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Contents

Intelle	lectual Property Rights	6
Forew	word	6
Moda	al verbs terminology	6
1	Scope	
•	•	
2	References	
2.1	Normative references	
2.2	Informative references	7
3	Abbreviations	8
4	Conventions	8
4.1	The Test Description proforma	
4.2	Test Description naming convention	
_	-	
5 5 1	Test Description Summary	
5.1		
6	Basic Configuration	12
6.1	Resources request samples	
6.1.1	Application	12
6.1.2	Container	12
6.1.3	ContentInstance	12
6.1.4	Subscription	13
6.1.5	Access Right	13
6.1.6	Group	14
6.2	Resource Representations examples	
6.3	aPoc Re-Targeting Procedure	
6.4	M2M Settings	
7	Test configurations	17
, 7.1	dIa M2M DA-GSCL (M2M_CFG_01)	
7.1	mId M2M (M2M_CFG_02)	
7.2	mIa M2M (M2M_CFG_02)	
	Multi-Hop M2M DA to NSCL (M2M_CFG_04)	
7.4		
7.5	Multi-Hop M2M NA to GSCL (M2M_CFG_05)	
7.6	End to End M2M DA-NA (M2M_CFG_06)	
7.7	dIa M2M GA-GSCL (M2M_CFG_07)	
7.8	Multi-Hop M2M GA to NSCL (M2M_CFG_08)	
7.9	dIa M2M DA-DSCL (M2M_CFG_09)	
7.10	Multi-Hop M2M DA to NSCL (M2M_CFG_10)	
7.11	End to End M2M GA-NA (M2M_CFG_11)	20
8	Test Descriptions	21
8.1	Point to Point configuration testing	21
8.1.1	SCL Mutual Registration	
8.1.2	SclBase Management	
8.1.2.1		
8.1.2.2		
8.1.3	•	
8.1.3.1		
8.1.3.2	11	
8.1.3.3	••	
8.1.3.4	11 1	
8.1.4	11	
8.1.4.1	<u> </u>	
8.1.4.2		
8.1.4.3		
····	Comminer Opanie	

8.1.4.4	Container Delete	26
8.1.5	ContentInstance Management	
8.1.5.1	Content Instance Create	
8.1.5.2	Content Instance Create using plain text	
8.1.5.3	Content Instance Retrieve	
8.1.5.4	ContentInstance Content retrieve (partial addressing)	
8.1.5.5	Content Instance Delete	
8.1.6	Discovery Management	
8.1.6.1	Discovery of all resources	
8.1.6.2	Discovery with Filter Criteria	
8.1.6.3	Discovery with max size	
	Discovery with max size Discovery with searchPrefix	
8.1.6.4	·	
8.1.6.5	Discovery with multiple parameters	
8.1.7	Subscription Management	
8.1.7.1	Subscription Create	
8.1.7.2	Subscription Retrieve	
8.1.7.3	Subscription Update	
8.1.7.4	Subscription Delete	
8.1.7.5	Subscription Notify (To server-capable application)	
8.1.7.6	Subscription Notify (To application container)	
8.1.8	Notification Channel Management	
8.1.8.1	NotificationChannel Create	
8.1.8.2	NotificationChannel Retrieve	
8.1.8.3	NotificationChannel Delete	
8.1.8.4	Long polling based notifications	37
8.1.9	AccessRight Management	38
8.1.9.1	AccessRight Resource creation	38
8.1.9.2	AccessRight Retrieve	38
8.1.9.3	AccessRight Update	
8.1.9.4	AccessRight Delete	
8.1.9.5	Unauthorized operation (Empty Requesting Entity)	
8.1.9.6	Unauthorized operation (Bad Requesting Entity)	
8.1.9.7	Unauthorized operation (Insufficient Access Rights)	
8.1.10	Group Management	
8.1.10.1	Group Resource creation	
8.1.10.2	Group Retrieve	
8.1.10.3	Group Update	
8.1.10.4	Group Delete	
8.1.10.5	Group Operations (Create)	
8.1.10.5	Group Operations (Create)	
8.2	Multi-Hop configuration testing	
8.2.1		
8.2.1.1	Container Management on remote SCL	
	Container Create	
8.2.1.2	Container Retrieve	
8.2.1.3	Container Update	
8.2.1.4	Container Delete	
8.2.2	ContentInstance Management on remote SCL	
8.2.2.1	Content Instance Create	
8.2.2.2	Content Instance Create using plain text	
8.2.2.3	Content Instance Retrieve	
8.2.2.4	ContentInstance Content retrieve (partial addressing)	50
8.2.2.5	Content Instance Delete	
8.2.3	Discovery Management on remote SCL	
8.2.3.1	Discovery of all resources	51
8.2.3.2	Discovery with Filter Criteria	52
8.2.3.3	Discovery with max size	52
8.2.3.4	Discovery with searchPrefix	
8.2.3.5	Discovery with multiple parameters	
8.2.4	Subscription Management on remote SCL	
8.2.4.1	Subscription Create	
8.2.4.2	Subscription Retrieve	
8243	Subscription Undate	56 56

8.2.4.4	Subscription Delete	57
8.2.4.5	Subscription Notify (To server capable application)	
8.2.4.6	Subscription Notify (To application container)	
8.2.5	Notification Channel Management	
8.2.5.1	NotificationChannel Create	
8.2.5.2	NotificationChannel Retrieve	
8.2.5.3	NotificationChannel Delete	63
8.2.5.4	Long polling based notifications	64
8.2.6	AccessRight Management on remote SCL	66
8.2.6.1	AccessRight Resource creation	66
8.2.6.2	AccessRight Retrieve	67
8.2.6.3	AccessRight Update	67
8.2.6.4	AccessRight Delete	68
8.2.6.5	Unauthorized operation (Empty Requesting Entity)	69
8.2.6.6	Unauthorized operation (Bad Requesting Entity)	69
8.2.6.7	Unauthorized operation (Insufficient Access Rights)	70
8.2.7	Group Management on remote SCL	71
8.2.7.1	Group Resource creation	
8.2.7.2	Group Retrieve	72
8.2.7.3	Group Update	72
8.2.7.4	Group Delete	73
8.2.7.5	Group Operations	74
8.2.8	Announcement	
8.2.8.1	Application registration with announcement	
8.2.8.2	Application delete with announcement	77
8.2.8.3	Application De-Announce Ressources	
8.3	End to End configuration testing	
8.3.1	Resource management with re-targeting	79
History		83
i ii stoi y		

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Smart Machine-to-Machine communications (SmartM2M).

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "may not", "need", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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1 Scope

The present document specifies Interoperability Test Descriptions (TDs) for the ETSI M2M Primitives as specified in ETSI TS 102 921 [1]. The purpose of the interoperability testing is to prove that end-to-end functionality between devices such as:

- dIa interface:
- mIa interface;
- Multi-Hop configuration (dIa + mId) and (mId+mIa);
- End to End configuration (dIa + mId + mIa);

and using HTTP as underlying application layer, is as required by the standard(s) on which those devices are based.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

- [1] ETSI TS 102 921: "Machine-to-Machine communications (M2M); mIa, dIa and mId interfaces".
- [2] ETSI TS 102 690: "Machine-to-Machine communications (M2M); Functional architecture".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

Not applicable.

3 Abbreviations

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

aPoC The Application Point of Contract is a URI that identifies how requests are re-targeted

App M2M Application (DA, GA or NA)

CFG Configuration
DA Device Application

Device' (D') Hosts App that communicates to a GSCL using the dIa reference point.

dIa device application Interface

DSCL Device SCL

EUT Equipment Under Test
GA Gateway Application
GSCL Gateway SCL
MH Multi-Hop

mIa M2M application Interface mId M2M device Interface NA Network Application NSCL Network SCL

SCL Service Capability Layer

TD Test Description

URI Universal Resource Identifier XML eXtensible Markup Language

4 Conventions

4.1 The Test Description proforma

The test descriptions are provided in proforma tables. The following different types of test operator actions are considered during the test execution:

- A **stimulus** corresponds to an event that enforces an EUT to proceed with a specific protocol action, like sending a message for instance.
- A **verify** consists of verifying that the EUT behaves according to the expected behaviour (for instance the EUT behaviour shows that it receives the expected message).
- A **configure** corresponds to an action to modify the EUT configuration.
- A **check** ensures the receipt of protocol messages on reference points, with valid content. This "check" event type corresponds to the method called 'interoperability testing with conformance check'.

4.2 Test Description naming convention

Table 1: TD naming convention

TD/ <root>/<gr>/<nn></nn></gr></root>		
<root> = root</root>	M2M	
<gr> = group</gr>	P2P	Point to Point testing on dla, mld or mla
	MH	Multi-Hop: management of remote ressources
	E2E	End to End
<nn> = sequential number</nn>		01 to 99

5 Test Description Summary

5.1 ETSI M2M tests

Table 2: ETSI M2M Tests

Nb	Procedure/Resource	TD ID	TD Description
1	SCL Mutual Registration	TD_M2M_P2P_01	GSCL registers to NSCL
2	SclBase Management	TD_M2M_P2P_02	App retrieves the sclBase resource via a sclBaseRetrieveRequest
3		TD_M2M_P2P_03	App updates the sclBase resource via an sclBaseUpdateRequest
4	Application	TD_M2M_P2P_04	App registers to its local SCL via an applicationCreateRequest
5		TD_M2M_P2P_05	App retrieves application resource via an applicationRetrieveRequest
6		TD_M2M_P2P_06	App updates attribute in application resource via an applicationUpdateRequest
7		TD_M2M_P2P_07	App de-registers by deleting application resource via an applicationDeleteRequest
8	Container	TD_M2M_P2P_08	App creates a container ressource in local SCL via a containerCreateRequest
9		TD_M2M_P2P_09	App retrieves information of a container resource via a containerRetrieveRequest
10		TD_M2M_P2P_10	App updates attribute in application resource via an containerUpdateRequest
11		TD_M2M_P2P_11	App delete a specific container ressource via a containerDeleteRequest
12	ContentInstance	TD_M2M_P2P_12	App adds a contentInstance resource <contentinstance> to the contentInstances resource of a specific container in local SCL via a contentInstanceCreateRequest</contentinstance>
13		TD_M2M_P2P_13	App adds a contentInstance resource <contentinstance> to the contentInstances resource of a specific container in local SCL via a contentInstanceCreateRequest using plain text data</contentinstance>
14		TD_M2M_P2P_14	App retrieves information of a contentInstance resource via a containerRetrieveRequest
15		TD_M2M_P2P_15	Handle contentInstanceRetrieveRequest with targetID using partial addressing (content attribute)
16		TD_M2M_P2P_16	App deletes contentInstance resource via a containerDeleteRequest
17	Discovery	TD_M2M_P2P_17	App discovers resources residing in Local SCL via DiscoveryRetrieveRequest
18		TD_M2M_P2P_18	App discovers resources residing in Local SCL using specific Filter criteria via DiscoveryRetrieveRequest
19		TD_M2M_P2P_19	App discovers resources residing in Local SCL with a limited max size via DiscoveryRetrieveRequest
20		TD_M2M_P2P_20	App discovers resources residing in Local SCL limited search prefix via DiscoveryRetrieveRequest
21		TD_M2M_P2P_21	App discovers resources residing in Local SCL using multiple parameters via DiscoveryRetrieveRequest
22	Subscription	TD_M2M_P2P_22	App creates a subscription to application resource via subscriptionCreateRequest
23		TD_M2M_P2P_23	App retrieves information about a subscription via subscriptionRetrieveRequest (GET), such as expirationTime, filterCriteria, contactURI, noRepresentation, timeoutReason, etc.
24		TD_M2M_P2P_24	App updates information about a subscription via subscriptionRetrieveRequest
25		TD_M2M_P2P_25	App cancels subscription via an subscriptionDeleteRequest
26	_	TD_M2M_P2P_26	SCL sends notification(s) via subscriptionNotifyRequest
27		TD_M2M_P2P_27	SCL sends notification(s) via subscriptionNotifyRequest (To application container)

Nb	Procedure/Resource	TD ID	TD Description
28	NotificationChannel	TD_M2M_P2P_28	App creates a notificationChannel to application resource via notificationChannelCreateRequest
29		TD_M2M_P2P_29	App retrieves information about a notificationChannel via notificationChannelRetrieveRequest
30		TD_M2M_P2P_30	App deletes a notificaitonChannel via a notificationChannelDeleteRequest
31		TD_M2M_P2P_31	NA/DA receives notifications via a notificationChannelRetreiveRequest (GET) using long polling
32	AccessRight	TD_M2M_P2P_32	App create an AccessRight resource via an accesRightCreateRequest
33		TD_M2M_P2P_33	App retrieves accessRight resource via an accessRightRetrieveRequest
34		TD_M2M_P2P_34	App updates attribute in accessRight resource via an accessRightUpdateRequest
35		TD_M2M_P2P_35	App de-registers by deleting accessRightresource via an accessRightDeleteRequest
36		TD_M2M_P2P_36	App retrieve request is rejected due to an Empty Requesting Entity
37		TD_M2M_P2P_37	App retrieve request is rejected due to bad request Entity
38		TD_M2M_P2P_38	App delete request is rejected due to Access Rights
39	Group	TD_M2M_P2P_39	App creates a group resource via a groupCreateRequest
40		TD_M2M_P2P_40	App retrieves group resource via a groupRetrieveRequest
41		TD_M2M_P2P_41	App updates attribute in group resource via an groupUpdateRequest
42		TD_M2M_P2P_42	App deletes group resource via an groupDeleteRequest
43		TD_M2M_P2P_43	App creates multiple contentInstance using group resource
44		TD_M2M_P2P_44	App retrieves multiple contentInstance using group resource
45	Container	TD_M2M_MH_01	App creates a container ressource in remote SCL via a containerCreateRequest
46		TD_M2M_MH_02	App retrieves information of a container resource via a containerRetrieveRequest
47		TD_M2M_MH_03	App updates attribute in application resource via an containerUpdateRequest
48		TD_M2M_MH_04	App delete a specific container ressource via a containerDeleteRequest
49	ContentInstance	TD_M2M_MH_05	App adds a contentInstance resource <contentinstance> to the contentInstances resource of a specific container in remote SCL via a contentInstanceCreateRequest</contentinstance>
50		TD_M2M_MH_06	App adds a contentInstance resource <contentinstance> to the contentInstances resource of a specific container in remote SCL via a contentInstanceCreateRequest using Plain text</contentinstance>
51		TD_M2M_MH_07	App retrieves remote contentInstance resource via a containerRetriveRequest
52		TD_M2M_MH_08	Handle contentInstanceRetrieveRequest with targetID using partial addressing
53		TD_M2M_MH_09	App deletes remote contentInstance resource via a containerDeleteRequest
55	Discovery	TD_M2M_MH_10	App discovers resources residing in remote SCL via DiscoveryRetrieveRequest
56		TD_M2M_MH_11	App discovers resources residing in remote SCL using specific Filter criteria via DiscoveryRetrieveRequest
57		TD_M2M_MH_12	App discovers resources residing in remote SCL with a limited max size via DiscoveryRetrieveRequest
58		TD_M2M_MH_13	App discovers resources residing in remote SCL limited search prefix via DiscoveryRetrieveRequest
59		TD_M2M_MH_14	App discovers resources residing in remote SCL using multiple parameters via DiscoveryRetrieveRequest

Nb	Procedure/Resource	TD ID	TD Description
60	Subscription	TD_M2M_MH_15	App creates a subscription to application resource via
			subscriptionCreateRequest
61		TD_M2M_MH_16	App retrieves information about a subscription via
			subscriptionRetrieveRequest (GET), such as
			expirationTime, filterCriteria, contactURI, noRepresentation, timeoutReason, etc.
62		TD_M2M_MH_17	App updates information about a subscription via
02			subscriptionRetrieveRequest
63		TD_M2M_MH_18	App cancels subscription via an subscriptionDeleteRequest
64		TD_M2M_MH_19	GSCL sends notification(s) via subscriptionNotifyRequest
		==	on NSCL
65		TD_M2M_MH_20	NSCL sends notification(s) via subscriptionNotifyRequest
66	_	TD_M2M_MH_21	on GSCL GSCL sends notification(s) via subscriptionNotifyRequest
67		TD_M2M_MH_22	NSCL sends notification(s) via subscriptionNotifyRequest
68	Notification Channel	TD_M2M_MH_23	App creates a notificationChannel to application resource
			on remote SCL via notificationChannelCreateRequest (POST)
69		TD_M2M_MH_24	App retrieves information about a notificationChannel on
	_		remote SCL via notificationChannelRetrieveRequest (GET)
70		TD_M2M_MH_25	App deletes a notificationChannel on remote SCL via a
71	_	TD M2M MH 26	notificationChannelDeleteRequest NA receives notifications via a
''			notificationChannelRetreiveRequest (GET) using long
			polling
72		TD_M2M_MH_27	DA receives notifications via a
			notificationChannelRetreiveRequest (GET) using long
70	D: 14	TD MOM MILL OO	polling
73	AccessRight	TD_M2M_MH_28	App creates an AccessRight resource via an accesRightCreateRequest
74		TD_M2M_MH_29	App retrieves accessRight resource via an
, ,			accessRightRetrieveRequest
75		TD_M2M_MH_30	App updates attribute in accessRight resource via an
			accessRightUpdateRequest
76		TD_M2M_MH_31	App de-registers by deleting accessRightresource via an
77	-	TD_M2M_MH_32	accessRightDeleteRequest App delete request is rejected due to Access Rights (Empty
''		T D_IVIZIVI_IVII I_32	Requesting Entity)
78		TD_M2M_MH_33	App retrieve request is rejected due to Access Rights (Bad
			Requesting Entity)
79		TD_M2M_MH_34	App delete request is rejected due to Access Rights on
		TD 14014 1411 05	remote SCL(Insufficient Access Rights)
80	Group	TD_M2M_MH_35	App creates a group resource via a groupCreateRequest App retrieves group resource via a groupRetrieveRequest
81 82	\dashv	TD_M2M_MH_36 TD_M2M_MH_37	App updates attribute in group resource via an
02			groupUpdateRequest
83	1	TD_M2M_MH_38	App delete group resource via an groupDeleteRequest
84		TD_M2M_MH_39	App creates multiple contentInstance using group resource
85		TD_M2M_MH_40	App retrieves multiple contentInstance using group
	4	TD MONA NALL 44	resource
86	4	TD_M2M_MH_41	App registration with Announcement
87 88	-	TD_M2M_MH_42 TD_M2M_MH_43	App application delete with Announcement App application De-Announce ressource
89	Resource	TD_M2M_E2E_01	DA adds a contentInstance resource <contentinstance> to</contentinstance>
	management with		the contentInstances resource of a specific container in
	re-targeting	TD MON 557 55	remote NSCL via a contentInstanceCreateRequest
90		TD_M2M_E2E_02	NA adds a contentInstance resource <contentinstance> to</contentinstance>
			the contentInstances resource of a specific container in remote GSCL via a contentInstanceCreateRequest
91	†	TD_M2M_E2E_03	NA retrieves a contentinstance resource <contentinstance></contentinstance>
			to the contentInstances resource of a specific container in
			remote GSCL via a contentInstanceRetrieveRequest
92		TD_M2M_E2E_04	NA deletes a contentInstance resource <contentinstance></contentinstance>
			to the contentInstances resource of a specific container in
			remote GSCL via a contentInstanceUpdateRequest

