Ground and Space Harmony in The New Elastix Space Era

Gilat Satellite Networks

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VHTS/NGSO Constellations - Abundance Of Capacity

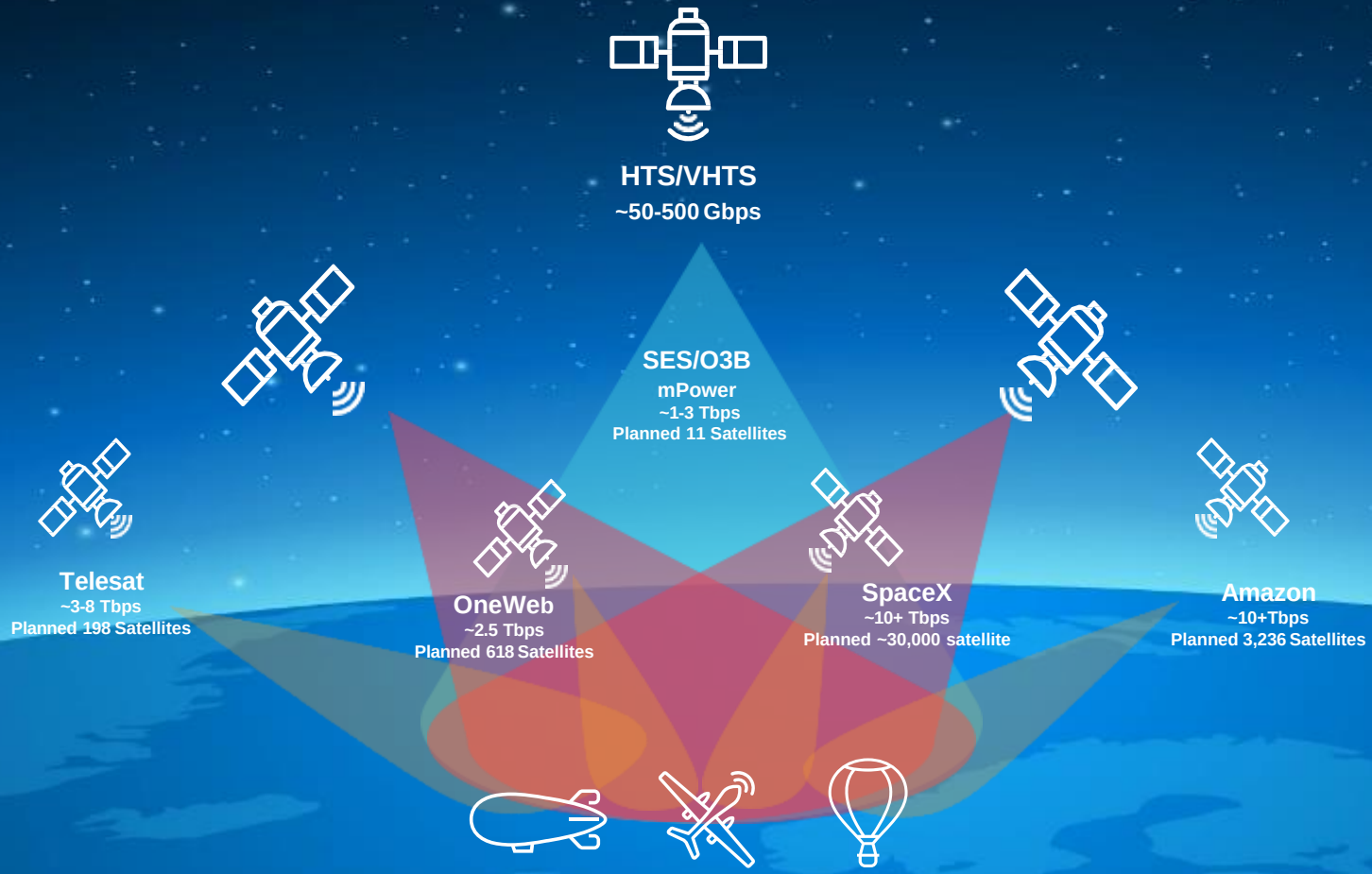
Large Capital Spending in the New Elastix Space Era

