

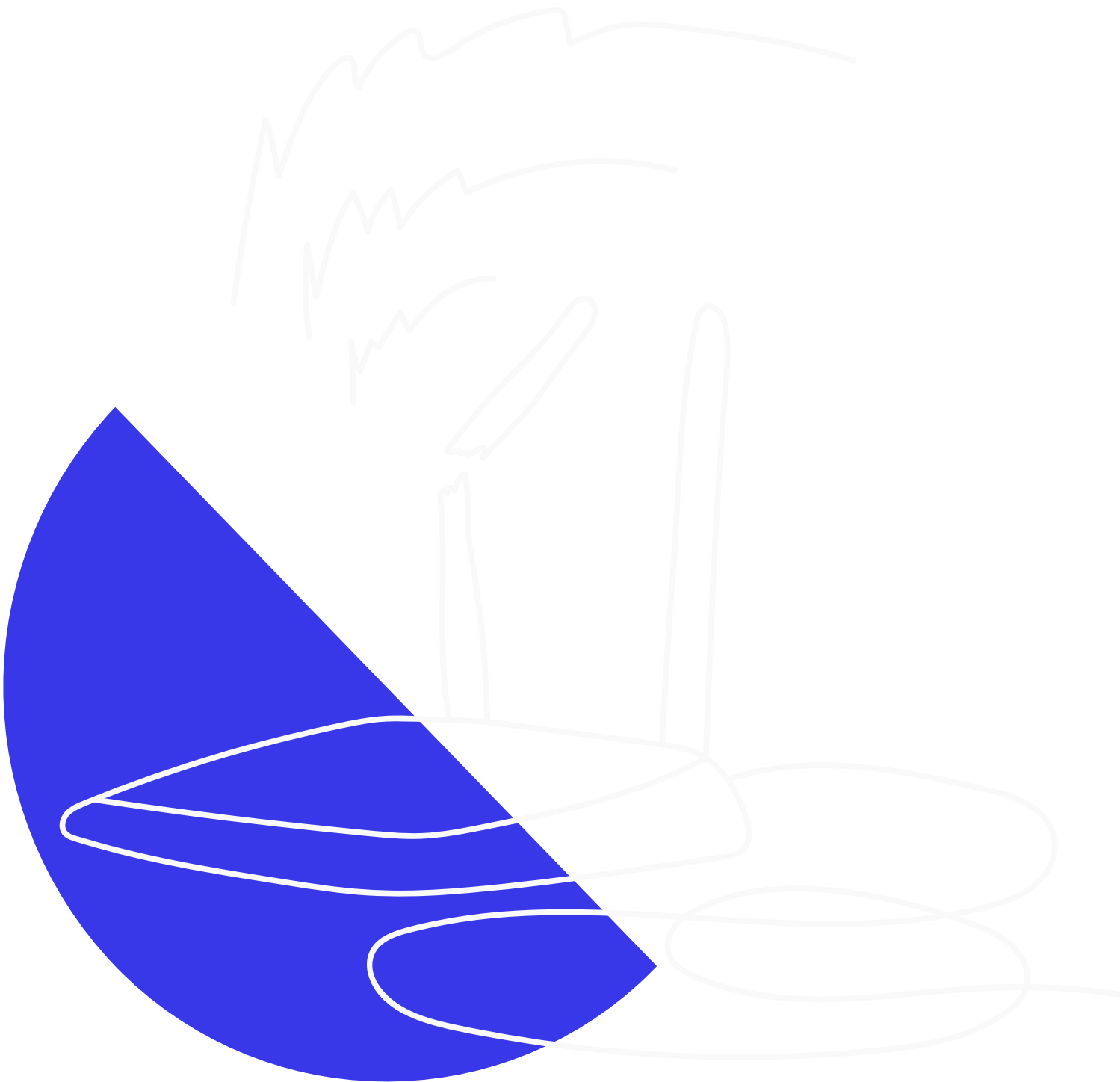


LEOs, GEOs and MEOs: Learn the Pros and Cons of Each

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.



