



eUTeLSAT

DEMYSTIFYING COMPLEX CONNECTIVITY | KEEPING IT SIMPLE!

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DEMYSTIFYING COMPLEX CONNECTIVITY



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TOPICS TO DISCUSS

- ▶ Eutelsat ADVANCE - Reliable Backbone Connectivity for Service Partners to Innovate
- ▶ Future-proof technology with competitive advantage
- ▶ Towards a multi-orbit GE/LEO strategy to answer to all needs
- ▶ Q & A

MARITIME SATCOM CONCERNS

Flexible solutions for diverse sea-operations



GLOBALIZATION

BANDWIDTH
DEMAND
GROWTH

RETURN
ON INVESTMENT

PARTNER
ENABLER

FLEXIBILITY
& SCALABILITY

CYBERSECURITY

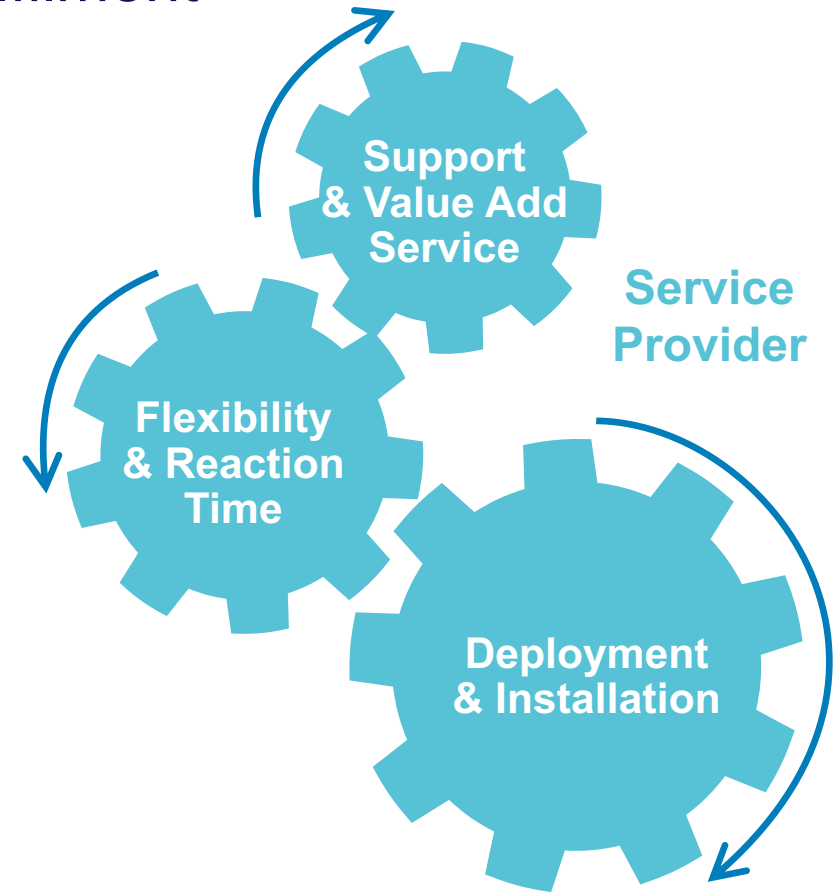
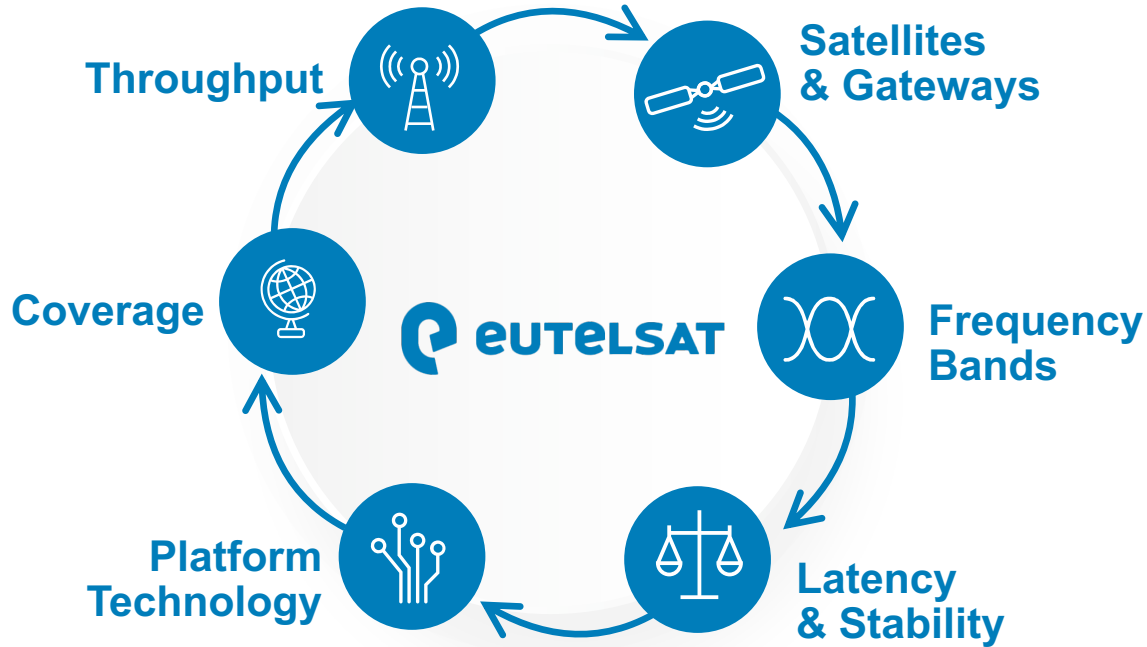
FUTURE-
PROOFING