6 Basic Configuration

6.1 Resources request samples

6.1.1 Application

6.1.2 Container

6.1.3 ContentInstance

```
{\tt POST~127.0.0.1:8080/context/nscl/applications/appl/containers/contl/contentInstances} \\
<tns:contentInstance xmlns:tns="http://uri.etsi.org/m2m"</pre>
           xmlns:xmime="http://www.w3.org/2005/05/xmlmime" tns:id="ci1" >
           <tns:content xmime:contentType="application/xml">
           \verb"PG9iaj4KICA8aW50IG5hbWU9ImRhdGEiIHZhbD0iMjciLz4KICA8aW50IG5hbWU9InVuaXQiIHZhbD0iY2Vsc3VzIi8+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzIi+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwvalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VzII+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY2Vsc3VziI+CjwwalAgaiHzhbD0iY
b2JqPgoK
           </tns:content>
</tns:contentInstance>
POST(content) 127.0.0.1:8080/context/nscl/applications/appl/containers/contl/contentInstances
<obj>
     <int name="data" val="27"/>
     <int name="unit" val="celsius"/>
</obi>
PUT 127.0.0.1:8080/context/nscl/applications/appl/containers/cont1
<tns:container xmlns:tns="http://uri.etsi.org/m2m">
           <tns:searchStrings>
                      <tns:searchString>key</tns:searchString>
           </tns:searchStrings>
</tns:container>
GET 127.0.0.1:8080/context/nscl/applications/appl/containers/contl/contentInstances/ci
GET (latest) 127.0.0.1:8080/context/nscl/applications/appl/containers/cont1/contentInstances/latest
GET (oldest) 127.0.0.1:8080/context/nscl/applications/appl/containers/cont1/contentInstances/oldest
GET (content)
127.0.0.1:8080/context/nscl/applications/appl/containers/cont1/contentInstances/ci/content
```

```
GET (latest content)
127.0.0.1:8080/context/nscl/applications/appl/containers/cont1/contentInstances/latest/content
GET (oldest content)
127.0.0.1:8080/context/nscl/applications/appl/containers/cont1/contentInstances/oldest/content
```

6.1.4 Subscription

6.1.5 AccessRight

```
POST 127.0.0.1:8080/context/nscl/accessRights
<tns:accessRight xmlns:tns="http://uri.etsi.org/m2m" tns:id="ar1">
    <tns:permissions>
        <tns:permission tns:id="AllRights">
            <tns:permissionFlags>
                <tns:flag>CREATE</tns:flag>
                <tns:flag>WRITE</tns:flag>
                <tns:flag>READ</tns:flag>
                <tns:flag>DELETE</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>admin/admin</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
        <tns:permission tns:id="RestrictedRights">
            <tns:permissionFlags>
                <tns:flag>READ</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>guest/guest</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
    </tns:permissions>
    <tns:selfPermissions>
        <tns:permission tns:id="SelfPermission">
            <tns:permissionFlags>
                <tns:flag>CREATE</tns:flag>
                <tns:flag>WRITE</tns:flag>
                <tns:flag>READ</tns:flag>
                <tns:flag>DELETE</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>admin/admin</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
    </tns:selfPermissions>
</tns:accessRight>
PUT 127.0.0.1:8080/context/nscl/accessRights/ar1
<tns:accessRight xmlns:tns="http://uri.etsi.org/m2m" >
    <tns:permissions>
        <tns:permission tns:id="AllRights">
            <tns:permissionFlags>
                <tns:flag>CREATE</tns:flag>
                <tns:flag>WRITE</tns:flag>
```

```
<tns:flag>READ</tns:flag>
                <tns:flag>DELETE</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>admin/admin</tns:holderRef>
                    <tns:holderRef>guest2/guest2</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
        <tns:permission tns:id="RestrictedRights">
            <tns:permissionFlags>
                <tns:flag>READ</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>guest/guest</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
    </tns:permissions>
    <tns:selfPermissions>
        <tns:permission tns:id="SelfPermission">
            <tns:permissionFlags>
                <tns:flag>CREATE</tns:flag>
                <tns:flag>WRITE</tns:flag>
                <tns:flag>READ</tns:flag>
                <tns:flag>DELETE</tns:flag>
                <tns:flag>DISCOVER</tns:flag>
            </tns:permissionFlags>
            <tns:permissionHolders>
                <tns:holderRefs>
                    <tns:holderRef>admin/admin</tns:holderRef>
                </tns:holderRefs>
            </tns:permissionHolders>
        </tns:permission>
    </tns:selfPermissions>
</tns:accessRight>
GET 127.0.0.1:8080/context/nscl/accessRights/arl
DELETE 127.0.0.1:8080/context/nscl/accessRights/arl
```

6.1.6 Group

```
POST 127.0.0.1:8080/context/nscl/groups
<tns:group xmlns:tns="http://uri.etsi.org/m2m" tns:id="gr1">
   <tns:memberType>CONTAINER</tns:memberType>
   <tns:members>
         <reference>gscl/applications/appl/containers/cont1/contentInstances</reference>
         <reference>gscl/applications/appl/containers/cont2/contentInstances</reference>
   </tns:members>
</tns:group>
PUT 127.0.0.1:8080/context/nscl/groups/grl
<tns:group xmlns:tns="http://uri.etsi.org/m2m">
   <tns:members>
         <reference>nscl/applications/appl/containers/cont1/contentInstances</reference>
         <reference>nscl/applications/app2/containers/cont1/contentInstances</reference>
         <reference>nscl/applications/app3/containers/cont1/contentInstances</reference>
   </tns:members>
</tns:group>
GET 127.0.0.1:8080/context/nscl/groups/grl
DELETE 127.0.0.1:8080/context/nscl/groups/grl
```

6.2 Resource Representations examples

In order to ease test setup and execution, M2M SCL and Applications are requested to support the following resources.

Table 3: M2M Resources Representations

M2M Primitive	Resource name	Resource Representation
applicationCreateRequest	<app></app>	xml version="1.0"?
		<pre><tns:application tns:id="app" xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
applicationCreateResponse	<app></app>	xml version="1.0"?
		<pre><tns:application tns:id="app " xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:expirationtime>2012-10-25T13:13:04</tns:expirationtime>
applicationRetrieveResponse	<app></app>	xml version="1.0"?
		<pre><tns:application tns:id="app" xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:applicationstatus>ONLINE</tns:applicationstatus>
		<tns:expirationtime>2012-11-19T18:39:05</tns:expirationtime>
		<tns:lastmodifiedtime>2012-11-12T19:59:05</tns:lastmodifiedtime>
		<tns:containersreference></tns:containersreference>
		/gsclBase/applications/app/containers
		<tns:groupsreference></tns:groupsreference>
		/gsclBase/applications/app/groups
		//ms:groupsReference>
		<tns:accessrightsreference></tns:accessrightsreference>
		/gsclBase/applications/app/accessRights
		<ns:subscriptionsreference>/</ns:subscriptionsreference>
		/gsclBase/applications/app/subscriptions
		/gscibase/applications/app/subscriptions
		/tns:application>
applicationUpdateRequest	<app></app>	<pre><?xml version="1.0"?></pre>
	10PP	<pre><tns:application xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:apoc>http://App_IP_Address:Port</tns:apoc>
applicationUpdateResponse	<app></app>	xml version="1.0"?
	1	<pre><tns:application xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:expirationtime>2012-10-25T13:13:04</tns:expirationtime>
applicationCreateRequest	<appannc></appannc>	xml version="1.0"?
		<pre><tns:application tns:id="app_ann" xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:announceto></tns:announceto>
		<tns:activated>true</tns:activated>
		<tns:apoc>http://App _IP_Address:Port</tns:apoc>
applicationCreateResponse	<appannc></appannc>	<pre><tns:application tns:id="app_ann" xmlns:tns="http://uri.etsi.org/m2m"></tns:application></pre>
		<tns:expirationtime>2012-10-25T13:13:04</tns:expirationtime>
and a spiration One (1.5)		2l.
subscriptionCreateRequest		<pre><?xml version="1.0"?> tagget be spiriting very locating "lighten //veri otal org/sp2" taggid "locab".</pre>
		<pre><tns:subscription tns:id="sub" xmlns:tns="http://uri.etsi.org/m2m"> </tns:subscription></pre>
		<tns:contact>http://App _IP_Addr:Port/da_notif</tns:contact>

M2M Primitive	Resource name	Resource Representation
subscriptionCreateResponse		xml version="1.0"?
		<pre><tns:subscription tns:id="sub" xmlns:tns="http://uri.etsi.org/m2m"></tns:subscription></pre>
		<tns:expirationtime>2012-10-25T13:13:04</tns:expirationtime>
subscriptionNotifyRequest		<pre><?xml version="1.0"?></pre>
		<pre><tns:notify xmlns:tns="http://uri.etsi.org/m2m"></tns:notify></pre>
		<statuscode>1</statuscode>
		<representation></representation>
		base64Binary encoded representation of application resource
		<subscriptionreference></subscriptionreference>
		http://GW_IP_Addr:Port/gw01/applications/app/subscriptions/sub
subscriptionNotifyResponse		xml version="1.0"?
		<tns:notify xmlns:tns="http://uri.etsi.org/m2m"></tns:notify>
		<statuscode>1</statuscode>
containerCreateRequest	<container></container>	xml version="1.0"?
·		<pre><tns:container tns:id="container" xmlns:tns="http://uri.etsi.org/m2m"></tns:container></pre>
containerCreateResponse	<container></container>	xml version="1.0"?
		<pre><tns:container tns:id="container" xmlns:tns="http://uri.etsi.org/m2m"></tns:container></pre>
contentInstanceCreateReque	<contentinstance< td=""><td><?xml version="1.0"?></td></contentinstance<>	xml version="1.0"?
st	>	<pre><tns:contentinstance xmlns:tns="http://uri.etsi.org/m2m"></tns:contentinstance></pre>
		<tns:content></tns:content>
		<tns:textcontent>content</tns:textcontent>
contentInstanceCreateRespo	<contentinstance< td=""><td><?xml version="1.0"?></td></contentinstance<>	xml version="1.0"?
nse	>	<pre><tns:contentinstance <="" pre="" xmlns:tns="http://uri.etsi.org/m2m"></tns:contentinstance></pre>
		tns:id="contentInstance"/>
groupCreateRequest	<grouppost></grouppost>	<pre><tns:group tns:id="groupPOST" xmlns:tns="http://uri.etsi.org/m2m"></tns:group></pre>
		<tns:membertype>CONTAINER</tns:membertype>
		<tns:members></tns:members>
		<pre><reference>gscl/applications/app1/containers/cont1/contentInstances</reference></pre>
		eference>
		<pre><reference>gscl/applications/app2/containers/cont2/contentInstances</reference></pre>
		eference>
groupCreateRequest	<groupget></groupget>	<pre><tns:group tns:id="groupGET" xmlns:tns="http://uri.etsi.org/m2m"></tns:group></pre>
		<tns:membertype>CONTAINER</tns:membertype>
		<tns:members></tns:members>
		<pre><reference>gscl/applications/app1/containers/cont1/contentInstances/lat</reference></pre>
		est
		<reference>gscl/applications/app2/containers/cont2/contentInstances/lat</reference>
		est

6.3 aPoc Re-Targeting Procedure

When App registers to its Local SCL it can:

- either use the aPoc Re-Targeting mechanism; or
- create and update contentInstance resource on the Local SCL.

As a consequence, when the Local SCL receives a resource retrieve request, it shall:

- either forward the request to App; or
- reply directly to the request itself.

6.4 M2M Settings

In order to ease test setup and execution, M2M SCL and Applications are requested to support the following settings:

- Security shall be disable as it is out of scope of the interoperability testing.
- HTTP mapping of ETSI M2M primitives is used.
- Resource names are pre-provisioned, except for content instance resources that are automatically assigned by the hosting SCL.
- Search strings are pre-provisioned identifying applications and containers.
- After each "Delete" primitive on a resource, the user shall check the resource is indeed effectively deleted.
- Unless it is indicated in the test cases prequisites, by default, all the applications shall have the required access right to manage resources on SCL.

7 Test configurations

7.1 dla M2M DA-GSCL (M2M_CFG_01)

DA manages resources on local GSCL.

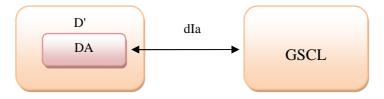


Figure 1

7.2 mld M2M (M2M_CFG_02)

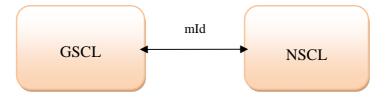


Figure 2

7.3 mla M2M (M2M_CFG_03)

NA manages resources on local NSCL.

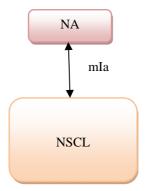


Figure 3

7.4 Multi-Hop M2M DA to NSCL (M2M_CFG_04)

DA manages resources on remote NSCL.



Figure 4

7.5 Multi-Hop M2M NA to GSCL (M2M_CFG_05)

NA manages resources on remote GSCL.

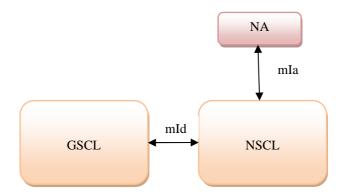


Figure 5

7.6 End to End M2M DA-NA (M2M_CFG_06)

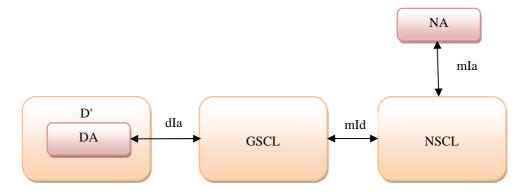


Figure 6

7.7 dla M2M GA-GSCL (M2M_CFG_07)

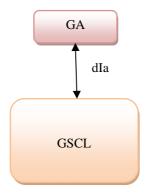


Figure 7

7.8 Multi-Hop M2M GA to NSCL (M2M_CFG_08)

GA manages resources on remote NSCL.

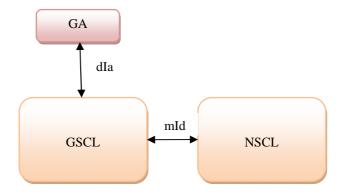


Figure 8

7.9 dla M2M DA-DSCL (M2M_CFG_09)

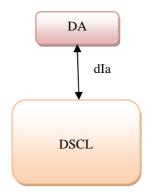


Figure 9

7.10 Multi-Hop M2M DA to NSCL (M2M_CFG_10)

DA manages resources on remote NSCL.

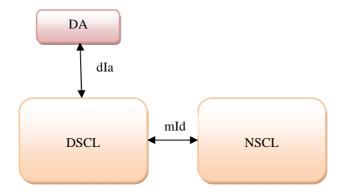


Figure 10

7.11 End to End M2M GA-NA (M2M_CFG_11)

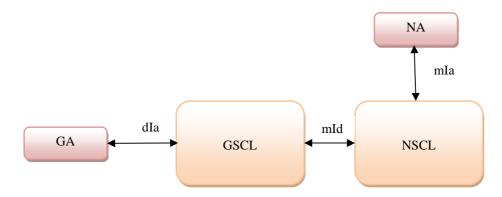


Figure 11

8 Test Descriptions

8.1 Point to Point configuration testing

8.1.1 SCL Mutual Registration

	Interoperability Test Description				
Identifier:	TD_M2M_P2P_01				
Objective:	GSCL reg	gisters to NSCL			
Configuration:	M2M_CF				
References:		02 921 [1], clause			
	ETSI TS 1	02 690 [2], clause	9.3.2.2		
Pre-test	void				
conditions:					
Test Sequence:	Step	Туре	Description		
	1	Stimulus	GSCL is requested to send a SCLCreateRequest (POST) to NSCL		
	2	Check (mld)	Sent POST request contains:		
			Request method = POST		
			Request URI <nscl>/scls</nscl>		
			Host		
			Content Type option		
			Payload: <gscl> resource</gscl>		
	3	Check (mld)	NSCL sends response containing:		
			Status Code = 201		
			 Content-Location: <nscl>/scls/<gscl></gscl></nscl> 		
			Payload: created <gscl> resource</gscl>		
	4	Verify	NSCL and GSCL indicate successful operation		

8.1.2 SclBase Management

8.1.2.1 SclBase Retrieve

Interoperability Test Description					
Identifier:	TD_M2M_P2P_02				
Objective:	App retrie	ves the sclBase res	source via a sclBaseRetrieveRequest		
Configuration:	M2M_CF0	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS 1	102 921 [1], clause	10.4.3		
	ETSI TS 1	102 690 [2], clause	9.3.2.4		
Pre-test	sclBase re	esource has been a	automatically created in local SCL		
conditions:					
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a retrieveRequest (GET) to local SCL		
	2	Check (dla/mla)	Sent GET request contains:		
			Request method = GET		
			Request URI <sclbase></sclbase>		
			Host: localSCL		
			Content Type option		
			Payload: empty		
	3	Check (dla/mla)	SCL sends response containing:		
			Status Code = 200		
			Payload: <sclbase> resource</sclbase>		
	4	Verify (dla)	App indicates successful operation		

8.1.2.2 SclBase Update

Interoperability Test Description					
Identifier:	TD_M2M	TD M2M P2P 03			
Objective:	App upda	tes the sclBase res	source via an sclBaseUpdateRequest		
Configuration:	M2M_CF	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS ²	102 921 [1], clause	10.4.4		
Pre-test	sclBase re	esource has been a	automatically created in local SCL		
conditions:					
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an update Request (PUT)		
	2	Check (dla/mla)	Sent PUT request contains:		
			 Request method = PUT 		
			 Request URI <sclbase></sclbase> 		
			Host: localSCL		
			Content Type option		
			 Payload: modified <sclbase> resource</sclbase> 		
	3	Check (dla/mla)	SCL sends response containing:		
			• Status Code = 200		
			Payload: updated <sclbase> resource</sclbase>		
	4	Verify	App indicates successful operation		

8.1.3 Application Registration

8.1.3.1 Application Resource creation

		Interoperab	ility Test Description		
Identifier:	TD_M2M	TD_M2M_P2P_04			
Objective:	App regis	App registers to its local SCL via an applicationCreateRequest			
Configuration:	M2M_CF	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS	102 921 [1], clause	10.8.2		
	ETSI TS	102 690 [2], clause	9.3.2.8		
Pre-test	void				
conditions:					
		-			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an applicationCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains:		
			 Request method = POST 		
			 Request URI <sclbase>/applications</sclbase> 		
			Host: localSCL		
			Content Type option		
			 Payload: application resource <app> to be created</app> 		
	3	Check (dla/mla)	SCL sends response containing:		
			Status Code = 201		
			 Content-Location: <sclbase>/applications/<app></app></sclbase> 		
			Payload: created <app> resource</app>		
	4	Verify	App indicates successful operation		

8.1.3.2 Application Retrieve

		Intereneral	ility Test Description			
		Interoperability Test Description				
Identifier:	TD_M2M	TD_M2M_P2P_05				
Objective:	App retrie	ves application res	ource via an applicationRetrieveRequest (GET)			
Configuration:	M2M_CF	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09			
References:	ETSI TS 1	102 921 [1], clause	10.8.3			
	ETSI TS 1	102 690 [2], clause	9.3.2.8			
	•	_ <u> </u>				
Pre-test	App has o	reated an Applicati	on resource <app> on local SCL</app>			
conditions:	1 ' '	• •				
	•					
Test Sequence:	Step	Туре	Description			
-	1	Stimulus	App is requested to send an applicationRetrieveRequest			
			(GET)			
	2	Check (dla/mla)	Sent GET request contains:			
		,	Request method = GET			
			Request URI <sclbase>/applications/<app></app></sclbase>			
			Host: localSCL			
			Payload: empty			
	3	Check (dla/mla)	SCL sends response containing:			
			Status Code =200			
			Payload: <app> resource</app>			
	4	Verify	App indicates successful operation			

8.1.3.3 Application Update

		Interoperab	ility Test Description		
Identifier:	TD_M2M_P2P_06				
Objective:	App updates attribute in application resource via an applicationUpdateRequest (PUT)				
Configuration:	M2M_CF0	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09		
References:		102 921 [1], clause 102 690 [2], clause			
					
Pre-test	App has c	reated an Applicat	ion resource <app> on local SCL</app>		
conditions:					
Tool Commons	Cton	T	Description		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an applicationUpdateRequest (PUT)		
	2	Check (dla/mla)	Sent PUT request contains:		
			 Request method = PUT 		
			Request URI <sclbase>/applications/<app></app></sclbase>		
			Host: localSCL		
			Payload: modified application resource		
	3	Check (dla/mla)	SCL sends response containing:		
			• Code = 200		
			Payload: updated <app> resource</app>		
	4	Verify	App indicates successful operation		

