



IRIDIUM SATELLITE

NETWORK, PRODUCTS, AND SERVICES

FOR ALASKA



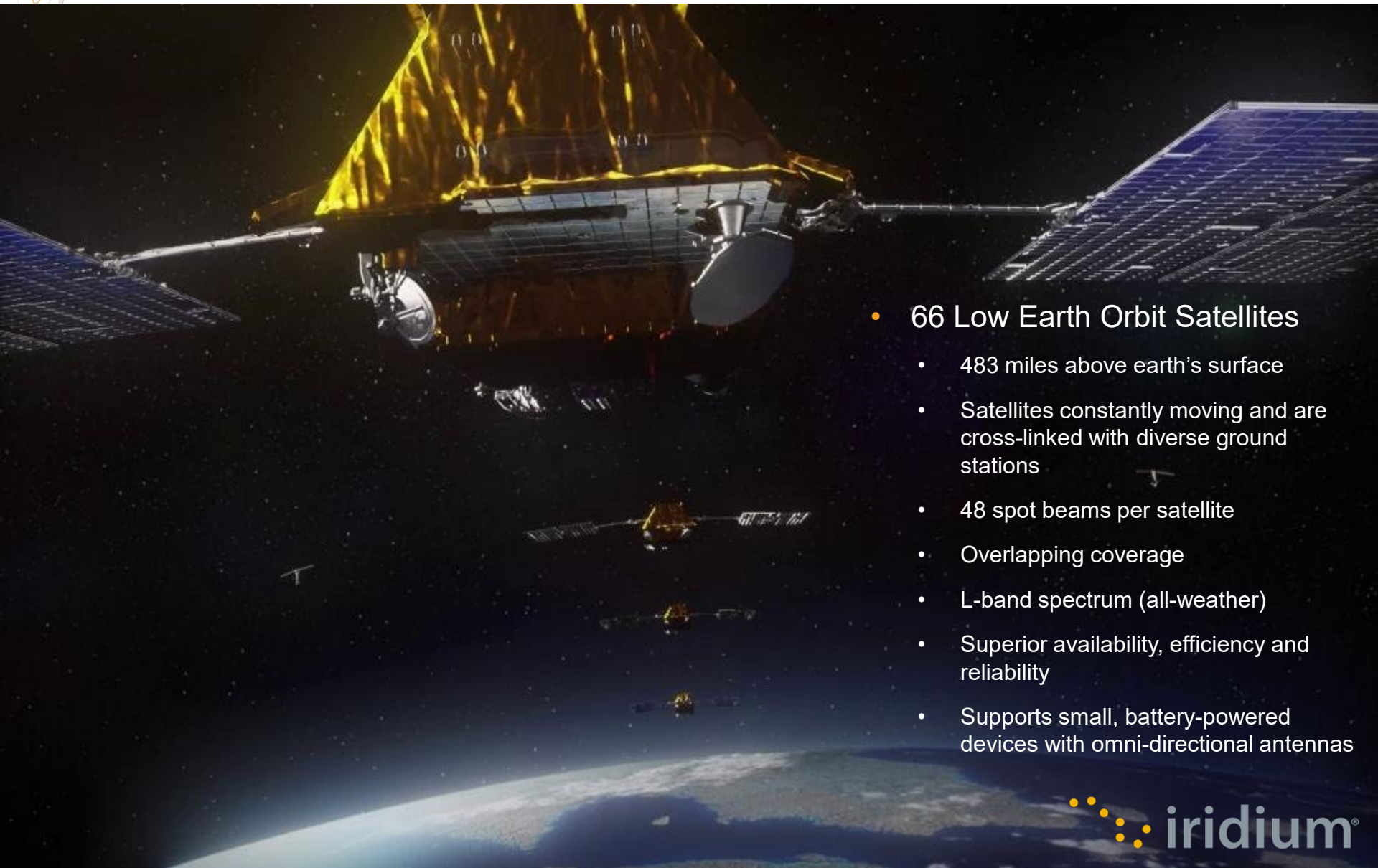
IRIDIUM'S NEW \$3B NETWORK



- Replacement of original network in operation since 1999
- 8 launches with Space X from 2017 - 2019
- 75 new satellites deployed successfully (66 active, 9 spares)