CENTRALISED
CONTROL

ESG

EASING THE BURDEN FOR MARITIME SERVICE PROVIDERS

Solidifying partnerships for direct touch, indirect fulfilment



Maritime operators require optimisation of all from above today, to enable the digitalisation goals in supporting a host of downstream applications and crew connectivity requirements

INTRODUCING EUTELSAT ADVANCE

A global satellite network-as-a-service that integrates all capacity in a simple and seamless way.

Distributed by an ecosystem of Service Partners.



FLEXIBLE

- Highly flexible solution
- Full Management & Control
- Multiple Markets



SCALABLE

- No CAPEX for clients
- Bandwidth can be increased or decreased
- Services scalable UP and DOWN



GLOBAL

- ONE SINGLE integrated platform
- Seamless connectivity (Eutelsat & 3rd party)



EASY TO IMPLEMENT

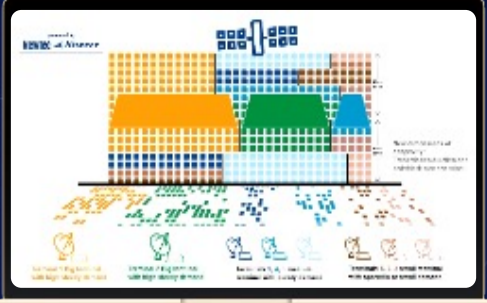
- Fully AUTOMATED CATALOGUE management
- Minimum time-to-market



HIGH PERFORMANCE

- Reliable, resilient, high-capacity, high-speed communications across regions

BEST PLATFORM TECHNOLOGY



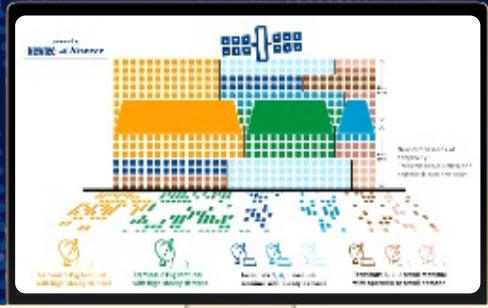
**NEWTEC Dialog Network
embedding MRC technology globally**

- More Efficiency & Scalability
- Highest Performance
- Best Quality of Experience

**Reliable, redundant,
future-proof ecosystem**

- Future proof and most FLEXIBLE Platform securing Eutelsat's best in class services.
- Best in class VSAT technology platform Spectrum efficiency improvements to and from vessels
- < FWD link is **10%** more efficiency with DVB –S2X versus DVB-S2, **50%** more efficient than MF-TDM RTN Link >
- Increased throughput based on the same ODUs, reduce data transmission time

