

TLN WRO Certification type Document

< Certification procedures for MAC and IP layer
connection of AO Euro-Docsis 3.0 equipment to
the TLN network >



Document Housekeeping

Document Category and type

CAT	TYPE	DOC ID	Comment
Broadband	CERT	TLN-WRO-TA-B-C-PAAC	Certification type documents (-CERT) describe the certification process and methodology (so not the interfaces or protocols, those are found in the specification type documents)

Document Authorization

EDITION	DATE	APPRAISAL AUTHORITY	STATUS	ORIGINATOR
0.5	21.09.2012	Director TLN Wholesale	Draft	TLN WRO Engineering

Document Maturity State

EDITION	DATE	APPRAISAL AUTHORITY	STATUS	ORIGINATOR
0.5	21.09.2012	Director TLN Wholesale	Draft(PD)	TLN WRO Engineering
0.9	xx.xx.2012	Director TLN Wholesale	Final Submit(FS)	TLN WRO Engineering
1.0	xx.xx.2012	Director TLN Wholesale	Approval(AP)	TLN WRO Engineering

Document Effective Date

This document has come into effect as of xx/xx/2012 and remains valid until a valid subsequent Telenet Wholesale Reference offer, substituting this document is published.

Legal Disclaimer

"This document constitutes an integral part of the Telenet Reference Offer for Basic TV / IDTV / BB and should be fully complied with by the Beneficiary at all times. Non compliance, incomplete or deviating application of this document by the Beneficiary, or his authorized agent, results in the suspension and ultimately termination of the Contract between Telenet and the Beneficiary.

At any time this document is susceptible to change by Telenet, Regulator's decision or by decision of a relevant judicial authority. Changes to this document will, depending on the circumstances for change, be appropriately notified to the Beneficiary and published on the Telenet website.

Telenet has appealed the CRC decisions of the VRM, BIPT and CSA of 1 July 2011 concerning the market analysis of the broadcasting market in Belgium and it consequently reserves all its rights in relation to this document."

Table of Contents

1	Abstract	4
2	Test Specifications for the Certification procedures for MAC and IP layer connection of AO Euro-Docsis 3.0 equipment to the TLN network.....	5
2.1	INTRODUCTION	5
2.2	TEST LIST	5
2.3	TEST SCORE CARD.....	6

Table of Figures

None

List of Appendixes

This document may refer to further detailed documents that are added in Appendixes to this document.

A reference to an appendix is in this document highlighted with grey background.

The list with appendixes of this document:

A. Appendix A, < APP-B-C-PAAC-A > contains :

1) Appendix A1 - <Test List>

List of References

This document may refer to external documents or information sources.

A reference to an external document or information source is in this document highlighted with grey background.

The list of referred external documents or information sources in this document:

Reference 1: TLN WRO CAT: Broadband: TLN-WRO-TA-B-S-PAAC

Reference 2: TLN WRO CAT: General: TLN-WRO-TA-G-C-PDAA

Restricted information

This document may contain sections that are not public information and that can be made available only to parties that have executed specific NDA`s.

Information that is subject to NDA is marked in this document as follows:

NDA
NDA

The information in this text box is available only under NDA

Before conversion to PDF format for publication of the document, the information will be made unreadable by converting the background of the text box to black.

1 Abstract

Certification type documents have as purpose to describe the roles and responsibilities in the certification process of Telenet and the AO, the test procedures and the interaction between TLN and AO throughout the product lifecycle of AO Customer Premises Equipment (CPE) with as main goal to ensure at any moment in time correct interoperability between the AO CPE and TLN infrastructure according to the relevant specifications. The same types of certification documents and procedures are also applicable for TLN network to AO network level of interconnections.

Generic sections specifying certification procedures applicable to all AO CPE or network equipment that will be connected to the TLN network are described in General Certification Procedures Document [TLN-WRO-TA-G-C-PDAA](#).

Section 2 defines the specific test set applicable to the AO CPE or network equipment which is the subject of this specific document.

The feasibility of the technical designs and methods described in this document are subject to verification by a Proof of Concept (POC) test organized by Telenet and may be changed or updated depending on the outcome of this POC.

