



Semi-GPON

The UBB Access service on Semi-GPON network allows to provide the Operator with the passive FTTH connection between the street cabinet and its final customer.

WHO IT IS FOR

FiberCop is, in fact, a Wholesale-only Operator, and does not therefore sell its services to end customers; our offer of intermediate network services is instead is instead aimed at Operators holding individual licenses, or general authorization in the field of telecommunications networks and services, in line with the provides for the "Electronic Communications Code.

CHARACTERISTICS OF THE SERVICE AND CONDITIONS OF SUPPLY

The reference architecture for cities defined in the coverage plan of the new secondary fibre network of FiberCop, provides points of road presence in optical cabinets (Optical splitline Cabinet also called CRO) from which the secondary FTTH network branches out towards the housing units.

The reference architecture - available on www.fibercop.it - is characterized by the following networkelements :

- secondary point-to-point optical network from the optical cabinet to the building, including the adduction section;
- Building Termination Point (PTE);
- Optical cabinet in which the passive optical splitters are placed;
- overall splitting factor of each single Semi-GPON equal to 1:64, obtained with 2 splitting levels: 1:4 primary and 1:16 secondary, both placed in the placed in the optical cabinet;
- Semi-GPON delivery point on entrance door of optical cabinet;

In the case of cities already developed in FTTH before the establishment of FiberCop, the reference architecture of the Semi-GPON network of FiberCop provides for a distributed splitting along the secondary network; the first splitting level takes place at the at the CNO (Optical Node Center) and a second level at the PTE, for an overall ratio ratio always equal to 1:64.

In order to access the delivery points of the Semi-GPON (CRO/CNO) in both architectures, the Operator may connect its primary network in fire to the manhole adj acent to the CRO/CNO called PTO (Termination Point). The operation, defined as "infrastructure service", is provided by FiberCop, through dedicated planning, to be agreed with the commercial structure of Fibercop. At the end of the "infrastructure service", in order to provide end customers with its own commercial FTTH service, the Operator will be able to use the individual UBB accesses, realized in in Semi-GPON technology.

BIDDING PROCEDURE

The offer Conditions of the Full-GPON service are differentiated between the geographic areas in which the Operator chooses to co-invest with FiberCop in the deployment of the new networkin fibre.

The Co-investment Offer (https://wdc.wholesale.telecomitalia.it) published on January 29, integrated on April 21, 2021, offers all the details about it. Below we list the main points.

MODALITIES OF ADHESION OF CO-INVESTORS

Participation in Co-investment involves a commitment by the operators concerned to share the risk of the interested Operators, for the sharing of the risk of realization of FiberCop' s FTTH Network.

The two ways of adhesion are:

- via IRU (Indefeasible Right of Use) in Access;
- via Guaranteed Minimum.

Depending on the method chosen and the year of j oining, Co-investors have access to a customized price list, based on the time horizon. have access to a personalized price list, based on the time horizon of the Co-investment plan. The price list will be formalized at the time of accession with the commercial structure of FiberCop.

Both methods provide for a minimum geographical threshold, equal to a single municipality. As an exception to this general principle, on the basis of possible market requirements, for municipalities with an ISTAT population of over 200,000 inhabitants, requests for membership may also be evaluated even for fractions of the municipality of significant size.

Co-investors may choose to use different modes of investment (IRU or Guaranteed Minimum) in different geographic areas (Municipalities), as well as deciding to j oin the Co-investment in areas (Municipalities) with a smaller geographical extension than the entire FiberCop plan.

REGULATORY CONDITIONS

In the case of ioining through a 20-year IRU, the Co-investor acquires the CRO Access Service described below, with respect to all the optical cabinets optical cabinets built by FiberCop in the Municipalities in which the Operator has chosen this mode of Co-investment.

