New Satellite Technologies
ITSO Symposium

12 June 2018

INTELSAT
Envision. Connect. Transform.

Intelsat's Mission

Envision

The impossible, through a more digitally inclusive society

Connect

The remaining 4 billion people who do not have access to affordable, reliable, broadband connectivity

Transform

- Economies
- Communities
- Lives

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Intelsat Provides Mission-Critical Communications Infrastructure

Network Services

Mobility

- In-flight broadband services
- Maritime broadband
- Connected car
- Internet of Things (“IoT”)

Broadband

- Fixed and wireless telecommunications infrastructure
- High-performance enterprise networks
- Broadband for remote communities

Media

- Direct-to-Home (“DTH”) television
- Distribution/contribution of video programming
- Worldwide event broadcasting

Government

- Reliable and secure global communications services
- Ground, sea and air mobile applications
- Customized communications solutions, hosted payloads

One Network, Many Applications

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Long-Standing Relationships with High-Quality Customers

NETWORK SERVICES

MOBILITY

- MARLINK – Connect smarter. Anywhere.
- Panasonic – Panasonic Avionics Corporation
- gogo
- GLOBAL EAGLE ENTERTAINMENT
- SpeedCast

BROADBAND

- BT
- américa móvil
- verizon
- bharti
- HUGHES
- TIM
- orange
- vodafone
- THE WORLD BANK – Working for a World Free of Poverty

MEDIA

- SONY
- VIACOM
- BBC
- vivendi
- MULTICHOICE AFRICA
- DIRECTV
- 21ST CENTURY FOX
- NHK
- HBO
- turner
- TimeWarner
- The Walt Disney Company

GOVERNMENT

- U.S. AIR FORCE
- LEONARDO
- Australian Government – Department of Defence

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Connecting People, Communities and Nations

Intelsat provides services to over 90 terrestrial wireless operators around the world, for extension of networks and infrastructure

Intelsat works with governments, non-governmental organizations (“NGOs”), and service providers around the world to deploy broadband connectivity for commercial and economic development

Our services are provided via a Globalized Network, which includes ~50 in-service satellites covering 99% of the Earth’s populated regions and a fully integrated terrestrial network

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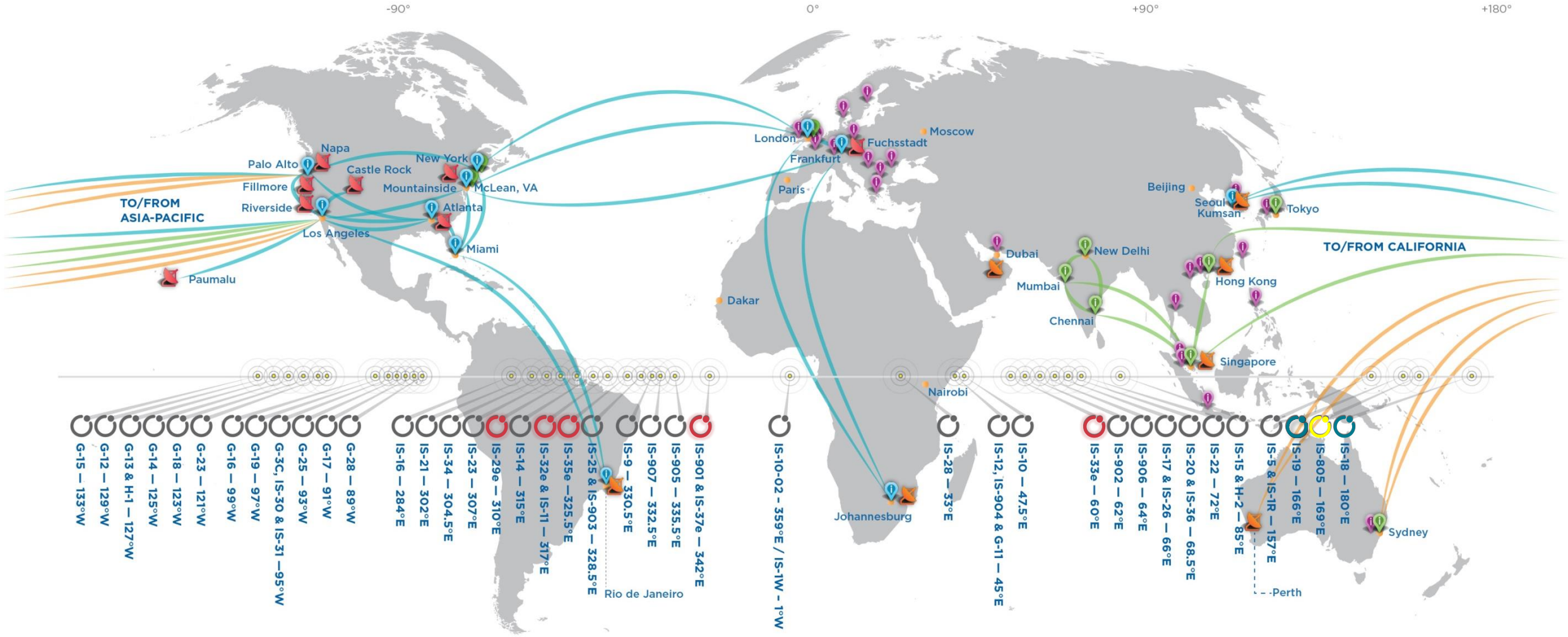
The Intelsat Global Network