8.1.3.4 Application Delete

		Interoperab	ility Test Description		
Identifier:	TD_M2M_P2P_07				
Objective:	App de-re		application resource via an applicationDeleteRequest		
Configuration:	M2M_CF	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS 1	102 921 [1], clause	10.8.5		
	ETSI TS 1	102 690 [2], clause	9.3.2.8		
Pre-test	App has o	created an Applicati	ion resource <app> on local SCL</app>		
conditions:					
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an applicationDeleteRequest (DELETE)		
	2	Check (dla/mla)	Sent DELETE request contains:		
			 Request method = DELETE 		
			 Request URI <sclbase>/applications/<app></app></sclbase> 		
			Host: localSCL		
			Payload: empty		
	3	Check (dla/mla)	Local SCL sends response containing:		
			• Status Code = 204		
			Payload: empty		
	4	Verify	App indicates successful operation		

8.1.4 Container Management

8.1.4.1 Container Create

			Interoperability Test Description		
Identifier:	TD MS	TD M2M P2P 08			
			ressource in local SCL via a containerCreateRequest		
Objective:	App cit	eates a container	ressource in local SGL via a container creater equest		
Configuration:	M2M (CEG 01 M2M CE	FG_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], cla			
1101010110001		S 102 690 [2], cla			
	12.0	<u> </u>	400 0101E11E		
Pre-test	Applica	ation <app> has be</app>	een created in Local SCL		
conditions:					
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a containerCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains		
			 Request URI <sclbase>/applications/<app>/containers/<container></container></app></sclbase> 		
			Host: localSCL		
			Payload: container resource <container> to be created</container>		
	3	Check (dla/mla)	SCL sends response containing:		
			• Code = 201		
			Content-Location: <sclbase>/applications/<app>/containers/<container></container></app></sclbase>		
			Payload: Created <container></container>		
	4	Verify	App indicates successful operation		
	5		Repeat step 1-4 creating container resource with short lifetime		
	6		Check the created resource is removed after the expiry of its lifetime		

8.1.4.2 Container Retrieve

		Inte	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_09			
Objective:	App ret	rieves information	of a container resource via a containerRetrieveRequest (GET)		
Configuration:	M2M_C	CFG_01, M2M_CF0	G_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], claus S 102 690 [2], claus			
	<u> L1011</u>	0 102 000 [2], olda	00 0.0.2.12		
Pre-test conditions:	App ha	s created a contain	er resource <container> in application <app> on the local SCL</app></container>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a containerRetrieveRequest (GET) for resource <pre><container></container></pre>		
	2	Check (dla/mla)	Sent GET request contains: Request URI <sclbase>/applications/<app>/containers/<container> Host: localSCL Payload: empty</container></app></sclbase>		
	3	Check (dla/mla)	SCL sends response containing: Code = 200 Payload: <container> resource</container>		
	4	Verify	App indicates successful operation		

8.1.4.3 Container Update

		Inte	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_10			
Objective:	App up	dates attribute in a	oplication resource via an containerUpdateRequest (PUT)		
Configuration:	M2M_0	CFG_01, M2M_CF0	G_03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI T	S 102 921 [1], claus	se 10.14.3		
	ETSI T	S 102 690 [2], claus	se 9.3.2.12		
Pre-test	App ha	s created a contain	er resource <container> in application <app> on the local SCL</app></container>		
conditions:	' '				
Test Sequence:	Step	Type	Description		
-	1	Stimulus	App is requested to send an containerUpdateRequest (PUT) to update		
			the lifetime of the resource.		
	2	Check (dla/mla)	Sent PUT request contains:		
			 Request URI <sclbase>/applications/<app>/containers/<container></container></app></sclbase> 		
			Host: localSCL		
			Payload: modified <container> resource</container>		
	3	Check (dla/mla)	SCL sends response containing:		
		,	• Code = 200		
			Payload: Updated <container> resource</container>		
	4	Verify	App indicates successful operation		

8.1.4.4 Container Delete

		Inte	eroperability Test Description	
Identifier:	TD_M2	TD_M2M_P2P_11		
Objective:	App de	lete a specific conta	ainer ressource via a containerDeleteRequest (DELETE)	
Configuration:	M2M_C	CFG_01, M2M_CFC	G_03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI T	S 102 921 [1], claus	se 10.14.3	
	ETSI T	S 102 690 [2], claus	se 9.3.2.12	
Pre-test	App ha	s created a contain	er resource <container> in application <app> on the local SCL</app></container>	
conditions:				
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send an containerDeleteRequest (DELETE)	
	2	Check (dla/mla)	Sent DELETE request contains:	
			 Request URI <sclbase>/applications/<app>/containers/<container></container></app></sclbase> 	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	Local SCL sends response containing:	
			• Code = 204	
			Payload: empty	
	4	Verify	App indicates successful operation	

8.1.5 ContentInstance Management

8.1.5.1 Content Instance Create

		Inte	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_12			
Objective:		App adds a contentInstance resource <contentinstance> to the contentInstances resource of a specific container in local SCL via a contentInstanceCreateRequest</contentinstance>			
Configuration:	M2M_C	CFG_01, M2M_CFG	G_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], claus S 102 690 [2], claus			
Pre-test conditions:	 App has created an Application resource <app> on SCL (Registered into local SCL)</app> App has created a container resource <container> in <app> on local SCL</app></container> 				
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a contentInstanceCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains: Request URI <sclbase>/applications/<app>/containers/<container>/contentInstances Host: localSCL Payload: ContentInstance resource <contentinstance> to be created</contentinstance></container></app></sclbase>		
	3 4 5	Check (dla/mla) Verify	Local SCL sends response containing: Code = 201 Content-Location: <sclbase>/ applications/<app>/containers/ <container>/contentInstances/<contentinstance> Payload: <contentinstance> resource App indicates successful operation Repeat steps 1-4 for a contentInstance of a locationcontainer resource</contentinstance></contentinstance></container></app></sclbase>		

8.1.5.2 Content Instance Create using plain text

		Inte	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_13			
Objective:		App adds a contentInstance resource <contentinstance> to the contentInstances resource of a</contentinstance>			
	specific	specific container in local SCL via a contentInstanceCreateRequest			
Configuration:			G_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], claus			
	ETSI T	S 102 690 [2], clau	se 9.3.2.15		
Pre-test	• A	pplication <app> ar</app>	nd associated contaniner <container> have been created on local SCL</container>		
conditions:	• A	pp has discovered	the <app> and <container> on local SCL</container></app>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a contentInstanceCreateRequest (POST) using		
			plain text data		
	2	Check (dla/mla)	Sent POST request contains:		
			Request URI		
			<localscl>/applications/<app>/containers/<container></container></app></localscl>		
			/contentInstances		
			Host: localSCL		
			Payload: "plain text" to be created		
	3	Verify	local SCL indicates successful operation		
	4	Check (dla/mla)	Remote SCL sends response containing:		
			• Code = 201		
			 Content-Location: <sclbase>/ applications/<app>/containers/</app></sclbase> 		
			<container>/contentInstances/<contentinstance></contentinstance></container>		
			Payload: <contentinstance> resource containing "plain text" as</contentinstance>		
	<u> </u>	\	content		
	5	Verify	App indicates successful operation		
	6		Repeat steps 1-5 for a contentInstance of a locationcontainer resource		

8.1.5.3 Content Instance Retrieve

		Int	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_14			
Objective:	App re	App retrieves information of a contentInstance resource via a containerRetrieveRequest			
Configuration:	M2M_0	CFG_01, M2M_CF0	G_03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI T	S 102 921 [1], clau	se 10.19.3		
	ETSI T	S 102 690 [2], clau	se 9.3.2.15		
Pre-test	• A	pp has created an	application resource <app> on local SCL</app>		
conditions:	• A	pp has created a c	ontainer resource <container> in <app> on local SCL</app></container>		
	• A	pp has created a c	ontentInstance resource <contentinstance> residing under the <container></container></contentinstance>		
	re	esource.			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a containerRetrieveRequest (GET) for retrieving		
			the attributes/meta-data and the opaque data of a <contentinstance></contentinstance>		
			resource		
	2	Check (dla/mla)	Sent GET request contains:		
			 Request URI <sclbase>/applications/<app>/containers/<container>/contentInstances/<contentinstance></contentinstance></container></app></sclbase> 		
			Host: localSCL		
			Payload: empty		
	3	Check (dla/mla)	Local SCL sends response containing:		
	٦	Officer (dia/filla)	• Code = 200		
			Payload: <contentinstance> resource</contentinstance>		
	4	Verify	App indicates successful operation		
	5	voiny	Repeat steps 1-4 for a contentInstance of a locationcontainer resource		
	6		Repeat steps 1-4 using "latest' instead of <contentinstance> to get the</contentinstance>		
			latest contentinstance		
	7		Repeat steps 1-4 using "oldest" instead of <contentinstance> to get the</contentinstance>		
			oldest contentInstance		

8.1.5.4 ContentInstance Content retrieve (partial addressing)

		Int	eroperability Test Description		
Identifier:	TD M2	TD_M2M_ P2P_15			
Objective:		Handle contentInstanceRetrieveRequest with targetID using partial addressing (content attribute)			
Configuration:			FG_03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI T	S 102 921 [1], cla S 102 690 [2], cla	use 10.19.3		
Pre-test conditions:	• A	pp has created a	n application resource <app> on local SCL container resource <container> in <app> on local SCL contentInstance resource <contentinstance> residing under the ce</contentinstance></app></container></app>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a containerRetrieveRequest (GET) for retrieving the content attribute of a <contentinstance> resource</contentinstance>		
	2	Check (dla/mla)	Sent GET request contains Request URI <sclbase>/applications/<app>/containers/<container>/contentInstances/<contentinstance>/content Host: localSCL Payload: empty</contentinstance></container></app></sclbase>		
	3	Check (dla/mla)	Local SCL sends response containing: Code = 200 Payload: value of the content attribute		
	4	Verify	App indicates successful operation		
	5		Repeat steps 1-4 to get a content of a contentInstance residing in locationcontainer resource.		

8.1.5.5 Content Instance Delete

		Int	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_P2P_16			
Objective:	App de	eletes contentInsta	ance resource via a containerDeleteRequest		
Configuration:	M2M_0	CFG_01, M2M_CF	FG_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], cla			
	ETSI T	S 102 690 [2], cla	use 9.3.2.15		
Pre-test	• A	pp has created a	container resource <container> on local SCL</container>		
conditions:	• A	pp has created a	contentInstance resource <contentinstance> residing under a <container></container></contentinstance>		
	re	esource.			
Test Sequence:	Step	Туре	Description		
Test Sequence:	Step 1	Type Stimulus	Description App is requested to send a contentInstanceDeleteRequest (DELETE)		
Test Sequence:	1 2	•			
Test Sequence:	1	Stimulus	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: Request URI <sclbase>/containers/<container></container></sclbase>		
Test Sequence:	1	Stimulus	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains:		
Test Sequence:	1	Stimulus	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: Request URI <sclbase>/containers/<container></container></sclbase>		
Test Sequence:	1	Stimulus	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: • Request URI <sclbase>/containers/<container> /contentInstances/<contentinstance></contentinstance></container></sclbase>		
Test Sequence:	1	Stimulus	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: Request URI <sclbase>/containers/<container> /contentInstances/<contentinstance> Host: localSCL</contentinstance></container></sclbase>		
Test Sequence:	1 2	Stimulus Check (dla/mla)	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: Request URI <sclbase>/containers/<container> /contentInstances/<contentinstance> Host: localSCL Payload: empty</contentinstance></container></sclbase>		
Test Sequence:	1 2	Stimulus Check (dla/mla)	App is requested to send a contentInstanceDeleteRequest (DELETE) Sent DELETE request contains: Request URI <sclbase>/containers/<container> /contentInstances/<contentinstance> Host: localSCL Payload: empty local SCL sends response containing:</contentinstance></container></sclbase>		

8.1.6 Discovery Management

8.1.6.1 Discovery of all resources

		Intero	perability Test Description		
Identifier:	TD_M2M	TD_M2M_P2P_17			
Objective:	App disco	vers resources res	iding in Local SCL via DiscoveryRetrieveRequest		
Configuration:			03, M2M_CFG_07, M2M_CFG_09		
References:		102 921 [1], clause 102 690 [2], clause			
	1210110	102 000 [2], 014400	0.0.2.10		
Pre-test conditions:	• App	has created an Ap	plication resource <app> on local SCL</app>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover resources under resource /discovery located in local SCL		
	2	Check (dla/mla)	Sent GET request contains:		
		,	Request URI <sclbase>/discovery</sclbase>		
			Host: localSCL		
			Payload: empty		
	3	Check (dla/mla)	SCL sends response containing:		
			• Code = 200		
			Payload: Discovery resource including references to all		
			resources residing in Local SCL		
	4	Verify	App indicates successful operation		

8.1.6.2 Discovery with Filter Criteria

		Intero	perability Test Description	
Identifier:	TD_M2M_P2P_18			
Objective:	App disco	overs resources res	iding in Local SCL using specific Filter criteria via	
	Discovery	/RetrieveRequest		
Configuration:	M2M_CF	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI TS	102 921 [1], clause	10.25.2	
	ETSI TS	102 690 [2], clause	9.3.2.19	
Pre-test	 App 	has created an Ap	plication resource <app> on local SCL with searchString=key1</app>	
conditions:				
	1 -	_		
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to	
			discover resources under a well known resource /discovery located in	
			local SCL	
	2	Check (dla/mla)	Sent GET request contains:	
			 Request URI <sclbase>/discovery?searchString =key1</sclbase> 	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	SCL sends response containing:	
			• Code = 200	
			 Payload: Discovery resource including references to <app></app> 	
	4	Verify	App indicates successful operation	

8.1.6.3 Discovery with max size

		Intero	perability Test Description	
Identifier:	TD_M2M_P2P_19			
Objective:		overs resources res RetrieveRequest	iding in Local SCL with a limited max size via	
Configuration:			03, M2M_CFG_07, M2M_CFG_09	
References:		102 921 [1], clause 102 690 [2], clause		
Pre-test conditions:	• App	has created an Ap	plication resource <app> on SCL</app>	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover resources under resource /discovery located in local SCL	
	2	Check (dla/mla)	Sent GET request contains: Request URI <sclbase>/discovery?maxSize=2 Host: localSCL Payload: empty</sclbase>	
	3	Check (dla/mla)	 SCL sends response containing: Code = 200 Payload: Trunked Discovery resource including only 2 resource references 	
	4	Verify	App indicates successful operation	

8.1.6.4 Discovery with searchPrefix

Interoperability Test Description				
Identifier:	TD_M2M_P2P_20			
Objective:	App dis	covers resources r	esiding in Local SCL limited search prefix via DiscoveryRetrieveRequest	
Configuration:	M2M_C	FG_01, M2M_CF0	G_03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI T	S 102 921 [1], claus	se 10.25.2	
	ETSI T	S 102 690 [2], claus	se 9.3.2.19	
Pre-test	• A	op has created an i	Application resource <app> on SCL</app>	
conditions:		•		
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover	
			resources under a resource /discovery located in local SCL	
	2	Check (dla/mla)	Sent GET request contains:	
			 Request URI: <sclbase>/discovery?searchPrefix=<sclbase>/applications</sclbase></sclbase> 	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	SCL sends response containing:	
			• Code = 200	
			Payload: Discovery resource including only resources under	
			<sclbase>/applications</sclbase>	
	4	Verify	App indicates successful operation	

8.1.6.5 Discovery with multiple parameters

			Interoperability Test Description	
Identifier:	TD_M2M_P2P_21			
Objective:			s residing in Local SCL using multiple parameters via	
		eryRetrieveRequ		
Configuration:	M2M_C	FG_01, M2M_C	CFG_03, M2M_CFG_07, M2M_CFG_09	
References:		S 102 921 [1], cl		
	ETSI T	S 102 690 [2], cl	ause 9.3.2.19	
Pre-test	• Ap	op has created a	n Application resource <app> on local SCL with searchString=key1 and</app>	
conditions:	se	archString=key2	2	
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover resources under a well known resource /discovery located in local SCL	
	2	Check	Sent GET request contains:	
		(dla/mla)	 Request URI <sclbase>/discovery?searchString =key1</sclbase> 	
			&searchString=key2&maxSize=1&searchPrefix= <sclbase>/applications</sclbase>	
			Host: localSCL	
			Payload: empty	
	3	Check	SCL sends response containing:	
		(dla/mla)	• Code = 200	
			Payload: Discovery resource including a reference to <app></app>	
	4	Verify	App indicates successful operation	

8.1.7 Subscription Management

8.1.7.1 Subscription Create

	Interoperability Test Description				
Identifier:	TD_M2	TD_M2M_P2P_22			
Objective:	App cre	eates a subscription	n to application resource via subscriptionCreateRequest (POST)		
Configuration:			G_03, M2M_CFG_07, M2M_CFG_09		
References:		S 102 921 [1], claus			
	EISII	S 102 690 [2], claus	se 9.3.2.19		
Pre-test	• A	pp has created an a	application resource <app> on local SCL</app>		
conditions:		• •	ontainer resource <container> on local SCL</container>		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a subscriptionCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains:		
			Request URI:		
			<scibase>/applications/<app>/containers/<container></container></app></scibase>		
			/contentInstances/subscriptions		
			Host: localSCL		
			Payload: subscription _{resource to be created}		
	3	Check (dla/mla)	SCL sends response containing:		
		,	• Code = 201		
			Content-Location:		
			<sclbase>/applications/<app>/containers/<container></container></app></sclbase>		
			/contentInstances/subscriptions/		
			Payload: Created _{resource}		
	4	Verify	App indicates successful operation		

8.1.7.2 Subscription Retrieve

		Int	eroperability Test Description	
Identifier:	TD_M2M_P2P_23			
Objective:	App retrieves information about a subscription via subscriptionRetrieveRequest (GET), such as expirationTime, filterCriteria, contactURI, noRepresentation, timeoutReason, etc.			
Configuration:	M2M_0	CFG_01, M2M_CF	FG_03, M2M_CFG_07, M2M_CFG_09	
References:		S 102 921 [1], cla S 102 690 [2], cla		
Pre-test conditions:	 App has created an application resource <app> on local SCL</app> App has created a container resource <container> on local SCL</container> App has created a subscription resource _{on Local SCL} 			
	<u> </u>			
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send a subscriptionRetrieveRequest (GET) for retrieving information about a subscription	
	3	Check (dla/mla) Check (dla/mla)	Sent GET request contains: Request URI: <sclbase>/applications/<app>/containers/<container> /contentInstances/subscriptions/_{Host: localSCL Payload: empty SCL sends response containing:}</container></app></sclbase>	
	3	Check (dia/mia)	 Code = 200 Payload: _{resource} 	
	4	Verify	App indicates successful operation	

8.1.7.3 Subscription Update

		Inte	roperability Test Description	
Identifier:	TD M2M P2P 24			
Objective:	App up	dates information a	bout a subscription via subscriptionRetrieveRequest	
Configuration:			G_03, M2M_CFG_07, M2M_CFG_09	
References:		S 102 921 [1], claus		
	ETSI T	S 102 690 [2], claus	se 9.3.2.19	
Pre-test	• A	pp has created a su	ubscription resource _{on local SCL}	
conditions:				
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a subscriptionRetrieveRequest (PUT) to	
			update the lifetime of the resource	
	2	Check (dla/mla)	Sent PUT request contains:	
			Request URI:	
			<sclbase>/applications/<app>/containers/<container></container></app></sclbase>	
			/contentInstances/subscriptions/	
			Host: localSCL	
			Payload: Modified _{resource}	
	3	Check (dla/mla)	SCL sends response containing:	
			• Code = 200	
			Payload: Modified _{resource}	
	4	Verify	App indicates successful operation	

