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Opportunities in the Emerging Direct Satellite-to-Device Market

October 2022

5G as a Key Enabler

Source
NSR's 5G via Satellite, 3rd Edition

	5G NR (Access Network)	5G Core (Network Management)
What?	Standard for terminals to communicate with Base Stations	Orchestration of network infrastructure
Why is it Important?	Inclusion of Non-Terrestrial Defines new performance requirements Unlocks new families of applications	Inclusion of non-3GPP Access technologies Service-Based (Slicing) Inclusion of key technologies: SDN/NFV, Cloud, etc.
Opportunity	Satellite-mainstream device direct link Re-defining customer expectations Participate in new use cases	Make satellite transparent for any CSP Adopt 3GPP tools for network management

Source: NSR's 5G via Satellite, 3rd Edition report

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NSR's 5G via Satellite, 3rd Edition

Who Is In This Race?

	Using MNOs' Spectrum			Using MSS Spectrum	
Players	Lynk	AST SpaceMobile	Starlink	Globalstar Iridium	Inmarsat Omnispace
Backward handset compatibility & chipset availability	✓			✗	
Tech challenge & performance	✗			✓	
Regulatory and spectrum	✗			✓	

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How large is the opportunity for Direct Satellite-to-Device market?

Minimal Consumer Adoption Barriers

- Cost of the terminal
- Convenience

374M
Average monthly users by 2031

- **Use cases:**
  - Subs out of coverage
  - IoT, Enterprise
  - First Responders, Gov/Mil

Satellite Mass Market Sales Channels

- Billions of subscribers at reach

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The Largest Opportunity in Satcom's History

Source
NSR's 5G via Satellite, 3rd Edition

2-4 Mbps per cell
(100s Km cell)

No match for VSAT links

No cannibalization risk

$93.1B
10Y Cumulative Revs

Ignoring the opportunity is not an option!

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