



# ITxPT Module Labeling Report



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DATE	27/10/2020
COMPANY	Luminator Technology Group
TESTER	ITxPT laboratory manager
SPECIFICATION	S01 v2.1.0 - S02P00 to S02P09 v2.1.0
TOOLS USED FOR THE TEST	ITxPT Laboratory

## Module configuration tested by ITxPT laboratory

Manufacturer	Model	Hardware version	Software version	Unique Identifier
LTG	ICU602	1	1.0.0.28	ICU602-c8df849c09e4

## Other module configurations included in the label as declared by IT supplier

Manufacturer	Model	Hardware version	Software version
Mobitec	ICU602	1	1.0.0.28
Lawo	ICU602	1	1.0.0.28
Gorba	ICU602	1	1.0.0.28

## Implemented services

Service	Operation	Provided status	Provided type	Consumed status	Consumed type
Module Inventory		✓	itxpt_http	N/A	itxpt_socket and/or itxpt_http
Time		✓	sntp	N/A	sntp
GNSS Location		✓	itxpt_multicast	N/A	itxpt_multicast
FMS to IP	Provision	✓	itxpt_multicast	N/A	itxpt_multicast
	Configuration	✓	itxpt_http	N/A	itxpt_http
VEHICLEtoIP		✓		N/A	
AVMS	Run Monitoring	✓	itxpt_http	N/A	itxpt_http
	Planned Pattern	✓		N/A	
	Pattern Monitoring	✓		N/A	
	Vehicle Monitoring	✓		N/A	
	Journey Monitoring	✓		N/A	
	General Message	✓		N/A	
	Connection Monitoring	✓		N/A	
APC	Passenger door count	✓	itxpt_http	N/A	itxpt_http
	Passenger vehicle count	✓		N/A	
MADT	MADT information	N/A	itxpt_http	N/A	itxpt_http
	Play a sound	N/A		N/A	
	Read settings	N/A		N/A	
	Write settings	N/A		N/A	
	Stop the MADT Service	N/A		N/A	
	Restart the MADT Service	N/A		N/A	
	Retrieve MTS characteristics	N/A		N/A	
	Create a Web tab	N/A		N/A	
	Create a VNC tab	N/A		N/A	
	Create a shortcut	N/A		N/A	
	Navigate to given URI	N/A		N/A	
	Blink a tab	N/A		N/A	
	Activate a tab	N/A		N/A	
	Remove a shortcut	N/A		N/A	
	Remove a tab	N/A		N/A	
I am alive	N/A	N/A			
Get tabs mapping	N/A	N/A			
MQTT		✓	mqtt	N/A	mqtt

**COMMENT**

Module manufacturer commits that all mandatory tests compliant for the module configuration tested are the same implemented in all module configurations declared as included in the label.  
 Module manufacturer shall declare any change impacting the result of one or several tests for each module configuration using the "declaration of change" file available on ITxPT documentation center.



PRELIMINARY DOCUMENTATION CHECK		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
Test M-001	Technical module documentation	-	✓		Datasheet, User manual, Installation manual, EC declaration of conformity, E-marking statement	Datasheet, ECE declaration of conformity, Drawing, Integration manual, E-marking statement, Photo	No tolerance
MODULE		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
Test M-002	Module IP address	S02P00 - 1.7 - Network address map for IPv4	✓		from 192.168.x.0 to 192.168.x.255	192.168.127.110	No tolerance
Test M-003	Module hostname	S02P00 - 2.1.2.1 - SRV record naming convention	✓		{hostname} that resolves the IP address of test M-002 as defined in target field of SRV record	Deb9OS	No tolerance
HARDWARE INTERFACE		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
<b>Power supply</b>							
Test M-004	Connector type	S01 - 2.1.2 - Power supply connectors	✓		Power supply cable with related female MCP type connector with 6 pins, type TYCO reference: 8-968970-1 Blue Code A	Power supply cable with related female MCP type connector with 6 pins Blue	No tolerance
Test M-005	Pin distribution	S01 - 2.1.2 - Power supply connectors	✓		Power-supply connector pinning according chapter 4.3.3	See detailed Test M-005 Power-supply Pinning	
Test M-006	ECOMODE: ITS SLEEP mode	S01 - 2.13.4 - SLEEP Mode	N/A		Sleeping phase management (based on Ignition status and optional low battery status as input). If not managed, connection to 24V after key only. Management mandatory for switches.	Not applicable	No tolerance
<b>Bus-FMS</b>							
Test M-007	Connector type	S01 - 2.2 - FMS interface		✓	DIN 72585 female 4-Pin	DIN 72585 female 4-Pin	No tolerance
Test M-008	Pin distribution	S01 - 2.2 - FMS interface		✓	Bus-FMS connector pinning according chapter 4.4	See detailed Test M-008 Bus-FMS Pinning	No tolerance
<b>Audio</b>							
Test M-009	Connector type	S01 - 2.3 - Audio interface		✓	MCP 9-Pin female, typeTYCO reference: 1-967626-1 Yellow code A	MCP 9-Pin female Yellow	No tolerance
Test M-010	Prios area management	S01 - 2.3 - Audio interface		✓	At least one prio is used	At least one prio is used	
Test M-011	Pin distribution	S01 - 2.3 - Audio interface		✓	Audio connector pinning according chapter 4.5.1	See detailed Test M-011 Audio Pinning	No tolerance
<b>Wireless</b>							
Test M-012	WLAN interface	S01 - 2.4 - Wireless communication interface		N/A	Fakra Code I / Male / Beige	Not applicable	No tolerance
Test M-013	GSM interface	S01 - 2.4 - Wireless communication interface		N/A	Fakra Code D / Male / Bordeaux	Not applicable	No tolerance
Test M-014	GPS interface	S01 - 2.4 - Wireless communication interface		✓	Fakra Code C / Male / Blue	Fakra Code C / Male / Blue	No tolerance
<b>Auxiliary</b>							
Test M-015	Connector type	S01 - 2.5 - Auxiliary interface		✓	MCP 18-Pin female, type TYCO reference: 1-967629-1 Grey code A	MCP 18-Pin female Grey	No tolerance
Test M-016	Pin distribution	S01 - 2.5 - Auxiliary interface		✓	Auxiliary connector pinning according chapter 4.5.3	See detailed Test M-015 Auxiliary Pinning	No tolerance
<b>Ethernet</b>							
Test M-017	Ethernet interface to vehicle	S01 - 2.8.3 - Ethernet connectors	✓		Native M12 Ethernet connector or Ethernet cable with related M12 Ethernet connector, with 4 pins D-coded for 10/100Base-TX or with 8 pins X-coded for 1000Base-T	Native M12 Ethernet connector with 4 pins D-coded for 10/100Base-TX	No tolerance
Test M-018	POE	S01 - 2.8.4 - Ethernet switches		N/A	Power over Ethernet IEEE802.3af or IEEE802.3at	Not applicable	No tolerance