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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



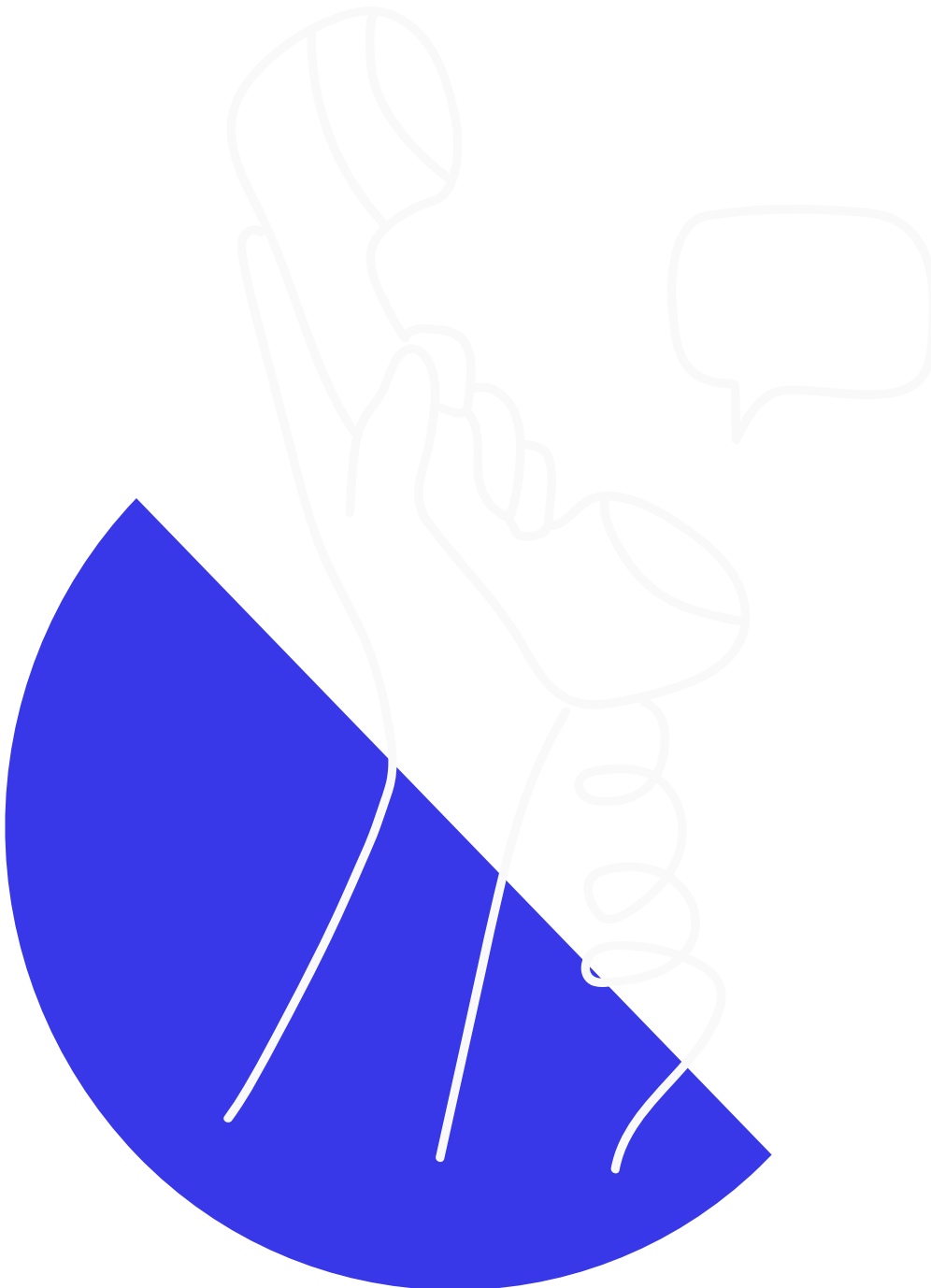
Better for phone or internet	Suitable for both	Suitable primarily for internet	Suitable for both
Advantages	<ul style="list-style-type: none">Low latencyHigh data transfer ratesLess susceptibility to atmospheric interference	<ul style="list-style-type: none">Wide coverageStable signal strengthFewer satellites required	<ul style="list-style-type: none">Balanced latency and coverageRelatively lower deployment costImproved latency compared to GEO
Disadvantages	<ul style="list-style-type: none">High deployment costNeed for large constellation for continuous coveragePotential for signal interference	<ul style="list-style-type: none">High latencyLimited coverage areaSignal degradation at higher latitudes	<ul style="list-style-type: none">Higher latency than LEOLess global coverage than LEOHigher deployment cost than LEO

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