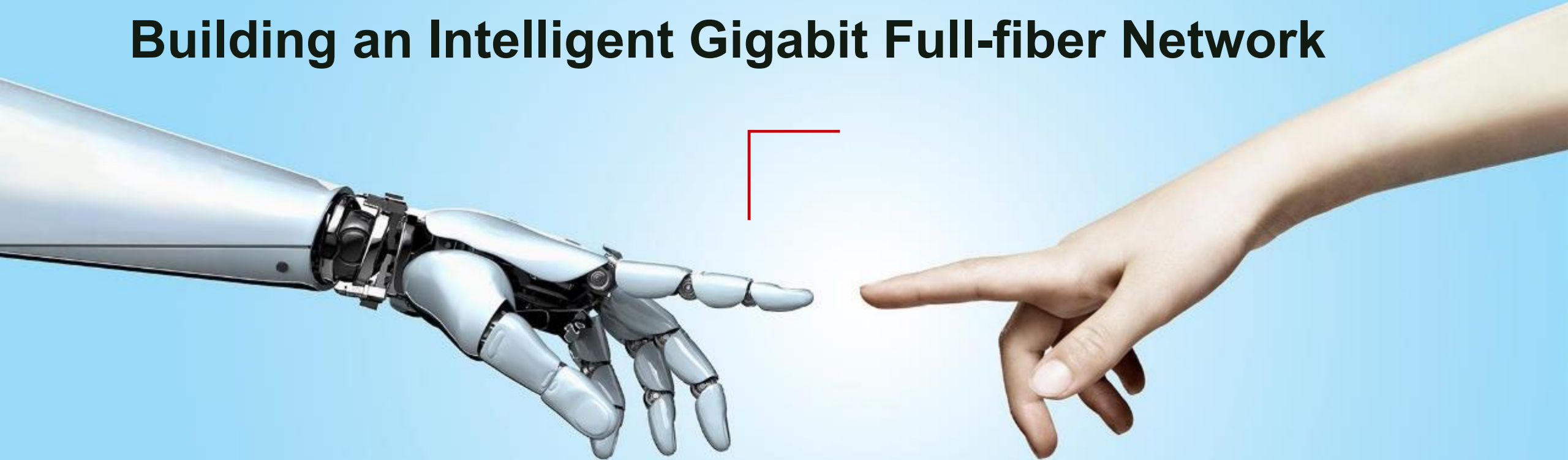


SingleFAN Pro: Building an Intelligent Gigabit Full-fiber Network



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1 Global Fix Broadband Trend

2 SingleFAN Pro Solution

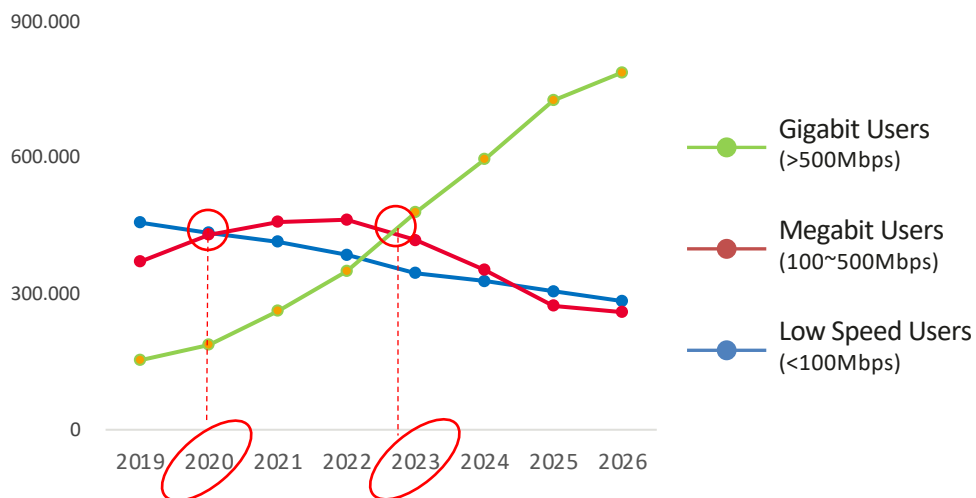
3 Products Introduction

Gigabit is Dominating the Market, Carriers are Moving Towards 10Gbps

Bandwidth Upgrading is Accelerating

(6+ yrs to enter Megabit era, 3 yrs to enter Gigabit era)