GEO
35,786 km
~550msec

MEO
2,000-10,000 km
~120msec

LEO
500-2,000 km
~15msec

HAPS
10-50 km
~5msec



More than 50,000 LEO satellites expected within a decade; Investment over $30 billion

Satellite, Ground and New Space Connectivity

VHTS and Multi-Orbit Satellite Constellations

- Increase in orders of magnitude of capacity in space
- Reducing costs and opening opportunities for new apps

Software-Defined Satellites

Satellites have become smarter operating harmoniously to create an elastic network, constantly adjusting in sync with ever-changing conditions

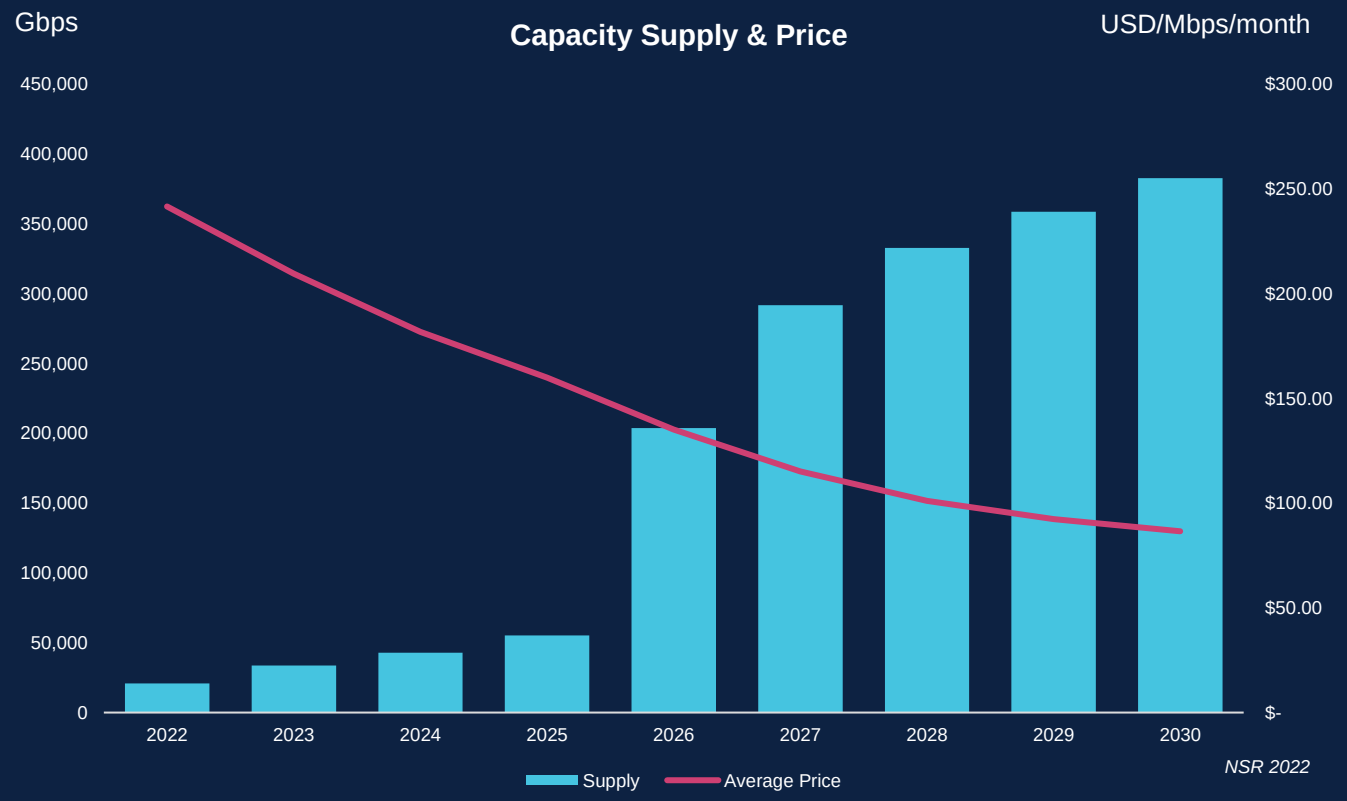
Cloud-Based Ecosystem

Software centric systems leveraging cloud operational advantages

Elastix-Access

Efficient use of satellite resources in a dynamic network

