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Technical Specification

Methods for Testing and Specification (MTS); Conformance Test Specification for ITU-T H.248.1; Part 2: Test Suite Structure and Test Purposes (TSS&TP)



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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Methods for Testing and Specification (MTS).

The present document is part 2 of a multi-part deliverable covering Conformance Testing Specification for ITU-T H.248.1, as identified below:

- Part 1: "Protocol Implementation Conformance Statement (PICS) proforma";
- Part 2: "Test Suite Structure and Test Purposes (TSS&TP)";**
- Part 3: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma".

1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for audiovisual and multimedia systems Infrastructure of audiovisual services - Communication procedures, Gateway control protocol defined in ITU-T Recommendation H.248.1 [1] and its corrigendum [2].

The objective of the present document is to provide conformance tests for ITU-T Recommendation H.248.1 [1] equipment giving a greater probability of inter-operability between different manufacturer's H.248.1 [1] equipments.

ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [4], ISO/IEC 9646-2 [5] and ISO/IEC 9646-3 [6]) as well as the ETSI rules for conformance testing (ETS 300 406 [7]) are used as basis for the test methodology.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ITU-T Recommendation H.248.1 (2002): "Gateway control protocol: Version 2".
- [2] ITU-T Recommendation H.248.1 v2 Corrigendum 1(2004): "Gateway control protocol: Version 2 / Corrigendum 1".
- [3] ETSI TS 102 374-1 (V1.1.1): "Methods for Testing and Specification (MTS); Conformance Test Specification for ITU-T H.248.1; Part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [4] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [5] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".
- [6] ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".
- [7] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ITU-T Recommendation H.248.1 [1], ISO/IEC 9646-1 [4], ISO/IEC 9646-2 [5], ISO/IEC 9646-3 [6] and the following apply:

inopportune: specifies a test purpose covering a signalling procedure where an inopportune message (type of message not expected in the IUT current state) is sent to the IUT

syntactically invalid: specifies a test purpose covering a signalling procedure where a valid (expected in the current status of the IUT) but not correctly encoded (unknown or incorrect parameter values) message is sent to the IUT, which shall react correctly and eventually reject the message

Test Purpose (TP): non-formal test description, mainly using text

NOTE 1: This test description can be used as the basis for a formal test specification (e.g. Abstract Test Suite in TTCN).

NOTE 2: See ISO/IEC 9646-3 [6].

valid: specifies a test purpose covering a signalling procedure where all the messages sent to or received from the IUT are valid (expected in the current status of the IUT) and correctly encoded

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ATS	Abstract Test Suite
CID	Context ID
IUT	Implementation Under Test
MG	Media Gateway
MGC	Media Gateway Controller
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
TID	Termination ID
TP	Test Purpose
TSS	Test Suite Structure

4 Test Suite Structure (TSS)

Figure 1 shows the H.248.1 Test Suite Structure (TSS) including its subgroups defined for the conformance testing.

Test Suite	Protocol group	Protocol subgroup	Test group
H248.1	Media Gateway (MG)	Procedures using Add command (AD)	BV - BI - BO
		Procedures using Modify command (MD)	BV - BI - BO
		Procedures using Subtract command (SU)	BV - BI - BO
		Procedures using Move command (MO)	BV - BI - BO
		Procedures using Audit Value command (AV)	BV - BI - BO
		Procedures using Audit Capabilities command (AC)	BV - BI - BO
		Procedures using Notify command (NO)	BV - BI - BO
		Procedures using Service Change command (SC)	BV - BI - BO
		Administration and Maintenance procedures (AM)	BV - BI - BO
		Transport related procedures (TR)	BV - BI - BO
	Media Gateway Controller (MGC)	Procedures using Add command (AD)	BV - BI - BO
		Procedures using Modify command (MD)	BV - BI - BO
		Procedures using Subtract command (SU)	BV - BI - BO
		Procedures using Move command (MO)	BV - BI - BO
		Procedures using Audit Value command (AV)	BV - BI - BO
		Procedures using Audit Capabilities command (AC)	BV - BI - BO
		Procedures using Notify command (NO)	BV - BI - BO
		Procedures using Service Change command (SC)	BV - BI - BO
		Administration and Maintenance procedures (AM)	BV - BI - BO
		Transport related procedures (TR)	BV - BI - BO

Figure 1: TSS of H.248.1

The Test Suite is structured as a tree with a first level defined as H.248.1 representing the protocol group: "H.248.1".

4.1 Test groups

The test groups are organized in three levels. The first level creates two protocol groups representing the role of the IUT. The second level separates the selected role for the IUT in groups of procedures. The last level in each branch contains one or more of the standard ISO subgroups BV, BI, BO.

4.1.1 Protocol groups

The protocol groups identify the two roles of the IUT: Media Gateway (MG) and Media Gateway Controller (MGC) as defined in ITU-T Recommendation H.248.1 [1].

4.1.1.1 Media Gateway (MG)

The Media Gateway protocol group is divided in 15 groups of procedures. The first eight groups identify the procedures using different commands as defined in clause 7 of ITU-T Recommendation H.248.1 [1]. The ninth group of procedures identifies the Administration and Maintenance procedures (e.g.: cold start procedure and procedures against restart avalanche). The tenth group of procedures distinguishes the procedures related to transport of H.248.1 messages, and groups 11 to 13 distinguish the procedures for H.248.1 basic packages.

4.1.1.2 Media Gateway Controller (MGC)

The Media Gateway protocol group is divided in ten groups of procedures. The first eight groups identify the procedures using different commands as defined in clause 7 of ITU-T Recommendation H.248.1 [1]. The ninth group of procedures identifies the Administration and Maintenance procedures (e.g. Service changes procedures). The tenth group of procedures distinguishes the procedures related to transport of H.248.1 messages.

4.1.2 Main test groups

The main test groups are the valid behaviour group, the invalid behaviour group and the inopportune behaviour group.

4.1.2.1 Valid Behaviour (BV) tests

This test sub group shall verify that the IUT reacts in conformity with the TS, after receipt or exchange of valid Protocol Data Units (PDUs). Valid PDUs means that the exchange of messages and the content of the exchanged messages are considered as valid.

4.1.2.2 Invalid Behaviour (BI) tests

This test sub group shall verify that the IUT reacts in conformity with the TS, after receipt of a syntactically invalid PDU.

4.1.2.3 Inopportune Behaviour (BO) tests

This test sub group shall verify that the IUT reacts in conformity with the TS, after receipt of a syntactically correct PDU not expected in the actual message exchange or state.

5 Test Purposes (TP)

5.1 Introduction

5.1.1 TP naming convention

Table 1: TP identifier naming convention scheme

Identifier: TP/<iut>/<gp>/<type>-<nn>		
<iut>	= type of IUT	MG Media Gateway MGC Media Gateway Controller
<gp>	= group of procedures	AD Procedures using Add command MD Procedures using Modify command SU Procedures using Subtract command MO Procedures using Move command AV Procedures using Audit Value command AC Procedures using Audit Capabilities command NO Procedures using Notify command SC Procedures using Service Change command AM Administration and Maintenance procedures TR Transport related procedures
<type>=	type of testing	BV Valid Behaviour Tests BI Invalid Behaviour Tests BO Inopportune Behaviour Tests
<nn>	= sequential number	(01-99) Test Purpose Number

5.1.2 TP structure

Each TP has been written in a manner, which is consistent with all other TPs. The intention of this is to make the TPs more readable and checkable. A particular structure has been used and this is illustrated in table 2. This table should be read in conjunction with any TP, i.e. use a TP as an example to fully understand the table.

Table 2: Structure of a single TP for H.248.1

TP part	Text	Example
Header	<Identifier> tab <paragraph number in base ETS>	clause 0.0.0
Stimulus	Ensure that the IUT <state> <message already sent> <trigger> <i>see below for message structure</i> or <goal>	in the idle state having sent a XXX message on receipt of a YYY message to request a ...
Reaction	<action> <conditions> if the action is sending see below for message structure <next action>, etc.	sends, does, etc. ...
Message structure	<message type> message containing a a) <message element> b) <information element> or <filed code> encoded as <i>or</i> including <coding of the field> and <i>back to a or b</i> ,	TerminalType, statusDetermination Number...
NOTE:	Text in italics will not appear in TPs and text between <> is filled in for each TP and may differ from one TP to the next.	