8.1.7.4 Subscription Delete

		Interopera	ability Test Description
Identifier:	TD_M2M_P2P_25		
Objective:	App ca	ncels subscription v	via an subscriptionDeleteRequest
Configuration:	M2M_0	CFG_01, M2M_CFG	G_03, M2M_CFG_07, M2M_CFG_09
References:		S 102 921 [1], claus	
	ETSI T	S 102 690 [2], claus	se 9.3.2.19
Pre-test	• A	pp has created an a	application resource <app> on local SCL</app>
conditions:	• A	pp has created a co	ontainer resource <container> on local SCL</container>
	• A	pp has created a su	ubscription resource _{on Local SCL}
Test Sequence:	Step	Туре	Description
	1	Stimulus	App is requested to send a subscriptionDeleteRequest
	2	Check (dla/mla)	Sent DELETE request contains:
			Request URI:
			<sclbase>/applications/<app>/containers/<container></container></app></sclbase>
			/contentInstances/subscriptions/
			Host: localSCL
			Payload: Empty
	3	Check (dla/mla)	SCL sends response containing:
			• Code = 204
			Payload: Empty
	4	Verify	App indicates successful operation

8.1.7.5 Subscription Notify (To server-capable application)

		Interop	erability Test Description		
Identifier:	TD_M2M_P2P_26				
Objective:	SCL sends notification(s) via subscriptionNotifyRequest				
Configuration:	M2M_C	M2M_CFG_01, M2M_CFG_03, M2M_CFG_07, M2M_CFG_09			
References:	ETSI TS	3 102 921 [1], clause	e 10.25.2		
	ETSI TS	102 690 [2], clause	e 9.3.2.19		
Pre-test	• A	pp2 has created an	Application resource <app> with its associated container <container></container></app>		
conditions:	0	n local SCL			
	• A	pp1 shall be server	capable		
	• A	pp1 has created su	bscription _{to <container> contentInstances resource on local</container>}		
	S	CL using a "contact	tURI"		
	• A	listener is listening	on "contactURI" to check the notify		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App2 is requested to send a contentInstanceCreateRequest		
			(POST)		
	2	Check (dla/mla)	Sent POST request contains:		
			 URI:<sclbase>/applications/<app>/containers/<container>/</container></app></sclbase> 		
			contentInstances		
			Payload: <contetninstance> resource</contetninstance>		
			Host: localSCL		
	3	Check (dla/mla)	Local SCL sends response containing:		
			• Code = 201		
			 Location:<sclbase>/applications/<app>/containers/<container< li=""> </container<></app></sclbase>		
			>/contentInstances/ <contetninstance></contetninstance>		
			Payload: created <contetninstance> resource</contetninstance>		
	4	Verify	App2 indicates successful operation		
	5	Verify	SCL sends subscriptionNotifyRequest (POST)		
	6	Check (dla/mla)	Sent POST request contains:		
			Request URI: App1 listener contactURI		
			Host: listener host		
			Payload: <notify> resource containing the <contentinstance></contentinstance></notify>		
			resource		
	7	Verify	App1 sends subscriptionNotifyResponse		
	8	Check (dla)	App1 sends response containing:		
			• Code = 201		
			Payload: empty		
	9	Verify	App1 indicates successful operation		

8.1.7.6 Subscription Notify (To application container)

		Interop	erability Test Description	
Identifier:		И_P2P_27	•	
Objective:	SCL sends notification(s) via subscriptionNotifyRequest			
Configuration:	M2M_CFG_01, M2M_CFG_03, M2M_CFG_07, M2M_CFG_09			
References:		3 102 921 [1], clause		
	ETSI TS	102 690 [2], clause	e 9.3.2.19	
Pre-test			Application resource <app2> with its associated container</app2>	
conditions:		container2> on loca		
			Application resource <app1> with its associated <container1></container1></app1>	
			subscription _{to <container2> contentInstances resource on</container2>}	
	l lo	ocal SCL using: <sc< th=""><th> Base>/applications/<app1>/containers/<container1> as "contactURI"</container1></app1></th></sc<>	Base>/applications/ <app1>/containers/<container1> as "contactURI"</container1></app1>	
	1 _	_		
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App2 is requested to send a contentInstanceCreateRequest (POST)	
	2	Check (dla/mla)	Sent POST request contains:	
			URI: <sclbase>/applications/<app2>/containers/<container2>/</container2></app2></sclbase>	
			contentInstances	
			Payload: <contetninstance> resource</contetninstance>	
	_	Chapte (dla/mla)	Host: localSCL Local SCL	
	3	Check (dla/mla)	Local SCL sends response containing:	
			Code = 201 Location, college, (applications), capp 2, (containers), containers	
			 Location: <sclbase>/applications/<app2>/containers/<containers <containers="" <contentinstance=""></containers></app2></sclbase> 	
	4	Verify	Payload: created <contetninstance> resource App2 indicates successful operation</contetninstance>	
	5	Verify	SCL sends subscriptionNotifyRequest (POST)	
	6	Check (dla/mla)	Sent POST request contains:	
		Crieck (dia/ilila)	Request URI:	
			<pre><sclbase>/applications/<app2>/containers/<container2>/cont</container2></app2></sclbase></pre>	
			entInstances	
			Host: local SCL	
			Payload: <notify> resource containing the <contentinstance></contentinstance></notify>	
			resource	
	7	Verify	SCL sends subscriptionNotifyResponse	
	8	Check (dla)	SCL sends response containing:	
		, ,	• Code = 201	
			Payload: empty	
	9	Verify	SCL indicates successful operation	

8.1.8 Notification Channel Management

8.1.8.1 NotificationChannel Create

Interoperability Test Description						
Identifier:	TD_M2M_P2P_28					
Objective:		App creates a notificationChannel to application resource via notificationChannelCreateRequest (POST)				
Configuration:	M2M_CFG_01, M2M_CFG_03, M2M_CFG_07, M2M_CFG_09					
References:						
Pre-test conditions:	App has created an application resource <app> on local SCL</app>					
Test Sequence:	Step	Type	Description			
	1	Stimulus	App is requested to send a notificationChannelCreateRequest (POST)			
	2	Check (dla/mla)	Sent POST request contains:			
			 Request URI: <sclbase>/applications/<app>/notificationChannels</app></sclbase> Host: localSCL 			
			Payload: notificationChannel <nc> resource to be created</nc>			
	3	Check (dla/mla)	SCL sends response containing:			
			• Code = 201			
			Content-Location:			
			<sclbase>/applications/<app>/notificationChannels/<nc></nc></app></sclbase>			
			Payload: NotificationChannel <nc> resource</nc>			
	4	Verify	App indicates successful operation			

8.1.8.2 NotificationChannel Retrieve

Interoperability Test Description					
Identifier:	TD_M2M_P2P_29				
Objective:	App retrieves information about a notificationChannel via notificationChannelRetrieveRequest (GET).				
Configuration:	M2M_CFG_01, M2M_CFG_03, M2M_CFG_07, M2M_CFG_09				
References:					
Pre-test conditions:	App has created a notificationChannel resource <nc> on local SCL</nc>				
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a notificationChannelRetrieveRequest (GET) for retrieving information about a notificationChannel <nc></nc>		
	2	Check (dla/mla)	Sent GET request contains: Request URI: <sclbase>/applications/<app>/notificationChannels/<nc> Host: localSCL Payload: empty</nc></app></sclbase>		
	3	Check (dla/mla)	SCL sends response containing: Code = 200 Payload: notificaitonChannel <nc> resource</nc>		
	4	Verify	App indicates successful operation		

8.1.8.3 NotificationChannel Delete

			Interoperability Test Description					
Identifier:	TD_M2	TD_M2M_P2P_30						
Objective:	App de	eletes a notificaito	nChannel via a notificationChannelDeleteRequest					
Configuration:	M2M_	CFG_01, M2M_C	FG_03, M2M_CFG_07, M2M_CFG_09					
References:								
Pre-test	• /	App has created a	notificationChannel resource <nc> on local SCL</nc>					
conditions:								
Test Sequence:	Step	Туре	Description					
	1	Stimulus	App is requested to send a notificationChannelDeleteRequest					
	2	Check (dla/mla)	Sent DELETE request contains:					
			Request URI: <sclbase>/applications/<app>/notificationChannels/<nc></nc></app></sclbase>					
			Host: localSCL					
			Payload: Empty					
	3	Check (dla/mla)	SCL sends response containing:					
			• Code = 204					
			Payload: Empty					
	4	Verify	App indicates successful operation					

8.1.8.4 Long polling based notifications

Interoperability Test Description						
Identifier:	TD_M2	TD_M2M_P2P_31				
Objective:	NA/DA	NA/DA receives notifications via a notificationChannelRetreiveRequest (GET) using long polling.				
Configuration:	M2M_0	CFG_01, M2M_CFC	G_03, M2M_CFG_07, M2M_CFG_09			
References:						
Pre-test	•	App1 has created a	n application resource <app1> with its associated container <container></container></app1>			
conditions:		on local SCL				
	• .	App2 has created a	n application resource <app2> on local SCL</app2>			
			notificationChannel resource <nc> to <app2> and obtained a</app2></nc>			
			"LongPollingURI" (element in the channelData attribute)			
			trieve request to the provided "LongPollingURI"			
			ed to <app1> <container> contentInstances resource using the provided</container></app1>			
		"ContactURI"				
	T =	_				
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App1 is requested to send a contentInstanceCreateRequest (POST) to			
			create content instance on its corresponding <container>.</container>			
	2	Check (dla/mla)	Sent POST request contains:			
			URI: <sclbase>/applications/<app1>/containers/<container>/con</container></app1></sclbase>			
			tentInstances			
			Payload: <contetninstance> resource</contetninstance>			
			Host: localSCL			
	3	Check (dla/mla)	Local SCL sends response containing:			
			• Code = 201			
			Location: <sclbase>/applications/<app1>/containers/<container> /contentInstances/<contentinstance></contentinstance></container></app1></sclbase>			
			,			
	4	\/a mifu	Payload: created <contetninstance> resource</contetninstance>			
	5	Verify	App1 indicates successful operation SCL correlates the "contactURI" to the notificationChannel <nc> and</nc>			
	5	Verify				
			finds a long polling request active on "longPollingURI" related to App2 SCL sends a notificationChannelRetrieveResponse to App2			
	6	Check (dla/mla)	SCL sends response containing:			
	0	Check (dia/ilila)	Code = 200			
			 Code = 200 Payload: <notify> resource containing the <contentinstance></contentinstance></notify> 			
			resource			
	7	Verify	App2 indicates successful operation			
	8	Verify	App2 indicates successful operation App2 sends a new notificationChannelRetrieveResponse to the			
	0	v Gilly	"LongPollingURI" and waits for the next event			
	l .		Longi oningotti and waits for the next event			

8.1.9 AccessRight Management

8.1.9.1 AccessRight Resource creation

	Interoperability Test Description				
Identifier:	TD_M2M	TD_M2M_P2P_32			
Objective:	App creat	e an AccessRight re	esource via an accesRightCreateRequest		
Configuration:	M2M_CF	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09		
References:		102 921 [1], clause			
	ETSI TS 1	102 690 [2], clause	9.3.2.10		
Pre-test	void				
conditions:					
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send an accessRightCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains:		
			Request method = POST		
			 Request URI <sclbase>/accessRights</sclbase> 		
			Host: localSCL		
			 Payload: application resource <accessright> to be created</accessright> 		
	3	Check (dla/mla)	SCL sends response containing:		
			Status Code = 201		
			 Content-Location: <sclbase>/accessRights/<accessright></accessright></sclbase> 		
			Payload: created <accessright> resource</accessright>		
	4	Verify	App indicates successful operation		

8.1.9.2 AccessRight Retrieve

Interoperability Test Description				
Identifier:	TD_M2M_	TD_M2M_P2P_33		
Objective:	App retrie	ves accessRight re	source via an accessRightRetrieveRequest (GET)	
Configuration:	M2M_CF0	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI TS 1	02 921 [1], clause	10.11.3	
	ETSI TS 1	02 690 [2], clause	9.3.2.10	
Pre-test	 App 	has created an acc	cessRight resource <accessright> on local SCL</accessright>	
conditions:				
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a accessRightRetrieveRequest (GET)	
	2	Check (dla/mla)	Sent GET request contains:	
			Request method = GET	
			Request URI	
			<sclbase>/accessRights/<accessright></accessright></sclbase>	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	SCL sends response containing:	
			Status Code =200	
			Payload: <app> resource</app>	
	4	Verify	App indicates successful operation	

8.1.9.3 AccessRight Update

		Interoperab	ility Test Description
Identifier:	TD_M2M_P2P_34		
Objective:	App upda	tes attribute in acce	essRight resource via an accessRightUpdateRequest
	(PUT)		
Configuration:	M2M_CF0	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09
References:	ETSI TS 1	102 921 [1], clause	10.11.4
	ETSI TS 1	102 690 [2], clause	9.3.2.10
Pre-test	 App 	has created an acc	cessRight resource <accessright> on SCL</accessright>
conditions:			•
Test Sequence:	Step	Type	Description
	1	Stimulus	App is requested to send an accessRightUpdateRequest
			(PUT)
	2	Check (dla/mla)	Sent PUT request contains:
			Request method = PUT
			Request URI
			<sclbase>/accessRights/<accessright></accessright></sclbase>
			Host: localSCL
			Payload: modified accessRight resource
	3	Check (dla/mla)	SCL sends response containing:
			• Code = 200
			Payload: updated <accessright> resource</accessright>
	4	Verify	App indicates successful operation

8.1.9.4 AccessRight Delete

Interoperability Test Description				
Identifier:	TD_M2M_P2P_35			
Objective:	App de	-registers by dele	ting accessRightresource via an accessRightDeleteRequest	
Configuration:	M2M_0	CFG_01, M2M_CF	FG_03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI T	S 102 921 [1], cla	use 10.11.5	
	ETSI T	S 102 690 [2], cla	use 9.3.2.10	
Pre-test	• A	pp has created ar	accessRight resource <accessright> on SCL</accessright>	
conditions:				
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send an accessRightDeleteRequest (DELETE)	
	2	Check (dla/mla)	Sent DELETE request contains Request method DELETE	
			 Request URI <sclbase>/accessRights/ <accessright></accessright></sclbase> 	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	local SCL sends response containing:	
			Status Code = 204	
			Payload: empty	
	4	Verify	App indicates successful operation	

8.1.9.5 Unauthorized operation (Empty Requesting Entity)

Interoperability Test Description				
Identifier:	TD_M2M_	TD_M2M_P2P_36		
Objective:	App retrie	ve request is reject	ed due to an Empty Requesting Entity	
Configuration:	M2M_CF0	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09	
References:	ETSI TS 1	102 921 [1], clause	10.11.1	
	ETSI TS 1	102 690 [2], clause	9.3.2.10	
Pre-test				
conditions:				
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send an sclBaseRetrieveRequest	
			(GET) for resource <sclbase> with an empty</sclbase>	
			requestingEntity.	
	2	Check (dla/mla)	Sent GET request contains	
			 Request URI <sclbase></sclbase> 	
			Host: localSCL	
			Payload: empty	
	3	Check (dla/mla)	Local SCL sends response containing:	
			 Code = 401 (unauthorized operation) 	
			Payload: ErrorInfo resource	
	4	Verify	App indicates unsuccessful operation	

8.1.9.6 Unauthorized operation (Bad Requesting Entity)

		Interoperab	ility Test Description
Identifier:	TD_M2M_P2P_37		
Objective:	App retrie	ve request is reject	ed due to bad request Entity.
Configuration:	M2M_CF	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09
References:	ETSI TS 1	102 921 [1], clause	10.11.1
	ETSI TS 1	102 690 [2], clause	9.3.2.10
Pre-test	void		
conditions:			
	_		
Test Sequence:	Step	Туре	Description
	1	Stimulus	App is requested to send an sclBaseRetrieveRequest
			(GET) for resource <sclbase> with a bad</sclbase>
			requestingEntity.
	2	Check (dla/mla)	Sent GET request contains:
			Request URI <sclbase></sclbase>
			Host: localSCL
			Payload: empty
	3	Check (dla/mla)	Local SCL sends response containing:
			 Code = 401 (unauthorized operation)
			Payload: ErrorInfo resource
	4	Verify	App indicates unsuccessful operation

8.1.9.7 Unauthorized operation (Insufficient Access Rights)

		Interoperab	ility Test Description
Identifier:	TD_M2M_P2P_38		
Objective:	App delet	e request is rejecte	d due to Access Rights
Configuration:	M2M_CF	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09
References:		102 921 [1], clause 102 690 [2], clause	
Pre-test conditions:			plication <app> on local SCL cess Right <ar1> on <app>, which forbids to delete</app></ar1></app>
	 container App has created a container resource <container> in application <app>, using the access right <ar1></ar1></app></container> 		
Test Sequence:	Step	Туре	Description
	1	Stimulus	App is requested to send a containerDeleteRequest (DELETE) for resource <container></container>
	2	Check (dla/mla)	Sent DELETE request contains: Request URI <sclbase>/ applications/<app>/containers/<container> Host: localSCL Payload: empty</container></app></sclbase>
	3	Check (dla/mla)	Local SCL sends response containing: Code = 401 (unauthorized operation) Payload: ErrorInfo resource
	4	Verify	App indicates unsuccessful operation

8.1.10 Group Management

8.1.10.1 Group Resource creation

Interoperability Test Description			
Identifier:	TD_M2M_P2P_39		
Objective:	App creat	es a group resourc	e via a groupCreateRequest
Configuration:	M2M_CF	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09
References:	ETSI TS	102 921 [1], clause	10.21.2
	ETSI TS	102 690 [2], clause	9.3.2.17
Pre-test	void		
conditions:			
Test Sequence:	Step	Type	Description
	1	Stimulus	App is requested to send a groupCreateRequest (POST)
	2	Check (dla/mla)	Sent POST request contains:
			 Request method = POST
			 Request URI <sclbase>/groups</sclbase>
			Host: localSCL
			Payload: Group resource < group> to be created
	3	Check (dla/mla)	SCL sends response containing:
			Status Code = 201
			 Content-Location: <sclbase>groups/<group></group></sclbase>
			Payload: created <group> resource</group>
	4	Verify	App indicates successful operation

8.1.10.2 Group Retrieve

		Interoperab	ility Test Description
Identifier:	TD_M2M_P2P_40		
Objective:	App retrie	ves group resource	e via a groupRetrieveRequest (GET)
Configuration:	M2M_CF0	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09
References:		102 921 [1], clause	
	ETSI TS 1	102 690 [2], clause	9.3.2.17
Pre-test	• Ap	p has created a Gi	roup resource <group> on local SCL</group>
conditions:			
		_	5 1.1
Test Sequence:	Step	Туре	Description
	1	Stimulus	App is requested to send a groupRetrieveRequest (GET)
	2	Check (dla/mla)	Sent GET request contains:
			Request method = GET
			 Request URI <sclbase>/groups/<group></group></sclbase>
			Host: localSCL
			Payload: empty
	3	Check (dla/mla)	SCL sends response containing:
			Status Code =200
			Payload: <group> resource</group>
	4	Verify	App indicates successful operation

8.1.10.3 Group Update

		Interoperab	ility Test Description
Identifier:	TD_M2M_P2P_41		
Objective:	App upda	tes attribute in grou	up resource via an groupUpdateRequest (PUT)
Configuration:	M2M_CF0	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09
References:		102 921 [1], clause	
	ETSI TS 1	102 690 [2], clause	9.3.2.17
Pre-test	 App 	has created a grou	up resource <group> on SCL</group>
conditions:			
Test Sequence:	Step	Туре	Description
	1	Stimulus	App is requested to send a groupUpdateRequest (PUT)
	2	Check (dla/mla)	Sent PUT request contains:
			Request method = PUT
			 Request URI <sclbase>/groups/<group></group></sclbase>
			Host: localSCL
			Payload: modified group resource
	3	Check (dla/mla)	SCL sends response containing:
			• Code = 200
			Payload: updated <group> resource</group>
	4	Verify	App indicates successful operation

