SISTEM KOMUNIKASI OPTIK

- # MATERI 11

- ## GIGABIT PASSIVE OPTICAL NETWORK (GPON)

- **D3 Teknologi Telekomunikasi – Fakultas Ilmu Terapan**

GIGABIT PASSIVE OPTICAL NETWORK (GPON)

Standar	ITU. G.984
Kecepatan Downstream	2.4 Gps
Kecepatan Upstream	1.2 Gbps
Layanan	Data, Suara, Video
Perbandingan Splitter Maksimum	1 : 64
Jarak Maksimum	60 Km
Panjang Gelombang Downstream	1490 nm dan 1550 nm
Panjang Gelombang Upstream	1310 nm
Splitter	Pasif

Sumber Referensi :
Gerd,Keiser.,2010, *Optical Fiber Communications*, 4th edition,McGraw Hill,International Edition

STANDAR GPON

ITU-T G.984.1
· Parameter description of GPON network
· Requirements of protection switch-over networking

ITU-T G.984.2
· Specifications of ODN parameters
· Specifications of 2.488Gbps downstream optical port
· Specifications of 1.244Gbps upstream optical port
· Overhead allocation at physical layer

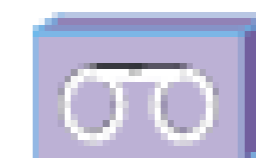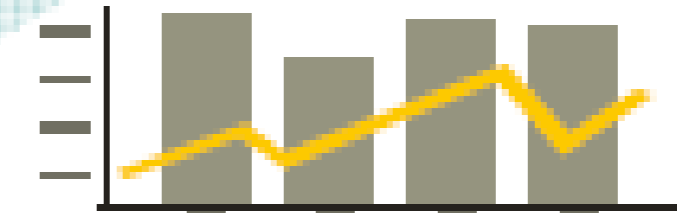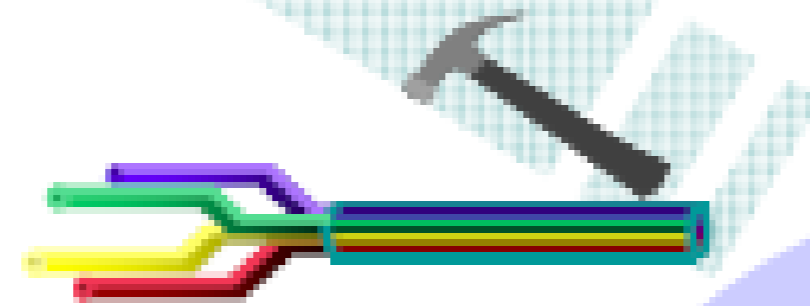Simple development process
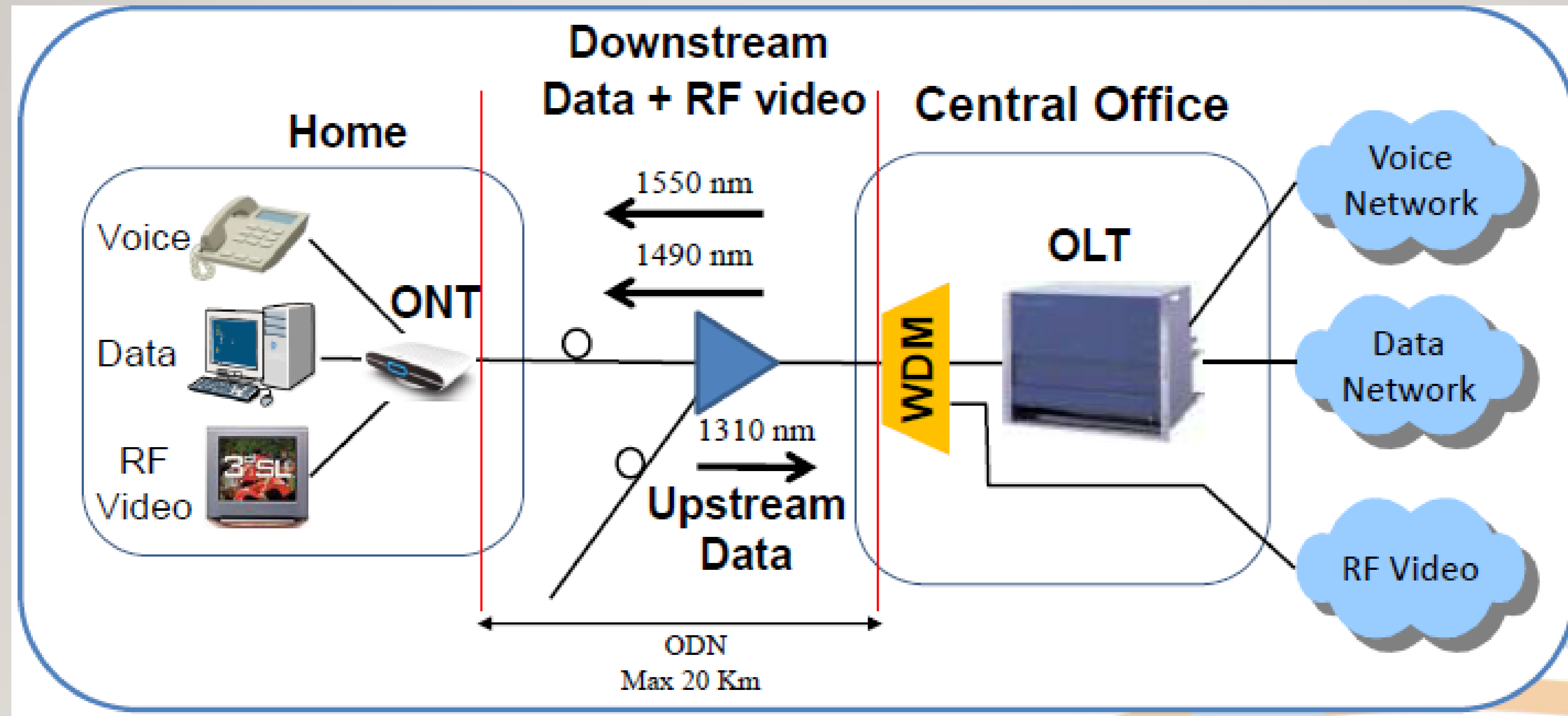Powerful compatibility

