



# Open Fiber

FED2020 Tech Talk

*24 September 2020*

*“The new neutral network connecting Italy  
to the future”*

open fiber  
IL FUTURO HA UN NUOVO NOME.

# CONFIDENTIALITY STATEMENT

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The oral report is complementary to the following pages, which therefore, do not make up the presentation by themselves

**Open Fiber** is the **Italian wholesale only** operator that is deploying a fiber-only state-of-the-art **new neutral network** and provides all telco operators with **best-in-class FTTH access and FTTB transmission services** dedicated to Consumers, SMEs, Large enterprises, Data Centers and Internet Providers, ensuring **fair conditions and non-discriminatory access**.



**Open Fiber is the biggest-ever project financing deal for a fiber optic network in the EMEA region...**

# OPEN FIBER IS THE BIGGEST-EVER PROJECT FINANCING FOR A FIBER OPTIC NETWORK IN THE EMEA REGION

	Sep 2020		Target (2023)
Big cities	149	➤	271
Medium/Small towns	828	➤	7.500
Investments	~ € 3 Bln	➤	€ 7 Bln
Dwellings / Premises	~9 Mln	➤	19 Mln



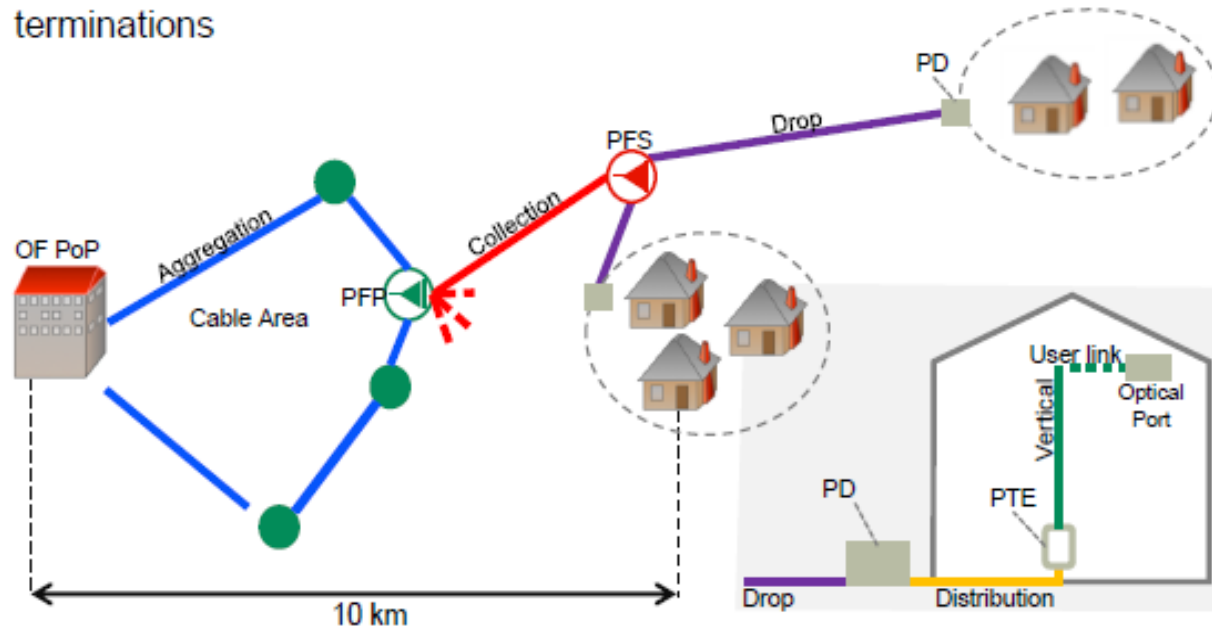
More than 180 operators have already chosen Open Fiber....