52 satellites plus IntelsatOne®, a fully-integrated terrestrial network infrastructure

Intelsat Is at the Forefront of Technology Innovation

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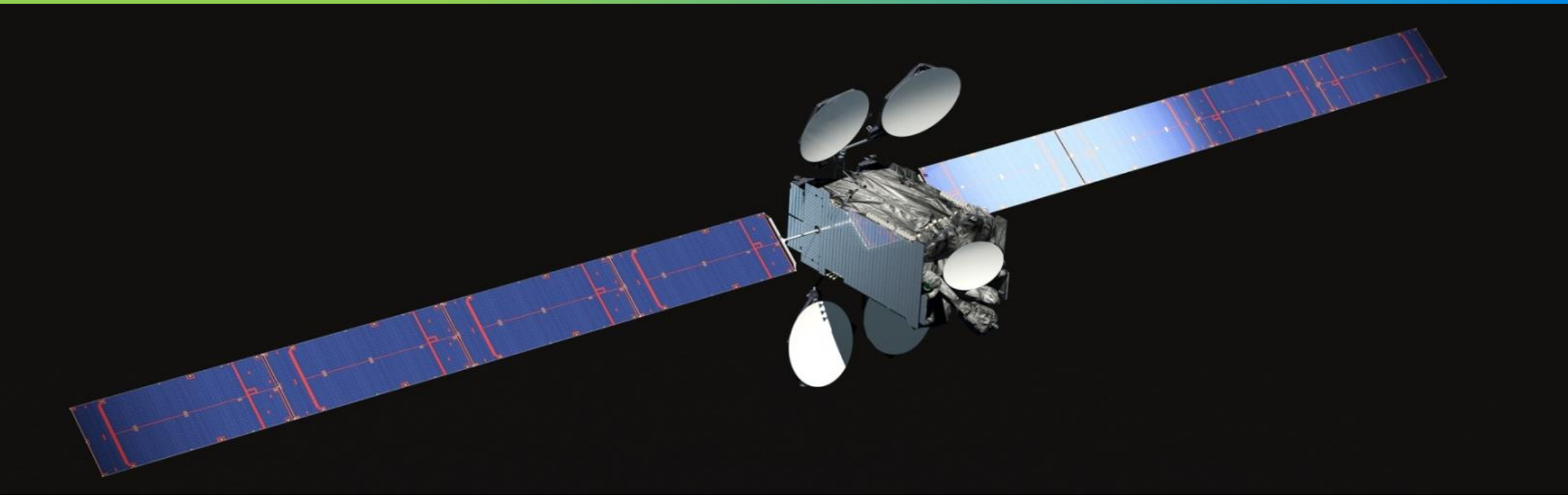

Our Innovative Space Technology Extends Terrestrial Networks

Customers seek to expand the reach of their terrestrial networks, leveraging the ubiquity of satellite communications

Our communications solutions can be deployed quickly throughout a region

Our connectivity accommodates the economic objectives of the nations and network providers we serve

Our communications solutions are flexible, modular and support growth in increments

We partner with local service providers who understand deployment at the local level

Intelsat has trained thousands of telecommunications engineers, enriching the technology skills of companies and nations around the world

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Intelsat Epic^{NG}

Differentiated High-Throughput Satellites (“HTS”)

