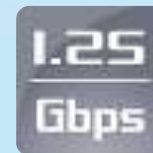


2-Port GEPON Managed OLT

EPL-2220



Presentation Outlines

- ◆ **About PON**
- ◆ **Product Overview**
- ◆ **Product Benefits**
- ◆ **Product Features**
- ◆ **Application**
- ◆ **Comparison**



About PON



About PON - What is PON?

◆ PON (Passive Optical Network)

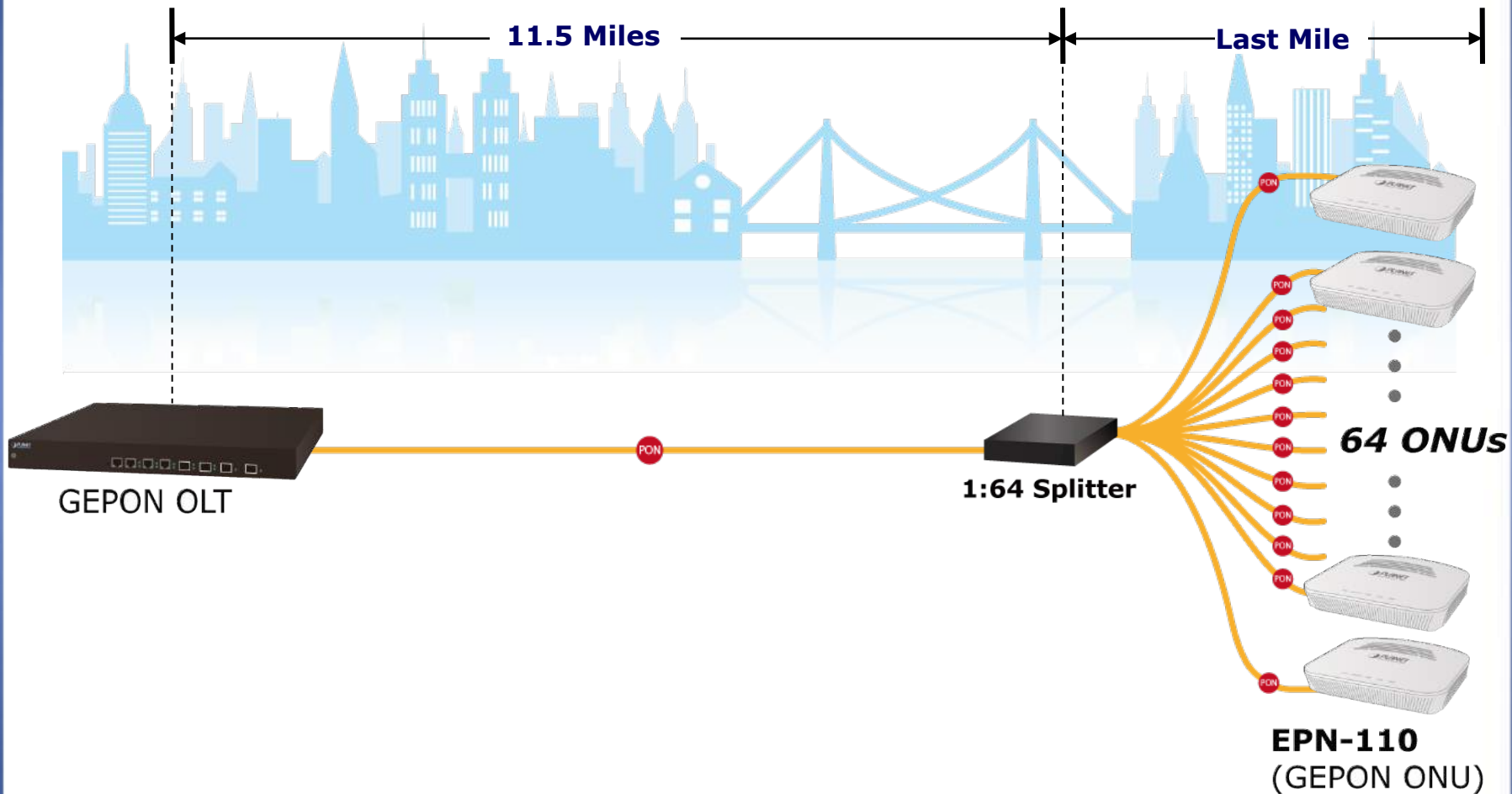
A passive optical network (PON) is a **Point-to-Multipoint** Fiber to the Premises network architecture in which **unpowered Optical Splitters** are used to enable a **single optical fiber to serve multiple premises, typically 16~128.**

