



NSR

NORTHERN SKY RESEARCH

**The Leading Global Consultancy
in Satellite & Space**

2021

Industry Leading Market Research & Consulting Services for Satellite and Space Clients Around the World

Finance Industry

(PE, Bank, Funds, ECA, Debt)

Startups

EO and Data Analytics

Software/Hardware

ANY Aspect of Satellite/Space

MAXAR
TECHNOLOGIES

AIRBUS
DEFENCE & SPACE

ThalesAlenia
a Thales / Leonardo company
Space

Viasat

Gilat
TM

iDIRECT **HUGHES**

Manufacturers/Ground/Launch

Clients Across the Value-Chain

INTELSAT
Envision. Connect. Transform.

iridium

eutelsat

OneWeb
ACCESS FOR EVERYONE

SES
your satellite company

inmarsat

Satellite Operators

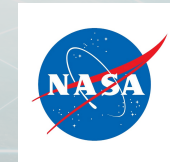
speedcast

Panasonic

RigNet

MARLINK

Service Providers



IDAHO POWER
An IDACORP Company

UNITED

Copa Airlines

End-Users

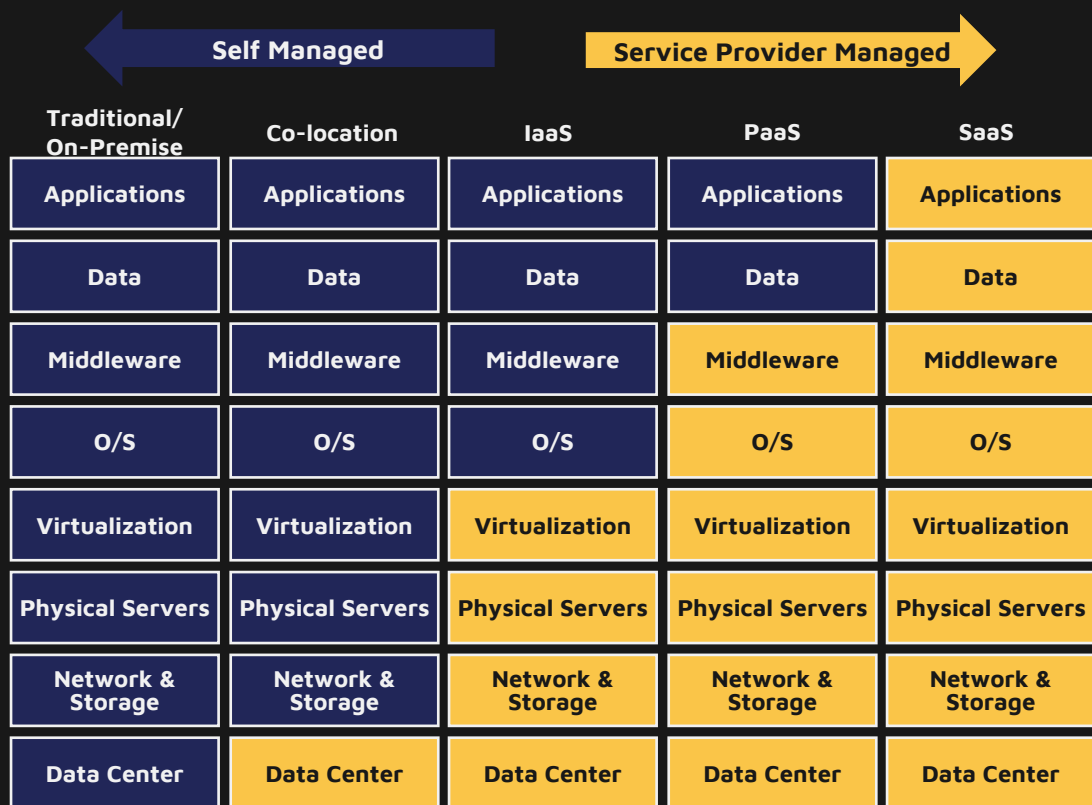
January 2021

Cloud: A Foundational Shift

Satellites and the Cloud

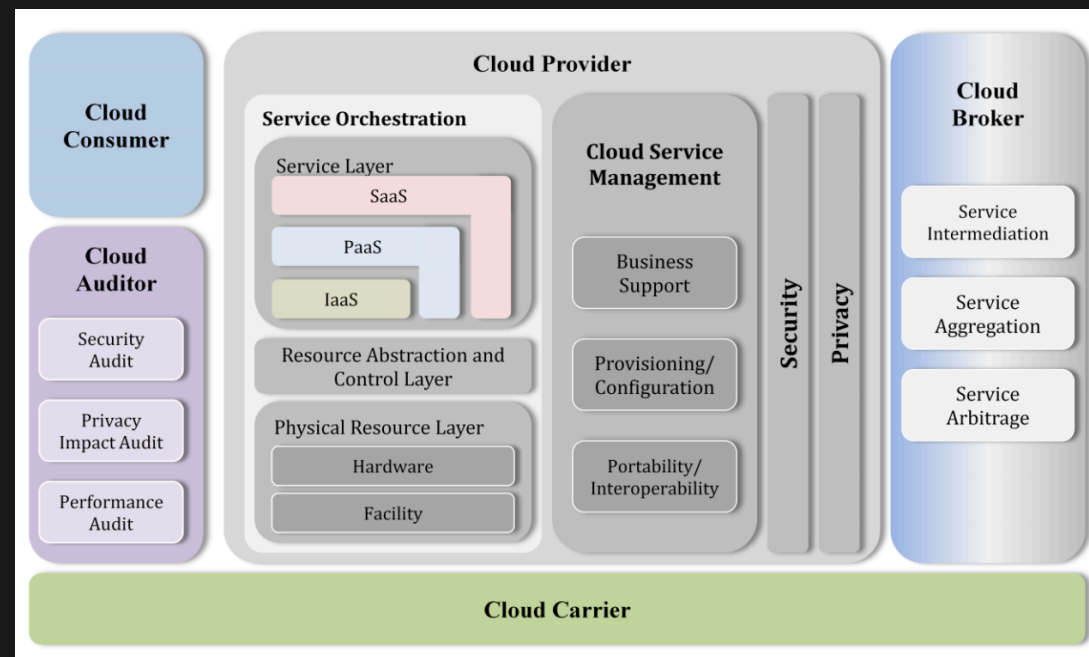


An Industry in Transition



Source: NSR

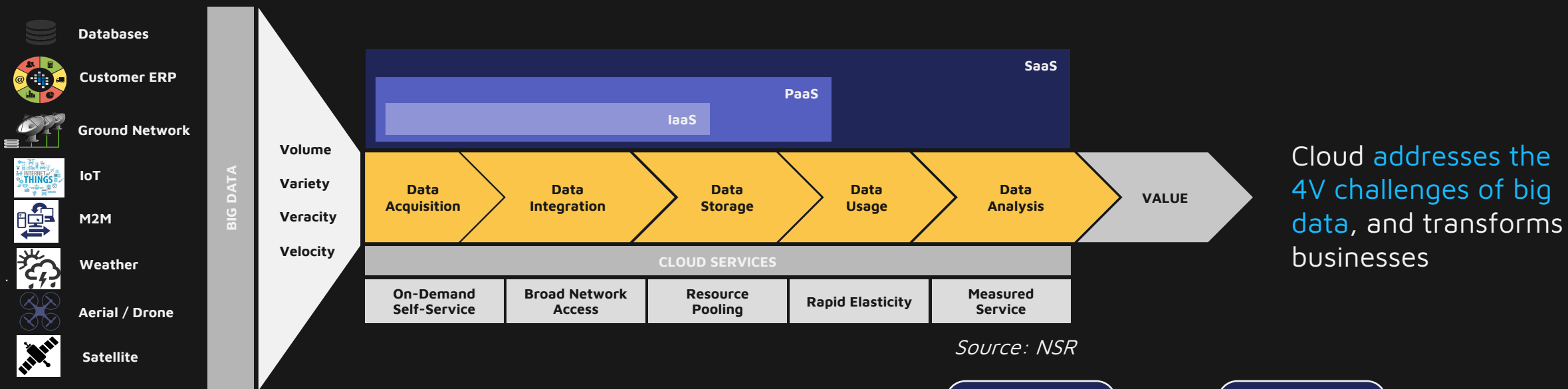
A paradigm shift is underway



Source: NIST

Cloud will be a critical component that ensures satellite players remain **competitive**

