



**Core Network and Interoperability Testing (INT);  
Diameter Conformance testing for Gx interface  
(3GPP Release 10);  
Part 3: Abstract Test Suite (ATS) and partial Protocol  
Implementation eXtra Information for Testing (PIXIT)  
proforma specification**

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**Reference**

RTS/INT-00082-3

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**Keywords**

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

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

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

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## Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Core Network and Interoperability Testing (INT).

The present document is part 3 of a multi-part deliverable covering the test specifications for the Diameter protocol on the Gx interface, as identified below:

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

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# 1 Scope

The present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the test specifications for Diameter protocol on the Gx interface as specified in TS 129 212 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [5] and ETS 300 406 [6].

The test notation used in the ATS is TTCN-3 (see ES 201 873-1 [7]).

The following test specification and design considerations can be found in the body of the present document:

- the overall test suite structure;
- the testing architecture;
- the test methods and port definitions;
- the test configurations;
- TTCN styles and conventions;
- the partial PIXIT proforma;
- the modules containing the TTCN-3 ATS.

Annex A provides the Partial Implementation Extra Information for Testing (PIXIT) Proforma.

Annex B provides the Abstract Test Suite (ATS) part of the ATS.

---

# 2 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.

## 2.1 Normative references

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

- [1] ETSI TS 129 212 (V10.5.0): "Universal Mobile Telecommunications System (UMTS); LTE; Policy and charging control over Gx/Sd reference point (3GPP TS 29.212 version 10.5.0 Release 10)".
- [2] ETSI TS 101 606-2: "IMS Network Testing (INT); Diameter Conformance testing for Gx interface; Part 2: Test Suite Structure (TSS) and Test Purposes (TP)".
- [3] ISO/IEC 9646-1: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 1: General concepts".
- [4] ISO/IEC 9646-6: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 6: Protocol profile test specification".
- [5] ISO/IEC 9646-7: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 7: Implementation Conformance Statements".

- [6] ETSI ETS 300 406: "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [7] ETSI ES 201 873-1: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language".

## 2.2 Informative references

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.

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-7 [5] and TS 129 212 [1] apply.

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ISO/IEC 9646-1 [3], ISO/IEC 9646-6 [4], ISO/IEC 9646-7 [5] and TS 129 212 [1] apply.

---

## 4 Abstract Test Method (ATM)

This clause describes the ATM used to test the Diameter protocol on the Gx interface at the PCEF side and at the PCRF side.

### 4.1 Test architecture

#### 4.1.1 Test method

The test method chosen is the remote test method. Remote test method means that the test tool (the test machine + the executable test suite) shall behave as a PCRF when the IUT is a PCEF and shall behave as a PCEF when the IUT is a PCRF. As the exchange between the test system and the IUT is at the diameter message level, the lower layers of the test machine shall be totally conformant with the corresponding lower layers specifications to use the remote test method.

#### 4.1.2 Test machine configuration

##### 4.1.2.1 Test configurations for PCEF testing

The Gx interface is located between PCRF and the SUT. The GTP interfaces are used to trigger the SUT.

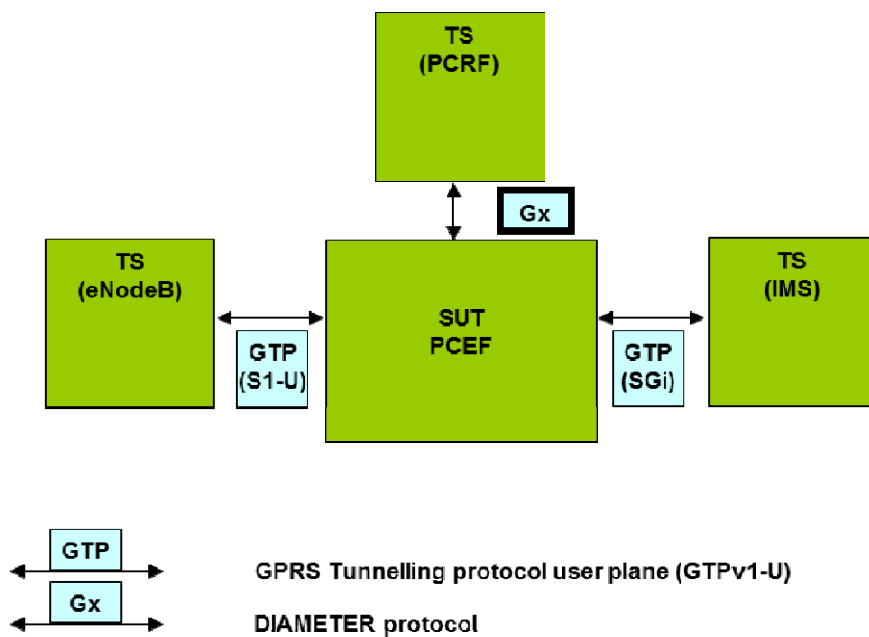


Figure 1: Test architecture with PCEF as SUT

#### 4.1.2.2 Test configurations for PCRF testing

The Gx interface is located between PCEF and PCRF. The Rx interface is located between PCEF and the SUT.

