Hosting Payloads on Iridium NEXT

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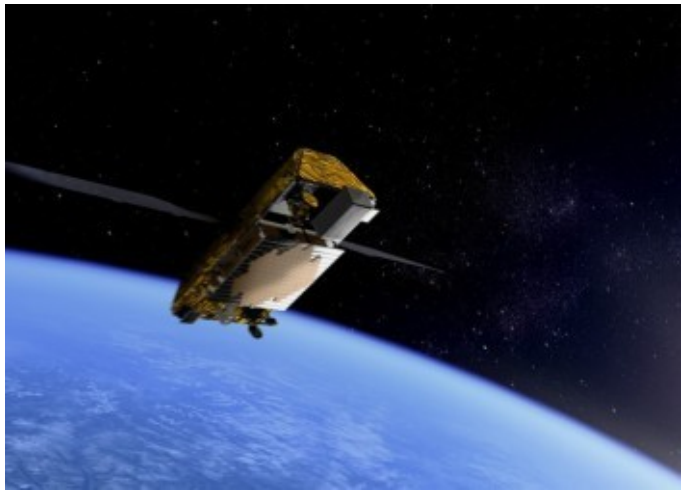
Focusing on the Future

Iridium NEXT — Unleashing the Power of Opportunity

Constantly innovating and expanding the possibilities.

- Comprehensive plan to replenish the Iridium constellation
- New 81 satellite constellation with launches expected beginning 2015
  - 66 operational satellites to replace current constellation
  - 6 in-orbit spare satellites, 9 ground spares
- Fully compatible with current constellation to simplify network transition and continuity
- Ground architecture upgrade plan in progress
- Space Exploration Technologies (SpaceX) as primary launch provider
- Iridium NEXT features:
  - Doubles current Iridium subscriber capacity for long term growth
  - Supports higher data speeds – enabling the most competitive price points in the industry
  - Capable of supporting future product enhancements – software upgradability
  - Designed for *hosting payloads* – in discussion with numerous potential candidates
  - Will maintain Iridium's unique architecture and its advantages



Iridium NEXT Specifications	
Constellation	66 satellites in 6 orbital planes
Orbits	Polar
Altitude	780 km
Inclination	86.4°
Orbital period	101 minutes
Expected Launch Window	2015-2017
Risk mitigation	Multiple in-orbit spares, redundant backup Earth station

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Iridium NEXT: Fully Funded

Coface, France's export credit agency, provided a 'Promise of Guarantee' committing to cover 95% of $1.8B facility

- As of August 4, syndication oversubscribed – documentation expected to be complete in September with close shortly thereafter
- Facility drawn down through 2017, only as capital is required
  - Repayment term commences in 2017 and runs through 2024, during which time Iridium expects revenues and cash flows to grow
  - With Iridium's growth and flexible drawdown terms, credit statistics are very manageable
- Hedge implemented to minimize exposure to foreign currency risk
  - Cost of hedge rolled into long-term financing at close
- Coface Guarantee is not conditioned on Iridium raising additional debt or equity

Hosted Payload Opportunity – Value Proposition

- **Unprecedented geospatial and temporal coverage** – 66 interconnected satellites with coverage over entire globe
- **Low latency** – Real-time relay of data to and from payloads in space
- **User control** – Data collection and payload access through Iridium infrastructure or private gateways transparent to user
- **Cost effective** – Access to space at a fraction of the cost of a dedicated mission
- **Exclusive** – No other opportunity like this is likely to become available in the coming decades