5.1.3 Test strategy

As the base standard ITU-T Recommendation H.248.1 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the corresponding PICS proforma.

The TPs are only based on conformance requirements related to the externally observable behaviour of the IUT, over the TCP or UDP interface, and are limited to conceivable situations to which a real implementation is likely to be faced.

As indicated by the existence of the part 3 of this multi-part standard (see Foreword), the intention is to derive the test purposes to an abstract test suite in TTCN. Consequently the test purposes are written in a manner, which fit the TTCN methodology, and will consist of the textual documentation of the test cases.

All PICS items referred to in this clause are specified in TS 102 374-1 [3].

Unless specified otherwise, the messages indicated are valid and contain at least the mandatory parameters and possibly optional parameters.

5.1.4 Textual conventions within the Test Purposes

According to the ALL wildcard for TerminationIDs the following abbreviation conventions are used:

- ALL(p12) means a wildcard ALL which addresses only the physical Termination TID1 and TID2 as given in the initial conditions.
- ALL(e1234) means a wildcard ALL which addresses only the ephemeral Terminations TID1, TID2, TID3 and TID4 as given in the initial conditions.

The wildcard CHOOSE for the TerminationID can be used either for creating a complete new (ephemeral) Termination or to select/choose a physical Termination within a range of already existing physical TerminationIDs in the Null Context.

If wildcard combinations for the ContextID and TerminationID are used in the TPs that are not allowed from protocol point of view an Error Descriptor shall be returned. The Error Descriptor should have an appropriate error value (e.g. 401, protocol error).

5.2 TPs for Media Gateway (MG)

5.2.1 Procedures using Add command (AD)

5.2.1.1 Valid behaviour test purposes (BV)

TP/MG/AD/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable descriptors. <p>NOTE: e.g. for creation of a RTP Termination.</p> <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific value (assigned by the MG); ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to a specific value (assigned by the MG).
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TP/MG/AD/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: a physical Termination, characterized by TID1, in the NULL Context, The physical Termination TID1 shall NOT be in serviceState "outOfService".</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors sends a Transaction Reply containing. • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific value (assigned by the MG); ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AD/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations, characterized by TID1 and TID2, each of them in the NULL Context. The physical Terminations TID1 and TID2 shall NOT be in serviceState "outOfService".</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific value (assigned by the MG); ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ ADD Command: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/AD/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable descriptors. <p>NOTE: e.g. for creation of a RTP Termination.</p> <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to a specific value (assigned by the MG).
TP/MG/AD/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations, characterized by TID1 and TID2, each of them in the NULL Context and a Termination (TID3) in a Context CID1. The physical Terminations TID1 and TID2 shall NOT be in serviceState "outOfService".</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.

TP/MG/AD/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: a physical Termination, characterized by TID1, in the NULL Context and a Termination (TID2) in a Context CID1. The physical Terminations TID1 and TID2 shall NOT be in serviceState "outOfService".</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AD/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) each in a Context, characterized by CID1 and CID2 (NULL Context is excluded).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID4.

5.2.1.2 Invalid behaviour test purposes (BI)

TP/MG/AD/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.1 and 6.2.5</p> <p>Selection criteria: ROOT termination implemented</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AD/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.1 and 6.2.5</p> <p>Selection criteria: Initial condition: a Termination (TID1) in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").

TP/MG/AD/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) each in a Context, characterized by CID1 and CID2 (NULL Context is excluded).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (value 433 "TerminationID is already in a Context"). • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2; ▪ Error descriptor (value 433 "TerminationID is already in a Context").
TP/MG/AD/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) each in a Context, characterized by CID1 and CID2 (NULL Context is excluded).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to a specific TID (e.g. TID1). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (value 433 "TerminationID is already in a Context").
TP/MG/AD/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.1 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) each in a Context, characterized by CID1 and CID2 (NULL Context is excluded).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AD/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations in the NULL Context, characterized by TID1 and TID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to a specific TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/AD/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: 2 physical Terminations in the NULL Context, characterized by TID1 and TID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AD/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: 2 physical Terminations in the NULL Context, characterized by TID1 and TID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AD/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.1 and 6.2.5</p> <p>Selection criteria: Initial condition: 2 physical Terminations in the NULL Context, characterized by TID1 and TID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ ADD Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").

5.2.1.3 Inopportune behaviour test purposes (BO)

None.

5.2.2 Procedures using Modify command (MD)

5.2.2.1 Valid behaviour test purposes (BV)

TP/MG/MD/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations, characterized by TID1 and TID2 within Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/MD/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations, characterized by TID1 and TID2 within Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/MD/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations characterized by TID1 and TID2 within Context CID1; 2 Terminations characterized by TID3 and TID4 within Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID4.

TP/MG/MD/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations characterized by TID1 and TID2 within Context CID1; 2 Terminations characterized by TID3 and TID4 within Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing</p> <ul style="list-style-type: none"> • Action request with <ul style="list-style-type: none"> ○ CID set to ALL ○ MODIFY Command request with <ul style="list-style-type: none"> ▪ TID set to TID3 ▪ acceptable descriptors <p>sends a Transaction Reply containing</p> <ul style="list-style-type: none"> • Action reply with <ul style="list-style-type: none"> ○ CID set to CID2 ○ MODIFY Command reply with <ul style="list-style-type: none"> ▪ TID set to TID3
TP/MG/MD/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/MD/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: a physical Termination, characterized by TID1, in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/MD/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.

5.2.2.2 Invalid behaviour test purposes (BI)

TP/MG/MD/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: any.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MD/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in a Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MD/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.2 and 6.2.5</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/MD/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: an existing Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/MD/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.2 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: an existing Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/MD/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Contexts, characterized by CID1 and CID2 and 2 Terminations characterized by TID1 and TID2 within the Contexts.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MD/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.2 and 6.2.5</p> <p>Selection criteria: Initial condition: 2 existing Contexts, characterized by CID1 and CID2 and 2 Terminations characterized by TID1 and TID2 within the Contexts.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/MD/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations, characterized by TID1 and TID2, in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/MD/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in a Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MODIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
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5.2.2.3 Inopportune behaviour test purposes (BO)

None.

5.2.3 Procedures using Subtract command (SU)

5.2.3.1 Valid behaviour test purposes (BV)

TP/MG/SU/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) within a Context CID1</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ empty Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/SU/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria: wildcardReturn request procedure implemented.</p> <p>Initial condition: 2 Terminations (TID1 and TID2) within a Context CID1</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ wildcardReturn request; ▪ empty Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).

TP/MG/SU/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: one Termination characterized by TID1 is in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ empty Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/SU/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria: wildcardReturn request procedure implemented.</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in a Context CID1 and 2 Terminations (TID3 and TID4) are in a Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ empty Audit Descriptor; ▪ wildcardReturn request. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234).
TP/MG/SU/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in a Context CID1 and 2 Terminations (TID3 and TID4) are in a Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ empty Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID4.

TP/MG/SU/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in a Context CID1 and 2 Terminations (TID3 and TID4) are in a Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID3; ▪ empty Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3.
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5.2.3.2 Invalid behaviour test purposes (BI)

TP/MG/SU/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/SU/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/SU/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/SU/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.3 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/SU/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/SU/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.3 and 6.2.5</p> <p>Selection criteria: ROOT Termination implemented</p> <p>Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/SU/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: 2 existing Contexts, characterized by CID1 and CID2 and Terminations characterized by TID1 and TD2 within the Contexts.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/SU/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.3 and 6.2.5 Selection criteria: ROOT Termination implemented. Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1, 2 Termination (TID3 and TID4) are in Context CID2. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/SU/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3 Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/SU/BI-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3 Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL (p12); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/SU/BI-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3 Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/SU/BI-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.3 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SUBTRACT Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
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5.2.3.3 Inopportune behaviour test purposes (BO)

None.