# MORE THAN 180 OPERATORS HAVE ALREADY CHOSEN OPEN FIBER



# OPEN FIBER GPON ARCHITECTURE IS IDEAL FOR SUPPORTING FUTURE STREAMING SOLUTIONS

Hierarchical fiber access network designed to implement FTTB/H network services for multiple retail operators offering Passive Optical Network (PON) and Point-to-Point fiber links from the Open Fiber Point of Presence (PoP) to customer premises and terminations



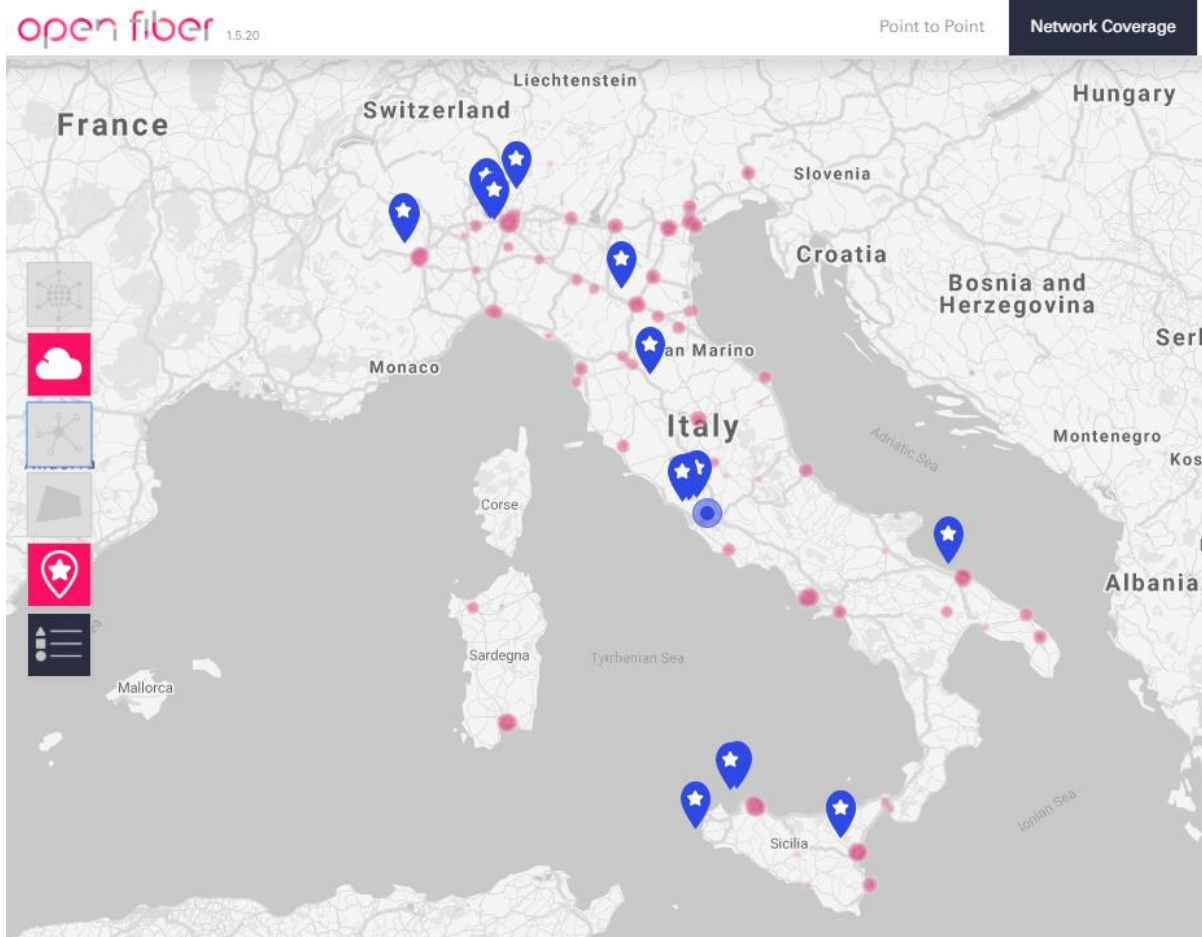
- ❖ More than 1.300 Points of Presence in Italy
- ❖ More than 300 Points of Presence serving the big cities
- ❖ No active equipment in the access network with the highest possible availability
- ❖ The PoPs have space and energy available to host customer equipment (main telcos already hosted)
- ❖ The entire network is monitored centrally: thanks to OTDR techniques it is possible to precisely identify the location of any fault

Open Fiber Network is present in the main points of internet traffic connection...