8.1.10.4 Group Delete

		Interoperab	ility Test Description		
Identifier:	TD_M2M_	TD_M2M_P2P_42			
Objective:	App delete	es group resource	via a groupDeleteRequest (DELETE)		
Configuration:	M2M_CF0	G_01, M2M_CFG_0	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS 1	02 921 [1], clause	10.21.5		
	ETSI TS 1	02 690 [2], clause	9.3.2.17		
	•				
Pre-test	 App 	App has created a group resource <group> on SCL</group>			
conditions:					
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a groupDeleteRequest		
			(DELETE)		
	2	Check (dla/mla)	Sent DELETE request contains:		
			Request method = DELETE		
			 Request URI <sclbase>/groups/<group></group></sclbase> 		
			Host: localSCL		
			Payload: empty		
	3	Check (dla/mla)	Local SCL sends response containing:		
			Status Code = 204		
			Payload: empty		
	4	Verify	App indicates successful operation		

8.1.10.5 Group Operations (Create)

	Interoperability Test Description				
Identifier:	TD_M2M	TD M2M P2P 43			
Objective:	App creat	App creates multiple contentInstance using group resource			
Configuration:			03, M2M_CFG_07, M2M_CFG_09		
References:		102 921 [1], clause			
	ETSI TS	102 690 [2], clause	9.3.2.17		
Pre-test	 App 	1 has created an ap	oplication <app1> with its associated container <cont1></cont1></app1>		
conditions:			oplication <app2> resource with its associated container <cont2></cont2></app2>		
			up resource <grouppost> on local SCL using the provided</grouppost>		
			ne groupPOST representation should include		
	<c01< th=""><th>nt1>contentInstance</th><th>es and <cont2> contentInstances as members)</cont2></th></c01<>	nt1>contentInstance	es and <cont2> contentInstances as members)</cont2>		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App3 is requested to send a membersContentCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains:		
			Request method = POST		
			Request URI:		
			<sclbase>/groups/<grouppost>/membersContent</grouppost></sclbase>		
			Host: localSCL		
			Payload: ContentInstance resource <contentinstance> to be</contentinstance>		
			created		
	3	Check (dla/mla)	SCL sends response containing:		
			Status Code = 201		
			Content-Location: <sclbase>groups/<grouppost></grouppost></sclbase>		
			Payload: membersContent resource		
	4	Verify	App indicates successful operation		
			Verify that <contentinstance> is created on <cont1> and <cont2></cont2></cont1></contentinstance>		

8.1.10.6 Group Operations (Retrieve)

Interoperability Test Description					
Identifier:	TD_M2M	TD_M2M_P2P_44			
Objective:	App retrie	App retrieves multiple contentInstance using group resource			
Configuration:	M2M_CF	G_01, M2M_CFG_	03, M2M_CFG_07, M2M_CFG_09		
References:	ETSI TS 1	102 921 [1], clause	10.21.2		
	ETSI TS 1	102 690 [2], clause	9.3.2.17		
	_				
Pre-test	 App 	1 has created an a	pplication <app1> with its associated container <cont1></cont1></app1>		
conditions:	 App 	2 has created an a	pplication <app2> resource with its associated container</app2>		
	<c01< th=""><th></th><th></th></c01<>				
			oup resource <groupget> on local SCL using the provided</groupget>		
			he groupGET representation should include		
	Арр	1contentInstaces a	nd App2 contentInstances as members)		
	1 -	_			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App3 is requested to send a		
			membersContentRetrieveRequest (GET)		
	2	Check (dla/mla)	Sent GET request contains:		
			Request method = GET		
			Request URI		
			<sclbase>/groups/<groupget>/membersContent</groupget></sclbase>		
			Host: localSCL		
			Payload: empty		
	3	Check (dla/mla)	SCL sends response containing:		
			Status Code = 200		
			Payload: memberContents resource		
	4	Verify	App3 indicates successful operation		
			Verify that App3 received <cont1> and <cont2></cont2></cont1>		
			contentInstances representations		

8.2 Multi-Hop configuration testing

8.2.1 Container Management on remote SCL

8.2.1.1 Container Create

	Interoperability Test Description			
Identifier:	TD_M2M_MH_01			
Objective:	App cr	eates a container	ressource in remote SCL via a containerCreateRequest	
Configuration:	M2M_	CFG_04, M2M_C	FG_04, M2M_CFG_08, M2M_CFG_10	
References:		S 102 921 [1], cla		
	ETSI T	S 102 690 [2], cla	ause 9.3.2.12	
Pre-test	•	Application <app></app>	> has been created on remote SCL	
conditions:	•	App has discover	ed the <app> on remote SCL</app>	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a containerCreateRequest (POST)	
	2	Check (dla/mla)	Sent POST request contains:	
			Request URI	
			<pre><remotescl>/applications/<app>/containers/<container></container></app></remotescl></pre>	
			Host :localSCL	
			Payload: container resource <container> to be created</container>	
	3	Check (mld)	Forwarded POST request contains:	
			Request URI	
			 <remotescl>/applications/<app>/containers/<container></container></app></remotescl> 	
			Host :remoteSCL	
			Payload: container resource <container> to be created</container>	
	4	Verify	Remote SCL indicates successful operation	

Interoperability Test Description		
5	Check (mld)	Remote SCL sends response containing:
		• Code = 201
		Content-Location:
		<remotescl>/applications/<app>/containers/<container></container></app></remotescl>
		Payload: Created <container></container>
6	Check (dla/mla)	Local SCL forwards response containing:
		• Code = 201
		Content-Location:
		<remotescl>/applications/<app>/containers/<container></container></app></remotescl>
		Payload: Created <container></container>
7	Verify	App indicates successful operation
8		Repeat step 1-7 creating container resource with short lifetime
9	Verify	Check the created resource is removed after the expiry of its
		lifetime

8.2.1.2 Container Retrieve

		Interoperab	ility Test Description	
Identifier:	TD_M2M_MH_02			
Objective:	App retrieves information of a container resource via a containerRetrieveRequest (GET)			
Configuration:			04, M2M_CFG_08, M2M_CFG_10	
References:		102 921 [1], clause		
		102 690 [2], clause		
Pre-test	• App	lication <app> and</app>	associated container <container> have been created on</container>	
conditions:		ote SCL		
	 App 	has discovered the	e <app> and <container> on remote SCL</container></app>	
Test Sequence:	Step	Type	Description	
	1	Stimulus	App is requested to send a containerRetrieveRequest	
			(GET) for resource <container></container>	
	2	Check (dla/mla)	Sent GET request contains:	
			 Request URI <remotescl>/</remotescl> 	
			applications/ <app>/containers/<container></container></app>	
			Host :localSCL	
			Payload: empty	
	3	Check (mld)	Forwarded GET request contains:	
			Request URI < remoteSCL>/	
			applications/ <app>/containers/<container></container></app>	
			Host: remoteSCL	
			Payload: empty	
	4	Verify	Remote SCL indicates successful operation	
	5	Check (mld)	Remote SCL sends response containing:	
			• Code = 200	
			Payload: <container> resource</container>	
	6	Check (dla/mla)	Local SCL forwards response containing:	
			• Code = 200	
			Payload: <container> resource</container>	
	7	Verify	App indicates successful operation	

8.2.1.3 Container Update

		Interoperab	ility Test Description		
Identifier:	TD_M2M	TD_M2M_MH_03			
Objective:	App updates attribute in application resource via an containerUpdateRequest (PUT)				
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10		
References:	ETSI TS 1	102 921 [1], clause	10.14.3		
	ETSI TS ²	102 690 [2], clause	9.3.2.12		
Pre-test	 App 	lication <app> and</app>	associated container <container> have been created on</container>		
conditions:		ote SCL			
	 App 	has discovered the	e <app> and <container> on remote SCL</container></app>		
	T	T			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an containerUpdateRequest		
			(PUT) to update the lifetime of the resource.		
	2	Check (dla/mla)	Sent PUT request contains:		
			Request URI < remoteSCL>/		
			applications/ <app>/containers/<container></container></app>		
			Host: localSCL		
		2	Payload: modified <container> resource</container>		
	3	Check (mld)	Forwarded PUT request contains:		
			Request URI < remoteSCL>/		
			applications/ <app>/containers/<container></container></app>		
			Host: remoteSCL		
			Payload: modified <container> resource</container>		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			• Code = 200		
		2 1 1 (11 (1)	Payload: Updated <container> resource</container>		
	6	Check (dla/mla)	Local SCL forwards response containing:		
			• Code = 200		
			Payload: Updated <container> resource</container>		
	7	Verify	App indicates successful operation		

8.2.1.4 Container Delete

		Interoperab	ility Test Description	
Identifier:	TD_M2M_MH_04			
Objective:	App delete	es a specific contai	ner ressource via a containerDeleteRequest (DELETE)	
Configuration:	M2M_CF0	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10	
References:	ETSI TS 1	02 921 [1], clause	10.14.3	
	ETSI TS 1	02 690 [2], clause	9.3.2.12	
Pre-test	 Appl 	ication <app> and</app>	associated container < container > have been created on	
conditions:	remo	ote SCL		
	 App 	has discovered the	e <app> and <container> on remote SCL</container></app>	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send an containerDeleteRequest	
			(DELETE)	
	2	Check (dla/mla)	Sent DELETE request contains:	
			 Request URI <remotescl>/</remotescl> 	
			applications/ <app>/containers/<container></container></app>	
			Host: localSCL	
			Payload: empty	
	3	Check (mld)	Forwarded DELETE request contains:	
			 Request URI <remotescl>/</remotescl> 	
			applications/ <app>/containers/<container></container></app>	
			Host: remoteSCL	
			Payload: empty	
	4	Verify	Remote SCL indicates successful operation	

Interoperability Test Description			
	5	Check (mld)	Remote SCL sends response containing:
			• Code = 204
			Payload: empty
	6	Check (dla/mla)	Local SCL forwards response containing:
			• Code = 204
			Payload: empty
Ī	7	Verify	App indicates successful operation

8.2.2 ContentInstance Management on remote SCL

8.2.2.1 Content Instance Create

resource (a contentInstance of a specific contain				
resource (of a specific contain				
		App adds a contentInstance resource <contentinstance> to the contentInstances</contentinstance>			
0	resource of a specific container in remote SCL via a contentInstanceCreateRequest				
	M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10				
	ETSI TS 102 921 [1], clause 10.19.2				
ETSI TS 1	ETSI TS 102 690 [2], clause 9.3.2.15				
	lication <app> and</app>	associated container < container > have been created on			
conditions: rem	ote SCL				
• App	has discovered the	e <app> and <container> on remote SCL</container></app>			
Test Sequence: Step	Туре	Description			
1	Stimulus	App is requested to send a			
		contentInstanceCreateRequest (POST)			
2	Check (dla/mla)	Sent POST request contains:			
		Request URI <remotescl>/</remotescl>			
		applications/ <app>/containers/<container></container></app>			
		/contentInstances			
		Host: localSCL			
		Payload: ContentInstance resource			
		<contentinstance> to be created</contentinstance>			
3	Check (mld)	Forwarded POST request contains:			
		Request URI <remotescl>/</remotescl>			
		applications/ <app>/containers/<container></container></app>			
		/contentInstances			
		Host: remoteSCL			
		Payload: ContentInstance resource			
		<contentinstance> to be created</contentinstance>			
4	Verify	Remote SCL indicates successful operation			
5	Check (dla/mla)	Remote SCL sends response containing:			
		• Code = 201			
		 Content-Location: <remotescl>/</remotescl> 			
		applications/ <app>/containers/</app>			
		<container>/contentInstances/<contentinstance></contentinstance></container>			
		Payload: <contentinstance> resource</contentinstance>			
6	Check (dla/mla)	Local SCL forwards response containing:			
		• Code = 201			
		 Content-Location: <remotescl>/</remotescl> 			
		applications/ <app>/containers/</app>			
		<container>/contentInstances/<contentinstance></contentinstance></container>			
		Payload: <contentinstance> resource</contentinstance>			
7	Verify	App indicates successful operation			
8		Repeat steps 1-7 for a contentInstance of a			
		locationcontainer resource			

8.2.2.2 Content Instance Create using plain text

		Interoperability Test Description			
Identifier:		TD_M2M_MH_06			
Objective:			resource <contentinstance> to the contentInstances</contentinstance>		
		resource of a specific container in remote SCL via a contentInstanceCreateRequest			
Configuration:	M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10				
References:	ETSI TS 102 921 [1], clause 10.19.2				
	ETSI TS 1	ETSI TS 102 690 [2], clause 9.3.2.15			
Pre-test			associated container <container> have been created on</container>		
conditions:		ote SCL			
	• App	has discovered the	e <app> and <container> on remote SCL</container></app>		
Test Sequence:	Step	Туре	Description		
rest Sequence.	1	Stimulus	App is requested to send a		
	'	Sumuus	contentInstanceCreateRequest (POST) using plain text		
			data		
	2	Check (dla/mla)	Sent POST request contains:		
	_	Chook (dia/ma)	Request URI <remotescl>/</remotescl>		
			applications/ <app>/containers/<container></container></app>		
			/contentInstances		
			Host: localSCL		
			Payload: "plain text" to be created		
	3	Check (mld)	Forwarded POST request contains:		
		, ,	Request URI <sclbase>/</sclbase>		
			applications/ <app>/containers/<container></container></app>		
			/contentInstances		
			Host: remoteSCL		
			 Payload: "plain text" to be created 		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			• Code = 201		
			 Content-Location: < remoteSCL>/ 		
			applications/ <app>/containers/</app>		
			<container>/contentInstances/<contentinstance></contentinstance></container>		
			Payload: <contentinstance> resource containing</contentinstance>		
			"plain text" as content		
	6	Check (dla/mla)	Local SCL forwards response containing:		
			• Code = 201		
			Content-Location: < remoteSCL>/		
			applications/ <app>/containers/</app>		
			<pre><container>/contentInstances/<contentinstance></contentinstance></container></pre>		
			Payload: <contentinstance> resource containing "plain text" as content</contentinstance>		
	7	Verify	App indicates successful operation		
	8	verily	Repeat steps 1-7 for a contentInstance of a		
	0		locationcontainer resource		
		1	iocationicontainer resource		

8.2.2.3 Content Instance Retrieve

	Interoperability Test Description			
Identifier:	TD_M2M_MH_07			
Objective:	App retrieves information of a contentInstance resource via a containerRetrieveRequest on a Remote SCL			
Configuration:	M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10			
References:		ΓS 102 921 [1], cla ΓS 102 690 [2], cla		
Pre-test conditions:	 Application <app> and associated container <container> have been created on remote SCL</container></app> A contentInstance resource <contentinstance> has been created under the <container> resource.</container></contentinstance> App has discovered the <app>, <container> and <contentinstance> on remote SCL</contentinstance></container></app> 			
	<u> </u>			
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a containerRetrieveRequest (GET) for retrieving the attributes/meta-data and the opaque data of a <contentinstance> resource</contentinstance>	
	2	Check (dla/mla)	Sent GET request contains: Request URI <remotescl>/applications/<app>/containers/<container> /contentInstances/<contentinstance> Host: localSCL Payload: empty</contentinstance></container></app></remotescl>	
	3	Check (mld)	Forwarded GET request contains: Request URI <remotescl>/applications/<app>/containers/<container> /contentInstances/<contentinstance> Host: remoteSCL Payload: empty</contentinstance></container></app></remotescl>	
	4	Verify	Remote indicates successful operation	
	5	Check (mld)	Remote SCL sends response containing: Code = 200 Payload: <contentinstance> resource</contentinstance>	
	6	Check (dla/mla)	Local SCL forwards response containing: Code = 200 Payload: <contentinstance> resource</contentinstance>	
	7	Verify	App indicates successful operation	
	8		Repeat steps 1-7 for a contentInstance of a locationcontainer resource	
	9		Repeat steps 1-7 using "latest" instead of <contentinstance> to get the latest contentInstance</contentinstance>	
	10		Repeat steps 1-7 using "oldest" instead of <contentinstance> to get the oldest contentInstance</contentinstance>	

8.2.2.4 ContentInstance Content retrieve (partial addressing)

		Int	eroperability Test Description		
Identifier:	TD_M2	TD_M2M_ MH_08			
Objective:	Handle	Handle contentInstanceRetrieveRequest with targetID using partial addressing (content attribute)			
Configuration:	M2M_0	CFG_04, M2M_CF	FG_04, M2M_CFG_08, M2M_CFG_10		
References:	ETSI T	S 102 921 [1], cla	use 10.19.3		
	ETSI T	S 102 690 [2], cla	use 9.3.2.15		
Pre-test	• A	pplication <app> a</app>	and associated container <container> have been created on remote SCL</container>		
conditions:		contentInstance i esource	resource <contentinstance> has been created under the <container></container></contentinstance>		
	• A	pp has discovered	the <contentinstance> resource on remote SCL</contentinstance>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a containerRetrieveRequest (GET) for retrieving the content attribute of a <contentinstance> resource</contentinstance>		
	3	Check (dla/mla) Check (mld) Verify	Sent GET request contains: Request URI <pre></pre>		
	5	Check (mld)	remote SCL sends response containing: Code = 200 Payload: value of the content attribute		
	6	Check (dla/mla)	Local SCL forwards response containing: Code = 200 Payload: value of the content attribute		
	7	Verify	App indicates successful operation		
	8		Repeat steps 1-7 to get a content of a contentInstance residing in locationcontainer resource		

8.2.2.5 Content Instance Delete

		Interoperabi	ility Test Description			
Identifier:	TD_M2M_	TD_M2M_MH_09				
Objective:	App delete	es contentInstance	resource via a containerDeleteRequest on Remote SCL			
Configuration:	M2M_CF0	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10			
References:		02 921 [1], clause 02 690 [2], clause				
Pre-test conditions:	Application <app> and associated container <container> have been created on remote SCL A contentInstance resource <contentinstance> has been created under the <container> resource App has discovered the <app>,<container> and <contentinstance> on remote SCL</contentinstance></container></app></container></contentinstance></container></app>					
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App is requested to send a			
			contentInstanceDeleteRequest (DELETE)			
	2	Check (dla/mla)	Sent DELETE request contains:			
			Request URI <remotescl>/containers/<container></container></remotescl>			
			/contentInstances/ <contentinstance></contentinstance>			
			Host: localSCL			
			Payload: empty			

Interoperability Test Description					
3	Check (mld)	Forwarded DELETE request contains:			
		 Request URI <remotescl>/containers/<container> /contentInstances/<contentinstance></contentinstance></container></remotescl> Host: remoteSCL Payload: empty 			
4	Verify	Remote SCL indicates successful operation			
5	Check (mld)	Remote SCL sends response containing:			
		• Code = 204			
		Payload: empty			
6	Check (dla/mla)	Local SCL forwards response containing:			
		• Code = 204			
		Payload: empty			
7	Verify	App indicates successful operation			

8.2.3 Discovery Management on remote SCL

8.2.3.1 Discovery of all resources

		Interoperab	ility Test Description				
Identifier:	TD_M2M	_MH_10					
Objective:	App discovers resources residing in remote SCL via DiscoveryRetrieveRequest						
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10				
References:		102 921 [1], clause 102 690 [2], clause					
Pre-test conditions:	void						
Test Sequence:	Step	Туре	Description				
root ocquemos:	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover resources under resource /discovery located in remote SCL				
	2	Check (dla/mla)	Sent GET request contains: Request URI <remotescl>/discovery Host: localSCL Payload: empty</remotescl>				
	3	Check (mld)	Forwarded GET request contains: Request URI <remotescl>/discovery Host: remoteSCL Payload: empty</remotescl>				
	4	Check (mld)	Remote SCL sends response containing: Code = 200 Payload: Discovery resource including references to all resources residing in remote SCL				
	5	Check (dla/mla)	Local SCL forwards response containing: Code = 200 Payload: Discovery resource including references to all resources residing in remote SCL				
	6	Verify	App indicates successful operation				