Abundance of Capacity – 44% CAGR Capacity Increase



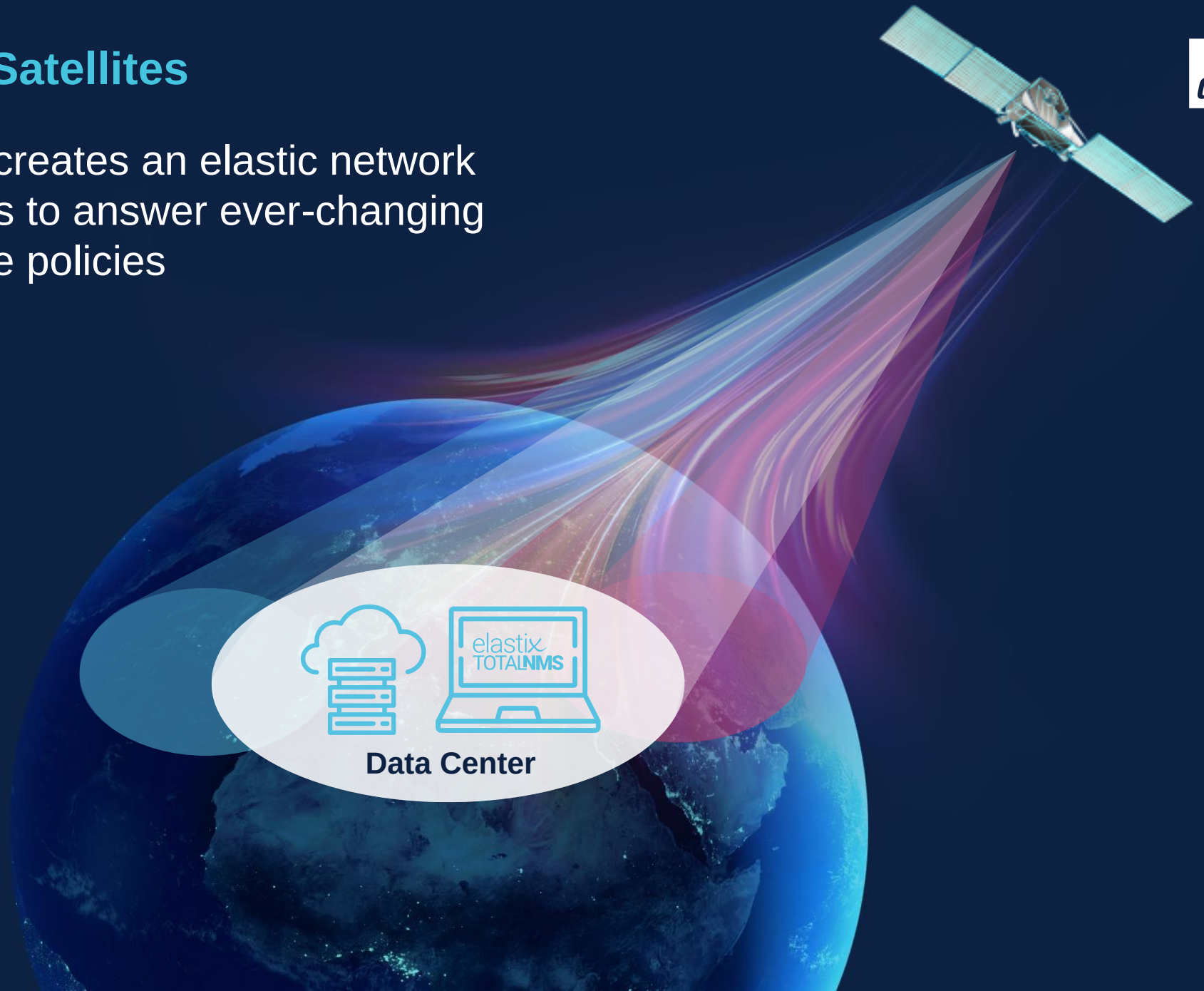
Multi-Orbit Satellite Constellations

LEO-MEO-GEO-VHTS

Seamless hand-over between orbits

Software-Defined Satellites

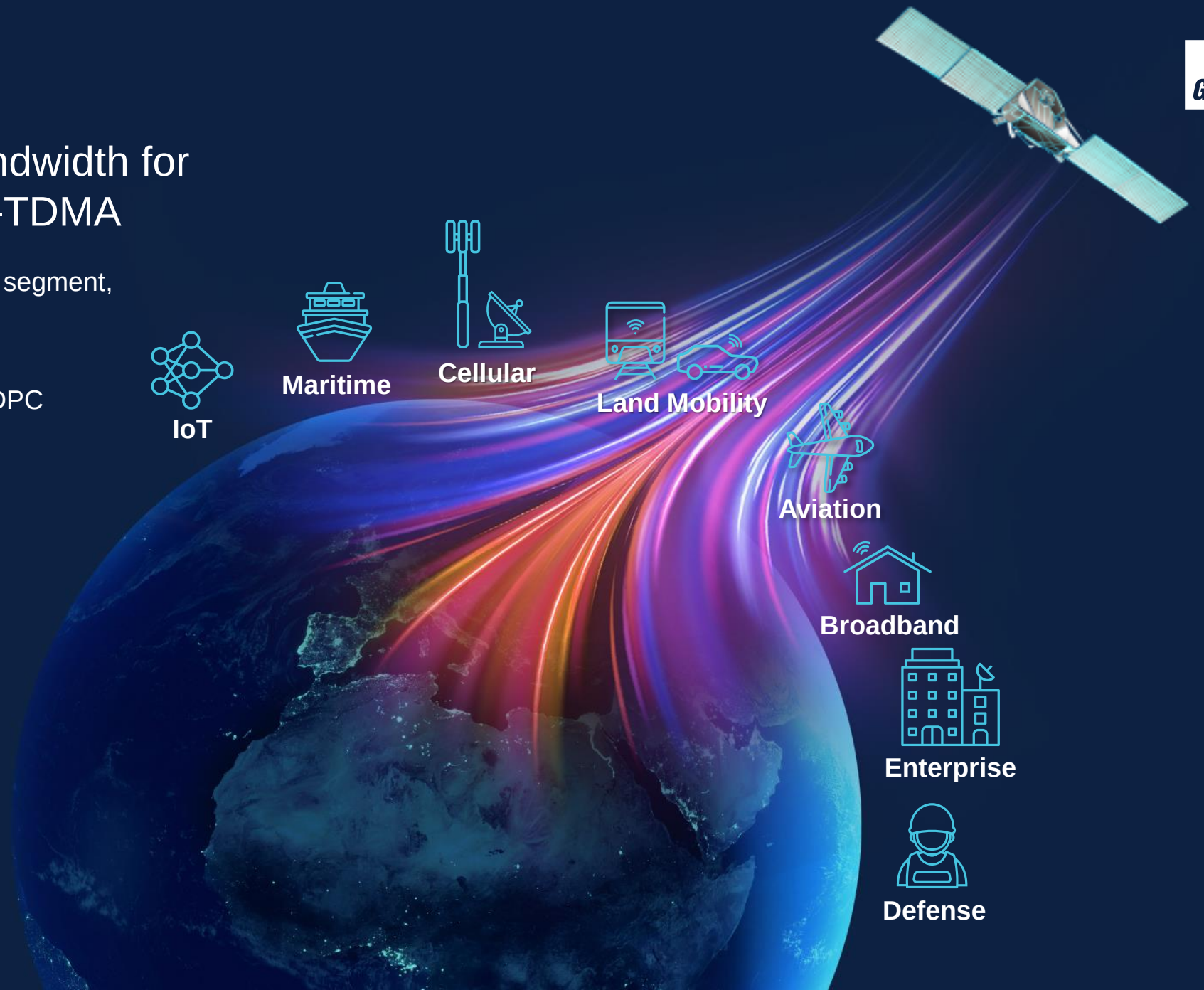
Working in harmony, creates an elastic network that constantly adjusts to answer ever-changing conditions and service policies