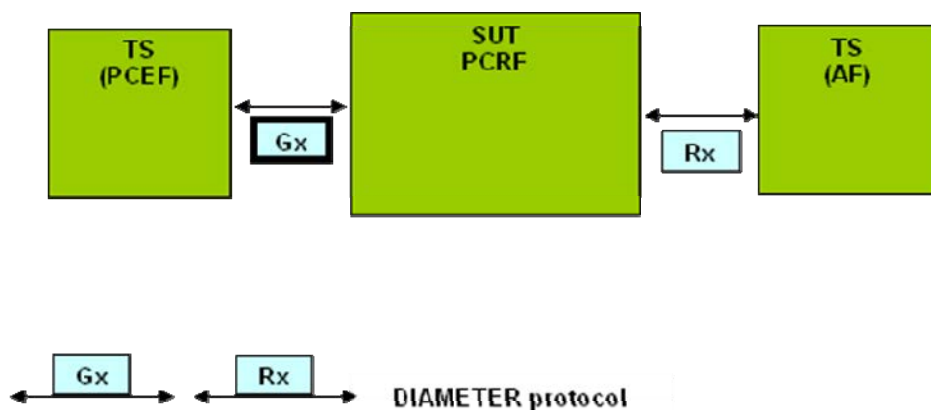
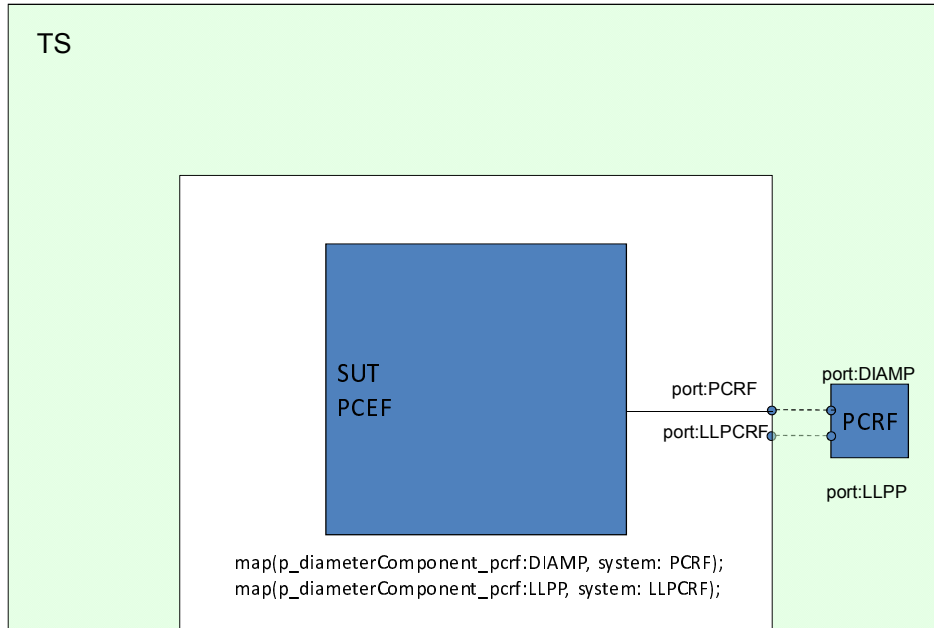