A PON consists of:

- ✓ An **Optical Line Terminal (OLT)** at the service provider's central office
- ✓ A number of **Optical Network Units (ONUs)** near end users.
- ✓ A unpowered **Optical Splitter**

About PON – PtMP Application

Point to Multi-Point Application



About PON - PtP vs. PtMP

Point to Point Application



Fiber Switch

Total 64 Fiber Cables for 20km / 12.4 miles



Fiber CPE x 64

12.4 Miles

11.5 Miles

Last Mile

Totally Saves 64 Fiber Cables for 11.5 miles



GEAPON OLT

1:64 Splitter

64 ONUs

EPN-110 (GEAPON ONU)

Point to Multi-point Application

About PON – The Performance

◆ Last Mile Broadband Type / Comparison

Type	GEAPON	VDSL2 (Profile 30a)	VDSL2 (Profile 17a)	ADSL2+
Media	optical	Copper (Phone wire)	Copper (Phone wire)	Copper (Phone wire)
Max. Upstream	1.25Gbps	100Mbps	50Mbps	3.5Mbps
Max. Downstream	1.25Gbps	100Mbps	100Mbps	24Mbps
Max. Distance	20km	800m	1.4km	5.6km

About PON - What is PON?

◆ PON (Passive Optical Network)

A **passive optical network (PON)** is a **Point-to-Multipoint** Fiber to the Premises network architecture in which **unpowered Optical Splitters** are used to enable a **single optical fiber to serve multiple premises, typically 16~128.**

A PON consists of:

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- ✓ A unpowered **Optical Splitter**

Benefits of PON:

A PON **reduces the amount of fiber** and central office equipment required compared with point-to-point architectures.

A passive optical network is a form of fiber-optic access network that provides ultra-high speed of **1.25Gbps.**

Product Overview



Product Overview

◆ Front Panel of EPL-2220

- ✓ **Console – Only For Manufacturer Technical Use**
- ✓ **Manage Port**
- ✓ **Dual 1000BASE-X and dual 100/1000BASE-T Uplink Port**
- ✓ **Dual GEPON Port**
- ✓ **LED -- PWR and SYS**
- ✓ **RESET**