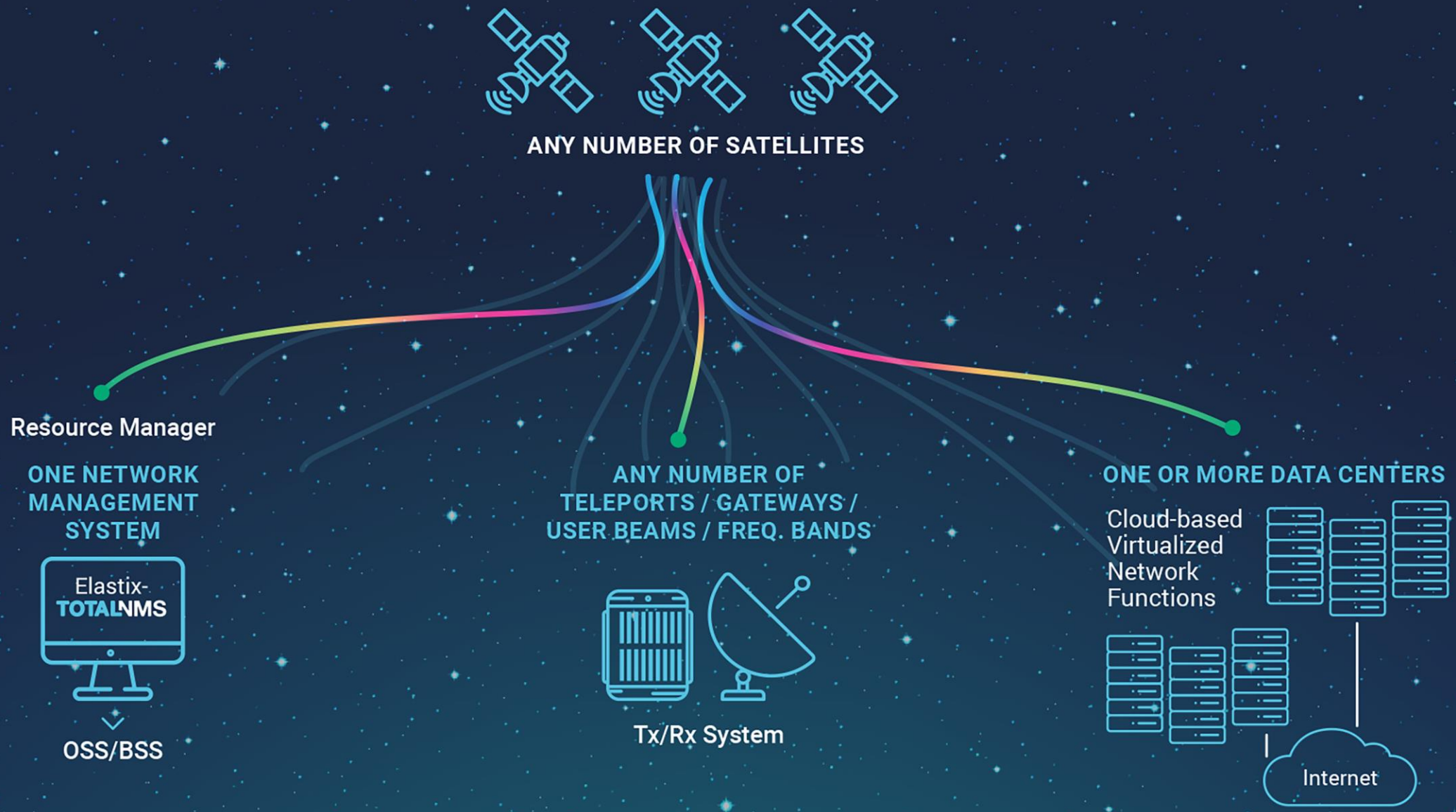
Elastix-Access

Optimized shared bandwidth for Elastix-SCPC & Real-TDMA

- Saves 15% more of the space segment, under comparable conditions
- Elastix Dense Coding (XDC) is 15% superior to standard LDPC
- Return speeds of 750 Mbps (250Msps channel), enabled by industry's widest 500Msps multi-channel receiver



