

ABSTRAK

Asynchronous Transfer Mode Passive Optical Network (APON) yang merupakan infrastruktur bagi kota besar oleh *telecommunication carrier* dan *equipment vendor* dianggap sebagai *broadband access platform* yang paling potensial untuk menyediakan layanan multimedia sebaik layanan lainnya. *Optical Distribution Network* dengan APON sebagai teknologinya menjanjikan keuntungan besar bagi para penggunanya dan service providernya. Karena dapat menekan biaya pengeluaran dengan teknologi APON ini, maka *telecommunication carrier* dan *service provider* dapat meningkatkan efisiensi kerja pada peralatannya untuk aplikasi ke depannya dan meningkatkan terus bandwidth sehingga membuat puas para penggunanya / *end user*.

Dan *Ethernet Passive Optical Network (EPON)*, yang merupakan infrastruktur yang menyediakan metoda layanan low cost dalam pengembangannya pada *optical access line* antara *central office* dan konsumen / pemakai. EPON dikembangkan berdasarkan standard *Internasional Telecommunication Union (ITU) G.983* yang juga sama dipakai oleh APON yang mempunyai kemampuan membawa data, video dan juga suara / *voice* melalui *single optical access* sistem.

ABSTRACT

Asynchronous infrastructure is widely cited by telecommunications carrier and equipment vendor as potentially the most effective broadband access platform for provisioning advanced multimedia service as well as legacy services. An Optical Distribution Network with APON as the technology promises benefits to end-users as well as carrier and service provider. Because of the cost saving inherent with APON platform, service provider will realize efficiencies in provisioning future applications and upgrading bandwidth to satisfy customer's demand.

And Ethernet Passive Optical Network are an emerging access network technology that provides a low cost method of deploying optical access lines between a carrier central office and customers. EPON build on the International Telecommunications Union (ITU) standard G.983 for APON and seek to bring to life the dream of a full service access network (FSAN) that deliver converged data, video, and voice over a single optical access system.

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DAFTAR ISTILAH

AAL	: ATM Adaption Layer.
ABR	: Available Bit Rate.
APON	: Asynchronous Transfer Mode Passive Optical Network.
ATM	: Asynchronous Transfer Mode.
BPON	: Broadband Passive Optical Network.
CCU	: Common Control Unit.
CLP	: Cell Loss Priority.
CBR	: Constant Bit Rate.
DS	: Distribution Section.
DSL	: Digital Subscriber Line.
EPON	: Ethernet Passive Optical Network.
EMS	: Element Management System.
EOM	: Electro Optical Module.
FSAN	: Full Service Access Network.
FTTH	: Fiber To The Home.
FTTB	: Fiber To The Building.
FTTC	: Fiber To The Curb.
GPON	: Gigabit Passive Optical Network.
GFC	: Generic Flow Control.
GCM	: Global Crossconnect Module.
IP	: Internet Protocol.
ISDN-BRA	: Integrated Services Digital Network-Basic Rate Access.
ISDN-PRA	: Integrated Services Digital Network-Primary Rate Access.
NRT-VBR	: Non Real Time-Variable Bit Rate.

ODN	: Optical Distribution Network.
OAM	: Operation Administration and Maintenance.
OLT	: Optical Line Terminal.
ONU	: Optical Network Unit.
OSU	: Optical Subscriber Unit.
ONT	: Optical Network Terminal.
PON	: Passive Optical Network.
PS	: Passive Splitter.
PAD	: Packet Assembler Disassembler.
POTS	: Plain Old Telephone Service.
PT	: Payload Type.
PLOAM	: Physical Layer Operation Administration and Maintenance.
RT-CBR	: Real Time-Constant Bit Rate.
SDM	: Space Division Multiplexing
SU	: Service Unit.
SCU	: Synchronization Control Unit.
TDM	: Time Division Multiplexing.
TDMA	: Time Division Multiple Access.
TU	: Tributary Unit.
TKO	: Titik Konversi Optical.
UBR	: Unspecified Bit Rate.
VPI	: Virtual Channel Identifier
VCC	: Virtual Channel Connection.
QAM	: Quadrature Amplitude Modulation. :