

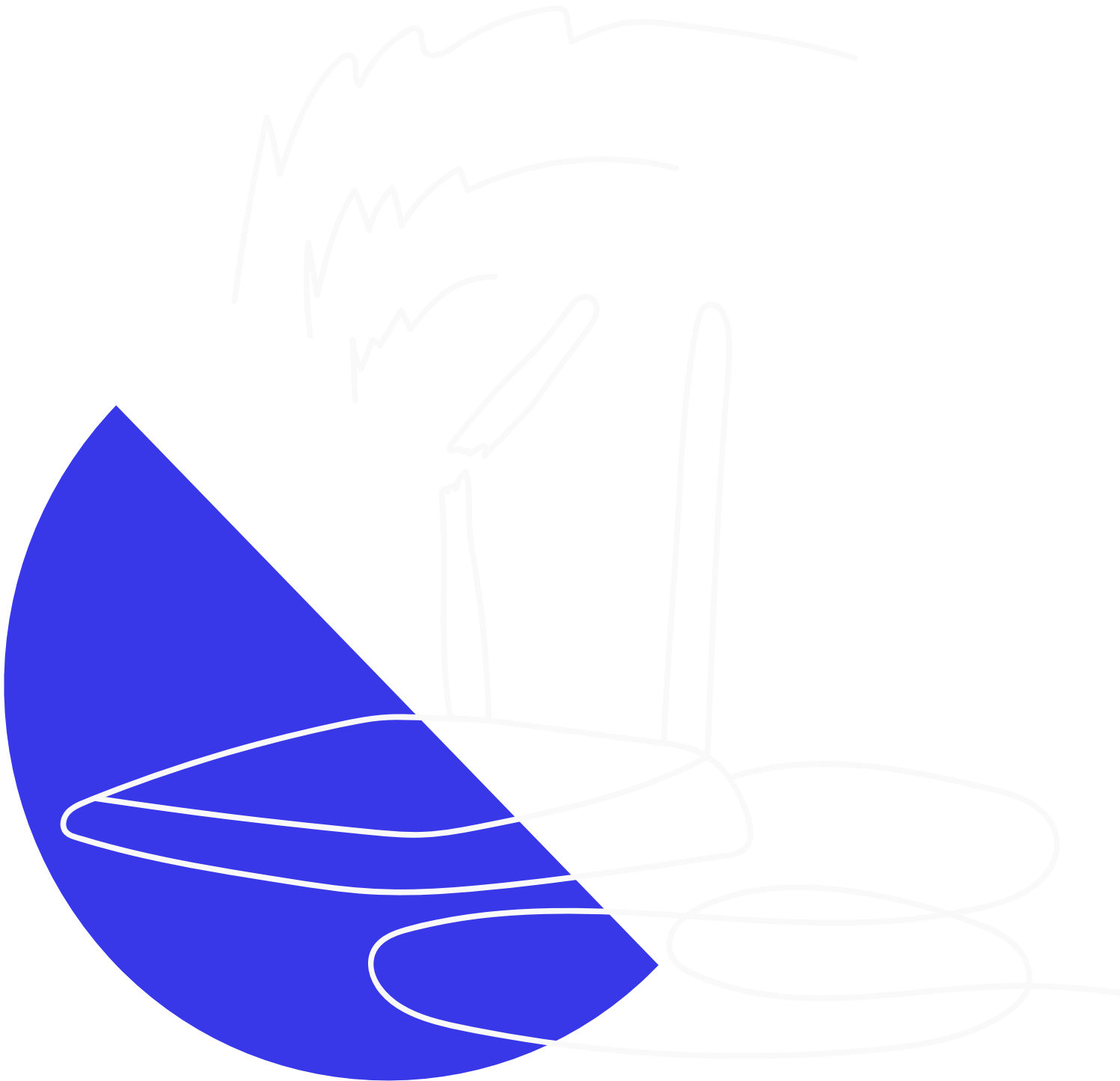


LEOs, GEOs and MEOs: Learn the Pros and Cons of Each

Description

LEOs, GEOs and MEOs: Learn the Pros and Cons of Each

Technology in the connectivity space is evolving at a rapid pace, and it can be hard to keep up. Different satellite technologies like LEOs, GEOs and MEOs, for example, are better used in certain circumstances than others. Let's explore the satellite options below.





