

# **TLN WRO Specification type Document**

< Specification of Device Management >



## Document Housekeeping

### Document Category and type

CAT	TYPE	DOC ID	Comment
General	SPEC	TLN-WRO-TA-G-S-PAAB	<b>Specification type documents (-SPEC) are documents specifying logical / physical interfaces / protocols, etc..., to which AO equipment/systems need to comply</b>

### Document Status

EDITION	DATE	STATUS
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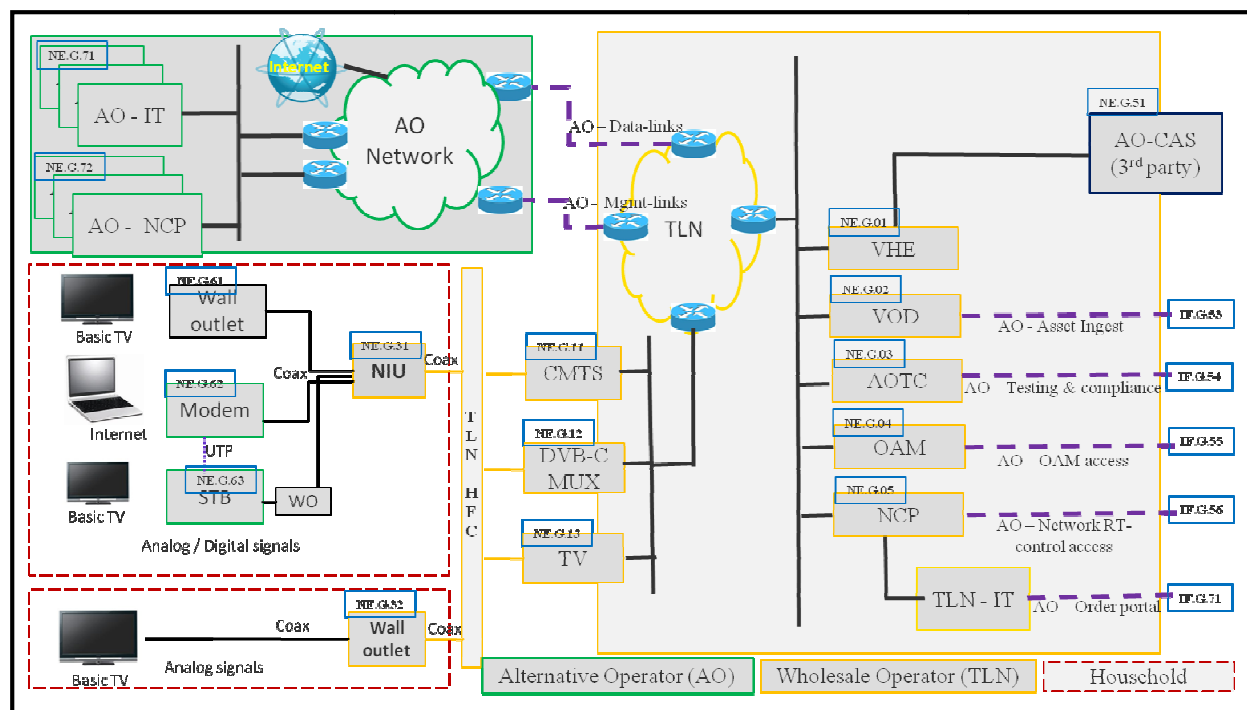
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# **1    Abstract**

This document describes the operational management by the AO of the CPE equipment deployed with its customers.

## 2 AO Device management Functional Description

- (1) Overall management access by AO to its devices is provided by a SNMP management. The possibilities and restrictions of this SNMP management are described in this document. The concept of SNMP management is provided as direct access by AO on the AO CPE device would impose un-manageable security risks on the TLN network as the devices are accessing a shared MAC layer.
- (2) Device management as described here relates to management of the “modem” or “Docsis” component of the AO CPE device that provides the connectivity and transport service on the Docsis layer towards the TLN CMTS over the TLN HFC network.
- (3) SNMP based management will be provided to the AO. The AO has full access to the vendor specific MIB tree of their CPE device (i.e. router mgmt, WiFi mgmt, etc) but only a read-only view on the Docsis part (e.g. read view on RF quality parameters, speed parameters, etc).
- (4) Because Telenet and AO cable modems use the same IP subnets, a firewall will be installed to restrict the AO’s access to only cable modems of its own customers.
- (5) In the general architecture picture below the interface is shown over the AO - OAM Access interface.



2-1: Management Overview

### 3 **“In band” management access to AO devices**

- (6) The SNMP management provides a direct “in band” management access by AO to its devices for the “non Docsis” or “non-modem” part of the AO CPE. With “non Docsis” or “non-modem” part is meant e.g. a WIFI module or integrated IP router module that might be present in the AO CPE.
- (7) “In band” management access is provided through SNMPv2. In order to ensure successful interoperability the AO Euro-Docsis CPE device must conform to the Docsis Operations Support Interface (OSSI) and the MAC and Upper Layer Protocol Interface (MULPI) specification (Euro-Docsis variant) as published in the public Docsis 3.0 specification library on [www.cablelabs.com](http://www.cablelabs.com). The AO Euro-Docsis CPE device must support SNMP-coexistence (RFC 3584) as describe in the Docsis specification and RFC3584.
- (8) There will be communities for Telenet and different ones for the AO. For the AO, one community will grant them write access to certain parameters, a second one will allow them to read all the parameters. These SNMP communities must be unique! This is important for the security around the management of the modems.