Figure 2: Test architecture with PCRF as SUT

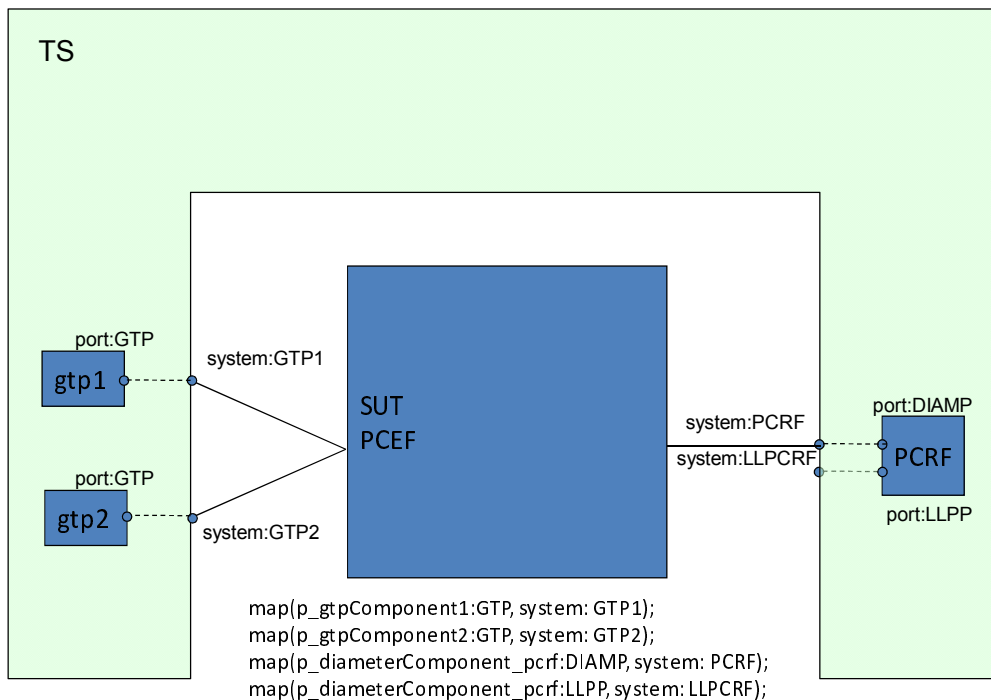
## 4.1.3 Interconnection of TS and SUT

### 4.1.3.1 PCEF Role

Figures 3 and 4 show the interconnection of TS and SUT in terms of signalling message flows. Diameter messages are transferred over the DIAM port. Lower Layer Primitives are transferred over the LLPP port. Some PCEF tests may require additional triggering via the GTP ports. This configuration can be disabled using PIXIT parameter "GTPsupport". GTPv1-U messages are exchanged at ports GTP1 and GTP2 (see figure 4).



