FiberCop

FTTO – FIBER TO THE OFFICE

The flexible solution from 1 Gbps to 10 Gbps
for business customer

FTTO – Fiber To The Office

Symmetrical connection from 1Gbps to 10Gbps with single-fibre access 100% dedicated to the End Customer with the possibility of managing traffic peaks through a dynamic prioritization mechanism based on speed.

Service features

Velocità	Delivery SLAs	Assurance Blocking failure recovery time
DOWNSTREAM UP TO FINO A 10 Gbit/s UPSTREAM UP TO FINO A 10 Gbit/s	Calendar Days 40 days	• ACCESS AND BASIC KIT **8** solar hours • COLOCATED OR PLUS KIT **5** solar hours

Who is it for?

The service is aimed at business customers who want to make full use of the bandwidth at: 1 Gbps - 2 Gbps - 5 Gbps - 10 Gbps.

FTTO service description

The Fiber To The Office service allows you to create a connection between the offices of an Operator's End Customers and the Operator's backbone, providing transmission capacity with transport on the Ethernet network.

Concerning the Customer's specific requirements, FiberCop shall implement the service to provide Ethernet Point-to-Point geographic connectivity between NTPs (Network Termination Points), coinciding with the Operator PoPs (location Z) and the locations of its end customers (locations A), through Ethernet delivery interfaces and the creation of layer 2 virtual private networks.

The FTTO service consists of 3 main components:

- End Customer side access component, hereinafter FTTO access;
- Transport component from the Final Customer's premises to the Operator's POP;
- Operator POP side access component i.e. the FTTO KIT for traffic delivery at the Operator's POP.

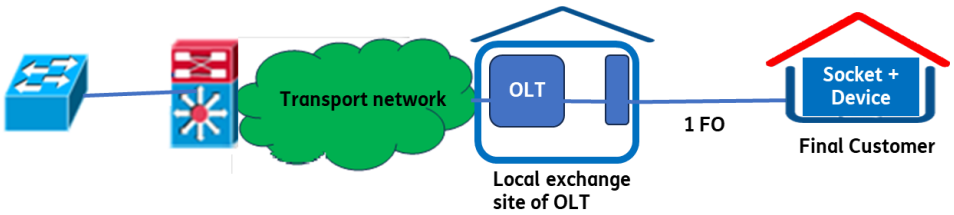

Figure 1: FTTO system diagram for speeds less than or equal to 1 Gbps

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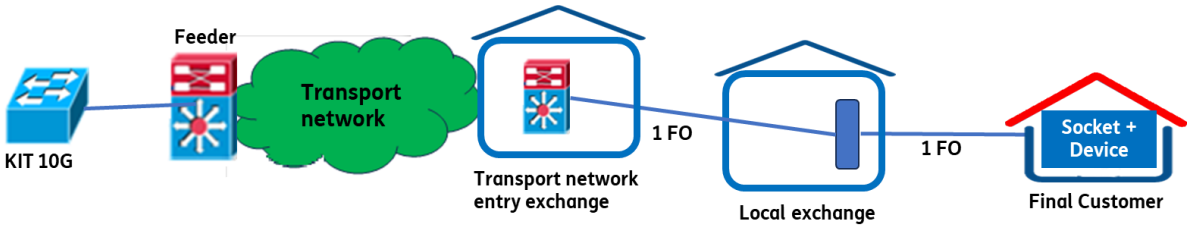

Figure 2: FTTO installation diagram for speeds of 2 Gbps, 5 Gbps, and 10 Gbps with a 10G base KIT

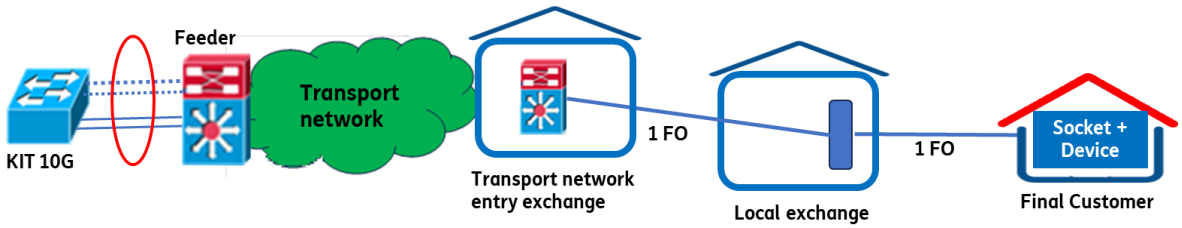

Figure 2.1: FTTO installation diagram for speeds of 2 Gbps, 5 Gbps, and 10 Gbps with Nx10G KIT (logically bonded 10G ports)

Access Component

Speeds less than or equal to 1 Gbps

The FTTO access component on the End Customer side consists of:- end Customer:

- port on the L2 switch device provided by FiberCop on which the service is configured;
- single-fiber and single-path connection between the End Customer's premises and the FiberCop network, with 1 Gbps optical interfaces using transmission solutions defined by FiberCop based on the project and transparent to the Customer.

The equipment at the End Customer's premises is connected to the FiberCop network via a single-fiber optic bearer, terminated at a dedicated 1 Gbps port on the OLT (Optical Line Termination) equipment, located at the local central office serving the End Customer's premises. This is then connected through FiberCop's packet-switched network to the FTTO KIT, as illustrated in **Figure 1.**

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Speeds of 2 Gbps, 5 Gbps, and 10 Gbps

The FTTO access component on the End Customer side consists of:

- end Customer-side port on the L2 switch device provided by FiberCop on which the service is configured;- single-fiber and single-path connection between the End Customer's premises and the FiberCop network, with 10 Gbps optical interfaces using transmission solutions defined by FiberCop based on the project and transparent to the Customer;
- The equipment at the End Customer's premises is connected to the FiberCop network via a single-fiber optic bearer, terminated at a 10 Gbps port on the device connected to the local central office serving the End Customer's premises. This is then connected through FiberCop's packet-switched network to the FTTO KIT, as illustrated in **Figures 2 and 2.1.**

Transport Component

For each FTTO connection, a virtual private network (hereinafter "VLAN") is configured between the two End Points (End Customer premises and Operator POP) in a manner transparent to the Operator.

Access Component on Operator POP side FTTO KIT

An FTTO KIT is distinguished based on the following characteristics:

Type of Client-side interfaces made available by the L2 Switch device on which it is based;

- TYPE 1: Optical or electrical GigaBitEthernet 100/1000 Mbit/s interfaces;
- TYPE 2: 10 GigaBitEthernet interfaces.

Speed:

The FTTO KIT can be realized on ports with speeds of 1 Gbps, 10 Gbps, or multiple logically bonded 10Gbps interfaces.

Delivery types:

E-NNI (multiple S-VLANs per port; QinQ or 802.1ad) or UNI (one S-VLAN per port);

Location of the Operator POP: colocated in the transport network access central office or at an external Customer site to FiberCop.

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MTU

Maximum MTU sendable on the End Customer side is 2000 Bytes for speeds less than or equal to 1 Gbps, 4440 Bytes for speeds greater than 1 Gbps up to 10 Gbps.

Pricing

The price of the FTTO service and the type of interfaces required is structured in a one-time fee and a monthly fee based on the dedicated bandwidth capacity.

The evaluation of the Nx10G Kit is carried out based on a specific feasibility study that takes into account the location of the KIT.


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