Statistics & prediction of the HBB Users by Speed
(Unit: 000)



Source: Omdia, Aug/2022

55 Carriers Launched 10Gbps HBB service (Aug/'22)

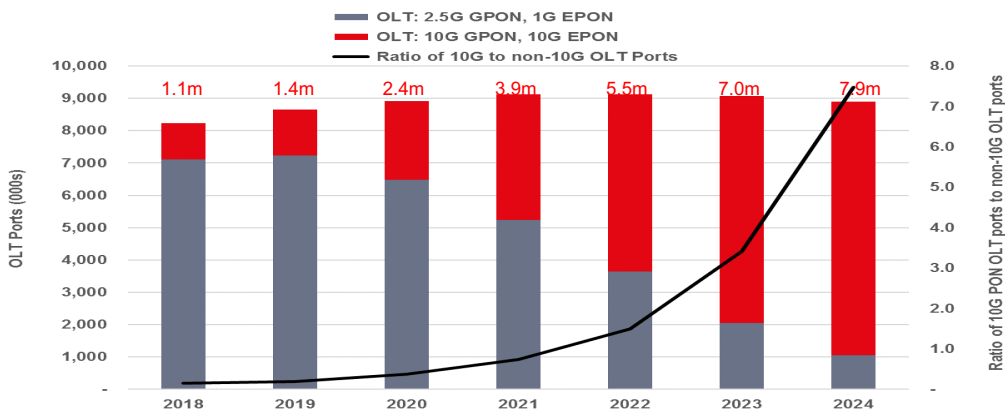
>50% Carriers Launched Gigabit Service
6% Carriers Launched 10Gigabit Service
>30%↑ ARPU Gigabit boost

10Gbps HBB Service Footprint Map

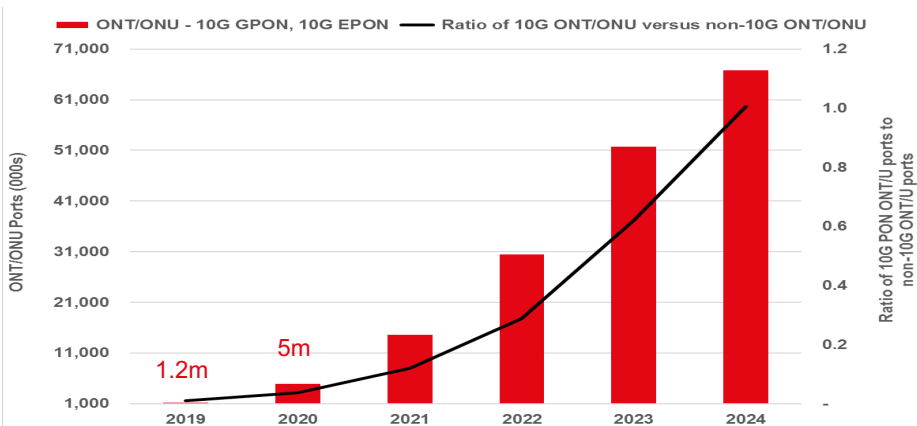


Network Should be Ready for 10G PON Evolution

10G PON OLT: CAGR = 41% (2019-2024)



10G PON ONT: CAGR = 124% (2019-2024)



