Présentation d'Intelsat

INTELSAT : CRÉER UNE SOCIÉTÉ NUMÉRIQUE PLUS INCLUSIVE EN RÉALISANT LES OBJECTIFS DE DÉVELOPPEMENT DURABLE

Intelsat : Créer une société numérique plus inclusive
en réalisant les objectifs de développement durable

Tout le monde sait que la connexité à haut débit est un instrument déterminant pour atteindre les objectifs de développement durable pour tous, et que l'accès à l'internet, qui est aujourd'hui essentiel pour accéder à la connaissance, permettra d'accélérer la réalisation des 17 objectifs de développement durable (ODD) définis par les Nations Unies.

En vertu de l'Accord ITSO, le rôle principal de l'ITSO consiste à superviser et surveiller la fourniture par Intelsat de services publics de télécommunications internationales par satellite, comme le spécifie l'Accord de services publics (ASP) conclu entre l'ITSO et Intelsat. En exerçant ce rôle de supervision, l'ITSO est en mesure de s'assurer qu'Intelsat fournit, sur une base commerciale, des services publics de télécommunications internationales par satellite, maintient la connexité et la couverture mondiales, dessert ses clients ayant des connexités vitales et fournit un accès non discriminatoire au système d'Intelsat.

Du fait de l'exercice de sa fonction de supervision, l'ITSO est un lieu important de rencontre des États membres et facilite leurs débats et leurs échanges alors qu'ils évaluent leurs besoins de services publics de télécommunications internationales par satellite. En effet, la disponibilité de services satellitaires à large bande est désormais une priorité de nombreux pays en développement, et l'ITSO doit donc continuer d'œuvrer en faveur de politiques et de services qui réduisent la fracture numérique (à large bande).

Pour atteindre ses buts et objectifs et mettre en œuvre son plan stratégique, l'ITSO collabore avec d'autres organisations et participe à des partenariats, des programmes et des projets qui visent à réduire la fracture numérique. On peut citer par exemple la Commission le large bande au service du développement durable et dernièrement, le projet « internet pour tous » du Forum économique mondial ainsi que l'initiative « Le mobile au service du développement » de l'UIT-D.

Depuis sa création, la Commission le large bande n'a cessé de montrer que le haut débit et les technologies de l'information et des communications (TIC) sont importants car ils contribuent à

réaliser les objectifs de l'ONU. Par ailleurs, le rapport du Groupe de travail sur les technologies dans l'espace et dans la haute atmosphère, auquel l'ITSO a beaucoup participé, conclut que les systèmes à satellites et les systèmes à haute altitude présentent des avantages considérables lorsqu'il s'agit d'élargir la couverture large bande dans les pays en développement et d'élaborer des solutions essentielles à la réalisation des 17 objectifs de développement durable définis par les Nations Unies.

C'est sur cette toile de fond que le Directeur général de l'ITSO est heureux de partager avec vous une présentation PowerPoint d'Intelsat qui montre comment on peut exploiter sa technologie satellitaire pour atteindre les ODD, et donne quelques exemples de son utilisation pour accélérer des projets d'inclusion numérique dans le monde entier. La présentation PowerPoint n'existe qu'en version anglaise.

Intelsat: Building a More Digitally Inclusive Society

Through Sustainable Development Goals

October 2017

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On September 25, 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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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's Commitment: Connect People, Communities and Nations

Intelsat provides services to over 90 wireless operators for extension networks and infrastructure

Intelsat works with governments, NGOs, and service providers to deploy broadband connectivity for commercial and economic development

Our services are provided via our 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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Leveraging Intelsat's Satellite Technology to Achieve SDGs

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Intelsat's Commitment to the Sustainable Development Goals

Intelsat will leverage our innovative satellite technology to build a more digitally inclusive world

Intelsat will engage with governments, NGOs, and service providers to deploy broadband connectivity for commercial and economic development

Intelsat will develop flexible and creative solutions to ensure that all citizens have access to on-line health, education, financial services and government services

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Intelsat's Mission-Critical Communications Infrastructure: Essential to Achievement of SDGs

Network Services	Media	Government
Mobility	Direct-to-home	Global, secure
Broadband	Television Distribution	Mobility networks for sea and air
Wireless Infrastructure	Events	Custom payloads
Remote Connectivity		

Over 60% of Our Business is Generated in Regions with Low Connectivity Penetration

