

ETSI TS 129 571 V19.6.0 (2026-04)



TECHNICAL SPECIFICATION

**5G;
5G System;
Common Data Types for Service Based Interfaces;
Stage 3
(3GPP TS 29.571 version 19.6.0 Release 19)**



Reference

RTS/TSGC-0429571 vj60

Keywords

5G

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 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from the
[ETSI Search & Browse Standards](#) application.

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 prevailing version of an ETSI deliverable is the one made publicly available in PDF format on [ETSI deliver](#) repository.

Users should be aware that the present document may be revised or have its status changed, this information is available in the [Milestones listing](#).

If you find errors in the present document, please send your comments to the relevant service listed under [Committee Support Staff](#).

If you find a security vulnerability in the present document, please report it through our [Coordinated Vulnerability Disclosure \(CVD\)](#) program.

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

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 2026.
All rights reserved.

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are 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 IPR online database](#).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, 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.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™**, **LTE™** and **5G™** logo are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

Legal Notice

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. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found at [3GPP to ETSI numbering cross-referencing](#).

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
Legal Notice	2
Modal verbs terminology.....	2
Foreword.....	11
1 Scope	13
2 References	13
3 Definitions and abbreviations.....	16
3.1 Definitions	16
3.2 Abbreviations	16
4 Overview	16
5 Common Data Types.....	16
5.1 Introduction	16
5.2 Data Types for Generic Usage	17
5.2.1 Introduction.....	17
5.2.1A Re-used Data Types	17
5.2.2 Simple Data Types.....	17
5.2.3 Enumerations	22
5.2.3.1 Enumeration: PatchOperation	22
5.2.3.2 Enumeration: UriScheme	22
5.2.3.3 Enumeration: ChangeType.....	23
5.2.3.4 Enumeration: HttpMethod	26
5.2.3.5 Enumeration: NullValue	26
5.2.3.6 Enumeration: MatchingOperator.....	26
5.2.3.7 Enumeration: UpfPacketInspectionFunctionality	27
5.2.4 Structured Data Types	28
5.2.4.1 Type: ProblemDetails.....	28
5.2.4.2 Type: Link.....	30
5.2.4.3 Type: PatchItem	30
5.2.4.4 Type: LinksValueSchema	30
5.2.4.5 Type: SelfLink	30
5.2.4.6 Type: InvalidParam.....	31
5.2.4.7 Type: LinkRm	31
5.2.4.8 Type: ChangeItem.....	32
5.2.4.9 Type: NotifyItem.....	32
5.2.4.10 Type: ComplexQuery.....	33
5.2.4.11 Type: Cnf	33
5.2.4.12 Type: Dnf	33
5.2.4.13 Type: CnfUnit	33
5.2.4.14 Type: DnfUnit	33
5.2.4.15 Type: Atom	34
5.2.4.16 Void.....	34
5.2.4.17 Type: PatchResult	34
5.2.4.18 Type: ReportItem	34
5.2.4.19 Type: HalTemplate.....	35
5.2.4.20 Type: Property.....	35
5.2.4.21 Type: RedirectResponse.....	35
5.2.4.22 Type: TunnelAddress	36
5.2.4.23 Type: FqdnPatternMatchingRule	36
5.2.4.24 Type: StringMatchingRule.....	36
5.2.4.25 Type: StringMatchingCondition	37
5.2.4.26 Type: Ipv4AddressRange.....	37
5.2.4.27 Type: Ipv6AddressRange.....	37
5.2.4.28 Type: Ipv6PrefixRange	37

