SPACE ENABLED PRIVATE 5G

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Private 5G Network
What and Why?

Public Network
- Owned by network operator
- Accessible to public

Private 5G network
- Dedicated cellular network owned by organization
- Most used technology for enterprise replacing Wi-Fi or 4G LTE

Why does Private 5G Matter? Enabler for Digital Transformation
- Network superiority- Security, Mobility, Network control and Capacity
- New revenue streams - new use cases and mission critical apps.
- 22% Lower Cost/ Sqft coverage than alternate technologies like Wi-Fi .

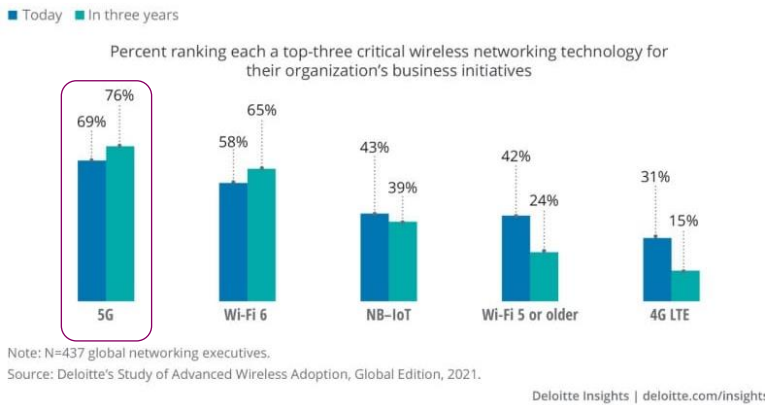
Source: Ericsson Internal Studies

Space enabled Private 5G : ubiquitous and reliable connectivity across large geographies.

Private 5G + Edge Compute O3b mPOWER = $$$$ Premium Connectivity

Coverage | Performance | Customized | Reliability | Security | Revenue Stream

Top Network technologies for organizations:

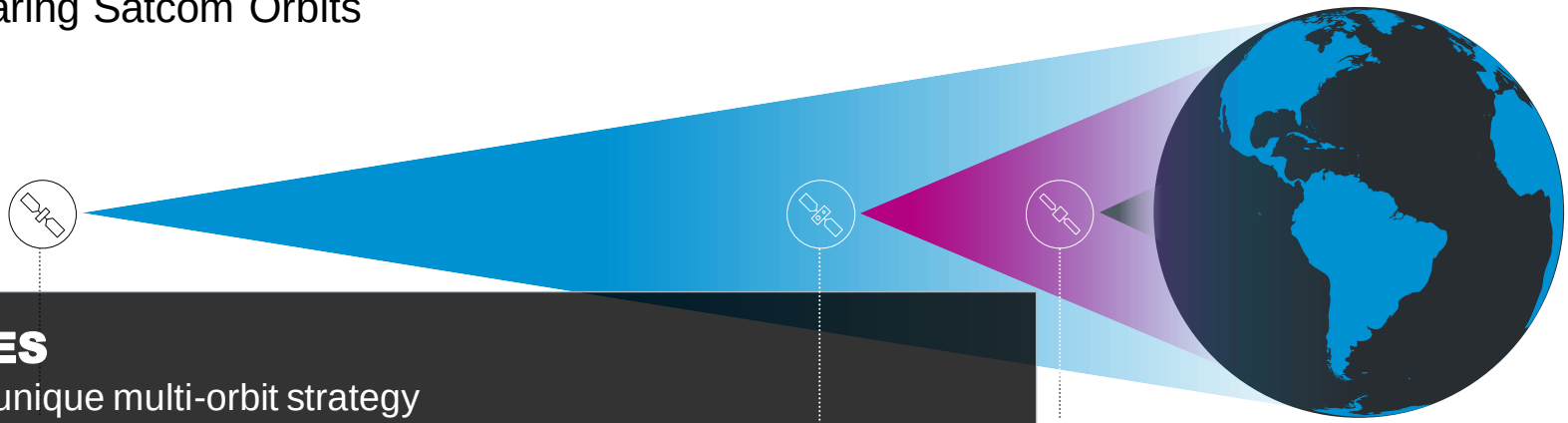


Space Enabled
Digital Transformation

Space enabled Digital Transformation

- **Satellite link –** GEO,MEO or LEO
- **Enabling Technologies-** Private 5g, IOT AI/ML, cloud computing, Virtual network functions, Edge computing
- **Business Outcomes** – Mining, Energy, Government, Maritime, Oil & Gas, Public safety