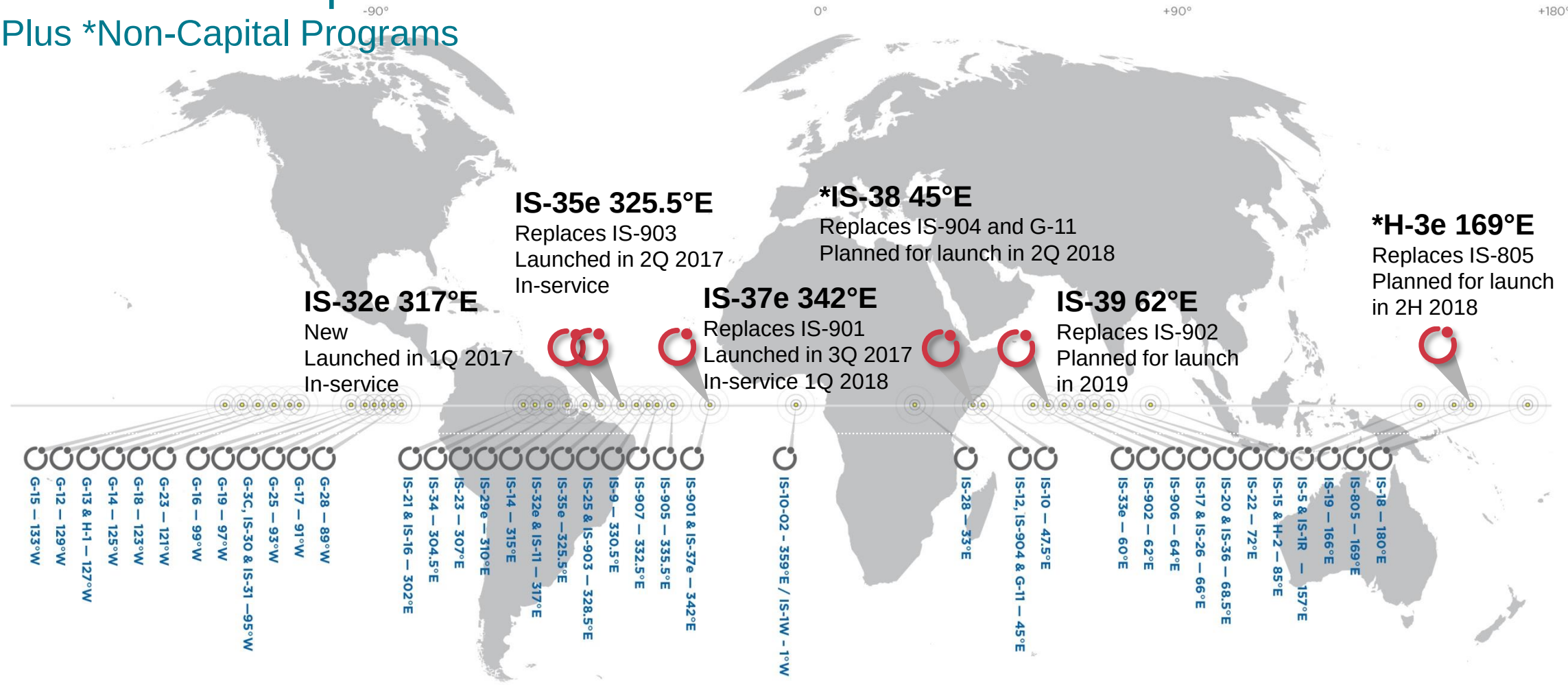
Launch of the Intelsat 37e satellite on an Arianespace Ariane V rocket. Expected to enter service in 1Q 2018

- All-digital high-throughput architecture utilizes wide beams and spot beams to support new and existing applications
- Designed to advance the use of satellite communications for broadband infrastructure
  - Performance
  - Economics
  - Simplified access
- IntelsatOne® Flex managed services accelerate the adoption of Intelsat Epic^{NG} for enterprise and mobility applications

Horizons 3e, our next Intelsat Epic^{NG} satellite, is expected to launch in 2H 2018

2017-2019 Capital Investment Plan

Plus *Non-Capital Programs



We continue to expand our fleet of traditional and high-throughput Intelsat Epic^{NG} satellites
2017-2019 plan includes expenditures for three future replacement satellites

Next-generation high-throughput Intelsat Epic^{NG} satellites

Deployed satellites

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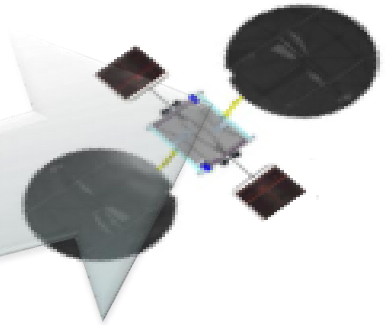
Intelsat Epic^{NG} Roadmap



Capacity GHz

Traditional Satellite
Broadcast
Low data rate services

Analog Payload
Limited frequency reuse
Limited throughput
Limited power sharing
Limited connectivity between beams

Epic^{NG} Current Gen.
High data rate services
Mobility, 3G/4G,Oil and Gas, IoT/M2M, non linear media

Digital Payload
High frequency reuse
High throughput
Limited flexible power
Flexible connectivity

Epic^{NG} Next Gen.
Higher data rate services
Mobility, 3G/4G/5G, Oil and Gas, IoT/M2M, media services

Software Defined Payload
High frequency reuse
High throughput
Flexible coverage and bandwidth
Flexible power
Flexible connectivity
Lower NRE
Faster deployment

Flexibility

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Transforming Businesses and Communities Around the World

- Intelsat Epic^{NG} open architecture platform helps future proof our customers' networks
- High performance Intelsat Epic^{NG} spot beams support smaller base station antennas
- Smaller antennas can be operated via low cost solar-powered kits, replacing diesel generators and saving on fuel and site maintenance
- Supports flexible business models, from capacity leases to fully managed services
- Local partners install and maintain sites, provide retail presence to end users

Core Satellites | **Intelsat Epic^{NG}** | **IntelsatOne Terrestrial** | **Managed Services** | **OneWeb** | **Partners** | **Access Technologies**