SATELLITE NETWORK



- 66 Low Earth Orbit Satellites
 - 483 miles above earth's surface
 - Satellites constantly moving and are cross-linked with diverse ground stations
 - 48 spot beams per satellite
 - Overlapping coverage
 - L-band spectrum (all-weather)
 - Superior availability, efficiency and reliability
 - Supports small, battery-powered devices with omni-directional antennas

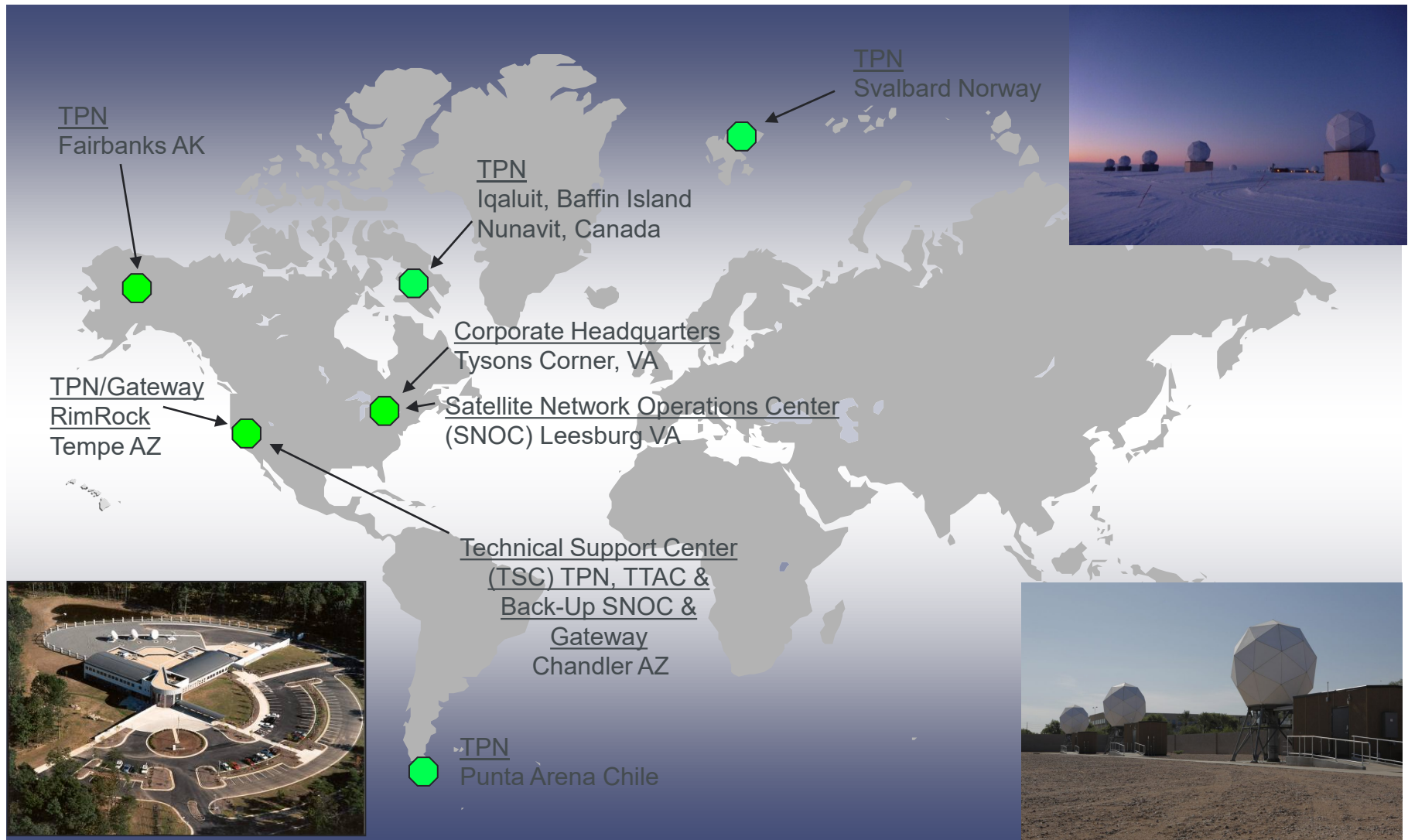


SATELLITE NETWORK





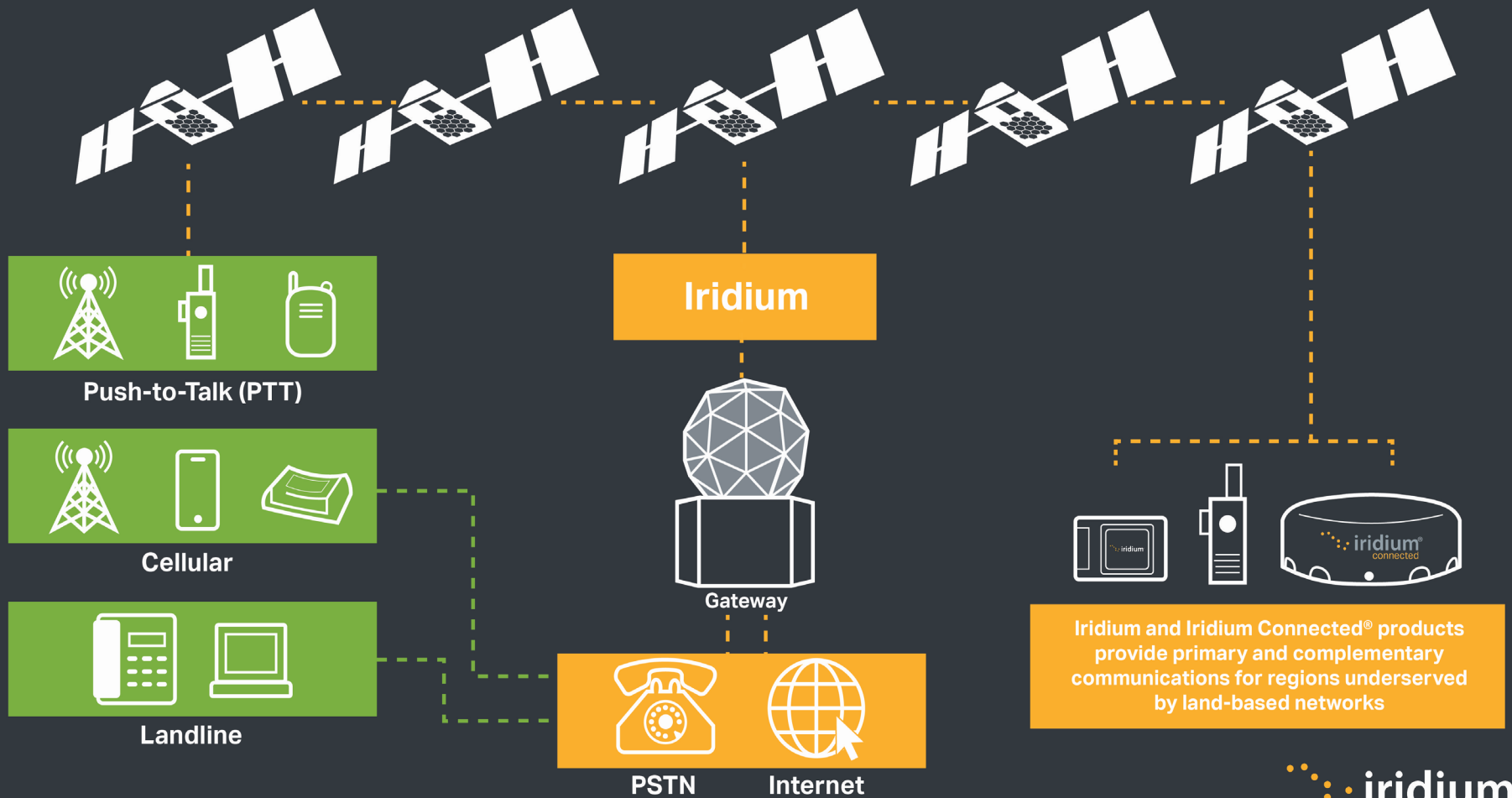
GROUND NETWORK



TELEPORTS = TPN

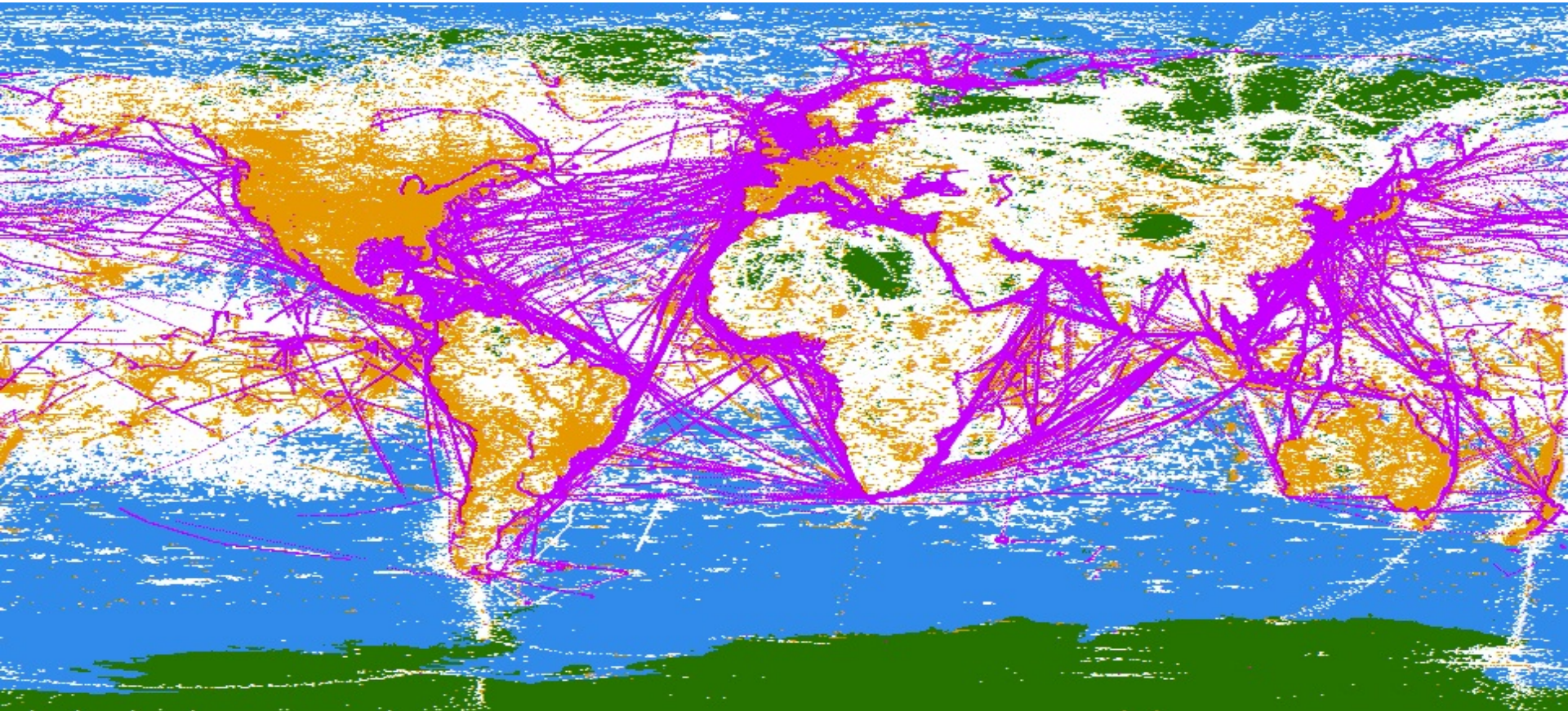