**Figure 3: Interconnection for PCEF role without IP interfaces**

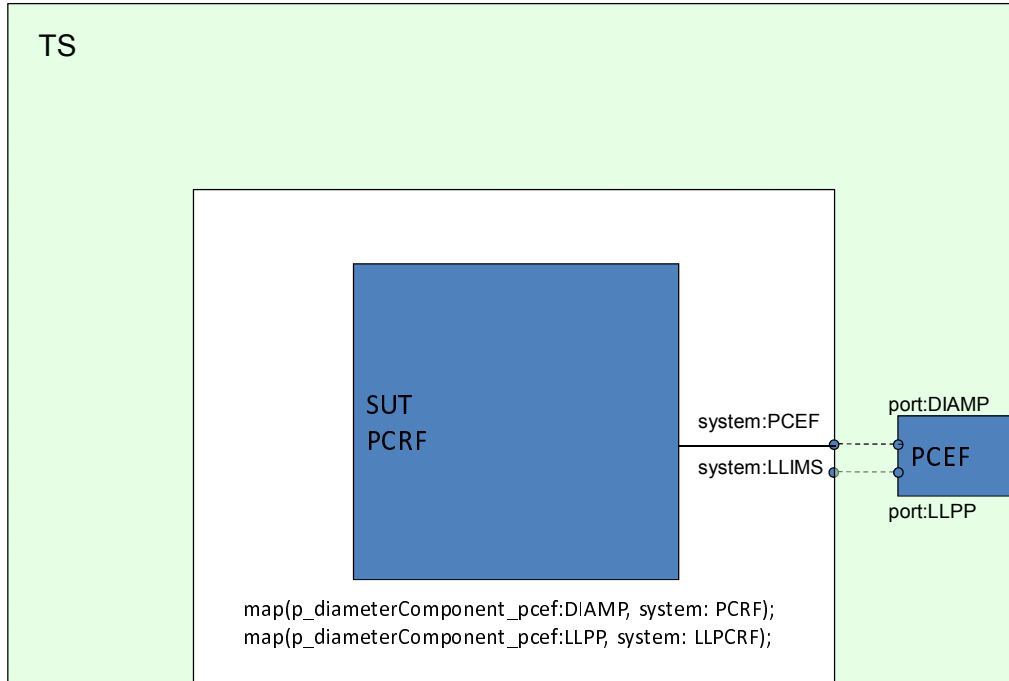


**Figure 4: Interconnection for PCEF role with IP interfaces (GTP)**

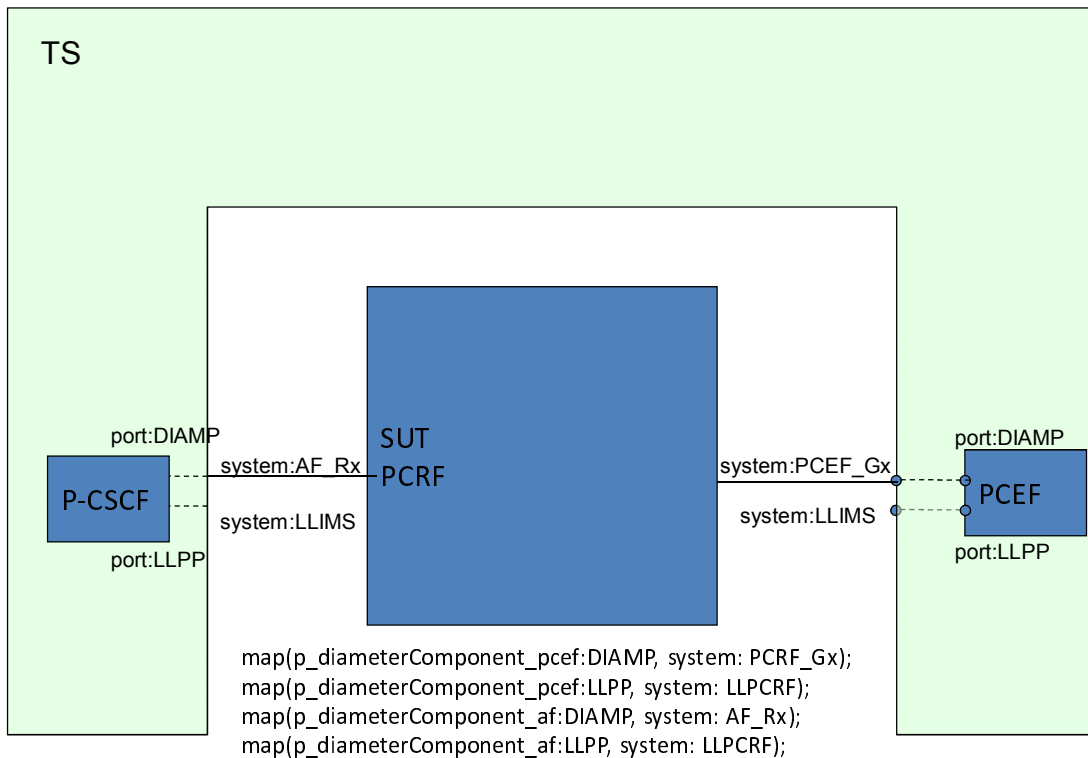


### 4.1.3.2 PCRF Role

Figures 5 and 6 show the interconnection of TS and SUT in terms of signalling message flows. Diameter messages are transferred over the DIAM port. Lower Layer Primitives are transferred over the LLPP port. Some PCRF tests may require additional triggering via the Rx interface (see figure 6).



**Figure 5: Interconnection for PCRF role**



**Figure 6: Interconnection for PCRF role with AF interface (Rx)**

### 4.1.3.3 Test Adapter

For execution of the tests the Test Adapter (TA) shall be developed. There are two possibilities to communicate over TA:

- ATS provides only Diameter messages; or
- ATS provides Diameter messages and LL primitives.

---

## 5 ATS conventions

The ATS conventions are intended to give a better understanding of the ATS but they also describe the conventions made for the development of the ATS. These conventions shall be considered during any later maintenance or further development of the ATS.

The ATS conventions contain two clauses, the naming conventions and the implementation conventions. The naming conventions describe the structure of the naming of all ATS elements. The implementation conventions describe the functional structure of the ATS.

To define the ATS, the guidelines of the document ETS 300 406 [6] were considered.

### 5.1 Testing conventions

#### 5.1.1 Test cases Preamble and Postamble

As described in the test method clause the test tool shall behave as a PCRF when the IUT is a PCEF and shall behave as a PCEF when the IUT is a PCRF. For that reason the test case preambles and postambles are named as follows:

IUT is a PCRF (example TC\_PCRF\_IPS\_01)

```
f_preamble_PCEF
f_postamble_PCEF
```

NOTE 1: The tester also behaves as a Diameter Client.

IUT is a PCEF (example TC\_PCEF\_IPS\_01)

```
f_preamble_PCRF
f_postamble_PCRF
```

NOTE 2: The tester also behaves as a Diameter Server.

### 5.2 Naming conventions

#### 5.2.1 General guidelines

The naming conventions are based on the following underlying principles:

- In most cases, identifiers should be prefixed with a short alphabetic string (specified in table 1) indicating the type of TTCN-3 element it represents.
- Suffixes should not be used except in those specific cases identified in table 2.
- Prefixes and suffixes should be separated from the body of the identifier with an underscore ("\_"):

EXAMPLE 1: `c_sixteen`, `t_wait_max`.

- Only module names, data type names and module parameters should begin with an upper-case letter. All other names (i.e. the part of the identifier following the prefix) should begin with a lower-case letter.
- The start of second and subsequent words in an identifier should be indicated by capitalizing the first character. Underscores should not be used for this purpose.

