

NavIC in Mobiles

Why in News

Qualcomm Technologies has unveiled mobile chipsets supporting the Indian regional satellite navigation system - **NavIC** (**Navigation in Indian Constellation**).

 Users of such mobile chipsets will be able to use NavIC within the Indian region and neighbouring countries.

Key Points

- The release of chipsets will help accelerate the **adoption of NavIC by smartphone Original Equipment Manufacturers (OEMs).** The OEMs can now release any new models for the Indian market which are NavIC enabled, thus eventually making NavIC as a standard feature in the upcoming handsets, applications, processors, etc.
 - OEM traditionally is defined as a company whose goods are used as components in the products of another company, which then sells the finished item to users.
- The availability of NavIC across multiple mobile platforms will help enhance the geolocation capabilities of smartphones in the region.
- An Aid Against Crime:
 - In April 2019, the government has made NavIC-based vehicle trackers mandatory for all commercial vehicles in the country in accordance with the Nirbhaya case verdict.
 - NavIC in mobiles will facilitate the implementation of a key mandate from the Nirbhaya case verdict which required the installation of vehicle tracking systems and panic buttons in all commercial vehicles.
 - NavIC is set to become the backbone of a public vehicle tracking system in India since it
 offers flexibility to local law enforcement agencies to monitor vehicles unlike
 international systems like the GPS (global positioning system).
- In addition to NavIC, these chipsets will also support the widely used GNSS (Global Navigation Satellite System)
 - GNSS includes USA's GPS, European Union's Galileo, Russia's GLONASS and China's BeiDou Navigation Satellite System for global coverage.

Navigation in Indian Constellation (NavIC)

- It has been developed by the <u>Indian Space Research Organization (ISRO)</u>.
- The main objective is to provide reliable position, navigation and timing services over India and its neighbourhood
- Named after Indian fishermen and navigators, NavIC will provide two types of services-
 - Standard Positioning Service (SPS) is meant for the general public.
 - Restricted Service (RS) is an encrypted service meant for authorised users and agencies.
- Unlike the widely used GPS which includes 24 satellites, NavIC has **7 satellites** and their range is

- within India and its adjoining regions extending up to 1,500 km from the country's border.
- Technically satellite systems with more satellites provide more accurate positioning information. However, compared to GPS which has a position accuracy of 20-30 metres, the NavIC is able to pinpoint location to an estimated accuracy of under 20 metres.

Source: Mint