Satellite terminology explained

- ○ 1Low Earth Orbit (LEO) satellites
- 2Geostationary Earth Orbit/Geosynchronous Equatorial Orbit (GEO) satellites
- 3Medium Earth Orbit (MEO) satellites

Compare your options

	LEO Satellites	GEO Satellites	MEO Satellites
Altitude	160-2,000 kilometres	35,786 kilometres	2,000-35,786 kilometres
Round-trip latency	Low (around 20-50 ms)	High (around 500 ms)	Moderate (around 100-150 ms)
Coverage	Regional coverage with constellation	Regional coverage (spot beam)	Regional coverage
Constellation Size (number of satellites clustered together)	Large (hundreds to thousands)	Small (typically fewer than 10)	Moderate (tens to hundreds)
Deployment Cost	High	Moderate to high	Moderate to high
Data Transfer Rates	High	High	High
Reliability	Dependent on constellation management	Generally reliable	Generally reliable



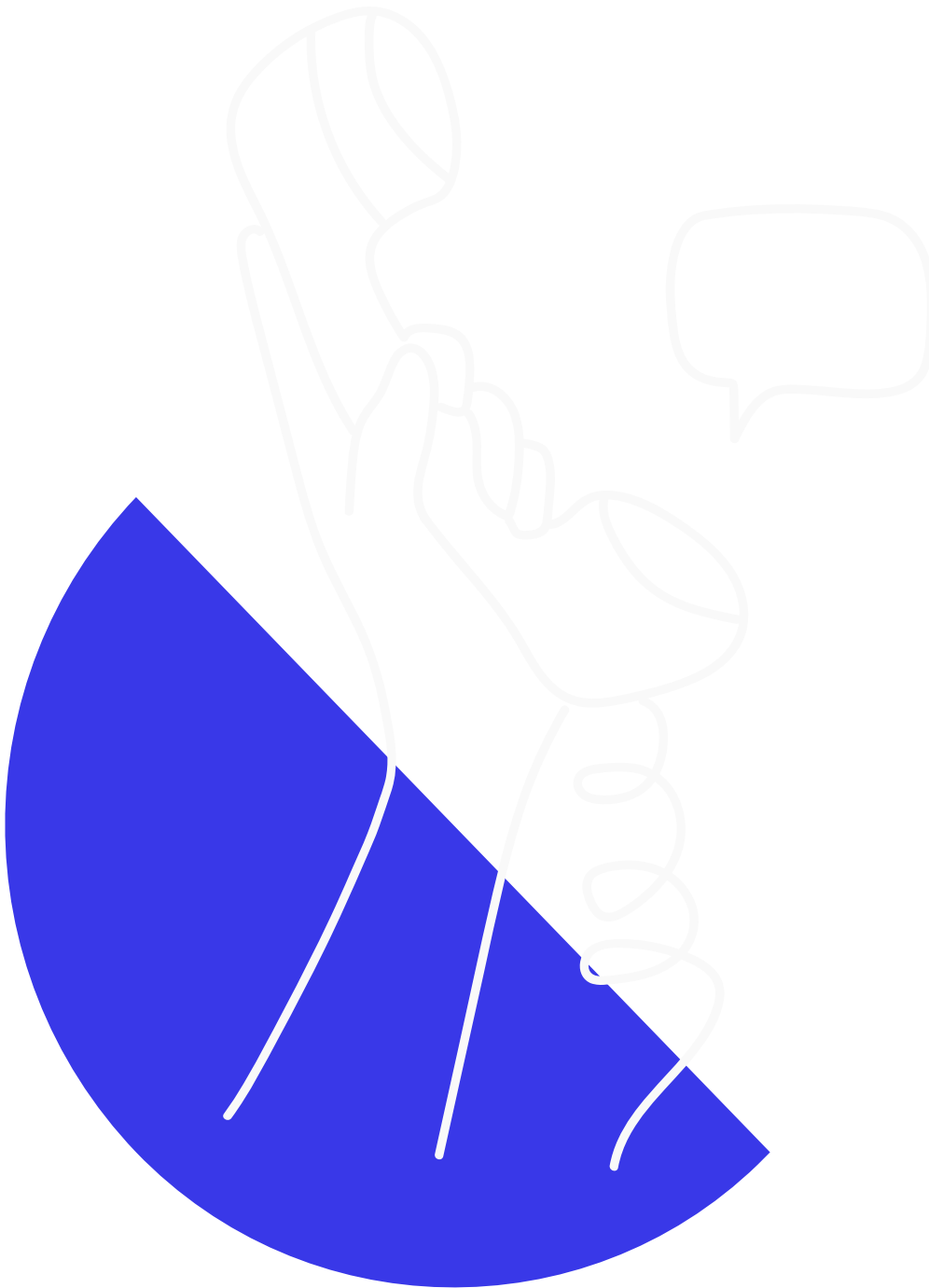
Better for phone or internet Advantages	Suitable for both	Suitable primarily for internet	Suitable for both
	<ul style="list-style-type: none">○ Low latency○ High data transfer rates○ Less susceptibility to atmospheric interference	<ul style="list-style-type: none">○ Wide coverage○ Stable signal strength○ Fewer satellites required	<ul style="list-style-type: none">○ Balanced latency and coverage○ Relatively lower deployment cost○ Improved latency compared to GEO
Disadvantages	<ul style="list-style-type: none">○ High deployment cost○ Need for large constellation for continuous coverage○ Potential for signal interference	<ul style="list-style-type: none">○ High latency○ Limited coverage area○ Signal degradation at higher latitudes	<ul style="list-style-type: none">○ Higher latency than LEO○ Less global coverage than LEO○ Higher deployment cost than LEO

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Date

20/01/2025

Date Created

12/03/2024