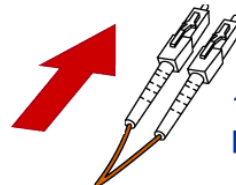


Product Overview

◆ Application of 1000BASE-X SFP Port Connection



MGB-SX/LX
GbE SFP

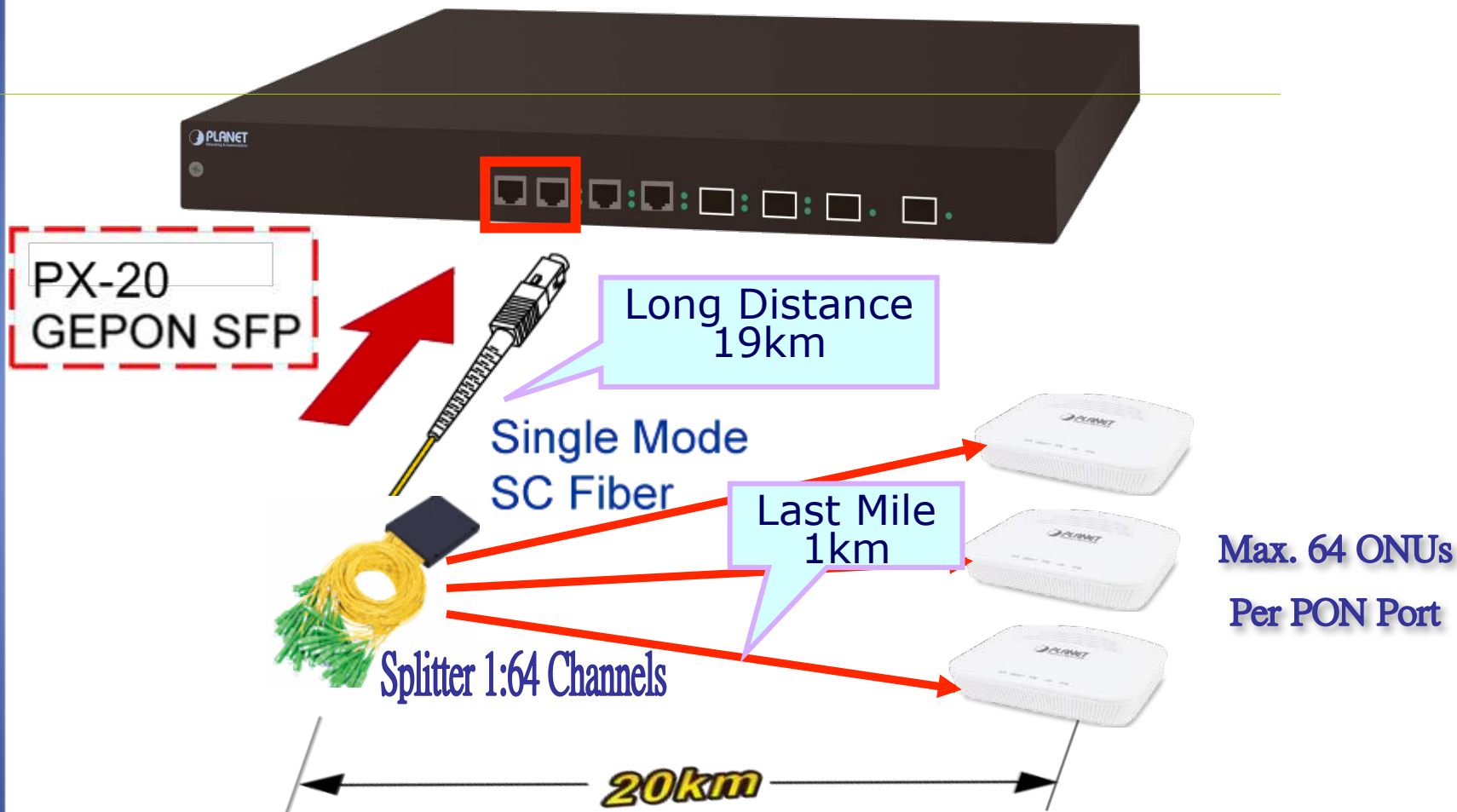


1000Base-SX/LX
LC Fiber

Model	Distance	Model	Distance
MGB-SX	550m	MGB-LA10	10km
MGB-SX2	2km	MGB-LB10	10km
MGB-LX	10km	MGB-LA20	20km
MGB-L30	30km	MGB-LB20	20km
MGB-L40	40km	MGB-LA40	40km
MGB-L50	50km	MGB-LB40	40km
MGB-L70	70km	MGB-LA60	60km
MGB-L120	120km	MGB-LB60	60km
MGB-TSX	550m	MGB-TL30	30km
MGB-TLX	10km	MGB-TL70	70km