# OPEN FIBER NETWORK IS PRESENT IN THE MAIN POINTS OF INTERNET TRAFFIC CONNECTION



## Internet eXchange Points

MIX (all buildings), NaMeX, ToPIX, BoIX

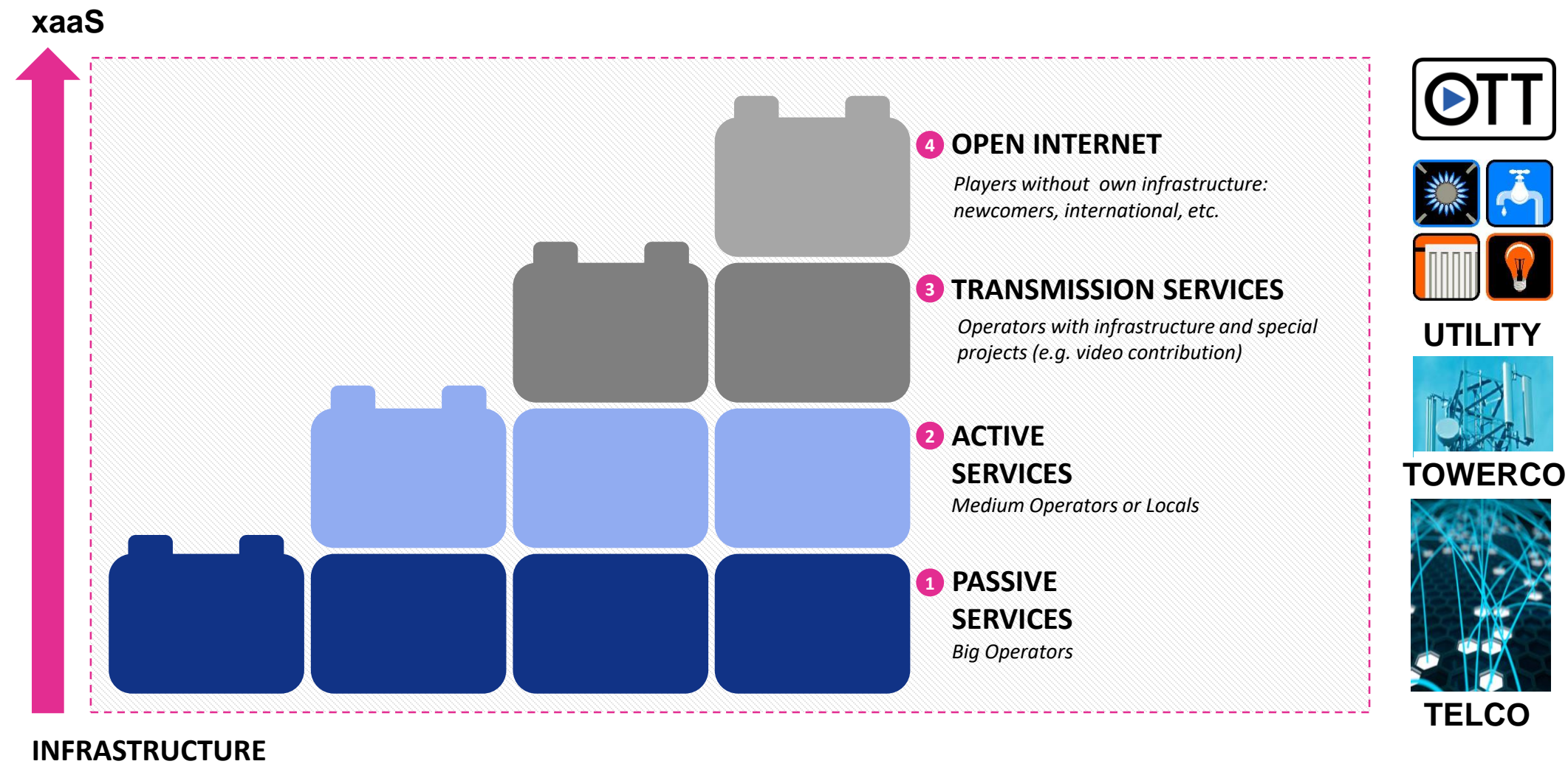
## Data Centres

Aruba, Data4, Equinix, I-Net, IT.Gate  
SuperNAP, Verizon and many others

## Submarine Cable Landing Stations

Bari, Catania, Mazara del Vallo, Palermo

# OPEN FIBER SERVICE LAYERS





# OPEN INTERNET: THE EASIEST SOLUTION TO EXPERIENCE THE POWER OF FTTH

UltraBroadBand Direct Internet Access with no need to invest in network infrastructure.