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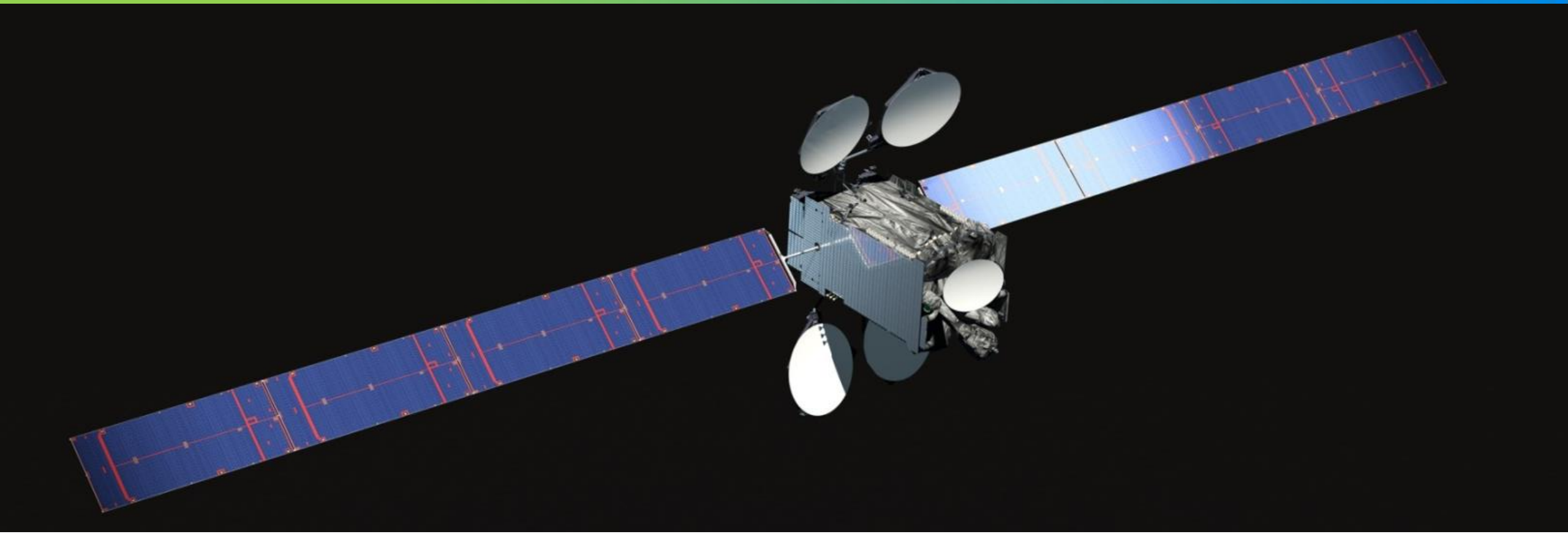