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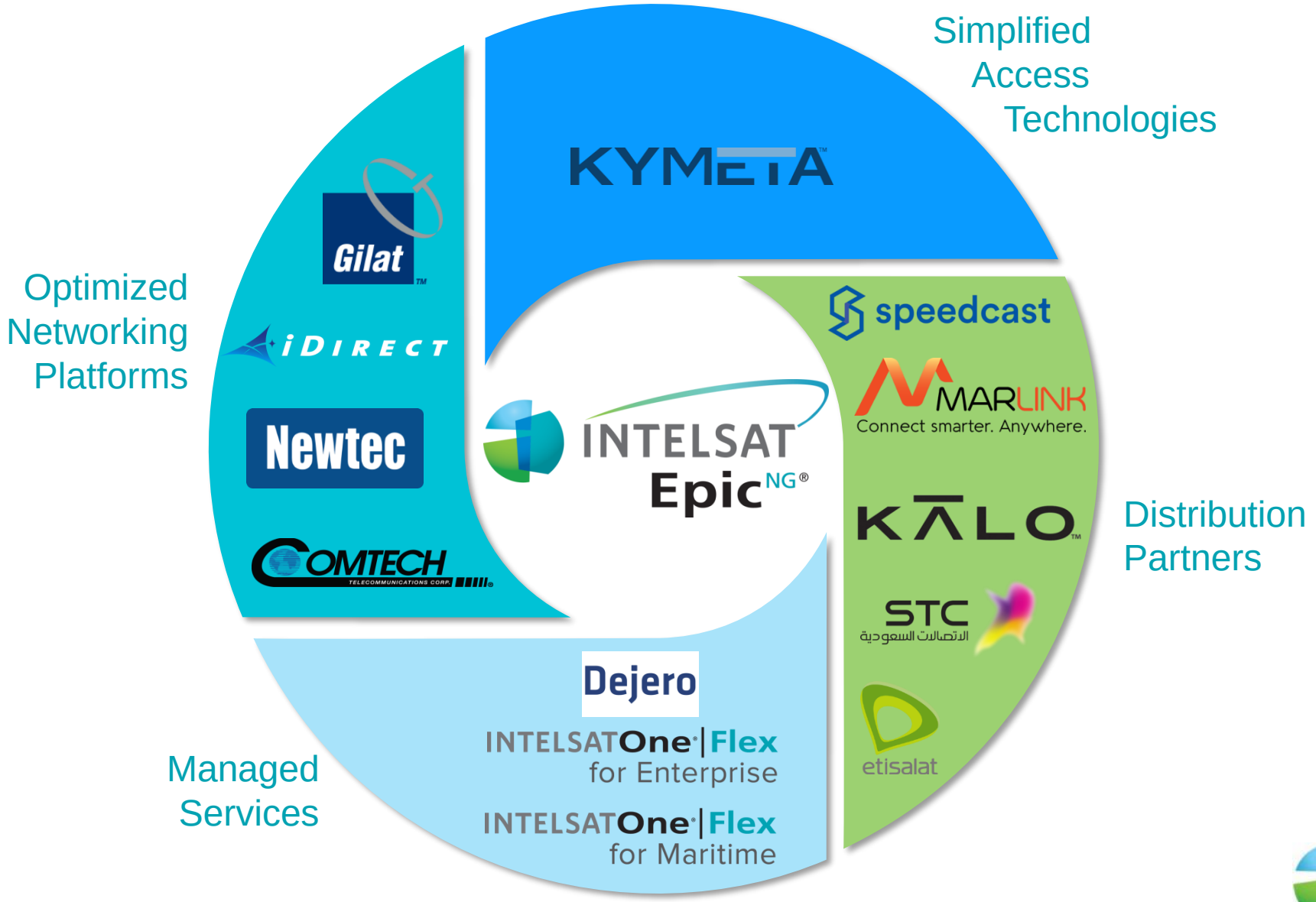
Unlocking New Verticals to Drive Long-term Growth



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Creating a Unique Hybrid Service

GEO

- Wide beams for broadcast
- HTS overlay for high density areas
- Regulatory access; 200 countries and territories