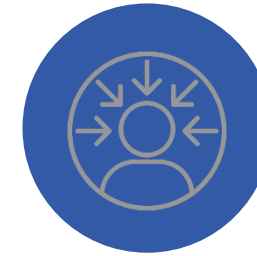
## Best in Class

FTTH with 1Gbps/300Mbps  
Tier 1 performance cutting edge transmission network  
Highly Available  
CDN interconnection with main Internet eXchange



## Ready To Service

Low set-up time for the Client  
No network infrastructure needed  
Simple cost managed low CAPEX (only variable costs)



## Customer eXperience

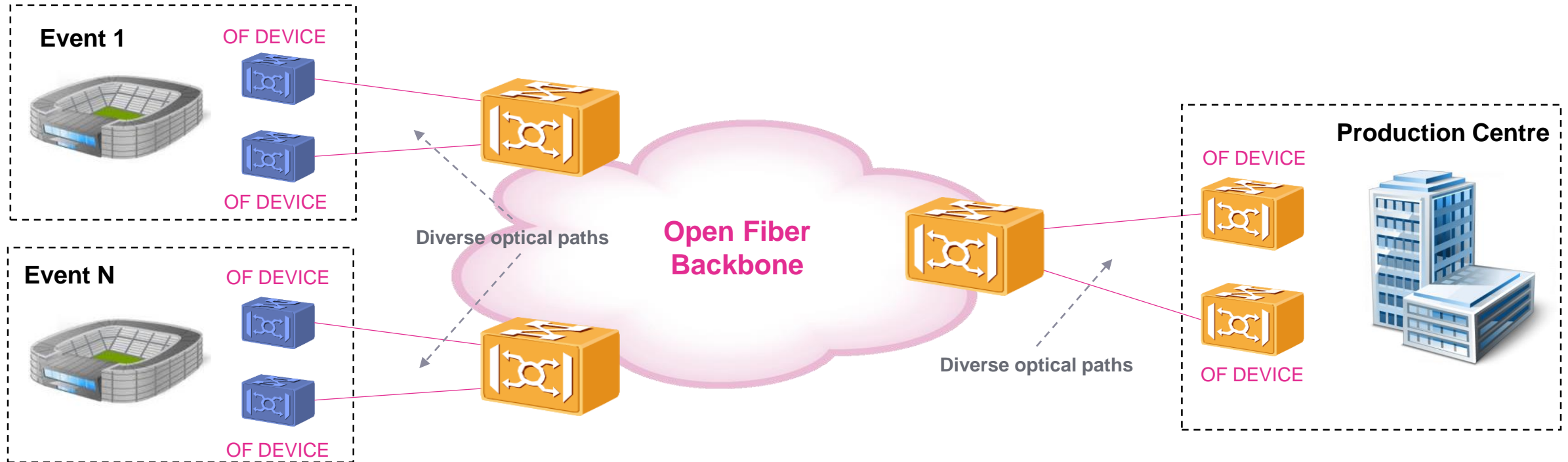
24x7 Monitoring service with proactive analysis services  
Customized activation processes with digital tracking activities  
Fully managed CPE

**Ready for OTT...**

# OPEN FIBER CUTTING EDGE TRANSMISSION SERVICES

## ENABLE TODAY NEW SERVICE MODELS

Highly convenient, cutting-edge performance and quick to deploy **10G and 100G** Optical Transport Services **ALL the points of interest in Italy**, including Stadium, Sport Centers, Theaters, Production Centers, are already in the Open Fiber Network Roll-Out





