

# Telesat Lightspeed

## Global, meaningful connectivity for all

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**TELESAT**<sup>™</sup>

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# Telesat Lightspeed timeline

Tests & Demos

Commercial Service

**1st April 2024 - Telesat and Government of Canada Agree to Final Terms on C\$2.14 Billion Loan in Support of Telesat Lightspeed**

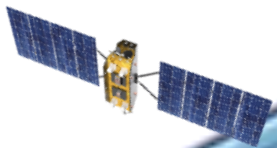
Service testing with multiple pathfinder satellites  
2023-2025

Launches begin  
Field Trials  
Q2 2026

Global service begins  
• PoPs & Landing Stations  
• User terminals  
• Market access  
H2 2027

Technology demo on LEO 3 satellite

Network Emulator for service testing

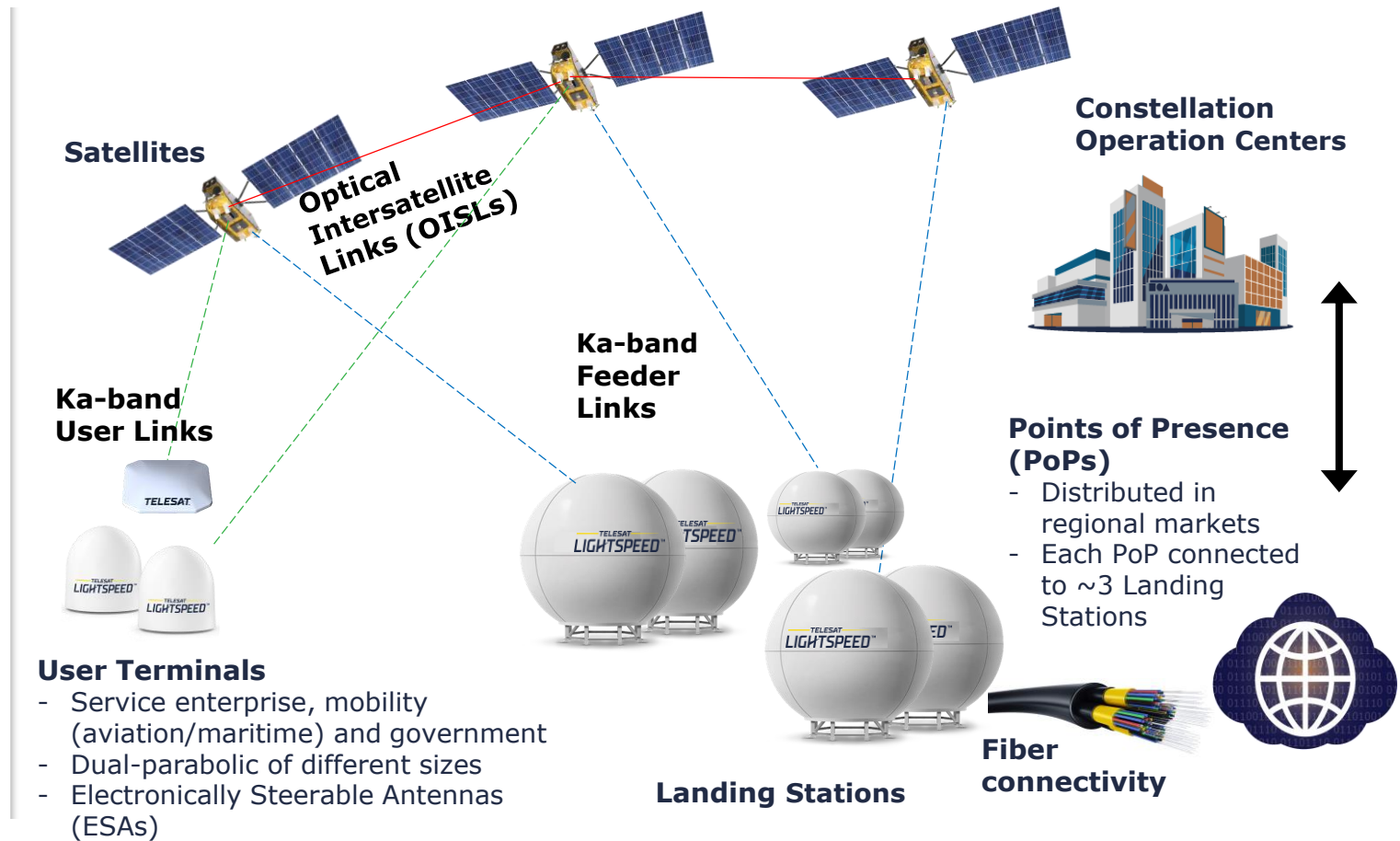


**TELESAT**  
**LIGHTSPEED™**

Fully funded, next-generation, enterprise-class LEO network delivering resilient, high-capacity connectivity everywhere – land, sea, and air

