

**TELESAT**  
**LIGHTSPEED™**

**Accelerate digital  
transformation and automation**



**TELESAT®**

# MAKE THE DIGITAL SHIP A REALITY



Merchant ships spend much of their time in areas where fast and responsive internet connectivity is scarce or non-existent. These connectivity dead zones turn your most valuable assets into islands that are almost entirely cut off from your smart shipping systems and leave crews feeling isolated.

The Telesat Lightspeed Low Earth Orbit (LEO) satellite network brings extremely fast, secure, and highly responsive broadband connectivity to every vessel in your fleet, whether they're in remote seas, busy shipping lanes, or congested ports. You have the guaranteed high-performance, low-latency satellite connectivity you need to extend digitalization and automation technologies throughout your operations.

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## Navigate to the future of smart shipping with Telesat Lightspeed



### Optimize fleet performance

Send real-time video and operational data back to corporate and cloud-based smart shipping systems. Now vessel speeds and routes can be automatically optimized to reduce fuel consumption, emissions, and costs. Extend digital workflows and logistics applications to vessels for increased efficiency. And support digital twins of your vessels to validate and operationalize your next steps in autonomous shipping.



### Improve crew connectivity

Enhance life onboard your vessels by delivering the digital experiences today's seafarers demand. Attract and retain crew by providing access to the same streaming video, social media, and gaming services they enjoy on land. Now crews can enjoy more fulfilling careers and better work-life balance no matter where their job takes them.



### Meet regulatory requirements

Support compliance with International Maritime Organization (IMO) standards for pollution prevention, worker safety, crew qualifications, and more.

- ▲ Advanced connectivity ensures onboard systems can continuously export detailed records that support regulatory oversight.
- ▲ Access to advanced digital safety tools enables crews to monitor onboard conditions, respond to hazards, and maintain a safer working environment.
- ▲ Immersive e-learning technologies support continuous training, professional development, and compliance with evolving maritime regulations—even while at sea.

# Enterprise-class features for maximum reliability, security, and flexibility

To successfully digitalize and automate ship operations, you need to go beyond consumer-grade and best effort LEO satellite services. Telesat Lightspeed delivers enterprise-class LEO satellite services that meet your business-critical connectivity requirements.



## Always-on connectivity

The Telesat Lightspeed network architecture includes redundancies and path diversity mechanisms on the ground and in space. Together, these safeguards create a resilient, self-healing network that's always available and always provides the fastest path between any two points on earth.

Throughout the voyage, satellite beams follow your vessel movements to provide complete coverage at all times. When ships enter congested waterways or busy ports, multiple satellite beams are concentrated on the area to maintain consistently excellent quality of service and quality of experience.



## Built-in cybersecurity at every level

Every network component, from the spacecraft to user terminals and the IT infrastructure used to manage network operations, is based on Secure by Design principles. These principles ensure that security measures are incorporated into hardware and software from the earliest design stages, and never added as an afterthought.

As a cornerstone of our Secure by Design approach, the network features a Zero-Trust Architecture where no user, device, or application that accesses the network is trusted by default, regardless of their role, type, or location. To support this requirement, we've adopted the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF) in its entirety for our corporate systems and included the CSF controls in Telesat Lightspeed systems specifications. We've also built-in hundreds of military-defined cybersecurity controls.

Your maritime service provider retains complete control over end-to-end data encryption.



## **Guaranteed performance**

Telesat Lightspeed connectivity services are backed with service level agreements (SLAs) that ensure your maritime service provider can always deliver the bandwidth and responsiveness your operations require. These performance guarantees are essential to support high-bandwidth and latency-sensitive applications such as cloud-based services, corporate virtual private networks (VPNs), and real-time connectivity assurance for automation at sea.

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## **Around-the-clock network monitoring and support**

We monitor the entire Telesat Lightspeed network 24/7/365 from our cybersecurity and satellite operations centres. We immediately advise your service provider of any network issues, and we're always available to speak with them by phone.