# Open Fiber

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Thank You

24 September 2020

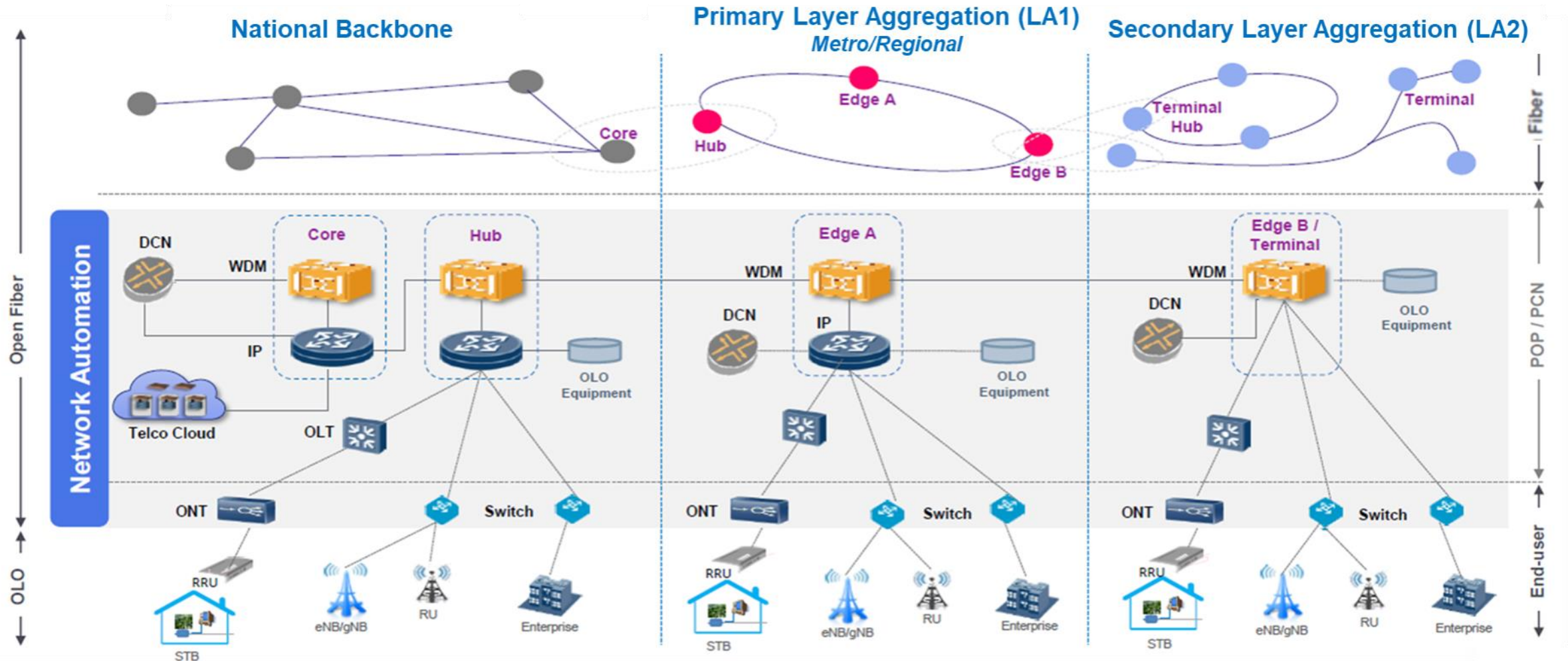
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# BACKUP

# OPEN FIBER NETWORK

More than 47.000 Km optical fiber only, more than 1.300 Points of Presence spread all around Italy



**NATIONAL BACKBONE**  
MORE THAN 6.000KM FIBER, 17POPs

**METRO/ REGIONAL LAYER:**  
MORE THAN 15.500KM FIBER, +300POPs

**CITY LAYER:**  
MORE THAN 25.500KM FIBER, +1000POPs

# OPEN FIBER NATIONAL BACKBONE



## 17 PoP ROADM in mesh configuration

- WDM Full ROADM
- CDF (Colorless Directionless & Flex Grid)
- WSON
- 200G QPSK
- OTN

