Intelsat Epic^{NG}
 - Purchasing decisions need not be pushed out until new platform available



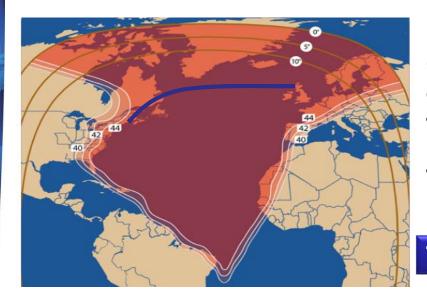
INTELSAT. Epic NG

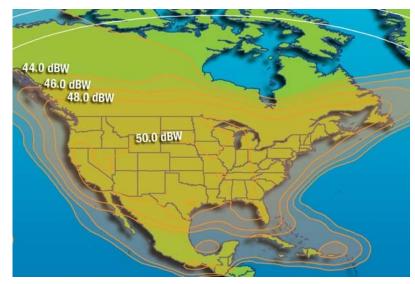
for Mobility Applicatons

Staying Connected ... in the Air and at Sea

Today's beams are designed predominantly for land mass coverage:

- Majority of beam over land
- Mobility requirements compete with other markets for capacity
- Antenna size and throughput needs unmet





Optimized coverage is at the expense of performance:

- Broadening the beam (and its appeal) diminishes throughput
- Majority of coverage not required for preponderance of traffic

Throughput or coverage? You choose



No Need for Compromises

Focused, high throughput coverage for key routes:

- Required throughput
- Lower terminal costs
- Open architecture





Optimized coverage providing super high throughput:

- Fulfills unmet throughput needs
- Required availability performance
- Existing platform and terminal equipment
- Improved economics
- Integrated with IntelsatONESM

Coverage, performance, control of economics No Compromises



THANK YOU!

