

# O3b Services

The Reach of Satellite, the Speed of Fiber



## Blazing Fast Communications on Land and Sea

Mobile operators, ISPs, government and commercial customers are searching for a communications solution that delivers the big bandwidth and low latencies they must have to deliver the latest applications wherever they are needed.

O3b is the answer, revolutionizing communications with a groundbreaking, next-generation satellite constellation that delivers connectivity faster, more reliably and more affordable.

## Improved User Experience

Beyond major cities, the price of broadband remains high, fiber infrastructure remains poor, and there is a growing need for enterprise services together with 3G cellular backhaul across large unconnected and underserved areas.

Delays in information transfer time can negatively impact the Quality of Experience (QoE), having a significant effect on video, voice and data services. Latency degrades the user experience of interactive websites and cloud-based applications due to its much longer response time.

The result is a frustrating user experience, with web pages and file downloads taking too long to complete. Just like with voice service delays, the longer the delay in web page loading, the further customer satisfaction falls. Ten seconds is an intolerable eternity for consumers trying to access a web site.

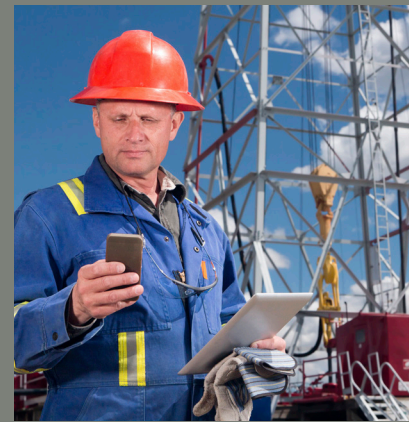
By modernizing their networks – particularly in rural areas – operators are improving their QoE and gaining a significant competitive edge. O3b customers are experiencing:

- Crystal clear voice and HD video
- Ultra fast response time
- Seamless use of cloud based applications
- Significant improvements in QoE
- A competitive edge

Ear-to-mouth delays can compromise the quality of a voice call beyond 200 milliseconds. O3b's roundtrip latency is less than 150 milliseconds opposed to geostationary satellite alternatives with a 500 millisecond delay.

## Benefits

- Highly scalable
- Exceedingly reliable
- Easy to maintain
- Affordable
- Global coverage



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## Low Latency

Latency is the time it takes for information to transit from the earth to the satellite and back again, which is the delay web users experience when loading a web page or callers hear on their phones. Based on thorough third-party evaluations and performance verifications, O3b guarantees ultra-low latencies of less than 150 milliseconds.

Low orbit contributes to O3b's low latency advantage. O3b's Medium Earth Orbit (MEO) satellites orbit at just 8,062 km above the Earth, so the signal has significantly less distance to travel than traditional satellites.

## High Throughput

O3b delivers at least four times the throughput of traditional satellite providers. Throughputs and low latency backhaul compatible with all forms of last-mile solutions - including 2G, 3G, 4G, WiMAX and LTE - enable O3b to meet the unprecedented demand for mobile broadband.

Services such as video streaming, interactive applications, cloud computing, online shopping, instant message and real-time video and data all gobble up bandwidth. O3b is the first operator to deliver 1.6 Gigabits of bandwidth over a single transponder. This high throughput service provides uncongested, single-hop connectivity to a Global IP backbone.

Add very low latency to the O3b equation and you have a viable alternative to terrestrial solutions.

## Vast Coverage Area

O3b Networks delivers broadband connectivity globally to a collective population of over 3 billion people.



## Features

- Ka-Band 12 satellite constellation, fully scalable to meet market demand
- Orbital height: 8062km
- Orbital inclination: <math><0.1^\circ</math>
- Ground period: 360 min / 4 contacts per day
- Optimal coverage between 45° north / south latitudes
- 10 beams per region (seven regions) totaling 70 remote beams per 12 satellite constellation
- Up to 1.6Gbps per spot beam
- 84Gbps available per eight satellite constellation
- Beam coverage: 700km diameter
- Transponder bandwidth: 216MHz; 2 x 216MHz per beam



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