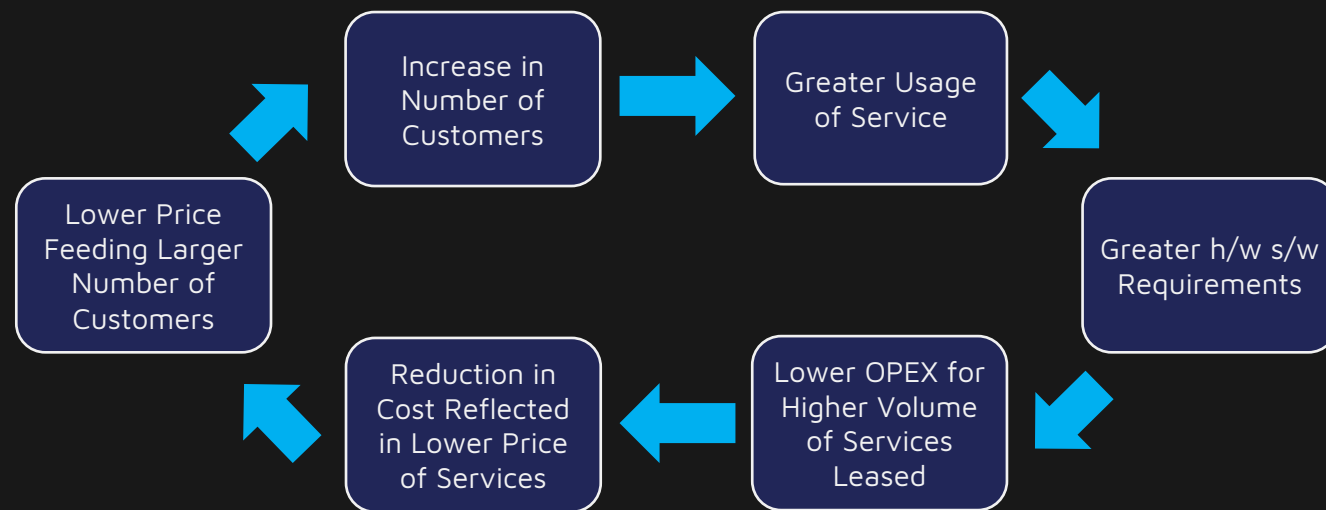
Cloud is a Satellite (Big Data) Enabler



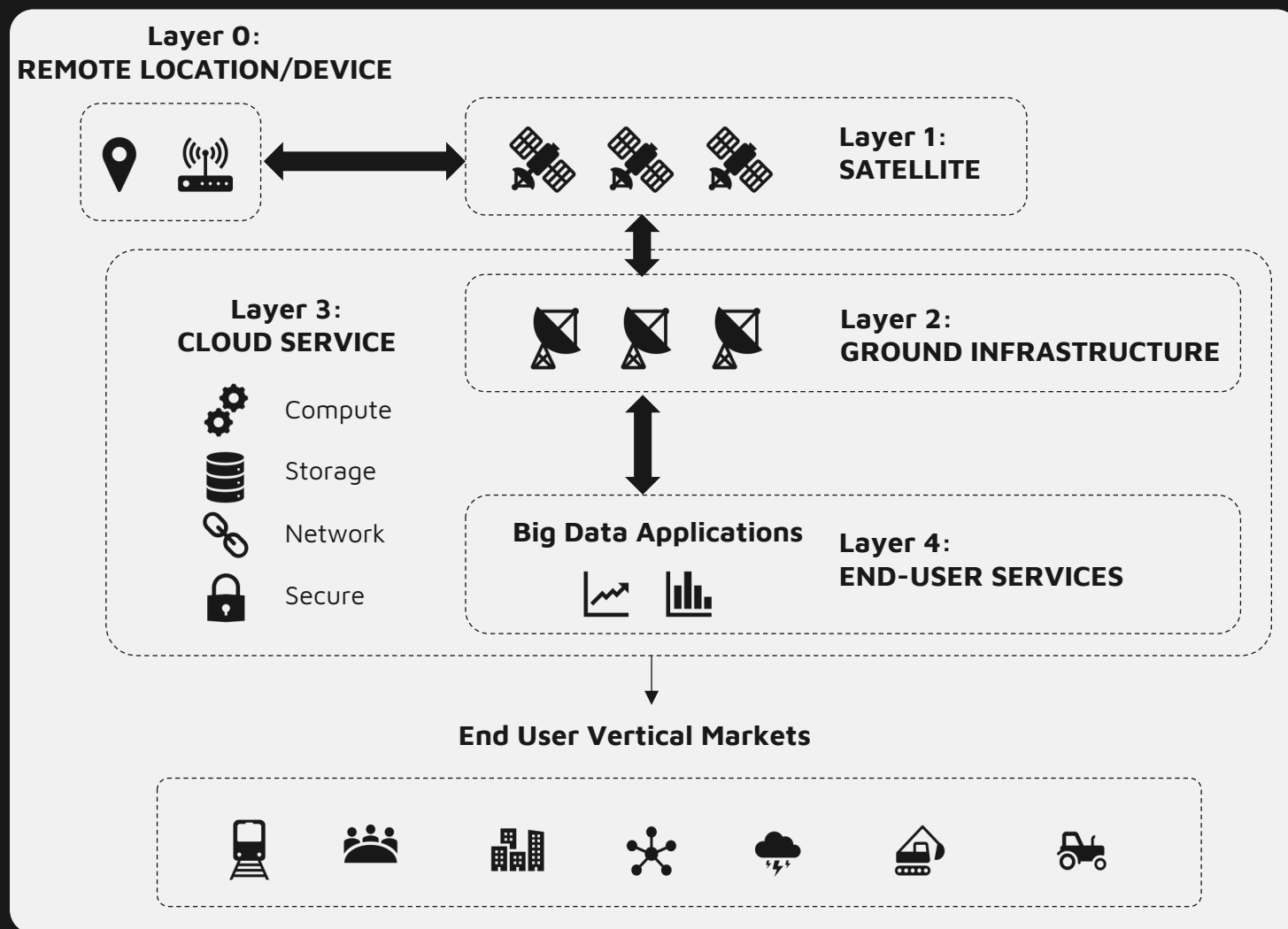
Source: NSR

Cloud adoption brings multiple benefits:

- Reduces **barriers of entry** to market
- Shift from **CAPEX** to **OPEX**
- Improves efficiencies and **ease of development**
- Promotes **industry cooperation**



Digitization across the Satellite Value Chain



Source: NSR

Digitization is less about blanket cloud adoption and is more a **strategic imperative**:

- Business agility
- IT flexibility

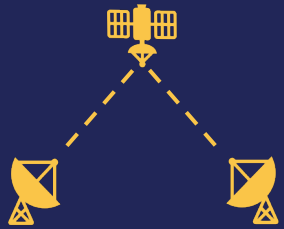
Cloud solutions blur demarcations in the traditional satellite value chain, **effectively decoupling satellite hardware and software**.



Visit www.nsr.com for more details

Applications are Wide Ranging

SATCOM



- Maritime
- Aero
- Onshore Energy
- Banking/retail
- GovMil

DATA DOWNLINK



- EO
- Science
- Others

GEOSPATIAL SOLUTIONS

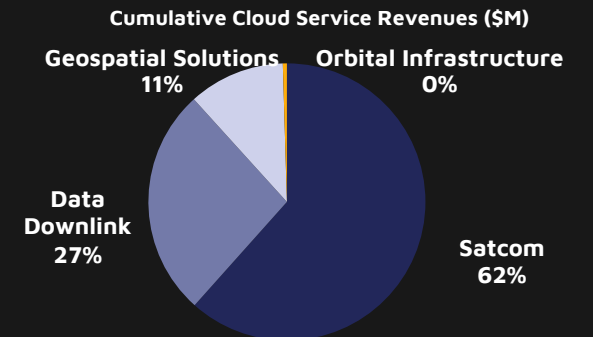
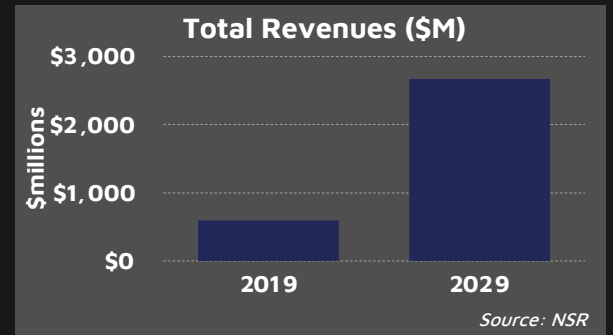
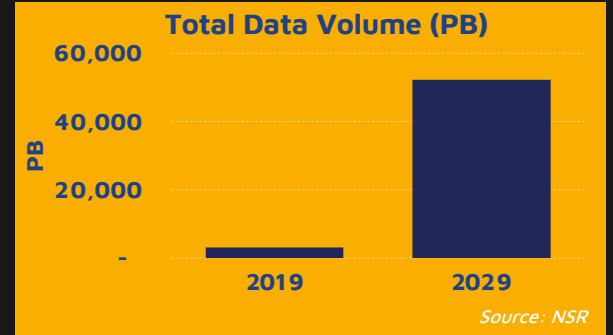


- EO
- M2M/IoT
- ...

