



The Big Picture - The 5G Debate

It has been reported that a **high-level committee on 5G is opposed to including Chinese vendors including Huawei in the 5G trials**. There is a persistent fear that equipment being sold by Chinese vendors includes a backdoor which can allow the Chinese government to access data from 5G networks.

What is the issue?

- The **Principal Scientific Adviser** to the government, K Vijay Raghavan, who also heads a high-level committee on 5G, has opined that India should proceed with 5G trials with all vendors straightaway, but must drop Chinese companies from the list.
- **Huawei, a Chinese telecom giant** which is a top 5G contender, has close ties to the People's Liberation Army and the Chinese Communist Party. Also, as per a Chinese law that came into existence in the year 2017, the **domestic companies have to provide intelligence when required by the communist party**.
 - This could be used against India, considering that both the countries do not share friendly relations.
- The US president has just **lifted the trade ban on Huawei**, and has asked US based companies to continue working with Huawei.
 - U.S. intelligence agencies had alleged that Huawei is linked to China's government and that its equipment could contain "backdoors" for use by government spies.
- **In India, Huawei still does not have the permissions for the 5G trials**. The company has already made **repeated assurances that it does not share any data with any entity**.
 - At present, India does not have any control over the data generated by Facebook, Google and other social media platforms and because their administrative hub is located outside India.
- All this has happened at a time when the Indian government has made its intentions clear to initiate the 5G trials soon.

Advantages of 5G

- It is the next - **fifth-generation of mobile internet connectivity** promising much **faster data download and upload speeds**, wider coverage and more stable connections.
- Apart from being a wireless technology, it does include components of fixed lines, satellites and internet.
- So far only two use cases related to 5G are being talked about in the world, one is driverless cars and other is the robot surgery.
- **As far as India is concerned, it does not need robot surgeries or driverless cars and the other use cases are yet to be found out.**

India vis-a-vis Huawei

- Currently, **in India, the 4G network of all the operators has been built by Huawei**. Also, the majority of 3G network in the country has been built by Huawei only.

- **Huawei has 30% market share in the component sector globally.** Also, the cost of its equipment is 20% lower than the other competitors.
- At present, **spectrum prices in the country are high, banning one of the major equipment manufacturers** which not only provides components at a lesser cost but also provides bank loans and vendor financing that too at much lower rates than the domestic banks do, **can lead to problems in the telecom sector.**
- [India-US collaboration in 5G](#) has been affected by the confusion on 5G between China and the U.S.
 - Also, since the US has itself lifted the trade ban on Huawei, it cannot pressurize India to put a trade ban on Huawei.
 - Though the US and China are involved in a trade dispute but probably due to the needs of its own industry, the US has softened the conditions vis-a-vis trade with China and hence with Huawei.
- **China, due to the [trade war](#) with the US, cannot just afford to scuttle India in any way.**
- The maximum [Intellectual Property Rights \(IPRs\)](#) for 5G are held by **Ericsson, Qualcomm and Nokia.** Huawei comes at the fourth number. The Ericsson and Nokia have committed to reduce the price of their components. India can also consider both these companies.

Cybersecurity and the State of India's Telecom Sector

- India is currently the **world's second largest telecommunications market** with a subscriber base of 1.2 billion.
- Right now, **the [telecom industry is going through financial distress.](#)** In fact, the telecom minister has constituted a committee under DoT Secretary to look out the ways by which the financial stress can be brought down. Even the state owned companies like BSNL and MTNL are going through crisis.
- **India still does not have its own internet protocols,** forcing it to depend on MNCs whether U.S. based or China based.
- India is yet to **have mechanisms to safeguard its [critical information infrastructure.](#)**
 - India needs to **develop electronic coding-decoding systems** of communication to secure its data on the internet. Private companies in other countries have access to various sources of funds and means to develop the same but in India they do not have any such backing.
- India is not very keen **on developing microchips.** Also, it still **does not have a backhaul for rolling out 5G.** Creating a strong backhaul would require laying of optical fibres at the important places in the country.
- Instead of having **tech-savvy people** at decision making levels in the telecom sector, India has bureaucrats who are generalists by nature.

There is a need to invite private industry in the discussions vis-a-vis 5G and Huawei. Also, with regard to 5G, India should take a holistic decision on the basis of its needs, requirements, ability and security.