In exchange for payment of the 20-year IRU fee, whose tariffs are in the following table, the service of Access to the CRO in IRU foresees:

- 20-year access to optical closet equipment (optical splitters and patch cords) to serve up to 64 customers; each CRO access means the availability of a primary splitter to which a maximum of 64 point-topoint connections in secondary network;
- the right to apply the Pay per Use prices of the Links reserved for the Coinvestors listed below, valid for 20 years from the year in which the Coinvestment is signed, without any further commitments on the volumes of UBB Links and related turnover; the Pay per Use prices applicable are those relating to the year of j oining the Co-investment.

For each optical cabinet, the Operator may request a maximum of two accesses to the CRO (two primary splitters); further primary splitters will be subj ect to feasibility checks.

Anno di adesione del Co-investitore	IRU 20 anni per Accesso al CRO (€/splitter primario)	
2021-2027	3.500	
Dal 2028	A prezzi di mercato	

ADHESION VIA MINIMUM GUARANTEED

In case of adhesion via Guaranteed Minimum, the Operator undertakes specific minimum annual turnover commitments for the purchase of UBB Connections, for a time horizon of 10 years, in accordance with the conditions described below. The minimum guaranteed annual turnover values are calculated on the basis of the Operator's volume development plan for UBB Connections over the ten-year horizon, according to the prices of the UBB Connections reserved for the Co-investors, while complying with the minimum entry threshold for Co-investment at the Guaranteed Minimum as indicated below.

Co-investors can adhere to this business model, either if directly interconnected to FiberCop's network, or through the network interconnected to Fibercop by other operators who are already Co-investors. In this last configuration, adherence to the Guaranteed Minimum model is obtained by accumulating the passive accesses, which the Operator buys directly from FiberCop, with the active accesses (VULA or bitstream FTTH type) that the same Operator purchases from other Co-investors.

MINIMUM ENTRY THRESHOLD FOR ADHESION VIA GUARANTEED MINIMUM

The entry threshold for the Minimum Guaranteed Co-investment is equal to a number of UBB accesses, purchased by Fibercop, attributable to 10% of the UITs (Technical Real Estate Units) covered in the set of municipalities chosen by the Co-investor. This quantity is referred to a time frame of ten years from the year of adhesion in the municipalities selected by the Co-investor.

In order to allow operators whose customer base does not meet the above-mentioned minimum threshold of 10% to also participate in the Co-investment, facilitated access to the Co-investment is envisaged; this method is expressly reserved for operators with a retail market share of broadband and ultra-wideband access at national level of less than 5% (as inferred from the Communications Observatory published by AGCom). These operators will be considered Co-investors for all effects and will have access to the "Pay per use" prices of the connections reserved for this category, on condition that they undertake to purchase, within a period of ten years from j oining, a number of accesses equal to at least the value of the network. a number of accesses equal to at least 1% of the ITUs covered by FiberCop, in the Municipalities selected by the Co-investor.

Smaller operators using this method of facilitated access to the Co-investment with a reduced level of volumes (guaranteed minimum) in the areas in which they use it, must acquire connections through another Co-investor, obtaining from the latter active accesses of the VULA-H or bitstream-H. It should be noted, however, that the Minor Operators, as defined above, always have the possibility of j oining the Co-investment with the two standard modes of participation (Access to the CRO in IRU and commitment to purchase purchase of "guaranteed minimums" of not less than 10% of the ITUs of the municipalities of interest) in the municipality or municipalities of their interest.

SEMI-GPON ACCESS PAY-PER-USE PRICING FOR CO-INVESTORS

For the provision of the Semi-GPON Connections in the geographic areas in which the Operator adheres to the Co-investment, the prices indicated in the table apply, prices that vary according to the year of accession to the Co-investment and that remain unchanged for the entire time period of accession:

Anno di adesione del Co-investitore	Corrispettivo Mensile per Collegamento Semi-GPON (€/m)	Contributo per attivazione (€)	Contributo per cessazione(€)
2021	8,50	70,00	20,00
2022	8,71	71,00	20,30
2023	8,93	72,00	20,60
2024	9,16	73,00	20,90
2025	9,39	74,10	21,20
2026	9,53	74,80	21,40
2027	9,69	75,40	21,60
Dal 2028	A prezzi di mercato		