Our Innovative Satellite Technology Extends Terrestrial Networks

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

Our satellite solutions can be deployed quickly throughout a region

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

Satellite solutions are flexible, modular and support growth in increments

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

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

Intelsat Technology Transforming Businesses and Communities Around the World

- 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, saving on fuel and site maintenance
- Flexible business models from capacity lease to fully managed service
- 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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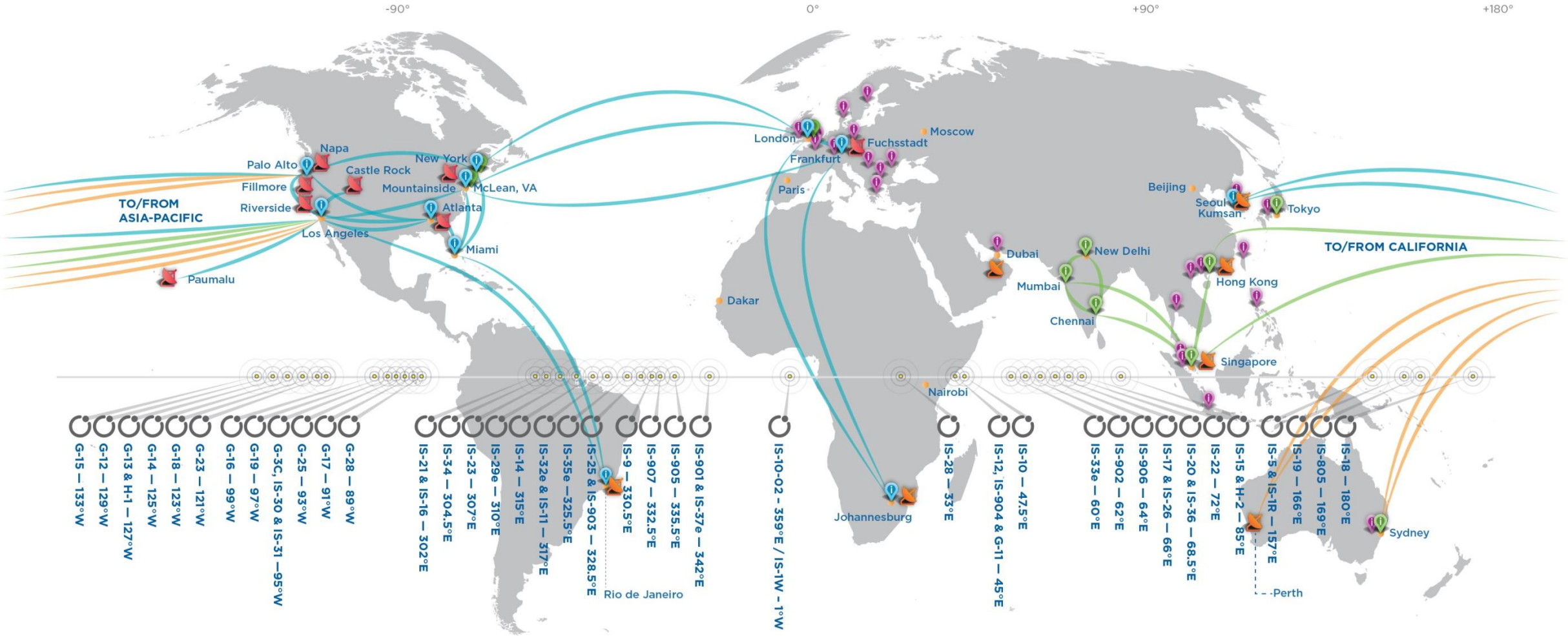
Intelsat's Globalized Network Infrastructure Supports SDGs



~50 satellites plus IntelsatOne, a fully-integrated ground infrastructure incorporating teleports, networking platforms, points of presence and an IP/MPLS fiber network

Intelsat Epic^{NG}: Powering Efficient Broadband Connectivity

Launch of Intelsat 35e on a SpaceX Falcon 9 rocket

- All-digital high throughput architecture utilizes wide beams and spot beams, unlocking new applications
- Open, scalable network provides customers with hardware choice, uplink flexibility and the ability to leverage their installed base
- Designed to advance the use of satellite communications for broadband infrastructure
  - Performance
  - Economics
  - Simplified access
- Introducing IntelsatOne Flex managed services to accelerate the adoption of Intelsat Epic^{NG} for enterprise and mobility applications

Lowering the cost per bit for mobile network operators, enabling them to close the business case and extend their networks into the more remote regions of the world

