**FAQ: OneWeb JV**

**Key facts**

* **SAR 750 million:** JV between NEOM and OneWeb **(USD 200 million)**
* **#2:** OneWeb is the second-largest satellite operator globally with **358** satellites in LEO
* **7 years:** NEOM T&D. exclusive rights to distribute OneWeb services in its target regions

1. **What is NEOM T&D?**

NEOM T&D. is powering the world’s first ecosystem of cognitive technologies at NEOM. It is the first holding company to be established as a subsidiary of NEOM, which has evolved from its technology and digital sector to lead the creation of the world’s first cognitive community. NEOM T&D, mission is to design and build a network of cognitive technologies that will enable predictive, personalized and autonomous services.

1. **What is a cognitive digital ecosystem?**

A cognitive digital ecosystem is an autonomous network of technologies - from AI to IoT, 5G, robotics, cameras, and sensors - that seamlessly interact, learning human behavior and using data, to predict and enable services that help you live, work and play.

Our whole purpose is to help move cities from being reactive to understanding that real-time information is simply too late. A cognitive digital ecosystem is a society where human potential is unleashed by proactive, predictive and cognitive technologies. By being able to understand and project what is going to happen, NEOM’s cognitive digital ecosystem can create new experiences and new value to the human experience. That is the core purpose of NEOM T&D Hold Co. – to deliver cognitive services and solutions.

The cognitive ecosystem is different from a smart city. Smart cities take real-time data and respond to it, which leaves us referring to what has just happened to create a solution. Cognitive cities are future-oriented, leveraging 90% of the data that is generated within the city to create value.

1. **What is OneWeb?**

**About OneWeb**

OneWeb enables connectivity for governments, businesses, and communities. It is implementing a constellation of Low Earth Orbit satellites with a network of global gateway stations and a range of user terminals to provide an affordable, fast, high-bandwidth and low-latency communications service, connected to the IoT future and a pathway to 5G for everyone, everywhere.

OneWeb’s constellation and deployment strategy are unique in the industry:

* **Truly global service and coverage:** OneWeb satellites, once fully deployed, will uniformly cover the earth’s surface, including the Arctic and northern latitudes.
* **Spectrum priority:** OneWebholds ITU priority rights in the Master Register for Ku band usage in LEO satellite systems. This means other LEO operators must not interfere with OneWeb signals and must co-ordinate if they wish to also offer services.
* **Working with local service providers:** As a B2B operation, OneWeb partners with local service providers in each market to ensure connectivity amplifies what is already available, rather than offering LEO connectivity as an alternative, helping providers expand their services to new areas.
* **The local system ensures secure data management for countries:** OneWeb’s deployment structure means it can ensure data traffic from one place is securely transmitted back to that same place without the need to travel through neighboring satellites or geographies.
* **Sustainability in Space:** OneWeb promises to leave no trace in space with its ‘Responsible Space’ commitments, based on the premise that space is a shared natural resource, which can help transform the way we live, work, and connect.

1. **What will the joint venture (JV) entail?**

The $200 million (SAR 750m) JV will see the development of a Low Earth Orbit (LEO) satellite constellation that will not only provide the rapid and reliable connectivity to enable NEOM’s ground-breaking ecosystem of cognitive technologies but also transform businesses and rural communities in MEA where access to fiber-like internet was beyond their reach. The agreement also includes a long-term strategic partnership regarding the research and development of future connectivity systems.

Through OneWeb, the JV will enable connectivity for governments, businesses and communities. It is implementing a constellation of Low Earth Orbit (LEO) satellites with a network of global gateway stations and a range of user terminals to provide affordable, fast, high-bandwidth and low-latency communications services, connected to the IoT future and a path to 5G for everyone, everywhere.

1. **How will the JV benefit connectivity in the region?**

Strong internet connectivity is typically limited to areas in reach of terrestrial communication infrastructures, such as fiber cables and towers. However, by being much closer to the earth’s surface than traditional satellites, LEO networks will not only provide faster service but also offer a path to a connected future for hard-to-reach areas, benefiting governments, schools and businesses and potentially stimulating economic growth

The JV will also help us to eradicate digital divides. LEO means we can not only reach absolutely everyone everywhere but with fast speeds – connectivity at 100 megabits per second and more.

The connectivity that this capability delivers will play an important role in advancing inclusive economic development. An inclusive environment is a realization of value by driving the full participation of all inhabitants.

The connectivity environment that NEOM T&D Holding Company is developing is called ‘Air’ – meaning that wherever the person is they can access the right connectivity, the right application, at the right place and at the right time.

This connectivity provides new access to education and healthcare services right across the region, even in those places that are hundreds of miles away from physical infrastructure.

1. **What is a Low Earth Orbit (LEO) satellite connection?**

A Low Earth Orbit (LEO) is an orbit around Earth with an altitude of approximately 2000 kilometers (1200 miles). The satellite constellation is designed to provide 100% global internet coverage. Unlike the more common Geosynchronous Equatorial Orbit (GEO) satellites which orbit along a path parallel to earth’s rotation to provide fixed coverage to a specific area, LEO satellites orbit much closer to the Earth's surface, resulting in faster internet connectivity. They also allow inhabitants of rural areas access to a cable-like internet connection as they reach areas that GEO satellites would not typically cover.

Using LEO satellites also removes the need to install vast networks of expensive 5G antennas on every street corner. That means that wherever you are, even without traditional infrastructure, you can experience the digital economy.

1. **Who else provides LEO services in Saudi Arabia and when will the service start?**

NEOM T&D Hold Co. and OneWeb, currently the second-largest LEO operator globally with 358 satellites and the only licensed operator in Saudi Arabia, expect to complete ground infrastructure by 2022. NEOM T&D Hold Co. will have exclusive rights to distribute OneWeb services in its target regions for seven years from the initiation of the LEO satellite network, which is expected to commence in 2023.

1. **NEOM product portfolio**

Tonomus’ technology portfolio ensures customers have a strong cognitive foundation. We are helping service providers and technology companies around the world to:

1. Connect: an environment of digital air using 5G technology and software everywhere e
2. Compute: on-demand computing power through our hyperscale data center
3. Contextualize: apply AI in ways we’ve not seen before to create and drive unique insights