Source: Ovum

New Services Require for High Bandwidth



Cloud VR
> 130Mbps
Latency 10~20ms



Enterprise Cloudification
Symm. 100Mbps
Reliability >99.99%

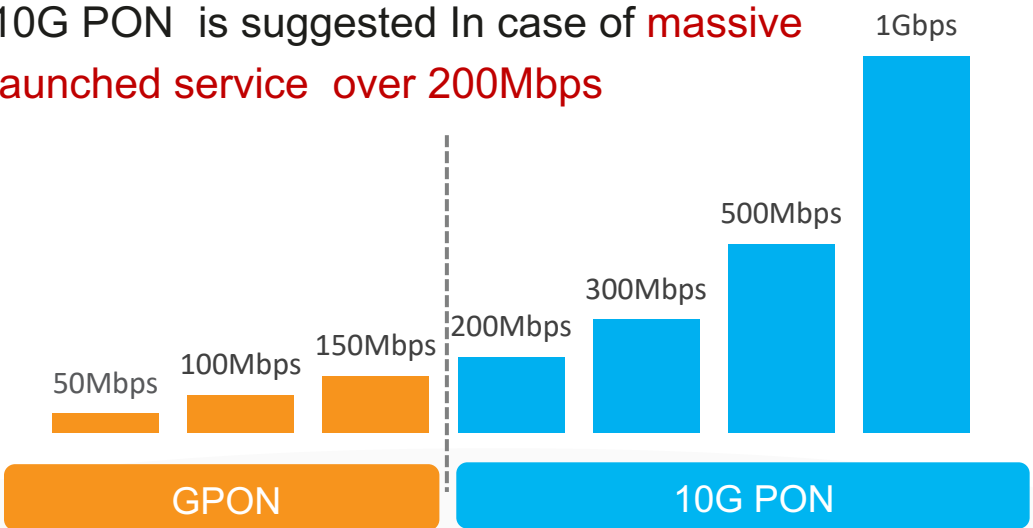


Online Gaming
>100Mbps
Latency 20ms



Online Education
>750Mbps
Latency <20ms

- 10G PON is suggested In case of **massive launched service over 200Mbps**



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SingleFAN Pro: Building an Intelligent Gigabit Full-fiber Network



Optimized ROI

Transparent Fiber: Beautiful, easy, and Fast construction.
Innovative ODN: Faster & Easier ODN Network.
Flex-PON: 7-in-1, smooth evolution to 10G PON

Ultimate Experiences

NG-OLT: Distributed architecture, GPON /XG(S) PON/50G PON co-platform support Giga broadband.
FTTR: Premium gigabit broadband everywhere at home over fiber.

Intelligent O&M

PremiumWi-Fi: Improve Efficiency & Reduce Home Visits
FAN Sharing: 1 Fiber & Access Network for N ISP

High Efficient Home Connection: Transparent Fiber DIY Tools & Innovative ODN

Transparent Fiber DIY Tools: Home Connection by Subscriber

Industry-first



Transparent Fiber



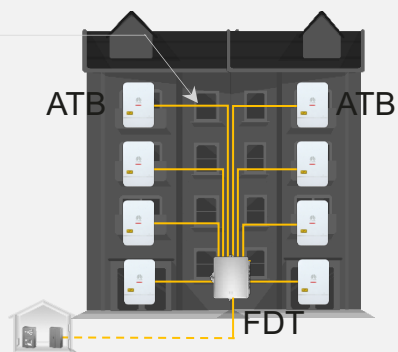
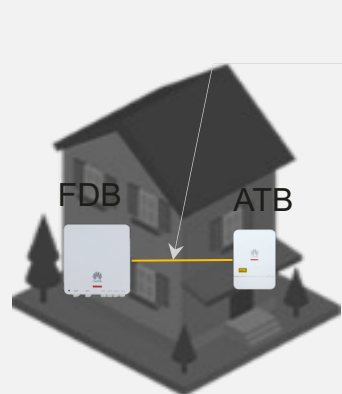
Self-Adhesive



Anti-Fire



50N Tensile Strength

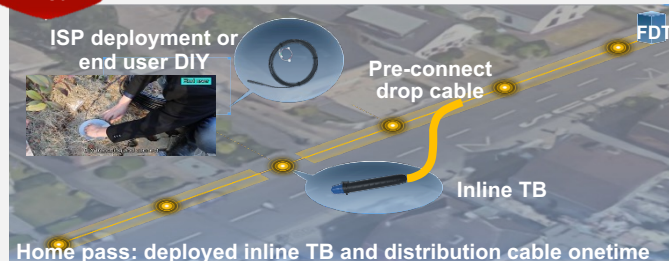


60%↓
HC Cost

- **Beautiful:** transparent, punch-free
- **Easy :** no skill required, no pipe
- **Fast construction:** 20 mins/house, 1 day/building