AVAILABLE SERVICES		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
Test M-019	Module Inventory Service	S02P01 - Inventory	✓		<i>[Unqueldentifier]_inventory_itxpt_socket_tcp.local</i> or <i>[Unqueldentifier]_inventory_itxpt_http_tcp.local</i>	ICU602-c8df849c09e4_inventory_itxpt_http_tcp.local	No tolerance
Test M-020	Time Service	S02P02 - Time		✓	<i>[Unqueldentifier]_time_sntp_udp.local</i>	ICU602-c8df849c09e4_time_sntp_udp.local	No tolerance
Test M-021	GNSS location Service	S02P03 - GNSS		✓	<i>[Unqueldentifier]_gnsslocation_itxpt_multicast_udp.local</i>	ICU602-c8df849c09e4_gnsslocation_itxpt_multicast_udp.local	No tolerance
Test M-022-A	FMStoIP Provision Service	S02P04 - FMStoIP		✓	<i>[Unqueldentifier]_fmstoip_itxpt_multicast_udp.local</i>	ICU602-c8df849c09e4_fmstoip_itxpt_multicast_udp.local	No tolerance
Test M-022-B	FMStoIP Configuration Service	S02P04 - FMStoIP		✓	<i>[Unqueldentifier]_fmstoip_itxpt_http_udp.local</i>	ICU602-c8df849c09e4_fmstoip_itxpt_http_udp.local	No tolerance
Test M-022-C	FMStoIP Configuration Service AddPGN Operation	S02P04 - FMStoIP		✓	<i>AddPGN configuration</i>	AddPGN configuration	No tolerance
Test M-022-D	FMStoIP Configuration Service RemovePGN Operation	S02P04 - FMStoIP		✓	<i>RemovePGN configuration</i>	RemovePGN configuration	No tolerance
Test M-022-E	FMStoIP Configuration Service GetPGN Operation	S02P04 - FMStoIP		✓	<i>FMStoIPDelivery restricted to requested PGN(s)</i>	FMStoIPDelivery restricted to requested PGN(s)	No tolerance
Test M-023	VEHICLEtoIP Service	S02P04 - VEHICLEtoIP		✓	<i>[Unqueldentifier]_vehicletoip_itxpt_multicast_udp.local</i>	ICU602-c8df849c09e4_vehicletoip_itxpt_multicast_udp.local	No tolerance
Test M-024	AVMS Service	S02P06 - AVMS		✓	<i>[Unqueldentifier]_avms_itxpt_http_tcp.local</i>	ICU602-c8df849c09e4_avms_itxpt_http_tcp.local	No tolerance
Test M-024-A	AVMS Run Monitoring Operation	S02P06 - AVMS		✓	<i>RunMonitoringDelivery</i>	RunMonitoringDelivery	No tolerance
Test M-024-B	AVMS Planned Pattern Operation	S02P06 - AVMS		✓	<i>PlannedPatternDelivery</i>	PlannedPatternDelivery	No tolerance
Test M-024-C	AVMS Pattern Monitoring Operation	S02P06 - AVMS		✓	<i>PatternMonitoringDelivery</i>	PatternMonitoringDelivery	No tolerance
Test M-024-D	AVMS Vehicle Monitoring Operation	S02P06 - AVMS		✓	<i>VehicleMonitoringDelivery</i>	VehicleMonitoringDelivery	No tolerance
Test M-024-E	AVMS Journey Monitoring Operation	S02P06 - AVMS		✓	<i>JourneyMonitoringDelivery</i>	JourneyMonitoringDelivery	No tolerance
Test M-024-F	AVMS General Message Operation	S02P06 - AVMS		✓	<i>GeneralMessageDelivery</i>	GeneralMessageDelivery	No tolerance
Test M-024-G	AVMS Connection Monitoring Operation	S02P06 - AVMS		✓	<i>ConnectionMonitoringDelivery</i>	ConnectionMonitoringDelivery	No tolerance
Test M-025	APC Service	S02P07 - APC		✓	<i>[Unqueldentifier]_apc_itxpt_http_tcp.local</i>	ICU602-c8df849c09e4_apc_itxpt_http_tcp.local	No tolerance
Test M-025-A	APC Passenger Door Count Operation	S02P07 - APC		✓	<i>PassengerDoorCountDelivery</i>	PassengerDoorCountDelivery	No tolerance
Test M-025-B	APC Passenger Vehicle Count Operation	S02P07 - APC		✓	<i>PassengerVehicleCountDelivery</i>	PassengerVehicleCountDelivery	No tolerance
Test M-026	MADT Service	S02P08 - MADT		N/A	<i>[Unqueldentifier]_madt_itxpt_socket_tcp.local</i>	Not applicable	No tolerance
Test M-026-A	MADT Information Operation	S02P08 - MADT		N/A	<i>GetInfo Response</i>	Not applicable	No tolerance
Test M-026-B	MADT Play a sound Operation	S02P08 - MADT		N/A	<i>PlaySound Response</i>	Not applicable	No tolerance
Test M-026-C	MADT Read settings Operation	S02P08 - MADT		N/A	<i>GetSettings Response</i>	Not applicable	No tolerance
Test M-026-D	MADT Write settings Operation	S02P08 - MADT		N/A	<i>SetSettings Response</i>	Not applicable	No tolerance
Test M-026-E	MADT Stop the MADT Operation	S02P08 - MADT		N/A	<i>Stop Response</i>	Not applicable	No tolerance
Test M-026-F	MADT Restart the MADT Operation	S02P08 - MADT		N/A	<i>Restart Response</i>	Not applicable	No tolerance
Test M-026-G	MADT Retrieve MTS characteristics Operation	S02P08 - MADT		N/A	<i>GetCharacteristics Response</i>	Not applicable	No tolerance
Test M-026-H	MADT Create a Web tab Operation	S02P08 - MADT		N/A	<i>NewWebTab Response</i>	Not applicable	No tolerance
Test M-026-I	MADT Create a VNC tab Operation	S02P08 - MADT		N/A	<i>NewVNCResponse</i>	Not applicable	No tolerance
Test M-026-J	MADT Create a Shortcut Operation	S02P08 - MADT		N/A	<i>NewShortcut Response</i>	Not applicable	No tolerance
Test M-026-K	MADT Navigate to given URI Operation	S02P08 - MADT		N/A	<i>NavigateTo Response</i>	Not applicable	No tolerance
Test M-026-L	MADT Blink a tab Operation	S02P08 - MADT		N/A	<i>BlinkTab Response</i>	Not applicable	No tolerance
Test M-026-M	MADT Activate a tab Operation	S02P08 - MADT		N/A	<i>ActivateTab Response</i>	Not applicable	No tolerance
Test M-026-N	MADT Remove a tab Operation	S02P08 - MADT		N/A	<i>KillTab Response</i>	Not applicable	No tolerance
Test M-026-O	MADT Remove a Shortcut Operation	S02P08 - MADT		N/A	<i>KillShortcut Response</i>	Not applicable	No tolerance
Test M-026-P	MADT I am alive Operation	S02P08 - MADT		N/A	<i>IamAlive Response</i>	Not applicable	No tolerance
Test M-026-Q	MADT Get tabs mapping Operation	S02P08 - MADT		N/A	<i>GetTabMap Response</i>	Not applicable	No tolerance
Test M-027	MQTT broker Service	S02P09 - MQTT		✓	<i>[Unqueldentifier]_mqtt-broker_r_mqtt_tcp.local</i>	ICU602-c8df849c09e4_mqtt-broker_r_mqtt_tcp.local	No tolerance

AVAILABLE SERVICES		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
CONSUMED SERVICES		Specification chapter reference	Mandatory	Optional	Expected result	Result	Tolerance
Test M-028	Module Inventory Service	S02P01 - Inventory		N/A	HTTP Get request on the path	Not applicable	No tolerance
Test M-029	Time Service	S02P02 - Time		N/A	NTP query	Not applicable	No tolerance
Test M-030	GNSS location Service	S02P03 - GNSS		N/A	Join the multicast group	Not applicable	No tolerance
Test M-031-A	FMStoIP Service	S02P04 - FMStoIP		N/A	Join the multicast group	Not applicable	No tolerance
Test M-031-B	FMStoIP AddPGN Operation	S02P04 - FMStoIP		N/A	Add PGN request	Not applicable	No tolerance
Test M-031-C	FMStoIP RemovePGN Operation	S02P04 - FMStoIP		N/A	Remove PGN request	Not applicable	No tolerance
Test M-031-D	FMStoIP GetPGN Operation	S02P04 - FMStoIP		N/A	Get PGN request	Not applicable	No tolerance
Test M-032	VEHICLEtoIP Service	S02P04 - VEHICLEtoIP		N/A	Join the multicast group	Not applicable	No tolerance
Test M-033-A	AVMS Run Monitoring Operation	S02P06 - AVMS		N/A	RunMonitoringDelivery subscription request	Not applicable	No tolerance
Test M-033-B	AVMS Planned Pattern Operation	S02P06 - AVMS		N/A	PlannedPatternDelivery subscription request	Not applicable	No tolerance
Test M-033-C	AVMS Pattern Monitoring Operation	S02P06 - AVMS		N/A	PatternMonitoringDelivery subscription request	Not applicable	No tolerance
Test M-033-D	AVMS Vehicle Monitoring Operation	S02P06 - AVMS		N/A	VehicleMonitoringDelivery subscription request	Not applicable	No tolerance
Test M-033-E	AVMS Journey Monitoring Operation	S02P06 - AVMS		N/A	JourneyMonitoringDelivery subscription request	Not applicable	No tolerance
Test M-033-F	AVMS General Message Operation	S02P06 - AVMS		N/A	GeneralMessageDelivery subscription request	Not applicable	No tolerance
Test M-033-G	AVMS Connection Monitoring Operation	S02P06 - AVMS		N/A	ConnectionMonitoringDelivery subscription request	Not applicable	No tolerance
Test M-034-A	APC Passenger Door Count Operation	S02P07 - APC		N/A	PassengerDoorCountDelivery subscription request	Not applicable	No tolerance
Test M-034-B	APC Passenger Vehicle Count Operation	S02P07 - APC		N/A	PassengerVehicleCountDelivery subscription request	Not applicable	No tolerance
Test M-035-A	MADT Information Operation	S02P08 - MADT		N/A	GetInfo socket request	Not applicable	No tolerance
Test M-035-B	MADT Play a sound Operation	S02P08 - MADT		N/A	PlaySound socket request	Not applicable	No tolerance
Test M-035-C	MADT Read settings Operation	S02P08 - MADT		N/A	GetSettings socket request	Not applicable	No tolerance
Test M-035-D	MADT Write settings Operation	S02P08 - MADT		N/A	SetSettings socket request	Not applicable	No tolerance
Test M-035-E	MADT Stop the MADT Operation	S02P08 - MADT		N/A	Stop socket request	Not applicable	No tolerance
Test M-035-F	MADT Retrieve MTS characteristics Operation	S02P08 - MADT		N/A	GetCharacteristics socket request	Not applicable	No tolerance
Test M-035-G	MADT Create a Web tab Operation	S02P08 - MADT		N/A	NewWebTab socket request	Not applicable	No tolerance
Test M-035-H	MADT Create a VNC tab Operation	S02P08 - MADT		N/A	NewVNCtab socket request	Not applicable	No tolerance
Test M-035-I	MADT Navigate to given URI Operation	S02P08 - MADT		N/A	NavigateTo socket request	Not applicable	No tolerance
Test M-035-J	MADT Blink a tab Operation	S02P08 - MADT		N/A	BlinkTab socket request	Not applicable	No tolerance
Test M-035-K	MADT Activate a tab Operation	S02P08 - MADT		N/A	ActivateTab socket request	Not applicable	No tolerance
Test M-035-L	MADT Remove a tab Operation	S02P08 - MADT		N/A	KillTab socket request	Not applicable	No tolerance
Test M-035-M	MADT I am alive Operation	S02P08 - MADT		N/A	IamAlive socket request	Not applicable	No tolerance
Test M-035-N	MADT Get tabs mapping Operation	S02P08 - MADT		N/A	GetTabMap socket request	Not applicable	No tolerance
Test M-036	MQTT broker Service	S02P09 - MQTT		N/A	Connect to the broker	Not applicable	No tolerance

