

## bandwidth

### International Carriers, an established partner on the wholesale market

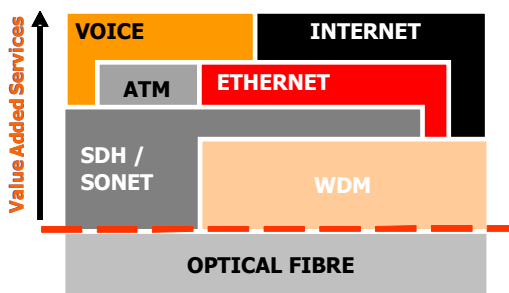
Take advantage of our in-depth knowledge of the industry resulting from our activities on both retail and wholesale markets. Our dedicated wholesale teams on four continents serve 1,000 mobile operators, international carriers, ISPs and content providers worldwide. You can rely on our seamless backbone network spanning 220 countries and benefit from 150,000 km of fibre optic cable under all oceans including dedicated IP routes. We offer direct interconnections with more than 370 operators in 150 countries for international voice traffic. With 19 research labs on four continents, we are at the forefront of technological advances.

**Choose reliability and quality, choose us.**



## in brief

The purpose of the bandwidth solution is to provide a point-to-point transmission service over SDH/Sonet or WDM or Ethernet (regardless of the geographical locations, starting points and traffic type) for carriers, content providers.



## glossary

**SDH:** Synchronous Digital Hierarchy

**WDM:** Wavelength-Division Multiplexing

## our solution

The France Telecom-Orange bandwidth solution is based on a Pan-European terrestrial backbone network interconnected with a seamless submarine cable network and 2 sub-networks (Singapore and New York city). This extended network and a strong presence in Africa allow us to provide you with a comprehensive offer.

### City to City solution (C2C)

City to City (C2C) is an international dedicated point-to-point bandwidth product based on SDH/Sonet, WDM and Ethernet technologies. Standard rates are 2, 34/45, 155, 622 Mbps or 2.5Gbps on SDH/Sonet technology and 2.5 to 10 Gbps (and soon 40Gbps) on WDM.

#### benefits

- *granularity and flexibility of bandwidth*
- *ability to connect to biggest European metropolis as well as Singapore, New York City and the Orange African footprint*

### C2C variations

**IPL+** is a C2C variation providing a part of an end-to-end circuit between 2 international cities, where our circuit doesn't cover entirely on-net, with either a circuit up to the Cable Head Landing Station in the distant country (PoP-To-CHLS) or a circuit up to the middle of a submarine cable (PoP-To-Half)

**One Stop Shopping (OSS)** is a simplified procedure for the customer that offers the advantage of dealing with a single point of contact for billing, ordering, provisioning and maintenance. OSS extends our reach beyond the group on-net network thus offering end-to-end services for customers in selected countries.



**Long Distance Giga-Ethernet (LDE)** France Telecom-Orange provides any customer with an LDE access point between two cities in Europe provided that the customer site is located in the vicinity of an LDE PoP. LDE is a layer2 service built over the transmission layer. Standard rates are 150, 300, 450, 600, 750, 900Mbps or 1Gbps. With Ethernet interfaces the cost is limited compared to classic SDH.

#### **associated offers**

**housing** The customer's Transmission equipment can be hosted by either France Telecom-Orange or the customer. Housing can only be sold bundled or packaged with other offers such as City-to-City and its variations.

**backhaul solution** is the terrestrial termination of submarine capacity, from a Cable Head Landing Station (CHLS) to one Point of Presence (CHLS-to-PoP) or directly to a customer site (CHLS-to-End) over SDH/Sonet or WDM technology.

#### *benefits*

*Your on-net submarine cable traffic can be terminated to many PoPs destinations in Europe, New York City and Singapore via France Telecom-Orange terrestrial network.*

**dedicated transit** provides you with permanent dedicated bandwidth between 2 International Access Points that can be either Border Points or Cable Head Landing Stations (CHLS). The circuit transits through a country, but does not end in that country. Dedicated Transit can be provided and billed in a half circuit mode to two operators or in a full circuit mode to one operator.

## value added services options

**MSP 1+1 (Multiplex Section Protection)** is an access protection, based on interface card and « in house cabling » redundancy.

*benefits: lower risk of outage, increased security for higher access.*

**Restoration** consists in providing you with a back-up for its submarine capacity on its City-to-City or IPL+ section, in case of failure on the initial submarine trunk.

*benefits: your traffic is restored in a few hours or even immediately on certain links.*

### France Telecom-Orange

Operating in more than 30 countries, France Telecom-Orange is one of the world's leading telecommunications operators. The Group has a total customer base of over 209 million customers including more than 150 million mobile customers worldwide. Covering Internet, television and mobile services, Orange is among the leaders in Europe for mobile and broadband internet and, under the brand Orange Business Services, is one of the world leaders in providing telecommunication services to multinational companies.

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