5.2.4 Procedures using Move command (MO)

5.2.4.1 Valid behaviour test purposes (BV)

TP/MG/MO/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1, 2 Termination (TID3 and TID4) are in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/MO/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1, 2 Termination (TID3 and TID4) are in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.

TP/MG/MO/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2 (assigned by MG, CID1 is deleted by the MG); ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/MO/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2 (assigned by the MG); ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.

5.2.4.2 Invalid behaviour test purposes (BI)

TP/MG/MO/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.4 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").

TP/MG/MO/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria: Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.4 and 6.2.5</p> <p>Selection criteria: Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/MO/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in Context CID1, 2 physical Termination (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/MO/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in Context CID1, 2 physical Termination (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.4 and 6.2.5</p> <p>Selection criteria: ROOT Termination implemented</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in Context CID1, 2 physical Termination (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/MO/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.4 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").

TP/MG/MO/BI-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in Context CID1, 2 physical Termination (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/MO/BI-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in Context CID1, 2 physical Termination (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MOVE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").

5.2.4.3 Inopportune behaviour test purposes (BO)

None.

5.2.5 Procedures using Audit Value command (AV)

5.2.5.1 Valid behaviour test purposes (BV)

TP/MG/AV/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in a Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
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TP/MG/AV/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in a Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AV/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in a Context CID1; 2 Terminations (TID3 and TID4) in a Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e23); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3.
TP/MG/AV/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition:</p> <p>2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AV/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ with an empty list of commands. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ with an empty list of commands.

TP/MG/AV/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/AV/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AV/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.

5.2.5.2 Invalid behaviour test purposes (BI)

TP/MG/AV/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
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TP/MG/AV/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AV/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AV/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.5 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AV/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/AV/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.5 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AV/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AV/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in the NULL.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

5.2.5.3 Inopportune behaviour test purposes (BO)

None.

5.2.6 Procedures using Audit Capabilities command (AC)

5.2.6.1 Valid behaviour test purposes (BV)

TP/MG/AC/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/AC/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AC/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1; 2 Terminations (TID3 and TID4) in Context CID2. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID3; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID4.

TP/MG/AC/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MG/AC/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1; 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ with an empty list of commands. • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ with an empty list of commands.
TP/MG/AC/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID2.
TP/MG/AC/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.

TP/MG/AC/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.
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5.2.6.2 Invalid behaviour test purposes (BI)

TP/MG/AC/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AC/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1. Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AC/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/AC/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.5 and 6.2.5</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AC/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MG/AC/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.5 and 6.2.5</p> <p>Selection criteria: Initial condition: a Termination characterized by TID1 in a Context, characterized by CID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MG/AC/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MG/AV/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in the NULL.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Audit Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
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5.2.6.3 Inopportune behaviour test purposes (BO)

None.

5.2.7 Procedures using Notify command (NO)

5.2.7.1 Valid behaviour test purposes (BV)

TP/MG/NO/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Event descriptor implemented and set at a specific Termination</p> <p>Initial condition: an Events Descriptor with specific RequestID was set at the IUT for a specific Termination (TID1) in a specific Context (CID1). The IUT has detected the Event(s).</p> <p>Ensure that the IUT, in order to indicate the detected event(s), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific Request ID; • acceptable list of observed events.
TP/MG/NO/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Event descriptor implemented and set at a Termination</p> <p>Initial condition: an Events Descriptor with specific RequestID was set at the IUT for a physical Termination (TID1) in the NULL Context. The IUT has detected the Event(s).</p> <p>Ensure that the IUT, in order to indicate the detected event(s), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific Request ID; • acceptable list of observed events.
TP/MG/NO/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Event descriptor implemented and set at a Termination</p> <p>Initial condition: an Events Descriptor with specific RequestID was set at the IUT for the ROOT Termination. The IUT has detected the Event(s).</p> <p>Ensure that the IUT, in order to indicate the detected event(s), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific Request ID; • acceptable list of observed events.

5.2.7.2 Invalid behaviour test purposes (BI)

None.

5.2.7.3 Inopportune behaviour test purposes (BO)

None.

5.2.8 Procedures using Service Change command (SC)

5.2.8.1 Valid behaviour test purposes (BV)

TP/MG/SC/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, in order to indicate that the specified termination(s) will be taken out of service after a specified ServiceChangeDelay, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value.
TP/MG/SC/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, in order to indicate that all terminations within a specific Context will be taken out of service after a specified ServiceChangeDelay, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value.
TP/MG/SC/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, in order to indicate that all terminations within all Contexts will be taken out of service after a specified ServiceChangeDelay, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value.

TP/MG/SC/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context. Ensure that the IUT, in order to indicate that physical termination TID1 will be taken out of service after a specified ServiceChangeDelay, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value.
TP/MG/SC/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context. Ensure that the IUT, in order to indicate that physical termination TID1 will be taken out of service after a specified ServiceChangeDelay, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value.
TP/MG/SC/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: any Ensure that the IUT, in order to indicate that the whole MG will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 908 ("MG Impending Failure"); • ServiceChangeDelay set to a specific value.
TP/MG/SC/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2. Ensure that the IUT, in order to indicate that the specified termination(s) will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service").

TP/MG/SC/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2. Ensure that the IUT, in order to indicate that all terminations within a specific Context will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service").
TP/MG/SC/BV-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2. Ensure that the IUT, in order to indicate that all terminations within all Contexts will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service").
TP/MG/SC/BV-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context. Ensure that the IUT, in order to indicate that physical termination TID1 will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service").
TP/MG/SC/BV-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context. Ensure that the IUT, in order to indicate that physical termination TID1 will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service").
TP/MG/SC/BV-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: any Ensure that the IUT, in order to indicate that the whole MG will be taken immediately out of service, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 908 ("MG Impending Failure").

TP/MG/SC/BV-13	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context and which are out of service.</p> <p>Ensure that the IUT, in order to indicate that service will be restored for all termination TID1 in the NULL context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored").
TP/MG/SC/BV-14	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) in the NULL Context and which are out of service.</p> <p>Ensure that the IUT, in order to indicate that service will be restored for all termination TID1 in the NULL context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored").

5.2.8.2 Invalid behaviour test purposes (BI)

None.

5.2.8.3 Inopportune behaviour test purposes (BO)

None.

5.2.9 Administration and Maintenance procedures (AM)

5.2.9.1 Valid behaviour test purposes (BV)

TP/MG/AM/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to RESTART.
TP/MG/AM/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • TimeStamp.

TP/MG/AM/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeReason set to 901 (Cold Boot).
TP/MG/AM/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, in order to indicate a new address for subsequent communication, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeAddress (for the further communication).
TP/MG/AM/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: IUT has sent a valid Transaction Request to perform a cold start (e.g. ServiceChange Command request with the ServiceChangeMethod set to RESTART).</p> <p>Ensure that the IUT, on receipt of a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMgcID. <p>Resends the valid Transaction Request to the MGC address given in the ServiceChangeMgcId.</p>
TP/MG/AM/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: IUT has sent a valid Transaction Request to perform a cold start (e.g. ServiceChange Command request with the ServiceChangeMethod set to RESTART).</p> <p>Ensure that the IUT, after timer expiry without having received the appropriate Transaction Reply from its primary MGC resends the valid Transaction Request to its secondary MGC to perform the cold start.</p>
TP/MG/AM/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2 last paragraph</p> <p>Selection criteria:</p> <p>Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, having sent a ServiceChange Command request with the ServiceChangeMethod parameter set to "Restart", on receipt of a message other than the corresponding ServiceChange Command reply, the IUT sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Error descriptor (value 505, "Command Received before Restart Response").
TP/MG/AM/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.3</p> <p>Selection criteria:</p> <p>Initial condition: Idle</p> <p>Ensure that the IUT, upon cold start, sends a Transaction Request encoded as a H.248.1 Version 1.0 message containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 2.