**COMMENT**

- ✓ compliant
- ✗ not compliant
- N/T not tested
- N/A not applicable



## POWER SUPPLY CONNECTOR

Pin distribution

POWER SUPPLY CONNECTOR		Specification chapter reference	Mandatory	Optional	Expected result	Result
M-005 POW_1	Pin 1	S01 - 2.1.2 - Power supply connectors		N/A	24V after Manual Switch (permanent) Mandatory if sleeping phase managed	<b>Not applicable</b>
M-005 POW_2	Pin 2	S01 - 2.1.2 - Power supply connectors	✓		GROUND	<b>GROUND</b>
M-005 POW_3	Pin 3	S01 - 2.1.2 - Power supply connectors	✓		24V after Ignition switch	<b>24V after Ignition switch</b>
M-005 POW_4	Pin 4	S01 - 2.1.2 - Power supply connectors		N/A	Full power available	<b>Not applicable</b>
M-005 POW_5	Pin 5	S01 - 2.1.2 - Power supply connectors	✓		Not connected	<b>Not connected</b>
M-005 POW_6	Pin 6	S01 - 2.1.2 - Power supply connectors		N/A	24V after main switch	<b>Not applicable</b>

Test M-008

## BUS-FMS CONNECTOR

Pin distribution

BUS-FMS CONNECTOR		Specification chapter reference	Mandatory	Optional	Expected result	Result
M-008 FMS_1	Pin 1	S01 - 2.2 - FMS interface	✓		CAN High	CAN High
M-008 FMS_2	Pin 2	S01 - 2.2 - FMS interface	✓		CAN Low	CAN Low
M-008 FMS_3	Pin 3	S01 - 2.2 - FMS interface		N/A	Optional CAN ground	Not applicable
M-008 FMS_4	Pin 4	S01 - 2.2 - FMS interface	✓		Not used by Bus-FMS Standard	Not used

AUDIO CONNECTOR		Specification chapter reference	Mandatory	Optional	Expected result	Result
M-011 AUD_1	Pin 1	S01 - 2.3 - Audio interface	✓		<i>LEFT audio channel</i>	<b>LEFT audio channel</b>
M-011 AUD_2	Pin 2	S01 - 2.3 - Audio interface	✓		<i>Common GROUND</i>	<b>Common GROUND</b>
M-011 AUD_3	Pin 3	S01 - 2.3 - Audio interface	✓		<i>RIGHT audio channel</i>	<b>RIGHT audio channel</b>
M-011 AUD_4	Pin 4	S01 - 2.3 - Audio interface	✓		<i>Not connected</i>	<b>Not connected</b>
M-011 AUD_5	Pin 5	S01 - 2.3 - Audio interface	✓		<i>Not connected</i>	<b>Not connected</b>
M-011 AUD_6	Pin 6	S01 - 2.3 - Audio interface	✓		<i>Not connected</i>	<b>Not connected</b>
M-011 AUD_7	Pin 7	S01 - 2.3 - Audio interface		✓	<i>First prio for passenger area</i>	<b>First prio for passenger area</b>
M-011 AUD_8	Pin 8	S01 - 2.3 - Audio interface		N/A	<i>Second prio for driver area</i>	<b>Not applicable</b>
M-011 AUD_9	Pin 9	S01 - 2.3 - Audio interface		✓	<i>Third prio for external area</i>	<b>Third prio for external area</b>



AUXILIARY CONNECTOR		Specification chapter reference	Mandatory	Optional	Expected result	Result
M-016 AUX_1	Pin 1	S01 - 2.5.1 - Low battery information		N/A	Low signal as "low battery" status	Not applicable
M-016 AUX_2	Pin 2	S01 - 2.5 - Auxiliary interface		N/A	Odometer	Not applicable
M-016 AUX_3	Pin 3	S01 - 2.5 - Auxiliary interface		✓	Door 1 open information	Door 1 open information
M-016 AUX_4	Pin 4	S01 - 2.5 - Auxiliary interface		N/A	Door 2 open information	Not applicable
M-016 AUX_5	Pin 5	S01 - 2.5 - Auxiliary interface		N/A	Door 3 open information	Not applicable
M-016 AUX_6	Pin 6	S01 - 2.5 - Auxiliary interface		N/A	Door 4 open information	Not applicable
M-016 AUX_7	Pin 7	S01 - 2.5 - Auxiliary interface		N/A	Door 5 open information	Not applicable
M-016 AUX_8	Pin 8	S01 - 2.5 - Auxiliary interface		N/A	Door 6 open information	Not applicable
M-016 AUX_9	Pin 9	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable
M-016 AUX_10	Pin 10	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable
M-016 AUX_11	Pin 11	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable
M-016 AUX_12	Pin 12	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable
M-016 AUX_13	Pin 13	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable
M-016 AUX_14	Pin 14	S01 - 2.5.5 - AnyDoorOpen		N/A	AnyDoorOpen	Not applicable
M-016 AUX_15	Pin 15	S01 - 2.5.3 - Awake request		N/A	Awake request	Not applicable
M-016 AUX_16	Pin 16	S01 - 2.5.4 - Stop request		✓	Stop request	Stop request
M-016 AUX_17	Pin 17	S01 - 2.5.2 - Full power available		N/A	Full power available	Not applicable
M-016 AUX_18	Pin 18	S01 - 2.5 - Auxiliary interface		N/A	Not used (reserved)	Not applicable

Module Inventory Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
Service publication						
Test M-019_1	UNIQUE IDENTIFIER	S02P01 - 3.2	✓		[UniqueIdentifier]	ICU602-c8df849c09e4
Test M-019_2	SERVICE NAME	S02P01 - 3.2	✓		inventory	inventory
Test M-019_3	SERVICE TYPE	S02P01 - 3.2	✓		itxpt_socket or itxpt_http	itxpt_http
Test M-019_4	PROTOCOL	S02P01 - 3.2	✓		tcp	tcp
Test M-019_5	DOMAIN	S02P01 - 3.2	✓		local	local
Test M-019_6	PORT	S02P01 - 3.2	✓		9 (for socket) or 80 (for http)	80
Test M-019_7	TARGET	S02P01 - 3.2	✓		[hostname]	Deb9OS
Test M-019_8	TXT RECORD	S02P01 - 3.3	✓		txtvers version (swvers) type model manufacturer serialnumber softwareversion hardwareversion macaddress status (xstatus) (submodules) (path) services	txtvers=1 version=2.1 type=AVMS model=ICU602 manufacturer=LTG serialnumber=101586-00-001 softwareversion=1.0.0.28 hardwareversion=1 macaddress=c8:df:84:9c:09:e4 xstatus=0 submodules=false path=/moduleinfo.xml services=inventory;time;gnsslocation;fmstoip;vehicletoip;avms;apc;mqtt-broker
Publication consistency						
Test M-019_9	Instance name	S02P01 - 3.2	✓		The instance name is a unique identifier and the same for all the declared services	ICU602-c8df849c09e4
Test M-019_10	TXT version	S02P01 - 3.3	✓		2.1	2.1
Test M-019_11	TXT type	S02P01 - 3.3 (Note 4)	✓		type value coherent with the module type	AVMS
Test M-019_12	TXT model	S02P01 - 3.3	✓		model value coherent with the module model	ICU602
Test M-019_13	TXT manufacturer	S02P01 - 3.3	✓		manufacturer value coherent with the module manufacturer	LTG
Test M-019_14	TXT serialnumber	S02P01 - 3.3	✓		serialnumber value coherent with the module serial number	101586-00-001
Test M-019_15	TXT softwareversion	S02P01 - 3.3	✓		softwareversion value coherent with the module software version	1.0.0.28
Test M-019_16	TXT hardwareversion	S02P01 - 3.3	✓		hardwareversion value coherent with the module hardware version	1
Test M-019_17	TXT macaddress	S02P01 - 3.3	✓		macaddress value coherent with the module mac address, as HEX with ":" separating the bytes	c8:df:84:9c:09:e4
Test M-019_18	TXT status	S02P01 - 3.3	✓		status value coherent with the last error detected during self module test	0
Test M-019_19	TXT xstatus	S02P01 - 3.3		✓	xstatus value coherent with the detail module status	C0FFFFFFFFFFFFFF
Test M-019_20	TXT submodules	S02P01 - 3.3		✓	submodules value coherent with the module submodules	false
Test M-019_21	TXT path	S02P01 - 3.3		✓	path value coherent with the module path	/moduleinfo.xml
Test M-019_22	TXT services	S02P01 - 3.3	✓		Available list of services, separated with ";"	inventory;time;gnsslocation;fmstoip;vehicletoip;avms;apc;mqtt-broker

