



Mangata uses HEO and MEO satellites that orbit much higher and cover a bigger area than other systems | Photo source Mangata Networks

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## SATELLITE COMMUNICATION NETWORK CONNECTS REMOTE COMMUNITIES

 TELECOMMUNICATIONS

### The global system provides strong, continuous internet access with fewer satellites

**Spotted:** New telecommunications company Mangata has an inspiring goal – to bring reliable network connections to the four billion citizens with inadequate internet access. Using a combination of ground-based hubs and constellations of middle Earth orbit (MEO) and highly elliptical orbit (HEO) satellites, the company plans to make the cloud accessible everywhere. On-the-ground network operation centres are fibre-connected and provide strong and stable internet connectivity that the satellites then use to create uninterrupted service across the globe.

Data centres are located near underserved communities in order to minimise costs and maximise the speed and efficiency of data transfers. The company currently has four hubs in operation – one each in North America, the UK, Singapore and Seoul. An early 2022 Series A round of funding raised \$33 million (around €31 million).

The company plans to begin service in 2024, with the launch of eight HEO satellites that will provide service to the Northern Hemisphere. A further 24 MEO satellites will be launched shortly afterwards to expand coverage to the Southern Hemisphere and strengthen overall capacity. Testing planned for 2023 will analyse the network’s effective use of 5G and capability for IoT connections.

Mangata’s plans highlight the need for improved communication between countries and agencies, as well as a focus on sustainability, as space traffic grows rapidly. Springwise recently spotted a [tracking system](#) that helps prevent collisions between pieces of space debris, as well as a [wooden satellite](#) that burns up on re-entry as a means of preventing the production of such waste.

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Email: [more@mangatanetworks.com](mailto:more@mangatanetworks.com)

Website: [mangatanetworks.com](http://mangatanetworks.com)

## Takeaway:

Mangata is not the only company using satellites to extend internet coverage. For example, SpaceX's Starlink system has received significant media coverage in recent months – not least because of its **use in Ukraine** during the current conflict. Starlink is an example of a low Earth orbit (LEO) system. By contrast, Mangata has gone down the route of HEO and MEO satellites. A key benefit of an HEO/MEO system is that it requires just 27 satellites to provide full global coverage, whereas a system of LEO satellites needs at least 1,000 to do the same. This is because HEO and MEO satellites orbit much higher meaning each one can cover a far wider area.