5.2.4.29	Type NfSignallingInfo	38
5.2.4.30	Type NfSignallingInfoPerTimeWindow	38
5.2.4.31	Type NfSignallingInfoPerService	39
5.2.4.32	Type NfHeartbeatInfo	39
5.3	Data Types related to Subscription, Identification and Numbering	39
5.3.1	Introduction.....	39
5.3.2	Simple Data Types.....	39
5.3.3	Enumerations	43
5.3.3.1	Enumeration: GroupServiceId.....	43
5.3.4	Structured Data Types	44
5.3.4.1	Type: Guami	44
5.3.4.2	Type: NetworkId	44
5.3.4.3	Type: GuamiRm.....	44
5.4	Data Types related to 5G Network.....	44
5.4.1	Introduction.....	44
5.4.2	Simple Data Types.....	44
5.4.3	Enumerations	52
5.4.3.1	Enumeration: AccessType	52
5.4.3.2	Enumeration: RatType	53
5.4.3.3	Enumeration: PduSessionType	53
5.4.3.4	Enumeration: UpIntegrity	54
5.4.3.5	Enumeration: UpConfidentiality	54
5.4.3.6	Enumeration: SscMode	54
5.4.3.7	Enumeration: DnaiChangeType.....	54
5.4.3.8	Enumeration: RestrictionType	55
5.4.3.9	Enumeration: CoreNetworkType	55
5.4.3.10	Enumeration: AccessTypeRm.....	55
5.4.3.11	Enumeration: RatTypeRm	55
5.4.3.12	Enumeration: PduSessionTypeRm.....	55
5.4.3.13	Enumeration: UpIntegrityRm.....	55
5.4.3.14	Enumeration: UpConfidentialityRm	55
5.4.3.15	Enumeration: SscModeRm	55
5.4.3.17	Enumeration: DnaiChangeTypeRm.....	56
5.4.3.18	Enumeration: RestrictionTypeRm.....	56
5.4.3.19	Enumeration: CoreNetworkTypeRm	56
5.4.3.20	Enumeration: PresenceState.....	56
5.4.3.21	Enumeration: StationaryIndication	56
5.4.3.22	Enumeration: StationaryIndicationRm.....	56
5.4.3.23	Enumeration: ScheduledCommunicationType.....	56
5.4.3.24	Enumeration: ScheduledCommunicationTypeRm.....	56
5.4.3.25	Enumeration: TrafficProfile	57
5.4.3.26	Enumeration: TrafficProfileRm	57
5.4.3.27	Enumeration: LcsServiceAuth	57
5.4.3.28	Enumeration: UeAuth	57
5.4.3.29	Enumeration: DIDataDeliveryStatus.....	58
5.4.3.30	Enumeration: DIDataDeliveryStatusRm	58
5.4.3.31	Void.....	58
5.4.3.32	Enumeration: AuthStatus	58
5.4.3.33	Enumeration: LineType	58
5.4.3.34	Enumeration: LineTypeRm.....	58
5.4.3.35	Void.....	59
5.4.3.36	Void.....	59
5.4.3.37	Enumeration: NotificationFlag.....	59
5.4.3.38	Enumeration: TransportProtocol	59
5.4.3.39	Enumeration: SatelliteBackhaulCategory	59
5.4.3.40	Enumeration: SatelliteBackhaulCategoryRm.....	59
5.4.3.41	Enumeration: BufferedNotificationsAction	60
5.4.3.42	Enumeration: SubscriptionAction	60
5.4.3.43	Enumeration: SnsaiStatus	60
5.4.3.44	Enumeration: TerminationIndication	60
5.4.3.45	Enumeration: DelayMeasurementProtocol	61
5.4.3.46	Enumeration: CagProvisionOperation	61

