



**Wholesale Market**

**VULA**

Ultra-broadband 'at Km 0'

 **TIM**

With the VULA service, you can collect your customers' ultra-broadband accesses directly from the TIM exchange on your network, without any transport costs ('you don't pay for bandwidth').

## Service features

FTTCab/FTTE accesses	FTTH accesses	National coverage
<ul style="list-style-type: none"> <li>DOWNSTREAM UP TO 200 Mbit/s</li> <li>UPSTREAM UP TO 20 Mbit/s</li> </ul>	<ul style="list-style-type: none"> <li>DOWNSTREAM 1 Gbit/s</li> <li>UPSTREAM 100 – 300 - 500 Mbit/s</li> </ul>	88%

## Who are they for?

VULA is the ideal solution if:

- you have an extensive network throughout the country
- you have many customers focused on a few exchanges
- you want to customise your offer

You can use VULA, Bitstream NGA and Easy IP NGA services together to offer ultra-broadband to your customers with maximum flexibility.

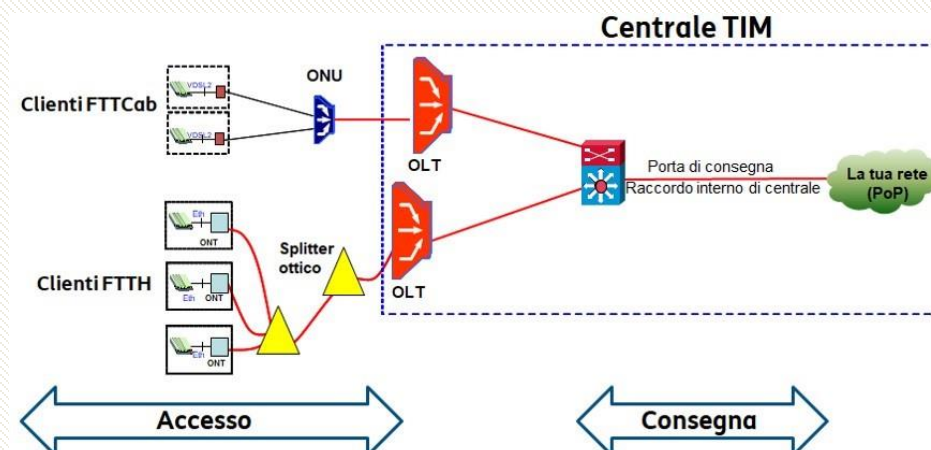
## Preliminary services

Colocation

## VULA service description

With the regulated VULA (Virtual Unbundling Local Access) service, we collect your customers' ultra-broadband traffic and deliver it to your network at 'layer 2' (Ethernet).

The service has two components: delivery, bandwidth.



## Delivery

In each Telecom Italia exchange (OLT location) we will set up a specific local node dedicated to VULA interconnection, and to each Operator that asks for it we will 'dedicate' a port of that node for the delivery of the traffic of the exchange's customers ('Delivery kit'). The local node is not connected to the nodes of the Telecom Italia transport network.

The delivery of traffic to your network occurs only at the exchange level (OLT location): The VULA service allows you to collect customer traffic 'exchange by exchange'. If you want to collect traffic from multiple exchanges via VULA, you will need VULA interconnections in each of them.

## Access

This is the connection between your Customer's premises and the Telecom Italia exchange, in FTTCab or FTTH technology.

## Classes of Service (CoS: Class Of Service)

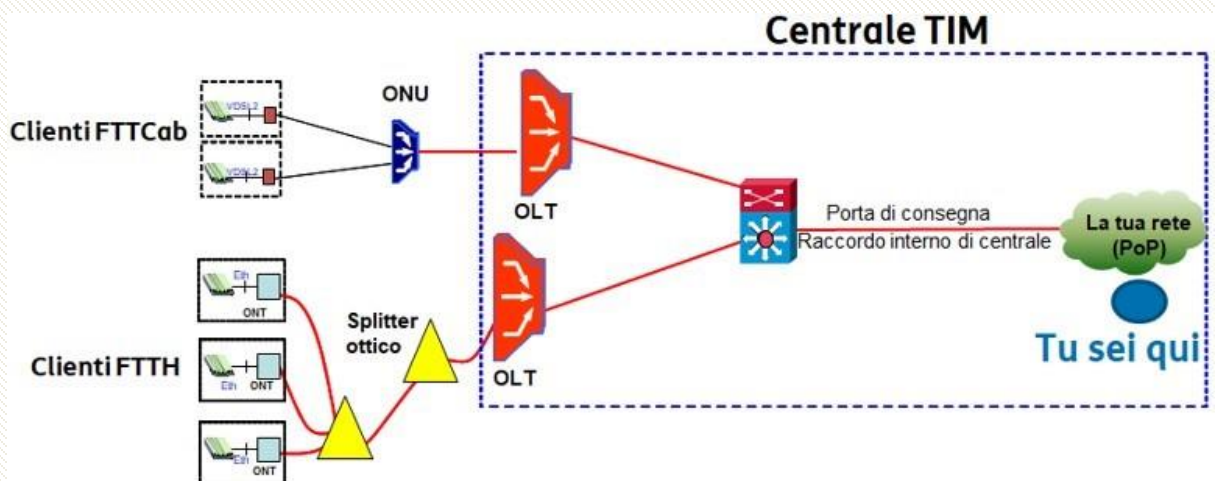
Multiple classes of transportation service are available in the VULA service (CoS: Class Of Service) to offer services of differing quality (*web browsing*, VoIP, video streaming, gaming, ...), and each access has its own 'traffic capacity' (bandwidth) for each CoS...all at no additional cost, because in the VULA service 'bandwidth is not paid for'.