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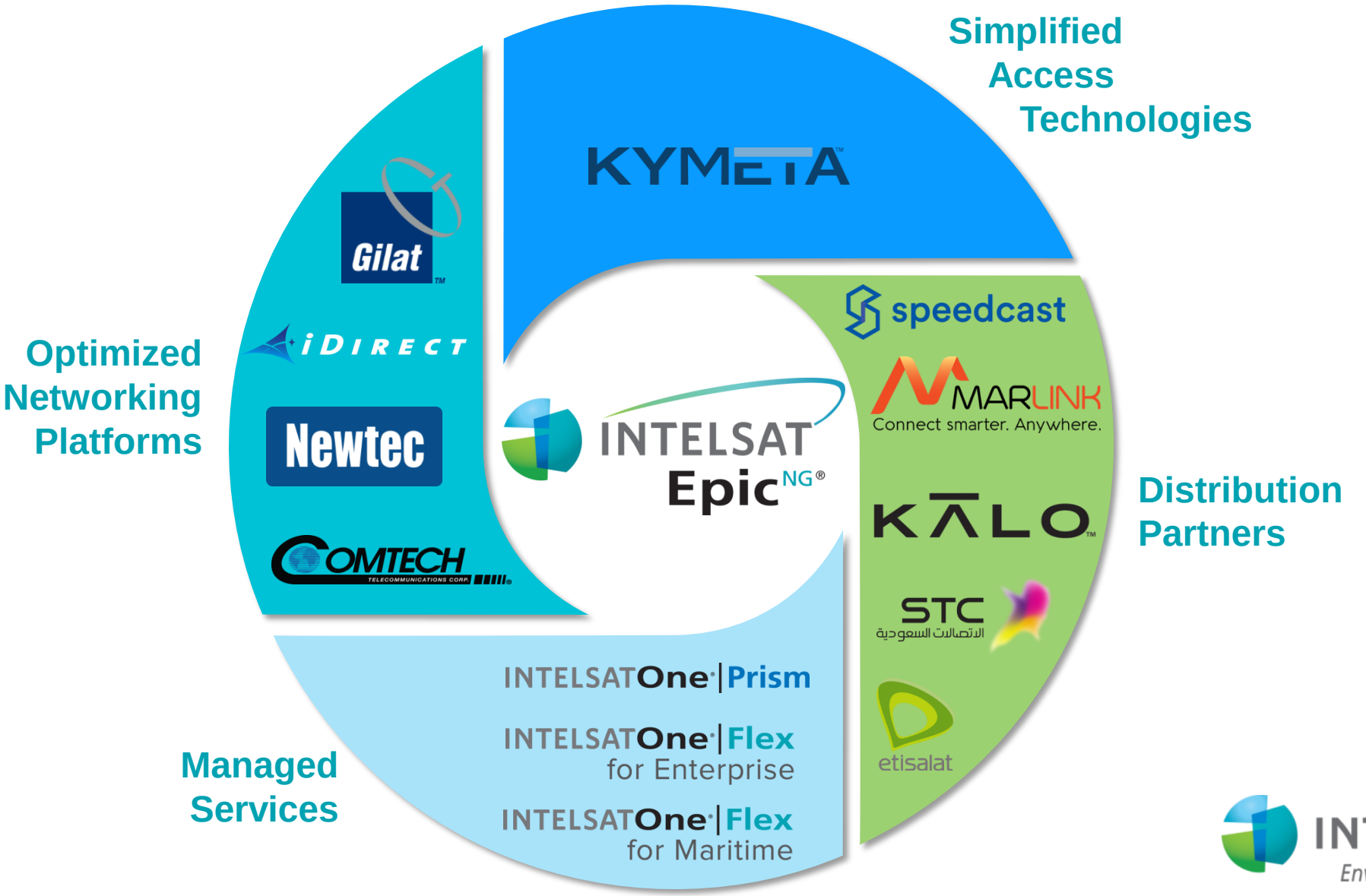
Intelsat & SDGs: Improving Economics and Simplifying Access

Commercializing Intelsat Epic^{NG}

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

Premium Spectrum

Ku-band

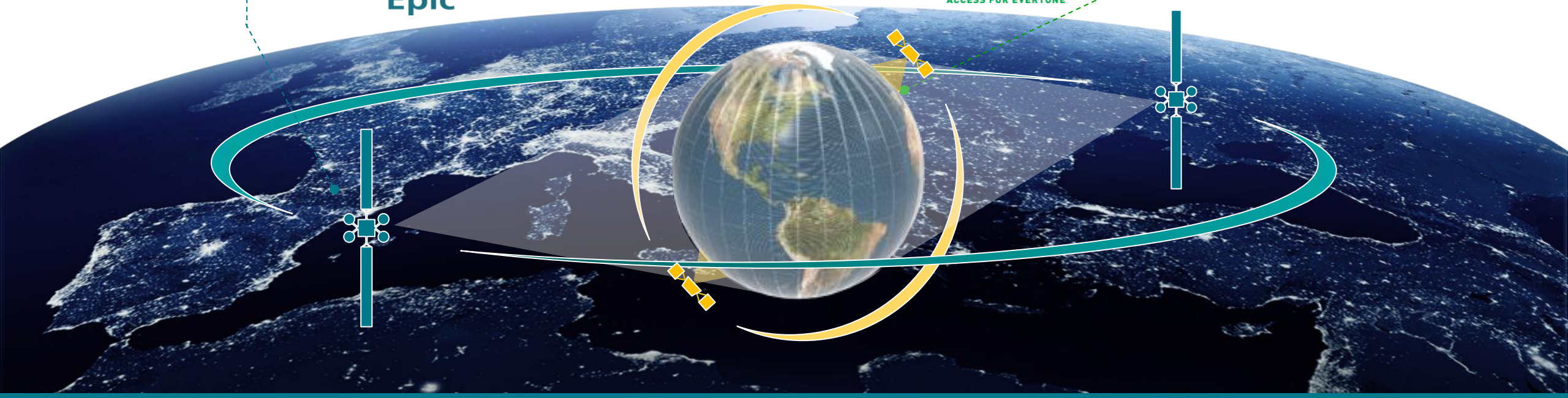
Fully-Integrated
Scalable Services
Robust Ecosystem

