FiberCop

GIGANET

Optical connectivity at the highest level of performance

Giganet

It is a dedicated optical fibre connectivity solution based on DWDM technology available nationwide. Many customised solutions and redundancy schemes are available to meet all your needs

Service features

Speed	Available interfaces	Fault recovery times	Coverage
From **1 Gbit/s** of **100 Gbit/sec**	• 1GBE (1 gbit/sec) • STM-16 (2.5 Gbit/sec) • 10GBE (10 Gbit/sec) • STM-64 (10 Gbit/sec) • 100GBE (100 Gbit/sec) *nominal bit rate, function of packet size.	For protected connections: **4:30 h** For unprotected connections: **8:00 h**	Possible to provide the service wherever the two endpoints of the connection are located in the country

Who is it for?

Authorised operators of fixed, mobile or wireless networks intending to implement:
• backbone networks
• fixed or mobile backhauling networks
• Interconnect Data Centres and provide services from Data Centres with high performance dedicated connectivity
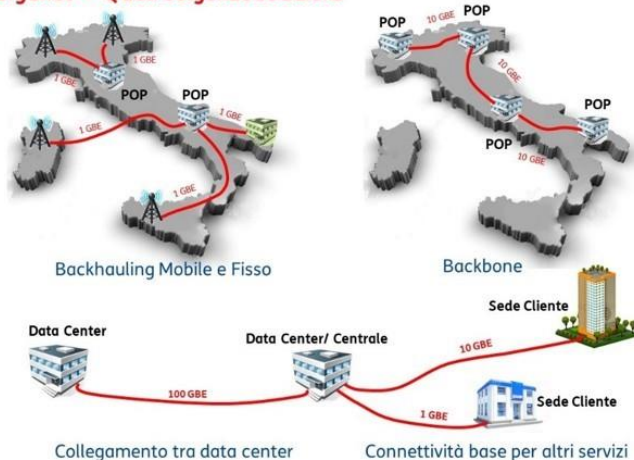• use high-performance connectivity as a basis to provide various services (e.g. IP services)

Giganet service description

Giganet is a **dedicated optical fibre connectivity** solution with speeds from **1Gbit/s** up to **100Gbit/sec**, based on DWDM technology.
Typical uses include backbone, fixed or mobile backhauling solutions or a connectivity service underlying other services (e.IP services).

The endpoints of the connections may be located within a FiberCop exchange or outside, without any particular constraints, provided that the location of the endpoints is available to the operators and complies with particular technical requirements (specified in the contract).

Giganet -> Quali esigenze soddisfa

Backhauling Mobile e Fisso

Backbone

Collegamento tra data center

Connettività base per altri servizi

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Connections can be metropolitan or long distance. Where it is not possible to establish the connection exclusively with the transport network, customer-dedicated DWDM systems can be set up to complete the connection, called tails (see figure below):
The peculiarities of the connections are fixed latency, guaranteed bandwidth, and transparency concerning all protocols.

Different degrees of reliability are possible due to different types of connection:
- **Single way** single connection, characterised by a single TD (there is a variant with restoration or protection in the National Transport Network component only)
- **Diversified unprotected double way** de facto, there are two different connections with the same endpoints, each characterised by its own TD (commercially the two connections are seen as a single entity and cannot live independently.
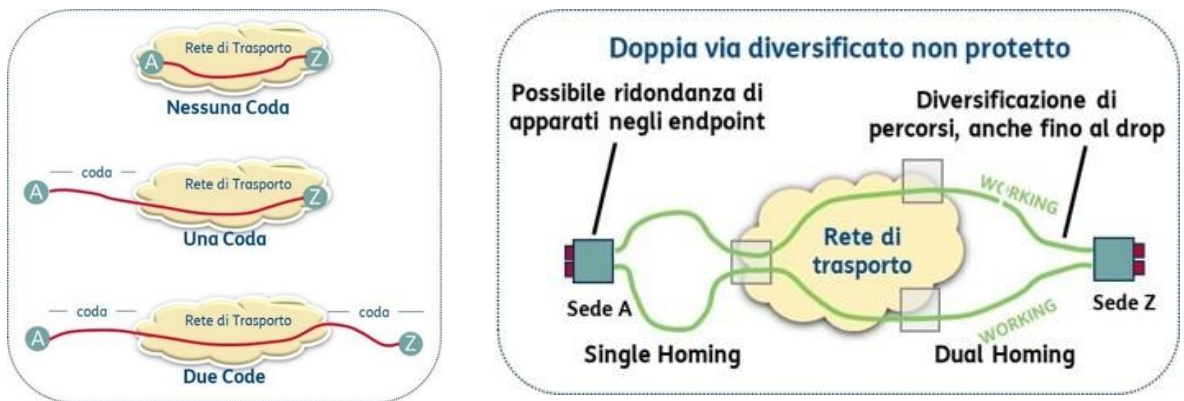
Protected 1+1 diversified the connection is unique but made with two ways (one working and one back-up). A single interface-transponder with dual optics can automatically exchange on the backup way if a problem is detected on the working way.

The customer tails can be realised **in fibre** (termination on compact, passive optical module) or with **DWDM devices** (also available in slim version, with particularly reduced overall dimensions), or with **L2 switch devices** (Giganet Clear Channel case), which enable the possibility to have, through a web console, the dynamic management of the band and other monitoring, testing and inventory functions of the connections.

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Further options for the tail structure are dual Homing (which allows two ways to 'get onto' the transport network in two separate exchanges), or equipment diversity at the customer site, which allows for additional equipment redundancy for unprotected dual way connections made with equipment (see figures above).

The following interfaces are available for connection:

For GIGANET	
Interfaces	**Speed**
1 GBE	1,25 Gbit/sec
STM-16	2,5 Gbit/sec
STM-64	10 Gbit/sec
10 GBE	10 Gbit/sec
100 GBE	100 Gbit/sec

For GIGANET Clear Channel	
Interfaces	Speed
1 GBE	1.25 Gbit/s
10 GBE	2.5 Gbit/s
	5 Gbit/sec
	7.5 Gbit/s
	10 Gbit/sec

The service is NOT regulated.

Normally, a prior feasibility study (FS) is required to formulate an offer, except in the case of 1 GBE and 10 GBE single way connections, unless, as both endpoints are on net, an offer can be made without a prior FS (direct sale).

The typical duration of connections is **three years**, but shorter (one or two years) or longer (five years) durations are also possible.

The price structure includes a **one-off contribution (UT)** and a **monthly fee for** each connection.

The timing of implementation varies depending on the particular systemic chain.
The recovery SLAs are differentiated according to the type of connection.

Prices
Prices vary depending on the distance of the connections, the location of the endpoints, and the complexity of the network architectures traversed.
For each connection, the price is represented by a contribution and a monthly fee.