BEST PLATFORM TECHNOLOGY WITH USER EXPERIENCE FOCUS



NEWTEC Dialog Network embedding MRC technology globally

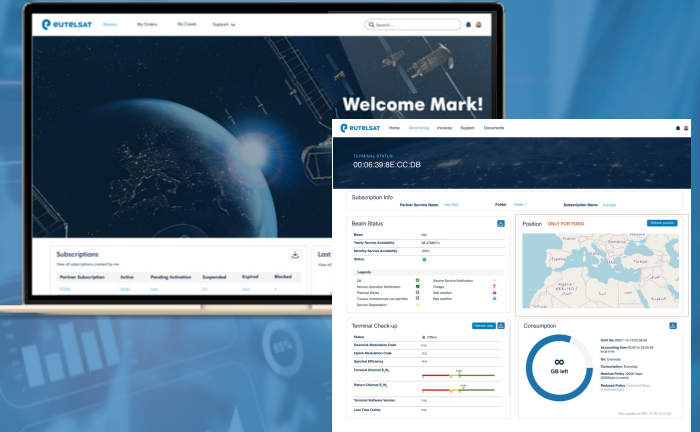
- More Efficiency & Scalability
- Highest Performance
- Best Quality of Experience

Reliable, redundant, future-proof ecosystem

24/7 Support with expert NOC

- Level 2 Customer with On-call 24/7 Support : Single Point Of Contact for all ETL partners for operational matters
- Continuous improvement KPI and streamlined processes
- High level of Trouble Shooting & Fault recovering

EUTELSAT NOC



- Online service provisioning and self-management of services
- Network management and monitoring tools
- Short term services available for full flexibility
- Partner Portal, End-Customer Portal & Web services available

Automation & Streamlined Operational Support

INTERACTIVE USER INTERFACE & AUTOMATION

Partner Portal & Tools

Terminal Management

- ▶ Provisioning / commissioning of terminals
- ▶ Upgrade / downgrade of service plans
- ▶ Add options to a service plan

Network & Monitoring Tools

- ▶ Usage & speed monitoring speed
- ▶ Services Status / SLA monitoring
- ▶ Modem reboot from portal

Helpdesk & Incident Management

- ▶ Technical Support
- ▶ Raise a case at terminal or global services level
- ▶ Administration Helpdesk

NOW Self-Service Management (for VNOs)

- ▶ Intelligent demand and supply allocation
- ▶ Create Sub-VNO
- ▶ Create new Service Profiles
- ▶ Set-up QoS priority within Pool

End-Customer Portal

Enables End-Users to:

- ▶ View their plans, options and add-ons
- ▶ Follow their data consumption with real time information
- ▶ Access their equipment information & perform a speed test

Web Services

Enables Partners to:

- ▶ Embed ADVANCE Services data in their existing IT Systems & management portals
- ▶ Automate processes using a full library of standard REST APIs

PORTFOLIO OF SERVICES TO MEET EVOLVING NEEDS

Eutelsat ADVANCE MERCHANT

Packaged and VNO SLA-based services designed for optimal data assurance

Eutelsat ADVANCE CRUISE & FERRY

High Mbps focused VNOs, used on a multi-regional basis

Eutelsat ADVANCE YACHTING

Predefined high performance And flexible VIP packaged plans

Eutelsat ADVANCE OFFSHORE

Packaged and VNO SLA-based services designed for optimal data assurance

Coverage

Multi-Regional or Global

Multi-Regional

Regional / Multi-Regional

Global

Needs

Wide range of levels of service (Best Effort to High QoS 50% CIR)

High QoS and Bandwidth

Wide range of high-performance plans (up to 15/5 100% CIR)