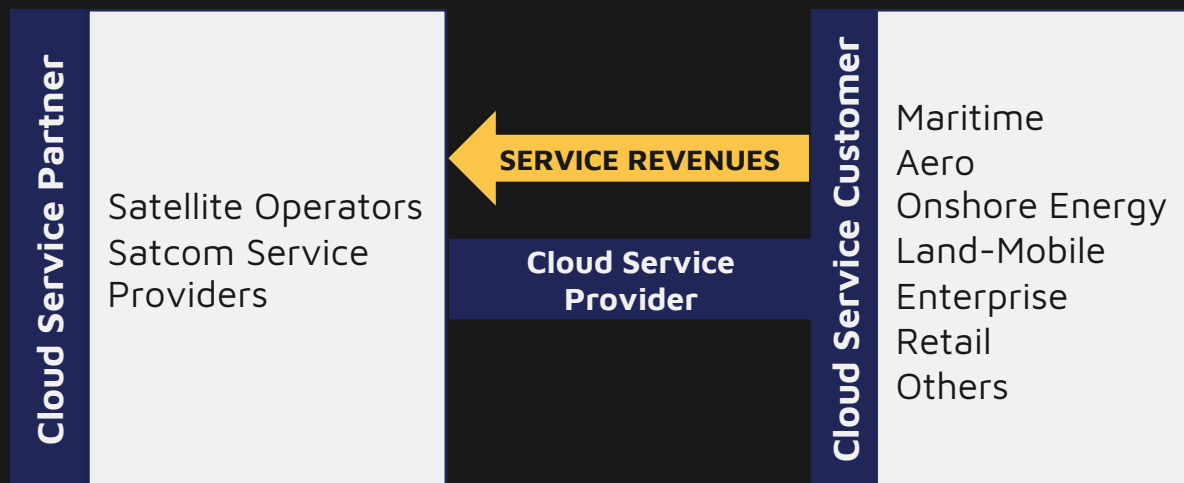
ORBITAL INFRASTRUCTURE



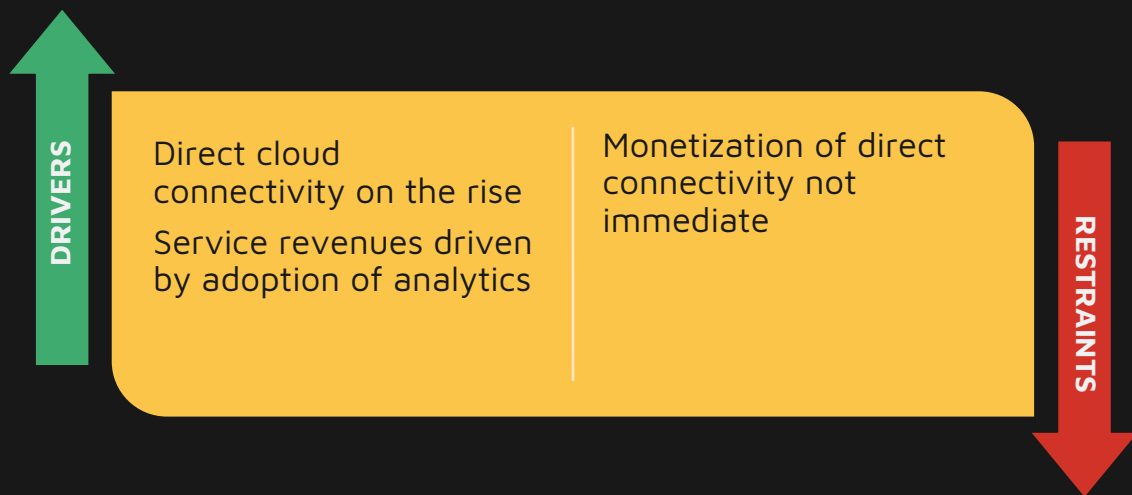
- Storage
- (Edge) Compute
- ...



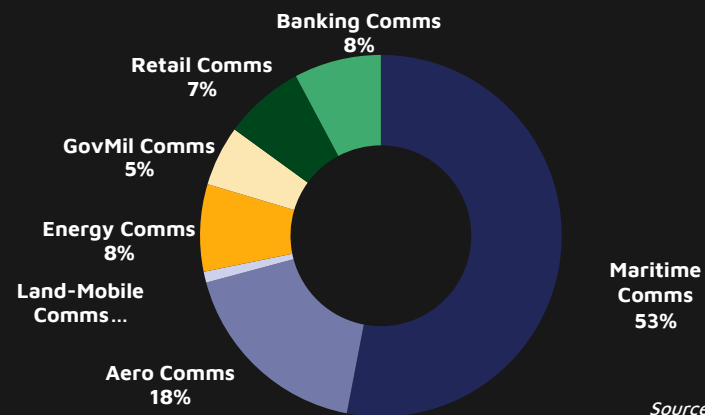
Satellite Communications is Where it Rains



- **191 EB data** traffic expected through the next ten years, growing at a CAGR of ~33.5%
- **\$9.8 billion** in service revenues during 2019-2029

