

Identity protection in EPON

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Activity analysis of a selected victim can be carried out if intercepted packets can be classified on a per-user basis. The total activity of an EPON can be monitored naturally even without this information. At least activity analysis of an individual user should be prevented by having identity protection.

EPON users are particularly vulnerable to activity analysis because other users can eavesdrop downstream traffic unnoticed and undisturbed 24h/day using a Gbit-Ethernet interface that does not drop packets due to EPON preamble, in a standard PC which is a powerful tool for hacking purposes.

For achieving wide acceptance and avoiding bad publicity, activity analysis of individual users in EPON should be prevented to the extent that can be accomplished without costly effort. Current cellular networks do address identity protection. EPON subscriber access should take the challenge, as well.