Lit Fibre (WDM)

- **Speeds from 1 Gbit/s to 10 Gbit/s**
- **Supports Ethernet, SAN, and SDH**
- **Based on GlobalConnect's country-wide fibre network**
- **Ultimate traffic quality**
- **No requirement for active long-range optical transceivers**

Lit Fibre (WDM) is the ultimate network solution for speeds from 1 Gbit/s and beyond. Lit Fibre WDM gives you all the benefits of dark fibre but without the need for active long-range optical equipment.

Freedom and flexibility

A Lit Fibre (WDM) network solution means that your physical locations across the country are connected using one or more wavelengths propagating through the optical fibre cables in our country-wide fibre network. We provide the optical ports suitable for your equipment. With Lit Fibre (WDM), the geographical distance is simply not an issue when planning your network.

No overbooking

A typical fibre duct in GlobalConnect's network contains 72 fibre pairs. Each fibre pair is capable of carrying up to 40 different wavelengths, enabling as many fully separated data connections to be carried one the same physical medium. As each wavelength provides up to 10 Gbit/s of data capacity, the maximum capacity of a typical fibre duct amounts to 28.800 Gbit/s - or approx. 28 Tbit/s. In other words, the Lit Fibre (WDM) network holds plenty of capacity for all, making any overbooking unnecessary.

Security

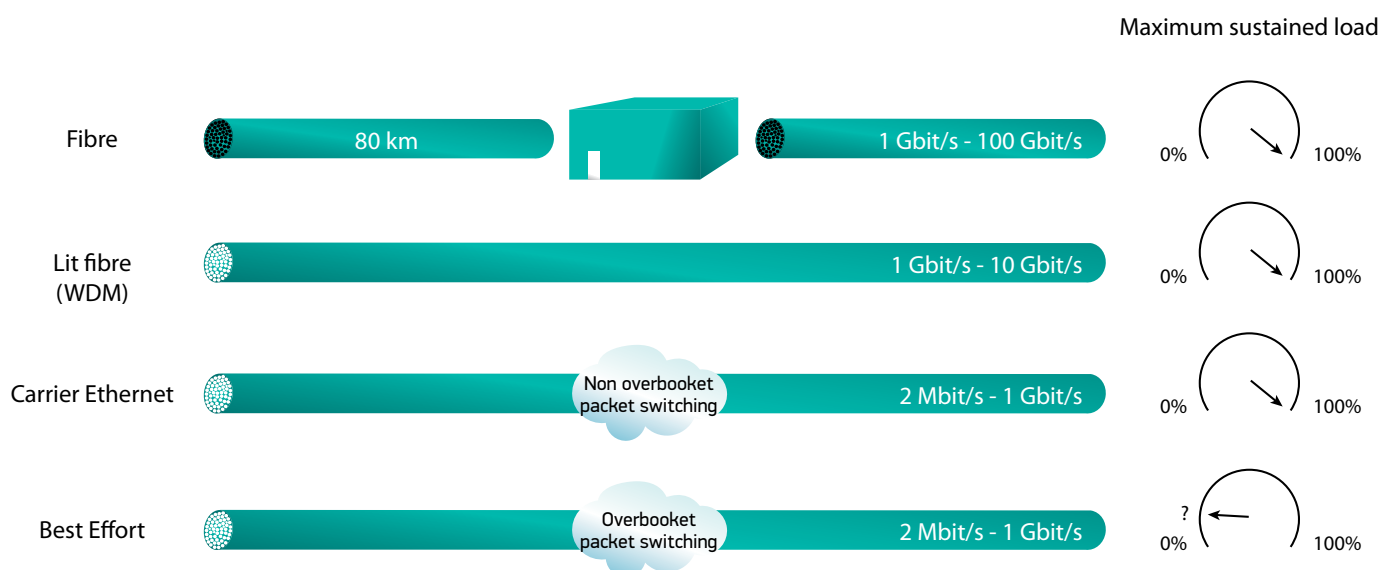Lit Fibre (WDM) provides you with your very own wavelength through the network - the agreed data rate

Maximum sustained load

Fibre	80 km	1 Gbit/s - 100 Gbit/s	0% — 100%
Lit fibre (WDM)		1 Gbit/s - 10 Gbit/s	0% — 100%
Carrier Ethernet	Non overbooket packet switching	2 Mbit/s - 1 Gbit/s	0% — 100%
Best Effort	Overbooket packet switching	2 Mbit/s - 1 Gbit/s	? 0% — 100%

Figure 1: Lit Fibre (WDM) is the ultimate data transmission technology from 1 Gbit/s and beyond

is permanently at your disposal and not to be shared with others. The separation of data connections into wavelengths makes any unauthorized access physically impossible.

Ultimate quality
With a bit error rate of 10^{-12} and jitter imposed by the WDM network of 0 (zero) ms, a WDM connection yields the ultimately highest quality level available on the market. When using Lit Fibre (WDM) across the country, your users will experience a similar

performance as if the server and e.g. telephony platform were placed in the room next door.

Redundancy
Dual connections using diversely routed fibre ducts, dual internal cabling, and dual equipment result in an extremely low risk of downtime. The two connections may be used concurrently - all you need is equipment capable of routing all traffic through the active connection should one of the connections become unavailable.

Customer Interface	WDM connections are terminated in either Ethernet, Fibre Channel or SDH interfaces
Ethernet Private Line (EPL)	1 Gbit/s WDM 10 Gbit/s WDM
Fibre Channel	1 Gbit/s 2 Gbit/s 4 Gbit/s 12 Gbit/s
SDH	STM-1 (140 Mbit/s) STM-4 (622 Mbit/s) STM-16 (2,5 Gbit/s) STM-64 (10 Gbit/s)
Latency	< 10 msek, typical 5 ms
Jitter	0
Bit Error Rate	$< 10^{-12}$
Availability	99,7% (standard) 99,99% (with redundancy)