EXAMPLE 2: `f_authenticateUser`.

Table 1 specifies the naming guidelines for each element of the TTCN-3 language indicating the recommended prefix, suffixes (if any) and capitalization.

**Table 1: TTCN-3 naming convention**

| Language element   | Naming convention              | Prefix      | Suffix      | Example             | Notes |
|--|--------------------------------|-------------|-------------|---------------------|-------|
| Module   | Use upper-case initial letter  | DiameterGx_ | <i>none</i> | DiameterGx_Steps    |       |
| TSS grouping   | Use all upper-case letters     | <i>none</i> | <i>none</i> | TP_PCEFRole_IPS     |       |
| Message template   | Use lower-case initial letter  | m_          | <i>none</i> | m_authApplicationId |       |
| Message template with wildcard or matching expression                      | Use lower-case initial letters | mw_         | <i>none</i> | mw_subscriptionId   |       |
| Port instance  | Use upper-case initial letter  | <i>none</i> | <i>none</i> | DiameterPort        |       |
| Constant   | Use lower-case initial letter  | c_          | <i>none</i> | c_maxRetransmission |       |
| Function   | Use lower-case initial letter  | f_          | <i>none</i> | f_authentication()  |       |
| Altstep  | Use lower-case initial letter  | a_          | <i>none</i> | a_receive()         |       |
| Variable   | Use lower-case initial letter  | v_          | <i>none</i> | v_basicId           |       |
| PICS values  | Use all upper case letters     | PC_         | <i>none</i> | PC_PCRF_DATA_CON    | Note  |
| PIXIT values   | Use all upper case letters     | PX_         | <i>none</i> | PX_DIAMETER_IP_ADDR | Note  |
| Parameterization   | Use lower-case initial letter  | p_          | <i>none</i> | p_macId             |       |
| Enumerated Value   | Use lower-case initial letter  | e_          | <i>none</i> | e_synCpk            |       |
| NOTE: In this case it is acceptable to use underscore as a word delimiter. |                                |             |             |                     |       |

## 5.2.2 Test case grouping

The ATS structure is based on the Test Purposes for the Diameter protocol on the Gx interface as defined in TS 101 606-2 [2].

### 5.2.3 Test case identifiers

The test cases have been divided according to the functionalities into several groups.

The test case names are built up according to the following scheme:

**Table 2: TC identifier naming convention scheme**

|             |                                       |                   |   |
|-------------|---------------------------------------|-------------------|---|
| Identifier: | "<tc>"_"<iut >"_"<scope >"_"<number>" |                   |   |
| <tc>        | =                                     | Test Case:        | fixed to "TC"   |
| <iut >      | =                                     | type of IUT:      | PCRF or PCEF  |
| <scope >    | =                                     | group             | IPS Initial Provisioning Session<br>MSI Modification of Session Information<br>INV Invalid Behaviour<br>ST Session Termination<br>PCC PCC rules<br>EMS Emergency services<br>UMC Usage monitoring control<br>IRS IMS Restoration Support<br>MPS Multimedia Priority Support<br>SDC Sponsored Data Connectivity<br>RAU Reporting Accumulated Usage |
| <number>    | =                                     | sequential number | (01-99)   |

NOTE: This naming scheme results into a one-to-one correspondence between the test purpose identifiers as defined in TS 101 606-2 [2] and the test case identifiers.  
The TP identifier of the test case TC\_XXX\_01 is TP\_XXX\_01.

---

## Annex A (normative): DIAMETER Gx Partial PIXIT proforma

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the Partial PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed Partial PIXIT.

The PIXIT Proforma is based on ISO/IEC 9646-6 [4]. Any additional information which may be needed can be found in this international standard document.

---

### A.1 Identification summary

**Table A.1**

|                       |  |
|-----------------------|--|
| PIXIT Number:         |  |
| Test Laboratory Name: |  |
| Date of Issue:        |  |
| Issued to:            |  |

---

### A.2 ATS summary

**Table A.2**

|                         |   |
|-------------------------|---|
| Protocol Specification: | TS 129 212 [1] (3GPP TS 29.212 version 10.5.0 Release 10) |
| Protocol to be tested:  |   |
| ATS Specification:      | TS 101 606-2 [2]  |
| Abstract Test Method:   | TS 101 606-3, clause 4                                    |

---

### A.3 Test laboratory

**Table A.3**

|                                 |  |
|---------------------------------|--|
| Test Laboratory Identification: |  |
| Test Laboratory Manager:        |  |
| Means of Testing:               |  |
| SAP Address:                    |  |

