

ABSTRACT

5 This application provides a communication method and apparatus, and a PON system, to resolve an SN collision problem in a PON, and improve system performance of the PON. The method includes: An OLT device receives a first SN from a first ONU device in a first time window, assigns a first ONU identifier to the first ONU device, and then sends first indication information and the first ONU identifier in a broadcast manner, where the first indication information indicates that the OLT device successfully assigns the first ONU identifier to the first ONU device. Then, the OLT device receives a second SN from a second ONU device in a second time window, where the second SN is the same as the first SN. The OLT device determines, based on an authentication result of the first ONU device, 10 whether to assign a second ONU identifier to the second ONU device.

Fig. 3