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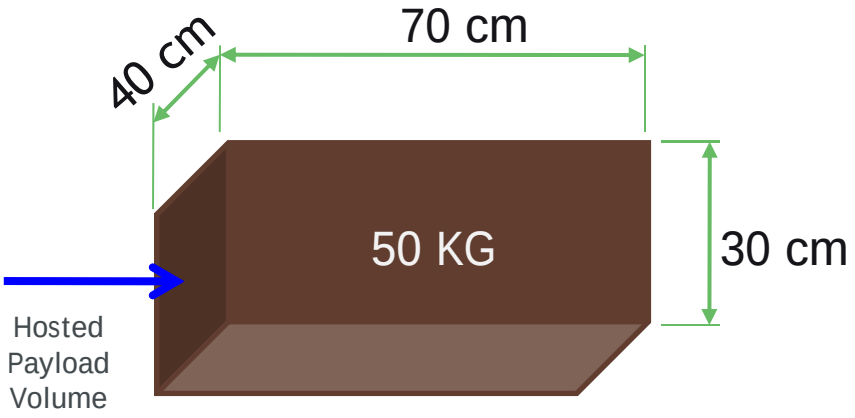
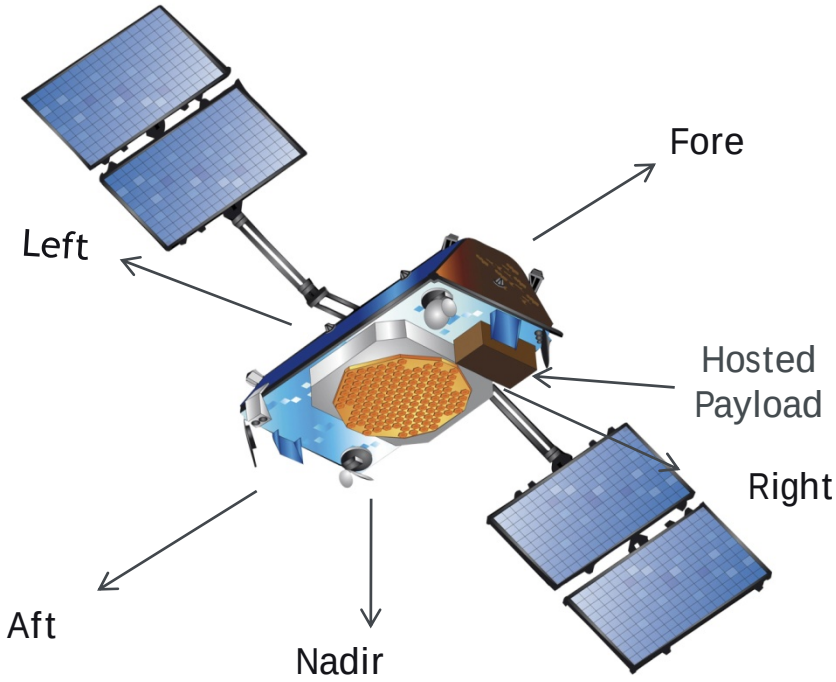
NEXT Hosted Payload Accommodation



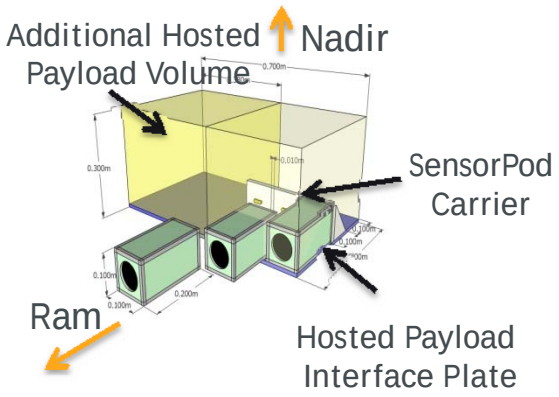
Iridium NEXT Hosted Payload Specifications	
Weight	50 kg
Payload Dimensions	30 x 40 x 70 cm
Payload Power	50 W average (200 W peak)
Payload Data Rate	<1 Mbps, Orbit average ~100Kbps

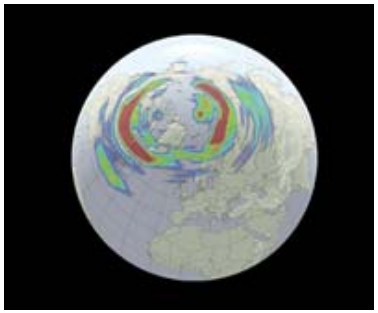


Iridium Satellite

Proposed Hosted Payload Missions

- Earth Observation, Atmosphere, and Climate
  - GPSRO, Altimetry, Ocean Color, Forest Fire, Earth Radiation Budget, Ozone Profile Monitoring, Solar Irradiance
- Space Weather and Space Situation Awareness
- AMPERE for Magnetosphere measurements
- Low Light Imaging, and cloud observations
- SensorPOD – Small payloads 1-5 Kg class in a 3U Cube volume, hosted on NEXT providing significantly more capabilities and longer mission life at low cost
- Aircraft Monitoring – ADS-B receiver for Next Generation ATC/ATM
- AIS for Maritime monitoring
- DoD Missions





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GPSRO Mission on NEXT - A Technical Overview

- **Multiple GPSRO sensors can be hosted on NEXT Satellites, one or two in each plane, with GPS/Galileo Radio Occultation (RO) measurement capability**
- **NEXT Constellation provides unprecedented temporal and spatial distribution of RO data**
- **Data is delivered in real time improving weather forecasting and modeling capabilities**
  - Unique cross-linked communication network provides ~2 seconds of delay in transmitting data from space to ground from any sensor
- **Data is collected over 99% of duration, providing over 14000 high quality occultation measurements per day for 12 sensor solution. The data can be available over 8-10 years provided GPSRO sensors continue to work**
  - RF interference between Iridium L-band and GPS L1 band demonstrated to be manageable
- **Bi-directional access to sensors in space**
  - Sensor can be commanded through Iridium network
- **Timely delivery of this capability starting in 2015**
  - Iridium has a NEXT launch schedule driven by its business needs