---

### A.4 Client identification

**Table A.4**

|                           |  |
|---------------------------|--|
| Client Identification:    |  |
| Client Test manager:      |  |
| Test Facilities required: |  |

---

## A.5 SUT

**Table A.5**

|                                  |  |
|----------------------------------|--|
| Name:                            |  |
| Version:                         |  |
| SCS Number:                      |  |
| Machine configuration:           |  |
| Operating System Identification: |  |
| IUT Identification:              |  |
| PICS Reference for IUT:          |  |
| Limitations of the SUT:          |  |
| Environmental Conditions:        |  |

---

## A.6 Protocol layer information

### A.6.1 Protocol identification

**Table A.6**

|                  |   |
|------------------|---|
| Name:            | TS 129 212 [1] (3GPP TS 29.212 version 10.5.0 Release 10) |
| Version:         |   |
| PICS References: |   |

## A.7 PIXIT items

Each PIXIT item corresponds to a Module Parameter of the ATS.

### A.7.1 Gx related PIXIT items

Tables in this clause need to be filled by the IUT Manufacturer to specify how the IUT needs to be configured with IUT specific values or describe IUT specific procedures required for complete testing of the IUT.

**Table A.7: PIXIT for the Gx interface**

| Id                                   | Identifier                               | Type        | Description   |
|--------------------------------------|--|-------------|---|
| <b>IP addresses and port numbers</b> |  |             |   |
| 1                                    | PX_DIAMETER_GX_ETS_IPADDR                | Charstring  | IP address of the test system   |
| 2                                    | PX_DIAMETER_GX_SUT_IPADDR                | Charstring  | IP address of the system under test   |
| 3                                    | PX_DIAMETER_GX_ETS_PORT                  | Integer     | Port number of the test system  |
| 4                                    | PX_DIAMETER_GX_SUT_PORT                  | Integer     | Port number of the system under test  |
| <b>Field values</b>                  |  |             |   |
| 5                                    | PX_SessionID                             | Charstring  | The Session-Id identifying a specific session   |
| 6                                    | PX_OriginHost                            | Charstring  | The Origin-Host identifying the endpoint that originates the Diameter messages  |
| 7                                    | PX_OriginRealm                           | Charstring  | The Origin-Realm identifying the Realm of the originator of any Diameter messages   |
| 8                                    | PX_DestinationHost                       | Charstring  | The Destination-Host identifying the endpoint to which the Diameter messages are destined   |
| 9                                    | PX_DestinationRealm                      | Charstring  | The Destination-Realm identifying the Realm of the destination of any Diameter messages   |
| 10                                   | PX_Logical_Access_ID                     | Octetstring | A logical circuit-ID for the Logical-Access-ID AVP in case of xDSL IP-CAN type  |
| 11                                   | PX_Physical_Access_ID                    | UTF8String  | A physical access ID for the Physical-Access-ID AVP in case of xDSL IP-CAN type   |
| 12                                   | PX_UE1_framedIpAddress                   | Octetstring | IPv4 address of the User Equipment having initiated the session that causes the Diameter messages exchange between PCEF and PCRF  |
| 13                                   | PX_UE1_framedIp6Address                  | Octetstring | IPv6 address of the User Equipment having initiated the session that causes the Diameter messages exchange between PCEF and PCRF  |
| 14                                   | PX_SUBSCRIPTION_ID_TYPE                  | Enumerated  | A subscription ID type for the Subscription-Id-Type AVP in Subscription-Id AVPs<br>Available values: END_USER_E164, END_USER_IMSI, END_USER_SIP_URI, END_USER_NAI           |
| 15                                   | PX_SUBSCRIPTION_ID_DATA                  | UTF8String  | Subscription data for the Subscription-Id-Data AVP in Subscription-Id AVPs  |
| 16                                   | PX_IP_CAN_TYPE                           | Enumerated  | A connectivity access type for the IP-CAN-Type AVP in CCR messages<br>Available values: 3GPP-GPRS, DCOSIS, xDSL, WiMAX, 3GPP2, 3GPP-EPS, Non-3GPP-EPS                       |
| 17                                   | PX_RAT_TYPE                              | Enumerated  | A radio access technology for the IP-RAT-Type AVP in CCR messages<br>Available values: WLAN, VIRTUAL, UTRAN, GERAN, GAN, HSPA_EVOLUTION, EUTRAN, CDMA2000, HRPD, UMB, EHRPD |
| 18                                   | PX_APN_AGGREGATE_MAX_BITRATE_UL_AVP_DATA | UInt32      | Maximum aggregate bite rate in bits per second for the uplink direction for the APN-Aggregate-Max-Bitrate-UL AVP  |
| 19                                   | PX_3GPP_MS_TIMEZONE_DATA                 | Octetstring | The offset between universal time and local time in steps of 15 minutes for the 3GPP-MS-TimeZone AVP for CCR messages   |
| 20                                   | PX_CALLED_STATION_ID_EMERGENCY_APN       | UTF8String  | An Emergency APN for the Called-Station-Id AVP  |