ITU-T G-984.1/2/3/4

ITU-T G.984.3
· Specifications of TC layer in the GPON system
· GTC multiplexing architecture and protocol stack
· GTC frame
· ONU registration and activation
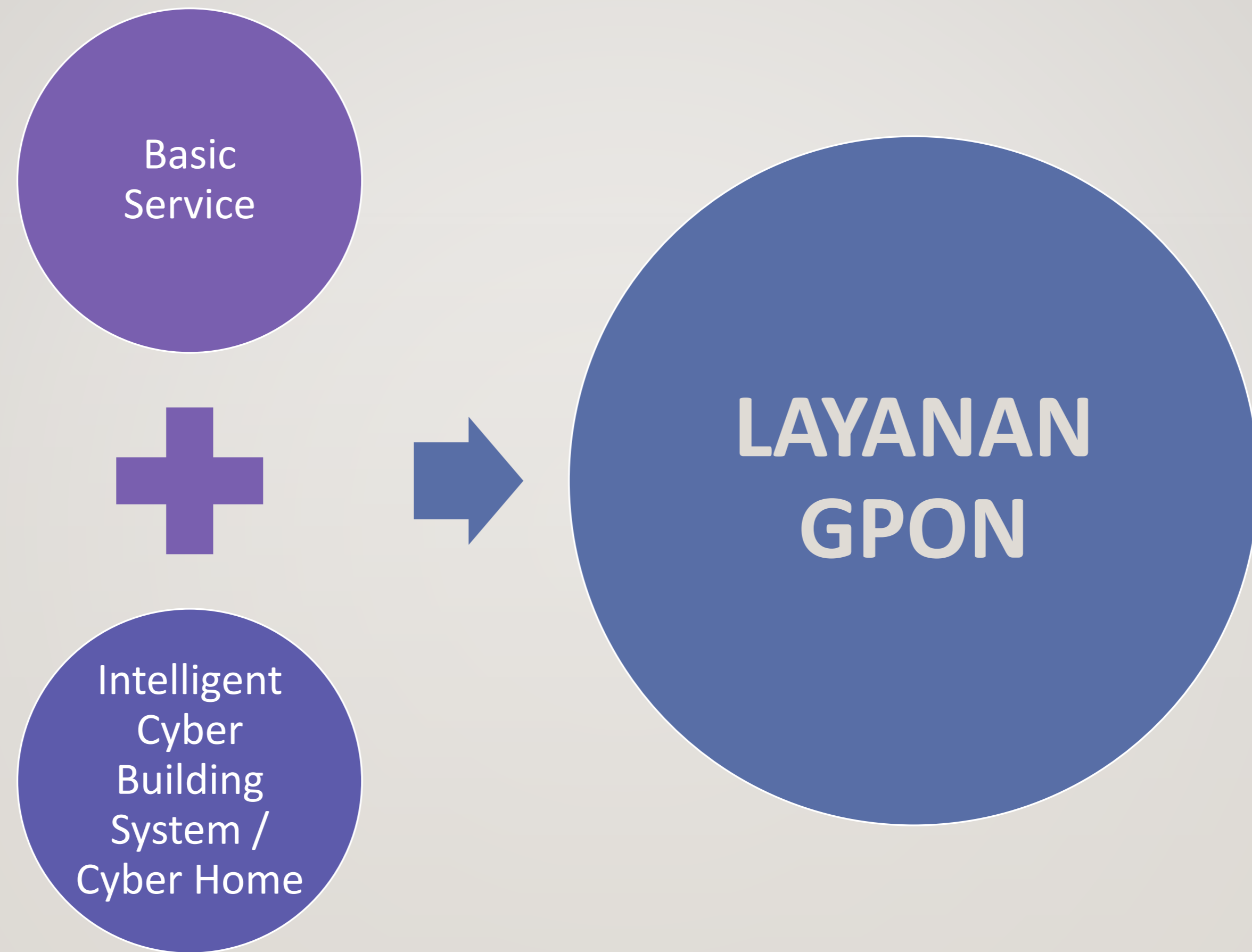· DBA specifications
· Alarms and performance

ITU-T G.984.4
· OMCI message format
· OMCI device management frame
· OMCI working principle

JARINGAN GPON

Basic Service

+

Intelligent Cyber Building System / Cyber Home

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LAYANAN GPON

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