5.4.4	Structured Data Types	61
5.4.4.1	Type: SubscribedDefaultQos	61
5.4.4.2	Type: Snsai	62
5.4.4.3	Type: PlmnId.....	62
5.4.4.4	Type: Tai.....	63
5.4.4.5	Type: Ecgi.....	63
5.4.4.6	Type: Ncgi.....	63
5.4.4.7	Type: UserLocation.....	64
5.4.4.8	Type: EutraLocation.....	65
5.4.4.9	Type: NrLocation.....	66
5.4.4.10	Type: N3gaLocation.....	67
5.4.4.11	Type: UpSecurity	69
5.4.4.12	Type: NgApCause.....	69
5.4.4.13	Type: BackupAmfInfo	70
5.4.4.14	Type: RefToBinaryData.....	70
5.4.4.15	Type RouteToLocation	70
5.4.4.16	Type RouteInformation.....	70
5.4.4.17	Type: Area.....	71
5.4.4.18	Type: ServiceAreaRestriction	71
5.4.4.19	Type: PlmnIdRm.....	71
5.4.4.20	Type: TaiRm	71
5.4.4.21	Type: EcgiRm	71
5.4.4.22	Type: NcgiRm.....	71
5.4.4.23	Type: EutraLocationRm.....	71
5.4.4.24	Type: NrLocationRm	72
5.4.4.25	Type: UpSecurityRm	72
5.4.4.26	Type: RefToBinaryDataRm.....	72
5.4.4.27	Type: PresenceInfo.....	73
5.4.4.28	Type: GlobalRanNodeId	74
5.4.4.29	Type: GNbId	75
5.4.4.30	Type: PresenceInfoRm.....	75
5.4.4.31	Void.....	75
5.4.4.32	Type: AtsssCapability	76
5.4.4.33	Type: PlmnIdNid.....	76
5.4.4.34	Type: PlmnIdNidRm.....	77
5.4.4.35	Type: SmallDataRateStatus.....	77
5.4.4.36	Type: HfcNodeId	77
5.4.4.37	Type: HfcNodeIdRm.....	77
5.4.4.38	Type: WirelineArea.....	78
5.4.4.39	Type: WirelineServiceAreaRestriction	78
5.4.4.40	Type: ApnRateStatus	79
5.4.4.41	Type: ScheduledCommunicationTime.....	79
5.4.4.42	Type: ScheduledCommunicationTimeRm.....	79
5.4.4.43	Type: BatteryIndication	80
5.4.4.44	Type: BatteryIndicationRm.....	80
5.4.4.45	Type: AcsInfo	80
5.4.4.46	Type: AcsInfoRm.....	80
5.4.4.47	Type: NrV2xAuth	80
5.4.4.48	Type: LteV2xAuth	81
5.4.4.49	Type: Pc5QoSPara	81
5.4.4.50	Type: Pc5QoSFlowItem	81
5.4.4.51	Type: Pc5FlowBitRates	81
5.4.4.52	Type: UtraLocation	82
5.4.4.53	Type: GeraLocation	83
5.4.4.54	Type: CellGlobalId.....	83
5.4.4.55	Type: ServiceAreaId	84
5.4.4.56	Type: LocationAreaId	84
5.4.4.57	Type: RoutingAreaId	84
5.4.4.58	Type: DddTrafficDescriptor.....	84
5.4.4.59	Type: MoExpDataCounter	84
5.4.4.60	Type: NssaaStatus	85
5.4.4.61	Type: NssaaStatusRm	85

