Free choice of Modem Specification

Description of the way to establish a connection with the Proximus Copper network via the NTP

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1 Summary

Edpnet does not manage the fixed internet network mentioned, but offers its services through the Proximus network.

This document describes the interface ports on the Proximus Copper Network Termination Points (NTP) that are available for connecting CPE equipment (modem) to the Proximus network. The NTP is the main interface and demarcation point with the Copper Proximus network.

2 Introduction

A lot of different NTPs have been used by RTT/Belgacom/Proximus to terminate the outside network and allowing the connection of telecom devices.

With the introduction of the VDSL technology, the oldest NTPs have been replaced by new versions. The first ones are nevertheless described in the present document, because they can still be met in the field.

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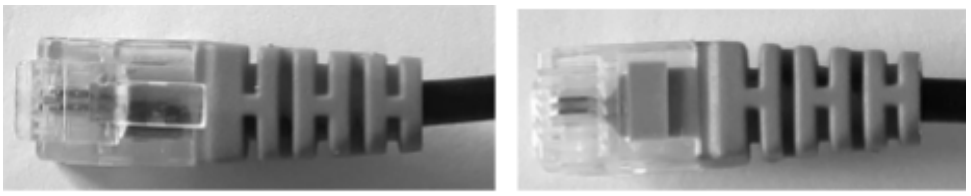
Operators utilizing this document for informing their end users, are encouraged to consult Proximus for any additional clarifications or updates to ensure optimal compatibility with the Proximus residential network.

3 Patch cord RJ11

The connection of the modem to the NTP or splitter/plug is mentioned to be made with an appropriate patch cord; this patch cord is made of one twisted pair connected on the central contacts of a RJ11 plug. A flat cable (more susceptible to interferences) may not be used.

Illustration:



4 5-poles NTP

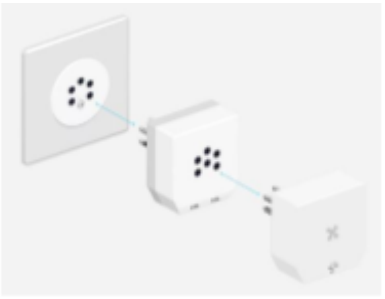
Different versions of NTP's used before 2007 can still be found in some houses.

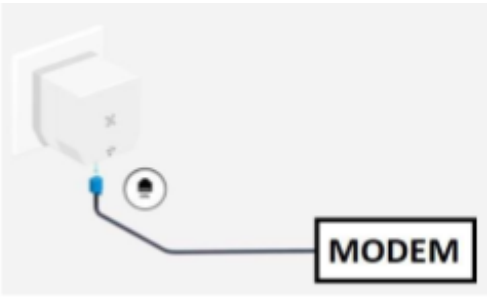
4.1 Versions before 1995

They exist in surface and flush versions.

For VDSL lines, these outlets are preliminary equipped with a specific "5-to-6 adapter" and a "pluggable VDSL splitter".

The VDSL modem shall be connected to the RJ11 jack of this splitter with an appropriate patch cord. Illustrations of surface NTP and of a flush version with adapter and pluggable splitter:



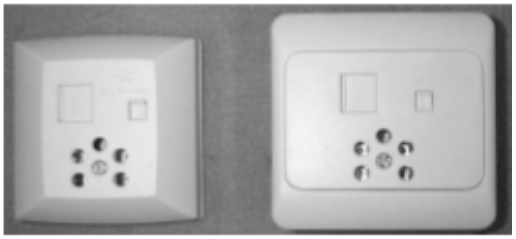


The telephony is accessible at the RJ jacks of the adapter.

In case of VoIP, a "VoIP" plug is installed instead of the splitter. The VDSL modem shall be connected to the RJ11 jack of this plug with an appropriate patch cord. There is no signal on the RJ jacks of the adapter.

Note: In this configuration (5 poles outlet + adapter + splitter/plug), all the internal cables must physically be removed, to avoid VDSL signal disturbance.

4.2 Versions TF95 and TF2001



These are also 5-poles outlets. The connection of a VDSL modem is done in the same way as described in point 4.1.

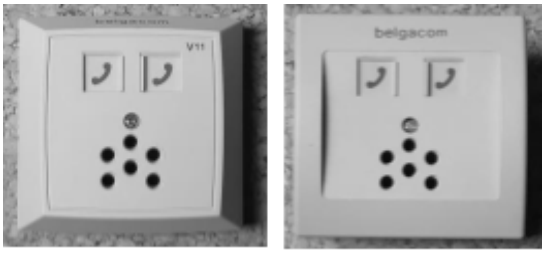
4.3 Summary

Needed component	PSTN ONLY	PSTN + VDSL	VDSL ONLY (VoIP)
NTP	YES	YES	YES
ADAPTER	NO	YES	YES
VDSL SPLITTER	NO	YES	NO
VOIP PLUG	NO	NO	YES