INTELSAT Epic NG®

Premium spectrum

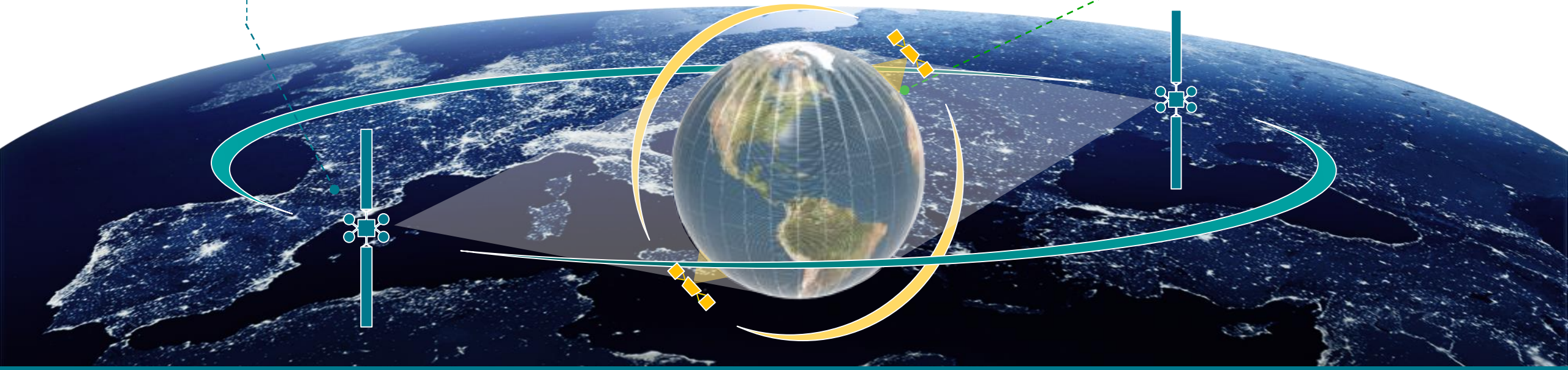
Ku-band

Fully-integrated
Scalable services
Robust ecosystem

- Pole-to-pole, ubiquitous coverage
- Consumer scale hardware
- Low latency

OneWeb
ACCESS FOR EVERYONE

LEO



Technology road map into the next decade encourages customer commitment

Building a More Digitally Inclusive Society

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On 25 September 2015, countries adopted a set of goals to **end poverty**, **protect the planet**, and **ensure prosperity for all** as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years.

For the SDGs to be achieved, everyone needs to do their part!

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Accelerating Digital Inclusion Initiatives Across the World

- World's largest provider of satellite capacity for satellite-based data networks
  - Banking networks across Africa and the Middle East
  - Small and medium businesses operating in Africa, Asia Pacific and Latin America
  - NGOs providing critical humanitarian aid across the world
  - Tele-medicine and tele-educational initiatives in the world's most remote regions
- The leading wireless telecommunications providers around the world use Intelsat's cellular backhaul services as a core component of their terrestrial network infrastructure
  - Africa's top 10 mobile groups, which represent 70% of the region's subscribers, leverage Intelsat's satellite technology

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Improving Economics and Simplifying Access

Enabling Partners to Develop and Empower Communities

Empowering Communities to Deliver Broadband

- Proper training is critical for reducing radio frequency interference (RFI) incidents
- Majority of RFI incidents are attributed to:
  - Faulty installation practices
  - Uplink errors
  - Poor operational and equipment maintenance regimes
- Intelsat conducts training and certification programs with the Global VSAT Forum (GVF) for VSAT installation and with SlingPath for satellite news gathering (“SNG”) operations

More than 1,000+ customers worldwide have received training

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Community Access Points

United Nations High Commissioner for Refugees in Ghana

- Overview: equip refugees and host communities with an “ecosystem for empowerment”
- Requirement: simple, solar-powered, low-maintenance equipment which provides quality Internet browsing/Wi-Fi through VSAT link
- Solution: leverage Intelsat’s satellite technology with solar powered hardware for a highly cost effective solution
- Outcomes: in close coordination with the UNHCR and Comsys, enabled mobile kiosks to support local Wi-Fi connections
  - Altered the total cost of ownership for wireless network operators
  - Enabled low-power solar options for remote locations
  - Delivered critical Internet connectivity to camps, which help coordinate aid efforts and enabled refugees to stay in touch with their families

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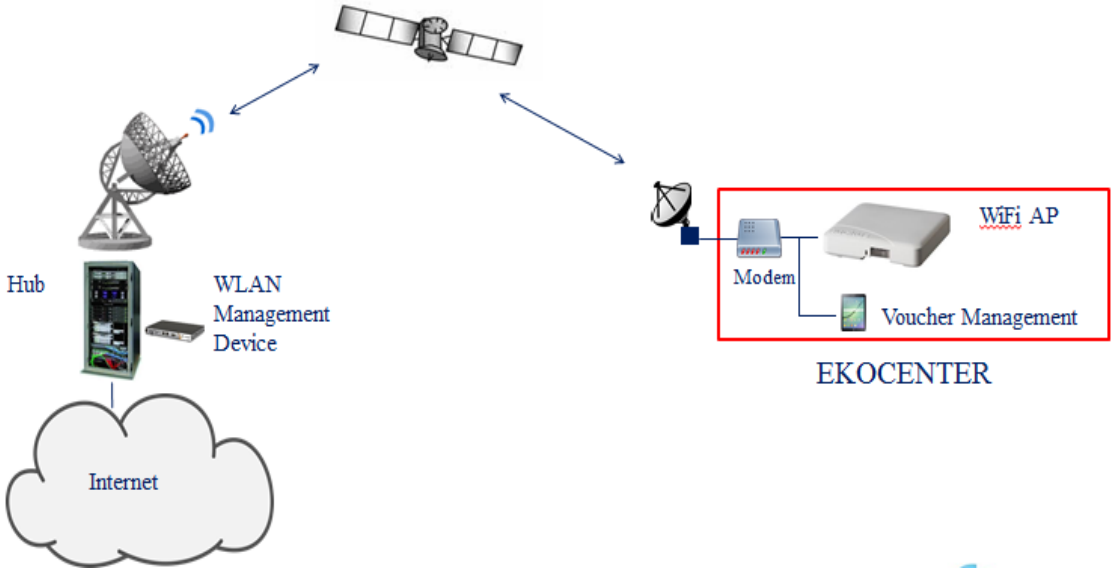
Intelsat and the Coca-Cola Company's EKOCENTER