Product Overview

◆ Application of PON Port Connection



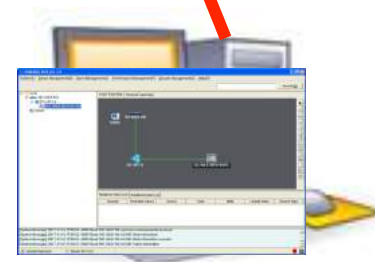
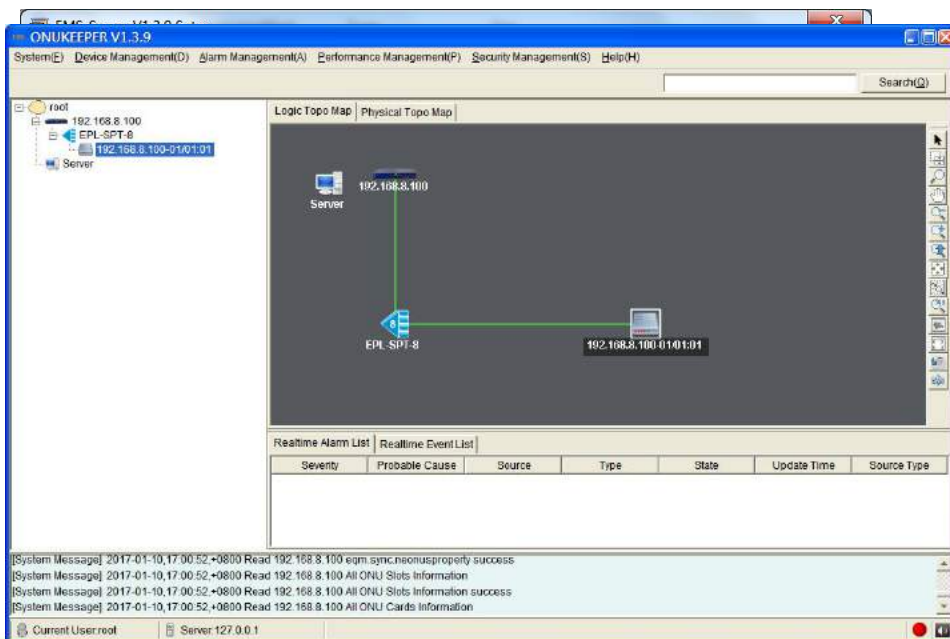
Product Overview

◆ How to Manage the EPL-2220

1. Use RJ45 for connecting with MGMT Port (RJ45 10/100Mbps)
2. Install EMS Software



RJ45 Cable



Product Features





Product Features

- ◆ **PON interface complies with IEEE 802.3ah**
- ◆ **Up to 1.25Gbps for upstream and downstream**
- ◆ **Up to 20km in distance**
- ◆ **2 PON ports, 2 Gigabit SFP ports and 2 Gigabit RJ45 interfaces**
- ◆ **Up to 64 ONUs split ratio per port**
- ◆ **Dynamic Bandwidth Allocation (DBA) Support**
- ◆ **Supports 8K MAC addresses / MAC filtering**