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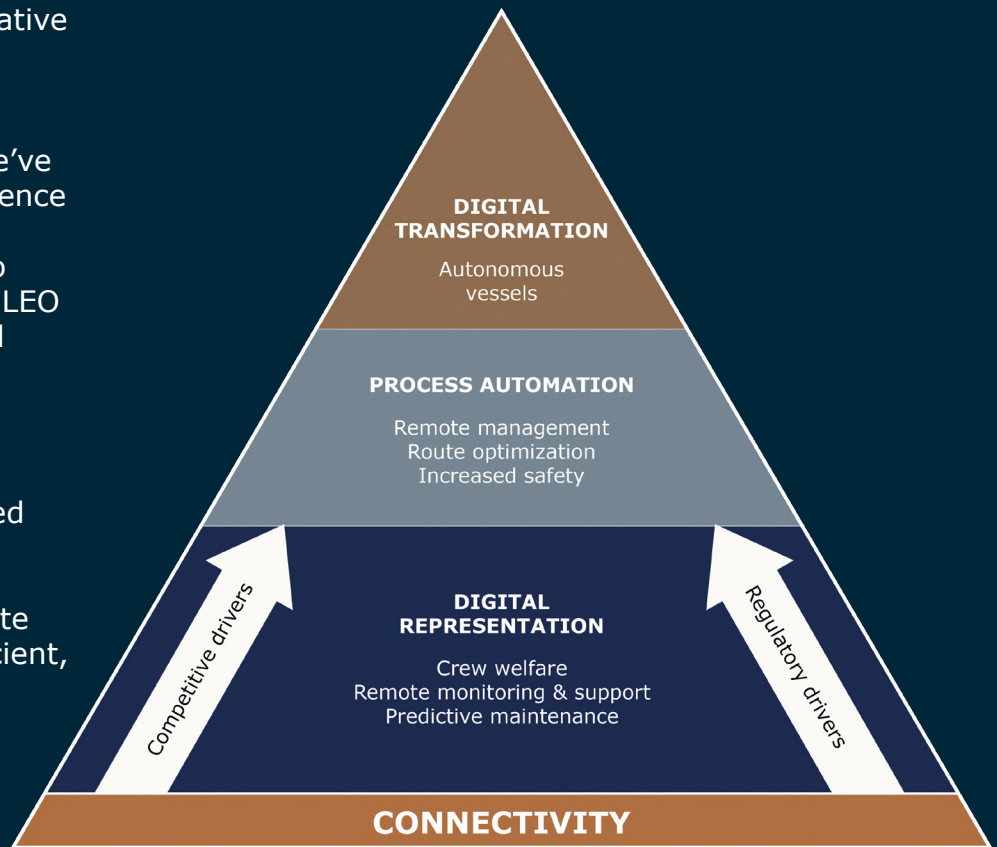
## **A range of antenna types and sizes**

The Telesat Lightspeed network communicates with antennas from an open ecosystem of manufacturers, giving you the flexibility to choose the optimal antenna size, performance level, and form factor. For maximum flexibility, our maritime portfolio includes antennas that support satellite services from multiple orbits.

# Count on a proven satellite industry leader

Telesat is one of the most innovative and successful global satellite operators. After more than 55 years delivering industry-first innovations in GEO satellites, we've combined our decades of experience with our deep understanding of enterprise-class requirements to develop Telesat Lightspeed, the LEO satellite network that's designed and built to support maritime digitalization and automation.

When your maritime service provider offers Telesat Lightspeed LEO satellite services, you have the reliable, secure, and flexible broadband you need to accelerate your journey to safer, more efficient, and cost-effective operations.



## Learn more

For more insight into how Telesat Lightspeed can help you accelerate digital transformation and automation, contact us at [www.telesat.com/contact-us](http://www.telesat.com/contact-us).

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