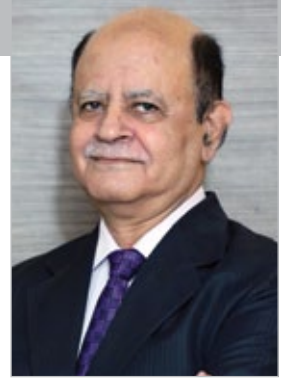


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TIME TO GET RID OF THE SIGNAL SABOTEURS



The rise of illegal mobile signal boosters poses a major challenge for India's telecom industry, causing network issues like call drops and slow data speeds

The mushrooming of illegal mobile signal boosters or repeaters, especially in urban locations, has emerged as a significant challenge for India's telecom industry. These devices, designed to amplify and distribute mobile tower signals in areas with poor connectivity, are commonly installed in buildings. While this issue is not talked about much in everyday discussions, the fact is - the widespread use of these unauthorised boosters is a leading cause of network issues such as call drops and slow data speeds, particularly in densely populated areas.

These devices are classified as "Wireless Telegraphy Apparatus" and "Wireless Transmitter" under the Indian Wireless Telegraph Act, 1933. The possession and sale of such equipment, without acquiring the necessary permissions under the Act and Rules framed therein, constitutes a breach of the Act's provisions and is a punishable offence. Despite this, these boosters are readily available in electronics markets and are installed by unauthorised entities in homes, offices, hostels, guest houses, etc.



The illegal use of boosters and repeaters interferes with mobile networks and diminishes the experience for all users in the periphery



Illegal mobile signal boosters adversely affect the connectivity uplink path and amplify received noise at the site, leading to a decline in network experience.

While telecom service providers (TSPs) typically install repeaters or small cells after meticulous inspections in response to specific requests or identified needs, they ensure that such installations do not disrupt network coverage for individuals outside the distribution area. However, the unchecked illegal use of repeaters interferes with mobile networks, diminishing the experience for all users in the periphery.

These boosters adversely affect the connectivity uplink path and amplify received noise at the site, leading to a decline in network experience, Key Performance Indicators such as accessibility, retention, and user throughputs. Further, these devices usually support all spectrum bands and operate continuously, thus interfering with the service provider's cell sites. The increased interference in the uplink also causes mobile handsets to transmit at a higher power to maintain connectivity with the site, leading to increased battery consumption and a degraded network experience.

Such illegal signal repeaters have been discovered in substantial numbers in various Indian cities, including major metros like Delhi, Mumbai, Kolkata, and Bengaluru. In Delhi NCR alone, over 30% of cell sites (approx. 8,000 cells) have high interference from illegal repeaters across all bands and technologies, with 9 locations having the highest concentration of illegal repeaters. In some areas like Laxmi Nagar, PG Hostels even advertise "Network Boosters" as a facility for tenants. Back in February, in Nagpur, the Wireless Monitoring Organisation (WMO) of the Department of Telecom (DoT) and city police conducted raids in localities like Itwari, Mominpura, and Gandhi Bagh, whereby seven boosters, 30 antenna panels and several meters of cable were seized.

Locating and shutting down illegal repeaters is a laborious task and the telecom industry requested DoT to take appropriate measures in this regard. In a welcome development a few months back, DoT issued guidelines on how to deal with matters unauthorised boosters and repeaters which are causing harmful interference to telecom services. As per the guidelines, the WMO will be

inspecting sites upon receiving complaints of interference and can take penal action against those who do not remove or surrender such illegal equipment on being notified by the government. This is a positive step by the government, as the issue is so severe that it impedes the licensed operators' ability to provide uninterrupted telecom services and launch new services.

THE IMPACT ON TELCOS

Already burdened with debts, the telecom industry is facing massive losses due to this problem, as it is losing thousands of crores of investment, necessitating immediate intervention from the relevant authorities. The industry demands that those selling, installing and housing these illegal repeaters be held accountable. The Indian Wireless Telegraph Act, 1933, clearly prohibits the possession of wireless telegraphy apparatus without a license, and violation of this law can result in serious penalties. To effectively deter the use of such illegal devices, we believe that their use must be treated as a punishable offence with adequate jail terms, a fine, or both.

The other equally grave issue is that these devices are readily available in the grey market and on e-commerce platforms. The DoT and TSPs have written numerous detailed letters to the e-commerce websites and platforms selling such illegal equipment, informing them that possession and sale of such equipment, without obtaining requisite permissions constitutes a violation of the provisions of the Telegraph Act. Though some of the e-commerce companies have ceased such activities, others still continue to sell them.