8.2.3.2 Discovery with Filter Criteria

		Intero	perability Test Description	
Identifier:	TD M2M MH 11			
Objective:	App disco	vers resources res	iding in remote SCL using specific Filter criteria via	
		RetrieveRequest		
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10	
References:		102 921 [1], clause		
	ETSI TS	102 690 [2], clause	9.3.2.19	
	1			
Pre-test	 App 	lication <app> has</app>	been created on remote SCL with searchString=key1	
conditions:				
Toot Soguenoo	Step	Type	Description	
Test Sequence:		Type		
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to	
			discover resources under the resource /discovery located in remote SCL	
	2	Check (dla/mla)	Sent GET request contains:	
		Check (dia/ilila)	Request URI <remotescl>/discovery?searchString =key1</remotescl>	
			Host: localSCL	
			Payload: empty	
	3	Check (mld)	Forwarded GET request contains:	
		Gricon (rina)	Request URI < remote SCL > / discovery? search String = key1	
			Host: remoteSCL	
			Payload: empty	
	4	Check (dla/mla)	Remote SCL sends response containing:	
		,	• Code = 200	
			Payload: Discovery resource including references to <app></app>	
	5	Check (dla/mla)	Local SCL forwards response containing:	
		, ,	• Code = 200	
			Payload: Discovery resource including references to <app></app>	
	6	Verify	App indicates successful operation	

8.2.3.3 Discovery with max size

		Intero	perability Test Description			
Identifier:	TD MAN	TD_M2M_MH_12				
Objective:		App discovers resources residing in remote SCL with a limited max size via				
		RetrieveRequest				
Configuration:			04, M2M_CFG_08, M2M_CFG_10			
References:		102 921 [1], clause				
	ETSI TS	102 690 [2], clause	9.3.2.19			
Pre-test	void					
conditions:						
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to			
			discover resources under resource /discovery located in remote SCL			
	2	Check (dla/mla)	Sent GET request contains:			
		,	 Request URI <remotescl>/discovery?maxSize=2</remotescl> 			
			Host: localSCL			
			Payload: empty			
	3	Check (mld)	Forwarded GET request contains:			
			 Request URI <remotescl>/discovery?maxSize=2</remotescl> 			
			Host: remoteSCI			
			Payload: empty			
	4	Check (mld)	Remote SCL sends response containing:			
	-	Oncok (mid)	Code = 200			
			3333 233			
			Payload: Trunked Discovery resource including only 2 resource **Transpar**			
			references			

Interoperability Test Description				
	5	Check (dla/mla)	Local SCL forwards response containing:	
			• Code = 200	
			Payload: Trunked Discovery resource including only 2 resource	
			references	
	6	Verify	App indicates successful operation	

8.2.3.4 Discovery with searchPrefix

		Intero	perability Test Description				
Identifier:	TD_M2M_MH_13						
Objective:	App disco Discover	App discovers resources residing in remote SCL limited search prefix via DiscoveryRetrieveRequest					
Configuration:	M2M_CF	G_04, M2M_CFG_	04, M2M_CFG_08, M2M_CFG_10				
References:	ETSI TS	102 921 [1], clause 102 690 [2], clause	10.25.2				
Pre-test conditions:	void						
Test Sequence:	Step	Turno	Description				
rest Sequence.	Step	Type Stimulus					
	'	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover resources under a resource /discovery located in remote SCL				
	2	Check (dla/mla)	Sent GET request contains: Request URI: < remoteSCL>/discovery ?searchPrefix= <remotescl>/applications Host: localSCL Payload: empty</remotescl>				
	3	Check (mld)	Forwarded GET request contains: Request URI: < remoteSCL>/discovery ?searchPrefix= <remotescl>/applications Host: remoteSCL Payload: empty</remotescl>				
	4	Check (mld)	Remote SCL sends response containing: Code = 200 Payload: Discovery resource including only resources under <remotescl>/applications</remotescl>				
	5	Check (dla/mla)	Local SCL forwards response containing: Code = 200 Payload: Discovery resource including only resources under <remotescl>/applications</remotescl>				
	6	Verify	App indicates successful operation				

8.2.3.5 Discovery with multiple parameters

			Interoperability Test Description		
Identifier:	TD_M	TD_M2M_MH_14			
Objective:	App di	App discovers resources residing in remote SCL using multiple parameters via			
	Discov	eryRetrieveRe	quest		
Configuration:			_CFG_04, M2M_CFG_08, M2M_CFG_10		
References:			clause 10.25.2		
	ETSI 1	S 102 690 [2],	clause 9.3.2.19		
_	,				
Pre-test	•		ed an Application resource <app> on remote SCL with searchString=key1 and</app>		
conditions:		searchString=l	key2		
	1	· –			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a DiscoveryRetrieveRequest in order to discover		
		01 1	resources under a well known resource /discovery located in remote SCL		
	2	Check	Sent GET request contains		
		(dla/mla)	Request URI <sclbase>/discovery?searchString =key1</sclbase>		
			&searchString=key2&maxSize=1&searchPrefix= <sclbase>/applications</sclbase>		
			Host: localSCL		
			Payload: empty		
	3	Check (md)	Sent GET request contains		
			 Request URI <sclbase>/discovery?searchString =key1</sclbase> 		
			&searchString=key2&maxSize=1&searchPrefix= <sclbase>/applications</sclbase>		
			Host: remoteSCL		
			Payload: empty		
	4	Check (mld)	Remote SCL sends response containing:		
			• Code = 200		
			Payload: Discovery resource including a reference to <app></app>		
	5	Check	Local SCL forwards response containing:		
		(dla/mla)	• Code = 200		
			Payload: Discovery resource including a reference to <app></app>		
	6	Verify	App indicates successful operation		

8.2.4 Subscription Management on remote SCL

8.2.4.1 Subscription Create

		In	teroperability Test Description		
Identifier:	TD_M2	TD M2M MH 15			
Objective:		App creates a subscription to application resource via subscriptionCreateRequest (POST) on remote SCL			
Configuration:	M2M_0	CFG_04, M2M_CI	FG_04, M2M_CFG_08, M2M_CFG_10		
References:		ETSI TS 102 921 [1], clause 10.25.2 ETSI TS 102 690 [2], clause 9.3.2.19			
Pre-test conditions:		Approximation and accordance to the state of			
Test Sequence:	Step	Туре	Description		
-	1	Stimulus	App is requested to send a subscriptionCreateRequest (POST)		
	2	Check (dla/mla)	Sent POST request contains: Request URI: <remotescl>/applications/<app>/containers/<container> /contentInstances/subscriptions Host: localSCL Payload: subscription _{resource to be created}</container></app></remotescl>		
	3	Check (mld)	Forwarded POST request contains: Request URI: <remotescl>/applications/<app>/containers/<container> /contentInstances/subscriptions Host: remoteSCL Payload: subscription _{resource to be created}</container></app></remotescl>		

	Interoperability Test Description			
4	4	Check (mld)	Remote SCL sends response containing:	
			• Code = 201	
			Content-Location:	
			<remotescl>/applications/<app>/containers/<container></container></app></remotescl>	
			/contentInstances/subscriptions/	
			Payload: Created _{resource}	
	5	Verify	Remote SCL indicates successful operation	
	6	Check (mld)	Remote SCL sends response containing:	
			• Code = 201	
			Content-Location:	
			<remotescl>/applications/<app>/containers/<container></container></app></remotescl>	
			/contentInstances/subscriptions/	
			Payload: Created _{resource}	
	7	Check (dla/mla)	Local SCL forwards response containing:	
			• Code = 201	
			Content-Location:	
			<remotescl>/applications/<app>/containers/<container></container></app></remotescl>	
			/contentInstances/subscriptions/	
			Payload: Created _{resource}	
	8	Verify	App indicates successful operation	

8.2.4.2 Subscription Retrieve

		i.	nteroperability Test Description	
Identifier:	TD_M2M_MH_16			
Objective:	App retrieves information about a subscription via subscriptionRetrieveRequest (GET), such as expirationTime, filterCriteria, contactURI, noRepresentation, timeoutReason, etc. on remote SCL			
Configuration:	M2M_	CFG_04, M2M_C	FG_04, M2M_CFG_08, M2M_CFG_10	
References:		TS 102 921 [1], cla TS 102 690 [2], cla		
Pre-test	• /	Application <app></app>	and associated container <container> have been created on remote SCL</container>	
conditions:			ource _{has been created under the <container> resource</container>}	
			d the <app>, <container> and _{on remote SCL}</container></app>	
			and the company of the control of th	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a subscriptionRetrieveRequest (GET) for retrieving information about a subscription _{on remote SCL}	
	2	Check (dla/mla)	Sent GET request contains: Request URI: <pre></pre>	
	3	Check (mld)	Forwarded GET request contains: Request URI: <remotescl>/applications/<app>/containers/<container> /contentInstances/subscriptions/_{Host: remoteSCL Payload: empty}</container></app></remotescl>	
	4	Check (mld)	Remote SCL sends response containing: Code = 200 Payload: _{resource}	
	5	Check (dla/mla)	Local SCL sends response containing: Code = 200 Payload: _{resource}	
	6	Verify	App indicates successful operation	

8.2.4.3 Subscription Update

		Int	teroperability Test Description					
Identifier:	TD_M	TD_M2M_MH_17						
Objective:	App updates information about a subscription via subscriptionUpdateRequest on remote SCL							
Configuration:			G_04, M2M_CFG_08, M2M_CFG_10					
References:	ETSI 1	S 102 921 [1], clau	ise 10.25.2					
	ETSI T	S 102 690 [2], clau	ise 9.3.2.19					
Pre-test	• A	application <app> a</app>	nd associated container <container> have been created on remote SCL</container>					
conditions:	• A	subscription resou	urce _{has been created under the <container> resource</container>}					
	• A	pp has discovered	the <app>, <container> and _{on remote SCL}</container></app>					
Test Sequence:	Step	Type	Description					
	1	Stimulus	App is requested to send a subscriptionUpdateRequest (PUT) to update the lifetime of the resource on remote SCL					
	3	Check (dla/mla) Check (mld)	Sent PUT request contains: Request URI: <pre></pre>					
			 Request URI: <pre></pre>					
	4	Verify	Remote SCL indicates successful operation					
	5	Check (mld)	Remote SCL sends response containing: Code = 200 Payload: Modified _{resource}					
	6	Check (dla/mla)	Local SCL sends response containing: Code = 200 Payload: Modified _{resource}					
	7	Verify	App indicates successful operation					

8.2.4.4 Subscription Delete

		Interop	perability Test Description			
Identifier:	TD_M2M_MH_18					
Objective:	App cancels subscription via an subscriptionDeleteRequest on remote SCL					
Configuration:	M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10					
References:	ETSI TS 102 921 [1], clause 10.25.2					
	ETSI 1	TS 102 690 [2], cla	use 9.3.2.19			
Pre-test	• /	Application <app></app>	and associated container <container> have been created on</container>			
conditions:	r	emote SCL				
	• /	A subscription reso	ource _{has been created under the <container> resource</container>}			
	• /	App has discovere	d the <app>, <container> and _{on remote SCL}</container></app>			
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App is requested to send a subscriptionDeleteRequest			
	2	Check (dla/mla)	Sent DELETE request contains			
			Request URI:			
			<pre><remotescl>/applications/<app>/containers/<container></container></app></remotescl></pre>			
			/contentInstances/subscriptions/			
			Host: localSCL			
			Payload: Empty			
	3	Check (dla/mla)	Forwarded DELETE request contains			
			Request URI:			
			<remotescl>/applications/<app>/containers/<container></container></app></remotescl>			
			/contentInstances/subscriptions/			
			Host: remoteSCL			
			Payload: Empty			
	4	Verify	Remote SCL indicates successful operation			
	5	Check (mld)	Remote SCL sends response containing:			
			• Code = 204			
			Payload: Empty			
	6	Check (dla/mla)	Local SCL sends response containing:			
			• Code = 204			
			Payload: Empty			
	7	Verify	App indicates successful operation			

8.2.4.5 Subscription Notify (To server capable application)

	Interoperability Test Description						
Identifier:	TD_M2I	TD_M2M_MH_19					
Objective:	GSCL s	GSCL sends notification(s) via subscriptionNotifyRequest on NSCL					
Configuration:		M2M_CFG_06, M2M_CFG_11					
References:	ETSI TS	ETSI TS 102 921 [1], clause 10.25.2					
	ETSI TS	S 102 690 [2], c	clause 9.3.2.19				
Pre-test	• [DA/GA has crea	ated an Application resource <app> with its associated container <container> on</container></app>				
conditions:		GSCL					
	• 1	NA shall be ser	ver capable				
			subscription _{to <container> contentInstances resource on GSCL using a</container>}				
	"	contactURI"					
	• /	A listener is liste	ening on "contactURI" to check the notify				
Test Sequence:	Step	Туре	Description				
•	1	Stimulus	DA/GA is requested to send a contentInstanceCreateRequest (POST)				
	2	Check (dla)	Sent POST request contains:				
		` ′	URI: <gscl>/applications/<app>/containers/<container>/contentInstances</container></app></gscl>				
			Payload: <contetninstance> resource</contetninstance>				
			Host: GSCL				
	3	Verify	GSCL indicates successful operation				
	4	Check (dla)	GSCL sends response containing:				
			• Code = 201				
			Payload: <contentinstance> resource</contentinstance>				
	5	Verify	GSCL sends subscriptionNotifyRequest (POST) to NSCL				
	6	Check (mld)	Sent POST request to NSCL contains				
			URI: contactURI				
			Payload: <notify> resource</notify>				
			Host: NSCL				
	7	Check (mld)	Forwarded POST request to NA listening server contains				
			URI: contactURI				
			Payload: <notify> resource</notify>				
			Host: NA listening server				
	8	Check (mla)	NA listening server sent response contains:				
			• Code = 204				
			Payload: empty				
	9	Verify	NA indicates successful operation				
	10	Check (mld)	NSCL forwards response to GSCL containing:				
			• Code = 204				
			Payload: empty				
	11	Verify	GSCL indicates successful operation				

			Interoperability Test Description			
Identifier:	TD_M2	M_MH_20				
Objective:			on(s) via subscriptionNotifyRequest on GSCL			
Configuration:	M2M_CFG_06, M2M_CFG_11					
References:	ETSI T	S 102 921 [1], o	clause 10.25.2			
	ETSI TS 102 690 [2], clause 9.3.2.19					
Pre-test	• N	IA has created	an Application resource <app> with its associated container <container> on</container></app>			
conditions:		ISCL				
			server capable			
			ited subscription _{to <container> contentInstances resource on NSCL</container>}			
		sing a "contact				
	• A	listener is liste	ning on "contactURI" to check the notify			
		_				
Test Sequence:	Step	Туре	Description (POST)			
	1	Stimulus	NA is requested to send a contentInstanceCreateRequest (POST)			
	2	Check (mla)	Sent POST request contains:			
			URI:			
			<pre><nscl>/applications/<app>/containers/<container>/contentInstances</container></app></nscl></pre>			
			Payload: <contetninstance> resource</contetninstance>			
	_	\	Host: NSCL			
	3	Verify	NSCL indicates successful operation			
	4	Check (mla)	NSCL sends response containing: Onder 201			
			Code = 201 Paydood:			
		Verify	Payload: <contentinstance> resource NSCL sends subscriptionNotifyRequest (POST) to GSCL</contentinstance>			
	5 6	Check (mld)	Sent POST request to GSCL contains:			
	О	Check (mid)	URI: contactURI			
			Payload: <notify> resource</notify>			
			Host: GSCL			
	7	Check (mld)	Forwarded POST request to DA/GA listening server contains:			
	l '	Officer (filld)	URI: contactURI			
			Payload: <notify> resource</notify>			
			Host: DA/GA listening server			
	8	Check (dla)	DA/GA listening server sent response contains:			
		Onook (dia)	• Code = 204			
			Payload: empty			
	9	Verify	DA/GA indicates successful operation			
	10	Check (mld)	GSCL forwards response to NSCL containing:			
			• Code = 204			
			Payload: empty			
	11	Verify	NSCL indicates successful operation			

8.2.4.6 Subscription Notify (To application container)

		Interop	erability Test Description		
Identifier:		TD_M2M_MH_21			
Objective:	SCL ser	SCL sends notification(s) via subscriptionNotifyRequest			
Configuration:		FG_06, M2M_C			
References:		3 102 921 [1], cla			
	ETSI TS	3 102 690 [2], cla	ause 9.3.2.19		
Pre-test			ed an Application resource <app1> with its associated container</app1>		
conditions:		container1> on			
			an Application resource <app2> with its associated <container2></container2></app2>		
	_	n NSCL			
			a subscription _{to <container1> contentInstances resource</container1>}		
			<nscl>/applications/<app2>/containers/<container2> as</container2></app2></nscl>		
		contactURI"			
T 0	1 01	-	5		
Test Sequence:	Step	Type	Description Description		
	1	Stimulus	DA/GA is requested to send a contentInstanceCreateRequest (POST)		
	2	Check (dla)	Sent POST request contains		
	-	Officer (dia)	URI: <gscl>/applications/<app1>/containers/<container1></container1></app1></gscl>		
			/contentInstances		
			Payload: <contetninstance> resource</contetninstance>		
			Host: GSCL		
	3	Check (dla)	GSCL sends response containing:		
		, ,	• Code = 201		
			 Location:<gscl>/applications/<app1>/containers/<contain< li=""> </contain<></app1></gscl>		
			er1>/contentInstances/ <contetninstance></contetninstance>		
			Payload: created <contetninstance> resource</contetninstance>		
	4	Verify	DA/GA indicates successful operation		
	5	Verify	GSCL sends subscriptionNotifyRequest (POST)		
	6	Check (mld)	Sent POST request contains		
			Request URI:		
			<nscl>/applications/<app2>/containers/<container2>/con</container2></app2></nscl>		
			tentInstances		
			Host: NSCL		
			Payload: <notify> resource containing the</notify>		
			<contentinstance> resource</contentinstance>		
	7	Verify	NSCL sends subscriptionNotifyResponse to GSCL		
	8	Check (mla)	NSCL sends response containing:		
			• Code = 204		
			Payload: empty		
	9	Verify	NSCL indicates successful operation		

		Interope	rability Test Description		
Identifier:		И_MH_22			
Objective:		SCL sends notification(s) via subscriptionNotifyRequest			
Configuration:		M2M_CFG_06, M2M_CFG_11			
References:		5 102 921 [1], cla			
	ETSI TS	5 102 690 [2], cla	use 9.3.2.19		
	1				
Pre-test			Application resource <app1> with its associated container</app1>		
conditions:		ontainer1> on NS			
			an Application resource <app2> with its associated</app2>		
		ontainer2> on GS			
			a subscription _{to <container1> contentInstances</container1>}		
			using: <nscl>/applications/<app2>/containers/<container2> as</container2></app2></nscl>		
	"CO	ntactURI"			
Toot Commons	Cton	Turn a	Description		
Test Sequence:	Step 1	Type Stimulus	Description NA is requested to send a contentInstanceCreateRequest		
	'	Stilliulus	(POST)		
	2	Check (mla)	Sent POST request contains:		
	_	Oncok (ma)	 URI:<nscl>/applications/<app1>/containers/<container1></container1></app1></nscl> 		
			/contentInstances		
			Payload: <contetninstance> resource</contetninstance>		
			Host: NSCL		
	3	Check (mla)	NSCL sends response containing:		
		, ,	• Code = 201		
			 Location:<nscl>/applications/<app1>/containers/<contain< li=""> </contain<></app1></nscl>		
			er1>/contentInstances/ <contetninstance></contetninstance>		
			Payload: created <contetninstance> resource</contetninstance>		
	4	Verify	NA indicates successful operation		
	5	Verify	NSCL sends subscriptionNotifyRequest (POST)		
	6	Check (dla)	Sent POST request contains:		
			Request URI:		
			<gscl>/applications/<app2>/containers/<container2>/con</container2></app2></gscl>		
			tentInstances		
			Host: GSCL		
			Payload: <notify> resource containing the</notify>		
			<contentinstance> resource</contentinstance>		
	7	Verify	GSCL sends subscriptionNotifyResponse to NSCL		
	8	Check (mla)	GSCL sends response containing:		
			• Code = 204		
		\/- ''	Payload: empty		
	9	Verify	GSCL indicates successful operation		