Innovative ODN: Faster & Easier ODN Network

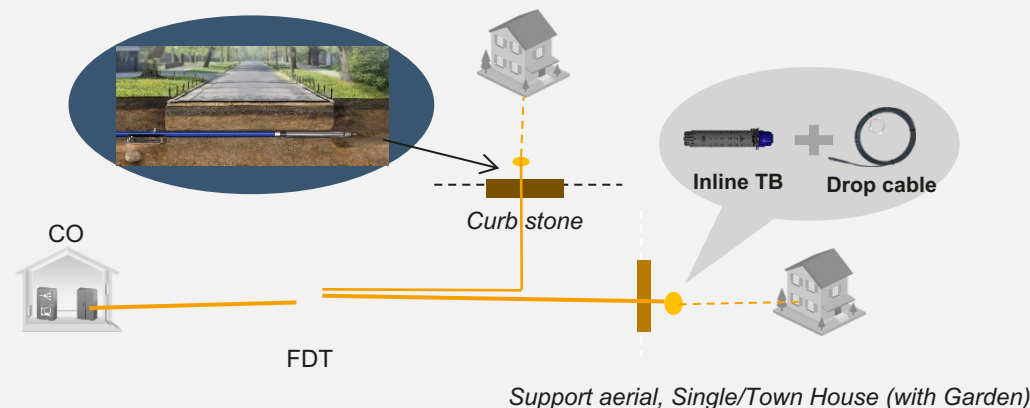
Industry-first



Smallest size inline TB

Pre-connect drop cable

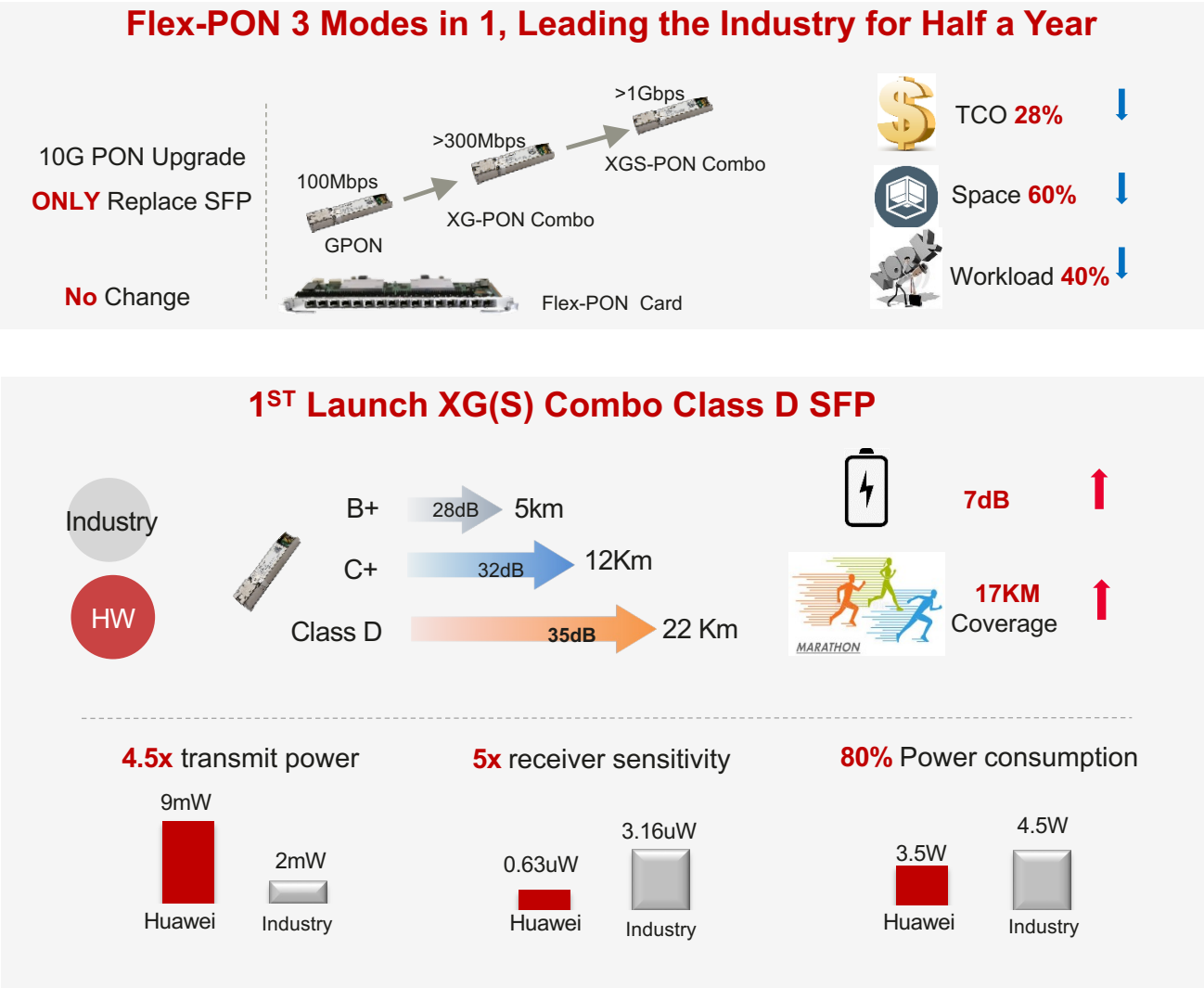
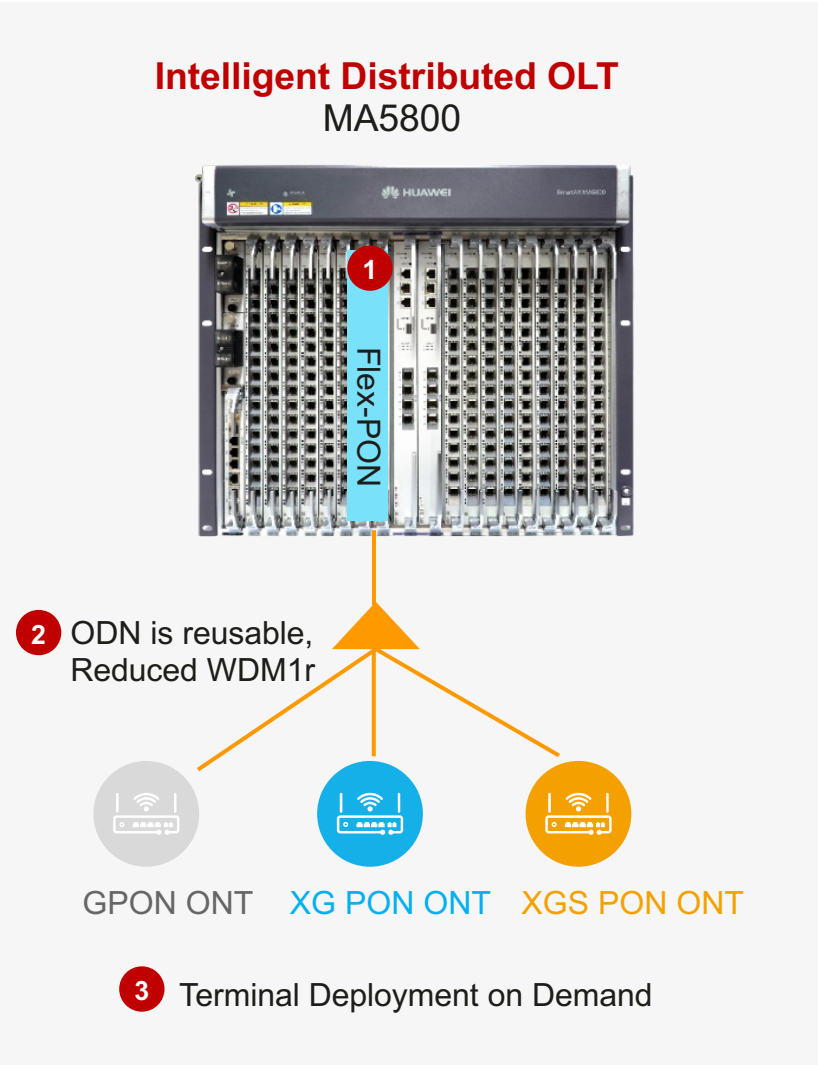
