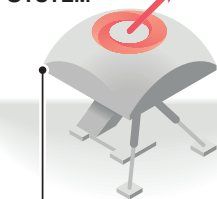


OneWeb's global broadband vision

OneWeb claims its low Earth orbit satellite network can deliver fast broadband to ships, aircraft and the most remote locations on Earth

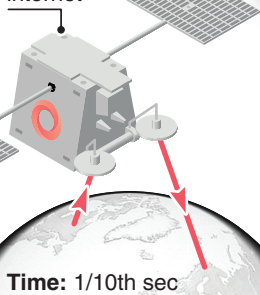


BROADBAND SYSTEM



Terminal: Encrypts data and sends to satellite fleet overhead (at up to **32Mbps***)

Satellite: Signal beamed to network portal on Earth (at up to **177Mbps**) and back into internet

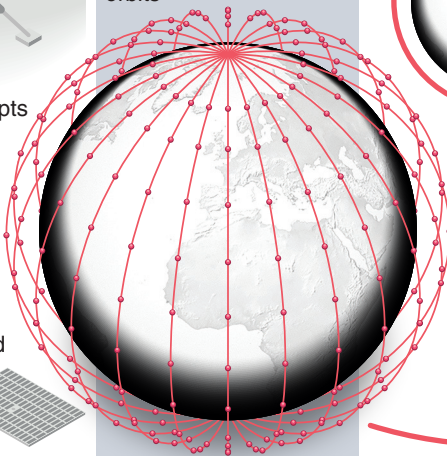


Time: 1/10th sec

SATELLITE CONSTELLATION

■ **74** of planned **648** OneWeb satellites launched to date

■ Satellites, each with life expectancy of **five years**, occupy **12** polar orbits



■ **Mar 2020:** OneWeb asks U.S. **Federal Communications Commission (FCC)** to approve expansion of its constellation of satellites to **48,000**. *Company files for Chapter 11 bankruptcy protection*

■ **Jun 2020:** UK government enters into joint venture with India's **Bharti Global** to buy loss-making OneWeb for **\$1bn**. UK set to lose access to EU **Galileo** system after Brexit

WHY LOW EARTH ORBIT IS FASTER

OneWeb low Earth orbit (LEO): **1,200km**



Latency (delay in sending and receiving data): **50-100 milliseconds (ms)**

Note: Doubts remain as to viability of OneWeb to double as sat-nav system

Galileo sat-nav system, medium Earth orbit (MEO): **23,222km**
Latency: Around **370ms**

Geostationary orbit (GEO): **35,000km**
Latency: **560ms**



bharti

*Megabits per second – 1 byte = 8 bits, therefore 32Mbps = 4 megabytes (MB) of data per second

Sources: OneWeb, The Parliamentary Review, Financial Times, E&T

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