While it has been conveyed to the e-commerce companies that no person or dealer, shall sell or hire a wireless set or equipment to any person unless such person or dealer holds a valid Dealer Possession License (DPL), the online companies contend that their role is of an intermediary only and they do not need a DPL. But DoT has further clarified that e-commerce portals are operating as an "online marketplace" and hence, are covered under the purview of the Information Technology

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THE BOOSTER PROBLEM

- Illegal mobile signal boosters in India pose a significant challenge to the telecom industry, causing network issues and hindering connectivity.
- The use of unauthorised repeaters disrupts mobile networks, leading to call drops, slow data speeds, and degraded network experience.
- The possession and sale of illegal boosters violate the Indian Wireless Telegraph Act, 1933, and punishable actions can be taken against offenders.
- Telecom service providers face substantial losses due to the proliferation of illegal boosters, necessitating immediate intervention from authorities.
- Similar problems exist globally, and countries like Australia, South Africa, the USA and UK have implemented strict regulations and penalties against illegal booster usage.


Act 2000 as intermediaries. Hence, the IT Act and Information Technology (Intermediaries guidelines) Rules, 2011 apply to them, whereby it is the responsibility of these intermediaries to follow certain due diligence guidelines, including the signing of a “User Agreement” for access or usage of the intermediary’s computer resource by any person, which includes the need for compliance of any law by the sellers and the purchasers.

Furthermore, in case a wireless apparatus or transceiver is required to be imported from abroad, the importing entity needs to obtain an import license, as required under relevant Customs rules. So, the arguments of e-commerce companies to justify the possession, sale and use of such illegal devices by unauthorised entities do not hold ground.

One also does not realise that these devices are not even an effective solution to enhance network coverage in an area since most manufacturers of illegal boosters often utilise inexpensive and recycled components that have short lifespans. These devices typically exhibit poor performance, generate excessive noise, and users are constantly exposed to the possibility of legal consequences. The lack of provisions for refunds, warranties, and customer service means that users have no recourse if any issue were to arise. Given the highly unregulated nature of the market, malfunctions are also frequent, posing a potential risk to the individuals in close vicinity of such devices.

A GLOBAL MENACE

The concerns about the widespread use of illegal mobile signal boosters or repeaters are not limited to India. Globally too, this has been a menace in several countries that are grappling with similar challenges. In the USA, the Federal



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Communications Commission (FCC) has implemented strict regulations against the use of unauthorised signal boosters, and violators can face substantial fines. In 2013, the FCC further adopted new rules that require all consumer signal boosters to be registered with a wireless provider before use.

In the United Kingdom, Ofcom has made it clear that the use of these devices can lead to interference with emergency services and other radio users. They have also implemented strict penalties for those found to be using or selling these devices, including fines and potential imprisonment. In Australia, the Australian Communications and Media Authority has taken a multi-faceted approach to address the issue. They have launched public awareness campaigns about the risks associated with using illegal boosters. At the same time, they also conduct raids to confiscate these devices and have implemented strict penalties for those found to be using or selling them.

In South Africa, the Independent Communications Authority of South Africa has warned that the use of such devices can lead to interference with other users' signals and can degrade the quality of service for all users and also implemented strict penalties for those found to be using or selling these devices.

DEALING WITH THE PROBLEM

To mitigate these issues, the sale of illegal repeaters should be banned with immediate effect, and the Telecom

Enforcement Resource and Monitoring and WMO should be empowered to take strict legal action against the offenders. Regular inspections need to be conducted to ensure that only authorised boosters are installed in areas where there is a need for signal amplification. There is also a need for time-bound resolution of identified network interference cases to ensure the flawless delivery of telecom services to customers.

While it is important for the authorities to act against the use of illegal boosters, it is also important for the public to be aware of the fact that these boosters are not only illegal, but also harmful to the network infrastructure, and can lead to poor quality of service for all customers. Besides, they also have the potential to disrupt emergency communication services, such as police and ambulance communication channels, which could lead to serious consequences.

The users also have a responsibility to be aware of the risks associated with illegal boosters and to refrain from using them. The industry will continue to work closely with the relevant government authorities to raise awareness about the negative impacts of using such devices and to enforce the Indian Wireless Telegraph Act, 1933. Only by working together can we ensure a safe and reliable telecommunication infrastructure for all. 🌐

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