2 Test Specifications for the Certification procedures for MAC and IP layer connection of AO Euro-Docsis 3.0 equipment to the TLN network

2.1 Introduction

- (1) The tests will cover all of the requirements specified by TLN in the specification document with identification **TLN_WRO_TA_B_C_PAAC.**

2.2 Test list

- (2) The test list for this AO equipment is included in **Appendix A1** to this document

2.3 Test score card

CONFORMANCE TEST SCORE CARD					
Conformance Test Score Card Number	TLN-WRO-TA-TSC-%-P%%%				
Test Identification					
Test Execution Date					
Test Run Type	Full / Reduced _(without OOS cases)				
Device / Equipment / Interface Name					
Device / Equipment / Interface Type / Class					
AO Device / Equipment / Interface Identification					
Software Version					
Tested by					
Overall Result Status	Pass / Fail				
Applicability	Select 1 or more : ROTV / ROBB / AIDTV				
CONFORMANCE TEST ITEM LIST					
Test Cases Summary	FORMAT	IN SCOPE	MAN	PASS/FAIL	REM
			"Y/N"	"P/F"	(*xy)
4. AO Euro-DOCSIS 3.0 CPE MAC and UPPER Layer Functional Requirements	HO				
4.1. Euro-DOCSIS 3.0 Mac and Upper Layer			Y		
4.2. Euro-DOCSIS 3.0 Security			Y		
4.3 Euro-DOCSIS 3.0 OSSI			Y		
4.4 Older DOCSIS versions			Y		
4.5 AO CPE MAC and IP layer provisioning: "Off-line" stage			Y		
4.6 AO CPE MAC and IP layer provisioning: "On-line" stage			Y		
4.7 IP Layer Connectivity for AO Docsis CPE			Y		
4.8 AO Device Management by TLN Requirements	NA		Y		
5. AO Euro-Docsis 3.0 CPE – Non Functional Requirements	HO				
Remarks					
(*xy) : "Remark explanation comes here"					

Appendix A1

Test list for the certification procedures for MAC and IP layer connection of AO Euro-Docsis 3.0 equipment to the TLN network, reference code: **TLN-WRO-TA-B-C-PAAC**.

Test reference or description		OK/KO /NA	Comment
4	AO Euro-DOCSIS 3.0 CPE MAC and UPPER Layer Functional Requirements		
4.1	AO Euro-DOCSIS 3.0 Mac and Upper Layer		
4.2	AO Euro-Docsis MAC and IP layer		
4.3	AO Euro-Docsis 3.0 OSSI		
4.4	Older Docsis versions		
4.4.a	<i>Check if AO Cable Modem is DOCSIS 3.0 compliant</i>		
4.5	AO CPE MAC and IP Layer provisioning: “Offline” stage		
4.5.a	<i>Check if AO Cable modem authentication is not successful in case of its HFC-Mac address is not added to TLN Inventory Database (LDAP)</i>		
4.5.b	<i>Check if AO Cable modem authentication is successful in case of its HFC-Mac address is added to TLN LDAP</i>		
4.5.c	<i>Check if AO uploads cable modem configuration files to TLN LDAP successfully as it is described in the specification Documents</i>		
4.6	AO CPE MAC and IP Layer provisioning: “Online” stage		
4.6.a	<i>Check if AO cable modem gets management IP address successfully in case of its HFC-Mac address is added to TLN LDAP</i>		
4.6.b	<i>Check if AO cable modem does not get management IP address in case of its HFC-Mac address is not added to TLN LDAP</i>		
4.6.c	<i>Check if AO modem gets its configuration file with correct profile successfully based on parameters in DHCP Offer message</i>		
4.7	IP Layer Connectivity for AO Docsis CPE		
4.7.a	<i>Check if AO Cable Modem establish GRE tunnels successfully based on tunnel parameters in configuration file</i>		
4.7.b	<i>Check if AO Cable Modem forwards traffic to correct tunnel for broadband connection</i>		
4.7.c	<i>Check if End User Equipment behind AO Cable Modem gets its IP address successfully from specified IP range per region in case of its HFC-Mac address is added to TLN LDAP</i>		
4.7.d	<i>Check if End User Equipment behind AO Cable Modem does not gets its IP address in case of its HFC-Mac address is not added to TLN LDAP</i>		
4.7.e	<i>Check if AO Cable Modem adds or rewrite DHCP options of User equipment DHCP packets as specified by CM configfile.</i>		
4.8	AO Device Management by TLN Requirements	NA	
5	AO Euro-Docsis 3.0 CPE-Non Functional Requirements	NA	