Elastix-Architecture

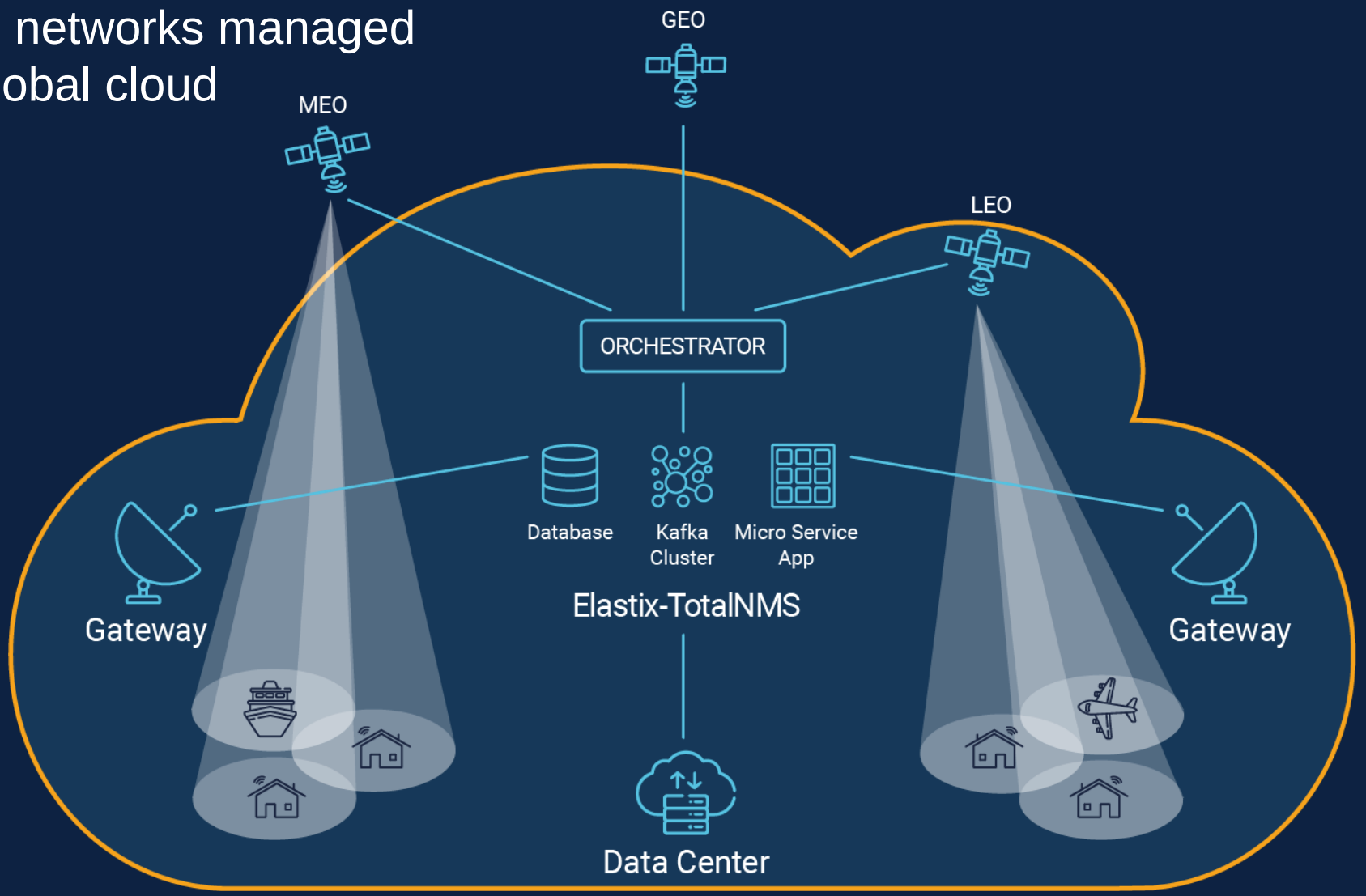


Cloud-Based Ecosystem

Provides the agility needed for demand-based network elasticity and dynamic scaling, while providing outstanding compute density

Cloudification of Satellite Networks and Orchestration

Satellite ground and space networks managed and orchestrated as one global cloud



Envisioned 5G NTN Market Evolution

Cellular Backhaul

Overlay on existing satellite solutions optimized for 4G/5G Cellular Backhaul

High Bandwidth

Gilat market leader!