High QoS / symmetrical services

Business Drivers

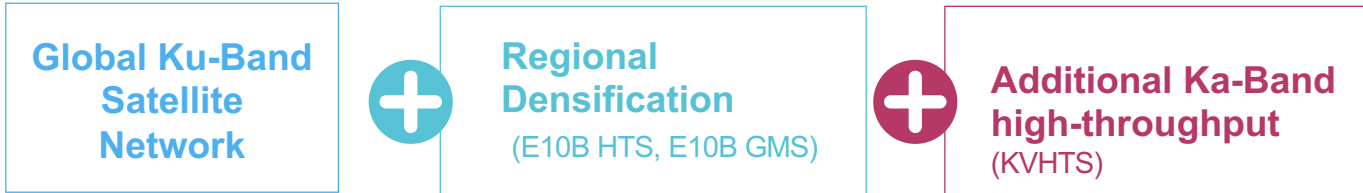
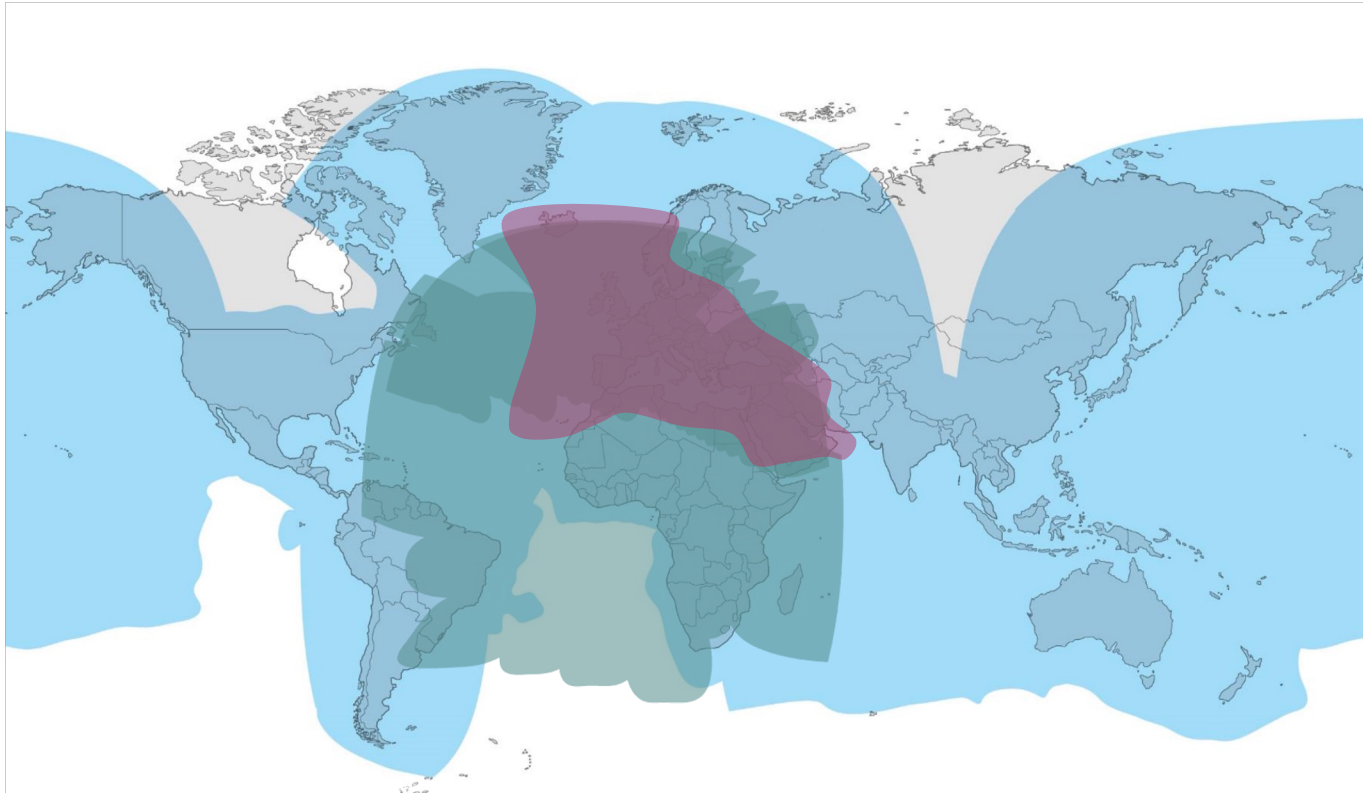
Resilient Connectivity (i.e. Satellite Redundancy)

Flexible & Scalable Solutions which allow to increase and/ or port capacity across vessels/ regions

Flexible & Scalable Solutions which allow to accommodate seasonal changes/ volume

CIR for critical comms, reliability

A COMPREHENSIVE ECOSYSTEM WITH PROGRESSIVE INTEGRATION OF FUTURE CAPACITIES

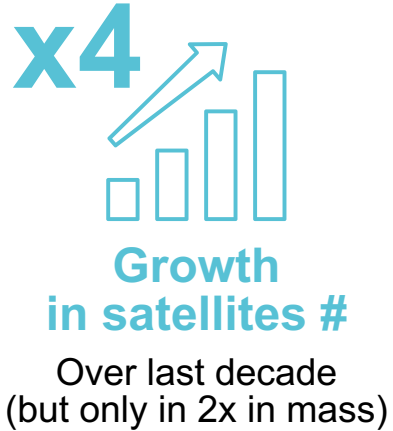


UNIFIED VIA

Eutelsat's Global Orchestration System

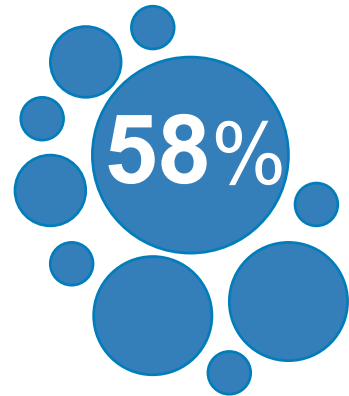
- Unified OSS / BSS / Portal / APIs
- Ground Network Infrastructure, PoPs
- QoS / DPI Systems