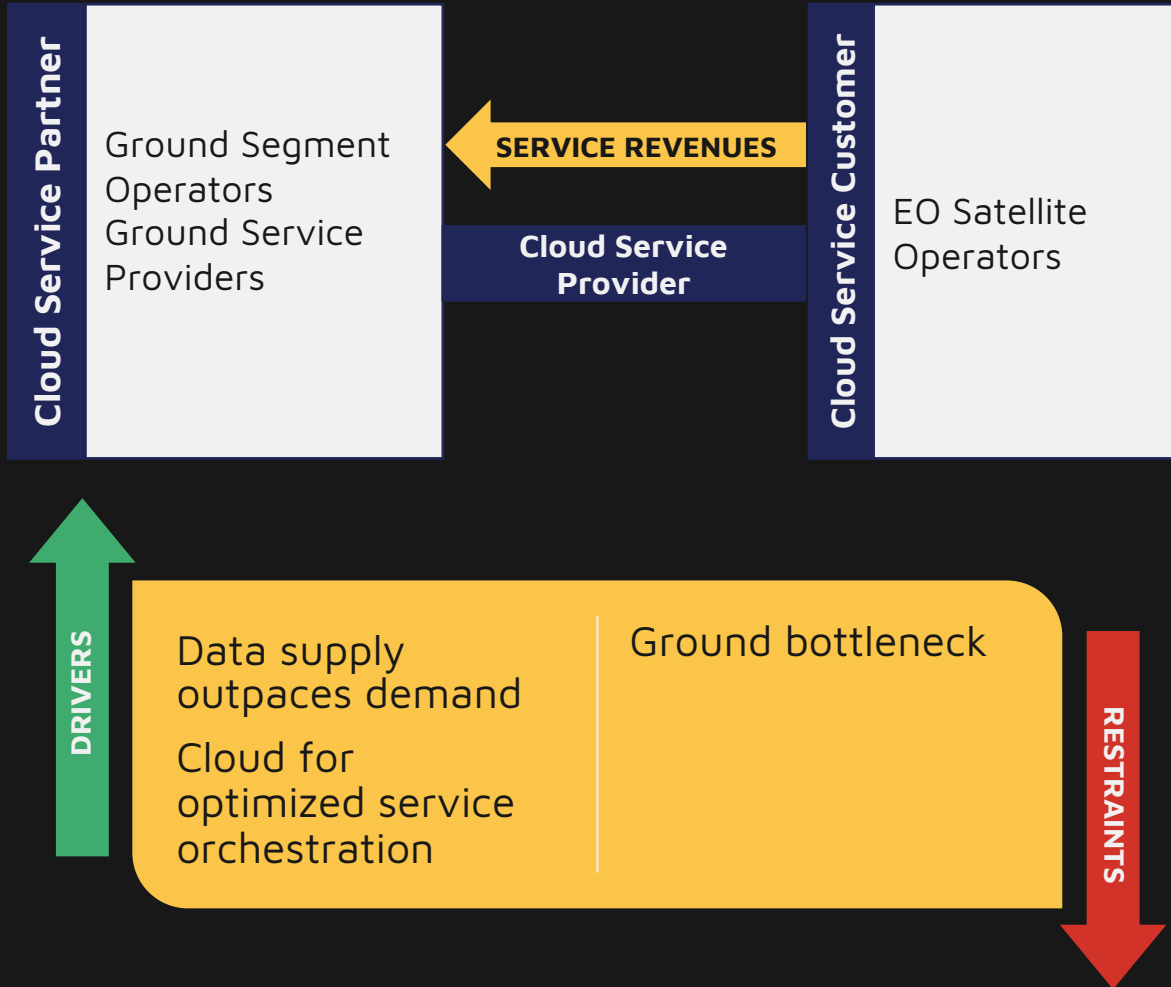


Cumulative SatCom Cloud Service Revenues, 2019 - 2029

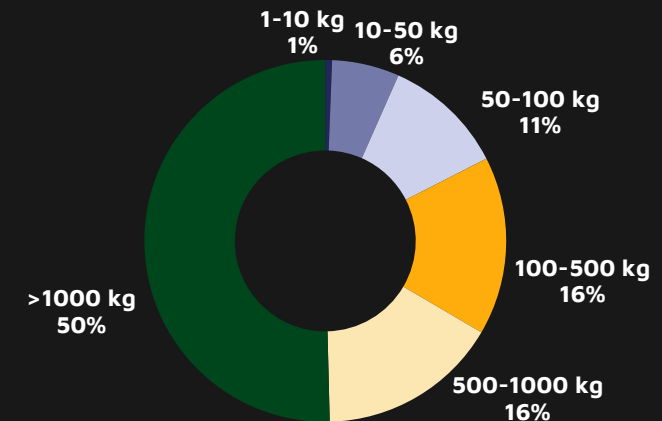


Data Downlink: EO Building Steam

- Nearly 500 PB EO data downlinked to cloud infrastructure over next 10 years
- Cloud-enabled services and virtual ground stations drive revenues of \$4.2 billion during 2019-2029