5 VDSL NTP's

5.1 Version TF2007

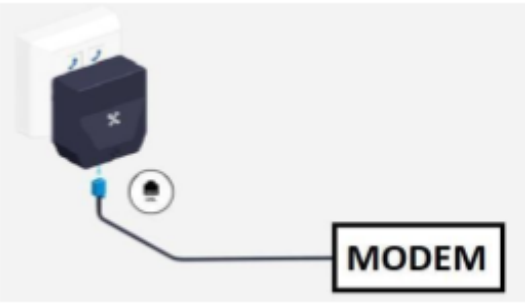
This NTP has 6 holes to accept the "pluggable VDSL splitter" or the "VoIP plug" without use of the 5-to-6 adapter.



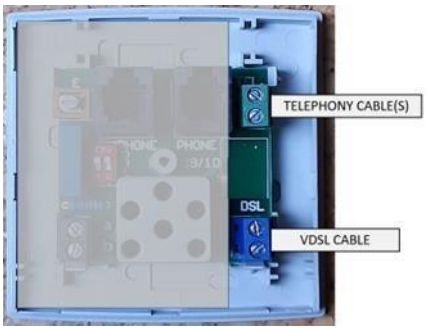
The VDSL modem shall be connected to the RJ11 jack of the pluggable splitter or of the VoIP plug with an appropriate patch cord.

Note: in case of VDSL with PSTN, the 2 parallel RJ11 jacks on the NTP allow the connection of telephone sets with an appropriate RJ11 telephony patch cord; in case of VoIP, these jacks can only be used when a telephony cable is installed between the modem (VoIP output) and the green terminals of the NTP.

Illustrations of a TF2007 with a VoIP plug:



When the modem and the telephone sets are installed far from the NTP, appropriate cables can be connected on the blue (for VDSL) and green (for telephony) screw terminals inside the NTP (the cover of the NTP can be unscrewed). The VDSL blue terminals are only active when the splitter is plugged into the NTP.



Summary:

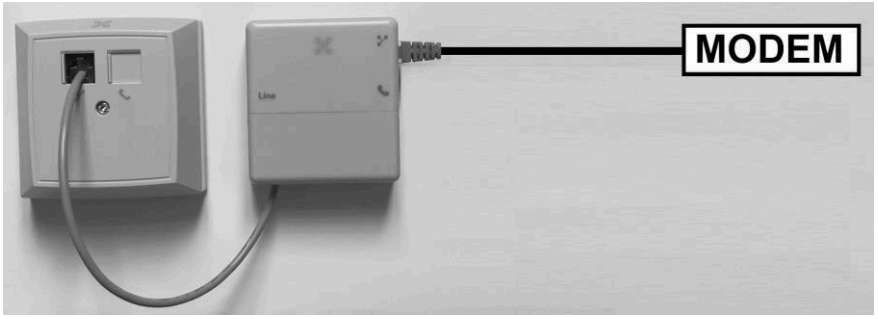
Needed component	PSTN ONLY	PSTN + VDSL	VDSL ONLY (VoIP)
NTP	YES	YES	YES
VDSL SPLITTER	NO	YES	NO
VOIP PLUG	NO	NO	YES

5.2 Version TF2022

The NTP TF2022 is a simplified version of the TF2007, without six-poles jack.

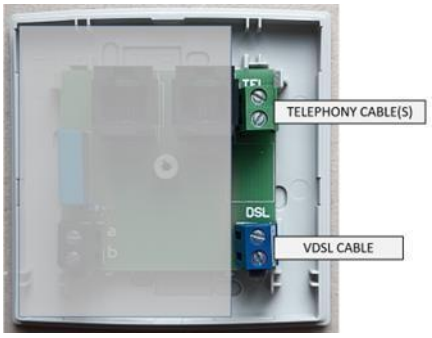
For a VoIP line, the VDSL modem shall be connected to the left located RJ11 jack of the NTP with an appropriate patch cord.

For a PSTN + DSL line, a master splitter is installed and connected to the VDSL RJ11 jack of the NTP. The VDSL modem shall be connected to the DSL port of the master splitter with an appropriate patch cord.



Note: the left located RJ11 jack of the NTP can also be used for a PSTN telephone in absence of VDSL service.

When the modem and the telephone sets are installed far from the NTP, appropriate cables can be connected on the blue (for VDSL) and green (for telephony) screw terminals inside the NTP (the cover of the NTP can be unscrewed).



The RJ11 jack marked for telephony (at the right of the NTP) can only be used when a telephony cable is installed between the modem (VoIP output) and the green terminals of the NTP.

Summary:

Needed component	PSTN ONLY	PSTN + VDSL	VDSL ONLY (VoIP)
NTP	YES	YES	YES
MASTER SPLITTER	NO	YES	NO