5.4.4.62	Type: TnapId.....	85
5.4.4.63	Type: TnapIdRm	85
5.4.4.64	Type: TwapId	86
5.4.4.65	Type: TwapIdRm	86
5.4.4.66	Type: SnsaiExtension	86
5.4.4.67	Type: SdRange	86
5.4.4.68	Type: ProseServiceAuth.....	88
5.4.4.69	Type: EcsServerAddr	90
5.4.4.70	Type: EcsServerAddrRm	90
5.4.4.71	Type: IpAddr.....	90
5.4.4.72	Type: SACInfo	91
5.4.4.73	Type: SACEventStatus.....	94
5.4.4.74	Type: SpatialValidityCond.....	94
5.4.4.75	Type: SpatialValidityCondRm	94
5.4.4.76	Type: ServerAddressingInfo	94
5.4.4.77	Type: PcfUeCallbackInfo.....	95
5.4.4.78	Type: PduSessionInfo	95
5.4.4.79	Type: EasIpReplacementInfo	95
5.4.4.80	Type: EasServerAddress	95
5.4.4.81	Type: RoamingRestrictions.....	96
5.4.4.82	Type: GeoServiceArea	96
5.4.4.83	Type: MutingExceptionInstructions.....	96
5.4.4.84	Type: MutingNotificationsSettings	96
5.4.4.85	Type: VplmnOffloadingInfo	97
5.4.4.86	Type: PartiallyAllowedSnsai	97
5.4.4.87	Type: VarRepPeriod.....	98
5.4.4.88	Type: RangingSIPosAuth.....	98
5.4.4.89	Type: NrA2xAuth	98
5.4.4.90	Type: LteA2xAuth	98
5.4.4.91	Type: SliceUsageControlInfo.....	99
5.4.4.92	Type: CombGciAndHfcNIds	99
5.4.4.93	Type: SnsaiDnnItem	99
5.4.4.94	Type: NtnTaiInfo	99
5.4.4.95	Type: MitigationInfo.....	100
5.4.4.96	Type: VplmnDIAMbr	100
5.4.4.97	Type: LocalOffloadingManagementInfo	101
5.4.4.98	Type: CagProvisionInformation.....	102
5.4.5	Data types describing alternative data types or combinations of data types	102
5.4.5.1	Type: ExtSnsai.....	102
5.4.5.2	Type: SnsaiReplaceInfo.....	103
5.5	Data Types related to 5G QoS.....	103
5.5.1	Introduction.....	103
5.5.2	Simple Data Types.....	103
5.5.3	Enumerations	107
5.5.3.1	Enumeration: PreemptionCapability	107
5.5.3.2	Enumeration: PreemptionVulnerability	107
5.5.3.3	Enumeration: ReflectiveQosAttribute	107
5.5.3.4	Void.....	107
5.5.3.5	Enumeration: NotificationControl.....	107
5.5.3.6	Enumeration: QosResourceType.....	108
5.5.3.7	Enumeration: PreemptionCapabilityRm	108
5.5.3.8	Enumeration: PreemptionVulnerabilityRm.....	108
5.5.3.9	Enumeration: ReflectiveQosAttributeRm	108
5.5.3.10	Enumeration: NotificationControlRm.....	108
5.5.3.11	Enumeration: QosResourceTypeRm	108
5.5.3.12	Enumeration: AdditionalQosFlowInfo	108
5.5.3.13	Enumeration: PartitioningCriteria	109
5.5.3.14	Enumeration: PartitioningCriteriaRm	109
5.5.3.15	Enumeration: PduSetHandlingInfo	109
5.5.3.16	Enumeration: MediaTransportProto.....	109
5.5.3.17	Enumeration: RtpHeaderExtType	109
5.5.3.18	Enumeration: RtpPayloadFormat.....	110

5.5.3.19	Enumeration: MediaTransportProtoRm	110
5.5.3.20	Enumeration: RtpHeaderExtTypeRm	110
5.5.3.21	Enumeration: RtpPayloadFormatRm	110
5.5.3.22	Enumeration: PduSetHandlingInfoRm	110
5.5.3.23	Enumeration: MriTransferMethod	110
5.5.3.24	Enumeration: MriTransferMethodRm	110
5.5.4	Structured Data Types	111
5.5.4.1	Type: Arp	111
5.5.4.2	Type: Ambr	111
5.5.4.3	Type: Dynamic5Qi	112
5.5.4.4	Type: NonDynamic5Qi	113
5.5.4.5	Type: ArpRm	113
5.5.4.6	Type: AmbrRm	113
5.5.4.7	Void	113
5.5.4.8	Void	114
5.5.4.9	Type: SliceMbr	114
5.5.4.10	Type: SliceMbrRm	114
5.5.4.11	Type: PduSetQosPara	114
5.5.4.12	Type: PduSetQosParaRm	114
5.5.4.13	Type ProtocolDescription	115
5.5.4.13A	Type ProtocolDescriptionRm	116
5.5.4.14	Type RtpHeaderExtInfo	118
5.5.4.14A	Type RtpHeaderExtInfoRm	120
5.5.4.15	Type RtpPayloadInfo	122
5.5.4.16	Type RtpPayloadInfoRm	122
5.5.4.17	Type MriTransferInfo	123
5.5.4.18	Type MriTransferInfoRm	123
5.6	Data Types related to 5G Trace	123
5.6.1	Introduction	123
5.6.2	Simple Data Types	123
5.6.3	Enumerations	124
5.6.3.1	Enumeration: TraceDepth	124
5.6.3.2	Enumeration: TraceDepthRm	124
5.6.3.3	Enumeration: JobType	124
5.6.3.4	Enumeration: ReportTypeMdt	125
5.6.3.5	Enumeration: MeasurementLteForMdt	125
5.6.3.6	Enumeration: MeasurementNrForMdt	125
5.6.3.7	Enumeration: SensorMeasurement	126
5.6.3.8	Enumeration: ReportingTrigger	126
5.6.3.9	Enumeration: ReportIntervalMdt	126
5.6.3.10	Enumeration: ReportAmountMdt	127
5.6.3.11	Enumeration: EventForMdt	127
5.6.3.12	Enumeration: LoggingIntervalMdt	127
5.6.3.13	Enumeration: LoggingDurationMdt	128
5.6.3.14	Enumeration: PositioningMethodMdt	128
5.6.3.15	Enumeration: CollectionPeriodRmmLteMdt	128
5.6.3.16	Enumeration: MeasurementPeriodLteMdt	129
5.6.3.17	Enumeration: ReportIntervalNrMdt	129
5.6.3.18	Enumeration: LoggingIntervalNrMdt	129
5.6.3.19	Enumeration: CollectionPeriodRmmNrMdt	130
5.6.3.20	Enumeration: LoggingDurationNrMdt	130
5.6.3.21	Enumeration: QoeServiceType	130
5.6.3.22	Enumeration: AvailableRanVisibleQoeMetric	131
5.6.3.23	Enumeration: MeasurementType	131
5.6.3.24	Enumeration: BluetoothRssi	131
5.6.3.25	Enumeration: WlanRssi	131
5.6.3.26	Enumeration: WlanRtt	131
5.6.4	Structured Data Types	133
5.6.4.1	Type: TraceData	133
5.6.4.2	Type: MdtConfiguration	136
5.6.4.3	Type: AreaScope	141
5.6.4.4	Type: TacInfo	141