## Getting Started

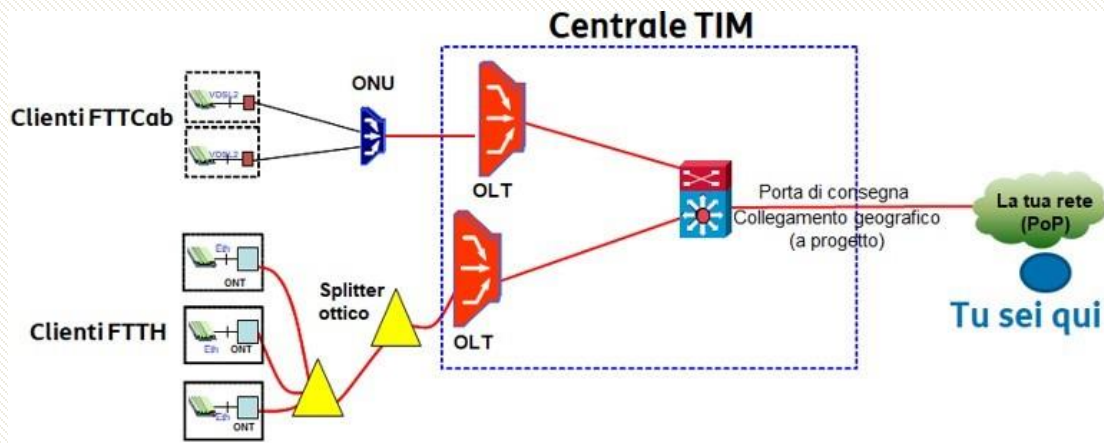
After signing the contract, you must

Ask us for one or more delivery Kits in the exchanges of interest. We will 'reserve' ports in the exchange (1 Gbit/s or 10 Gbit/s ports available) to deliver your customers' traffic to you by connecting them to your network.

If you are collocated in the exchange -> To receive the delivery kit, you need an *internal exchange connector*, which is used to connect your network to our delivery port



- If you are not collocated -> You can ask us to 'extend', on a project basis, the port from our exchange to the location of your



2. Ask us for one or more *collection* VLANs on the Delivery Kit: VLANs are 'virtual channels' used to separate your customers' traffic from that of other operators' customers on the same exchange, collect it and deliver it to your network on the ports dedicated to you.
  3. Ask us to provide access to ultra-wideband, FTTCab or FTTH, from your Customers' locations. You can ask us to create a new line or create a 'migration', which is a passage of the Customer from another Operator (OAO).
- If you want to know more, read the FAQ

### What else should you know

You can collect accesses from your customers in several ways:

- from the TIM exchange that serves them -> You need Colocation
- from another TIM exchange -> You need Colocation, and TIM can deliver you the VULA service with fibre optics
- from one of your locations -> TIM can deliver the 'domestic' VULA service with fibre optics

### Pricing

The service is regulated and has three elements:

- Delivery kit
- VLAN
- Accesses

Each element includes one-off contributions and monthly fees

For more information, please contact your Account Manager or see the Reference Offer

However, if you are not yet one of our Customers, you can access the section [Become a Customer](#) of the Wholesale portal and fill in the form. One of our Sales Representatives will contact you as soon as possible!



## Regulatory Conditions

The service is for:

- Operators with an individual license or a general authorisation for telecommunications networks and services for public use which existed before the entry into force of Italian Legislative Decree no. 259 of 1 August, 2003, containing the 'Electronic Communications Code' (referred to in Article 38 of the Code), as last amended by Italian Legislative Decree no. 70 of 28 May 2012.
- Companies with a general authorisation for electronic communications networks and services pursuant to Art. 25 of Italian Legislative Decree no. 259 of 1 August 2003, as last amended by Italian Legislative Decree no. 70 of 28 May 2012.

The Offer relating to the **VULA** service is 'regulated', i.e. it is subject to approval in all its aspects by the Italian Communications Regulator (AGCom) and is updated every year and published on this website in the Reference Offers section of this service.





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Equipment (AEE) IT080200000799  
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