TP/MG/AM/BV-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: IUT has sent a valid Transaction Request to perform a cold start (e.g. ServiceChange Command request with the ServiceChangeMethod set to RESTART).</p> <p>Ensure that the IUT, on receipt of a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 3. <p>Rejects subsequent Transaction Request with a Transaction Reply message containing:</p> <ul style="list-style-type: none"> • Error descriptor (value 406, "Version not supported").
TP/MG/AM/BV-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.4</p> <p>Selection criteria:</p> <p>Initial condition: IUT lost communication with the MGC but it was subsequently restored to the same MGC.</p> <p>Ensure that the IUT, in order to indicate the previous lost of communication, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to Disconnect; • ServiceChangeReason set to value 906 ("Loss of lower layer connectivity").
TP/MG/AM/BV-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to Handoff; • ServiceChangeReason set to 903 ("MGC directed change"); • ServiceChangeMgclid set to the designated MGC address. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.
TP/MG/AM/BV-13	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.5</p> <p>Selection criteria:</p> <p>Initial condition: IUT received a Service Change command request with ServiceChangeMethod set to Handoff together with a designated MGC address (see TP/MG/AM/BV-12)</p> <p>Ensure that the IUT, in order to establish a new connection to the designated MGC, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to Handoff; • ServiceChangeReason set to 903 ("MGC directed change").

5.2.9.2 Invalid behaviour test purposes (BI)

None.

5.2.9.3 Inopportune behaviour test purposes (BO)

None.

5.2.10 Transport related procedures (TR)

5.2.10.1 Valid behaviour test purposes (BV)

TP/MG/TR/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8 Selection criteria: Initial condition: any. Ensure that the IUT, on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Request with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action request and Command request. <p>Sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply.
TP/MG/TR/BV-02	Void (removed as no such requirement)
TP/MG/TR/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8 Selection criteria: 3 way handshake procedure supported. Initial condition: IUT has sent a valid Transaction Request with a Transaction ID set to TransID1. Ensure that the IUT, on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply. <p>Sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Response Acknowledge with: <ul style="list-style-type: none"> ○ TransID set to TransID1.
TP/MG/TR/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8 Selection criteria: Transaction Timer implemented Initial condition: IUT has sent a valid Transaction Request with a Transaction ID set to TransID1. Ensure that the IUT, on expiry of the Transaction Timer without receipt of neither a Transaction Reply nor a Transaction Pending, resends the previous Transaction Request.</p>
TP/MG/TR/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8 Selection criteria: Transaction Timer implemented Initial condition: After sending a valid Transaction Request the IUT has received a valid Transaction Pending. Ensure that the IUT, on expiry of the Transaction Timer without receipt of the corresponding Transaction Reply or another Transaction Pending, resends the Transaction Request.</p>
TP/MG/TR/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8 Selection criteria: Transaction Timer implemented Initial condition: After sending a valid Transaction Request the IUT has received a valid Transaction Pending. Ensure that the IUT on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply. <p>Sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Response Acknowledge with: <ul style="list-style-type: none"> ○ TransID set to TransID1.

5.2.10.2 Invalid behaviour test purposes (BI)

None.

5.2.10.3 Inopportune behaviour test purposes (BO)

None.

5.3 TPs for Media Gateway Controller (MGC)

5.3.1 Procedures using Add command (AD)

5.3.1.1 Valid behaviour test purposes (BV)

TP/MGC/AD/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, in order to create an ephemeral termination in a new context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE.
TP/MGC/AD/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: Termination TID1 exists in the NULL Context.</p> <p>Ensure that the IUT, in order to add an existing physical Termination from the NULL context to a MG-assigned Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/AD/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, in order to add two existing physical Terminations (TID1 and TID2) from the NULL context to a MG-assigned Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12).
TP/MGC/AD/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria:</p> <p>Initial condition: Termination TID1 exists in Context CID1.</p> <p>Ensure that the IUT, in order to create a new ephemeral termination in an already existing specific context, sends a Transaction Request:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE.
TP/MGC/AD/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context, Termination TID3 exists in Context CID1.</p> <p>Ensure that the IUT, in order to add two existing physical Terminations (TID1 and TID2) from the NULL context to an already existing specific Context (CID1), sends a Transaction Request containing</p> <ul style="list-style-type: none"> • Action request with <ul style="list-style-type: none"> ○ CID set to CID1 ○ ADD Command request with <ul style="list-style-type: none"> ▪ TID set to ALL(p12)

TP/MGC/AD/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: 2 physical Terminations (TID1 and TID2) exist in the NULL Context, Termination TID3 exists in Context CID1.</p> <p>Ensure that the IUT, in order to add an existing physical Terminations from the NULL context to an already existing specific Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/AD/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.1</p> <p>Selection criteria: Initial condition: Termination TID1 is in Context CID1, Termination TID2 is in Context CID2.</p> <p>Ensure that the IUT, in order to add to each of two already existing Context an ephemeral Termination (of the same type), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ ADD Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE.

5.3.1.2 Invalid behaviour test purposes (BI)

None.

5.3.1.3 Inopportune behaviour test purposes (BO)

None.

5.3.2 Procedures using Modify command (MD)

5.3.2.1 Valid behaviour test purposes (BV)

TP/MGC/MD/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria: Wildcard mechanism implemented</p> <p>Initial condition: 2 Termination (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to modify in the same way two existing Terminations (TID1 and TID2) in a specific Context (CID1), send a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
TP/MGC/MD/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria:</p> <p>Initial condition: 2 Termination (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to modify a specific Termination (TID1) in a specific Context (CID1), send a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/MD/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2</p> <p>Selection criteria: Wildcard mechanism implemented</p> <p>Initial condition: any</p> <p>Ensure that the IUT, in order to modify all Terminations in all Contexts in the same way (e.g. 4 ephemeral Terminations in 2 Contexts), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234).

TP/MGC/MD/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2 Selection criteria: Wildcard mechanism implemented Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2. Ensure that the IUT, in order to modify Termination TID3 by addressing the Context CID2 with wildcard ALL, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID3.
TP/MGC/MD/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2 Selection criteria: Wildcard mechanism implemented Initial condition: any Ensure that the IUT, in order to modify all Terminations (e.g. 2 physical Terminations) in the NULL Context in the same way, sends a Transaction Request containing</p> <ul style="list-style-type: none"> • Action request with <ul style="list-style-type: none"> ○ CID set to NULL ○ MODIFY Command request with <ul style="list-style-type: none"> ▪ TID set to ALL(p12)
TP/MGC/MD/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2 Selection criteria: Initial condition: any Ensure that the IUT, in order to modify a Termination in the NULL Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/MD/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.2 Selection criteria: ROOT Termination implemented Initial condition: any Ensure that the IUT, in order to modify properties of the entire gateway, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ MODIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT.

5.3.2.2 Invalid behaviour test purposes (BI)

None.

5.3.2.3 Inopportune behaviour test purposes (BO)

None.

5.3.3 Procedures using Subtract command (SU)

5.3.3.1 Valid behaviour test purposes (BV)

TP/MGC/SU/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3 Selection criteria: Initial condition: any Ensure that the IUT, in order to subtract all Terminations (e.g. 2 ephemeral Terminations) from a specific Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
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TP/MGC/SU/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria: wildcardReturn Request procedure implemented.</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1</p> <p>Ensure that the IUT, in order to subtract all Terminations (e.g. 2 ephemeral Terminations) from a specific Context by using the wildcardReturn parameter, sends a Transaction Request containing on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ wildcardReturn request; ▪ empty Audit Descriptor.
TP/MGC/SU/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria:</p> <p>Initial condition: one Termination characterized by TID1 is in a Context, characterized by specific CID1.</p> <p>Ensure that the IUT, in order to subtract a specific Termination from a specific Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SU/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria: wildcardReturn Request procedure implemented.</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, in order to subtract all Terminations from a all Contexts, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234).
TP/MGC/SU/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.3</p> <p>Selection criteria: wildcardReturn Request procedure implemented.</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, in order to subtract TerminationTID3 by addressing the Context CID2 with wildcard ALL, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID3.

