ETSI TS 123 222 V15.3.0 (2018-10)

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-8e14-1878c78a0dec/etsi-ts-123-222-v15.3.0-2018-10

LTE;
5G;
Common API Framework for 3GPP Northbound APIs
(3GPP TS 23.222 version 15.3.0 Release 15)

Reference
RTS/TSGS-0623222vf30

Keywords
5G,LTE

ETSI

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

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

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

Important notice

The present document can be downloaded from:
http://www.etsi.org/standards-search

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.
Information on the current status of this and other ETSI documents is available at
https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx

If you find errors in the present document, please send your comment to one of the following services:
https://portal.etsi.org/People/CommiteeSupportStaff.aspx

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.
The content of the PDF version shall not be modified without the written authorization of ETSI.
The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2018.
All rights reserved.

DECT™, **PLUGTESTS**™, **UMTS**™ and the ETSI logo are trademarks of ETSI registered for the benefit of its Members.
3GPP™ and **LTE**™ are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.
oneM2M logo is protected for the benefit of its Members.
GSM® and the GSM logo are trademarks registered and owned by the GSM Association.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/4e7e4a-c9-c-40-...-1178c78...0/etsi-ts-123-222-v15.3.0-2018-10

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/0ca7e4c-c61c-4653-8e14-8f3378a0dec/etsi-ts-123-222-v15.3.0-2018-10

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

Intellectual Property Rights 2
Foreword 2
Modal verbs terminology 2
Foreword 9
Introduction 9
1 Scope 10
2 References 10
3 Definitions and abbreviations 10
3.1 Definitions 10
3.2 Abbreviations 11
4 Architectural requirements 12
4.1 General 12
4.1.1 Introduction 12
4.1.2 Requirements 12
4.1.3 Requirements for supporting 3rd party API providers 12
4.2 Service API publish and discover 12
4.2.1 Introduction 12
4.2.2 Requirements 12
4.3 Security 13
4.3.1 Introduction 13
4.3.2 Requirements 13
4.3.3 Additional requirements for 3rd party API provider 13
4.4 Charging 13
4.4.1 Introduction 13
4.4.2 Requirements 13
4.5 Operations, Administration and Maintenance 14
4.5.1 Introduction 14
4.5.2 Requirements 14
4.6 Service API invocation monitoring 14
4.6.1 Introduction 14
4.6.2 Requirements 14
4.7 Logging 14
4.7.1 Introduction 14
4.7.2 Logging events related to service API invocations 14
4.7.3 Logging events related to API invoker onboarding 15
4.7.4 Logging events related to API invoker interaction with the CAPIF 15
4.8 Auditing service API invocation 15
4.8.1 Introduction 15
4.8.2 Requirements 15
4.9 Onboarding API invoker 15
4.9.1 Introduction 15
4.9.2 Requirements 15
4.10 Policy configuration 15
4.10.1 Introduction 15
4.10.2 Requirements 15
4.11 Protocol design 16
4.11.1 Introduction 16
4.11.2 Requirements 16
5 Involved business relationships 16
6 Functional model 17
6.1 General 17
6.2 Functional model description 17

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-8e14-1878c78a4dce/etsi-ts-123-222-v15.3.0-2018-10

6.3 Functional entities description 18
6.3.1 General 18
6.3.2 API invoker 18
6.3.3 CAPIF core function 18
6.3.4 API exposing function 18
6.3.5 API publishing function 19
6.3.6 API management function 19
6.4 Reference points 19
6.4.1 General 19
6.4.2 Reference point CAPIF-1 (between the API invoker and the CAPIF core function) 19
6.4.3 Reference point CAPIF-1e (between the API invoker and the CAPIF core function) 19
6.4.4 Reference point CAPIF-2 (between the API invoker and the API exposing function) 19
6.4.5 Reference point CAPIF-2e (between the API invoker and the API exposing function) 20
6.4.6 Reference point CAPIF-3 (between the API exposing function and the CAPIF core function) 20
6.4.7 Reference point CAPIF-4 (between the API publishing function and the CAPIF core function) 20
6.4.8 Reference point CAPIF-5 (between the API management function and the CAPIF core function) 20

