



Telenet Fixed Docsis (Voice)
CPE specification
for Free Modem regulation

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1. Conventions

Throughout this document, the words that are used to define the significance of particular requirements are capitalized. These words are:

"MUST, SHALL" This word means that the item is an absolute requirement of this specification.

"MUST NOT" This phrase means that the item is an absolute prohibition of this specification.

"SHOULD" This word means that there MAY exist valid reasons in particular circumstances to ignore this item, but the full implications SHOULD be understood and the case carefully weighed before choosing a different course.

"SHOULD NOT" This phrase means that there MAY exist valid reasons in particular circumstances when the listed behaviour is acceptable or even useful, but the full implications SHOULD be understood and the case carefully weighed before implementing any behaviour described with this label.

"MAY" This word means that this item is truly optional.

2. Contact

Queries regarding this specification can be found on www.telenet.be. Please note this contact is for hardware manufacturers only.

3. Scope

This document describes the Telenet residential CPE requirements for a modem that will support voice service via Telenet docsis network.

4. Telephony Voice requirements

Refer also to mandatory requirements “FreeModem.Telenet.Docsis.CPE.specification.pdf”

There are specific telephony interface and protocol requirements for residential Docsis CPE and Packetcable VoIP at Telenet. This interface specification may be changed at any time and may break backward compatibility with previous versions. Manufacturers are therefore asked to provide regular software updates. The user of this interface specification has to check for the newest version available from Telenet. This interface specification may be superseded in total or in part by the terms of a contract between the individual network user and Telenet.

The Docsis modem and eMTA must comply to the following Packetcable 1.5 most recent Cablelabs specifications, and specifically also any normative references as mentioned in the Cablelabs documents, and specifically for any eMTA aspects.

- PacketCable 1.5 MTA Device Provisioning Specification
- PacketCable 1.5 Management Event MIB Specification
- PacketCable 1.5 MTA Extension MIB Specification
- PacketCable 1.5 Signalling Extension MIB Specification
- PacketCable 1.5 Event Messages Specification
- PacketCable 1.5 MTA MIB Specification
- PacketCable 1.5 Management Event Mechanism Specification
- PacketCable 1.5 Dynamic Quality of Service Specification
- PacketCable 1.5 Electronic Surveillance Specification
- PacketCable 1.5 Security Specification
- PacketCable 1.5 Network-Based Call Signaling Protocol Specification
- PacketCable 1.5 Embedded MTA Analog Interface and Powering Specification

Additionally this modem and eMTA must support:

- Secure EuroPacketcable 1.5 and NCS provisioning flow and related embedded secure certificate per device
- Euro/Packetcable NCS protocol and interop against Telenet/Ribbon Communications NCS C20 system
- Europacketcable full aspects such as MIBs.
- RFC2833 must be supported
- Docsis Modem and EuroPacketcable aspects must be d3.0 backwards compatible
- Belgium analogue PSTN interface requirements, refer also to ITU for country aspects, and appendix in this document
- QoS for eMTA must support Dqos-lite
- The device MUST be able to support an NCS VoIP solution that has dual geo-redundant application servers.
- The eMTA and related modem hardware/software MUST conform to these security aspects as a minimum:
 - Hardware MUST have secure boot to ensure signed and secured firmware
 - Console connections MUST NOT be possible on this modem/eMTA
 - Pins MUST NOT be available for adding a console connection on the PCB, and also not solderable
 - Device MUST have a unique telephony certificate per device for PC1.5 secure flow
 - Local Web UI MUST NOT be active or usable, only cloud UI allowed for any NCS voice capable cpe
 - Any shell capable software MUST NOT be made available by the manufacturer
 - eMTA mac address must follow the address allocation scheme CM mac address + 1

5. Appendix: Telephony Interface additional requirements

- Refer to the following documents as MUST requirements before a modem can support voice service via docsis.

TS-101.pdf : Specification of physical and electrical characteristics at the 2-wire analogue presented NTP on the Telenet network.

TS-102.pdf : Information tones on the Telenet PSTN interface

TS-103-A.pdf : Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part A: On-hook data transmission

TS-103-B.pdf : Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part B: Off-hook data transmission

TS-103-C.pdf : Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part C: Data link message and parameter coding

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