<p>Delivery data structure</p> <p>Test M-019_23</p>	<p>XML FILE CONTENT for Modules Delivery</p>	<p>S02P01 - 4.2</p>			<p>as defined in chapter reference</p>	<pre> &lt;ModulesDelivery version="1.0"&gt;   &lt;Module&gt;     &lt;Type&gt;AVMS&lt;/Type&gt;     &lt;Model&gt;CU602&lt;/Model&gt;     &lt;Manufacturer&gt;LT&lt;/Manufacturer&gt;     &lt;SerialNumber&gt;101586-00-001&lt;/SerialNumber&gt;     &lt;SoftwareVersion&gt;1.0.0.28&lt;/SoftwareVersion&gt;     &lt;HardwareVersion&gt;1&lt;/HardwareVersion&gt;     &lt;MACAddress&gt;C8:d1:9c:09:e4&lt;/MACAddress&gt;     &lt;Status&gt;&lt;/Status&gt;     &lt;XStatus page="1" timestamp="2020-10-27T11:54:03"&gt;C0FFFFFFFF&lt;/XStatus&gt;     &lt;StatusList page="1"&gt;       &lt;!--Standard extended status block --&gt;       &lt;item code="1"&gt;Generic module status&lt;/item&gt;       &lt;item code="2"&gt;Consolidated Submodule status&lt;/item&gt;       &lt;item code="3"&gt;Low uptime&lt;/item&gt;       &lt;item code="4"&gt;High uptime&lt;/item&gt;       &lt;item code="5"&gt;Free RAM memory&lt;/item&gt;       &lt;item code="6"&gt;Free storage memory&lt;/item&gt;       &lt;item code="7"&gt;root filesystem&lt;/item&gt;       &lt;item code="8"&gt;application filesystem&lt;/item&gt;       &lt;item code="9"&gt;filesystem load&lt;/item&gt;       &lt;item code="10"&gt;Missing file&lt;/item&gt;       &lt;item code="11"&gt;CPU load&lt;/item&gt;       &lt;item code="12"&gt;Network load&lt;/item&gt;       &lt;item code="13"&gt;Tampering&lt;/item&gt;       &lt;item code="14"&gt;Backoffice connection&lt;/item&gt;       &lt;item code="15"&gt;WAN connection&lt;/item&gt;       &lt;item code="16"&gt;Configuration&lt;/item&gt;       &lt;item code="17"&gt;Running applications&lt;/item&gt;       &lt;item code="18"&gt;System temperature&lt;/item&gt;       &lt;item code="19"&gt;Time sync&lt;/item&gt;       &lt;item code="20"&gt;Power supply&lt;/item&gt;     &lt;/StatusList&gt;     &lt;SubModules&gt;       &lt;Services&gt;         &lt;ServiceName&gt;inventory&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_http&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;time&lt;/ServiceName&gt;         &lt;ServiceType&gt;snmp&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;gnsslocation&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_multicast&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;fmstopt&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_multicast&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;fmstopt&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_http&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;vehicletop&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_multicast&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;avms&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_http&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;apc&lt;/ServiceName&gt;         &lt;ServiceType&gt;ixtpt_http&lt;/ServiceType&gt;       &lt;/Services&gt;       &lt;Services&gt;         &lt;ServiceName&gt;mqtt-broker&lt;/ServiceName&gt;         &lt;ServiceType&gt;mqtt&lt;/ServiceType&gt;       &lt;/Services&gt;     &lt;/SubModules&gt;   &lt;/Module&gt; &lt;/ModulesDelivery&gt; </pre>
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Delivery consistency						
Test M-019_25	Field Type from Module structure	S02P01 - 4.2	✓		Type value coherent with the module type	AVMS
Test M-019_26	Field Model from Module structure	S02P01 - 4.2	✓		Model value coherent with the module model	ICU602
Test M-019_27	Field Manufacturer from Module structure	S02P01 - 4.2	✓		Manufacturer value coherent with the module manufacturer	LTG
Test M-019_28	Field SerialNumber from Module structure	S02P01 - 4.2	✓		SerialNumber value coherent with the module serial number	101586-00-001
Test M-019_29	Field SoftwareVersion from Module structure	S02P01 - 4.2	✓		SoftwareVersion value coherent with the module software version	1.0.0.28
Test M-019_30	Field HardwareVersion from Module structure	S02P01 - 4.2	✓		HardwareVersion value coherent with the module hardware version	1
Test M-019_31	Field MACAddress from Module structure	S02P01 - 4.2	✓		MACAddress value coherent with the module mac address, as HEX with ":" separating the bytes	c8:df:84:9c:09:e4
Test M-019_32	Field EcoMode from Module structure	S02P01 - 4.2		N/A	EcoMode value coherent with the current active ECOMode	Not applicable
Test M-019_33	Field Status from Module structure	S02P01 - 4.2	✓		Status value coherent with the last error detected during self module test	0
Test M-019_34	Field XStatus from Module structure	S02P01 - 4.2		✓	XStatus value coherent with the detail module status	C0FFFFFFFFFFFF
Test M-019_35	Field Item from StatusList structure	S02P01 - 4.2		✓	Item list and codes coherent with the detail module status	Item list and codes coherent with the detail module status
Test M-019_36	Field Type from SubModules structure	S02P01 - 4.2		N/A	Type value coherent with the submodule type	Not applicable
Test M-019_37	Field Model from SubModules structure	S02P01 - 4.2		N/A	Model value coherent with the submodule model	Not applicable
Test M-019_38	Field Manufacturer from SubModules structure	S02P01 - 4.2		N/A	Manufacturer value coherent with the submodule manufacturer	Not applicable
Test M-019_39	Field SerialNumber from SubModules structure	S02P01 - 4.2		N/A	SerialNumber value coherent with the submodule serial number	Not applicable
Test M-019_40	Field SoftwareVersion from SubModules structure	S02P01 - 4.2		N/A	SoftwareVersion value coherent with the submodule software version	Not applicable
Test M-019_41	Field HardwareVersion from SubModules structure	S02P01 - 4.2		N/A	HardwareVersion value coherent with the submodule hardware version	Not applicable
Test M-019_42	Field Status from SubModules structure	S02P01 - 4.2		N/A	Status value coherent with the last error detected during self submodule test	Not applicable
Test M-019_43	Field XStatus from SubModules structure	S02P01 - 4.2		N/A	XStatus value coherent with the detail submodule status	Not applicable
Test M-019_44	Field ServiceName from Services structure	S02P01 - 4.2	✓		ServiceName value coherent with the name of the implemented services from: inventory   time   gnsslocation   fmstoip   vehicletoip   avms   apc   madt   mqtt-broker	ServiceName value coherent with the name of the implemented services from: inventory   time   gnsslocation   fmstoip   vehicletoip   avms   apc   madt   mqtt-broker
Test M-019_45	Field ServiceType from Services structure	S02P01 - 4.2	✓		ServiceType value coherent with the type of the implemented services from: itxpt_socket   itxpt_http   sntp   itxpt_multicast   mqtt	ServiceType value coherent with the type of the implemented services from: itxpt_socket   itxpt_http   sntp   itxpt_multicast   mqtt

Time Service	Specification chapter reference	Mandatory	Optional	Expected result	Result
<b>Service publication</b>					
Test M-020_1	UNIQUE IDENTIFIER	S02P02 - 3.2	✓	<i>[UniqueIdentifier]</i>	<b>ICU602-c8df849c09e4</b>
Test M-020_2	SERVICE NAME	S02P02 - 3.2	✓	<i>time</i>	<b>time</b>
Test M-020_3	SERVICE TYPE	S02P02 - 3.2	✓	<i>sntp</i>	<b>sntp</b>
Test M-020_4	PROTOCOL	S02P02 - 3.2	✓	<i>udp</i>	<b>udp</b>
Test M-020_5	DOMAIN	S02P02 - 3.2	✓	<i>local</i>	<b>local</b>
Test M-020_6	PORT	S02P02 - 3.2	✓	<i>123</i>	<b>123</b>
Test M-020_7	TARGET	S02P02 - 3.2	✓	<i>[hostname]</i>	<b>Deb9OS</b>
Test M-020_8	TXT RECORD	S02P02 - 3.3	✓	<i>txtvers version (swvers) (sntp-host) (timezone)</i>	<b>txtvers=1 version=2.1</b>
<b>Publication consistency</b>					
Test M-020_9	Instance name	S02P02 - 3.2	✓	<i>The instance name is a unique identifier and the same for all the declared services</i>	<b>ICU602-c8df849c09e4</b>
Test M-020_10	TXT version	S02P02 - 3.3	✓	<i>2.1</i>	<b>2.1</b>
Test M-020_11	TXT sntp-host	S02P02 - 3.3		N/A <i>sntp-host value coherent with the IP address of SNTP server</i>	<b>Not applicable</b>
Test M-020_12	TXT timezone	S02P02 - 3.3		N/A <i>timezone value coherent with the local offset in the format: UTC+HH:MM</i>	<b>Not applicable</b>
<b>Delivery consistency</b>					
Test M-020_13	NTP Query	S02P02 - 1	✓	<i>NTP query response based on RFC 4330</i>	<b>NTP query response based on RFC 4330</b>