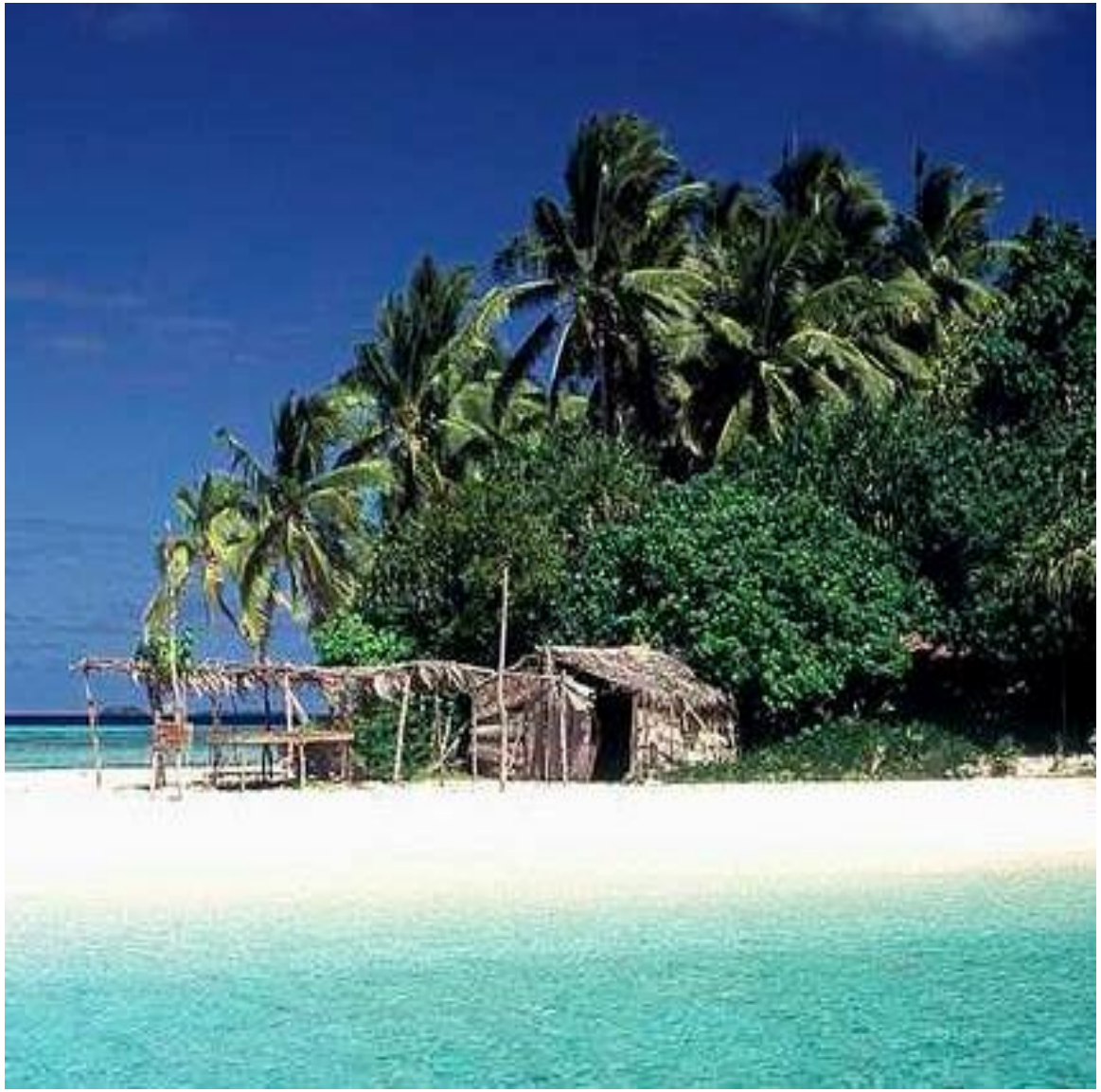
Creative Solution to Connect Remote Communities in Africa



- Overview: launched a 4 month, 15 EKOCENTER kiosk connectivity pilot across Rwanda, Kenya and Tanzania
- Requirements: improve the well-being of underserved communities in Africa
- Solution: a cross between a community center and a general store, operated primarily by women from the local community. It is solar powered, with satellite technology
- Outcomes: provides access to basic utilities, such as power and safe drinking water
  - Satellite technology delivers access to the Internet
  - Sells wide-range of products that the community needs
  - Facilitates a host of other services, from mobile phone charging to financial and government services
  - Acts as a catalyst for social and economic development

Flexible Solutions Tailored to Meet the Needs of Communities

Bringing Broadband Connectivity to the Pacific Islands



- Overview: develop affordable, reliable, diverse satellite communications to support the socio-economic development of the Pacific Islands and ensure available broadband connectivity for disaster/emergency relief
- Requirement: partner with the Pacific Islands to deploy and operate networks; train local technology teams on Intelsat's satellite network, hub operations, installation and maintenance
- Outcome: satellite services to ensure that the Pacific Islands have reliable broadband connectivity
  - Telemedicine
  - E-education
  - Government services
  - Effective emergency and disaster response

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Changing Lives in the Democratic Republic of Congo