8.2.5 Notification Channel Management

8.2.5.1 NotificationChannel Create

	Interoperability Test Description				
Identifier:	TD_M2M_MH_23				
Objective:	App creates a notificationChannel to application resource on remote SCL via notificationChannelCreateRequest (POST)				
Configuration:	M2M_C	CFG_04, M2M_CF0	G_04, M2M_CFG_08, M2M_CFG_10		
References:					
Pre-test conditions:	• /	App has created an	application resource <app> on remote SCL</app>		
T 0	100	-	D		
Test Sequence:	Step	Type Stimulus	Description		
	2		App is requested to send a notificationChannelCreateRequest (POST) Sent POST request contains:		
	2	Check (dla/mla)	'		
			Request URI: <sclbase>/applications/<app>/notificationChannels</app></sclbase>		
			Host: localSCL		
			Payload: notificationChannel <nc> resource to be created</nc>		
	3	Check (mld)	Forwarded POST request contains:		
		Chook (ma)	Request URI:		
			<pre><remotescl>/applications/<app>/notificationChannels</app></remotescl></pre>		
			Host: remoteSCL		
			Payload: notificationChannel <nc> resource to be created</nc>		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
		, ,	• Code = 201		
			Content-Location:		
			<pre><remotescl>/applications/<app>/notificationChannels/<nc></nc></app></remotescl></pre>		
			Payload: NotificationChannel <nc> resource</nc>		
	6	Check (dla/mla)	Local SCL forwards response containing:		
			• Code = 201		
			Content-Location:		
			<pre><remotescl>/applications/<app>/notificationChannels/<nc></nc></app></remotescl></pre>		
			Payload: NotificationChannel <nc> resource</nc>		
	7	Verify	App indicates successful operation		

8.2.5.2 NotificationChannel Retrieve

Interoperability Test Description							
Identifier:	TD_M2	TD_M2M_MH_24					
Objective:		App retrieves information about a notificationChannel on remote SCL via notificationChannelRetrieveRequest (GET).					
Configuration:	M2M_C	CFG_04, M2	M_CFG_04, M2M_CFG_08, M2M_CFG_10				
References:							
Pre-test conditions:	• A	pp has crea	ted a notificationChannel resource <nc> on remote SCL</nc>				
Test Sequence:	Step	Туре	Description				
	1	Stimulus	App is requested to send a notificationChannelRetrieveRequest (GET) for retrieving information about a notificationChannel <nc></nc>				
	2	Check	Sent GET request contains:				
		(dla/mla)	Request URI: <remotescl>/applications/<app>/notificationChannels/<nc></nc></app></remotescl>				
			Host: localSCL				
			Payload: empty				
	3	Check	Forwarded GET request contains:				
		(mld)	Request URI: <remotescl>/applications/<app>/notificationChannels/<nc></nc></app></remotescl>				
			Host: remoteSCL				
		\	Payload: empty Payload: empty				
	5	Verify Check	Remote SCL indicates successful operation				
	3	(mld)	Remote SCL sends response containing: • Code = 200				
		(iiid)	Payload: notificationChannel <nc> resource</nc>				
	6	Check	Local SCL forwards response containing:				
		(dla/mla)	Code = 200				
			Payload: notificationChannel <nc> resource</nc>				
	7	Verify	App indicates successful operation				

8.2.5.3 NotificationChannel Delete

			Interoperability Test Description				
Identifier:	TD_M2	TD_M2M_MH_25					
Objective:	App de	eletes a notifi	cationChannel on remote SCL via a notificationChannelDeleteRequest				
Configuration:	M2M_0	CFG_04, M2	M_CFG_04, M2M_CFG_08, M2M_CFG_10				
References:							
Pre-test conditions:	• /	App has crea	ated a notificationChannel resource <nc> on remote SCL</nc>				
Test Sequence:	Step	Туре	Description				
	1	Stimulus	App is requested to send a notificationChannelDeleteRequest				
	2	Check (dla/mla)	Sent DELETE request contains: Request URI: <remotescl>/applications/<app>/notificationChannels/<nc> Host: localSCL Payload: Empty</nc></app></remotescl>				
3 Check Forwards (mld) • Red • Hos			Forwarded DELETE request contains: Request URI: <remotescl>/applications/<app>/notificationChannels/<nc></nc></app></remotescl>				
	4	Verify	Remote SCL indicates successful operation				
	5	Check (mld)	Remote SCL sends response containing: Code = 204 Payload: Empty				
	6	Check (dla/mla)	Local SCL forwards response containing: Code = 204 Payload: Empty				
	7	Verify	App indicates successful operation				

8.2.5.4 Long polling based notifications

	Interoperability Test Description					
Identifier:	TD_M2M_MH_26					
Objective:	NA recei	NA receives notifications via a notificationChannelRetreiveRequest (GET) using long polling				
Configuration:	M2M_CFG_06, M2M_CFG_11					
References:						
Pre-test conditions:	 DA/GA has created an application resource <app1> with its associated container <container1> on GSCL</container1></app1> NA has created an application resource <app2> on NSCL</app2> NA has created a notificationChannel resource <nc> to <app2> and obtained a "ContactURI" and a "LongPollingURI" (element in the channelData attribute)</app2></nc> NA has sent a retrieve request to the provided "LongPollingURI" NA has subscribed to <container1> contentInstances resource using the provided "ContactURI"</container1> 					
			•			
Test Sequence:	Step	Type	Description			
	1	Stimulus	DA/GA is requested to send a contentInstanceCreateRequest (POST) to create content instance on its corresponding <container1>.</container1>			
	2	Check (dla)	Sent POST request contains: URI: <gscl>/applications/<app1>/containers/<container1>/contentIn stances Payload: <contetninstance> resource Host: GSCL</contetninstance></container1></app1></gscl>			
	3	Check (dla)	GSCL sends response containing: Code = 201 Location: <gscl>/applications/<app1>/containers/<container1>/cont entInstances/<contetninstance> Payload: created <contetninstance> resource</contetninstance></contetninstance></container1></app1></gscl>			
	4	Verify	DA/GA indicates successful operation			
	5	Verify	GSCL sends subscriptionNotifyRequest (POST) to NSCL			
	6	Check (mld)	Sent POST request contains: Request URI: Host: NSCL Payload: <notify> resource containing the <contentinstance> resource</contentinstance></notify>			
	7	Verify	NSCL correlates the "contactURI" to the notificationChannel <nc> and finds a long polling request active on "longPollingURI" related to NA NSCL sends a notificationChannelRetrieveResponse to NA</nc>			
	8	Check (mld)	NSCL sends response to GSCL containing: Code = 204 Payload: empty			
	9	Verify	GSCL indicates successful operation			
	10	Verify	NA indicates a successful operation NA sends a new notificationChannelRetrieveResponse to the "LongPollingURI" and waits for the next event			

		Interopera	bility Test Description		
Identifier:		/_MH_27			
Objective:	polling.				
Configuration:	M2M_CI	FG_06, M2M_CFG	G_11		
References:					
Pro-tost	I- NA	has areated an an	plication recourse count, with its associated container		
Pre-test conditions:	 NA has created an application resource <app1> with its associated container <container1> on NSCL</container1></app1> DA/GA has created an application resource <app2> on GSCL</app2> DA/GA has created a notificationChannel resource <nc> to <app2> and obtained a "ContactURI" and a "LongPollingURI" (element in the channelData attribute)</app2></nc> DA/GA has sent a retrieve request to the provided "LongPollingURI" DA/GA has subscribed to <container1> contentInstances resource using the provided "ContactURI"</container1> 				
Test Sequence:	Step 1	Type Stimulus	Description NA is requested to send a contentInstanceCreateRequest (POST) to create content instance on its corresponding container1 .		
	2	Check (mla)	Sent POST request contains: URI: <nscl>/applications/<app1>/containers/<container 1="">/contentInstances Payload: <contetninstance> resource Host: NSCL</contetninstance></container></app1></nscl>		
	3	Check (mla)	 NSCL sends response containing: Code = 201 Location: Location: /applications/<app1>/containers/<cont ainer1="">/contentInstances/<contentinstance></contentinstance></cont></app1> Payload: created <contentinstance> resource</contentinstance> 		
	4	Verify	NA indicates successful operation		
	5	Verify	NSCL sends subscriptionNotifyRequest (POST) to GSCL		
	6	Check (mld)	Sent POST request contains: Request URI: Host: GSCL Payload: <notify> resource containing the <contentinstance> resource</contentinstance></notify>		
	7	Verify	GSCL correlates the "contactURI" to the notificationChannel <nc> and finds a long polling request active on "longPollingURI" related to NA GSCL sends a notificationChannelRetrieveResponse to DA/GA</nc>		
	8	Check (mld)	GSCL sends response to NSCL containing: Code = 204 Payload: empty		
	9	Verify	NSCL indicates successful operation		
	10	Verify	DA/GA indicates a succeful operation DA/GA sends a new notificationChannelRetrieveResponse to the "LongPollingURI" and waits for the next event		

8.2.6 AccessRight Management on remote SCL

8.2.6.1 AccessRight Resource creation

	Interoperability Test Description					
Identifier:	TD_M2M_MH_28					
Objective:	App creates an AccessRight resource via an accesRightCreateRequest on remote SCL					
Configuration:			04, M2M_CFG_08, M2M_CFG_10			
References:	ETSI TS	102 921 [1], clause	10.11.2			
	ETSI TS	102 690 [2], clause	9.3.2.10			
Pre-test	void					
conditions:						
	1					
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App is requested to send a accessRightCreateRequest			
			(POST)			
	2	Check (dla/mla)	Sent POST request contains:			
			 Request method = POST 			
			 Request URI <remotescl>/accessRights</remotescl> 			
			Host: localSCL			
			 Payload: application resource <accessright> to be</accessright> 			
			created			
	3	Check (mld)	Forwarded POST request contains:			
			 Request method = POST 			
			 Request URI <remotescl>/accessRights</remotescl> 			
			Host: remoteSCL			
			Payload: application resource <accessright> to be</accessright>			
			created			
	4	Verify	Remote SCL indicates successful operation			
	5	Check (mld)	Remote SCL sends response containing:			
			Status Code = 201			
			Content-Location:			
			<pre><remotescl>/accessRights/<accessright></accessright></remotescl></pre>			
			Payload: created <accessright> resource</accessright>			
	6	Check (dla/mla)	Local SCL forwards response containing:			
			Status Code = 201			
			Content-Location:			
			<pre><remotescl>/accessRights/<accessright></accessright></remotescl></pre>			
			Payload: created <accessright> resource</accessright>			
	7	Verify	App indicates successful operation			

8.2.6.2 AccessRight Retrieve

		Interoperab	ility Test Description			
Identifier:	TD_M2M	TD_M2M_MH_29				
Objective:	App retrieves accessRight resource via an accessRightRetrieveRequest (GET) on remote SCL					
Configuration:			04, M2M_CFG_08, M2M_CFG_10			
References:		ETSI TS 102 921 [1], clause 10.11.3 ETSI TS 102 690 [2], clause 9.3.2.10				
Pre-test conditions:	• App	has created an acc	cessRight resource <accessright> on remote SCL</accessright>			
Test Sequence:	Step	Туре	Description			
,	1	Stimulus	App is requested to send a accessRightRetrieveRequest (GET)			
	2	Check (dla/mla)	Sent GET request contains: Request method = GET Request URI <remotescl>/accessRights/<accessright> Host: localSCL Payload: empty</accessright></remotescl>			
	3	Check (mld)	Forwarded GET request contains: Request method = GET Request URI <remotescl>/accessRights/<accessright> Host: remoteSCL Payload: empty</accessright></remotescl>			
	4	Check (mld)	Remote SCL sends response containing: Status Code =200 Payload: <app> resource</app>			
	5	Check (dla/mla)	Local SCL forwards response containing: Status Code =200 Payload: <app> resource</app>			
	6	Verify	App indicates successful operation			

8.2.6.3 AccessRight Update

		Interoperab	ility Test Description		
Identifier:	TD_M2M_	TD_M2M_MH_30			
Objective:			essRight resource via an accessRightUpdateRequest		
Configuration:		remote SCL G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10		
References:		ETSI TS 102 921 [1], clause 10.11.4 ETSI TS 102 690 [2], clause 9.3.2.10			
Pre-test conditions:	• App	has created an acc	cessRight resource <accessright> on remote SCL</accessright>		
T1 0	01	T	December (Inc.)		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a accessRightUpdateRequest (PUT)		
	2	Check (dla/mla)	Sent PUT request contains: Request method = PUT Request URI <remotescl>/accessRights/<accessright> Host: localSCL Payload: modified accessRight resource</accessright></remotescl>		

Interoperability Test Description			
3	Check (mld)	Forwarded PUT request contains:	
		 Request method = PUT 	
		Request URI	
		<pre><remotescl>/accessRights/<accessright></accessright></remotescl></pre>	
		Host: remoteSCL	
		Payload: modified accessRight resource	
4	Verify	Remote SCL indicates successful operation	
5	Check (mld)	Remote SCL sends response containing:	
		• Code = 200	
		 Payload: updated <accessright> resource</accessright> 	
6	Check (dla/mla)	Local SCL forwards response containing:	
		• Code = 200	
		Payload: updated <accessright> resource</accessright>	
7	Verify	App indicates successful operation	

8.2.6.4 AccessRight Delete

		Interoperab	ility Test Description			
Identifier:	TD_M2M_					
Objective:		App de-registers by deleting accessRightresource via an accessRightDeleteRequest on remote SCL				
Configuration:	M2M_CF0	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10			
References:		ETSI TS 102 921 [1], clause 10.11.5 ETSI TS 102 690 [2], clause 9.3.2.10				
Pre-test conditions:	• App	has created an acc	cessRight resource <accessright> on remote SCL</accessright>			
		_				
Test Sequence:	Step	Туре	Description			
	1	Stimulus	App is requested to send a accessRightDeleteRequest (DELETE)			
	3	Check (dla/mla) Check (mld)	Sent DELETE request contains Request method DELETE Request URI <remotescl>/accessRights/ <accessright> Host: localSCL Payload: empty Forwarded DELETE request contains Request method DELETE Request URI <remotescl>/accessRights/ <accessright></accessright></remotescl></accessright></remotescl>			
			Host: remoteSCLPayload: empty			
	4	Verify	Remote SCL indicates successful operation			
	5	Check (mld)	Remote SCL sends response containing: Status Code = 204 Payload: empty			
	6	Check (dla/mla)	Local SCL forwards response containing: Status Code = 204 Payload: empty			
	7	Verify	App indicates successful operation			

8.2.6.5 Unauthorized operation (Empty Requesting Entity)

		Interoperab	ility Test Description		
Identifier:	TD_M2M_MH_32				
Objective:	App retrie	App retrieve request is rejected due to Access Rights on remote SCL			
Configuration:	M2M_CF	M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10			
References:		102 921 [1], clause			
	ETSI TS	102 690 [2], clause	9.3.2.10		
_					
Pre-test	void				
conditions:					
T	01	T	Description		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an sclBaseRetrieveRequest		
			(GET) for resource <sclbase> with an empty on remote</sclbase>		
			SCL requestingEntity.		
	2	Check (dla/mla)	Sent GET request contains:		
			 Request URI <sclbase></sclbase> 		
			Host: localSCL		
			Payload: empty		
	3	Check (mld)	Forwarded GET request contains:		
			 Request URI <sclbase></sclbase> 		
			Host :remoteSCL		
			Payload: empty		
	4	Verify	Remote SCL indicates unsuccessful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			 Code = 401 (unauthorized operation) 		
			Payload: ErrorInfo resource		
	6	Check (dla/mla)	Local SCL forwards response containing:		
		, ,	 Code = 401 (unauthorized operation) 		
			Payload: ErrorInfo resource		
	7	Verify	App indicates unsuccessful operation		

8.2.6.6 Unauthorized operation (Bad Requesting Entity)

		Interoperab	ility Test Description		
Identifier:	TD_M2M	TD_M2M_MH_33			
Objective:	App retrie	ve request is reject	ted due to Access Rights on remote SCL		
Configuration:	M2M_CF	G_04, M2M_CFG_	04, M2M_CFG_08, M2M_CFG_10		
References:	ETSI TS ²	102 921 [1], clause	10.11.1		
	ETSI TS 1	102 690 [2], clause	9.3.2.10		
Pre-test	void				
conditions:					
		_			
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an sclBaseRetrieveRequest		
			(GET) on remote SCL for resource <sclbase> with a bad</sclbase>		
			requestingEntity.		
	2	Check (dla/mla)	Sent GET request contains:		
			Request URI <sclbase></sclbase>		
			Host: localSCL		
			Payload: empty		
	3	Check (mld)	Forwarded GET request contains:		
			 Request URI <sclbase></sclbase> 		
			Host: remoteSCL		
			Payload: empty		
	4	Verify	Remote SCL indicates unsuccessful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			Code = 401 (unauthorized operation)		
			Payload: ErrorInfo resource		

Interoperability Test Description			
	6	Check (dla/mla)	Local SCL forwards response containing:
			 Code = 401 (unauthorized operation)
			Payload: ErrorInfo resource
	7	Verify	App indicates unsuccessful operation

8.2.6.7 Unauthorized operation (Insufficient Access Rights)

		Interoperab	ility Test Description	
Identifier:	TD_M2M	_MH_34		
Objective:	App delete request is rejected due to Access Rights on remote SCL			
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10	
References:		102 921 [1], clause		
	ETSI TS 1	102 690 [2], clause	9.3.2.10	
	_			
Pre-test			been created on remote SCL	
conditions:	• An a	access Right <ar1></ar1>	has been created on <app>, which forbids to delete</app>	
	cont	tainer		
			container> has been created in application <app>, using</app>	
	the a	access right <ar1></ar1>		
			5 1.1	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a containerDeleteRequest	
		<u> </u>	(DELETE) for resource <container> on remote SCL</container>	
	2	Check (dla/mla)	Sent DELETE request contains:	
			Request URI <remotescl>/</remotescl>	
			applications/ <app>/containers/<container></container></app>	
			Host: remoteSCL	
		0	Payload: empty	
	3	Check (mld)	Forwarded DELETE request contains:	
			Request URI <remotescl>/</remotescl>	
			applications/ <app>/containers/<container></container></app>	
			Host: remoteSCL	
			Payload: empty	
	4	Verify	Remote SCL indicates unsuccessful operation	
	5	Check (mld)	Remote SCL sends response containing:	
			Code = 401 (unauthorized operation)	
	_		Payload: ErrorInfo resource	
	6	Check (dla/mla)	Local SCL forwards response containing:	
			Code = 401 (unauthorized operation)	
			Payload: ErrorInfo resource	
	7	Verify	App indicates unsuccessful operation	

8.2.7 Group Management on remote SCL

8.2.7.1 Group Resource creation

	Interoperability Test Description			
Identifier:	TD_M2M_ MH _35			
Objective:	App creates a group resource via a groupCreateRequest on remote SCL			
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10	
References:	ETSI TS 1	102 921 [1], clause	10.21.2	
	ETSI TS 1	102 690 [2], clause	9.3.2.17	
Pre-test	void			
conditions:				
Test Sequence:	Step	Туре	Description	
	1	Stimulus	App is requested to send a groupCreateRequest (POST)	
			on remote SCL	
	2	Check (dla/mla)	Sent POST request contains:	
			Request method = POST	
			Request URI < remoteSCL > / groups	
			Host: localSCL	
			Payload: Group resource <group> to be created</group>	
	3	Check (dla/mla)	Sent POST request contains:	
			Request method = POST	
			Request URI < remoteSCL > / groups	
			Host: remoteSCL	
			Payload: Group resource <group> to be created</group>	
	4	Verify	Remote SCL indicates successful operation	
	5	Check (mld)	Remote SCL sends response containing:	
			Status Code = 201	
			 Content-Location: <remotescl>groups/<group></group></remotescl> 	
			Payload: created <group> resource</group>	
	6	Check (dla/mla)	Local SCL forwards response containing:	
			Status Code = 201	
			 Content-Location: <remotescl>groups/<group></group></remotescl> 	
			Payload: created <group> resource</group>	
	7	Verify	App indicates successful operation	