GNSS location Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
Service publication						
Test M-021_1	UNIQUE IDENTIFIER	S02P03 - 3.2	✓		<i>[UniqueIdentifier]</i>	<b>ICU602-c8df849c09e4</b>
Test M-021_2	SERVICE NAME	S02P03 - 3.2	✓		<i>gnsslocation</i>	<b>gnsslocation</b>
Test M-021_3	SERVICE TYPE	S02P03 - 3.2	✓		<i>itxpt_multicast</i>	<b>itxpt_multicast</b>
Test M-021_4	PROTOCOL	S02P03 - 3.2	✓		<i>udp</i>	<b>udp</b>
Test M-021_5	DOMAIN	S02P03 - 3.2	✓		<i>local</i>	<b>local</b>
Test M-021_6	PORT	S02P03 - 3.2	✓		<i>14005</i>	<b>14005</b>
Test M-021_7	TARGET	S02P03 - 3.2	✓		<i>[hostname]</i>	<b>Deb90S</b>
Test M-021_8	TXT RECORD		✓		<i>txtvers (swvers) version multicast</i>	<b>txtvers=1 version=2.1 multicast=239.255.42.21</b>
Publication consistency						
Test M-021_9	Instance name	S02P03 - 3.2	✓		<i>The instance name is a unique identifier and the same for all the declared services</i>	<b>ICU602-c8df849c09e4</b>
Test M-021_10	TXT version	S02P03 - 3.3	✓		<i>2.1</i>	<b>2.1</b>
Test M-021_11	TXT multicast	S02P03 - 3.3	✓		<i>239.255.42.21</i>	<b>239.255.42.21</b>
Delivery data structure						
Test M-021_12	XML FILE CONTENT for GNSSLocationDelivery	S02P03 - 4.2	✓		<i>as defined in chapter reference</i>	<b>&lt;GNSSLocationDelivery version="1.1a"&gt; &lt;GNSSLocation&gt;  &lt;Data&gt;\$GNRMC,132117.00,A,4852.64594,N,00220.32733,E,0.126,,091020,,D*64&lt;/Data&gt; &lt;Latitude&gt; &lt;Degree&gt;48.8774&lt;/Degree&gt; &lt;Direction&gt;N&lt;/Direction&gt; &lt;/Latitude&gt; &lt;Longitude&gt; &lt;Degree&gt;2.33879&lt;/Degree&gt; &lt;Direction&gt;E&lt;/Direction&gt; &lt;/Longitude&gt; &lt;Altitude&gt;0&lt;/Altitude&gt; &lt;Time&gt;13:21:17&lt;/Time&gt; &lt;Date&gt;2020-10-09&lt;/Date&gt; &lt;SpeedOverGround&gt;0.06482&lt;/SpeedOverGround&gt; &lt;SignalQuality&gt;GPS&lt;/SignalQuality&gt; &lt;NumberOfSatellites/&gt; &lt;GNSSType&gt;GPS&lt;/GNSSType&gt; &lt;GNSSCoordinateSystem&gt;WGS84&lt;/GNSSCoordinateSystem&gt; &lt;/GNSSLocation&gt; &lt;/GNSSLocationDelivery&gt;</b>
Delivery dissemination cycle						
Test M-021_13	Cyclic update rate	S02P03 - 4.2		✓	<i>Delivery update rate</i>	<b>Delivered every second</b>
Test M-021_14	Field Degree from Latitude structure	S02P03 - 4.2	✓		<i>Degree value coherent with the range [-90.0 ,+90.0]</i>	<b>Degree value coherent within the range [-90.0 ,+90.0]</b>
Test M-021_15	Field Direction from Latitude structure	S02P03 - 4.2	✓		<i>Direction value coherent with the range N   S</i>	<b>Direction value coherent within the range N   S</b>
Test M-021_16	Field Degree from Longitude structure	S02P03 - 4.2	✓		<i>Degree value coherent with the range [-180.0 ,+180.0]</i>	<b>Degree value coherent within the range [-180.0 ,+180.0]</b>
Test M-021_17	Field Direction from Longitude structure	S02P03 - 4.2	✓		<i>Direction value coherent with the range W   E</i>	<b>Direction value coherent within the range W   E</b>

FMStoIP Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
<b>fmstoip configuration service publication</b>						
Test M-021-A_1	UNIQUE IDENTIFIER	S02P04 - 3.1.2	✓		[Uniquelidentifier]	ICU602-c8df849c09e4
Test M-021-A_2	SERVICE NAME	S02P04 - 3.1.2	✓		fmstoip	fmstoip
Test M-021-A_3	SERVICE TYPE	S02P04 - 3.1.2	✓		itxpt_http	itxpt_http
Test M-021-A_4	PROTOCOL	S02P04 - 3.1.2	✓		tcp	tcp
Test M-021-A_5	DOMAIN	S02P04 - 3.1.2	✓		local	local
Test M-021-A_6	PORT	S02P04 - 3.1.2	✓		8085	8085
Test M-021-A_7	TARGET	S02P04 - 3.1.2	✓		[hostname]	Deb9OS
Test M-021-A_8	TXT RECORD	S02P04 - 3.1.3	✓		txtvers version (swvers) path operations	txtvers=1 version=2.1 swvers=1.3.4 path=fmstoip/ operations=addpgn;removepgn;getpgn
<b>fmstoip configuration service publication consistency</b>						
Test M-021-A_9	TXT version	S02P04 - 3.1.3	✓		2.1	2.1
Test M-021-A_10	TXT path	S02P04 - 3.1.3	✓		Root path which is used to deliver configuration operations	fmstoip/
Test M-021-A_11	TXT operations	S02P04 - 3.1.3	✓		List of operations according to available operations, separated with ";"	addpgn;removepgn;getpgn
<b>fmstoip configuration operation behaviour</b>						
Test M-021-A_12	AddPGN operation	S02P04 - 4.1.2.1	✓		Provision PGN list configured in accordance with requested PGN(s)	Provision PGN list configured in accordance with requested PGN(s)
Test M-021-A_13	RemovePGN operation	S02P04 - 4.1.2.2	✓		Provision PGN list configured in accordance with requested PGN(s)	Provision PGN list configured in accordance with requested PGN(s)
Test M-021-A_14	GetPGN operation	S02P04 - 4.1.2.3		✓	Restricted FMStoIPDelivery in accordance with requested PGN(s), complying with provision service delivery structure	Restricted FMStoIPDelivery in accordance with requested PGN(s), complying with provision service delivery structure
<b>fmstoip provision service publication</b>						
Test M-021-B_1	UNIQUE IDENTIFIER	S02P04 - 3.2.2	✓		[Uniquelidentifier]	ICU602-c8df849c09e4
Test M-021-B_2	SERVICE NAME	S02P04 - 3.2.2	✓		fmstoip	fmstoip
Test M-021-B_3	SERVICE TYPE	S02P04 - 3.2.2	✓		itxpt_multicast	itxpt_multicast
Test M-021-B_4	PROTOCOL	S02P04 - 3.2.2	✓		udp	udp
Test M-021-B_5	DOMAIN	S02P04 - 3.2.2	✓		local	local
Test M-021-B_6	PORT	S02P04 - 3.2.2	✓		15015	15015
Test M-021-B_7	TARGET	S02P04 - 3.2.2	✓		[hostname]	Deb9OS
Test M-021-B_8	TXT RECORD	S02P04 - 3.2.3	✓		txtvers version (swvers) multicast	txtvers=1 version=1 swvers=1.3.4 multicast=239.255.42.21
<b>fmstoip provision service publication consistency</b>						
Test M-021-B_9	TXT version	S02P04 - 3.2.3	✓		2.1	2.1
Test M-021-B_10	TXT multicast	S02P04 - 3.2.3	✓		239.255.42.21	239.255.42.21

FMStoIP Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
fmstoip provision service delivery data structure						
Test M-021-B_11	XML FILE CONTENT for FMStoIPDelivery	S02P04 - 4.2.2	✓		as defined in chapter reference	<pre> &lt;FMStoIPDelivery version="str1234"&gt; &lt;FMStoIP FMSVersion="04" VIN="WEB62808313701983 "&gt;   &lt;Frame Status="OK"&gt;     &lt;PGN&gt;FE4E&lt;/PGN&gt;     &lt;Data&gt;C2FFFFFFFFFFFF&lt;/Data&gt;     &lt;RelativeTime&gt;254106432&lt;/RelativeTime&gt;   &lt;/Frame&gt;   &lt;-[...]-&gt;   &lt;Frame Status="OK"&gt;     &lt;PGN&gt;F004&lt;/PGN&gt;     &lt;Data&gt;FFFFFF7D02FFFFFF&lt;/Data&gt;     &lt;RelativeTime&gt;254107339&lt;/RelativeTime&gt;   &lt;/Frame&gt; &lt;/FMStoIP&gt; &lt;/FMStoIPDelivery&gt; </pre>
fmstoip provision service delivery consistency						
Test M-021-B_12	Attribute FMSVersion from FMStoIP structure	S02P04 - 4.2.2	✓		FMSVersion value coherent with the supported FMS version	<b>04</b>
Test M-021-B_13	Attribute VIN from FMStoIP structure	S02P04 - 4.2.2		✓	VIN value coherent with the VIN read from FMS	<b>VIN value coherent with the VIN read from FMS</b>
Test M-021-B_14	Field Status from Frame structure	S02P04 - 4.2.2	✓		OK or Timeout	<b>OK or Timeout</b>
Test M-021-B_15	Field PGN from Frame structure	S02P04 - 4.2.2	✓		PGN value coherent with available PGNs on 4 HEX	<b>PGN value coherent with available PGNs on 4 HEX</b>
Test M-021-B_16	Field Data from Frame structure	S02P04 - 4.2.2	✓		Data value coherent with related PGN on 16 HEX	<b>Data value coherent with related PGN on 16 HEX</b>
Test M-021-B_17	Field RelativeTime from Frame structure	S02P04 - 4.2.2	✓		RelativeTime value coherent with incremental positiveinteger	<b>RelativeTime value coherent with incremental positiveinteger</b>
Test M-021-B_18	Field id from SPN structure	S02P04 - 4.2.2		N/A	id value coherent with related SPN on 4 DEC	<b>Not applicable</b>
Test M-021-B_19	Field Name from SPN structure	S02P04 - 4.2.2		N/A	Name value coherent with related SPN Name	<b>Not applicable</b>
Test M-021-B_20	Field Unit from SPN structure	S02P04 - 4.2.2		N/A	Unit value coherent with related SPN Unit	<b>Not applicable</b>
Test M-021-B_21	Field Value from SPN structure	S02P04 - 4.2.2		N/A	Value value coherent with related SPN decoded value	<b>Not applicable</b>
Provision service delivery dissemination cycle						
Test M-021-B_22	Cyclic update rate	S02P04 - 4.1.2		✓	Delivery update rate based on requested update policy	<b>Delivery update rate based on requested update policy</b>



