Amplifying the signal is the only way to enable train passengers to make calls and surf the Internet easily. This is because modern coaches have sealed, metal-coated windows, creating a Faraday cage and largely blocking mobile signals from entering the coach. If the signal is not amplified, mobile phones switch to maximum battery power.

Mobile phone users can make calls via the mobile phone network.

Laptop users can surf the Internet via the mobile communications network.

Smartphone users can surf the Internet via the mobile communications network.

In-train mobile phone repeaters amplify signals in both directions.

This is how it works

The repeater receives mobile phone signals via the external antenna and amplifies them directly into the coaches. These repeaters support both 3G/UMTS and 4G/LTE – the next generation in mobile communication. Together with telecom providers, SBB is equipping around 1,100 long-distance coaches with repeaters by the end of 2014. This will give customers a noticeable improvement in network coverage for making telephone calls and browsing the Internet.

A leaky feeder transmits the signal inside the coach and distributes this evenly.

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