7 Application of functional model to deployments 21
7.1 General 21
7.2 Centralized deployment 21
7.3 Distributed deployment 22

8 Procedures and information flows 24
8.1 Onboarding the API invoker to the CAPIF 24
8.1.1 General 24
8.1.2 Information flows 24
8.1.2.1 Onboard API invoker request 24
8.1.2.2 Onboard API invoker response 25
8.1.3 Procedure 25
8.2 Offboarding the API invoker from the CAPIF 26
8.2.1 General 26
8.2.2 Information flows 26
8.2.2.1 Offboard API invoker request 26
8.2.2.2 Offboard API invoker response 26
8.2.3 Procedure 26
8.3 Publish service APIs 27
8.3.1 General 27
8.3.2 Information flows 27
8.3.2.1 Service API publish request 27
8.3.2.2 Service API publish response 28
8.3.3 Procedure 28
8.4 Unpublish service APIs 28
8.4.1 General 28
8.4.2 Information flows 29
8.4.2.1 Service API unpublish request 29
8.4.2.2 Service API unpublish response 29
8.4.3 Procedure 29
8.5 Retrieve service APIs 30
8.5.1 General 30
8.5.2 Information flows 30
8.5.2.1 Service API get request 30
8.5.2.2 Service API get response 30
8.5.3 Procedure 30
8.6 Update service APIs 31
8.6.1 General 31
8.6.2 Information flows 31
8.6.2.1 Service API update request 31
8.6.2.2 Service API update response 32
8.6.3 Procedure 32
8.7 Discover service APIs 32
8.7.1 General 32
8.7.2 Information flows 33

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca76da-c61c-4553-8e14-1878e78a0de7/etsi-ts-123-222-v15.3.0-2018-10

8.7.2.1 Service API discover request 33
8.7.2.2 Service API discover response 33
8.7.3 Procedure 33
8.8 Subscription, unsubscription and notifications for the CAPIF events 34
8.8.1 General 34
8.8.2 Information flows 34
8.8.2.1 Event subscription request 34
8.8.2.2 Event subscription response 35
8.8.2.3 Event notification 35
8.8.2.4 Event notification acknowledgement 35
8.8.2.5 Event unsubscription request 35
8.8.2.6 Event unsubscription response 36
8.8.3 Procedure for CAPIF event subscription 36
8.8.4 Procedure for CAPIF event notifications 36
8.8.5 Procedure for CAPIF event unsubscription 37
8.8.6 List of CAPIF events 38
8.9 Revoking subscription of the CAPIF events 38
8.9.1 General 38
8.9.2 Information flows 38
8.9.2.1 Subscription revoke notification 38
8.9.2.2 Subscription revoke notification acknowledgement 39
8.9.3 Procedure 39
8.10 Authentication between the API invoker and the CAPIF core function 39
8.10.1 General 39
8.10.2 Information flows 39
8.10.3 Procedure 39
8.11 API invoker obtaining authorization to access service API 40
8.11.1 General 40
8.11.2 Information flows 40
8.11.3 Procedure 40
8.12 AEF obtaining service API access control policy 41
8.12.1 General 41
8.12.2 Information flows 41
8.12.2.1 Obtain access control policy request 41
8.12.2.2 Obtain access control policy response 41
8.12.3 Procedure 42
8.13 Topology hiding 42
8.13.1 General 42
8.13.2 Information flows 43
8.13.2.1 Service API invocation request (API invoker – AEF-1) 43
8.13.2.2 Service API invocation request (AEF-1 – AEF-2) 43
8.13.2.3 Service API invocation response (AEF-2 – AEF-1) 43
8.13.2.4 Service API invocation response (AEF-1 – API invoker) 43
8.13.3 Procedure 43
8.14 Authentication between the API invoker and the AEF prior to service API invocation 44
8.14.1 General 44
8.14.2 Information flows 44
8.14.3 Procedure 44
8.15 Authentication between the API invoker and the AEF upon the service API invocation 45
8.15.1 General 45
8.15.2 Information flows 45
8.15.2.1 Service API invocation request with authentication information 45
8.15.2.2 Service API invocation response 46
8.15.3 Procedure 46
8.16 API invoker authorization to access service APIs 47
8.16.1 General 47
8.16.2 Information flows 47
8.16.2.1 Service API invocation request 47
8.16.2.2 Service API invocation response 47
8.16.3 Procedure 47
8.17 CAPIF access control 48
8.17.1 General 48