VEHICLEtoIP Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
Service publication						
Test M-023_2	UNIQUE IDENTIFIER	S02P05 - 3.2	✓		<i>[UniqueIdentifier]</i>	<b>ICU602-c8df849c09e4</b>
Test M-023_3	SERVICE NAME	S02P05 - 3.2	✓		<i>vehicletoip</i>	<b>vehicletoip</b>
Test M-023_4	SERVICE TYPE	S02P05 - 3.2	✓		<i>itxpt_multicast</i>	<b>itxpt_multicast</b>
Test M-023_5	PROTOCOL	S02P05 - 3.2	✓		<i>udp</i>	<b>udp</b>
Test M-023_6	DOMAIN	S02P05 - 3.2	✓		<i>local</i>	<b>local</b>
Test M-023_7	PORT	S02P05 - 3.2	✓		<i>15030</i>	<b>15030</b>
Test M-023_8	TARGET	S02P05 - 3.2	✓		<i>[hostname]</i>	<b>Deb9OS</b>
Test M-023_9	TXT RECORD	S02P05 - 3.3	✓		<i>txtvers version (swvers) multicast</i>	<b>txtvers=1 version=2.1 multicast=239.255.42.21</b>
Publication consistency						
Test M-023_10	Instance name	S02P05 - 3.2	✓		<i>The instance name is a unique identifier and the same for all the declared services</i>	<b>ICU602-c8df849c09e4</b>
Test M-023_11	TXT version	S02P05 - 3.3	✓		<i>2.1</i>	<b>2.1</b>
Test M-023_12	TXT multicast	S02P05 - 3.3	✓		<i>239.255.42.21</i>	<b>239.255.42.21</b>
Delivery data structure						
Test M-023_13	XML FILE CONTENT for VEHICLEtoIPDelivery	S02P05 - 4.2	✓		<i>as defined in chapter reference</i>	<b>&lt;VEHICLEtoIPDelivery version="1.1a"&gt; &lt;VEHICLEtoIP&gt; &lt;RecordedAtTime&gt;2020-10-09T10:35:18&lt;/RecordedAtTime&gt; &lt;Odospeed&gt;0&lt;/Odospeed&gt; &lt;Odoistancetotal/&gt; &lt;Odoistance&gt;1&lt;/Odoistance&gt; &lt;Odofault&gt;&gt;false&lt;/Odofault&gt; &lt;DoorsStatus&gt;DoorOpen&lt;/DoorsStatus&gt; &lt;DoorsControl/&gt; &lt;ActiveCabin&gt;Cab1&lt;/ActiveCabin&gt; &lt;PresenceHV&gt;false&lt;/PresenceHV&gt; &lt;StopRequest&gt;&gt;false&lt;/StopRequest&gt; &lt;VehicleType&gt;Bus&lt;/VehicleType&gt; &lt;VehicleNumber&gt;Not assigned&lt;/VehicleNumber&gt; &lt;VehicleMode&gt;false&lt;/VehicleMode&gt; &lt;VehicleOrder&gt;1&lt;/VehicleOrder&gt; &lt;/VEHICLEtoIP&gt; &lt;/VEHICLEtoIPDelivery&gt;</b>
Delivery dissemination cycle						
Test M-023_14	Cyclic update rate	S02P05 - 4.2		✓	<i>Delivery update rate</i>	<b>Delivered every second</b>

#REF! AVMS Service

AVMS Service	Specification chapter reference	Mandatory	Optional	Expected result	Result
<b>Service publication</b>					
#REF!	UNIQUE IDENTIFIER	S02P06 - 3.2	✓	[UniquelIdentifier]	ICU602-c8df849c09e4
#REF!	SERVICE NAME	S02P06 - 3.2	✓	avms	avms
#REF!	SERVICE TYPE	S02P06 - 3.2	✓	ibxpt_http	itxpt_http
#REF!	PROTOCOL	S02P06 - 3.2	✓	tcp	tcp
#REF!	DOMAIN	S02P06 - 3.2	✓	local	local
#REF!	PORT	S02P06 - 3.2	✓	8000	8000
#REF!	TARGET	S02P06 - 3.2	✓	[hostname]	Deb9OS
#REF!	TXT RECORD	S02P06 - 3.3	✓	txtvers version (swvers) path operations	txtvers=1 version=2.1 path=avms/ operations=runmonitoring;plannedpattern;patternmonitoring;vehiclemonitoring;journeymonitoring;generalmessage;connectionmonitoring
<b>Publication consistency</b>					
#REF!	Instance name	S02P06 - 3.2	✓	The instance name is a unique identifier and the same for all the declared services	ICU602-c8df849c09e4
#REF!	TXT version	S02P06 - 3.3	✓	2.1	2.1
#REF!	TXT path	S02P06 - 3.3	✓	Root path which is used to deliver the operations	avms/
#REF!	TXT operations	S02P06 - 3.3	✓	Available list of operations, separated with ";"	runmonitoring;plannedpattern;patternmonitoring;vehiclemonitoring;journeymonitoring;generalmessage;connectionmonitoring
<b>Delivery data structure</b>					
#REF!	XML FILE CONTENT for RunMonitoringDelivery	S02P06 - 4.2.1	✓	as defined in chapter reference	<pre> &lt;RunMonitoringDelivery version="1.0"&gt;   &lt;MonitoredRunState&gt;     &lt;RecordedATime&gt;2020-10-12T19:36:02&lt;/RecordedATime&gt;     &lt;MonitoredBlockRef&gt;null&lt;/MonitoredBlockRef&gt;     &lt;CurrentRunInfo&gt;       &lt;RunState&gt;RunPattern&lt;/RunState&gt;       &lt;PatternRunType&gt;ServiceJourneyPattern&lt;/PatternRunType&gt;       &lt;JourneyPatternRef&gt;82&lt;/JourneyPatternRef&gt;       &lt;VehicleJourneyRef&gt;9015000008200051&lt;/VehicleJourneyRef&gt;     &lt;/CurrentRunInfo&gt;     &lt;NextRunInfo&gt;       &lt;RunState&gt;DeadRun&lt;/RunState&gt;       &lt;PatternRunType&gt;DeadRunPattern&lt;/PatternRunType&gt;       &lt;JourneyPatternRef&gt;       &lt;VehicleJourneyRef&gt;9016000000000000&lt;/VehicleJourneyRef&gt;     &lt;/NextRunInfo&gt;     &lt;Extensions&gt;       &lt;PassengerInfoState&gt;Normal&lt;/PassengerInfoState&gt;       &lt;DestinationFallbackDisplay&gt;         &lt;DestinationLongDisplay&gt;Slussen followed by Djurgården&lt;/DestinationLongDisplay&gt;         &lt;DestinationShortDisplay&gt;Slussen followed by Djurgården&lt;/DestinationShortDisplay&gt;         &lt;DestinationShortName&gt;Slussen followed by Djurgården&lt;/DestinationShortName&gt;         &lt;DestinationViaName&gt;         &lt;DestinationFallbackDisplay&gt;       &lt;/Extensions&gt;     &lt;/MonitoredRunState&gt;   &lt;/RunMonitoringDelivery&gt; </pre>