- Overview: Vodacom needed to quickly and cost-effectively provide service to millions of unconnected people across the Democratic Republic of Congo (DRC) while:
  - Meeting regulatory license requirements, profitably; overcoming structural, maintenance and safety challenges; and minimizing its capital outlay
- Requirement: partner with local teams to deploy and operate the network; train local technology teams on Intelsat's satellite network, hub operations, installation and maintenance
- Outcome: Vodacom expanded service across 800 rural sites that quickly became profitable
  - Positive impact on safety, security and economics
  - ARPU increased, improving profitability and encouraging further expansion

Vodacom now has the highest penetration and subscriber base among competitors

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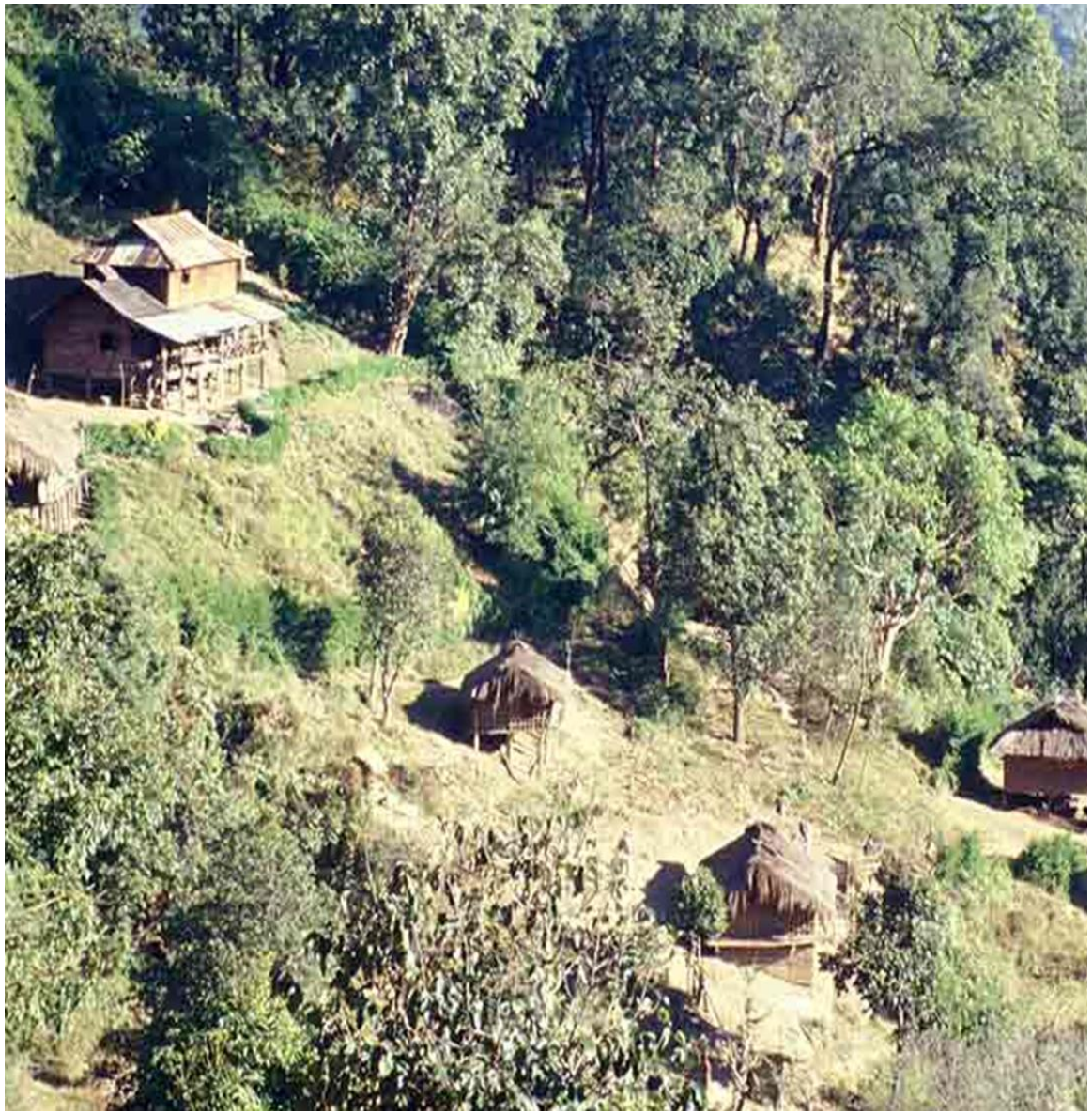
Connecting the Unconnected in Myanmar



- Overview: Myanmar's Ministry of Transport and Communications ("MOTC") is seeking to build a more digitally inclusive society
- Requirements: ability to overcome challenges, ranging from topography to weather to addressing legal/regulatory issues, in connecting a population of 51 million
- Solution: C-band services on the IS-902 satellite; Ku-band services on the IS-906 satellite
  - Seamless transition to high-power, wide beam connectivity on the IS-39 satellite in 2019
- Outcomes: dramatic increase in overall network bandwidth and reliability as operators expand 2G and 3G services
  - Extends 2G and 3G communications services beyond the urban centers into more remote areas
  - Ensures all citizens have access to higher bandwidth, superior quality and more affordable connectivity