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-8e14-187c78a0de/etsi-ts-123-222-v15.3.0-2018-10

8.17.2 Information flows 48
8.17.2.1 Service API invocation request 48
8.17.2.2 Service API invocation response 49
8.17.3 Procedure 49
8.18 CAPIF access control with cascaded AEFs 50
8.18.1 General 50
8.18.2 Information flows 50
8.18.2.1 Service API invocation request 50
8.18.2.2 Service API invocation response 50
8.18.3 Procedure 50
8.19 Logging service API invocations 51
8.19.1 General 51
8.19.2 Information flows 51
8.19.2.1 API invocation log request 51
8.19.2.2 API invocation log response 51
8.19.3 Procedure 52
8.20 Charging the invocation of service APIs 52
8.20.1 General 52
8.20.2 Information flows 52
8.20.3 Procedure 52
8.21 Monitoring service API invocation 53
8.21.1 General 53
8.21.2 Information flows 53
8.21.2.1 Monitoring service API event notification 53
8.21.2.2 Monitoring service API event notification acknowledgement 53
8.21.3 Procedure 53
8.22 Auditing service API invocation 54
8.22.1 General 54
8.22.2 Information flows 54
8.22.2.1 Query service API log request 54
8.22.2.2 Query service API log response 54
8.22.3 Procedure 55
8.23 CAPIF revoking API invoker authorization 55
8.23.1 General 55
8.23.2 Information flows 55
8.23.2.1 Revoke API invoker authorization request 55
8.23.2.2 Revoke API invoker authorization response 56
8.23.2.3 Revoke API invoker authorization notify 56
8.23.3 Procedure for CAPIF revoking API invoker authorization initiated by AEF 56
8.23.4 Procedure for CAPIF revoking API invoker authorization initiated by CAPIF core function 57

9 API consistency guidelines 58
9.1 General 58
9.2 Fundamental API Guidelines 58
9.3 Architecture design considerations 59

10 CAPIF core function APIs 60
10.1 General 60
10.2 CAPIF_Discover_Service_API API 60
10.2.1 General 60
10.2.2 Discover_Service_API operation 61
10.2.3 Subscribe_Event operation 61
10.2.4 Notify_Event operation 61
10.2.5 Unsubscribe_Event operation 61
10.3 CAPIF_Publish_Service_API API 61
10.3.1 General 61
10.3.2 Publish_Service_API operation 62
10.3.3 Unpublish_Service_API operation 62
10.3.4 Update_Service_API operation 62
10.3.5 Get_Service_API operation 62
10.3.6 Subscribe_Event operation 62
10.3.7 Notify_Event operation 63

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4e5a-a14-1858c78a0de/etsi-ts-123-222-v15.3.0-2018-10

10.3.8 Unsubscribe_Event operation 63
10.4 CAPIF_Events API 63
10.4.1 General 63
10.4.2 Subscribe_Event operation 64
10.4.3 Notify_Event operation 64
10.4.4 Unsubscribe_Event operation 64
10.5 CAPIF_API_invoker_management API 64
10.5.1 General 64
10.5.2 Onboard_API_Invoker operation 64
10.5.3 Offboard_API_Invoker operation 64
10.5.4 Subscribe_Event operation 65
10.5.5 Notify_Event operation 65
10.5.6 Unsubscribe_Event operation 65
10.6 CAPIF_Security API 65
10.6.1 General 65
10.6.2 Obtain_Security_Method operation 65
10.6.3 Obtain_Authorization operation 66
10.6.4 Obtain_API_Invoker_Info operation 66
10.6.5 Revoke_Authorization operation 66
10.7 CAPIF_Monitoring API 66
10.7.1 General 66
10.7.2 Subscribe_Event operation 66
10.7.3 Notify_Monitoring_Service_Event operation 67
10.7.4 Unsubscribe_Event operation 67
10.8 CAPIF_Logging_API_Invocation API 67
10.8.1 General 67
10.8.2 Log_API_Invocation operation 67
10.9 CAPIF_Auditing API 68
10.9.1 General 68
10.9.2 Query_ API_Invocation_Log operation 68
10.10 CAPIF_Access_Control_Policy API 68
10.10.1 General 68
10.10.2 Obtain_Access_Control_Policy operation 68

