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Bharat 6G mission

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Why is in news? Nine years of Modi Govt: Govt constitutes Technology Innovation Group on 6G to develop roadmap and action plans for 6G network

- The country has **already launched the 5G technology** in telecom sector, The Department of Telecommunications constituted a **Technology Innovation Group on 6G** on 1st November 2021, to develop Vision, Mission, and Goals for developing a roadmap and action plans for 6G network in India
- Giving a further push to this technological endeavour Prime Minister, while addressing the Silver Jubilee celebration event of Telecom Regulatory Authority of India (TRAI) held last year said, India's telecom sector is a great example of self-reliance and the **country should be able to launch 6G service by the end of this decade** as the task force has started working on it.
- The Prime Minister also said, the Government has encouraged healthy competition which has led to India having the cheapest telecom data charges
- Recently, The Union Cabinet also gave its nod to a **third revival package for public telecom- BSNL**, with a total outlay of 89 thousand 47 crore rupees. It includes an allotment of 4G and 5G spectrum for BSNL through equity infusion. Now the upcoming 6G network will also boost the tele-connectivity and will bridge the digital divide in the country.

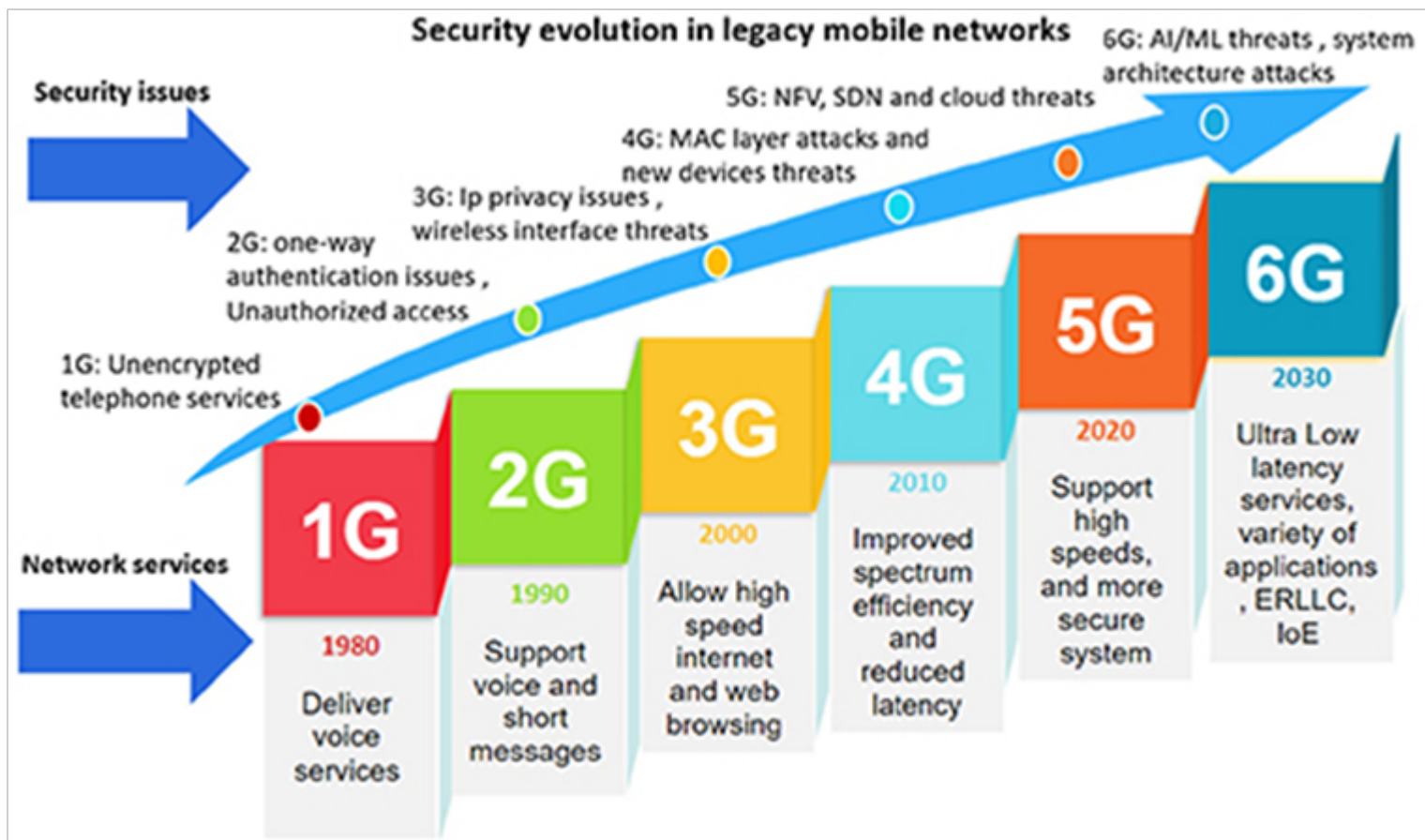
6G:

- Technically, not in existence today, 6G has been conceived as a **far superior technology than 5G**.
- As opposed to 5G, which at its peak can offer internet speeds up to 10 gigabits per second, 6G promises to offer **ultra-low latency with speeds up to 1 terabit per second (100 times faster than 5G)**.
- Its application will include remote-controlled factories, constantly communicating self-driven cars and smart wearables taking inputs directly from human senses.
- However, since the **majority of 6G supporting communication devices** will be battery-powered and can **have a high carbon footprint**, it will also need to be balanced with sustainability.

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Bharat 6G Mission:

- The Bharat 6G Vision Statement is as follows: "**Design, develop and deploy 6G network technologies** that provide ubiquitous, intelligent and secure connectivity for high quality living experience for the world"
- 6G Vision is based on **principles of Affordability, Sustainability, and Ubiquity**.
- The Vision for 6G is **fully aligned with the national Vision of Atmanirbhar Bharat** and will seek to empower every Indian to become Atmanirbhar (self-reliant) in their lives.
- At the same time, it ensures that India takes its rightful place in the world as a leading supplier of advanced telecom technologies and solutions that are affordable and contribute to the global good.
- The 6G Vision is thus timed just right for India's Aazadi ka Amrit Kaal.
- The Bharat 6G project will be **implemented in two phases** and the government has also **appointed an apex council to oversee the project** and **focus on issues such as** Standardisation, Identification of the spectrum for 6G usage, Create an ecosystem for devices and systems, and Figure out finances for research and development, etc.
- In **phase one (from 2023 to 2025)**, support will be provided to explorative ideas, risky pathways and proof-of-concept tests.
- Ideas and concepts that show promise and potential for acceptance by the global peer community will be adequately supported to develop them to completion, leading to commercialisation as part of **phase two (from 2025 to 2030)**.
- To fund research and innovation on 6G, the document recommended the creation of a corpus of Rs 10,000 crore to facilitate various funding instruments such as grants, loans, VC fund, etc.
- To decide on standardisation around 6G and related technologies, the document called for India to take on a greater role in various international bodies such as 3GPP, ITU, IEC, and IEEE.

Objectives:

- Facilitate and finance Research and Development, design and development of 6G technologies by Indian Startups/Companies/Research bodies/Universities;

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- Enable India to become a leading global supplier of IP, products and solutions of affordable 6G telecom solutions;
- Deploy 6G technologies to act as a powerful force multiplier for India@2030;
- Enable inclusive and significant enhancement in the quality of living experience of citizens in India and across the world.

Bharat 6G Alliance - B6GA:

- The Bharat 6G Alliance shall be an **alliance of domestic industry, academia, national research institutions and standards organisations facilitated by the Government**. The B6GA is expected to chart its own course of action based on the Bharat 6G Vision Document and further developments. B6GA will focus on the following:
- To help grow 5G Advanced/6G IPs and essential patents from India;
- Design and build Indian 5G Advanced/6G products and solutions;
- Support and energise Indian participation in 3GPP/ITU;
- To help build consortia of Indian Startups and companies;
- To facilitate market access for Indian 5G/6G technology products;
- Build coalition with like-minded 6G Global Alliances.