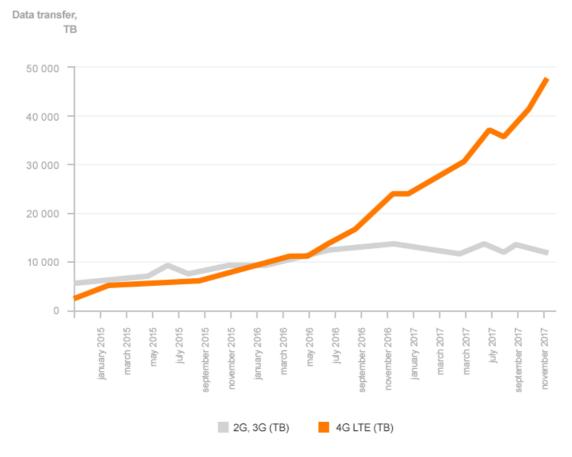
## Press release

## Orange Polska will allocate more bandwidth to LTE 4G

Orange Polska has concluded an agreement with T-Mobile, which will allow to better use the available radio band resources and increase the capacity of the LTE 4G network by nearly 40% by 2020. In addition, the company will continue to increase and expand its base stations. As a result, customers will be able to use the mobile internet more comfortably.

- Data transfer in the Orange Polska mobile network in 2017 doubled. The 4G LTE network is responsible for the majority of growth - the transfer increased over three times during this period, and the trend continued also in the first quarter of 2018, when the year-on-year increase was double. Because significant amounts of frequencies are still allocated for older technologies - 2G and 3G, Orange Polska decided that apart from building new stations and expanding 4G LTE networks based on the 800 MHz and 2600 MHz band won in the auction, it will also optimize the use of frequency resources.

## Data transfer in the Orange Polska mobile network



The first of the changes includes the conversion of 15 MHz used jointly with T-Mobile in 1800 MHz frequency into two independent carriers of 10 MHz. This will allow increase the capacity of the 4G LTE network in this band by approximately 1/3 in a short time. The second element of optimization will be the LTE commissioning in the 2100 MHz band. Orange Polska will spend 10 MHz used by the 3G network so far.

Both changes will allow aggregation of up to four so-called carrier bands, which will translate into network capacity and higher transfer speed. The total amount of bandwidth the company allocates for LTE services will increase to 45 MHz. At the same time, in order to maintain the quality of the 3G network, the use of 4.2 MHz jointly with T-Mobile for UMTS900 services will also be converted into two independent 4.2 MHz carriers.

The change in bandwidth usage in the 900 MHz frequency will take place by the end of 2018, while in the frequency 1800 - until 2019-2020.

Band	1800 MHz	2100 MHz	900 MHz
Now	LTE 15 MHz	LTE 3G 0 15 MHz	3G 4,2 MHz
Future	LTE LTE 10 MHz 10 MHz	LTE 3G 10 MHz 5 MHZ	3G 3G 4,2 MHz 4,2 MHz

Agreement with T-Mobile does not mean the end of cooperation within Networks!, but only the departure from cooperation in the bandwidth sharing model (so-called MOCN, Multi-Operator Core Network). Operators will continue to share the infrastructure (access to the radio network) in the MoRAN model (Mobile Operator Radio Access Network). Customers will not lose access to base stations, but will benefit from better network quality.

Changes in bandwidth usage are part of a consistently implemented process of expanding and increasing the capacity of the mobile network. In 2017 the number of base stations with 4G LTE that can be used by Orange Polska's customers exceeded 10,000, and the number of base stations serving the 4G LTE bandwidth aggregation reached nearly 4,000.

Works on the development of mobile and fibre-optic networks are mutually complementary activities whose aim is to provide Orange Polska's customers with the highest quality services, regardless of the place where they use them. It is also the basis for building a convergent offer, the flagship product of which is Orange Love.

## Contact for the media:

Wojciech Jabczyński Orange Polska Spokesperson biuro.prasowe @orange.com

Our blog: biuroprasowe.orange.pl/