# India’s First Satellite Network Portal Site

## Why in news?

OneWeb is to set up India’s first ‘satellite network portal site’ through a MoU signed with Gujarat government in Gujarat.

## What is OneWeb?

- OneWeb is a Low Earth Orbit (LEO) satellite company aiming to establish a global communication network.
- It offers broadband Internet access with lower latency of less than 100 ms, by utilizing *LEO satellites.*
- The GEO-based networks by traditional geostationary satellites provide efficient network services with latencies of 500-700 ms.
- The technology is currently working in *Europe and Canada.*

## What is the project about?

- OneWeb has 648 satellites orbiting at 1,000-1,200 km making 13 orbits per day, covering the entire globe.
- The satellite network portal (SNP) site will serve as a signal and data downlink and uplink terminal or base station on the ground.
- It also serves as an intermediary for data transmission through satellite tracking antenna systems.
- The SNP site aims to provide ***affordable connectivity*** to various sectors, including the government, offering continuous and secure satellite internet access at affordable rates nationwide.

## What are the key features of the project?

- **Location -** The satellite network portal is to be set up in *Katosan and Tejpura, Mehsana district of Gujarat.*
- Gujarat was chosen as the site for its combination of geographical and business interests.
    - Long coastline - Caters maritime interests
    - Business - Policy and incentives available in Gujarat met with OneWeb’s needs

  *India’s first round-the-clock solar-powered village Modhera is also located in Mehsana district.*

- **Cost -** It is scheduled to launch in 2023 with an estimated cost of over Rs. 100 crores

for its Phase-1.

- **Regulatory Approvals -** Setting up an SNP like this will require regulatory approvals from Indian National Space Promotion and Authorisation Centre *(IN-SPACe), Ahmedabad* and spectrum allocation from the *Telecom Regulatory Authority of India (TRAI) and DoT (Department of Telecom)*.
- **Role of DST -** DST Gujarat handles telecommunications and the Gujarat Electronics Policy (2022-2028).
- So, DST-Gujarat will facilitate fiscal, non-fiscal incentives and assistance with regulatory and statutory approvals, such as change of land use, building permits, and fibre connectivity.

## What is the significance of the project?

- **Technology -** 40 SNPs are required to cover the entire Earth, but a large geography like India needs 2 such SNP.
- The first one will be set up in Gujarat and the second is likely to be set up in the south.
- **Employment -** The project is also expected to generate approximately 500 direct and indirect employment opportunities in the state.
- **Service -** It provides satellite connectivity services to mobile network operators and internet service providers in a cost-effective manner.

## How is the relationship between OneWeb and India?

- Though OneWeb is an UK-based, India's Bharti Enterprises serves as a major investor and shareholder in the company.
- Bharti Enterprises' founder Sunil Bharti Mittal serves as OneWeb's executive chairman.
- India (ISRO) launched 36 GEN 1 satellites of OneWeb.
- A strategic 6-year Distribution Partner agreement between India (HCIPL) and OneWeb was announced to provide LEO connectivity especially areas outside the reach of fibre connectivity.

**Quick Facts**

**Satellite broadband technology**

- Also known as *satellite telephony,* it is a satellite communication technology using satellite constellations in the Low Earth Orbit (LEO).
- *StarLink, Kuiper and OneWeb* are some of the forerunners in this technology.
- LEO satellites operate at an altitude of *500 to 1,200 km.*
- The lesser distance offers *high-speed and low latency.*

**References**

1. IE | OneWeb to set up India's first 'satellite network portal site'

2. Economic Times | Gujarat to get satellite network portal site