5.6.4.5	Type: MbsfnArea	141
5.6.4.6	Type: InterFreqTargetInfo	142
5.6.4.7	Type: QmcConfigInfo	143
5.6.4.8	Type: QmcAreaScope	144
5.6.4.9	Type: QoeTarget	144
5.6.4.10	Type: CagInfo	144
5.6.4.11	Type: NidInfo	144
5.6.4.12	Type: UeLevelMeasurementsConfiguration	145
5.6.4.13	Type: CellIdNidInfo	145
5.6.4.14	Type: CellIdNid	145
5.6.4.15	Type: TacNidInfo	145
5.6.4.16	Type: TacNid	145
5.6.4.17	Type: BluetoothMeasurement	146
5.6.4.18	Type: WlanMeasurement	146
5.6.4.19	Type: MeasurementName	146
5.6.4.20	Type: SliceScopePerPlmn	146
5.7	Data Types related to 5G Operator Determined Barring	147
5.7.1	Introduction	147
5.7.2	Simple Data Types	147
5.7.3	Enumerations	147
5.7.3.1	Enumeration: RoamingOdb	147
5.7.3.2	Enumeration: OdbPacketServices	147
5.7.4	Structured Data Types	147
5.7.4.1	Type: OdbData	147
5.8	Data Types related to Charging	148
5.8.1	Introduction	148
5.8.2	Simple Data Types	148
5.8.3	Enumerations	148
5.8.4	Structured Data Types	148
5.8.4.1	Type: SecondaryRatUsageReport	148
5.8.4.2	Type: QoSFlowUsageReport	149
5.8.4.3	Type: SecondaryRatUsageInfo	149
5.8.4.4	Type: VolumeTimedReport	149
5.9	Data Types related to MBS	149
5.9.1	Introduction	149
5.9.2	Simple Data Types	149
5.9.3	Enumerations	150
5.9.3.1	Enumeration: MbsServiceType	150
5.9.3.2	Enumeration: MbsSessionActivityStatus	150
5.9.3.3	Enumeration: MbsSessionEventType	151
5.9.3.4	Enumeration: BroadcastDeliveryStatus	151
5.9.3.5	Enumeration: NrRedCapUeInfo	151
5.9.4	Structured Data Types	151
5.9.4.1	Type: MbsSessionId	151
5.9.4.2	Type: Tmgi	152
5.9.4.3	Type: Ssm	152
5.9.4.4	Type: MbsServiceArea	152
5.9.4.5	Type: NcgiTai	153
5.9.4.6	Type: MbsSession	154
5.9.4.7	Type: MbsSessionSubscription	158
5.9.4.8	Type: MbsSessionEventReportList	158
5.9.4.9	Type: MbsSessionEvent	159
5.9.4.10	Type: MbsSessionEventReport	159
5.9.4.11	Type: ExternalMbsServiceArea	159
5.9.4.12	Type: MbsSecurityContext	159
5.9.4.13	Type: MbsKeyInfo	160
5.9.4.14	Type: IngressTunAddrInfo	160
5.9.4.15	Type: MbsServiceAreaInfo	161
5.9.4.16	Type: MbsServiceInfo	161
5.9.4.17	Type: MbsMediaComp	161
5.9.4.18	Type: MbsMediaCompRm	161
5.9.4.19	Type: MbsQoSReq	162

