

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.

Mobile phone antenna
(Swisscom, Sunrise and Orange)

Mobile phone users
can make calls via the mobile phone network

Mobile phone service

Antenna

In-train mobile phone repeaters
amplify signals in both directions

Smartphone users
can surf the Internet via the mobile communications network

Laptop users
can surf the Internet (with a mobile data card) via the mobile phone network

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

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.