#REF!	XML FILE CONTENT for PlannedPatternDelivery	S02P06 - 4.2.2		✓	as defined in chapter reference	<pre> &lt;PlannedPatternDelivery version="1.0"&gt;   &lt;PlannedPattern&gt;     &lt;RecordedATime&gt;2020-10-27T10:19:14&lt;/RecordedATime&gt;     &lt;PatternRef&gt;90150000820011&lt;/PatternRef&gt;     &lt;VehicleJourneyRef&gt;901500008200011&lt;/VehicleJourneyRef&gt;     &lt;OperatingDayDate&gt;2020-10-27&lt;/OperatingDayDate&gt;     &lt;RouteRef&gt;90150000820011&lt;/RouteRef&gt;     &lt;LineRef&gt;82&lt;/LineRef&gt;     &lt;PublishedLineLabel&gt;82&lt;/PublishedLineLabel&gt;     &lt;PublishedTslLineLabel&gt;82&lt;/PublishedTslLineLabel&gt;     &lt;LineShortName&gt;82&lt;/LineShortName&gt;     &lt;LineName&gt;82 Djurgården&lt;/LineName&gt;     &lt;LineLongName&gt;82 Djurgården&lt;/LineLongName&gt;     &lt;DirectionRef&gt;       &lt;ExternalLineRef&gt;82&lt;/ExternalLineRef&gt;     &lt;OriginPlaceRef&gt;Slussen&lt;/OriginPlaceRef&gt;     &lt;OriginName&gt;Slussen&lt;/OriginName&gt;     &lt;OriginShortName&gt;Slussen&lt;/OriginShortName&gt;     &lt;OriginLongName&gt;Slussen&lt;/OriginLongName&gt;     &lt;OriginTtsName&gt;Slussen&lt;/OriginTtsName&gt;     &lt;DestinationPlaceRef&gt;3&lt;/DestinationPlaceRef&gt;     &lt;DestinationName&gt;Djurgården&lt;/DestinationName&gt;     &lt;DestinationShortName&gt;Djurgården&lt;/DestinationShortName&gt;     &lt;DestinationLongName&gt;Djurgården&lt;/DestinationLongName&gt;     &lt;DestinationTtsName&gt;Djurgården&lt;/DestinationTtsName&gt;   &lt;/PlannedPattern&gt;   &lt;PatternStops&gt;     &lt;PatternStop&gt;       &lt;StopPointRef&gt;1257&lt;/StopPointRef&gt;       &lt;Order&gt;1&lt;/Order&gt;       &lt;StopPointName&gt;Slussen&lt;/StopPointName&gt;       &lt;StopPointShortName&gt;Slussen&lt;/StopPointShortName&gt;       &lt;StopPointLongName&gt;Slussen&lt;/StopPointLongName&gt;       &lt;StopPointTtsName&gt;Slussen&lt;/StopPointTtsName&gt;     &lt;/PatternStop&gt;     &lt;PatternStop&gt;       &lt;StopPointRef&gt;1258&lt;/StopPointRef&gt;       &lt;Order&gt;2&lt;/Order&gt;       &lt;StopPointName&gt;Skeppsholmen (on request)&lt;/StopPointName&gt;       &lt;StopPointShortName&gt;Skeppsholmen (on request)&lt;/StopPointShortName&gt;       &lt;StopPointLongName&gt;Skeppsholmen (on request)&lt;/StopPointLongName&gt;       &lt;StopPointTtsName&gt;Skeppsholmen (on request)&lt;/StopPointTtsName&gt;     &lt;/PatternStop&gt;     &lt;PatternStop&gt;       &lt;StopPointRef&gt;1259&lt;/StopPointRef&gt;       &lt;Order&gt;3&lt;/Order&gt;       &lt;StopPointName&gt;Djurgården&lt;/StopPointName&gt;       &lt;StopPointShortName&gt;Djurgården&lt;/StopPointShortName&gt;       &lt;StopPointLongName&gt;Djurgården&lt;/StopPointLongName&gt;       &lt;StopPointTtsName&gt;Djurgården&lt;/StopPointTtsName&gt;     &lt;/PatternStop&gt;   &lt;/PatternStops&gt; &lt;/PlannedPattern&gt; &lt;/PlannedPatternDelivery&gt; </pre>
#REF!	XML FILE CONTENT for PatternMonitoringDelivery	S02P06 - 4.2.3		✓	as defined in chapter reference	<pre> &lt;PatternMonitoringDelivery version="1.0"&gt;   &lt;MonitoredPattern&gt;     &lt;RecordedATime&gt;2020-10-12T19:11:07&lt;/RecordedATime&gt;     &lt;ItemIdentifier&gt;6&lt;/ItemIdentifier&gt;     &lt;PatternRef&gt;901500008200050&lt;/PatternRef&gt;     &lt;MonitoredCallRef&gt;       &lt;StopPointRef&gt;1257&lt;/StopPointRef&gt;       &lt;Order&gt;1&lt;/Order&gt;       &lt;VehicleAtStop&gt;true&lt;/VehicleAtStop&gt;     &lt;/MonitoredCallRef&gt;     &lt;OnwardCallRef&gt;       &lt;StopPointRef&gt;1258&lt;/StopPointRef&gt;       &lt;Order&gt;2&lt;/Order&gt;     &lt;/OnwardCallRef&gt;     &lt;OnwardCallRef&gt;       &lt;StopPointRef&gt;1259&lt;/StopPointRef&gt;       &lt;Order&gt;3&lt;/Order&gt;     &lt;/OnwardCallRef&gt;   &lt;/MonitoredPattern&gt; &lt;/PatternMonitoringDelivery&gt; </pre>

#REF!	XML FILE CONTENT for VehicleMonitoringDelivery	S02P06 - 4.2.4	✓	as defined in chapter reference	<pre> &lt;VehicleMonitoringDelivery version="1.0"&gt;   &lt;VehicleActivity&gt;     &lt;RecordedAtTime&gt;2020-10-27T10:26:32&lt;/RecordedAtTime&gt;     &lt;ItemIdentifier&gt;15&lt;/ItemIdentifier&gt;     &lt;JourneyPatternRef&gt;82&lt;/JourneyPatternRef&gt;     &lt;ProgressBetweenStops&gt;       &lt;PreviousCallRef&gt;         &lt;StopPointRef&gt;1258&lt;/StopPointRef&gt;         &lt;Order&gt;2&lt;/Order&gt;       &lt;/PreviousCallRef&gt;       &lt;MonitoredCallRef&gt;         &lt;StopPointRef&gt;1259&lt;/StopPointRef&gt;         &lt;Order&gt;3&lt;/Order&gt;         &lt;VehicleAtStop&gt;false&lt;/VehicleAtStop&gt;       &lt;/MonitoredCallRef&gt;       &lt;LinkDistance&gt;283&lt;/LinkDistance&gt;       &lt;Percentage&gt;60&lt;/Percentage&gt;     &lt;/ProgressBetweenStops&gt;   &lt;/VehicleActivity&gt; &lt;/VehicleMonitoringDelivery&gt; </pre>
#REF!	XML FILE CONTENT for JourneyMonitoringDelivery	S02P06 - 4.2.5	✓	as defined in chapter reference	<pre> &lt;PlannedPatternDelivery version="1.0"&gt;   &lt;PlannedPattern&gt;     &lt;RecordedAtTime&gt;2020-10-27T10:19:14&lt;/RecordedAtTime&gt;     &lt;PatternRef&gt;901500008200011&lt;/PatternRef&gt;     &lt;VehicleJourneyRef&gt;901500008200011&lt;/VehicleJourneyRef&gt;     &lt;OperatingDayDate&gt;2020-10-27&lt;/OperatingDayDate&gt;     &lt;RouteRef&gt;901500008200011&lt;/RouteRef&gt;     &lt;LineRef&gt;82&lt;/LineRef&gt;     &lt;PublishedLineLabel&gt;82&lt;/PublishedLineLabel&gt;     &lt;PublishedTtsLineLabel&gt;82&lt;/PublishedTtsLineLabel&gt;     &lt;LineShortName&gt;82&lt;/LineShortName&gt;     &lt;LineName&gt;82 Djurgården&lt;/LineName&gt;     &lt;LineLongName&gt;82 Djurgården&lt;/LineLongName&gt;     &lt;DirectionRef&gt;       &lt;ExternalLineRef&gt;82&lt;/ExternalLineRef&gt;       &lt;OriginPlaceRef&gt;Slussen&lt;/OriginPlaceRef&gt;       &lt;OriginName&gt;Slussen&lt;/OriginName&gt;       &lt;OriginShortName&gt;Slussen&lt;/OriginShortName&gt;       &lt;OriginLongName&gt;Slussen&lt;/OriginLongName&gt;       &lt;OriginTtsName&gt;Slussen&lt;/OriginTtsName&gt;       &lt;DestinationPlaceRef&gt;3&lt;/DestinationPlaceRef&gt;       &lt;DestinationName&gt;Djurgården&lt;/DestinationName&gt;       &lt;DestinationShortName&gt;Djurgården&lt;/DestinationShortName&gt;       &lt;DestinationLongName&gt;Djurgården&lt;/DestinationLongName&gt;       &lt;DestinationTtsName&gt;Djurgården&lt;/DestinationTtsName&gt;     &lt;/DirectionRef&gt;     &lt;PatternStops&gt;       &lt;PatternStop&gt;         &lt;StopPointRef&gt;1257&lt;/StopPointRef&gt;         &lt;Order&gt;1&lt;/Order&gt;         &lt;StopPointName&gt;Slussen&lt;/StopPointName&gt;         &lt;StopPointShortName&gt;Slussen&lt;/StopPointShortName&gt;         &lt;StopPointLongName&gt;Slussen&lt;/StopPointLongName&gt;         &lt;StopPointTtsName&gt;Slussen&lt;/StopPointTtsName&gt;       &lt;/PatternStop&gt;       &lt;PatternStop&gt;         &lt;StopPointRef&gt;1258&lt;/StopPointRef&gt;         &lt;Order&gt;2&lt;/Order&gt;         &lt;StopPointName&gt;Skeppsholmen (on request)&lt;/StopPointName&gt;         &lt;StopPointShortName&gt;Skeppsholmen (on request)&lt;/StopPointShortName&gt;         &lt;StopPointLongName&gt;Skeppsholmen (on request)&lt;/StopPointLongName&gt;         &lt;StopPointTtsName&gt;Skeppsholmen (on request)&lt;/StopPointTtsName&gt;       &lt;/PatternStop&gt;       &lt;PatternStop&gt;         &lt;StopPointRef&gt;1259&lt;/StopPointRef&gt;         &lt;Order&gt;3&lt;/Order&gt;         &lt;StopPointName&gt;Djurgården&lt;/StopPointName&gt;         &lt;StopPointShortName&gt;Djurgården&lt;/StopPointShortName&gt;         &lt;StopPointLongName&gt;Djurgården&lt;/StopPointLongName&gt;         &lt;StopPointTtsName&gt;Djurgården&lt;/StopPointTtsName&gt;       &lt;/PatternStop&gt;     &lt;/PatternStops&gt;   &lt;/PlannedPattern&gt; &lt;/PlannedPatternDelivery&gt; </pre>