5.3.3.2 Invalid behaviour test purposes (BI)

None.

5.3.3.3 Inopportune behaviour test purposes (BO)

None.

5.3.4 Procedures using Move command (MO)

5.3.4.1 Valid behaviour test purposes (BV)

TP/MGC/MO/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1, 2 Termination (TID3 and TID4) are in Context CID2.</p> <p>Ensure that the IUT, in order to move the Terminations TID1 and TID2 to a specific Context (CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
TP/MGC/MO/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1, 2 Termination (TID3 and TID4) are in Context CID2.</p> <p>Ensure that the IUT, in order to move a specific Termination (TID1) to a specific Context (CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID2; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/MO/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1.</p> <p>Ensure that the IUT, in order to move the two specific Termination (TID1) to newly assigned Context (CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
TP/MGC/MO/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.4</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) are in Context CID1.</p> <p>Ensure that the IUT, in order to move a specific Termination (TID1) to newly assigned Context (CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ MOVE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1.

5.3.4.2 Invalid behaviour test purposes (BI)

None.

5.3.4.3 Inopportune behaviour test purposes (BO)

None.

5.3.5 Procedures using Audit Value command (AV)

5.3.5.1 Valid behaviour test purposes (BV)

TP/MGC/AV/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Wildcard mechanism implemented</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the current values of parameters of all Terminations (e.g. 2 ephemeral Terminations) within a specific Context (CID1), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the current values of parameters of a specific Termination (TID1) within a specific Context (CID1), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1; 2 Terminations (TID3 and TID4) exist in Context CID2.</p> <p>Ensure that the IUT, in order to get the current values of parameters of all Terminations within all Contexts (e.g. TID1 and TID2 in CID, TID3 and TID4 in CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the (Non-NULL) Context ID in which a specific Termination (TID1) currently exists, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1; 2 Terminations (TID3 and TID4) exist in Context CID2.</p> <p>Ensure that the IUT, in order to get the current list of all Context Ids, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor.

TP/MGC/AV/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, in order to get the current values of parameters of all Terminations in the NULL Context (e.g. TID1 and TID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, in order to get the current values of parameters of a specific Termination outside of any Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.
TP/MGC/AV/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: ROOT Termination implemented.</p> <p>Initial condition: any</p> <p>Ensure that the IUT, in order to get the current values of parameters which are related to the MG state and events, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT VALUE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor.

5.3.5.2 Invalid behaviour test purposes (BI)

None.

5.3.5.3 Inopportune behaviour test purposes (BO)

None.

5.3.6 Procedures using Audit Capabilities command (AC)

5.3.6.1 Valid behaviour test purposes (BV)

TP/MGC/AC/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the possible values of parameters of all Terminations (e.g. 2 ephemeral Terminations) within a specific Context (CID1), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Audit Descriptor.
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TP/MGC/AC/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the possible values of parameters of a specific Termination (TID1) within a specific Context (CID1), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.
TP/MGC/AC/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1; 2 Terminations (TID3 and TID4) exist in Context CID2.</p> <p>Ensure that the IUT, in order to get the possible values of parameters of all Terminations within all Contexts (e.g. TID1 and TID2 in CID, TID3 and TID4 in CID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ acceptable Audit Descriptor.
TP/MGC/AC/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: Wildcard mechanism implemented</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, in order to get the (Non-NULL) Context ID in which a specific Termination (TID1) currently exists, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.
TP/MGC/AC/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1; 2 Terminations (TID3 and TID4) exist in Context CID2.</p> <p>Ensure that the IUT, in order to get the current list of all Context Ids, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor.
TP/MGC/AC/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, in order to get the possible values of parameters of all Terminations in the NULL Context (e.g. TID1 and TID2), sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ acceptable Audit Descriptor.
TP/MGC/AC/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, in order to get the possible values of parameters of a specific Termination outside of any Context, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Audit Descriptor.

TP/MGC/AC/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.5</p> <p>Selection criteria: ROOT Termination implemented.</p> <p>Initial condition: any</p> <p>Ensure that the IUT, in order to get the possible values of parameters which are related to the MG state and events, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ AUDIT CAPABILITIES Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Audit Descriptor.
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5.3.6.2 Invalid behaviour test purposes (BI)

None.

5.3.6.3 Inopportune behaviour test purposes (BO)

None.

5.3.7 Procedures using Notify command (NO)

5.3.7.1 Valid behaviour test purposes (BV)

TP/MGC/NO/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: an Events Descriptor with specific RequestID was set for a specific Termination (TID1) in a specific Context (CID1).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to a specificTID1; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific RequestID; • acceptable list of observed events. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/NO/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: an Events Descriptor with specific RequestID was set for a physical Termination (TID1) in the NULL Context.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to a specific TID1; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific RequestID; • acceptable list of observed events. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.

TP/MGC/NO/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Initial condition: an Events Descriptor with specific RequestID was set for the ROOT Termination.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • specific RequestID; • acceptable list of observed events. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.
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5.3.7.2 Invalid behaviour test purposes (BI)

TP/MGC/NO/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: an Events Descriptor with specific RequestID was set for a specific Termination (TID1) in a specific Context (CID1).</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to a specificTID1; ▪ ObservedEvents Descriptor: <ul style="list-style-type: none"> • RequestID set to 0; • acceptable list of observed events. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (value 410, "Incorrect Identifier").
TP/MGC/NO/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: an Events Descriptor with specific RequestID was set for a specific Termination (TID1) in a specific Context (CID1).Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401, "Protocol Error").

TP/MGC/NO/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.7 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to a specific CID1; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410, "Incorrect Identifier").
TP/MGC/NO/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Error descriptor (e.g. value 401, "Protocol Error").

TP/MGC/NO/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to a specific TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.7 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410, "Incorrect Identifier").
TP/MGC/NO/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Error descriptor (e.g. value 401, "Protocol Error").

TP/MGC/NO/BI-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to a specific TID1. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.7 and 6.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410, "Incorrect Identifier").
TP/MGC/NO/BI-13	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401, "Protocol Error").
TP/MGC/NO/BI-14	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.7</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context CID1, Events Descriptor with specific RequestID was set for TID1.</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ NOTIFY Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Error descriptor (e.g. value 401, "Protocol Error").

5.3.7.3 Inopportune behaviour test purposes (BO)

None.

5.3.8 Procedures using Service Change command (SC)

5.3.8.1 Valid behaviour test purposes (BV)

TP/MGC/SC/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SC/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
TP/MGC/SC/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234).

TP/MGC/SC/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SC/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 905 ("Termination taken out of service"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12).
TP/MGC/SC/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Graceful; • ServiceChangeReason set to value 908 ("MG Impending Failure"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.

TP/MGC/SC/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SC/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12).
TP/MGC/SC/BV-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in Context CID1, 2 Terminations (TID3 and TID4) exist in Context CID2.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(e1234).

TP/MGC/SC/BV-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SC/BV-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 905 ("Termination taken out of service"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL(p12).
TP/MGC/SC/BV-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Forced; • ServiceChangeReason set to value 908 ("MG Impending Failure"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT.
TP/MGC/SC/BV-13	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: MGC has received a Transaction Request with a valid Service Change Command with ServiceChangeMethod is either set to "Graceful" or "Forced" (the CID was set to CID1 and the TID was set to TID1).</p> <p>Ensure that the IUT, after having sent the corresponding Transaction Reply sends a new Transaction Request with a:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SUBTRACT Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable descriptors.

TP/MGC/SC/BV-14	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1.
TP/MGC/SC/BV-15	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the NULL Context. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored"); • ServiceChangeDelay set to a specific value. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL.

5.3.8.2 Invalid behaviour test purposes (BI)

TP/MGC/SC/BI-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the Context CID1. Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
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TP/MGC/SC/BI-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL (e12); ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.8 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MGC/SC/BI-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: any</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.8 and 6.2.5</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (value 410 "Incorrect Identifier").

TP/MGC/SC/BI-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) exist in the Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Service Change Descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) were previously taken out of service in Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL(e12); ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) were previously taken out of service in Context CID1.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CID1; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (value 435 "Termination ID is not in specified Context").