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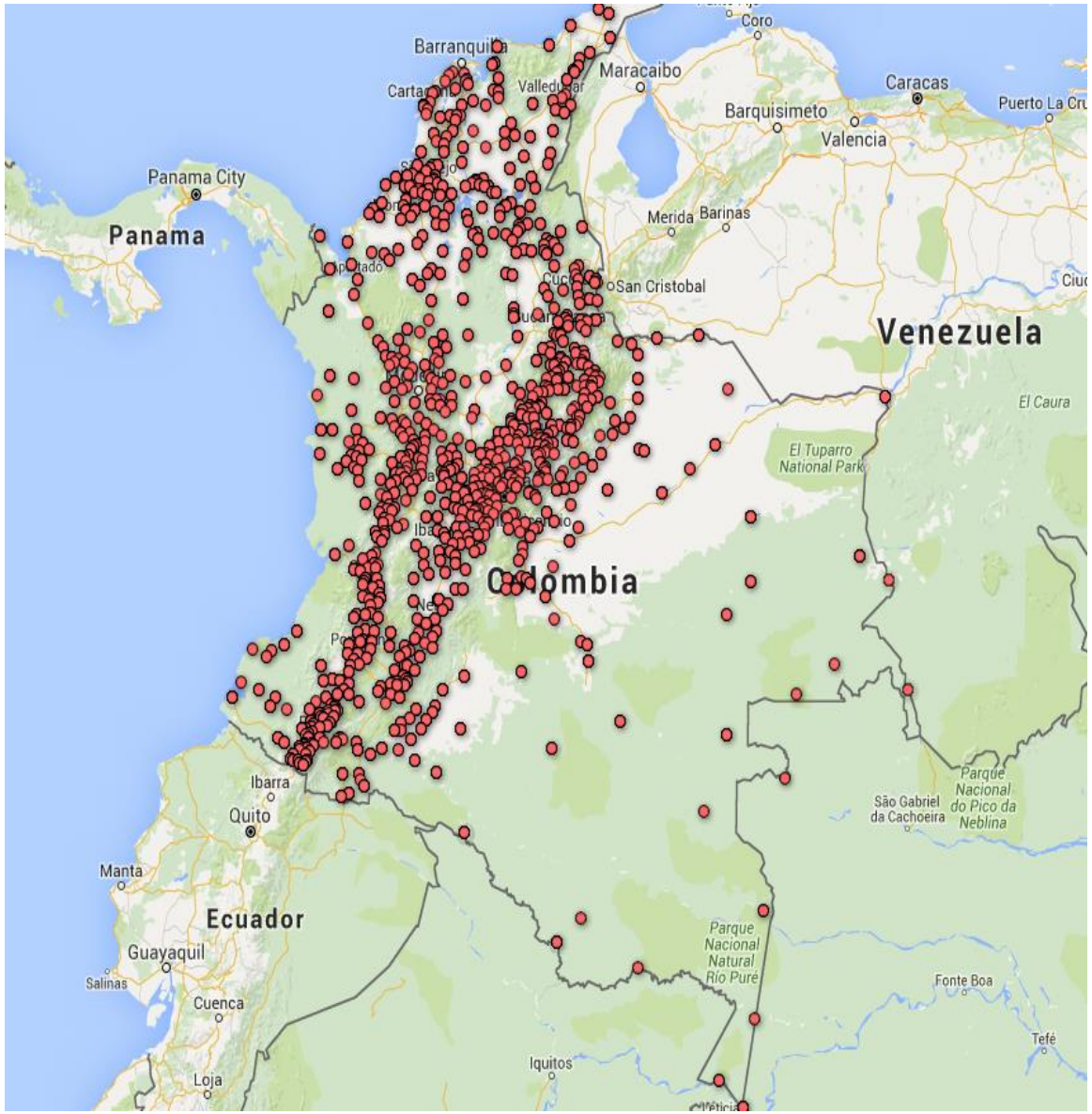
Connecting Communities in Colombia



- Overview: the Colombian Ministry of Communications and Communications Technologies ("MINTIC") committed to provide Internet access points to 100% of population centers of more than 100 people through the Kioscos Vive Digital ("KVD") project
- Requirements: multi-phase program, with multiple vendors by region. Service providers responsible for installations and network operations
  - Hybrid network
  - Open architecture
  - Technology-agnostic
- Solution: Intelsat's Epic^{NG} HTS platform, enabling higher throughput per location and smaller hardware
- Outcome: kiosks support connectivity to computers, laptops and other devices in libraries, schools and other public access in 2,382 rural sites

Bridging the Digital Divide in Rural Alaska

- Overview: as the largest telecom provider in Alaska, GCI's network is a hybrid of terrestrial solutions complemented by satellite for redundancy and reach
  - Their infrastructure must be completely reliable because areas are unreachable certain times of the year
- Requirement/Solution: the network includes 340 satellite links connecting to tower infrastructure for wireless services, and features satellite services on two Intelsat satellites (including 20 C-band and 5 Ku-band transponders)
- Outcome: GCI is transforming the way rural Alaskans live
  - Schools use satellite-enabled video conferencing to leverage teacher resources across remote classrooms
  - Hospitals use satellite-enabled telemedicine for rapid diagnosis; clinics are pushing records to the cloud with confidence in service reliability

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Thank you!

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