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XI CONGRESO INTERNACIONAL DE ESPECTRO

HABILITADOR DE DESARROLLO Y COMPETITIVIDAD

Laura Roberti
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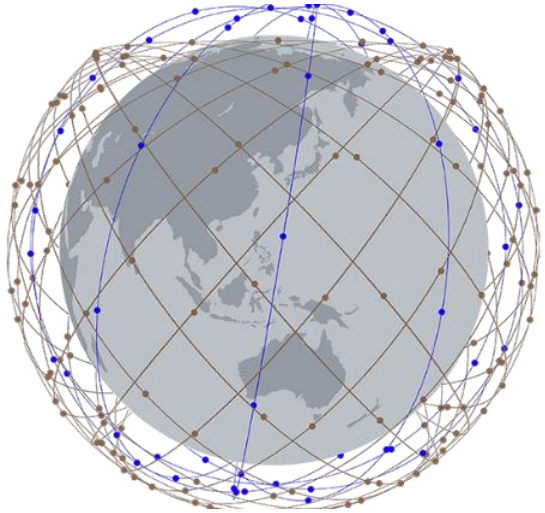
El futuro digital es de todos

MinTIC

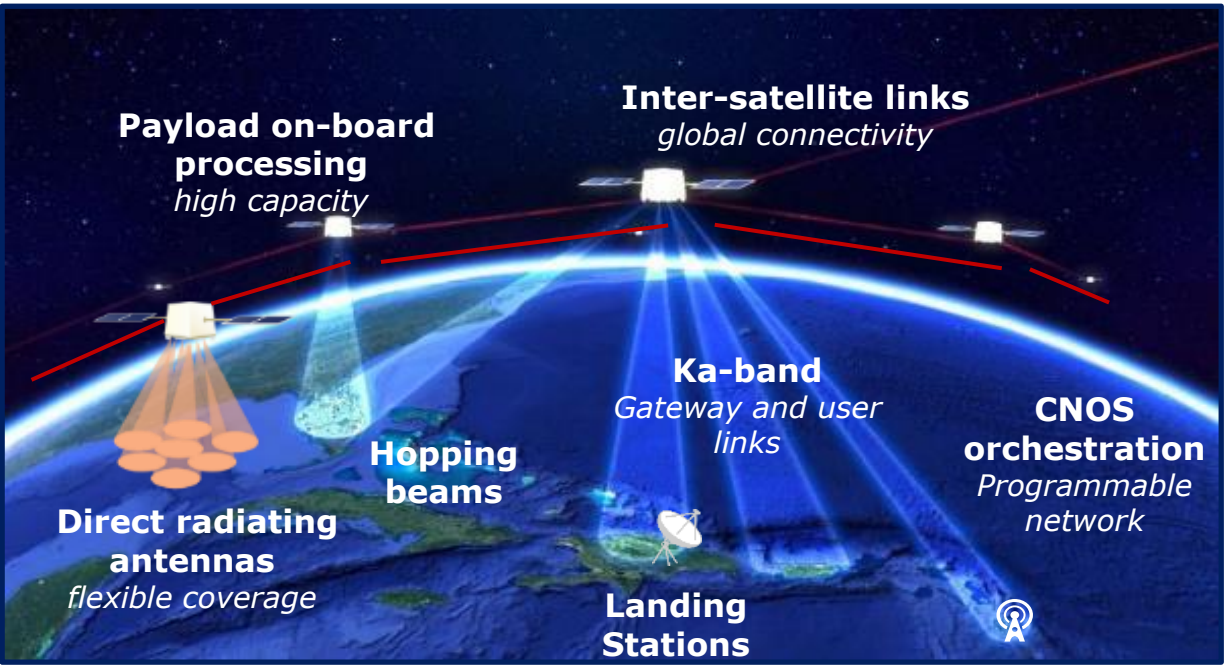
TELESAT LIGHTSPEED™

A highly innovative global LEO network



Polar Orbit

Inclined Orbit



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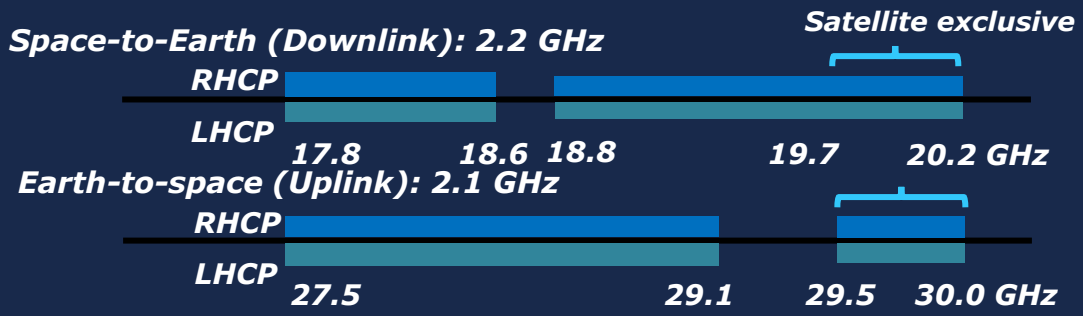
- √ 298 satellite constellation with optical inter-satellite links, full global coverage from pole to pole
- √ 78 polar satellites in 6 orbit planes at 1,015 km and 220 inclined satellites in 20 orbit planes at 1,325 km
- √ ~35 times closer to Earth than traditional satellites for fibre-quality low latency
- √ ~4 GHz Ka-band spectrum and ~135,000 agile beams to flexibly connect small to very large sites (few Mbps to multiple Gbps links)



- √ Multiple satellites and ground nodes for resilient, always-on connectivity to rural and remote areas
- √ Scalable architecture, addition of satellites will increase capacity
- √ Mobile/Fixed applications for enterprise/government/maritime/aeronautical

Regulatory Aspects

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01. **Lack of Regionally Harmonized/streamlined Framework for ESIM and Ubiquitous VSAT terminals**

Harmonizing/streamlining requirements (e.g. by introducing blanket licenses/ facilitating the circulation of terminals) on a regional basis is conducive to the timely provision of services and reduces the work of regulatory agencies and all involved. Draft Recommendation on ESIM being proposed within CITEL

02. **High Spectrum Fees**

High spectrum fees could have a dampening effect on the ability to provide broadband satellite services, as novel satellite systems can use up to 4GHz of spectrum

03. **Landing Rights requirements**

Landing rights are very rare outside of the Americas. The lighter the regulatory touch, the quicker and more effectively services can be provided domestically, regionally and globally

04. **WRC-23 AI 1.16 – NGSO ESIM operation in Ka-band**