TP/MGC/SC/BI-09	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-10	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to TID1; ▪ Error descriptor (e.g. value 401 "Protocol Error").
TP/MGC/SC/BI-11	<p>Reference: ITU-T Recommendation H.248.1 [1], clauses 7.2.8 and 6.2.5</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in Context CID1, 2 Terminations (TID3 and TID4) in Context CID2.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Error descriptor (value 410 "Incorrect Identifier").
TP/MGC/SC/BI-12	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria: Initial condition: 2 Terminations (TID1 and TID2) in the NULL Context.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ acceptable Service Change descriptor. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to CHOOSE; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to CHOOSE; ▪ Error descriptor (e.g. value 401 "Protocol Error").

TP/MGC/SC/BI-13	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 7.2.8</p> <p>Selection criteria:</p> <p>Initial condition: 2 Terminations (TID1 and TID2) in Context CID1 and 2 Terminations (TID3 and TID4) in Context CID2 were previously taken out of service.</p> <p>Ensure that the IUT, after receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Service Change Descriptor: <ul style="list-style-type: none"> • ServiceChangeMethod set to Restart; • ServiceChangeReason set to value 900 ("Service Restored"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to ALL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ALL; ▪ Error descriptor (e.g. value 401 "Protocol Error").
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5.3.8.3 Inopportune behaviour test purposes (BO)

None.

5.3.9 Administration and Maintenance procedures (AM)

5.3.9.1 Valid behaviour test purposes (BV)

TP/MGC/AM/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria:</p> <p>Initial condition: Idle</p> <p>Ensure that the IUT, in order to confirm the registration of a connected MG within the cold start procedure, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to RESTART; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • Timestamp set to a specific value.
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TP/MGC/AM/BV-02	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, in order to change the address for further communication within the cold start procedure, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to RESTART; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeAddress (for the further communication).
TP/MGC/AM/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, in order to reject the registration of a connected MG within the cold start procedure, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to RESTART; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMgclid.
TP/MGC/AM/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.2</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, in order to accept the proposed protocol version within the cold start procedure, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 2; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 2.

TP/MGC/AM/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.3</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, in order to switch back to a previous protocol version within the cold start procedure, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 2; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 1.
TP/MGC/AM/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.3</p> <p>Selection criteria: Initial condition: Idle</p> <p>Ensure that the IUT, in order to announce within the cold start procedure that the proposed protocol version cannot be supported, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeVersion set to 3; • further acceptable ServiceChange parameters. <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • Error descriptor (value 406, "Version Not Supported").
TP/MGC/AM/BV-07	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.4</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, on receipt of a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to Disconnect; • ServiceChangeReason set to value 906 ("Loss of lower layer connectivity"). <p>Sends a Transaction Reply containing:</p> <ul style="list-style-type: none"> • Action reply with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command reply with; ○ TID set to ROOT.

TP/MG/AM/BV-08	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 11.5</p> <p>Selection criteria: Initial condition: any</p> <p>Ensure that the IUT, in order to hand off the MG to another MGC, sends a Transaction Request containing:</p> <ul style="list-style-type: none"> • Action request with: <ul style="list-style-type: none"> ○ CID set to NULL; ○ SERVICE CHANGE Command request with: <ul style="list-style-type: none"> ▪ TID set to ROOT; ▪ Service Change Descriptor with: <ul style="list-style-type: none"> • ServiceChangeMethod set to Handoff; • ServiceChangeReason set to 903 ("MGC directed change"); • Service ChangeMgclid set to the designated MGC address.
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5.3.9.2 Invalid behaviour test purposes (BI)

None.

5.3.9.3 Inopportune behaviour test purposes (BO)

None.

5.3.10 Transport related procedures (TR)

5.3.10.1 Valid behaviour test purposes (BV)

TP/MGC/TR/BV-01	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8</p> <p>Selection criteria: Initial condition: any.</p> <p>Ensure that the IUT, on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Request with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action request and Command request. <p>Sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply.
TP/MGC/TR/BV-02	Void (removed as no such requirement)
TP/MGC/TR/BV-03	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8</p> <p>Selection criteria: 3 way handshake procedure supported.</p> <p>Initial condition: IUT has sent a valid Transaction Request with a Transaction ID set to TransID1.</p> <p>Ensure that the IUT, on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply. <p>Sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Response Acknowledge with: <ul style="list-style-type: none"> ○ TransID set to TransID1.
TP/MGC/TR/BV-04	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8</p> <p>Selection criteria: Transaction Timer implemented</p> <p>Initial condition: IUT has sent a valid Transaction Request with a Transaction ID set to TransID1.</p> <p>Ensure that the IUT, on expiry of the Transaction Timer without receipt of neither a Transaction Reply nor a Transaction Pending, resends the previous Transaction Request.</p>

TP/MGC/TR/BV-05	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8</p> <p>Selection criteria: Transaction Timer implemented</p> <p>Initial condition: After sending a valid Transaction Request the IUT has received a valid Transaction Pending.</p> <p>Ensure that the IUT, on expiry of the Transaction Timer without receipt of the corresponding Transaction Reply or another Transaction Pending, resends the Transaction Request.</p>
TP/MGC/TR/BV-06	<p>Reference: ITU-T Recommendation H.248.1 [1], clause 8</p> <p>Selection criteria: Transaction Timer implemented</p> <p>Initial condition: After sending a valid Transaction Request the IUT has received a valid Transaction Pending.</p> <p>Ensure that the IUT on receipt of a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Reply with: <ul style="list-style-type: none"> ○ TransID set to TransID1; ○ acceptable Action reply and Command reply. <p>sends a Megaco message containing:</p> <ul style="list-style-type: none"> • Transaction Response Acknowledge with: <ul style="list-style-type: none"> ○ TransID set to TransID1.

5.3.10.2 Invalid behaviour test purposes (BI)

None.

5.3.10.3 Inopportune behaviour test purposes (BO)

None.

Annex A (informative): Remarks to the H.248.1 Test Purposes (TPs)

A.1 General Remarks

The H.248.1 protocol has a wide range of potential use. This is realized by the use of specific descriptors and/or specific packages. The following issues are tested by the TPs:

- addressing of Contexts and Terminations;
- transport related issues (transaction mechanism, timers, etc.);
- administration related issues (cold start, protocol negotiation, basic packages).

A.2 Wildcard matrix of Context Ids and Termination Ids

The H.248.1 protocol allows the signalling of wildcarded Context Ids and the Termination Ids. The Context Ids can have the values given in table A.1.

Table A.1: Possible values for Context Ids

Context ID	Meaning	Value (Integer)
Choose	the MG shall select/assign a Context	4294967294
Specific	a specific Context is selected	1 .. 4294967293
All	all existing Context (except the Null Context) are addressed	4294967295
Null	the Null Context is addressed	0

The Termination Ids can have the values given in table A.2.

Table A.2: Possible values for Termination Ids

Termination ID	Meaning	Value (Octet-String)
Choose	the MG shall select a Termination satisfying the partially specified Termination ID or assign a new Termination ID	see ITU-T Recommendation H.248.1 [1], clause A.1 for coding of wildcards
Specific	a specific Termination is selected	specific Octet-String
All	multiple Terminations are addressed at once	see ITU-T Recommendation H.248.1 [1], clause A.1 for coding of wildcards
Root	the whole MG is addressed	0xFFFFFFFFFFFFFFFF

Because an Action is addressed using Context ID and Termination ID, at least 16 combinations of these two Ids are in principle possible for each H.248.1 command.

The following tables show these combinations for each H.248.1 command.

Because, from the protocol point of view, not every of these 16 combinations is allowed for each Command the tables differentiate into allowed and forbidden combinations. The next two columns of the tables give a reference to the relevant valid or invalid TPs for the MG and the MGC where this wildcard combination is used. Additional "notes" within the tables explain H.248.1 command specific details.