2021-2030 TRENDS FOR THE SATELLITE INDUSTRY



On average
1 700
Satellites
to be launched
every year by 2030

according to
Euroconsult
Satellites to be build &
launched by 2030 24th edition



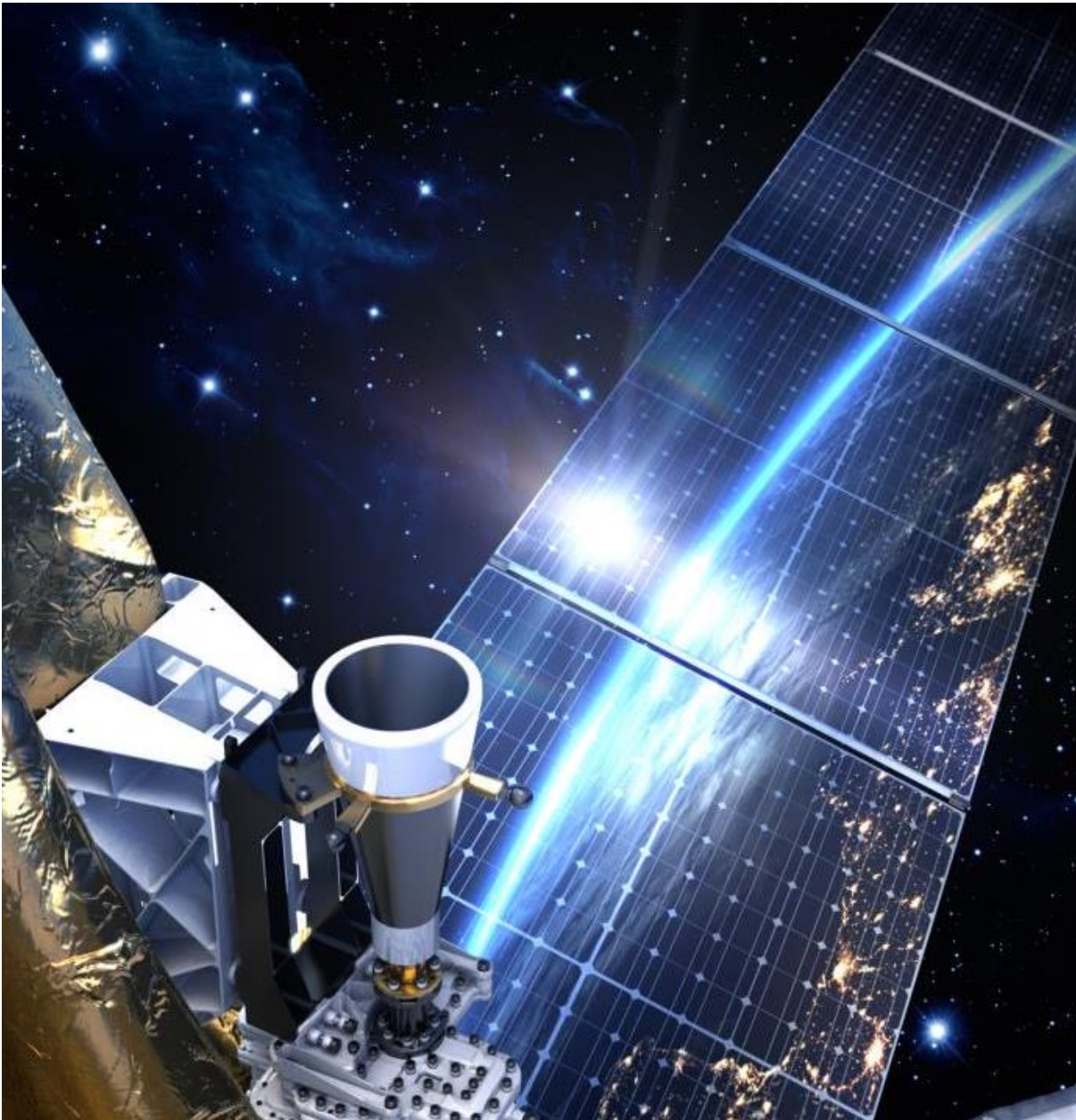
Satellite demand
concentrated by 5
**Broadband
mega-constellations**