11 API exposing function APIs 68
11.1 General 68
11.2 AEF_Security API 69
11.2.1 General 69
11.2.2 Revoke_Authorization operation 69
11.2.3 Initiate_Authentication operation 69

Annex A (informative): Overview of CAPIF operations 70

Annex B (informative): CAPIF relationship with network exposure aspects of 3GPP systems 72

B.0 CAPIF utilization by service API provider 72

B.1 CAPIF relationship with 3GPP EPS network exposure 73
B.1.1 General 73
B.1.2 Deployment models 73
B.1.2.1 General 73
B.1.2.2 SCEF implements the CAPIF architecture 73
B.1.2.3 SCEF implements the service specific aspect compliant with the CAPIF architecture 74
B.1.2.4 Distributed deployment of the SCEF compliant with the CAPIF architecture 75

B.2 CAPIF relationship with 3GPP 5GS network exposure 76
B.2.1 General 76
B.2.2 Deployment models 77
B.2.2.1 General 77
B.2.2.2 NEF implements the CAPIF architecture 77
B.2.2.3 NEF implements the service specific aspect compliant with the CAPIF architecture 78
B.2.2.4 Distributed deployment of the NEF compliant with the CAPIF architecture 79

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-465a-8e14-1878c7fa0dee/etsi-ts-123-222-v15.3.0-2018-10

Annex C (informative): CAPIF role in charging 81
C.1 General 81
C.2 CAPIF role in online charging 81
C.3 CAPIF role in offline charging 82
Annex D (informative): CAPIF relationship with external API frameworks 83
Annex E (normative): Configuration data for CAPIF 84
Annex F (informative): Change history 85
History 86

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-8e14-1878c78a0dec/etsi-ts-123-222-v15.3.0-2018-10

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

In 3GPP, there are multiple northbound API-related specifications (e.g. APIs for Service Capability Exposure Function (SCEF) functionalities defined in 3GPP TS 23.682 [2], API for the interface between MBMS service provider and BM-SC defined in 3GPP TR 26.981 [5]). To avoid duplication and inconsistency of approach between different API specifications, 3GPP has considered the development of a common API framework (CAPIF) that includes common aspects applicable to any northbound service APIs.

The present document specifies the functional model, procedures and information flows needed to support the CAPIF, and the guidelines for consistent northbound API (service and CAPIF APIs) development in 3GPP.

NOTE: It is possible to use the CAPIF defined common aspects for other APIs as well, apart from northbound APIs.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-8e14-9878c7a00dec/etsi-ts-123-222-v15-3.0-2018-10

1 Scope

The present document specifies the architecture, procedures and information flows necessary for the CAPIF. The aspects of this specification include identifying architecture requirements for the CAPIF (e.g. registration, discovery, identity management) that are applicable to any service APIs when used by northbound entities, as well as any interactions between the CAPIF and the service APIs themselves. The common API framework applies to both EPS and 5GS, and is independent of the underlying 3GPP access (e.g. E-UTRA, NR).

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[3] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[4] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[5] 3GPP TR 26.981: "MBMS Extensions for Provisioning and Content Ingestion".

[6] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[7] ETSI GS MEC 011 (V1.1.1): "Mobile Edge Computing (MEC); Mobile Edge Platform Application Enablement".

[8] ETSI GS MEC 009 (V1.1.1): "Mobile Edge Computing (MEC); General Principles for Mobile Edge Service APIs".

[9] OMA-ER_Autho4API-V1_0-20141209-A: "Authorization Framework for Network APIs".

[10] OMA-TS-REST_NetAPI_Common-V1_0-20180116-A: "Common definitions for RESTful Network APIs".

[11] OMA-TS-NGSI_Registration_and_Discovery-V1_0-20120529-A: "NGSI Registration and Discovery".

[12] 3GPP TS 33.122: "Security Aspects of Common API Framework for 3GPP Northbound APIs".