| Id | Identifier                                  | Type        | Description  |
|----|---|-------------|--|
| 21 | PX_CALLED_STATION_ID_EMERGENCY              | UTF8String  | An Emergency address for the Called-Station-Id AVP   |
| 22 | PX_PDN_CONNECTION_ID_DATA                   | Octetstring | An identity for the PDN connection for the PDN-Connection-ID AVP   |
| 23 | PX_BEARER_IDENTIFIER                        | Octetstring | -An identifier for the Bearer-Identifier AVP in CCR messages   |
| 24 | PX_BEARER_USAGE_DATA                        | Enumerated  | A bearer usage value for the Bearer-Usage AVP<br>Available values: GENERAL, IMS_SIGNALLING   |
| 25 | PX_ANCA_ipv4                                | IPv4Addr    | The Access-Network-Charging-Address in type IPv4 format  |
| 26 | PX_ANCA_ipv6                                | IPv6Addr    | The Access-Network-Charging-Address in type IPv6 format  |
| 27 | PX_SGW_AGW_ipv4                             | IPv4Addr    | The SGW/AGW in IPv4 format (3GPP-EPS and 3GPP2 accesses)   |
| 28 | PX_SGW_AGW_ipv6                             | IPv6Addr    | The SGW/AGW in IPv6 format (3GPP-EPS and 3GPP2 accesses)   |
| 29 | PX_ACCESS_NETWORK_CHARGING_IDENTIFIER_VALUE | Octetstring | A charging identifier for the Access-Network-Charging-Identifier-Value AVP in Access-Network-Charging-Identifier AVPs  |
| 30 | PX_ROUTING_RULE_IDENTIFIER_VALUE            | Octetstring | An IP flow mobility routing rule for the Routing-Rule-Identifier AVP in Routing-Rule-Definition AVPs   |
| 31 | PX_UNKNOWN_RATING_GROUP                     | UInt32      | -Unknown charging key for the Rating-Group AVP   |
| 32 | PX_NETWORK_REQUEST_SUPPORT                  | Enumerated  | Value indicating the access network support for network initiated procedures for the Network_Request-Support AVP<br>Available values: NETWORK_REQUEST NOT SUPPORTED, NETWORK_REQUEST SUPPORTED   |
| 33 | PX_CHARGING_RULE_NAME_DATA                  | Octetstring | -First charging rule name for the Charging-Rule-Name AVP   |
| 34 | PX_CHARGING_RULE_NAME_DATA2                 | Octetstring | Second charging rule name for -the Charging-Rule-Name AVP  |
| 35 | PX_CHARGING_RULE_NAME_DATA3                 | Octetstring | Third charging rule name for -the Charging-Rule-Name AVP   |
| 36 | PX_CHARGING_RULE_NAME_DATA_NONEXIST         | Octetstring | Non-existent charging rule name for -the Charging-Rule-Name AVP  |
| 37 | PX_CHARGING_RULE_BASE_NAME_DATA             | Octetstring | Charging rule base name for the Charging-Rule-Base-Name AVP -----  |
| 38 | PX_PCC_RULE_STATUS                          | Enumerated  | A status value of PCC rule(s) for the PCC-Rule-Status AVP<br>Available values: ACTIVE, INACTIVE, TEMPORARILY INACTIVE  |
| 39 | PX_PRECEDENCE_DATA                          | UInt32      | A precedence value for a PCC rule for the Precedence AVP in CCR messages   |
| 40 | PX_PACKET_FILTER_IDENTIFIER_DATA            | Octetstring | -A packet filter identity for the Packet-Filter-Identifier AVP   |
| 41 | PX_RULE_FAILURE_CODE                        | Enumerated  | A reason for a PCC rule to be reported for the Rule-Failure-Code AVP in Charging-Rule-Report AVPs<br>Available values: UNKNOWN_RULE-NAME, RATING_GROUP_ERROR, SERVICE_IDENTIFIER_ERROR, GW/PCEF_MALFUNCTION, RESOURCES_LIMITATION, MAX_NR_BEARERS_REACHED, UNKNOWN_BEARER_ID, MISSING_BEARER_ID, MISSING_FLOW_INFORMATION, RESOURCE_ALLOCATION_FAILURE, UNSUCCESSFUL_QOS_INFORMATION, PS_TO_CS_HANDOVER, NO_BEARER_BOUND |
| 42 | PX_OFFLINE_DATA                             | Enumerated  | Status of the offline charging interface for the Offline AVP in Charging-Rule-Definition AVPs<br>Available values: DISABLE_OFFLINE, ENABLE_OFFLINE   |
| 43 | PX_ONLINE_DATA                              | Enumerated  | Status of the online charging interface for the Offline AVP in Charging-Rule-Definition AVPs<br>Available values: DISABLE_ONLINE, ENABLE_ONLINE  |



