



Wholesale Market

Fixed Backhauling Over Ethernet

End-to-end Ethernet connectivity

 **TIM**

Fixed Backhauling Over Ethernet

Who the service is for

The service is for Operators and Companies holding a general authorisation for electronic communications networks and services who wish to establish Ethernet connections between their PoPs.

Service features

Availability

Italy 100%

Assurance SLAs

5-8 Calendar Hours

Preliminary services

The configuration involves the installation of the Network Termination Point, NTP, at the TIM line stage (LS) where an Operator's network equipment is present.

Collocation, Commercial Housing

Description of the service

The Backhauling Mobile Over Ethernet service allows the Operator to transport voice and data traffic from its radio antennas to its network PoPs. It is based on TIM's Ethernet network, which can provide differentiated traffic quality.

The service envisages the installation of a level 2 Ethernet device, NTP or Catalyst, at the Telecom Italia line stage (LS) pertaining to the location subject to Backhauling.

It consists of connections with access via fibre optics and transport on TIM's packet network (OPM network). OPM transport occurs by creating 802.1ad compliant s-VLANs delivered to the Operator via interconnection kits at its location. Compliance with the QinQ (802.1q) standard can be optionally provided at the Operator's request.

The profiles available in the Offer are:

- BH Internet Data: with CoS 1;
- BH Silver Data: for video applications with CoS 3;
- BH Gold Data: for voice applications with CoS 5;
- Multi-CoS: the following profiles are envisaged:
 - I. Profile A: 70% CoS 1. 20% CoS 3. 10% CoS 5
 - II. Profile B: 90% CoS 1 and 10% COS 5
 - III. Profile C: 80% CoS 1 and 20% COS 3

Profilo/C.I.R.	10 M	20 M	30 M	60 M	100 M	200 M	300 M	>300 M
BH Fisso Data	X	X	X	●	●	●	●	○
BH Fisso Premium	X	●	●	●	●	○	○	○
BH Fisso Strict Priority	●	●	●	●	●	X	X	X
Multi-CoS	X	X	X	●	●	●	●	○

● Profilo Disponibile ○ Solo su Base Progetto e soggetto a Studio di Fattibilità X Profilo non disponibile



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Annual availability of connection

The levels of availability depend on the length of the connections to the mobile sites. Therefore, the relative figure is assessed on a project-specific basis.

The annual availability values of the connection, assuming an approximately 10 km long fibre link, are as follows:

Ambito di distanza	Disponibilità Annuale per Accesso di tipo Basic	Disponibilità Annuale per Accesso di tipo Plus
Metro-Regional	99,97%	99,98%
Long Distance	99,96%	99,97%

Assurance SLAs

In case of Outage:

- 8 Calendar Days (in 90% of cases);
- 14 Calendar Hours (in 100% of cases);

In case of degradation of performance:

For all connection types: 3 Calendar Days

Kit SLAs:

- 5 Calendar Hours

What else should you know

For On Net Exchanges, connections can also be ordered directly from the Operator. In all other cases, the sale of connections must be preceded by a feasibility study.

If the Operator wants a connection delivered to one of its PoPs at a TIM exchange, it must have signed a Commercial or Colocation contract. No other preparatory services are needed.

Pricing

For each individual BH Fixed Connection the following are provided:

- a one-off activation fee
- a monthly fee

For each Ethernet KIT the following are provided:

- a one-off activation fee
- a monthly fee

Regulatory Conditions

The offer is aimed at Operators holding individual licences or general authorisations 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 concerning the 'Electronic Communications Code' (referred to in Art. 38 of the Code), as last amended by Italian Legislative Decree no. 70 of 28 May 2012, and to companies holding a general authorisation for electronic communications networks and services pursuant to Article 25 of Italian Legislative Decree no. 259 of 1 August 2003, as last amended by Italian Legislative Decree no. 70 of 28 May 2012.





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Entry in the Register of Producers of Electrical and Electronic
Equipment (AEE) IT080200000799
Share Capital €11,677,002,855.10 fully paid-up