Multi-Orbit
Comparing Satcom Orbits



SES

A unique multi-orbit strategy

GEO	MEO	LEO
36,000km	~ 8,000km	~ 1,000km
E.g., Wideband global system	E.g., O3b mPOWER	E.g., Starlink
Broad coverage—3 satellites	Extended reach—6 satellites, scalable	Limited view—hundreds of satellites
High latency—operationally simple	Low latency—operationally simple	Low latency—operationally complex
Expansive coverage	High throughput, high flexibility, high performance	Low, contended bandwidth, requires operator's nearest gateway

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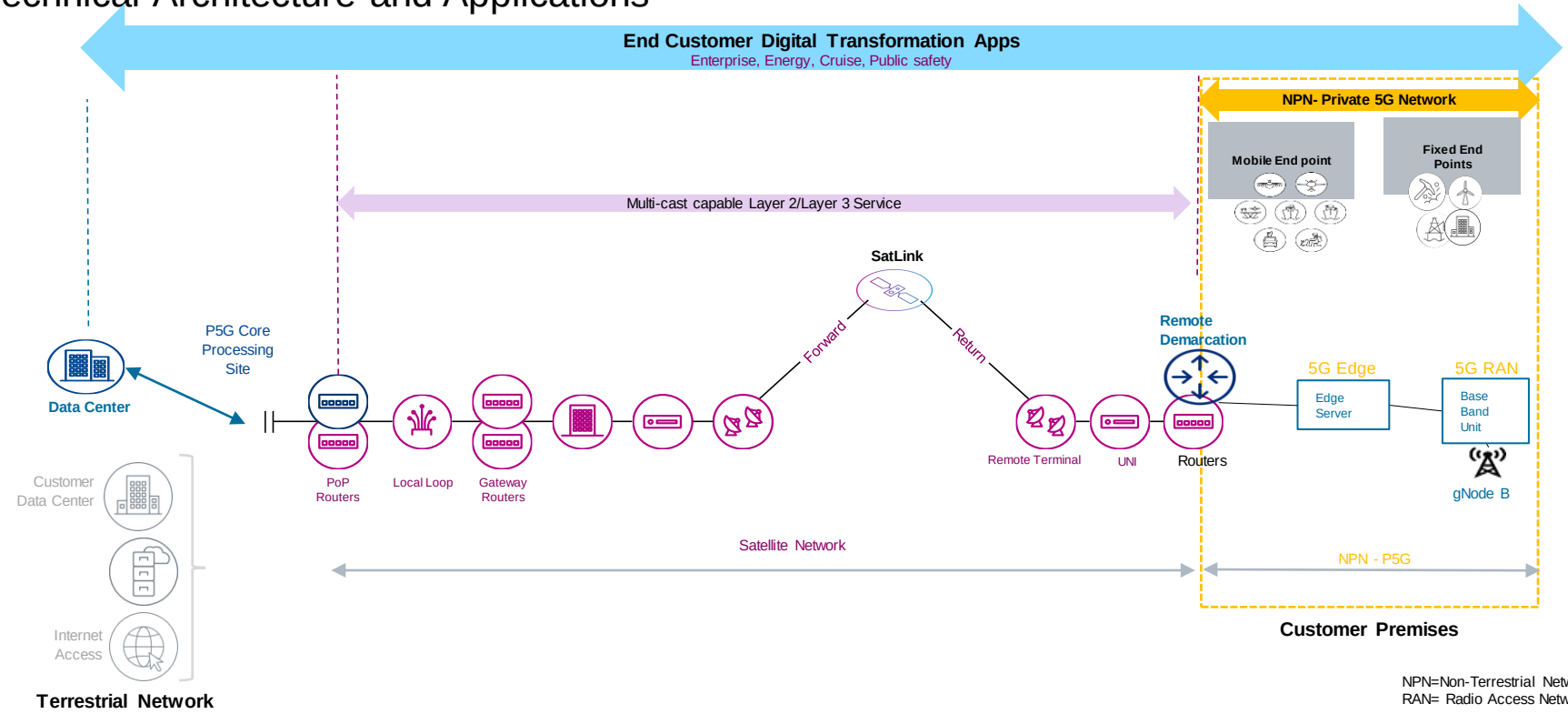
Technical Architecture and Applications



