

TLN WRO Certification type Document

< Certification procedure for the AO STB VOD
subsystem to enable usage of the TLN AIDTV >



Document Housekeeping

Document Category and type

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

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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-I-C-PIAD-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: i(DTV): TLN-WRO-TA-I-S-PIAD

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

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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 procedure for the AO STB VOD subsystem to enable usage of the TLN AIDTV

2.1 Introduction

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

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 STB VOD Subsystem Functional Requirements	HO				
4.1. VOD System Setup General Overview			Y		
4.2. AO VOD Service Proxy			Y		
4.3. TLN VOD Resource Manager			Y		
4.4. TLN VDP(CDN) Media Stream Delivery to AO STB			Y		
4.5. VDP VOD Transaction Authentication			Y		
4.6. CAS for VOD Transactions			Y		
4.7. AO STB to TLN VDP and CDN RTSP Interface			Y		
4.8. VOD order & play-back msg flow			Y		
4.9. Restrictions	NA		Y		
4.10. Operational Procedures			Y		
4.11. AO Device Management by TLN Requirements			Y		
5. AO STB General Non-Functional Requirements	HO				
Remarks					
(*xy) : "Remark explanation comes here"					

Appendix A1

Test list for the certification procedure for the AO STB DVB-C signaling subsystem to enable usage of the TLN ROTV/AIDTV, reference code: **TLN-WRO-TA-I-C-PIAD**.

Test reference or description	OK/KO/NA	Comment
4 AO STB VOD Subsystem Functional Requirements		
4.1 VOD System Setup General Overview		
4.1.a Check if AO VOD System Design is proper to the related to the TLN standards specified in Specification Documents		
4.2 AO VOD Service Proxy		
4.2.a Check if the data path between AO VSP and TLN VOD System is a secure IP-VPN link (IPSEC and PKI protected)		
4.2.b Check if the "Buy VOD Asset" Request is successful with a STB which is on white list		
4.2.c Check if the "Buy VOD Asset" Request is not successful with a STB which is not on white list		
4.2.d Check if AO STB does not buy an asset which does not belong to the AO that AO STB is subscribed to.		
4.2.e Check if AO STB buys an asset which belongs to the AO it is subscribed to.		
4.2.f Check if AO STB buys an asset which belongs to the VSA that AO STB is subscribed		
4.2.g Check if AO STB does not buy an asset which does not belong to the VSA that AO STB is subscribed		
4.3 TLN VOD Resource Manager		
4.3.a Check if TLN is informed about the forecasting information for AO's specified VOD subscribers		
4.3.b Check if the forecasting information that AO sent matches with the forecasting rules by checking CDR / ADR values sth. that TLN specified is Specification Documents		
4.3.c Check if An Error Message due a violation about VOD Asset Forecast provided by AO is visible by AO STB client		
4.3.d Check if AO STB Buy Request for a SD asset is granted if the bandwidth capacity allocated to VOD is available per the HFC AO STB belongs to		
4.3.e Check if AO STB Buy Request for a SD asset is not granted if the bandwidth capacity allocated to VOD is not available per the HFC AO STB belongs to		
4.3.f Check if AO STB Buy Request for a SD asset is granted if the bandwidth capacity allocated to VOD is available per the VDP AO STB belongs to		
4.3.g Check if AO STB Buy Request for a SD asset is not granted if the bandwidth capacity allocated to VOD is not available per the VDP AO STB belongs to		
4.3.h Check if AO STB Buy Request for a HD asset is granted if the bandwidth capacity allocated to VOD is available per the HFC AO STB belongs to		
4.3.i Check if AO STB Buy Request for a HD asset is not granted if the bandwidth capacity allocated to VOD is not available per the HFC AO STB belongs to		
4.3.j Check if AO STB Buy Request for a HD asset is granted if the bandwidth capacity allocated to VOD is available per the VDP AO STB belongs to		
4.3.k Check if AO STB Buy Request for a HD asset is not granted if the bandwidth capacity allocated to VOD is not available per the VDP AO STB belongs to		
4.3.l Check if the Bought VOD Asset Resources is kept reserved during the specified Pause period		
4.3.m Check if the Bought VOD Asset Stream is released by the VDP after the Pause time-out period		
4.3.n Check if CDR - ADR reflects the correct usage time of resources		
4.4 TLN VDP(CDN) media stream delivery to AO STB		
4.4.a Check if the Protocol Messages are successfully tested as it is described in Section 4.7		

4.4.b	Check if AO STB buys selected VOD Asset from the VOD Menu properly as it was described on related Appendix A1		
4.5	VDP VOD Transaction Authentication		
4.5.a	Check if AO STB Buy Request is not granted when it is rejected by AO VSP and CDR & ADR is generated related to this situation		
4.5.b	Check if AO STB Buy Request is granted when it is confirmed by AO VSP and CDR & ADR is generated related to this situation		
4.5.c	Check if AO STB Buy Request is not granted when the STB_ID is unknown and CDR & ADR is generated related to this situation		
4.5.d	Check if AO STB Buy Request is granted when the STB_ID is known and CDR & ADR is generated related to this situation		
4.5.e	Check if AO STB Buy Request is not granted when the Asset ID is unknown and CDR & ADR is generated related to this situation		
4.5.f	Check if AO STB Buy Request is granted when the Asset_ID is known and CDR & ADR is generated related to this situation		
4.5.g	Check if AO STB Buy Request is not granted when the Request is made to VDP Server that TLN NCP does not confirm and CDR & ADR is generated related to this situation		
4.5.h	Check if AO STB Buy Request is not granted when there are general network problems and CDR & ADR is generated related to this situation		
4.6	CAS for VOD transactions		
4.6.a	Check if AO STB buys an asset by using VOD Asset Catalogue Menu or other proper ways		
4.7	AO STB to TLN VDP and CDN RTSP interface		
4.7.a	Check if there is a standard IP connection between AO and TLN networks in each of the regional routers/video pumps		
4.7.b	Check if the Play Request causes the Media Stream to be played when one or multiple media streams are selected		
4.7.c	Check if the Play Request causes the Media Stream to be played from the selected range when a range is selected		
4.7.d	Check if the Play Request causes the Media Stream to be played from the beginning when no range is selected		
4.7.e	Check If the Play Request causes the Media Stream to be resumed from the point it was paused when the request is made after the Pause Request within the specified time period		
4.7.f	Check if the Pause Request causes the Media Stream to be paused for a specified time period		
4.7.g	Check if the Pause Request causes the Media Stream to be released when specified time period for Pause is omitted		
4.7.h	Check if the Teardown Request causes the Media Stream to stop and closing the session		
4.7.i	Check if the Fast Forward Request causes the Media Stream to be skipped forward direction with picture and sound on		
4.7.j	Check if the Fast Backward (Rewind) Request causes the Media Stream to be skipped backward direction with picture and sound on		
4.7.k	Check if the Programming API allowing AO VSP to interact with TLN VDP matches the specified Appendix A2 in specification document		
4.8	VOD Order and playback message flow		
4.8.a	Check if the link that provides the communication between TLN VOD and AO VSP is secured IP link by IPSEC or PKI		
4.8.b	Check if the VOD Order Message Flow is proper for TLN standards specified in Specification Documents		
4.9	Restrictions		
4.10	Operational Procedures		
4.10.a	Check if AO design of TLN ROTV VOD part is suitable for TLN future operational procedures as they are described in Specification Documents		
4.11	AO Device Management by TLN requirements		

5	AO STB non-Functional Requirements		
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