Product Features

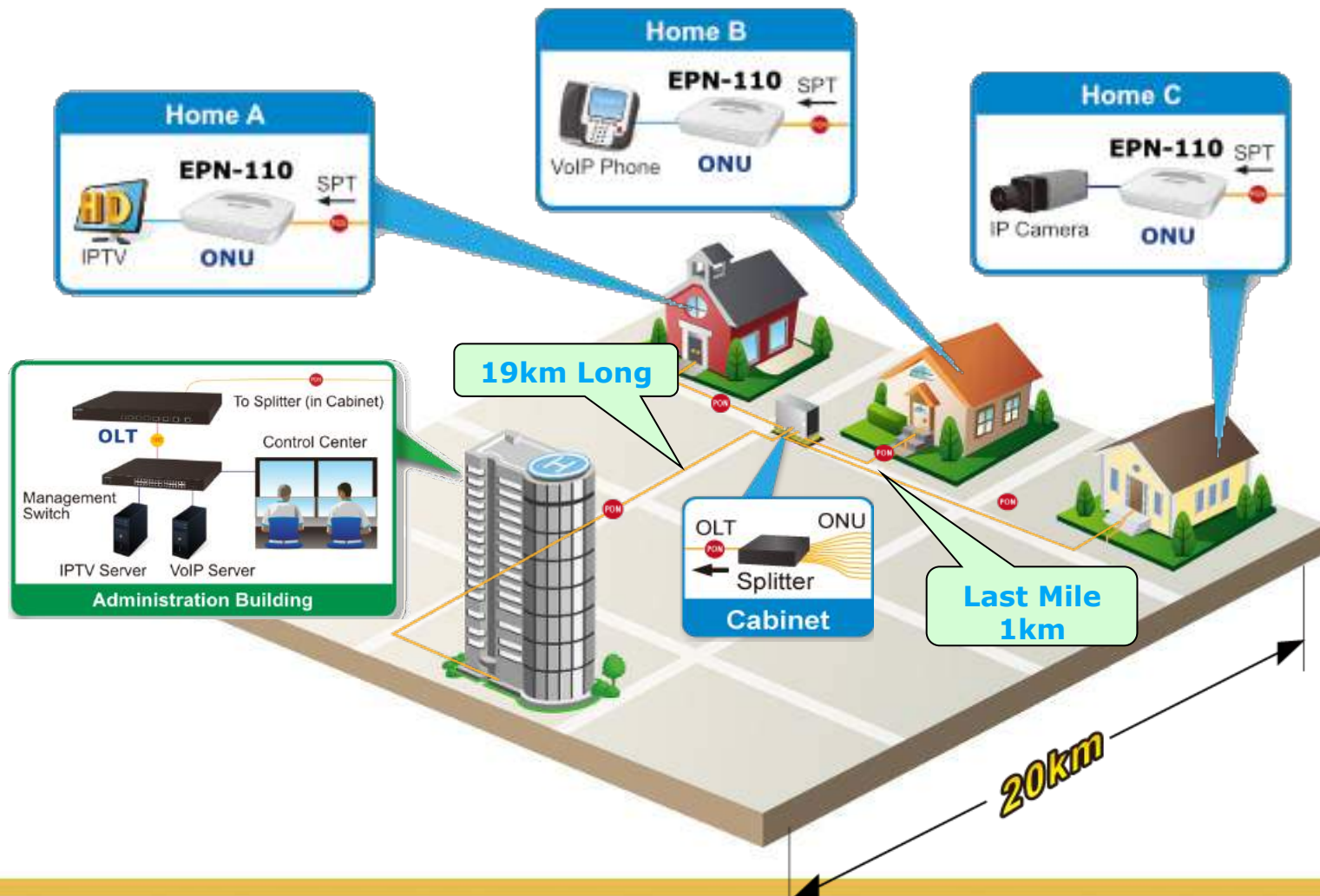
- ◆ **User-friendly GUI utility**
- ◆ **Remote ONU Management**
- ◆ **Service Level Agreement (SLA) support**
- ◆ **Unicast, broadcast, and multicast traffic control**
- ◆ **Supports 802.1Q VLAN**
- ◆ **Supports QoS**
- ◆ **Supports IGMP snooping (ONU)**

Applications



Application -- FTTH (Fiber-to-the-Home)

FTTH (Fiber-to-the-Home)



