



Brief description of working group L2: standards relating to layer 2

The main aim of this working group was the specification of common points relevant for the industry with regard to access to layer 2 services, in cases where these are provided by other FTTH network operators, as well as finding a consensus in the case of solutions required to establish a certain level of standardisation in this respect. For this purpose, standards have been selected based on existing standards and the use of a common platform recommended for the handling of order processes.

1. Why?

- Service providers without a nationwide network infrastructure are reliant on the wholesale services of other service providers with access networks for access to end customers in order to be able to offer their services to all sections of the population.
- Thanks to the construction of fibre optic networks in urban areas, an increasing number of transport networks are being established according to the principle of open access in layer 2, which can have different characteristics within specific geographical areas. There is a real risk that, depending on location and the area being supplied, networks will be established which have varying performance features which would therefore hinder the free dissemination of services.
- The service providers must match their services to the available characteristics, depending on the particular service area, and debug them. This adaptation process can lead to technical obstacles and deteriorations in quality.
- Standardised and automated processes between service providers and network operators lead to efficient handling of the provision of connections for end customers to use.

2. Standards for layer 2

The standards selected for data transfer on layer 2 are part of the widespread Ethernet standards, both for network-to-network and for network-to-end customer interfaces. Three types of transport service defined by the Metro Ethernet Forum are planned:

- *E-Lan* for the networking of companies via a virtual private LAN
- *E-Line* for the networking of companies via virtual private lines
- *E-Tree* for alternative service providers which use tree-like virtual networks to offer internet access, television, video, telephony, etc. for private customers.

Variable parameters for bandwidth, multiplexing, priorities, etc. give service providers a high level of flexibility that is relatively close to the flexibility offered by physical access points.

3. Platform for order processes

In order for various service and network providers to be able to process customer orders efficiently, the working group recommended the development and provision of an appropriate messaging platform. A procedure and initial specification for this were further developed in the successor group L2B.