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Space cloud computing growth opportunities: market perspective

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Market overview

Key trends and growth opportunities

Recommendations

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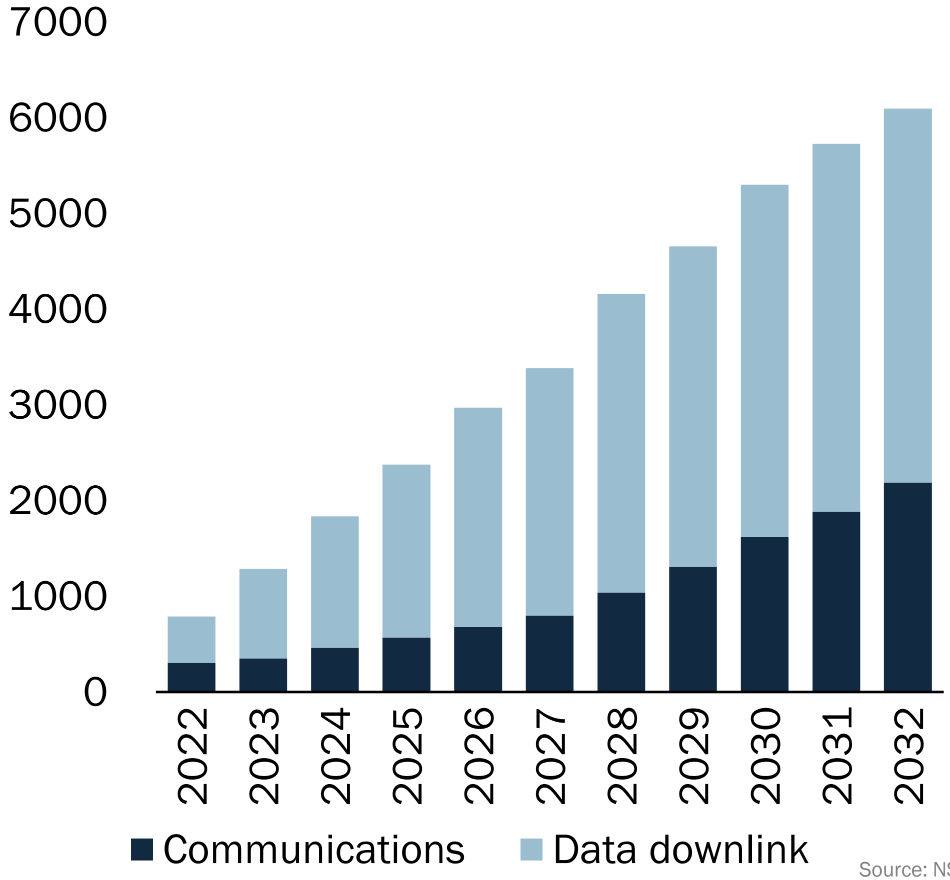
Data downlink will be a major driver of space cloud computing revenue

- NSR forecasts space cloud computing to generate USD38.6 billion in revenue over the next decade, driven by high data transport costs per GB and an expanding data downlink market.
- Revenue for many satellite communications and EO operators is growing, particularly from the SME market segment, due to the shift from capex to opex on cloud services.
- Advances in digitisation, ground segment virtualisation, coupled with the increased involvement of larger cloud service providers (CSPs), is leading to wider cloud adoption for satellite communications.

Forecast revenue for space cloud computing (USD million), worldwide, 2022–2032



Source: NSR

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Tailored solutions are needed for space cloud computing

Opportunities

- Revenue growth among SMEs is due to a shift from capex to opex
- Cloud and edge computing deployments are driving the need for higher data quality and faster data delivery
- Virtualisation of the ground segment and software-defined networks
- Hyperscalers are increasingly focused on space applications, both upstream and downstream