NPN=Non-Terrestrial Network
RAN= Radio Access Network

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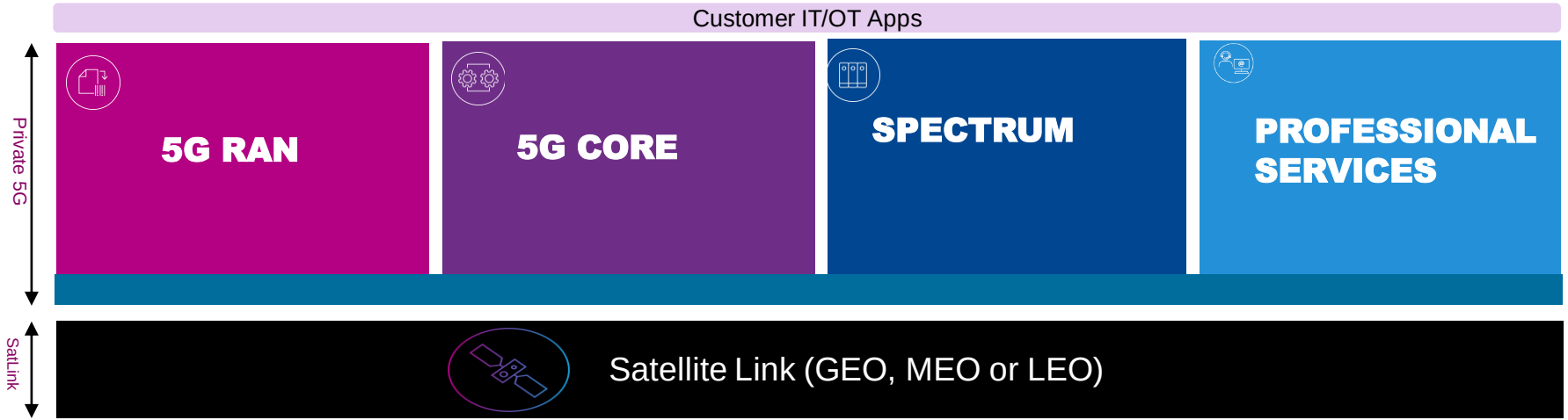
Solution Description & Key Elements



SPACE ENABLED PRIVATE 5G: 5G RAN+ 5G CORE+ Spectrum+ Professional Services +SatLink

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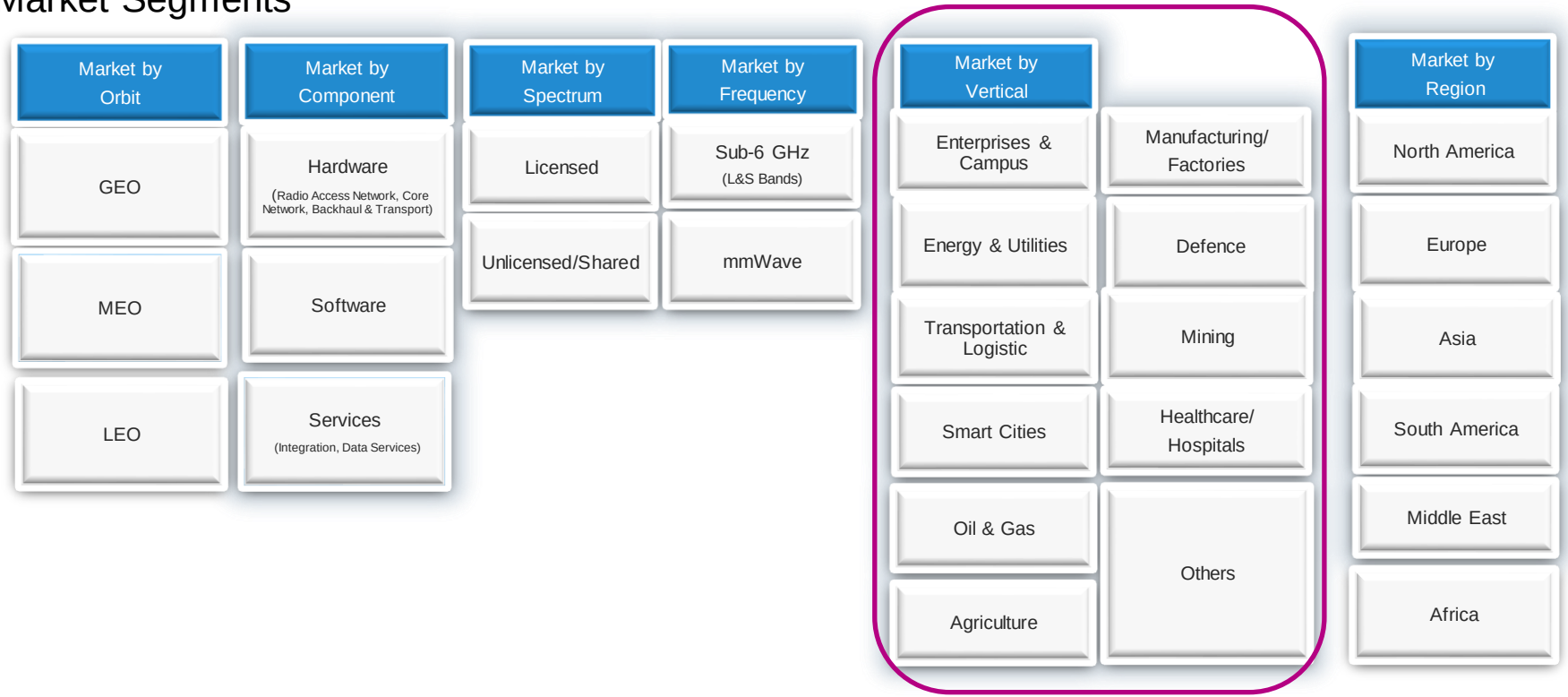
Market Segments