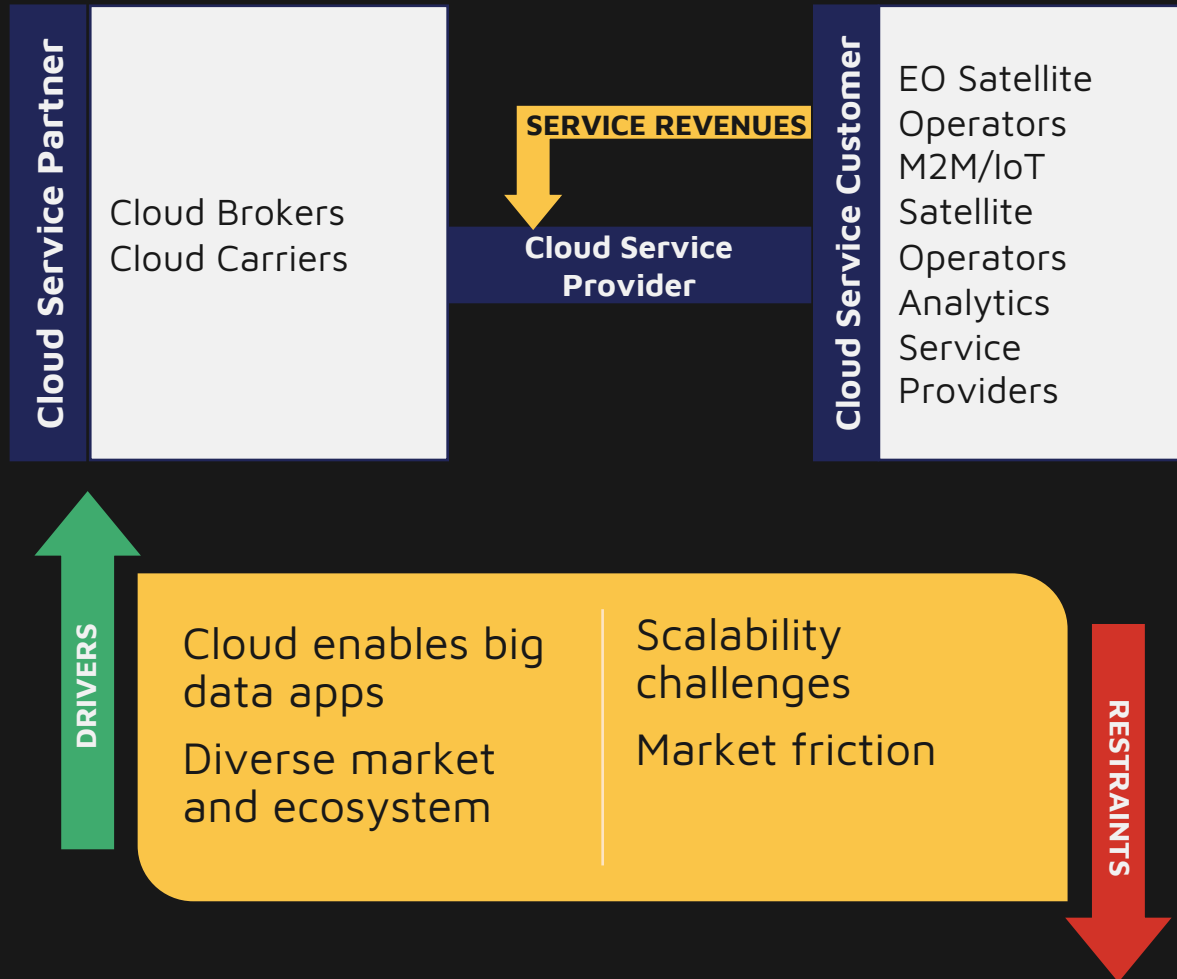


Satellite Cloud Service Revenues: Data Downlink, by Satellite Mass Category



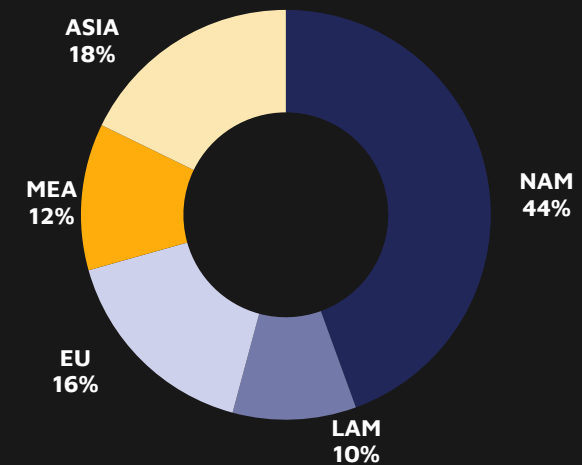
Source: NSR

Geospatial Solutions: By the Buckets



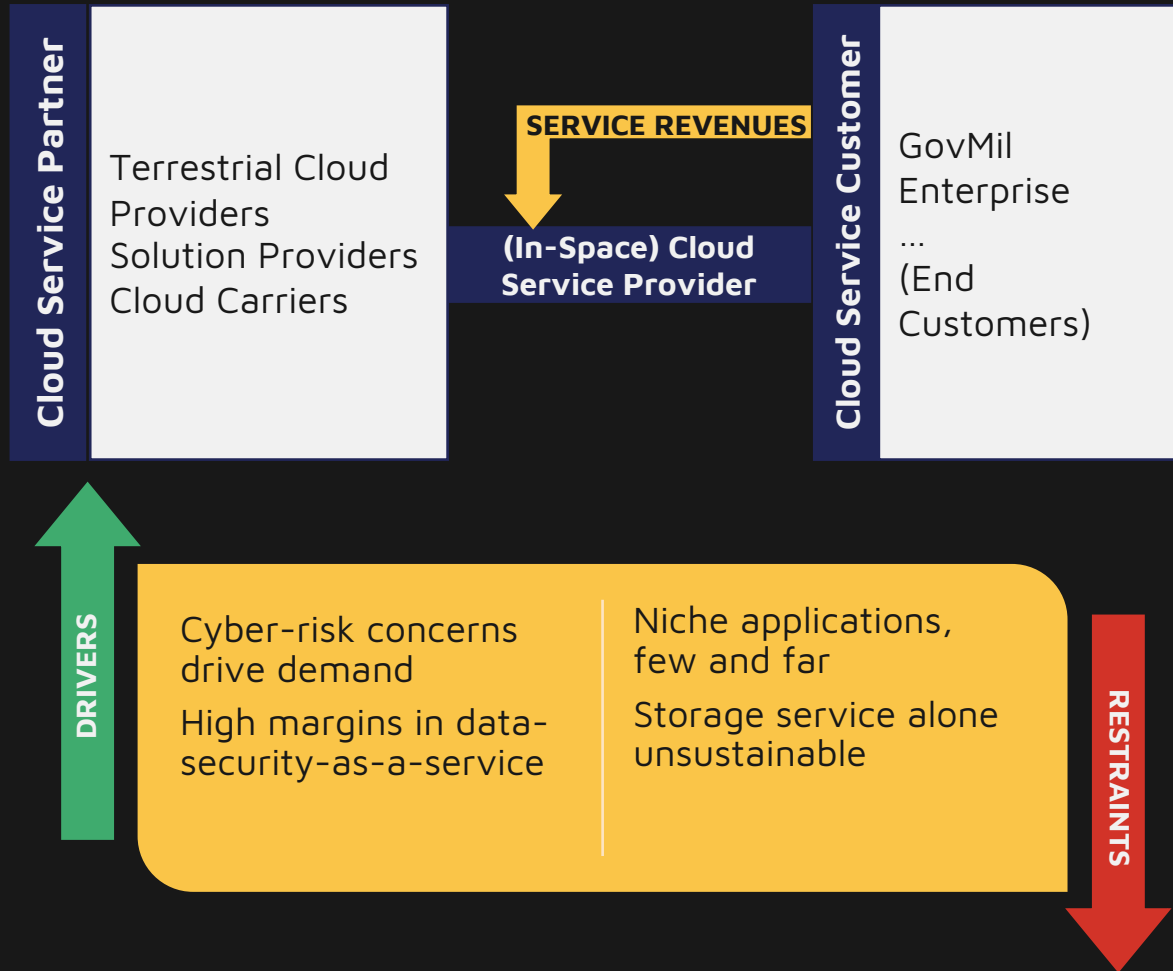
- Leverage cloud for development of applications and platforms for satellite data end users
- Cloud service revenues forecast to **cumulatively approach \$1.8 billion** through next decade