Telemetry and Control = TT&C

NETWORK CONNECTIVITY





NETWORK UTILIZATION



○ IoT (SBD) Data Transmission

● Voice Call

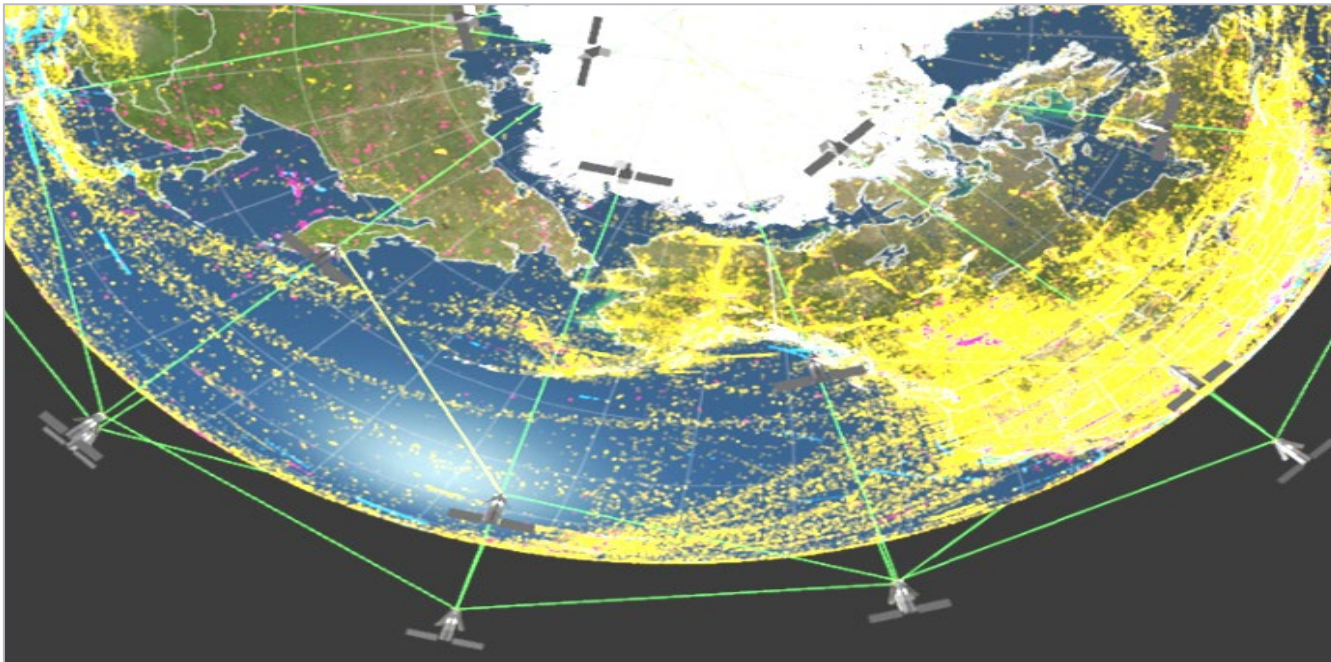
● Iridium OpenPort High-Speed Data Traffic

One week plot of Network Traffic

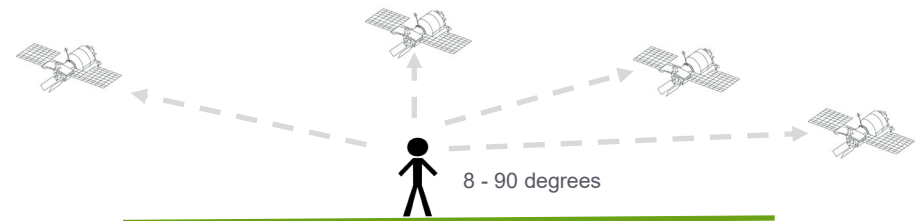