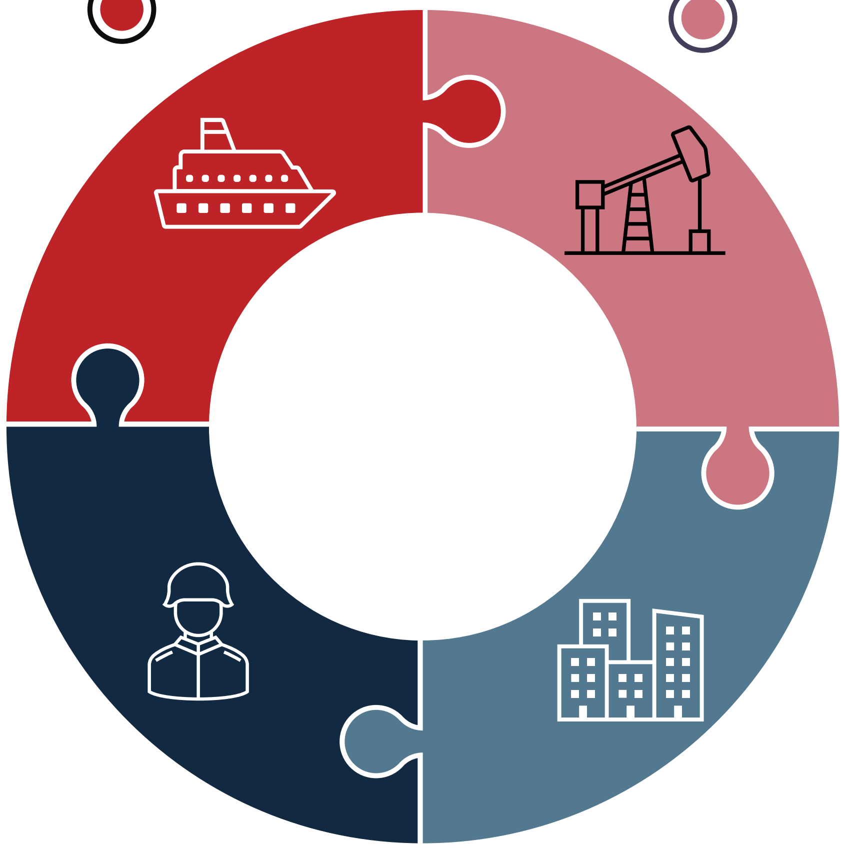
Challenges

- Hardware is more of a focus than software when developing solutions for EO
- Space and ground remain forgotten links and rate of development of ground segment is slower
- Limited understanding of the specific needs of satcom operators
- The lack of cloud expertise in the space industry limits rates of adoption of space cloud computing

Mobility applications are the main drivers of the satcom markets for space cloud computing

Mobility

- CSP partnerships drive adoption across maritime, aero and land mobile segments.



- Government/military segment has been slower than commercial segments to adopt public cloud infrastructures due to data sovereignty and security concerns

Government/military

Energy

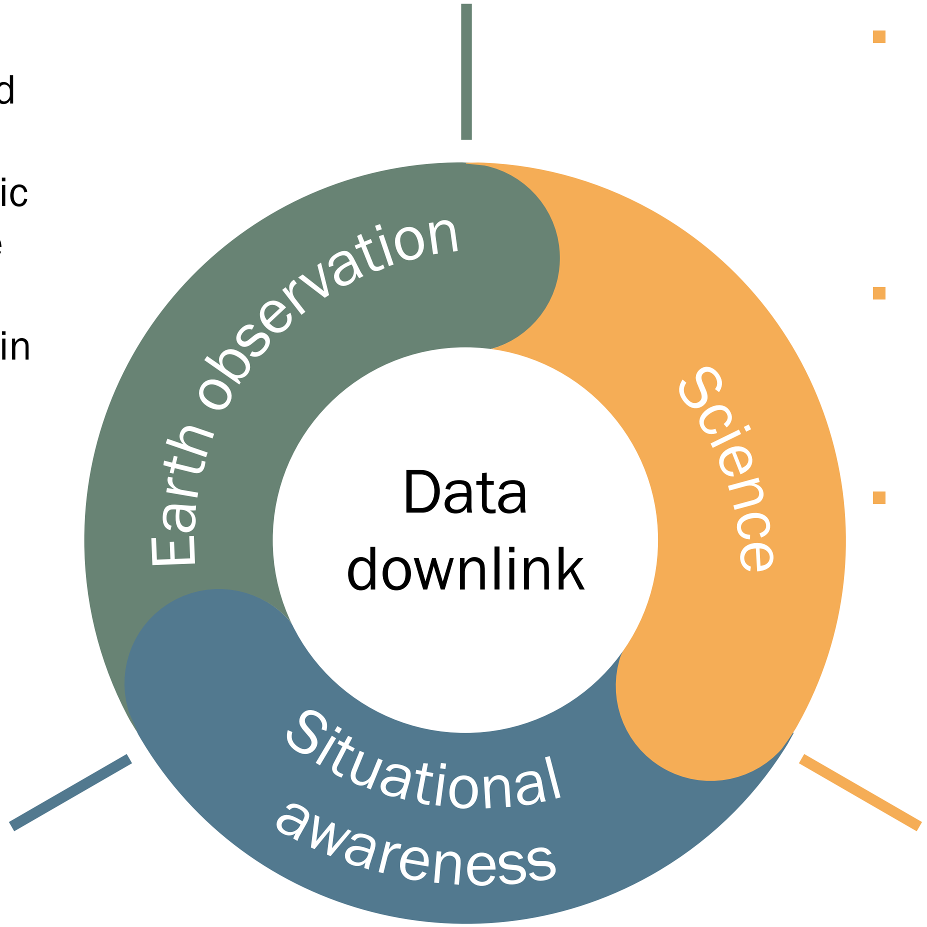
- Value-added applications and digitization strategies are supporting increased adoption, which is leading to higher volumes of cloud data traffic for the mining, utilities, oil and gas segments

