

The Adtran logo is positioned in the top left corner of the slide. It consists of the word "Adtran" in a white, sans-serif font. The background of the slide is black, featuring large, abstract, colorful shapes in shades of blue, cyan, and purple that create a modern, geometric aesthetic.

Adtran

# Make Multi-Gigabit sustainable, with the disaggregated OLT

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# Market drivers: the challenge

Gigabit adoption accelerating



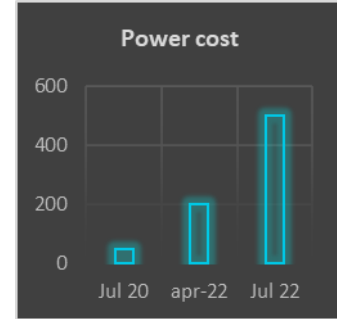
Operators to plan the transition to 10G-capable FTTH

XGSPON to dominate FTTH deployment



It's time to invest on XGSPON – too early for >10GPON

Energy costs: ~10x in the last two years



Reducing power is imperative!

**Challenge for the operators: multi-gigabit service deployment, while reducing power consumption**

# How to reduce the power of multi-giga FTTH

1

**Plan for point-to multipoint FTTH (XGSPON)  
P2P only where needed**

2

**FTTH  
PON OLT**

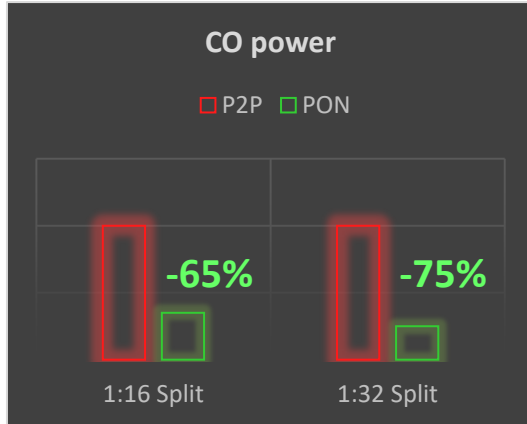
**Compact:  
Reduces cooling and co-location bills**

**Scalable:  
Pay and consume as you grow**

**Flexible:  
Pay only what you need**

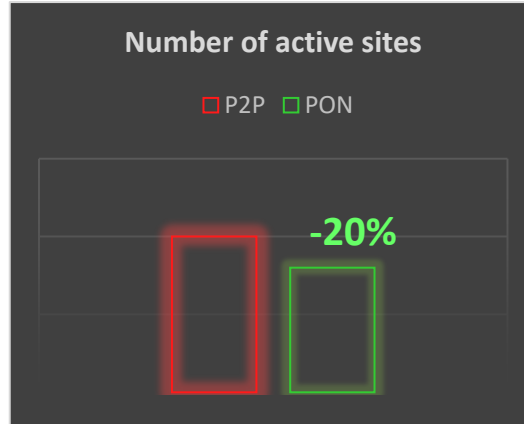
# The benefits of PON vs P2P

## Power reduction in the CO



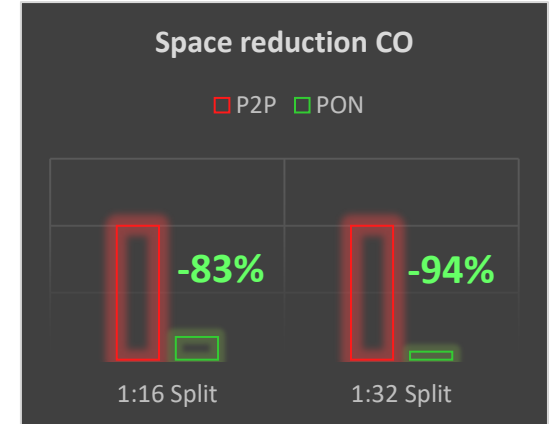
The PON OLT is much more efficient, and reduces the need for cooling

## Site rationalization



The active P2P switches can be replaced with passive splitters and absorbed into the existing OLTs in the bigger COs

## Space reduction in the CO



The PON OLT is much more compact, and reduces the need for active equipment space in the CO

# SDX disaggregated OLT: the concept

## Macro inflection points put pressure on the traditional «chassis-based» OLT

- ✓ Rise of new service types (wholesale, local cloud)
- ✓ Transition to XGSPON and mounting discussions around next gen PON
- ✓ Exploding cost of power and overcrowded PoPs



## SDX Goal: Evolve the ~20 years old access OLT

- ✓ Overcome the shortcomings of chassis-based architecture
- ✓ Leverage **open architecture** and data center programmability

Chassis-based OLT



SDX OLT



openreach  
BT

Deutsche  
Telekom

Telefonica

Telia  
elisa

## SDX concept:

1. Based on datacenter-like **appliances**:
  - Each appliance is completely self-sufficient
  - Each appliance is **specialized on one purpose** (PON access, Ethernet access, high capacity aggregation)
  - The OLT platform is realized by physically interconnecting only the needed appliances
2. **No chassis, no backplane, no common parts ...no constraints**

# The benefits at a glance

## FLEXIBILITY

«LEGO bricks» architecture to address every new need over time

*...never again:*

Ditch the OLT when your needs change

## SCALABILITY

Endless port growth, always one single logical OLT

*...never again:*

Multiple chassis, constrained to growth

## SUSTAINABILITY

Save space and energy

*...never again:*

«sustainable» chassis: over-dimensioned and half-empty

## OPENNESS

Build a «best of breed» OLT

*...never again:*

«open» OLTs, where everything must come from the same vendor

# Power reduction: the disaggregated OLT advantage

## SDX disaggregated OLT

## Traditional chassis OLT

**Compact:**  
Reduces cooling and co-location bills

Based on «pizzabox» appliances: smallest footprint

Target chassis deployed on day one, half-empty

**Scalable:**  
Pay and consume as you grow

Deploy only the needed appliance, only when needed

Deploy on day one the target chassis, with target common parts

**Flexible:**  
Pay only what you need

Deploy only the needed functions, avoid duplications

It is mandatory to deploy an aggregation function in the OLT

**Result in real scenario: savings of K€ per each OLT**

**Thank you**