ALASKA CONNECTIVITY

- Iridium's low-earth satellites provide reliable, real-time services across the entire Alaskan region.



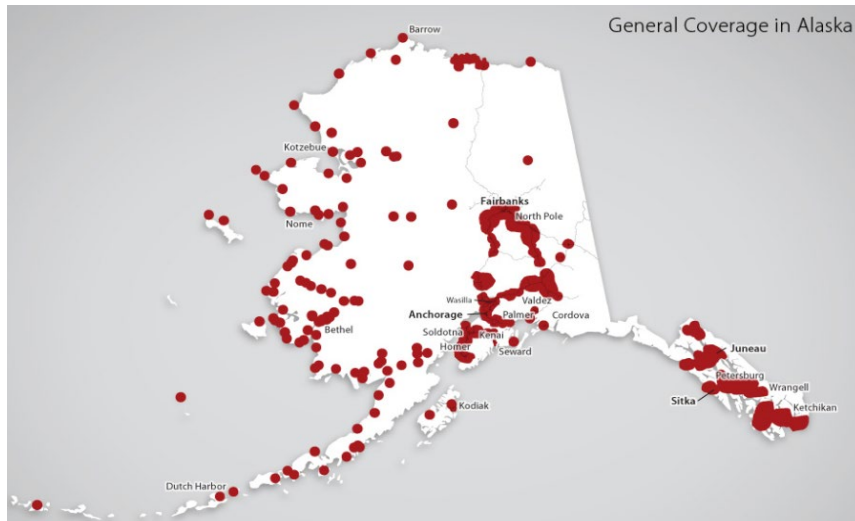
Iridium	
# of Satellites Serving Alaska	Up to 4
Distance	483 miles
Connection Angle	8 - 90 degrees