Narrowband

Un-modified smartphones (pre-R17, MNO spectrum)

Smartphones & IoT Devices with R17 NTN capabilities

Using existing Transparent Satellites

Broadband

Existing DVB VSATs with 5GC (Hybrid 5G)

New VSATs/ESIMs with R18 NTN capabilities

Using existing Transparent Satellites

Enhanced Broadband

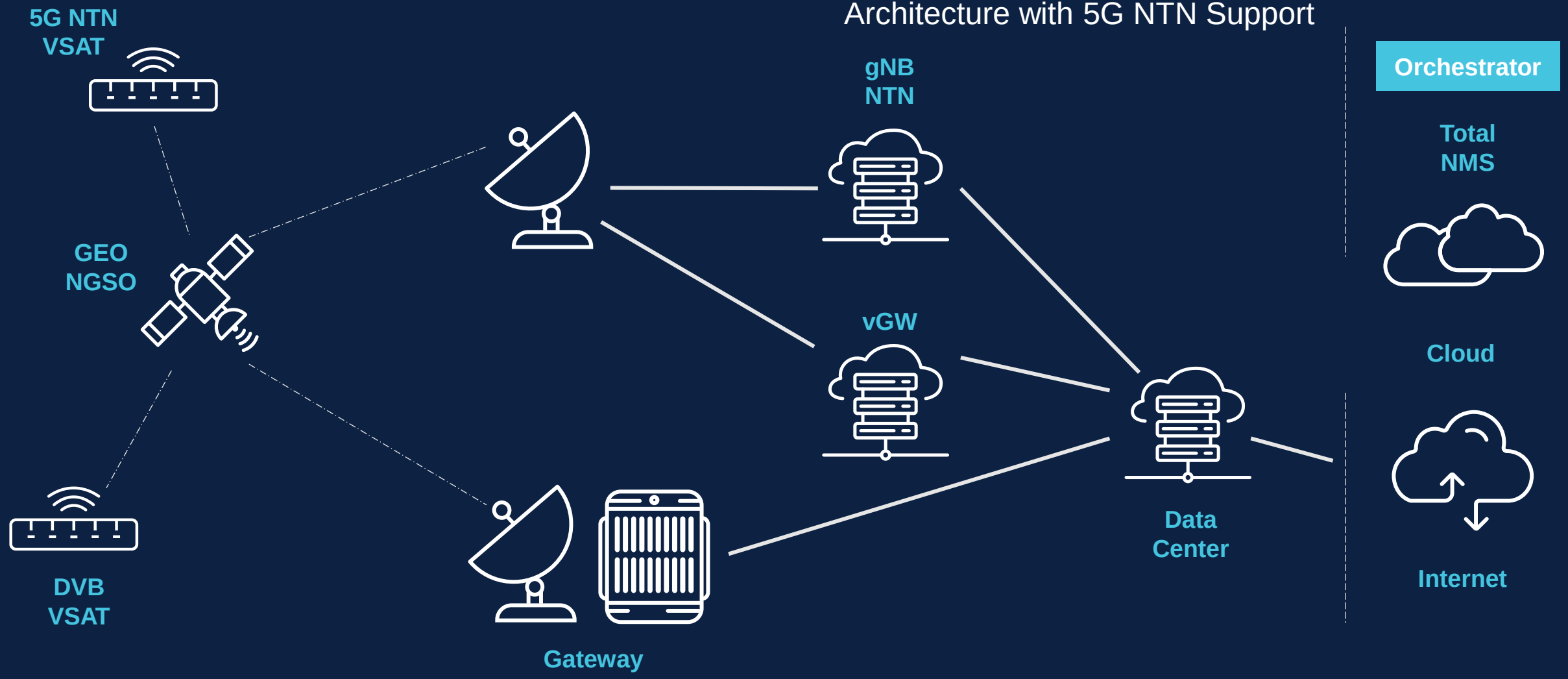
VSATs/ESIMs with R19 NTN capabilities

Using new Satellites with Regenerative OBP

Higher Bandwidth, Lower Latency, Higher Capacity

Multi-Waveforms Architecture

The Path to Multi-waveform Architecture with 5G NTN Support



THANK YOU
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