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca5e4a-c61c-4653-8e14-1878c78a01ec/etsi-ts-123-222-v15.3.0-2018-10

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

API: The means by which an API invoker can access the service.

API invoker: The entity which invokes the CAPIF or service APIs.

API invoker profile: The set of information associated to an API invoker that allows that API invoker to utilize CAPIF APIs and service APIs.

API exposing function: The entity which provides the service communication entry point for the service APIs.

CAPIF administrator: An authorized user with special permissions for CAPIF operations.

Common API framework: A framework comprising common API aspects that are required to support service APIs.

Northbound API: A service API exposed to higher-layer API invokers.

Onboarding: One time registration process that enables the API invoker to subsequently access the CAPIF and the service APIs.

Resource: The object or component of the API on which the operations are acted upon.

Service API: The interface through which a component of the system exposes its services to API invokers by abstracting the services from the underlying mechanisms.

PLMN trust domain: The entities protected by adequate security and controlled by the PLMN operator or a trusted 3rd party.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 32.240 [6] apply:

Offline charging
Online charging

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5GS	5G System
AEF	API Exposing Function
AF	Application Function
API	Application Program Interface
AS	Application Server
BM-SC	Broadcast Multicast Service Centre
CAPIF	Common API Framework
CDR	Charging Data Record
CRUD	Create, Read, Update, Delete
DDoS	Distributed Denial of Service
E-UTRA	Evolved Universal Terrestrial Radio Access
EPS	Evolved Packet System
ETSI	European Telecommunications Standards Institute
GS	Group Specification
IP	Internet Protocol
MBMS	Multimedia Broadcast and Multicast Service
MEC	Multi-access Edge Computing
NEF	Network Exposure Function
NGSI	Next Generation Service Interfaces
NR	New Radio
OMA	Open Mobile Alliance
OAM	Operations, Administration and Maintenance
OWSER	OMA Web Services
PC	Protocol Converter
PLMN	Public Land Mobile Network
REST	REpresentational State Transfer
RPC	Remote Procedure Call
SCEF	Service Capability Exposure Function

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-c61c-4653-88c4-1878c78a0dec/etsi-ts-123-222-v15.3.0-2018-10

SCS	Service Capability Server
UDDI	Universal Description, Discovery and Integration
URI	Uniform Resource Identifier
WSDL	Web Services Description Language

4 Architectural requirements

4.1 General

4.1.1 Introduction

This subclause specifies the general requirements for CAPIF architecture.

4.1.2 Requirements

[AR-4.1.2-a] The CAPIF shall provide mechanisms (e.g. publish service APIs, authorization, logging, charging) to support service API operations.

[AR-4.1.2-b] The CAPIF shall enable API invoker(s) to discover and communicate with service APIs from the API providers.

[AR-4.1.2-c] Reference points between CAPIF and external applications shall be provided as APIs.

[AR-4.1.2-d] Reference points internal to CAPIF may be provided as APIs.

4.1.3 Requirements for supporting 3rd party API providers

[AR-4.1.3-a] The CAPIF shall provide mechanisms (e.g. publish service APIs, authorization, logging, charging) to support service API operations from trusted 3rd party API providers.

[AR-4.1.3-b] The CAPIF shall enable API invoker(s) to discover and communicate with service APIs from trusted 3rd party API providers.

NOTE: The solutions to the requirements for 3rd party API providers are not addressed in the current release of this specification.

4.2 Service API publish and discover

4.2.1 Introduction

This subclause specifies the service API publish and discover related requirements.

4.2.2 Requirements

[AR-4.2.2-a] The CAPIF shall provide a mechanism to publish the service API information to be used by the API invokers to discover and subsequently invoke the service API.

[AR-4.2.2-b] The CAPIF shall provide a mechanism for the API invokers to discover the published service API information as specified in [AR-4.2.2-a] according to the API invokers' interest.

[AR-4.2.2-c] The CAPIF shall provide a mechanism to restrict the discovery of the published service API information by the API invokers, based on configured policies.

[AR-4.2.2-d] The CAPIF shall provide a mechanism to configure policies to restrict the discovery of the published service API information.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/dcca7e4a-ce1c-4653-8e14-1878778a0dec/etsi-ts-123-222-v15.3.0-2018-10