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

LEO

INTELSAT Epic NG®

OneWeb
ACCESS FOR EVERYONE



Technology Road Map into Next Decade Encourages Customer Commitment

Accelerating Digital Inclusion Initiatives Across the World: Utilizing Intelsat Technology to Achieve SDGs

- 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
  - Non-governmental organizations providing critical humanitarian aid across the world
  - Tele-medicine and tele-educational initiatives in the world's most remote regions
- **100** leading wireless telecom providers use Intelsat's cellular backhaul services as a core component of their 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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Intelsat and the SDGs: Enabling Local Partners to Deliver Solutions

- Intelsat investment in local partner infrastructure
- “Pay as you grow” and revenue-sharing models
- Technical training improves skill set of local work force

Consumer / Prosumer Broadband

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

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Intelsat and the SDGs: Empowering Communities to Deliver Broadband

- Proper training is critical for reducing RF interference (RFI) incidents.
- Majority of RFI incidents are attributed to:
  - Faulty installation practices
  - Uplink errors and
  - 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 SNG operations.

More than 1,000+ Customers Have Received Training

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Customer Testimonials

- *Since completing the coursework, we have installed a chat application within our company to guide field technicians to properly point a VSAT terminal. To date, we have successfully migrated 16,000 terminals using this application."*
  —Hugo Trejo, USA Operations Director with Pegaso Banda Ancha

- *"Now that we have enhanced knowledge of interference, it is helping us to adapt our hub RFI operational policies which will reduce the man hours lost in troubleshooting."*
  —Okechi Osuagwu, of the DCC Satellite and Networks division of the Computer Warehouse Group out of Africa.

- *"This is a great initiative in helping young operators to grow professionally within the telecommunications arena. I learned some concepts I was not aware of until completing the online coursework… making me be more effective when I troubleshoot RFI instances."*
  —Rodrigo Chagas, of Telespazio Brasil

- *"This course taught me the appropriate way to install antennas from start to finish."*
  —Roberto Holguin, Remote Technical Support Executive with GlobalSat

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Intelsat & SDGs: Enabling Partners to Develop & Empower Communities

Intelsat and the SDGs: 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 UNHCR and Comsys, enabled mobile kiosks to support local Wi-Fi connections in Ghana
    - Altered the total cost of ownership for wireless network operators
    - Enabled low-power solar options for remote locations
    - Delivered critical internet connectivity to camps--coordinated aid efforts; enabled refugees to stay in touch with their families

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Intelsat & 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:** Cross between community center and a general store, run 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, financial & government services
  - Acts as a catalyst for social & economic development

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Intelsat & SDGs:
Flexible Solutions Tailored to Meet the Needs of Communities

Intelsat and the SDGs: 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 Pacific Islands to deploy and operate network; train local technology teams on Intelsat's satellite network, hub operations, installation and maintenance.
- **Outcome:** Satellite services to ensure that the Pacific Islands has reliable broadband connectivity to support:
  - Telemedicine
  - E-Education
  - Government services
  - Effective Emergency and Disaster Response

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Intelsat and the SDGs: 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 network; train local technology teams on Intelsat's satellite network, hub operations, installation and maintenance.
- **Outcome:** Vodacom expanded service across 800 rural sites that became profitable quickly
  - Positive impact on safety, security and economics
  - ARPU increased, improving profitability and encouraging further expansion

Vodacom now has highest penetration and subscriber base among competitors

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Intelsat and the SDGs: Connecting the Unconnected in Myanmar

- **Overview:** Myanmar's Ministry of Transport & 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 the population of 51 million
- **Solution:** C-band service on Intelsat 902; Ku-band service on Intelsat 906; Seamless transition to high-power, wide beam connectivity on Intelsat 39
- **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 Myanmar citizens have access to higher bandwidth, superior quality and more affordable connectivity