NOTE: For some of the wildcard combinations TPs are not possible because in that case the sending entity must be forced to set up a protocol-violating message. These untestable combinations are represented by a "-" in the tables. In these cases only the protocol compatible behaviour of the receiving entity can be tested.

The Service Change Command is a bi-directional command, i.e. the Command can be set up in principle from the MG as well as from the MGC. For the Service Change Command with the ServiceChangeMethod parameter set to the values Graceful, Forced and Restart only the situation when the MG sends the Command Request is covered by the TPs in the present document.

Table A.3: Wildcard matrix for the ADD command

ADD command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	yes	TP/MG/AD/BV-01	TP/MGC/AD/BV-01	Note 1
Choose	All	yes	TP/MG/AD/BV-03	TP/MGC/AD/BV-03	Note 2
Choose	Specific	yes	TP/MG/AD/BV-02	TP/MGC/AD/BV-02	Note 3
Choose	Root	forbidden	TP/MG/AD/BI-01	-	
Specific	Choose	yes	TP/MG/AD/BV-04	TP/MGC/AD/BV-04	Note 1
Specific	All	yes	TP/MG/AD/BV-05	TP/MGC/AD/BV-05	Note 2
Specific	Specific	yes	TP/MG/AD/BV-06	TP/MGC/AD/BV-06	Note 3
Specific	Root	forbidden	TP/MG/AD/BI-02	-	
All	Choose	yes	TP/MG/AD/BV-07	TP/MGC/AD/BV-07	Note 1
All	All	forbidden	TP/MG/AD/BI-03	-	
All	Specific	forbidden	TP/MG/AD/BI-04	-	
All	Root	forbidden	TP/MG/AD/BI-05	-	
Null	Choose	forbidden	TP/MG/AD/BI-08	-	
Null	All	forbidden	TP/MG/AD/BI-07	-	
Null	Specific	forbidden	TP/MG/AD/BI-06	-	
Null	Root	forbidden	TP/MG/AD/BI-09	-	
NOTE 1: Valid only for ephemeral Terminations.					
NOTE 2: Wildcard "all" represents only physical Terminations in the Null-Context.					
NOTE 3: Valid only for a specific Termination in the Null-Context.					

Table A.4: Wildcard matrix for the MODIFY command

MODIFY command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	TP/MG/MD/BI-01	-	
Choose	All	forbidden	TP/MG/MD/BI-02	-	
Choose	Specific	forbidden	TP/MG/MD/BI-10	-	
Choose	Root	forbidden	TP/MG/MD/BI-03	-	
Specific	Choose	forbidden	TP/MG/MD/BI-04	-	
Specific	All	yes	TP/MG/MD/BV-01	TP/MGC/MD/BV-01	
Specific	Specific	yes	TP/MG/MD/BV-02	TP/MGC/MD/BV-02	
Specific	Root	forbidden	TP/MG/MD/BI-05	-	
All	Choose	forbidden	TP/MG/MD/BI-06	-	
All	All	yes	TP/MG/MD/BV-03	TP/MGC/MD/BV-03	
All	Specific	yes	TP/MG/MD/BV-04	TP/MGC/MD/BV-04	
All	Root	forbidden	TP/MG/MD/BI-07	-	
Null	Choose	forbidden	TP/MG/MD/BI-08	-	
Null	All	yes	TP/MG/MD/BV-05	TP/MGC/MD/BV-05	Note 1
Null	Specific	yes	TP/MG/MD/BV-06	TP/MGC/MD/BV-06	Note 2
Null	Root	yes	TP/MG/MD/BV-07	TP/MGC/MD/BV-07	Note 3
NOTE 1: Wildcard "all" represents only physical Terminations in the Null-Context.					
NOTE 2: Valid only for a specific Termination in the Null-Context.					
NOTE 3: The whole MG is addressed.					

Table A.5: Wildcard matrix for the SUBTRACT command

SUBTRACT command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	TP/MG/SU/BI-01	-	
Choose	All	forbidden	TP/MG/SU/BI-02	-	
Choose	Specific	forbidden	TP/MG/SU/BI-03	-	
Choose	Root	forbidden	TP/MG/SU/BI-04	-	
Specific	Choose	forbidden	TP/MG/SU/BI-05	-	
Specific	All	yes	TP/MG/SU/BV-01 TP/MG/SU/BV-02	TP/MGC/SU/BV-01 TP/MGC/SU/BV-02	Note 1
Specific	Specific	yes	TP/MG/SU/BV-03	TP/MGC/SU/BV-03	
Specific	Root	forbidden	TP/MG/SU/BI-06	-	
All	Choose	forbidden	TP/MG/SU/BI-07	-	
All	All	yes	TP/MG/SU/BV-04 TP/MG/SU/BV-05	TP/MGC/SU/BV-04	Note 2
All	Specific	yes	TP/MG/SU/BV-06	TP/MGC/SU/BV-05	
All	Root	forbidden	TP/MG/SU/BI-08	-	
Null	Choose	forbidden	TP/MG/SU/BI-09	-	
Null	All	forbidden	TP/MG/SU/BI-10	-	
Null	Specific	forbidden	TP/MG/SU/BI-11	-	
Null	Root	forbidden	TP/MG/SU/BI-12	-	
NOTE 1: Deletion of all Terminations in a specific Context.					
NOTE 2: Deletion of all Terminations in all Contexts.					

Table A.6: Wildcard matrix for the MOVE command

MOVE command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	TP/MG/MO/BI-01	-	
Choose	All	yes	TP/MG/MO/BV-03	TP/MGC/MO/BV-03	Note
Choose	Specific	yes	TP/MG/MO/BV-04	TP/MGC/MO/BV-04	Note
Choose	Root	forbidden	TP/MG/MO/BI-02	-	
Specific	Choose	forbidden	TP/MG/MO/BI-03	-	
Specific	All	yes	TP/MG/MO/BV-01	TP/MGC/MO/BV-01	
Specific	Specific	yes	TP/MG/MO/BV-02	TP/MGC/MO/BV-02	
Specific	Root	forbidden	TP/MG/MO/BI-04	-	
All	Choose	forbidden	TP/MG/MO/BI-06	-	
All	All	forbidden	TP/MG/MO/BI-05	-	
All	Specific	forbidden	TP/MG/MO/BI-07	-	
All	Root	forbidden	TP/MG/MO/BI-08	-	
Null	Choose	forbidden	TP/MG/MO/BI-09	-	
Null	All	forbidden	TP/MG/MO/BI-11	-	
Null	Specific	forbidden	TP/MG/MO/BI-12	-	
Null	Root	forbidden	TP/MG/MO/BI-10	-	
NOTE: Creates a new Context.					

Table A.7: Wildcard matrix for the AUDIT VALUE command

AUDIT VALUE command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	TP/MG/AV/BI-01	-	
Choose	All	forbidden	TP/MG/AV/BI-02	-	
Choose	Specific	forbidden	TP/MG/AV/BI-03	-	
Choose	Root	forbidden	TP/MG/AV/BI-04	-	
Specific	Choose	forbidden	TP/MG/AV/BI-05	-	
Specific	All	yes	TP/MG/AV/BV-01	TP/MGC/AV/BV-01	Note 1
Specific	Specific	yes	TP/MG/AV/BV-02	TP/MGC/AV/BV-02	Note 2
Specific	Root	forbidden	TP/MG/AV/BI-06	-	
All	Choose	forbidden	TP/MG/AV/BI-07	-	
All	All	yes	TP/MG/AV/BV-03	TP/MGC/AV/BV-03	Note 3
All	Specific	yes	TP/MG/AV/BV-04	TP/MGC/AV/BV-04	Note 4
All	Root	yes	TP/MG/AV/BV-05	TP/MGC/AV/BV-05	Note 5
Null	Choose	forbidden	TP/MG/AV/BI-08	-	
Null	All	yes	TP/MG/AV/BV-06	TP/MGC/AV/BV-06	Note 6
Null	Specific	yes	TP/MG/AV/BV-07	TP/MGC/AV/BV-07	Note 7
Null	Root	yes	TP/MG/AV/BV-08	TP/MGC/AV/BV-08	Note 8
NOTE 1: Audit of matching Terminations in a Context.					
NOTE 2: Audit of a single Termination in a Context.					
NOTE 3: Audit of all matching Terminations and the Context to which they are associated.					
NOTE 4: (Non-Null) Context Id in which the Termination currently exists.					
NOTE 5: List of all Context Ids (the list of Context Ids should be returned by using multiple Action Replies, each containing a Context Id from the list).					
NOTE 6: Audit of all matching Terminations in the Null Context.					
NOTE 7: Audit of a single Termination outside of any Context.					
NOTE 8: Audit of Media Gateway state and events.					