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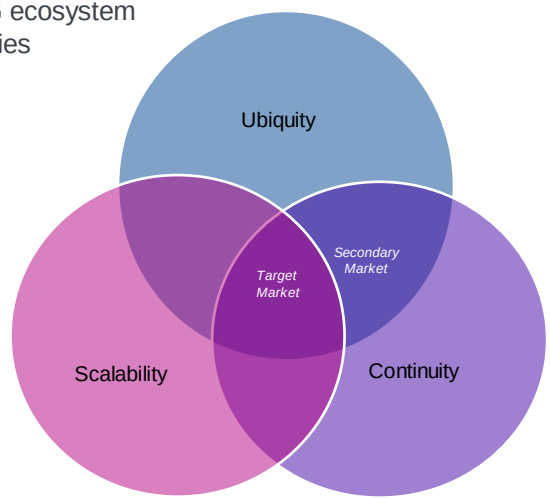
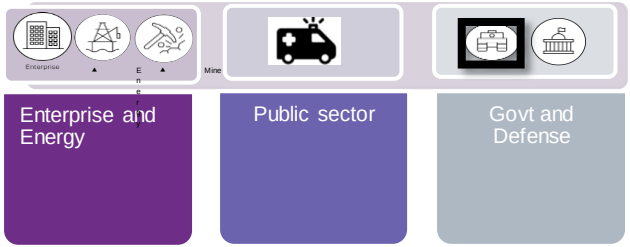
Product Market Fit & Target Segments

Product Market Fit: According to 3GPP, Satellite integration into the 5G ecosystem falls into three primary categories





3GPP- 3rd Generation Partnership Project is number of standards organizations which develop protocols for mobile telecommunications

Target Segments: Enterprise, Energy, Public & Govt.

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Target Segment Use Cases

Business Outcomes: New use cases enabling new revenue potentials.

Mining

- High speed connectivity between mining sites
- HD video surveillance and situation awareness
- Autonomous extraction and safety
- Environmental monitoring

Maritime

- High speed connectivity for crew/passenger.
- Remote Realtime monitoring and maintenance
- Improved operations, logistics
- High speed communication and navigation
- Cargo management-digital twin

Public Safety and Government

- Improved speed and efficiency of response
- High speed and secure communication
- Improve access to essential services.
- Public administration for all citizen

Military Applications

- Secured, sovereign cloud access
- Intelligence, Surveillance, and Reconnaissance (ISR)
- Connected Forward Operating Bases & Vessels
- Command and Control (C2) : Network-centric warfare
- Cellular enabled Drones

Energy / Oil & Gas

- Remote monitoring of pipelines and wind farms
- Drilling and smart operations
- Continuous operations, predictive maintenance, on-site/remote support
- Local connectivity and compute capacity
- Improve energy efficiency & carbon emissions.

Disaster Response

First Responder Agencies

- “On the Pause” satellite connectivity
- Local Edge Cloud and Private 5G bubble
- Comms and video – Man2Man + Site2HQ

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Risks and Dependencies

Technical Risks
The technical risks and complexity associated with multivendor integration

Regulatory Risks
regulatory requirements and compliance obligations.

Security Risks
multi partner environment increase vulnerability to cyber-attacks and security concerns.

Spectrum Availability
dependent on the availability of the required spectrum and coordination with regulatory bodies.

Infrastructure & Resources
Dependency on various Partners – RAN, Cloud and System Integrators.

Integration
Success dependent on seamless integration of existing and partner systems.

Risks

Dependencies

THANK YOU!

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