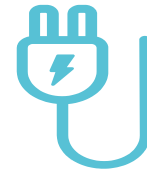
75%
of satellite manufacturing
& markets value from
governments



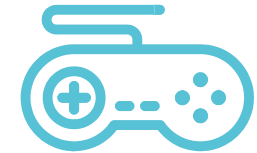
1/3
of the market value
still retained by
GEO satellites



THE EUTELSAT CONTRIBUTION TO FUTURE OF SATELLITE COMMUNICATIONS



Accelerating the transition to ALL-ELECTRIC satellites



Spearheading a new generation of SOFTWARE-DRIVEN satellites



Pioneering very high throughput VHTS technology to amplify capacity everywhere

OneWeb  Satellites

Combination of Eutelsat and OneWeb getting the best of GEO and LEO

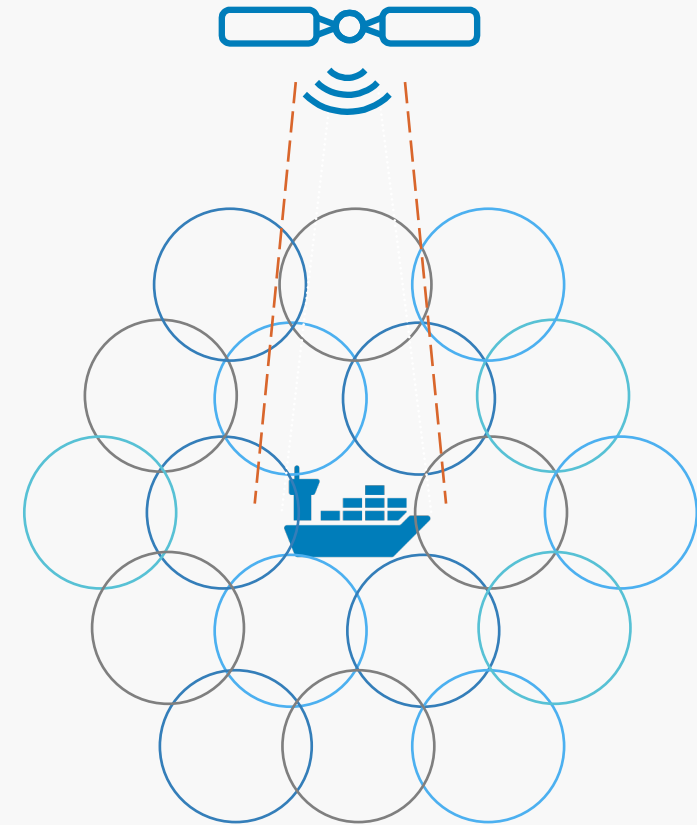


Programming beams in orbit

Beam forming and power shifting to ensure to appropriate capacity focused over high demand areas