**Satellite Cloud Service Revenues:
Geospatial Solutions, by Region**

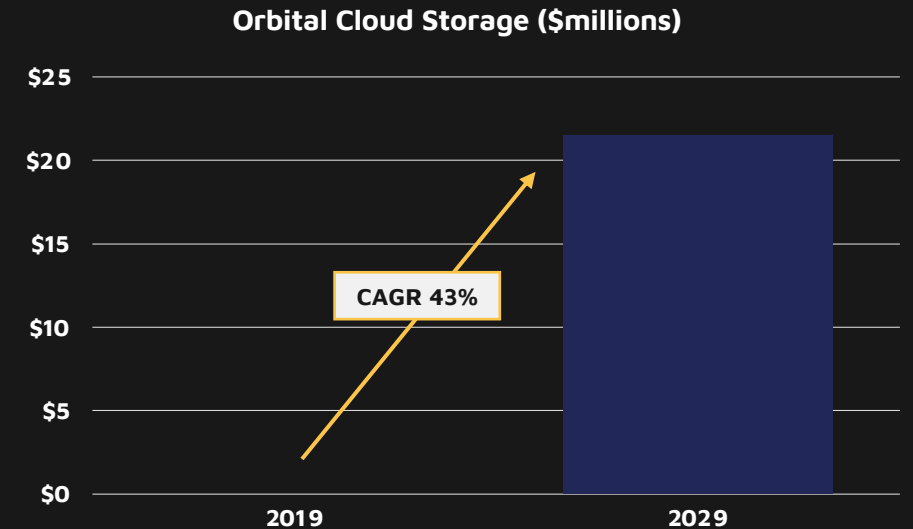


Source: NSR

Orbital Infrastructure: Early Years



- Corporations willing to pay **high premiums for secured cloud services**
- Forecast to **generate \$76M for storage alone** over the next 10 years



Source: NSR

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