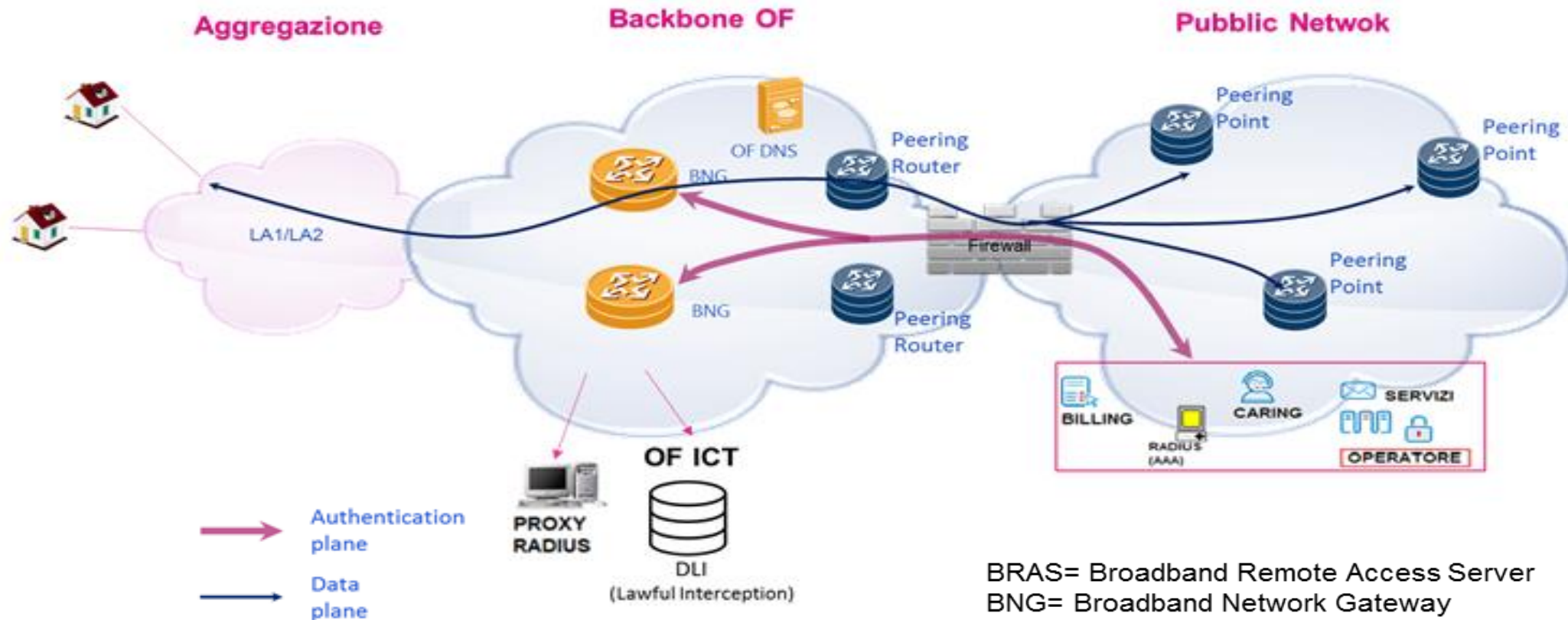
## Backbone Capacity

- +50  $\lambda$  (lambda) @200Gbps for each fiber links (C band)
- «Backbone future proof»: capacity upgrade (C+L bands)



# OPEN INTERNET SERVICE ARCHITECTURE

1Gbps/300Mbps Direct Internet Access with access to Big Internet from MIX and NAMEX IXP



# Active Access Services provides high speeds for great prices\*

Common portfolio features:	
Full Fiber	
Independent network	
> up to 99.99% availability SLAs	
Easy E-NNI Interconnection	
24/7/365 NOC facility	
Wide Coverage	

ENNI  
handover

Wavelength PoP-To-PoP	<div>10 Gb/s    ↓    ↑</div> <div>NRC: 1.350€    MRC: 700€</div>		<div>100 Gb/s    ↓    ↑</div> <div>NRC: 5.400€    MRC: 2.800€</div>	
Ethernet PoP OF/POI -To-Customer Site	Open Stream - GPON		P2P (Dedicated)	
	<div>1Gb/s    ↓    300Mb/s    ↑</div> <div>NRC: 120€    MRC: 15,50€ Including transmission</div>		<div>1 Gb/s    ↓    ↑</div> <div>NRC: 500€    MRC: 400€</div>	
	<div>1Gb/s    ↓    500Mb/s    ↑ MRC 77Mb/s</div> <div>NRC: 120€    MRC: 47€ Including transmission</div>		<div>10 Gb/s    ↓    ↑</div> <div>NRC: 2.000€    MRC: 1.000€</div>	
Direct Internet Access	GPON	Open Internet	P2P (Dedicated)	
	<div>1Gb/s    ↓    300Mb/s    ↑</div> <div>NRC: 120€    MRC: 17€</div>		<div>1Gbps    ↓    ↑</div> <div>NRC: 600€    MRC: 550€</div>	

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Common P2P  
features

MEF aligned

Per circuit  
availability SLA

Up to 4-hour  
repair SLA

\*All prices are Vat excluded