#REF!	XML FILE CONTENT for GeneralMessageDelivery	S02P06 - 4.2.6			as defined in chapter reference	<pre> &lt;GeneralMessageDelivery version="1.1a"&gt;   &lt;InfoMessage&gt;     &lt;RecordedAtTime&gt;2020-10-12T14:21:31&lt;/RecordedAtTime&gt;     &lt;ItemIdentifier&gt;1&lt;/ItemIdentifier&gt;     &lt;InfoMessageRef&gt;0&lt;/InfoMessageRef&gt;     &lt;InfoMessageVersion&gt;5&lt;/InfoMessageVersion&gt;     &lt;InfoChannelRef&gt;98&lt;/InfoChannelRef&gt;     &lt;ValidFromTime&gt;2020-10-12T14:21:30&lt;/ValidFromTime&gt;     &lt;ValidUntilTime&gt;2020-10-12T13:24:00&lt;/ValidUntilTime&gt;     &lt;Content&gt;       &lt;ShortMessage&gt;Line to airport will change schedule.&lt;/ShortMessage&gt;       &lt;Message&gt;Happens on weekends.&lt;/Message&gt;       &lt;LongMessage&gt;Happens on weekends.&lt;/LongMessage&gt;       &lt;TTSMessage&gt;Line to airport will change schedule.&lt;/TTSMessage&gt;     &lt;/Content&gt;   &lt;/InfoMessage&gt;   &lt;InfoMessageCancellation&gt;     &lt;RecordedAtTime&gt;2020-10-12T14:21:31&lt;/RecordedAtTime&gt;     &lt;ItemIdentifier&gt;0&lt;/ItemIdentifier&gt;     &lt;InfoMessageIdentifier&gt;0&lt;/InfoMessageIdentifier&gt;     &lt;InfoMessageVersion&gt;0&lt;/InfoMessageVersion&gt;     &lt;InfoMessageCancellation&gt;   &lt;/GeneralMessageDelivery&gt; </pre>
#REF!	XML FILE CONTENT for ConnectionMonitoringDelivery	S02P06 - 4.2.7			as defined in chapter reference	<pre> &lt;ConnectionMonitoringDelivery version="1.1a"&gt;   &lt;MonitoredConnection&gt;     &lt;RecordedAtTime&gt;2020-10-12T19:50:20&lt;/RecordedAtTime&gt;     &lt;ConnectionRef&gt;1&lt;/ConnectionRef&gt;     &lt;CallRef&gt;0&lt;/CallRef&gt;     &lt;VehicleJourneyRef&gt;9016000000000000&lt;/VehicleJourneyRef&gt;     &lt;Order&gt;7&lt;/Order&gt;     &lt;ExpectedDepartureTime&gt;2020-10-13T00:00:00&lt;/ExpectedDepartureTime&gt;     &lt;ConnectedVehicleJourneyRef&gt;0&lt;/ConnectedVehicleJourneyRef&gt;     &lt;ConnectedVehicleExpectedDepartureTime&gt;2020-10-12T19:52:20&lt;/ConnectedVehicleExpectedDepartureTime&gt;     &lt;ConnectedVehicleLineInformation&gt;       &lt;LineRef&gt;16&lt;/LineRef&gt;       &lt;LineName&gt;16&lt;/LineName&gt;       &lt;LineShortName&gt;16&lt;/LineShortName&gt;       &lt;LineNumber&gt;16&lt;/LineNumber&gt;       &lt;LineTTSName&gt;16&lt;/LineTTSName&gt;     &lt;/ConnectedVehicleLineInformation&gt;     &lt;ConnectedVehicleDestinationInformation&gt;       &lt;DestinationRef&gt;0&lt;/DestinationRef&gt;       &lt;DestinationName&gt;Ekestrågan&lt;/DestinationName&gt;       &lt;DestinationShortName&gt;Ekestrågan&lt;/DestinationShortName&gt;       &lt;DestinationTTSName&gt;Ekestrågan&lt;/DestinationTTSName&gt;     &lt;/ConnectedVehicleDestinationInformation&gt;     &lt;ConnectedVehicleTransportMode&gt;BUS&lt;/ConnectedVehicleTransportMode&gt;     &lt;Extensions&gt;       &lt;ConnectedVehiclePlannedDepartureTime&gt;2020-10-13T00:00:00&lt;/ConnectedVehiclePlannedDepartureTime&gt;       &lt;ConnectedVehicleJourneyCancelled&gt;false&lt;/ConnectedVehicleJourneyCancelled&gt;       &lt;ConnectedVehiclePlannedDeparturePlatform&gt;B&lt;/ConnectedVehiclePlannedDeparturePlatform&gt;     &lt;/Extensions&gt;   &lt;/MonitoredConnection&gt; &lt;/ConnectionMonitoringDelivery&gt; </pre>
Subscription mechanism						
#REF!	RunMonitoringDelivery subscription	S02P06 - 4.2.1		✓	Subscription response	Subscription response
#REF!	PlannedPatternDelivery subscription	S02P06 - 4.2.2		✓	Subscription response	Subscription response
#REF!	PatternMonitoringDelivery subscription	S02P06 - 4.2.3		✓	Subscription response	Subscription response
#REF!	VehicleMonitoringDelivery subscription	S02P06 - 4.2.4		✓	Subscription response	Subscription response
#REF!	JourneyMonitoringDelivery subscription	S02P06 - 4.2.5		✓	Subscription response	Subscription response
#REF!	GeneralMessageDelivery subscription	S02P06 - 4.2.6		✓	Subscription response	Subscription response
#REF!	ConnectionMonitoringDelivery subscription	S02P06 - 4.2.7		✓	Subscription response	Subscription response

APC Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
Service publication						
Test M-025_2	UNIQUE IDENTIFIER	S02P07 - 3.2	✓		[UniqueIdentifier]	ICU602-c8df849c09e4
Test M-025_3	SERVICE NAME	S02P07 - 3.2	✓		apc	apc
Test M-025_4	SERVICE TYPE	S02P07 - 3.2	✓		ixpt_http	ixpt_http
Test M-025_5	PROTOCOL	S02P07 - 3.2	✓		tcp	tcp
Test M-025_6	DOMAIN	S02P07 - 3.2	✓		local	local
Test M-025_7	PORT	S02P07 - 3.2	✓		9000	9000
Test M-025_8	TARGET	S02P07 - 3.2	✓		[hostname]	Deb9OS
Test M-025_9	TXT RECORD	S02P07 - 3.3	✓		btvers version (swvers) path operations	txtvers=1 version=2.1 path=apc/ operations=passengerdoorcount;passengervehiclecount
Publication consistency						
Test M-025_10	Instance name	S02P07 - 3.2	✓		The instance name is a unique identifier and the same for all the declared services	ICU602-c8df849c09e4
Test M-025_11	TXT version	S02P07 - 3.3	✓		2.1	2.1
Test M-025_12	TXT path	S02P07 - 3.3	✓		Root path which is used to deliver the operations	apc/
Test M-025_12	TXT operations	S02P07 - 3.3	✓		Available list of operations, separated with ";"	passengerdoorcount;passengervehiclecount
Delivery data structure						
Test M-025-A	XML FILE CONTENT for PassengerDoorCountDelivery	S02P07 - 4.2.1	✓		as defined in chapter reference	<PassengerDoorCountDelivery version="str1234"> <PassengerDoorCount> <RecordedAtTime>2020-10-09T15:15:57</RecordedAtTime> <DoorId>0</DoorId> <PassengerCounting> <ObjectClass>Adult</ObjectClass> <DoorPassengerIn>0</DoorPassengerIn> <DoorPassengerOut>0</DoorPassengerOut> </PassengerCounting> <DoorCountQuality>Regular</DoorCountQuality> </PassengerDoorCount> </PassengerDoorCountDelivery>
Test M-025-B	XML FILE CONTENT for PassengerVehicleCountDelivery	S02P07 - 4.2.2	✓		as defined in chapter reference	<PassengerVehicleCountDelivery version="str1234"> <PassengerVehicleCount> <RecordedAtTime>2020-10-09T15:15:57</RecordedAtTime> <StopPointRef/> <VehicleCounting> <ObjectClass>Adult</ObjectClass> <VehiclePassengerIn>0</VehiclePassengerIn> <VehiclePassengerOut>5</VehiclePassengerOut> </VehicleCounting> <VehicleCountQuality>Regular</VehicleCountQuality> <VehicleOccupancy>0</VehicleOccupancy> <VehicleOccupancyRatio>0</VehicleOccupancyRatio> </PassengerVehicleCount> </PassengerVehicleCountDelivery>
Subscription mechanism						
Test M-025-A2	PassengerDoorCountDelivery subscription	S02P07 - 3.4.1	✓		Subscription response	Subscription response
Test M-025-B2	PassengerVehicleCountDelivery subscription	S02P07 - 3.4.2	✓		Subscription response	Subscription response

MQTT broker Service		Specification chapter reference	Mandatory	Optional	Expected result	Result
Service publication						
Test M-027_2	UNIQUE IDENTIFIER	S02P09 - 3.2	✓		<i>[Uniquelidentifier]</i>	<b>ICU602-c8df849c09e4</b>
Test M-027_3	SERVICE NAME	S02P09 - 3.2	✓		<i>mqtt-broker</i>	<b>mqtt-broker</b>
Test M-027_4	SERVICE TYPE	S02P09 - 3.2	✓		<i>mqtt</i>	<b>mqtt</b>
Test M-027_5	PROTOCOL	S02P09 - 3.2	✓		<i>tcp</i>	<b>tcp</b>
Test M-027_6	DOMAIN	S02P09 - 3.2	✓		<i>local</i>	<b>local</b>
Test M-027_7	PORT	S02P09 - 3.2	✓		<i>1883</i>	<b>1883</b>
Test M-027_8	TARGET	S02P09 - 3.2	✓		<i>[hostname]</i>	<b>Deb9OS</b>
Test M-027_9	TXT RECORD	S02P09 - 3.3	✓		<i>txtvers version (swvers) brand proto topic</i>	<b>txtvers=1 version=2.1 brand=mosquitto proto=3.1 topic=itxpt/</b>
Publication consistency						
Test M-027_10	Instance name	S02P09 - 3.2	✓		<i>The instance name is a unique identifier and the same for all the declared services</i>	<b>ICU602-c8df849c09e4</b>
Test M-027_11	TXT version	S02P09 - 3.3	✓		<i>2.1</i>	<b>2.1</b>
Connection mechanism						
Test M-027_13	Broker connection	S02P09 - 3.3	✓		<i>The MQTT broker is available for new client connection</i>	<b>The MQTT broker is available for new client connection</b>