Open Fiber successfully tests 50G-PON technology

The new 50G-PON technology will enable OF's fibre infrastructure to support the development of the most advanced digital services and the connection of 5G mobile networks.

Open Fiber is among the first companies in Italy to have tested in a controlled environment the new 50G-PON (50 Gb) broadband access service, by which is possible to achieve speeds of up to 50 Gbps (500 times greater than 100Mbps) on the access network. Test results show the huge potential of this technological upgrade in terms of bandwidth and latency times of a few tens of microseconds.

These parameters will be crucial in order to continue to meet users' needs in terms of quality of experience and speed, even more considering that they are constantly and rapidly growing: the 2/2023 AGCOM Communication Markets Monitoring System shows that average monthly traffic per user on the fixed network increased by +102.8% in 2022 compared to 2019. Moreover, this new technological frontier will open up to new service scenarios and will play a crucial role in binding access network elements in 5G mobile networks. Next-generation mobile networks require transmitting antennas densification (microcells) and must have a large transmission capacity. Thanks to 50G-PON technology and the widespread reach of the PON network, the FTTH access network will become a platform for achieving fixed-mobile convergence, becoming an important enabler for new applications that will travel on the 5G network, from home automation to assisted driving, to the metaverse and AI.

The experimentation also demonstrated the possibility of running the new 50 Gb service in parallel, and without interference, to the other services already offered by the company (XGS-PON, i.e. 10 Gb).

"Open Fiber has always been a pioneer in the search for cutting-edge technological solutions that enable ever greater capacity and speed in data transmission," comments Guido Bertinetti, Director of Network & Operations of Open Fiber. The success of this experimentation will soon allow us to quickly provide our partner operators with a new standard to offer their customers, companies and public administrations, capable of supporting both current and future advanced digital services."

About Open Fiber

Open Fiber was established to build ultra-broadband fibre-optic network (FTTH) infrastructure throughout Italy. The goal is to ensure coverage of Italy's main cities and to connect rural areas through an ultra-broadband fibre network, providing increasingly advanced services and functions for citizens, businesses and the public administration. Open Fiber is a wholesale-only operator, it does not sell fibre services directly to the end customer but makes its infrastructure available to all interested operators on equal terms. With over 15.5 million ultra-broadband-connected property unities (P.U.s), Open Fiber is the leading Italian FTTH fibre optic operator and among the leaders in Europe.