Past studies for GSO ESIM in the Ka-band leading to Resolution **156 (WRC-15)** and Resolution **169 (WRC-19**), have many similarities with those under Resolution **173 (WRC-19)** → Technical, operational and regulatory provisions for non-GSO ESIM should be similar to those applicable to GSO ESIM to the extent possible and pending the results of the studies

Government of Canada and Telesat Lightspeed Partnership on Rural Connectivity

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Backhaul on Telesat Lightspeed

Affordable Access
Cost-effective for ubiquitous coverage, more affordable than fibre and wireless alternatives for remote communities

50/10 Mbps Unlimited
High speed, true broadband experience

5G and LTE Services
Reliable, affordable and rapidly deployed wireless services

Eliminating the digital divide

Empowering Communities
Providing underserved communities with fibre quality broadband

Expanding Healthcare
Real-time access to medical specialists, electronic records and management systems

Creating Opportunities
With state-of-the-art online learning, access to government services, and the global economy

TELESAT LIGHTSPEED™

City-quality connectivity everywhere

ANE
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Key Takeaways

- Telesat Lightspeed will provide much needed capacity with flexibility, low latency and revolutionary economics in the region
- Government support and technology-neutral funding for rural connectivity will be important in achieving universal connectivity for education, health and other important societal applications
- A streamlined and harmonised regulatory touch will enable operators to timely deploy novel services
- Administrations are invited to support
  - revision of domestic regulations, when needed, to adapt to new services
  - the development of harmonized regulatory framework in the region
  - studies under WRC-23 AI1.16 towards a successful solution for this AI, similar to the one for GSO ESIM in the same frequency band

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Thank you for your attention!

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