| Id  | Identifier                         | Type        | Description   |
|---|------------------------------------|-------------|---|
| 44  | PX_MPS_IDENTIFIER                  | Octetstring | Name of a national variant of the MPS service name for the MPS-Identifier AVP   |
| 45  | PX_MONITORING_KEY                  | Octetstring | First monitoring key for the Monitoring-Key AVP in RAR and CCR messages   |
| 46  | PX_MONITORING_KEY2                 | Octetstring | Second monitoring key for the Monitoring-Key AVP in RAR and CCR messages  |
| 47  | PX_REVALIDATION_TIME               | Octetstring | NTP time before which the PCEF will re-request PPC rules for the Revalidation-Time AVP in RAR messages                |
| 48  | PX_ACTIVATION_TIME                 | Octetstring | NTP time at which a PCC rule will be enforced for Rule-Activation-Time AVP in Charging-Rule-Install AVPs              |
| 49  | PX_DEACTIVATION_TIME               | Octetstring | NTP time at which a PCC rule enforcement will be stopped for Rule-Deactivation-Time AVP in Charging-Rule-Install AVPs |
| 50  | PX_SPONSOR_ID                      | Charstring  | A sponsor identity for the Sponsor-Identity AVP in Sponsored-Connectivity AVPs  |
| 51  | PX_APPLICATION_SERVICE_PROVIDER_ID | Charstring  | An application service provider identity for the Application_Service_Provider AVP in Sponsored-Connectivity AVPs      |
| <b>Configuration switches</b>                   |                                    |             |   |
| 52  | PX_GTPsupport                      | Boolean     | TRUE if the GTP interface is accessible to trigger Diameter events  |
| 53  | PX_RxSupport                       | Boolean     | TRUE if the Rx interface is accessible to trigger Diameter events at the Gx interface (see note)                      |
| NOTE: If TRUE, table A.8 needs to be completed. |                                    |             |   |

## A.7.2 Rx related PIXIT items

Table A.8 contains PIXIT items related to the communication between AF and PCRF via Rx interface. The AF is simulated by the test system, the system under test is the PCRF. For testing the PCEF the values in table A.8 will not be used.

**Table A.8: PIXIT for the Rx interface**

| Id                                   | Identifier                | Type       | Description   |
|--------------------------------------|---------------------------|------------|---|
| <b>IP addresses and port numbers</b> |                           |            |   |
| 1                                    | PX_DIAMETER_RX_ETS_IPADDR | Charstring | IP address of the test system   |
| 2                                    | PX_DIAMETER_RX_SUT_IPADDR | Charstring | IP address of the system under test   |
| 3                                    | PX_DIAMETER_RX_ETS_PORT   | Integer    | Port number of the test system  |
| 4                                    | PX_DIAMETER_RX_SUT_PORT   | Integer    | Port number of the system under test  |
| <b>Field values</b>                  |                           |            |   |
| 5                                    | PX_RX_SessionID           | Charstring | The Session-Id identifying a specific session   |
| 6                                    | PX_RX_OriginHost          | Charstring | The Origin-Host identifying the endpoint that originates the Diameter messages            |
| 7                                    | PX_RX_OriginRealm         | Charstring | The Origin-Realm identifying the Realm of the originator of any Diameter messages         |
| 8                                    | PX_RX_DestinationHost     | Charstring | The Destination-Host identifying the endpoint to which the Diameter messages are destined |
| 9                                    | PX_RX_DestinationRealm    | Charstring | The Destination-Realm identifying the Realm of the destination of any Diameter messages   |
| 10                                   | PX_RX_MediaComponentNr    | UInt32     | A media component number for the Media-Component AVP in Media-Component-Description AVPs  |

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## Annex B (normative): DIAMETER Gx Abstract Test Suite (ATS)

This ATS has been produced using the Testing and Test Control Notation (TTCN-3) according to ES 201 873-1 [7].

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### B.1 The TTCN-3 Module

The TTCN-3 library modules corresponding to the ATS are contained in archive `ts_10160603v020101p0.zip` which accompanies the present document.

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## History

| <b>Document history</b> |                |             |
|-------------------------|----------------|-------------|
| V1.1.1                  | September 2012 | Publication |
| V2.1.1                  | December 2013  | Publication |
|                         |                |             |
|                         |                |             |
|                         |                |             |