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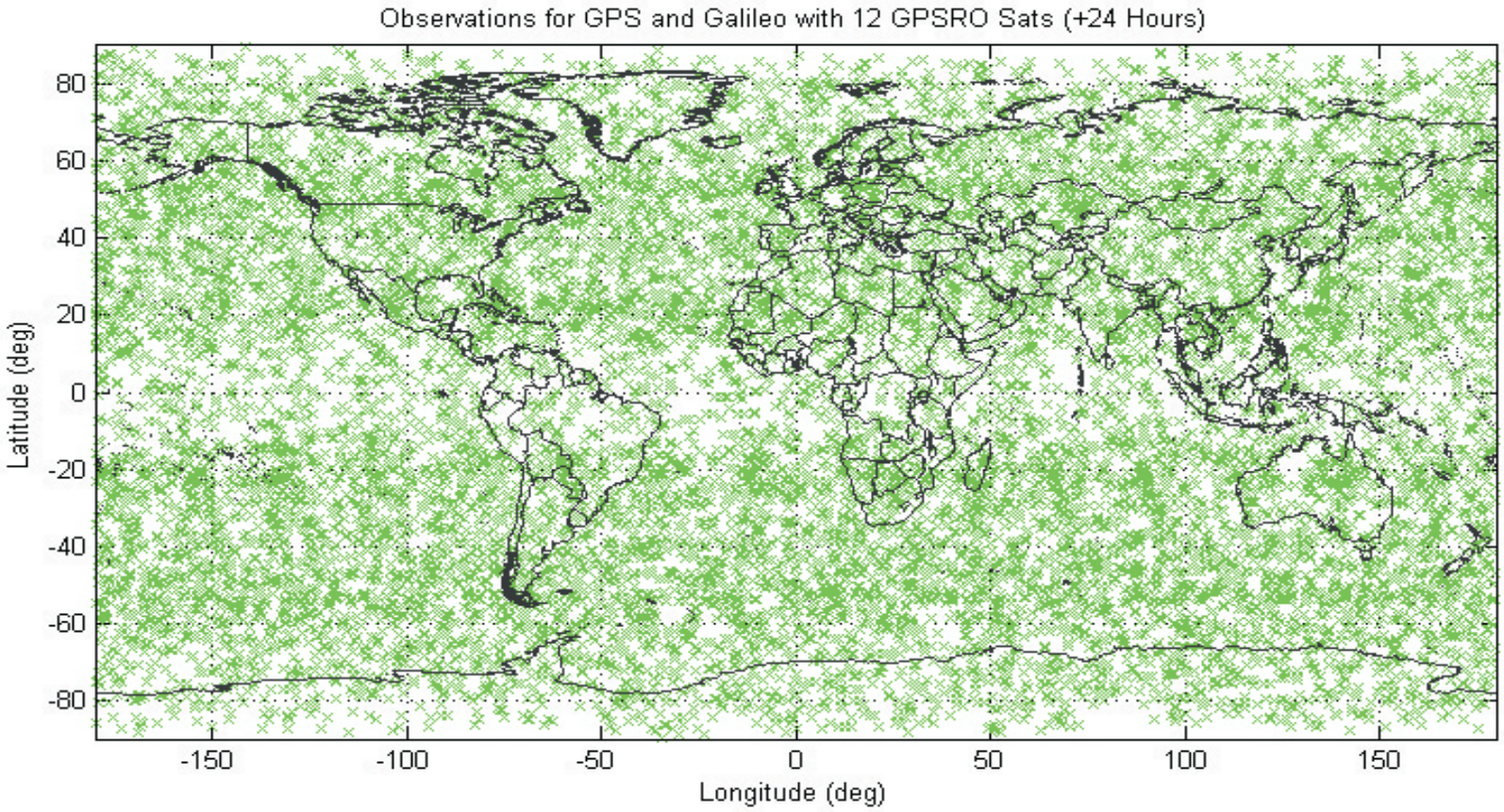
GPS Radio Occultation Data Distribution