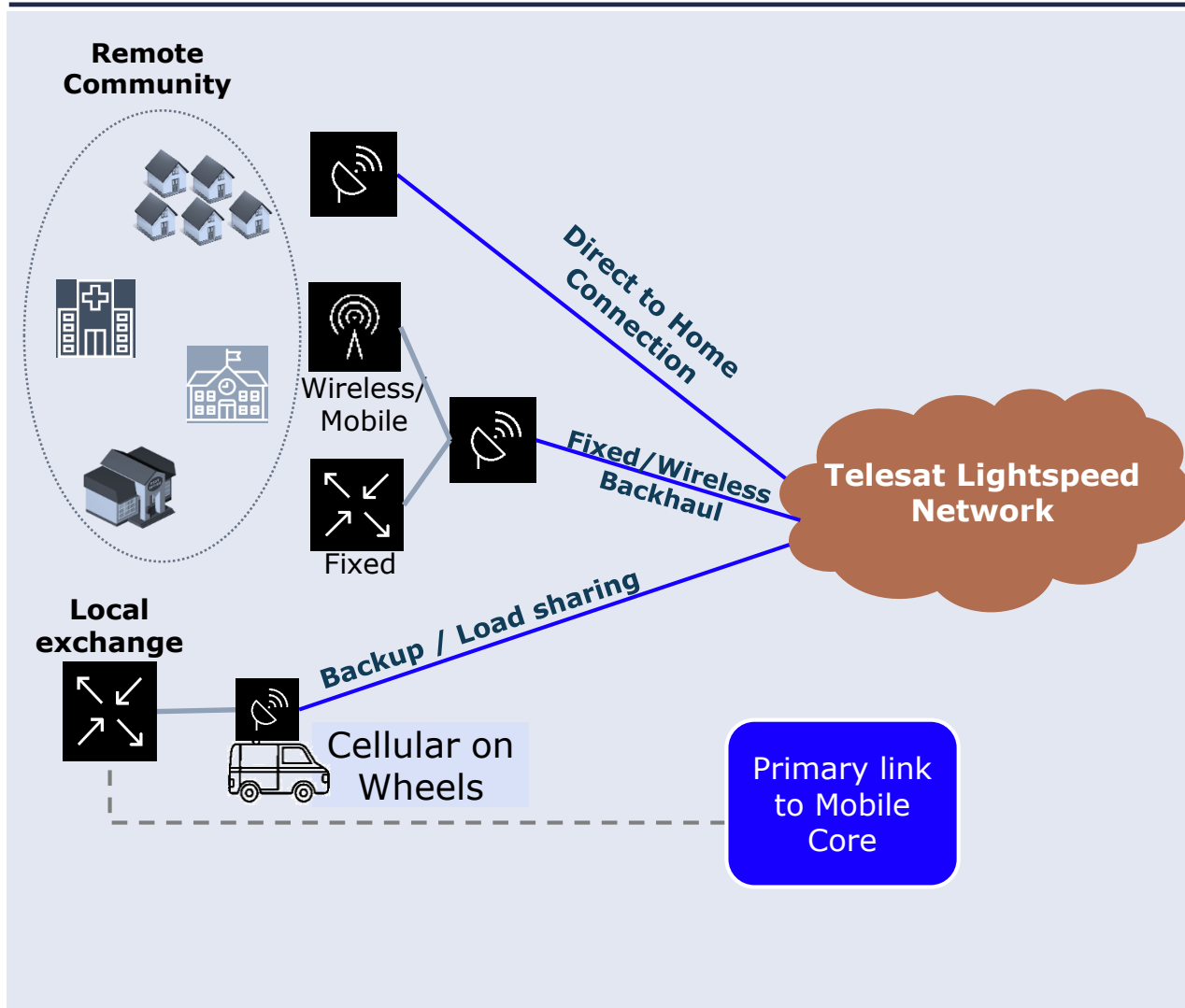
# Telesat Lightspeed service leverages state-of-the-art technologies

- ▲ Ka-band Gateway and user links
  - 17.8 – 18.6 GHz / 18.8 – 20.2 GHz (space-to-Earth)
  - 27.5 – 29.1 GHz / 29.5 – 30.0 GHz (Earth-to-space)
- ▲ Software-defined satellite with on-board data processing for dynamic routing/processing in space
  - Flexible network that will adapt in near real-time to user demand
- ▲ Optical Inter-Satellite links create a global resilient mesh network in space, coupled with ground network of global Landing stations and PoPs
- ▲ Multiple highly optimized orbits for maximum capacity distribution globally
- ▲ Gigabit speeds in both downlink and uplink



**Advanced constellation with high capacity per satellite enables affordable, enterprise-class connectivity**

# Complementing terrestrial services



- ▲ Telesat Lightspeed **complements terrestrial services as part of a larger mobile ecosystem, including 5G**, in different communities
- ▲ **Key enabler for universal, meaningful connectivity** alongside terrestrial services by allowing
  - Rapid rollout of broadband across developing countries
  - Multi-Gbps of capacity in rural/remote communities
  - Competitive backhauling solutions for rural/remote area with significant advantages for terrestrial operators
    - Lowers risk on investment
    - Eliminates large infrastructure deployments
    - Allows for revenue generation in new, hard-to-reach markets

# Suitable domestic policies and regulations

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- ▲ Suitable domestic policies and regulations are essential
- ▲ NGSO systems have truly global coverage: a degree of harmonisation in the authorization processes/spectrum availability is paramount
- ▲ Transparent and streamlined regulatory framework with clear rules to provide regulatory certainty
  - Timely publication and updates of domestic/regional authorization frameworks
  - Designation of relevant frequencies for use by NGSO satellite systems on a domestic basis consistent with ITU Radio Regulations
- ▲ No unwarranted discrimination with respect to GSO networks
- ▲ Reasonable spectrum fees - large bandwidths used by novel NGSO satellite systems
- ▲ Spectrum availability – Ka-band is key
- ▲ Blanket authorizations for user terminals with similar characteristics
- ▲ Permission for terminals installed on foreign vessels/aircraft to operate while in temporary transit on a non-interference basis

# Thank you!

**TELESAT**<sup>TM</sup>

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