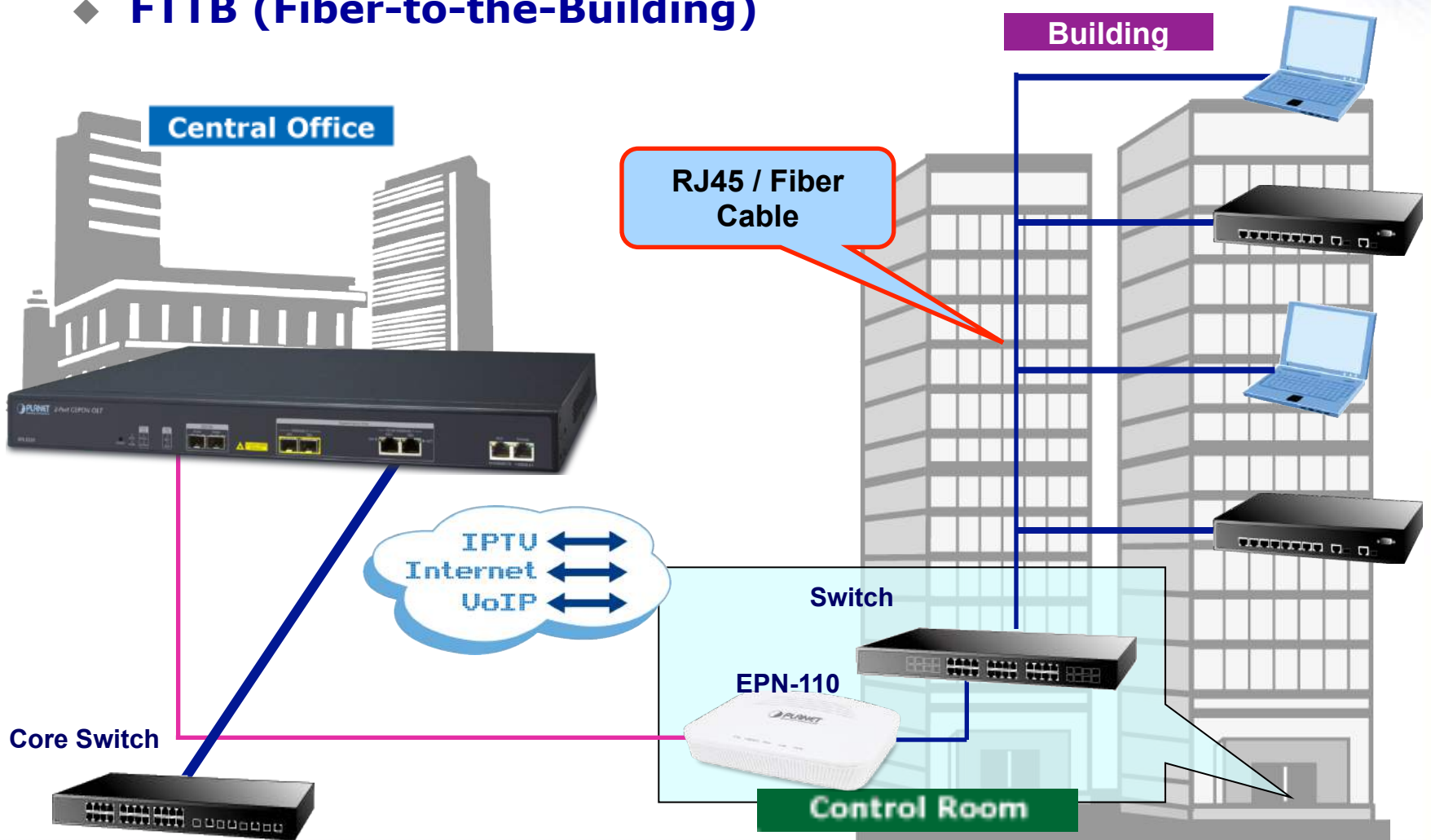
Application -- FTTB (Fiber-to-the-Building)