- Includes retail/hospitality and BFSI segments, where satcom is used as backup connectivity or to connect remote sites

Enterprise

Larger constellation launches, a higher revisit frequency and higher resolution are increasing the data downlink volumes for cloud services

- More constellations, higher resolution and revisit frequency increasing data traffic volumes and service revenue
- Investment by CSPs in downlink solutions
- Increasing ground station-as-a-service (GaaS) and CSP partnerships



- Science data downlink to be dominated by missions for the government/military segment
- Interplanetary missions to the Moon (NASA's Artemis program), Mars, Venus and beyond
- Fewer commercial organizations are investing in experiments, payloads, rockets and ground equipment.

- Need for time-sensitive data and higher-resolution imagery
- Increasing need to monitor maritime borders, threat monitoring and asset tracking

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Satcom operators should increase the level of cloud integration for their network operations and their customers.

CSPs need to target the data downlink opportunity, which is the largest driver of demand, and offer tailored solutions to satellite operators.

Satcom operators and CSPs should collaborate to develop integrated, high-performance solutions and enable new service offerings for seamless global connectivity.

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- Telecoms Strategy and Forecast
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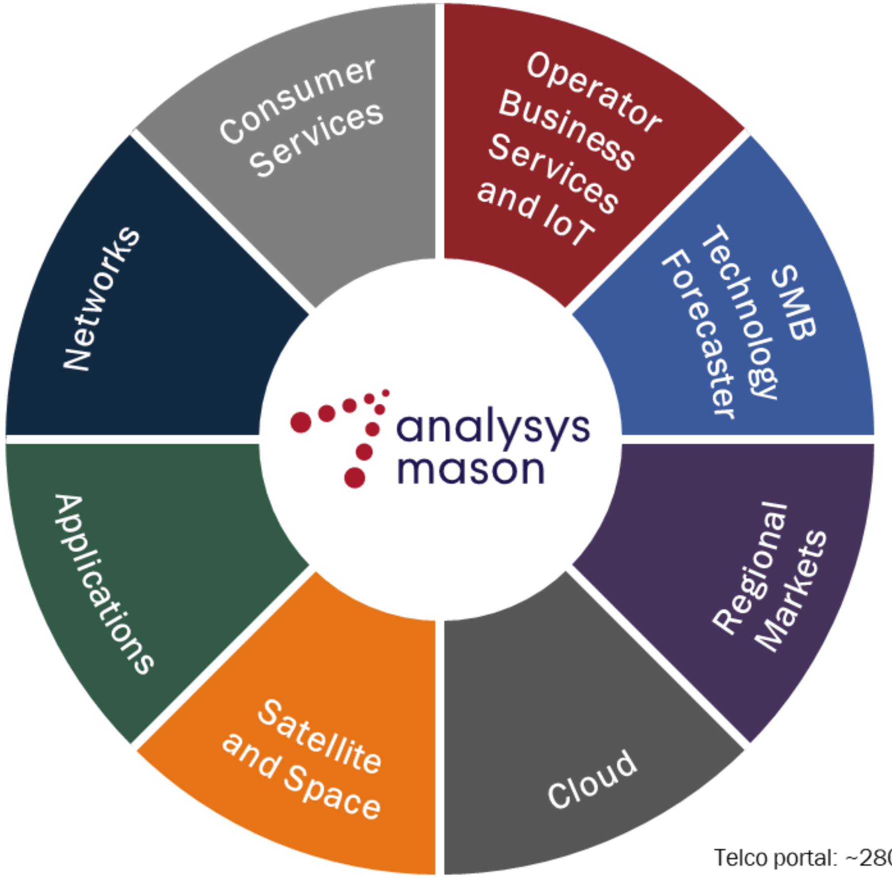
Applications
- Network Automation and Orchestration
- Customer Engagement
- Monetisation Platforms
- Digital Experience
- Automated Assurance
- Service Design and Orchestration
- Telecoms Software Market Shares