IP68 standard



22%↓
TCO

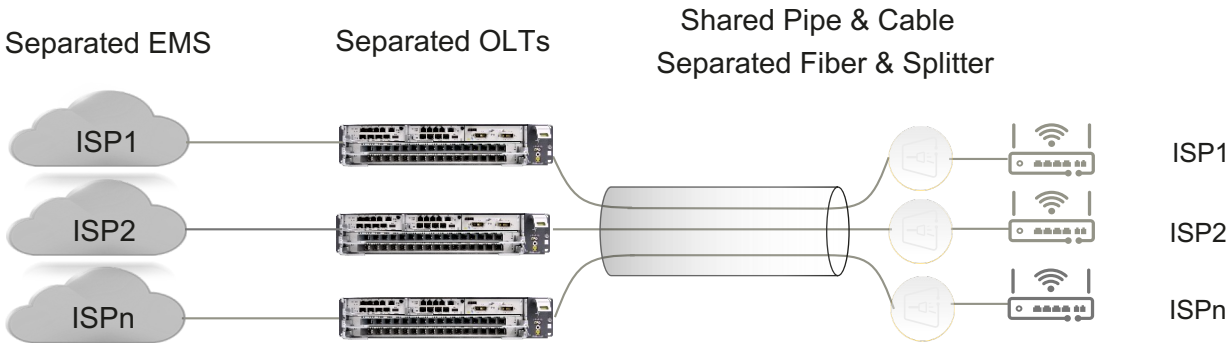
- **8x efficiency,** right of way 2 → 1 times
- **26% ↓ civil work time,** dig and repair public road 2 → 1 times
- **No need high skills:** pre-connect drop cable no need splicing