IP surveillance system installed on campus



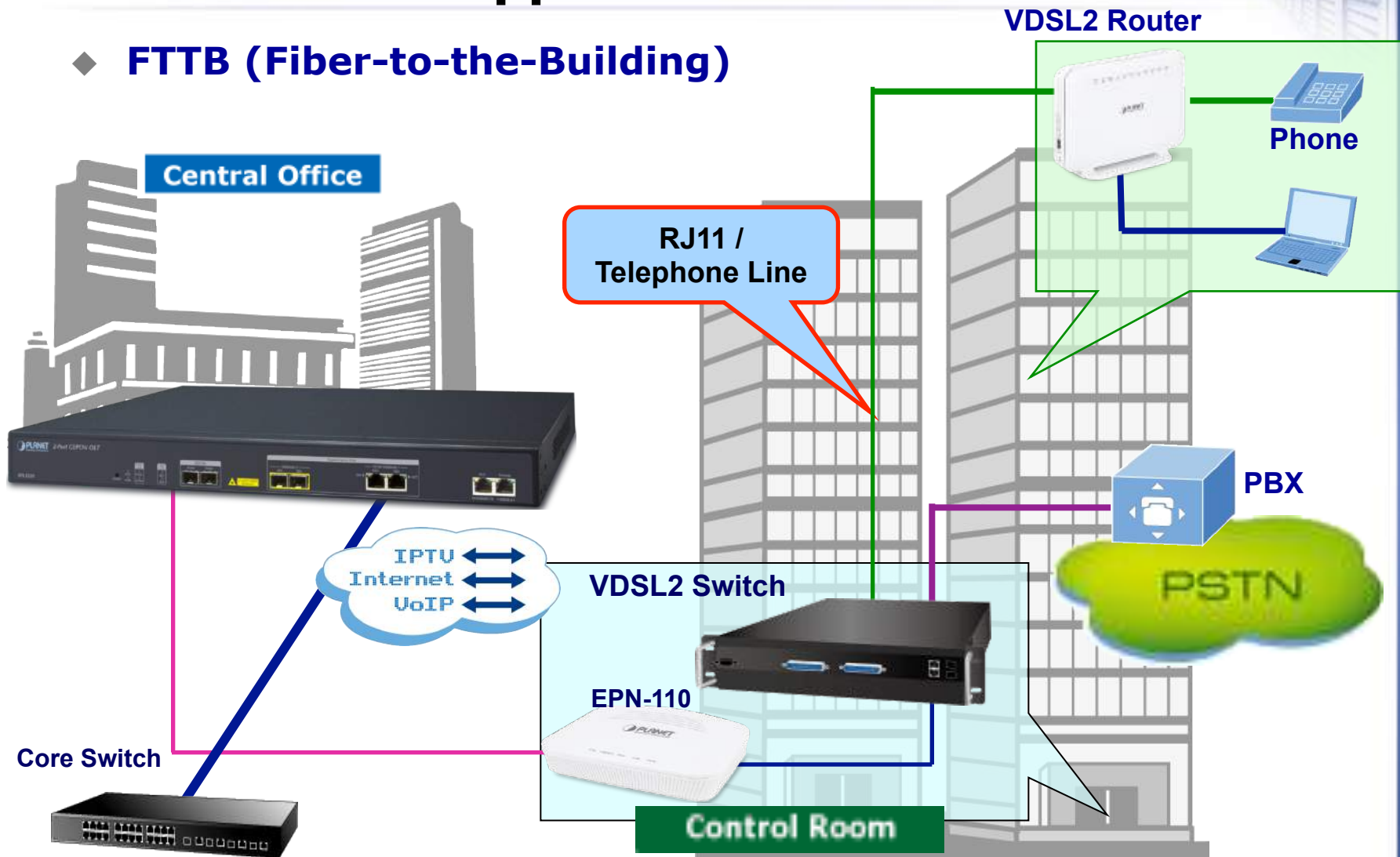
Application -- FTTx

◆ FTTB (Fiber-to-the-Building)