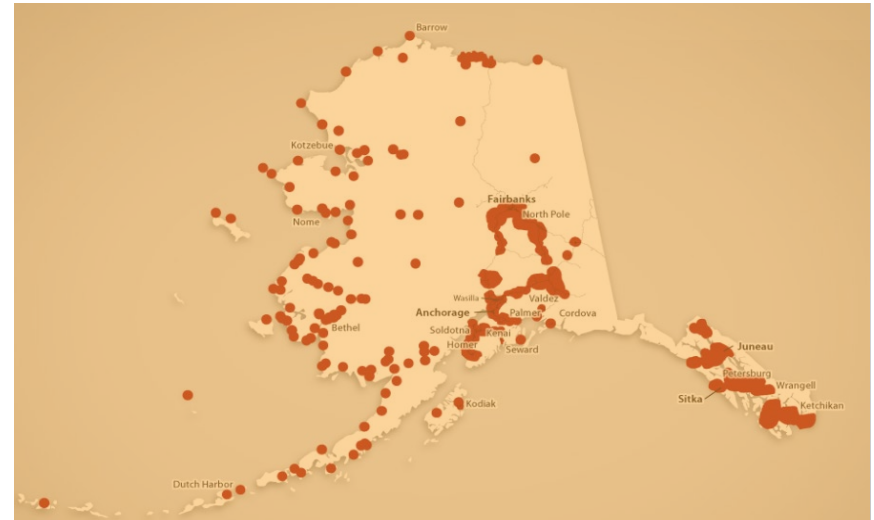
CELLULAR VS. IRIDIUM

- Today, cellular networks service ~5% of Alaska and surrounding waters. Iridium covers 100% of Alaska and off-shore areas with a network of 66 low-earth satellites.

 Cellular Networks



 Iridium Network



FIXED SATELLITE VS. IRIDIUM

- Iridium's mobile satellite services are complementary to geostationary fixed satellite services.

Fixed Satellite Services



- Requires fixed alignment with satellite for stable use
- Optimal for building connectivity
- Able to support highest data speeds for fixed (stationary) use
- Limited selection of communication terminals and services

Iridium Mobile Satellite Services



- Supports omni-directional alignment with satellite for mobile use
- Optimal for use on ships, planes, trucks, and on foot while moving
- Able to support highest mobile data speeds
- Largest variety of communication terminals and services

IRIDIUM MARKETS

- Today, Iridium offers a suite of mobility-focused communication products providing voice communications, tracking, and broadband access across several vertical markets.



Maritime



Broadband
> 704kbps IP Data



Tracking
> Short Burst Data



Voice
> SD and HQ quality



Land



Aviation



MARITIME



- Iridium's maritime products can be installed on commercial to provide voice and data communications off the Alaska shores.

Products

Broadband



Use Cases

- Internet access
- 3 voice lines
- All-weather design

Examples



Oil Rigs & Supply Ships

Tracking



- Vessel monitoring
- Catch reporting
- eLogbook ready

Vessel Communications



- Phone calling
- Email access
- GMDSS ready



Commercial Fishing

AVIATION



- Iridium's aviation products can be installed on commercial and recreational aircraft to provide voice and data communications to the Alaskan airspace.

Products

Push-to-Talk



Use Cases

- Safety communication
- Search & rescue
- Medical response

Examples



Helicopter Pilots

Tracking

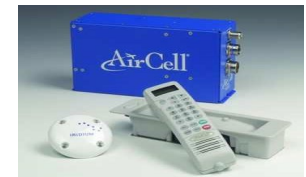


- Pilot safety
- Tracking / messaging
- SOS response



Bush Pilots

Flight Communications



- Phone calling
- Graphical weather
- Messaging / ATC



Business Jets



LAND



- Iridium's land products can be installed on buildings, vehicles, or hand-carried to provide voice and data communications throughout Alaska.