Satellite and Space
- Satellite Strategies for Telcos
- Satellite Capacity
- Satellite Infrastructure
- Satellite Mobility



Operator Business Services and IoT
- Enterprise Services
- SME Services
- IoT Services
- Private Networks
- Cyber Security

SMB Technology Forecaster

Regional Markets
- Global Telecoms Data and Financial KPIs
- Americas
- Asia–Pacific
- Middle East and Africa
- European Core Forecasts
- European Telecoms Market Matrix
- European Country Reports

Cloud
- Cloud Infrastructure Strategies
- Data, AI and Development Platforms
- Edge and Media Platforms
- Multi-Cloud Networking

DataHub
- Forecast data for 80 countries
- Telco portal: ~2800 forecast and ~320 historical metrics
- SMB Technology Forecaster portal: ~120 000 forecast metrics

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- Business unit strategy
- Infrastructure strategy

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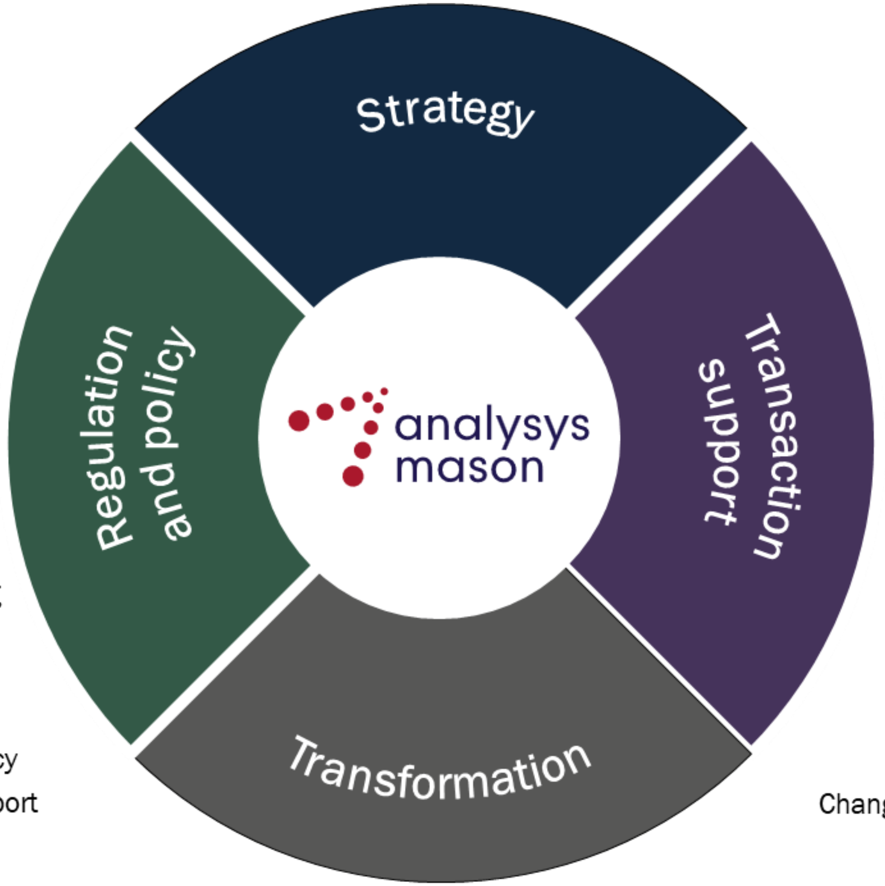
- Accelerating digital transformation of society
- Price controls and cost modelling
- Regulatory accounting
- Regulatory benchmarking and analysis
- Spectrum management and policy
- Expert witness and litigation support
- Postal regulation and policy



Transaction support

- Commercial due diligence and market review
- Technical due diligence
- Post-merger integration
- Periodical business monitoring and loan technical advisory
- Opportunity scouting and pre-deal support

Transformation

- Business transformation
- Digitalisation
- Operational excellence
- Data, BI, steering and insights
- Change and programme management
- Sustainability

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