Flex-PON, Build a 10GPON Ready Network at GPON Cost

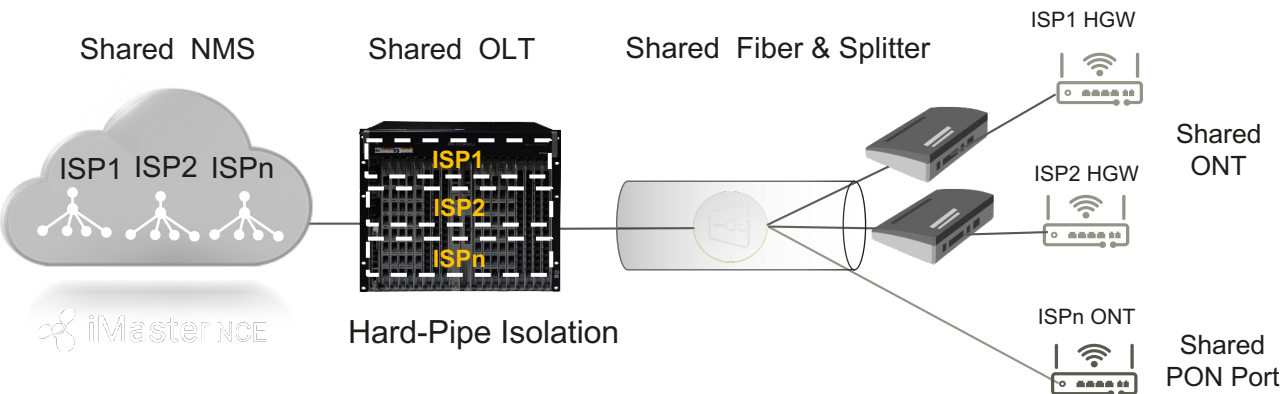


Access Network Wholesale: FAN Sharing Accelerates the Monetization

As-Is: 1 Fiber & Access Network for 1 ISP



To-Be: 1 Fiber & Access Network for N ISP



Benefits to the wholesaler:

60%↑
ROI

- High fiber utilization
- High revenue: infrastructure → value-add & professional service

Benefits to the retailer:

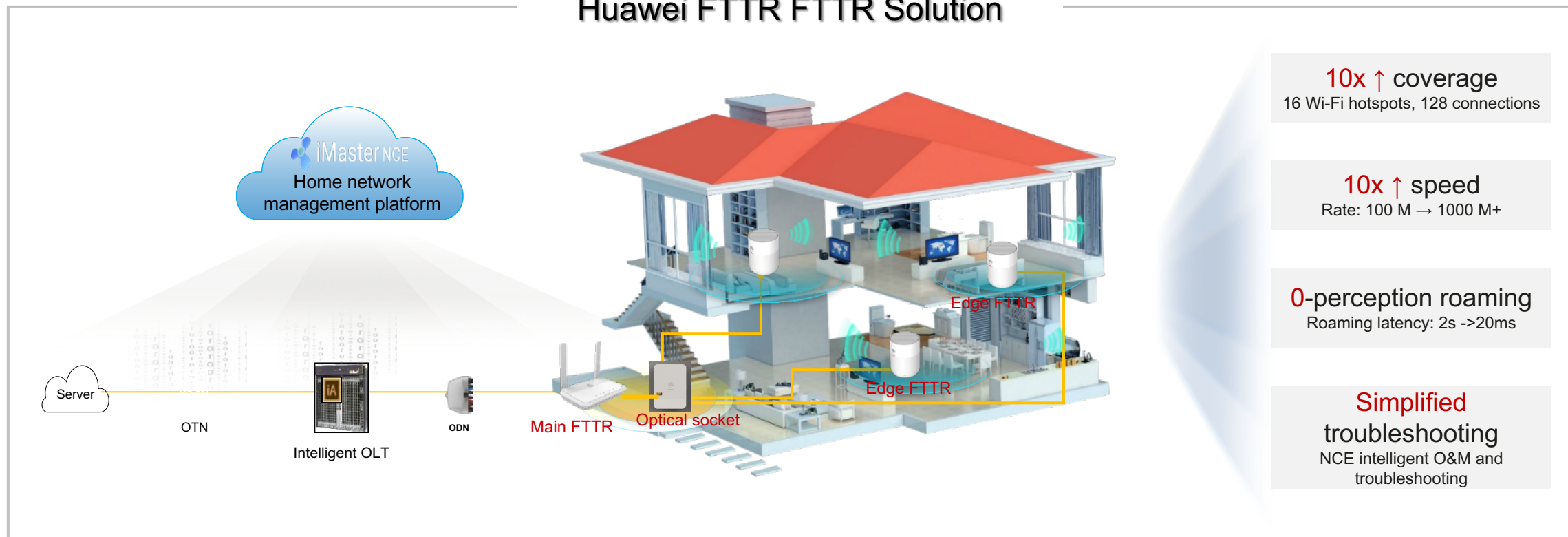
70%↓
TTM

- 8 sub-net, 4K VLAN
- 3 granularity sharing: Card | Port | ONT
- Traffic isolation, independent Mgmt. view



FTTR: Premium Experience in Everywhere, at Anytime

Huawei FTTR FTTR Solution



Ultra-high Bandwidth

- Tested rate exceeding 1 Gbps in each room
- Wi-Fi 6 160 MHz bandwidth

Seamless Wi-Fi Roaming

- Unique FTTR architecture, seamless full-home roaming
- Imperceptible handover, latency < 20 ms

Intelligent Connection

- 128 connections
- 16 edge FTTR

Ultra-low latency

- E2E fiber, low latency and stable network
- **OFDMA/BSS coloring**
- Anti 18 resource, performance ↑30%

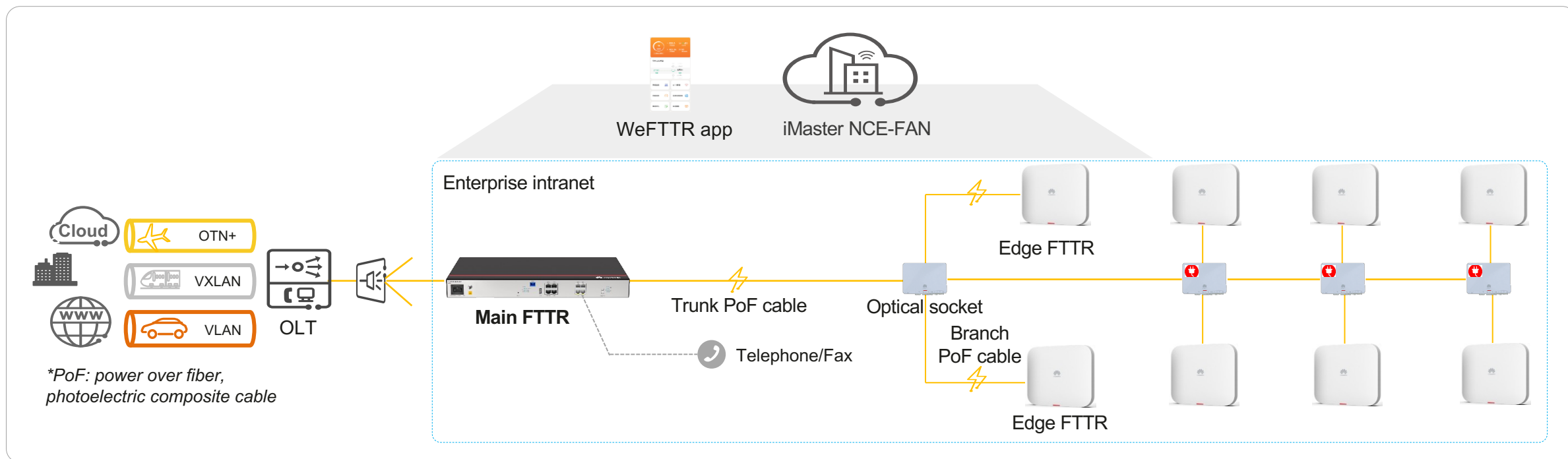
Green and safe

- 1 less device
- 3 level energy saving, ↓240kW•h/year/user
- COC V7

Intelligent O&M

- Wi-Fi simulation and planning
- 1 click acceptance ,
- Automatic identification and analysis of network faults