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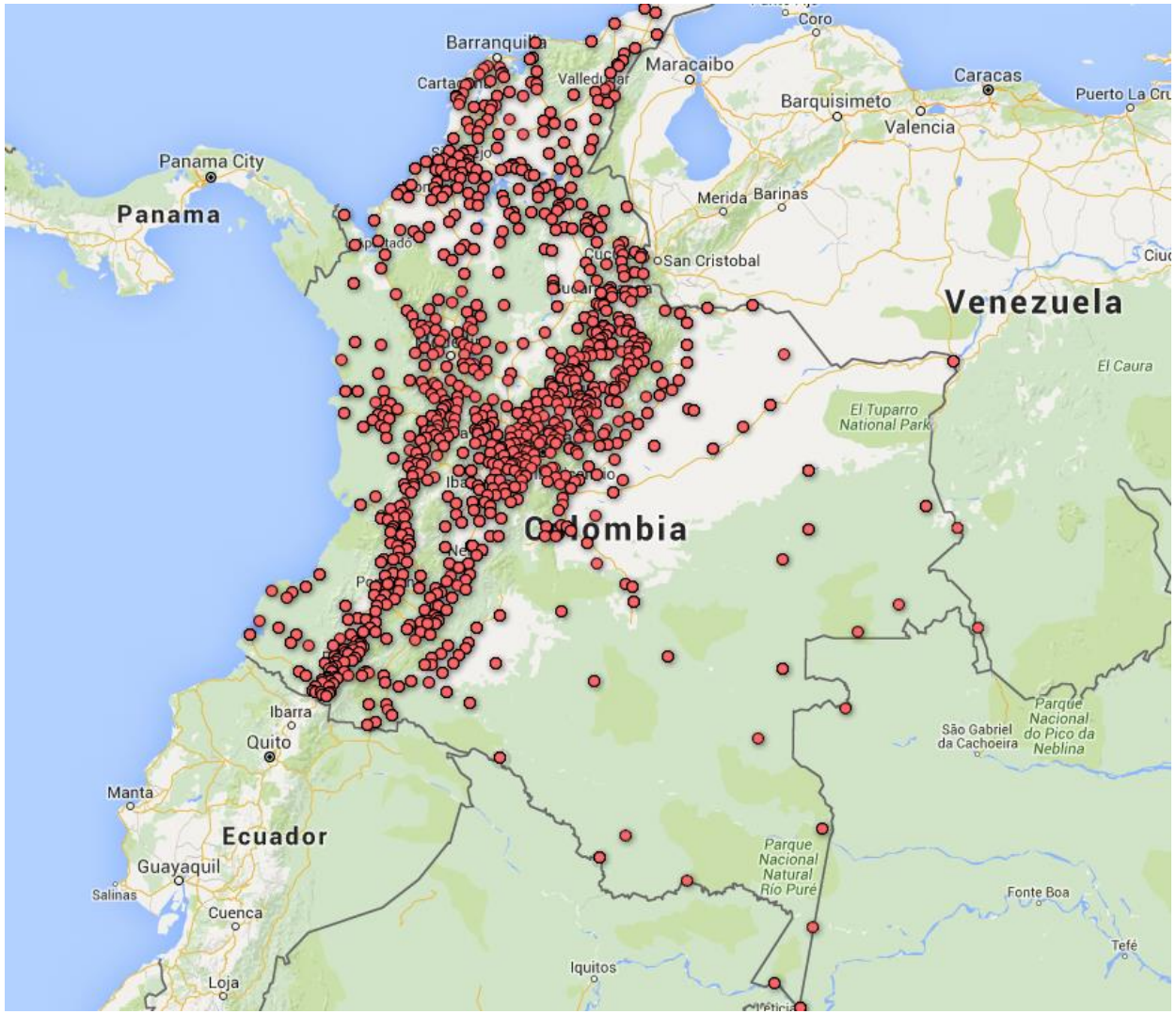
Intelsat and the SDGs: Connecting Communities in Colombia: KVD



- **Overview:** The Colombian 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} high throughput 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 2,382 rural sites.

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Intelsat and the SDGs: 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:**
- Network includes 340 satellite links connecting to tower infrastructure for wireless services
- Network features satellite services on two satellites, including 20 C-band and 5 Ku-band transponders
- **Outcome**: GCI is transforming the way rural Alaskans live as…
- 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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Intelsat and the SDGs: Our Firm Commitment

Intelsat is fully committed to contribute to the achievement of your policies to provide all your citizens with access to health, education, financial services and online government services. We are committed to working closely with all stakeholders to implement all of the policy objectives

HOW CAN WE HELP?

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