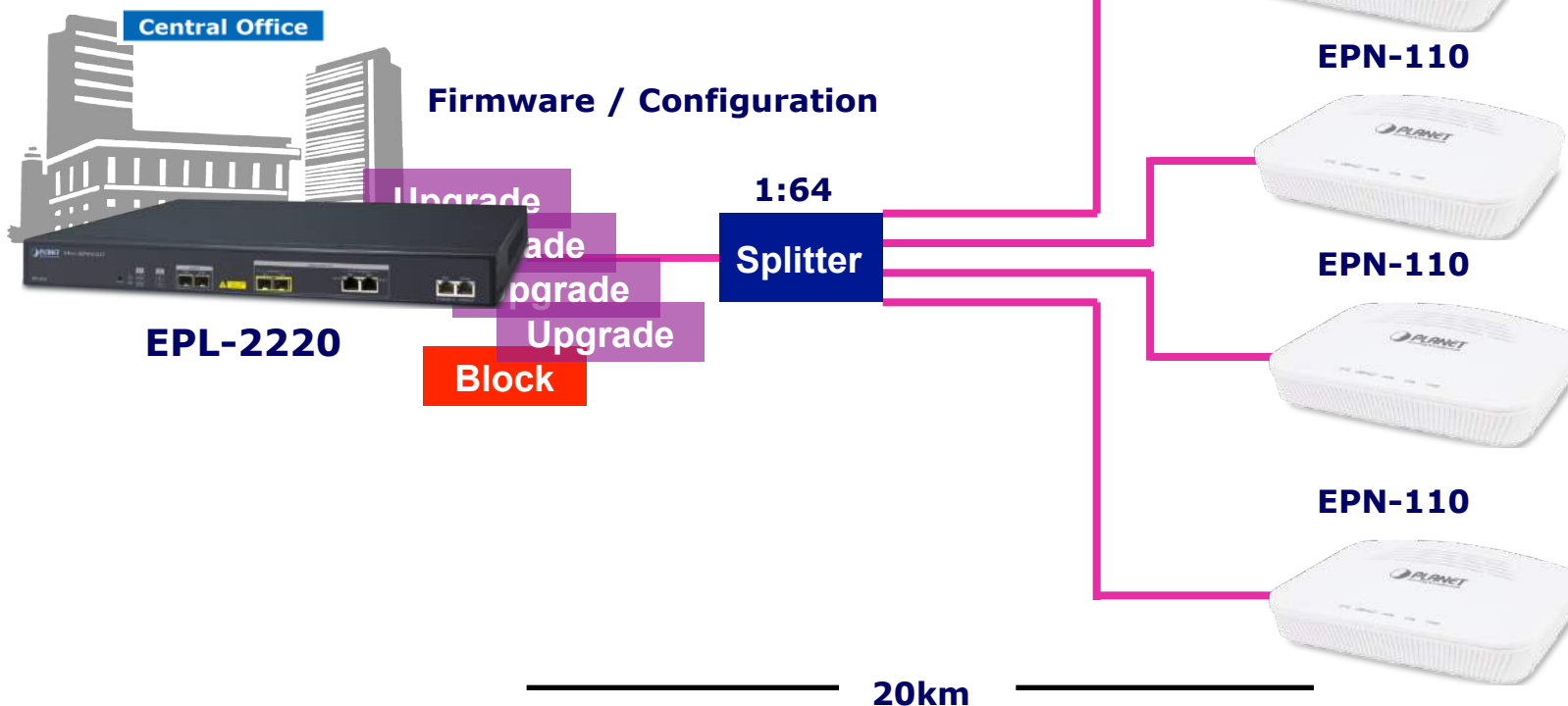
Application -- FTTx

◆ FTTB (Fiber-to-the-Building)



ONU Deployment

- ◆ Long Distance
- ◆ Port Filtering
- ◆ Central Management



Comparison



Product Comparison – PLANET GEAPON OLT






Model	EPL-2220	EPL-2000v2
Outlook		
Hardware		
Dimensions	441 x 206 x 44mm	441 x 206 x 44mm
Ethernet port	2 Gigabit SFP interfaces 2 Gigabit RJ45 ports	2 Gigabit SFP interfaces 2 Gigabit RJ45 ports
PON Port	2 PON interfaces	2 PON interfaces
Console Port	1 console port	1 console port
Management Port	1 10/100 RJ45 port	1 10/100 RJ45 port
Feature		
Web Management	Yes	No
CLI Management	Yes	No
DHCP Server	Yes	No
IGMP	IGMP Snooping	IGMP Proxy
802.3ah FEC	Yes	Yes

Appendix



Appendix

◆ **Related GEPON Products:**

Model Name		Description
EPN-110		GEPON SFU ONU (One PON interface, One GE interface)
EPN-402NV		GEPON Wi-Fi ONU (One PON interface, 4-port FE + 2-port FXS 802.11n wireless)
EPL-SPT-8		1 x 8 PLC Splitters, Wavelength 1230 ~ 1650nm
EPL-SPT-32		1 x 32 PLC Splitters, Wavelength 1230 ~ 1650nm
EPL-SPT-64		1 x 64 PLC Splitters, Wavelength 1230 ~ 1650nm