FTTR-SME: a Revolutionary Solution for **SME**



Ultimate experience

- **High bandwidth:** gigabit Wi-Fi 6 attainable rate
- High concurrency: guaranteed connection of **300 devices** through **64 channels**
- Full coverage: **smart antennas**, no coverage holes
- High security: built-in hardware **firewall and Portal authentication**

Simplified deployment

- Simplified architecture: point-to-multipoint architecture, **saving cabling** and facilitating upgrade
- Simplified device: all-in-one, space-saving, and easy power supply through **PoF cables**
- Simplified planning and acceptance: solution quotation in 5 minutes and acceptance in 5 minutes
- Simplified capacity expansion: **2 km ultra-long-distance** coverage, free of relay equipment rooms

Smart O&M

- Accurate demarcation: minute-level KPI collect and segment-based speed test
- Full locating: 1-minute fast detection & 24/7 playback
- Fast recovery: **proactive O&M and self-service recovery**
- Good experience: network-wide proactive optimization and network self-management

Premium Wi-Fi Solution Reshapes Home Service Experience

NCE cloud platform

Analyzer

iMasterNCE

Manager

Controller

Data-driven insight analysis

Home network

High-speed
Wi-Fi
coverage

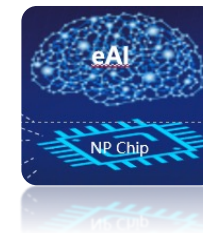
OLT BRAS CR

Penetrating one
more wall



Wi-Fi 6 Pro + Mesh
Networking

10\$ More Revenue
Earned



Video/Game/Home Office
Acceleration based on eAI

ONE less home
visit



Visualized, Managable,
Maintainable (iMaster NCE)

One more tree
planted



ONT smart deep
sleeping

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Creating the Best Experience Intelligent Gigabit Full Fiber Access Network

Access Network Side: OptiXaccess Series

OLT



EA5800-X17/15/7



EA5800-X2
32*Flex PON



Blade OLT
16*GPON



EA5801E-FL16



EA5801E
16/8/4 *GPON

Innovative ODN



Inline TB



Drop cable

Transparent Fiber



Transparent Fiber



FTTR KIT

Home/SME Side: OptiXstar Series



OptiXstar EN8145X6s



OptiXstar EN8147X6



OptiXstar EG8145V5



Edge ONT
WA8021V5



Edge ONT
K562e



Business PON ONU
OptiXstar B650G/B850G

O&M Platform

NCE
Cloud platform

Home network
management component

Installation &
maintenance
app or SDK



User-app/SDK
One-click
check+optimization
suggestions



50G-PON Combo: Leading Symmetrical 50G-PON OLT+ONU

Officially launched @MWC2023
Test available now



MA5800(400G slot)



8*50G-PON Board



50G-PON ONU



Huawei OptiXstar S992E

“0” Change on OLT

Industry's 1st 50GPON Combo

2 Modes Coexistence, 50G vs. 10G: cost/bit 50% ↓

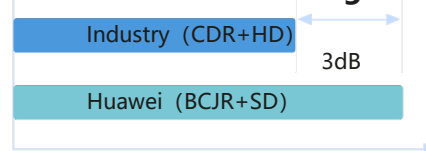


Smooth Evolution 10G->50G PON

“0” Change on ODN

Industry's 1st 32dB OP Budget

Innovative oDSP Algorithm



The oDSP algorithm to improve optical power budget by 3 dB and support 40 km.

5 X Bandwidth



UNI: 4 x 10GE (PoE++)



UNI: 2 x 25G/10GE

Enable fast upgrade from Wi-Fi 6 to Wi-Fi 7

Thank you.

把数字世界带入每个人、每个家庭、
每个组织，构建万物互联的智能世界。

Bring digital to every person, home and
organization for a fully connected,
intelligent world.