12 sensors, Over 14000 samples per day

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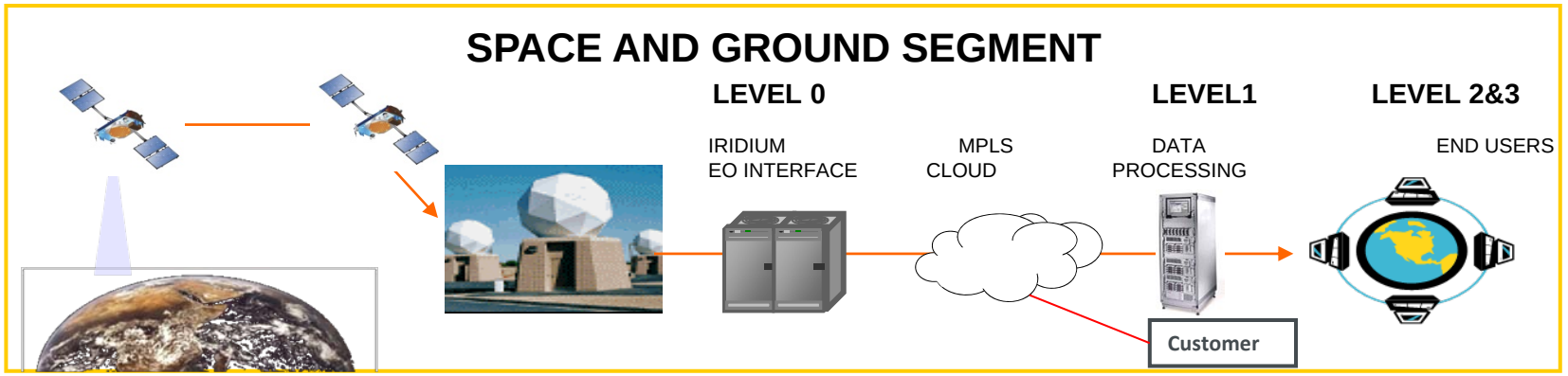
Technical Overview:

RO Interference Analysis

- **NEXT planned SV bus has certain inherent features on the SV structure and the GPS receivers have certain characteristics which help mitigate interference:**
  - High isolation from physical spacing between MMA and GPSRO antennas
  - GPS spread spectrum operation: inherently anti-jam
  - Broad band noise is the least effective of all jammers
  - Low MMA noise level from higher order inter-modulation products
- **Detailed analysis of potential RF interference issue between GPS L1 and Iridium L-band has demonstrated favorable results in comparing Iridium NEXT noise level to a success criteria**
  - Demonstrated that under worst operating conditions, this interference can be mitigated for > 99% of duration during operational phase of NEXT constellation from 2017 - 2025
  - <1% loss of GPSRO data during traffic peaks
- **A high level study of this issue on the Thales bus design for NEXT is on-going**
  - Demonstrating that similar or better performance can be expected on Thales bus
- **Work is under way to validate the new proposed GPSRO designs accommodation and RFI analysis in detail**

Ground Operations and Data Handling

- **Iridium Operations manages deployment and operation of the Iridium System**
  - Enables sensor command and data path to an MPLS cloud & has the capability to turn off the sensor to preserve the Iridium mission during emergencies
- **Customer manages sensor including:**
  - Sensor targeting and model updates
  - Updating software or firmware
  - Data stream management (pull or push from the MPLS cloud)
  - Anomaly resolution
- **Customer receives data stream from MPLS cloud**
- **End Users receive Level 2 and 3 data and provide feedback to Sensor Operations and Data Processing**



Key Milestones

Milestone	NEXT System	Hosted Payload
2010	NEXT Prime Contractor selection and Full Scale Development start	Hosted Payload Interface Specification available, Feasibility studies on potential HPLs, slot commitments accepted
Q1 2012	NEXT SV PDR	Continuation of feasibility studies, slot commitment acceptance of all types of HPL to ensure deployment with first launch
Q1 2013	NEXT SV CDR	Hosted Payload Interface Specification finalized, only compliant HPL commitments, slot commitment window closed
Q1 2014	System Development and SV Qualification	Hosted Payload delivery to Iridium, integration and qualification with SV to ensure first launch
Q1 2015	First NEXT Launch	Deployment of Hosted payload into orbit, turn on and check out, start of HPL operations and data flow
Q2 2017	Launch campaign complete	Completion of hosted payload deployment

Summary

- Iridium is a unique, time-tested, operationally-proven and secure interlinked LEO satellite system
- Development of the NEXT generation constellation in now underway to provide business continuity and enable enhanced MSS services
- Offering a unique capability to host payloads on NEXT to significantly enhance global Earth observation for remote sensing, weather and climate
- Hosting payloads on Iridium NEXT provides a low-cost option to deploy sensors into a LEO orbit on dependable commercial schedule

Time is running short on capitalizing on this unique opportunity for global Earth observations at a very small cost

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