8.2.7.2 Group Retrieve

	Interoperability Test Description				
Identifier:	TD_M2M_	TD_M2M_MH_36			
Objective:	App retrieves group resource via a groupRetrieveRequest (GET) on remote SCL				
Configuration:	M2M_CF0	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10		
References:		02 921 [1], clause 02 690 [2], clause			
	L 101 10	102 090 [2], clause	9.3.2.11		
Pre-test conditions:	• App	has created a Gro	up resource <group> on remote SCL</group>		
Test Sequence:	Step	Туре	Description		
rest ocquence.	1	Stimulus	App is requested to send a groupRetrieveRequest (GET)		
	2	Check (dla/mla)	Sent GET request contains:		
	_	Orioon (diarrina)	Request method = GET		
			Request URI <remotescl>/groups/<group></group></remotescl>		
			Host: localSCL		
			Payload: empty		
	3	Check (mld)	Forwarded GET request contains:		
			Request method = GET		
			 Request URI <remotescl>/groups/<group></group></remotescl> 		
			Host: remoteSCL		
			Payload: empty		
	4	Check (mld)	Remote SCL sends response containing:		
			Status Code =200		
			Payload: <group> resource</group>		
	5	Check (dla/mla)	Local SCL forwards response containing:		
			Status Code =200		
		\	Payload: <group> resource</group>		
	6	Verify	App indicates successful operation		

8.2.7.3 Group Update

		Interoperab	ility Test Description		
Identifier:	TD_M2M_	TD_M2M_MH_37			
Objective:	App upda	App updates attribute in group resource via an groupUpdateRequest (PUT) on remote SCL			
Configuration:	M2M_CF0	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10		
References:		102 921 [1], clause 102 690 [2], clause			
Pre-test conditions:	 App 	has created a grou	up resource <group> on remote SCL</group>		
Test Sequence:	Step	Type	Description		
	1	Stimulus	App is requested to send a groupUpdateRequest (PUT)		
	2	Check (dla/mla)	Sent PUT request contains:		
			Request method = PUT		
			 Request URI <remotescl>/groups/<group></group></remotescl> 		
			Host: localSCL		
			Payload: modified group resource		
	3	Check (mld)	Forwarded PUT request contains:		
			 Request method = PUT 		
			 Request URI <remotescl>/groups/<group></group></remotescl> 		
			Host: remoteSCL		
			Payload: modified group resource		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
		·	• Code = 200		
			Payload: updated <group> resource</group>		

Interoperability Test Description			
	6	Check (dla/mla)	Local SCL forwards response containing:
			• Code = 200
			 Payload: updated <group> resource</group>
	7	Verify	App indicates successful operation

8.2.7.4 Group Delete

		Interoperab	ility Test Description		
Identifier:	TD_M2M	TD_M2M_MH_38			
Objective:	App delet	App delete group resource via an groupDeleteRequest (DELETE) on remote SCL			
Configuration:	M2M_CF	G_04, M2M_CFG_0	04, M2M_CFG_08, M2M_CFG_10		
References:		102 921 [1], clause			
	ETSI TS ²	102 690 [2], clause	9.3.2.17		
	_				
Pre-test conditions:	• App	has created an gro	oup resource <group> on remote SCL</group>		
	1 0.	_	5 10		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send a groupDeleteRequest (DELETE)		
	2	Check (dla/mla)	Sent DELETE request contains:		
			 Request method = DELETE 		
			 Request URI <remotescl>/groups/<group></group></remotescl> 		
			Host: localSCL		
			Payload: empty		
	3	Check (mld)	Forwarded DELETE request contains:		
			Request method = DELETE		
			 Request URI <remotescl>/groups/<group></group></remotescl> 		
			Host: remoteSCL		
			Payload: empty		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			Status Code = 204		
			Payload: empty		
	6	Check (dla/mla)	Local SCL forwards response containing:		
			• Status Code = 204		
			Payload: empty		
	7	Verify	App indicates successful operation		

8.2.7.5 Group Operations

		Interop	perability Test Description		
Identifier:	TD_M2M_MH_39				
Objective:	App creates multiple contentInstance using group resource on Remote SCL				
Configuration:		M2M_CFG_04, M2M_CFG_04, M2M_CFG_08, M2M_CFG_10			
References:		ΓS 102 921 [1], cla			
	ETSI	ΓS 102 690 [2], cla	use 9.3.2.17		
_	,				
Pre-test			n application <app1> resource on remote SCL</app1>		
conditions:			n application <cont1> resource on <app1></app1></cont1>		
			n application <app2> resource on remote SCL</app2>		
			n application <cont2> resource on <app2></app2></cont2>		
			group resource <grouppost> on remote SCL using the</grouppost>		
			ration in ref. (the groupPOST representation should include		
	8	app reontentinstace	es and app2 contentInstances as members)		
Test Sequence:	Step	Туре	Description		
Tool ooquonoo.	1	Stimulus	App is requested to send a membersContentCreateRequest		
	-		(POST)		
	2	Check (dla/mla)	Sent POST request contains		
		,	Request method = POST		
			Request URI		
			<pre><remotescl>/groups/<grouppost>/membersContent</grouppost></remotescl></pre>		
			Host: localSCL		
			Payload: ContentInstance resource <contentinstance> to</contentinstance>		
			be created		
	3	Check (mld)	Forwarded POST request contains		
			Request method = POST		
			Request URI		
			<pre><remotescl>/groups/<grouppost>/membersContent</grouppost></remotescl></pre>		
			Host: remoteSCL Deviced: Contentinatores recovered reported to the contentinatores to the contentinatores to the contentinatores.		
			Payload: ContentInstance resource <contentinstance> to be created</contentinstance>		
	4	Verify	Remote SCL indicates successful operation		
	5	Check (mld)	Remote SCL sends response containing:		
			Status Code = 201		
			Content-Location: <remotescl>groups/<grouppost></grouppost></remotescl>		
			Payload: membersContent resource		
	6	Check (dla/mla)	Local SCL forwards response containing:		
		'	Status Code = 201		
			Content-Location: <remotescl>groups/<grouppost></grouppost></remotescl>		
			Payload: membersContent resource		
	7	Verify	App indicates successful operation		
			Verify that <contentinstance> is created on <app1> and <app2></app2></app1></contentinstance>		

		Interope	erability Test Description	
Identifier:	TD_M2M_MH_40			
Objective:	App retrieves multiple contentInstance using group resource on remote SCL			
Configuration:			G_04, M2M_CFG_08, M2M_CFG_10	
References:	ETSI TS 102 921 [1], clause 10.21.2			
	ETSI TS 102 690 [2], clause 9.3.2.17			
	1			
Pre-test			application <app1> resource on remote SCL</app1>	
conditions:		• •	application <cont1> resource on <app1></app1></cont1>	
			application <app2> resource on remote SCL</app2>	
			application <cont2> resource on <app2></app2></cont2>	
			roup resource <groupget> on remote SCL using the provided</groupget>	
			. (the groupGET representation should include	
	a	pp1contentInstaces	s and app2 contentInstances as members)	
Test Sequence:	Ston	Type	Description	
rest Sequence:	Step 1	Type Stimulus	Description App is requested to send a membersContentRetrieveRequest	
	'	Sumulus	(GET)	
	2	Check (dla/mla)	Sent GET request contains:	
			Request method = GET	
			Request URI	
			<pre><remotescl>/groups/<groupget>/membersContent</groupget></remotescl></pre>	
			Host: localSCL	
			Payload: empty	
	3	Check (mld)	Forwarded GET request contains:	
			Request method = GET	
			Request URI	
			<pre><remotescl>/groups/<groupget>/membersContent</groupget></remotescl></pre>	
			Host: remoteSCL	
		Ola I - (I -I)	Payload: empty	
	4	Check (mld)	Remote SCL sends response containing:	
			Status Code = 200 Status Code = 200	
	-	Chaak (dla/mla)	Payload: memberContents resource Level SCL forwards response containing.	
	5	Check (dla/mla)	Local SCL forwards response containing: • Status Code = 200	
			Payload: memberContents resource	
	6	Verify	App indicates successful operation	
		Veilly	Verify that App received <app1> and <app2></app2></app1>	
			contentInstances representations	

8.2.8 Announcement

8.2.8.1 Application registration with announcement

	Interoperability Test Description				
Identifier:	TD_M	TD_M2M_MH_41			
Objective:	App re	App registration with Announcement			
Configuration:		CFG_06, M2M_CF			
References:		ΓS 102 921 [1], clau			
	ETSI 1	TS 102 690 [2], clau	ise 9.3.2.28		
Pre-test	• (GSCL has registere	d to NSCL		
conditions:					
T 0	104	-	December 2		
Test Sequence:	Step	Туре	Description O + P		
	1	Stimulus	App is requested to send an applicationCreateRequest with		
			announceTo attribute activated (TRUE) and Link attribute		
	2	Check (dla/mla)	pointing remote SCL Sent POST request contains:		
		Check (dia/ilila)	Request URI <localscl>/applications</localscl>		
			Payload: application resource <app> to be created</app>		
			Host: localSCL		
	3	Check (dla/mla)	Local SCL sends response containing:		
	3	Check (dia/ilila)	Status Code = 201		
			Content-Location: <localscl>/applications/<app></app></localscl>		
			Payload: created <app> resource</app>		
	4	Verify	App indicates successful operation		
	5	Verify (mld)	Local SCL sends applicationAnncCreateRequest (POST) to		
		voiny (ima)	remote SCL		
	6	Check (mld)	Sent POST request contains:		
		, ,	Request URI		
			<pre><remotescl>/scls/<localscl>/applications</localscl></remotescl></pre>		
			Payload: applicationAnnc resource <appannc> to be</appannc>		
			created		
			Host = NSCL		
	7	Check (mld)	Remote SCL sends response containing:		
			Status Code = 201		
			Content-Location:		
			<pre><remotescl>/scls/<localscl>/applications/<appannc></appannc></localscl></remotescl></pre>		
			Payload: created <appannc> resource</appannc>		
	8	Verify	Remote SCL indicates announced resource <appannc>Annc</appannc>		

8.2.8.2 Application delete with announcement

		Interoperab	ility Test Description		
Identifier:	TD_M2M_	TD_M2M_MH_42			
Objective:	App applic	App application delete with Announcement			
Configuration:	M2M_CF0	M2M_CFG_06, M2M_CFG_11			
References:		102 921 [1], clause			
	ETSI TS 1	102 690 [2], clause	9.3.2.28		
Pre-test		CL has registered to			
conditions:			nounceable Application resource <app> on local SCL</app>		
	• Loca	al SCL has annound	ced <appannc> to remote SCL</appannc>		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an applicationDeleteRequest (DELETE)		
	2	Check (dla/mla)	Request URI <localscl>/applications/<app></app></localscl>		
			Host :localSCL		
			Payload: empty		
	3	Check (dla/mla)	GSCL sends response containing:		
			Status Code = 204		
			Payload: empty		
	4	Verify	App indicates successful operation		
	5	Verify	Local SCL sends applicationAnncDeleteRequest (DELETE) to remote SCL		
	6	Check (mld)	Sent DELETE request contains:		
			Request URI		
			<remotescl>/applications/<appannc></appannc></remotescl>		
			Host :remoteSCL		
			Payload: empty		
	7	Check (mld)	remoteSCL sends response containing:		
			Status Code = 204		
			Payload: empty		
	8	Verify	remoteSCL indicates announced resource <appannc> is deleted</appannc>		

8.2.8.3 Application De-Announce Ressources

		Interoperab	ility Test Description		
Identifier:	TD_M2M_	TD_M2M_MH_43			
Objective:	App applic	App application De-Announce ressource			
Configuration:	M2M_CF0	G_06, M2M_CFG_	11		
References:	ETSI TS 1	102 921 [1], clause	10.9.2		
	ETSI TS 1	102 690 [2], clause	9.3.2.28		
Pre-test	• GSC	CL has registered to	NSCL		
conditions:	 App 	has created an ani	nounceable Application resource <app> on local SCL</app>		
	• Loca	al SCL has annound	ced <appannc> to remote SCL</appannc>		
Test Sequence:	Step	Туре	Description		
	1	Stimulus	App is requested to send an applicationUpdateRequest		
			(PUT) with announceTo option deactivated (False)		
	2	Check (dla/mla)	Sent PUT request contains:		
			Request method = PUT		
			Request URI <localscl>/applications/<app></app></localscl>		
			Host :localSCL		
			Payload: modified application resource		
	3	Check (dla/mla)	Local SCL sends response containing:		
			Status Code = 200		
			Payload: updated <app> resource</app>		
	4	Verify	App indicates successful operation		
	5	Verify	Local SCL sends applicationAnncDeleteRequest		
		0	(DELETE) to remote SCL		
	6	Check (mld)	Sent DELETE request contains:		
			Request URI		
			<remotescl>/applications/<appannc></appannc></remotescl>		
			Host :remoteSCL		
		01 1 (11)	Payload: empty		
	7	Check (mld)	Remote SCL sends response containing:		
			Status Code = 204		
			Payload: empty		
	8	Verify	Remote SCL indicates announced resource <appannc></appannc>		
			is deleted		

8.3 End to End configuration testing

8.3.1 Resource management with re-targeting

		Interoperability Test Description			
Identifier:	TD_M2M_E2E_01				
Objective:	DA/GA adds a contentInstance resource < contentInstance> to the contentInstances				
	resource of a specific container in remote NSCL via a contentInstanceCreateRequest				
Configuration:		G_06, M2M_CFG_			
References:		02 921 [1], clause			
		02 690 [2], clause			
		L J '			
Pre-test	NA is	s registered on NS	CL		
conditions:			Application resource <app> on GSCL</app>		
			container resource <container> in <app> on GSCL</app></container>		
	0 D/VC	57 mas created a c	oritainer resource containers in capps on eool		
Test Sequence:	Step	Туре	Description		
root ooquonoo.	1	Stimulus	NA is requested to send a contentInstanceCreateRequest		
	'	Otimalas	(POST)		
	2	Check (mla)	Sent POST request contains:		
			Request URI <gscl>/</gscl>		
			applications/ <app>/containers/<container></container></app>		
			/contentInstances		
			Host :NSCL		
			Payload: ContentInstance resource		
			<contentinstance> to be created</contentinstance>		
	3	Check (mld)	Sent POST request contains:		
		, ,	Request URI <gscl>/</gscl>		
			applications/ <app>/containers/<container></container></app>		
			/contentInstances		
			Host :GSCL		
			Payload: ContentInstance resource		
			<contentinstance> to be created</contentinstance>		
	4	Check (mld)	GSCL sends response containing:		
			• Code = 201		
			Content-Location: <gscl>/</gscl>		
			applications/ <app>/containers/</app>		
			<container>/contentInstances/<contentinstance></contentinstance></container>		
			Payload: <contentinstance> resource</contentinstance>		
	5	Verify	NSCL indicates successful operation		
	6	Check (mla)	NSCL sends response containing:		
		` ′	• Code = 201		
			Content-Location: <gscl>/</gscl>		
			applications/ <app>/containers/</app>		
			<container>/contentInstances/<contentinstance></contentinstance></container>		
			Payload: <contentinstance> resource</contentinstance>		
	7	Verify	NA indicates successful operation		
	1	,			

		Interoperab	ility Test Description	
Identifier:	TD_M2M_E2E_02			
Objective:	NA adds a contentInstance resource <contentinstance> to the contentInstances</contentinstance>			
_	resource o	of a specific contain	ner in remote GSCL via a contentInstanceCreateRequest	
Configuration:	M2M_CF0	G_06, M2M_CFG_	11	
References:	ETSI TS 1	02 921 [1], clause	10.19.2	
	ETSI TS 1	02 690 [2], clause	9.3.2.15	
Pre-test	• NA i	s registered on NS	CL	
conditions:	• DA/0	GA has created an	Application resource <app> on GSCL</app>	
	• DA/0	GA has created a c	container resource <container> in <app> on GSCL</app></container>	
Test Sequence:	Step	Туре	Description	
	1	Stimulus	NA is requested to send a contentInstanceCreateRequest (POST)	
	2	Check (mla)	Sent POST request contains:	
			 Request URI <gscl>/</gscl> 	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances	
			Host :NSCL	
			Payload: ContentInstance resource	
			<contentinstance> to be created</contentinstance>	
	3	Check (mld)	Sent POST request contains:	
			Request URI <gscl>/</gscl>	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances	
			Host :GSCL Particular to Control to Co	
			Payload: Contentinstance resource regententingtones, to be greated.	
	4	Check (mld)	<pre><contentinstance> to be created</contentinstance></pre>	
	4	Check (Illia)	GSCL sends response containing: • Code = 201	
			Content-Location: <gscl>/</gscl>	
			applications/ <app>/containers/</app>	
			<pre><container>/contentInstances/<contentinstance></contentinstance></container></pre>	
			Payload: <contentinstance> resource</contentinstance>	
	5	Verify	NSCL indicates successful operation	
	6	Check (mla)	NSCL sends response containing:	
		(/	• Code = 201	
			 Content-Location: <gscl>/</gscl> 	
			applications/ <app>/containers/</app>	
			<container>/contentInstances/<contentinstance></contentinstance></container>	
			Payload: <contentinstance> resource</contentinstance>	
	7	Verify	NA indicates successful operation	

		Interoperat	pility Test Description	
Identifier:	TD_M2M_E2E_03			
Objective:	NA retrieves a contentInstance resource < contentInstance> to the contentInstances			
			ner in remote GSCL via a contentInstanceRetrieveRequest	
Configuration:		G_06, M2M_CFG_		
References:		02 921 [1], clause		
	ETSI TS 1	02 690 [2], clause	9.3.2.15	
Due to et			201	
Pre-test conditions:		s registered on NS		
conditions:			Application resource <app> on GSCL</app>	
			container resource <container> in <app> on GSCL</app></container>	
			contentInstance resource <contentinstance> residing</contentinstance>	
	<u>unde</u>	er the <container></container>	resource	
Test Sequence:	Ston	Typo	Description	
rest sequence.	Step 1	Type Stimulus	NA is requested to send a	
	'	Stilliulus	contentInstanceRetrieveRequest (GET) for retrieving the	
			attributes/meta-data and the opaque data of a	
			<contentinstance> resource</contentinstance>	
	2	Check (mla)	Sent GET request contains:	
		(),	Request URI <gscl>/</gscl>	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances	
			Host :NSCL	
			Payload: empty	
	3	Check (mld)	Sent POST request contains:	
			Request URI <gscl>/</gscl>	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances	
			Host :GSCL	
			Payload: empty	
	4	Check (mld)	GSCL sends response containing:	
			• Code = 200	
			Payload: <contentinstance> resource</contentinstance>	
	5	Verify	NSCL indicates successful operation	
	6	Check (mla)	NSCL sends response containing:	
			• Code = 200	
		\/- =::f	Payload: <contentinstance> resource</contentinstance>	
	7	Verify	NA indicates successful operation	

		Interoperab	nility Test Description	
Identifier:	TD_M2M_E2E_04			
Objective:	NA deletes a contentInstance resource < contentInstance> to the contentInstances			
	resource of a specific container in remote GSCL via a contentInstanceUpdateRequest			
Configuration:		G_06, M2M_CFG_		
References:		02 921 [1], clause		
	ETSI TS 1	02 690 [2], clause	9.3.2.15	
_				
Pre-test		s registered on NS		
conditions:			Application resource <app> on GSCL</app>	
			container resource <container> in <app> on GSCL</app></container>	
			contentInstance resource <contentinstance> residing under</contentinstance>	
	the •	container> resour	ce	
_				
Test Sequence:	Step	Туре	Description	
	1	Stimulus	NA is requested to send a contentInstanceDeleteRequest (DELETE)	
	2	Check (mla)	Sent DELETE request contains:	
			Request URI <gscl>/</gscl>	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances/ <contentinstance></contentinstance>	
			Host :NSCL	
			Payload: empty	
	3	Check (mld)	Sent POST request contains:	
			Request URI <gscl>/</gscl>	
			applications/ <app>/containers/<container></container></app>	
			/contentInstances	
			Host :GSCL	
			Payload: empty	
	4	Check (mld)	GSCL sends response containing:	
			• Code = 204	
			Payload: empty	
	5	Verify	NSCL indicates successful operation	
	6	Check (mla)	NSCL sends response containing:	
			• Code = 204	
			Payload: empty	
	7	Verify	NA indicates successful operation	

History

	Document history			
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