Software driven capacity allocation in real-time

HTS & VHTS



HTS almost exclusively make use of frequency reuse and multiple spot beams

INNOVATING IN SPACE



eUTELSAT

Software Driven

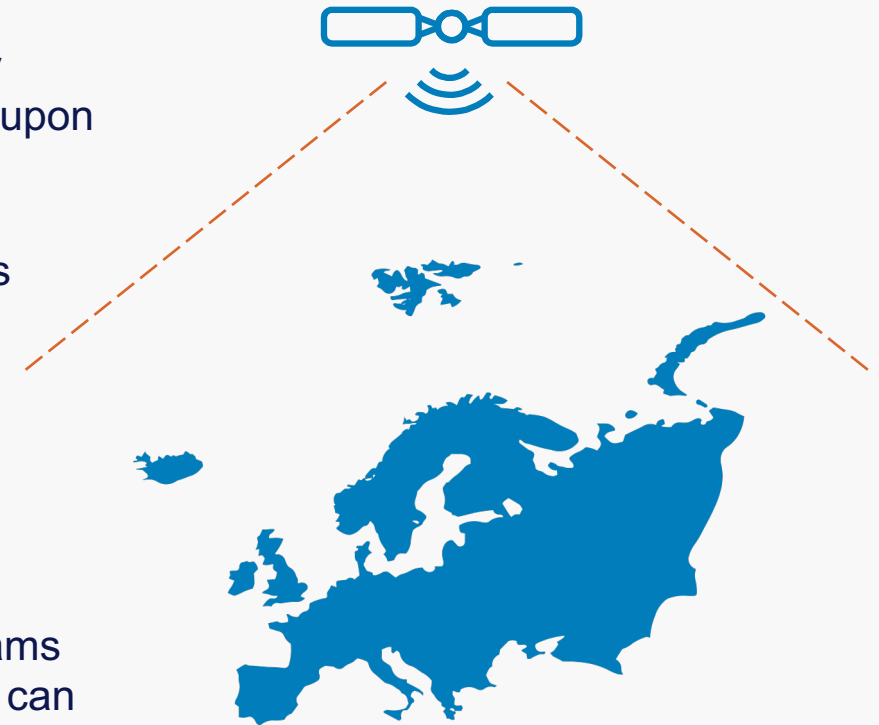
...rodu...line
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Able to be deployed at different orbital locations

Satellite can be moved to supply different market upon completion of mission or as demand requires

Upon arrival beams and frequencies can be reconfigured to the size and shape needed to optimize maximum throughput over the demand area

Ku-band

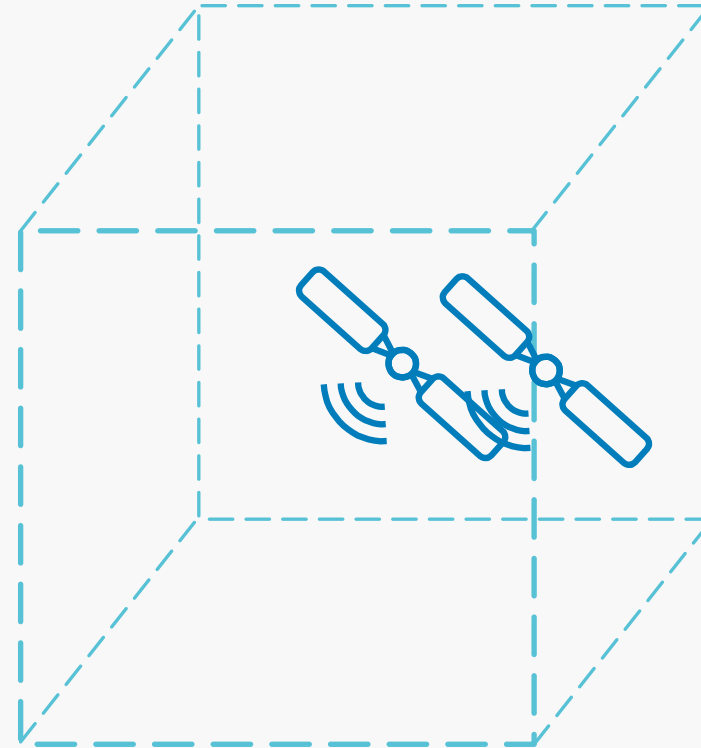


INNOVATING IN SPACE



Scalable fleet flexibility

Co-location of multiple satellites in same orbital slot for capacity enhancement as markets change or for seasonality