Table A.8: Wildcard matrix for the AUDIT CAPABILITIES command

AUDIT CAPABILITIES command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	TP/MG/AC/BI-01	-	
Choose	All	forbidden	TP/MG/AC/BI-02	-	
Choose	Specific	forbidden	TP/MG/AC/BI-03	-	
Choose	Root	forbidden	TP/MG/AC/BI-04	-	
Specific	Choose	forbidden	TP/MG/AC/BI-05	-	
Specific	All	yes	TP/MG/AC/BV-01	TP/MGC/AC/BV-01	Note 1
Specific	Specific	yes	TP/MG/AC/BV-02	TP/MGC/AC/BV-02	Note 2
Specific	Root	forbidden	TP/MG/AC/BI-06	-	
All	Choose	forbidden	TP/MG/AC/BI-07	-	
All	All	yes	TP/MG/AC/BV-03	TP/MGC/AC/BV-03	Note 3
All	Specific	yes	TP/MG/AC/BV-04	TP/MGC/AC/BV-04	Note 4
All	Root	yes	TP/MG/AC/BV-05	TP/MGC/AC/BV-05	Note 5
Null	Choose	forbidden	TP/MG/AC/BI-08	-	
Null	All	yes	TP/MG/AC/BV-06	TP/MGC/AC/BV-06	Note 6
Null	Specific	yes	TP/MG/AC/BV-07	TP/MGC/AC/BV-07	Note 7
Null	Root	yes	TP/MG/AC/BV-08	TP/MGC/AC/BV-08	Note 8
NOTE 1: Audit of matching Terminations in a Context.					
NOTE 2: Audit of a single Termination in a Context.					
NOTE 3: Audit of all matching Terminations and the Context to which they are associated.					
NOTE 4: (Non-Null) Context Id in which the Termination currently exists.					
NOTE 5: List of all Context Ids (the list of Context Ids should be returned by using multiple Action Replies, each containing a Context Id from the list).					
NOTE 6: Audit of all matching Terminations in the Null Context.					
NOTE 7: Audit of a single Termination outside of any Context.					
NOTE 8: Audit of Media Gateway state and events.					

Table A.9: Wildcard matrix for the NOTIFY command

NOTIFY command					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	-	TP/MGC/NO/BI-05	
Choose	All	forbidden	-	TP/MGC/NO/BI-06	
Choose	Specific	forbidden	-	TP/MGC/NO/BI-07	
Choose	Root	forbidden	-	TP/MGC/NO/BI-08	
Specific	Choose	forbidden	-	TP/MGC/NO/BI-02	
Specific	All	forbidden	-	TP/MGC/NO/BI-03	
Specific	Specific	yes	TP/MG/NO/BV-01	TP/MGC/NO/BV-01 TP/MGC/NO/BI-01	
Specific	Root	forbidden	-	TP/MGC/NO/BI-04	
All	Choose	forbidden	-	TP/MGC/NO/BI-09	
All	All	forbidden	-	TP/MGC/NO/BI-10	
All	Specific	forbidden	-	TP/MGC/NO/BI-11	
All	Root	forbidden	-	TP/MGC/NO/BI-12	
Null	Choose	forbidden	-	TP/MGC/NO/BI-13	
Null	All	forbidden	-	TP/MGC/NO/BI-14	
Null	Specific	yes	TP/MG/NO/BV-02	TP/MGC/NO/BV-02	
Null	Root	yes	TP/MG/NO/BV-03	TP/MGC/NO/BV-03	

Table A.10: Wildcard matrix for the SERVICE CHANGE command

SERVICE CHANGE command for ServiceChangeMethod: Graceful/Forced					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	-	TP/MGC/SC/BI-04	
Choose	All	forbidden	-	TP/MGC/SC/BI-02	
Choose	Specific	forbidden	-	TP/MGC/SC/BI-01	
Choose	Root	forbidden	-	TP/MGC/SC/BI-03	
Specific	Choose	forbidden	-	TP/MGC/SC/BI-06	
Specific	All	yes	TP/MG/SC/BV-02 TP/MG/SC/BV-08	TP/MGC/SC/BV-02 TP/MGC/SC/BV-08	
Specific	Specific	yes	TP/MG/SC/BV-01 TP/MG/SC/BV-07	TP/MGC/SC/BV-01 TP/MGC/SC/BV-07	
Specific	Root	forbidden	-	TP/MGC/SC/BI-05	
All	Choose	forbidden	-	TP/MGC/SC/BI-09	
All	All	yes	TP/MG/SC/BV-03 TP/MG/SC/BV-09	TP/MGC/SC/BV-03 TP/MGC/SC/BV-09	
All	Specific	forbidden	-	TP/MGC/SC/BI-10	
All	Root	forbidden	-	TP/MGC/SC/BI-11	
Null	Choose	forbidden	-	TP/MGC/SC/BI-12	
Null	All	yes	TP/MG/SC/BV-05 TP/MG/SC/BV-11	TP/MGC/SC/BV-05 TP/MGC/SC/BV-11	
Null	Specific	yes	TP/MG/SC/BV-04 TP/MG/SC/BV-10	TP/MGC/SC/BV-04 TP/MGC/SC/BV-10	
Null	Root	yes	TP/MG/SC/BV-06 TP/MG/SC/BV-12	TP/MGC/SC/BV-06 TP/MGC/SC/BV-12	

Table A.11: Wildcard matrix for the SERVICE CHANGE command

SERVICE CHANGE command for ServiceChangeMethod: Restart					
CID	TID	Combination allowed	TPs for the MG	TPs for the MGC	Note
Choose	Choose	forbidden	-	TP/MGC/SC/BI-04	
Choose	All	forbidden	-	TP/MGC/SC/BI-02	
Choose	Specific	forbidden	-	TP/MGC/SC/BI-01	
Choose	Root	forbidden	-	TP/MGC/SC/BI-03	
Specific	Choose	forbidden	-	TP/MGC/SC/BI-06	
Specific	All	forbidden	-	TP/MGC/SC/BI-07	
Specific	Specific	forbidden	-	TP/MGC/SC/BI-08	
Specific	Root	forbidden	-	TP/MGC/SC/BI-05	
All	Choose	forbidden	-	TP/MGC/SC/BI-09	
All	All	forbidden	-	TP/MGC/SC/BI-13	
All	Specific	forbidden	-	TP/MGC/SC/BI-10	
All	Root	forbidden	-	TP/MGC/SC/BI-11	
Null	Choose	forbidden	-	TP/MGC/SC/BI-12	
Null	All	yes	TP/MG/SC/BV-13	TP/MGC/SC/BV-15	
Null	Specific	yes	TP/MG/SC/BV-14	TP/MGC/SC/BV-14	
Null	Root	yes	TP/MG/AM/BV-01 TP/MG/AM/BV-02 TP/MG/AM/BV-03 TP/MG/AM/BV-04 TP/MG/AM/BV-05 TP/MG/AM/BV-06 TP/MG/AM/BV-07 TP/MG/AM/BV-08 TP/MG/AM/BV-09	TP/MG/AM/BV-01 TP/MG/AM/BV-02 TP/MG/AM/BV-03 TP/MG/AM/BV-04 TP/MG/AM/BV-05 TP/MG/AM/BV-06	Note
NOTE: These are the TPs for Cold Start and Protocol Negotiation according to clauses 11.2 and 11.3 of ITU-T Recommendation H.248.1 [1].					

History

Document history		
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