Products



Broadband



Use Cases

- 704kbps IP data
- Internet access
- 3 phone lines

Examples

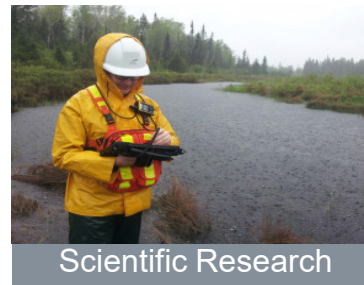


Remote Access

Personal Communications



- Lone worker safety
- Tracking / messaging
- SOS response



Scientific Research

Satellite Phones



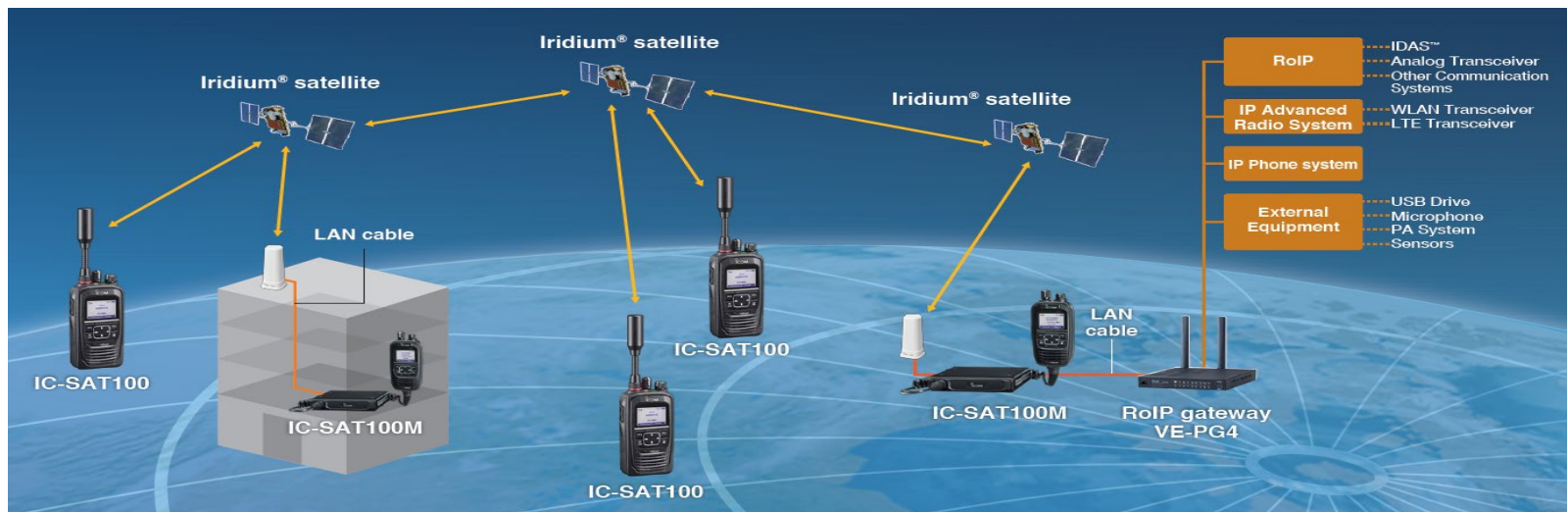
- Phone calling
- Text messaging
- SOS response



Mining Operations

LAND

- ICOM Push-to-Talk radios + interoperability gateway





TELECOMMUNICATIONS IN ALASKA'S ARTIC

- Rural Villages
 - Improved communication and safety for logistics, travel, distribution using Iridium mobile satellite services
 - Examples:
 - Satellite voice, tracking, SOS
- Economic Development
 - Access to mission-critical information and operational coordination to complete projects and deliver revenue faster and safer
 - Examples:
 - Broadband Internet, push-to-talk, conference calling, remote worker monitoring

Iridium is ready to connect Alaska today!



Thank You!