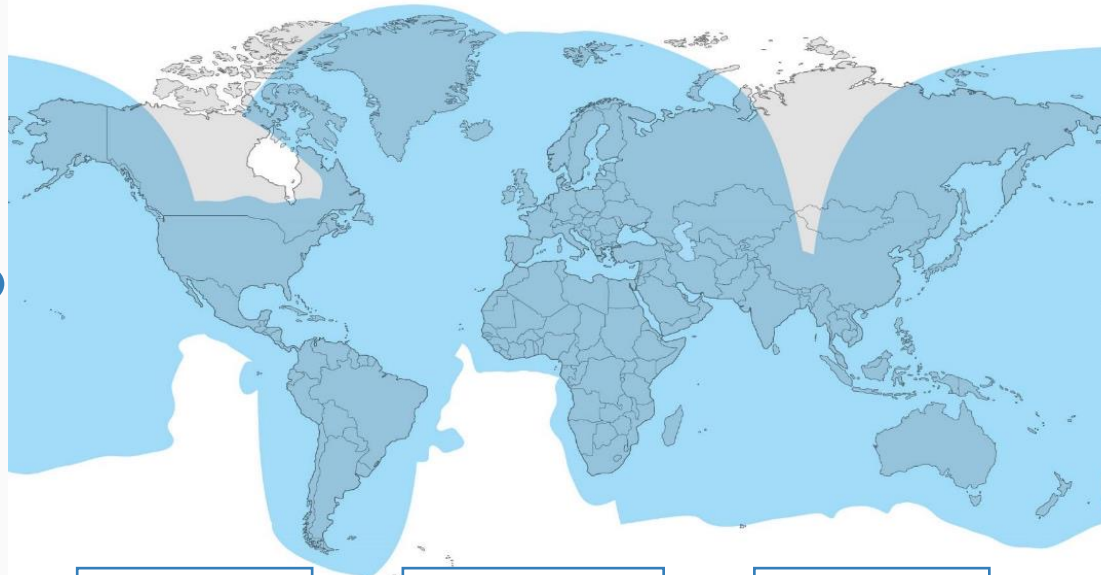
Increased capacity demand

Modular satellite design allows neighboring in same slot

Beams and frequencies defined over the air to increase capacity supply on the fly

COMPLIMENTARY GEO/LEO ECOSYSTEM REDUNDANCY & GLOBAL REACH, & BEST PATH FOR EACH APPLICATION

ADVANCE GEO ECOSYSTEM

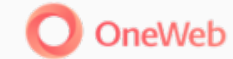
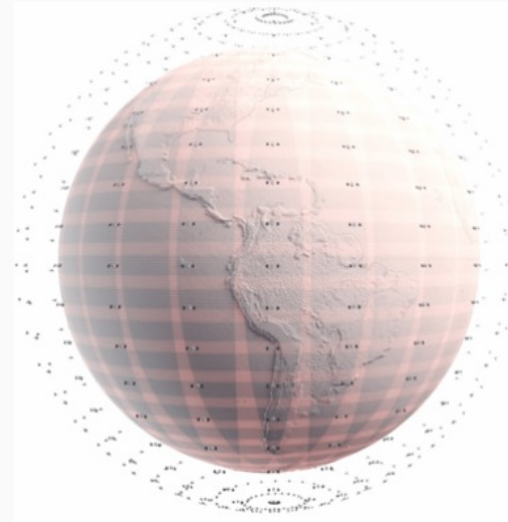


Bandwidth

Resilient

Reliable

LOW-LATENCY LEO LAYER



- 648 low Earth orbit (LEO) satellites at 1,200km
- 49 satellites per plane, 12 planes, with in-orbit spares
- Premium Spectrum Ku- and Ka-band Rights, >3.5Ghz of globally harmonized spectrum
- Innovative satellite design with > 7Gbps per satellite, revolutionary beam technology

Extended reach

High Throughputs

Low Latency

Global portfolio of high-performance GEO/LEO services

MARITIME LEO VALUE PROPOSITION



High-speed	Up to 100Mbps+ using marine UT
Low latency	70ms between UT and Eutelsat PoP
Global coverage	Including Arctic
Security	Full channel encryption
Reliability	Embedded fault tolerance and spare satellites
Compact UT	Dual 53, 73m marine parabolic antenna
Low capital UT	~ 10% of the price of Offshore 2.4m stabilized antenna ~ ¼ of the price of Maritime VSAT antenna

In a nutshell

- Offshore Live NOW
- Mobility Trials starting Q1 2023

- Double antennas 74cm first,
- Hardware + Services

- Simple packages with GB allowance
- 3 speeds for 3 main segments



10/2 Mbps
Fishing
Merchant



50/10 Mbps
Tankers
Yachts



75/15 Mbps
Offshore
Passenger

EUTELSAT VALUE ADD IN MARITIME CONNECTIVITY



One-Stop Shop

Global Portfolio of Services with complimentary multi band multi-orbit GEO LEO GEO/LEO

Integrated Service

OneWeb service integration to existing global network and user centric unified portal

Reduced TTM

Hardware – preconfigured for global service and enabling simple & fast field deployment

No Compete

100% indirect distribution with full partner support on delivering the most fitted GEO/LEO solutions

Experienced support

High-quality support, by one of the world's most experienced leading satellite operators



THANK YOU

...to Digital Ship and all participants!

MORE INFORMATION:

- ▶ Website: <https://www.eutelsat.com/en/satellite-communication-services/maritime-connectivity.html>
- ▶ Contact: sconley@eutelsat.com