5.9.4.20	Type: MbsMediaInfo	162
5.9.4.21	Data types describing alternative data types or combinations of data types	162
5.9.4.21.1	Type: AssociatedSessionId	162
5.10	Data Types related to Time Synchronization	162
5.10.1	Introduction	162
5.10.2	Simple Data Types	162
5.10.3	Enumerations	163
5.10.3.1	Enumeration: SynchronizationState	163
5.10.3.2	Enumeration: TimeSource	163
5.10.3.3	Enumeration: ClockQualityDetailLevel	163
5.10.3.4	Enumeration: ClockQualityDetailLevelRm	163
5.10.4	Structured Data Types	163
5.10.4.1	Type: ClockQualityAcceptanceCriterion	163
5.10.4.1A	Type: ClockQualityAcceptanceCriterionRm	164
5.10.4.2	Type: ClockQuality	164
5.10.4.2A	Type: ClockQualityRm	164
5.11	Data Types related to IMS SBA	165
5.11.1	Introduction	165
5.11.2	Simple Data Types	165
5.11.3	Enumerations	166
5.11.3.1	Enumeration: MediaResourceType	166
5.11.3.2	Enumeration: MediaProxy	166
5.11.3.3	Enumeration: SecuritySetup	167
5.11.3.4	Enumeration: BdcUsedBy	167
5.11.3.5	Enumeration: AdcEndpointType	167
5.11.3.6	Enumeration: ImsEvent	167
5.11.3.7	Type: AdcStatus	168
5.11.3.8	Type: BdcStatus	168
5.11.3.9	Enumeration: ImsReportMode	168
5.11.3.10	Enumeration: RenderingMode	168
5.11.4	Structured Data Types	169
5.11.4.1	Type: DcEndpoint	169
5.11.4.2	Type: DcStream	170
5.11.4.3	Type: ReplaceHttpUrl	170
5.11.4.4	Type: Endpoint	171
5.11.4.5	Type: AppBindingInfo	171
5.11.4.6	Type: AppDcInfo	171
5.11.4.7	Type: MdcEndpoint	172
5.11.4.8	Type: ImsReportingOptions	173
5.11.4.9	Type: ImsEventConfiguration	174
5.11.4.10	Type: EventInformation	174
5.11.4.11	Type: ImsEventFilter	174
5.11.4.12	Type: ImsEventReport	175
5.11.4.13	Type: ImsEventReportInfo	175
5.11.4.14	Type: AdcReport	175
5.11.4.15	Type: BdcReport	175
5.11.4.16	Type: RcdProperties	175
5.11.4.17	Type: RcdInformation	176
5.11.4.18	Type: IdentificationProperties	176
5.11.4.19	Type: DeliveringAddrProperties	177
5.11.4.20	Type: CommunicationsProperties	177
5.11.4.21	Type: GeographicalProperties	177
5.11.4.22	Type: OrganizationalProperties	178
5.11.4.23	Type: ExplanatoryProperties	179
5.11.4.24	Type: AudioVideoMedia	179
5.12	Data Types related to Ambient IoT	180
5.12.1	Introduction	180
5.12.2	Simple Data Types	180
5.12.3	Enumerations	180
5.12.4	Structured Data Types	180
5.12.4.1	Type: AiotArea	180
5.12.4.2	Type: AiotAreaId	180

Annex A (normative): OpenAPI specification182
A.1 General182
A.2 Data related to Common Data Types182
Annex B (informative): Change history281
History290

Sample Document

get full document from standards.iteh.ai

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.

In the present document, modal verbs have the following meanings:

shall indicates a mandatory requirement to do something

shall not indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

should indicates a recommendation to do something

should not indicates a recommendation not to do something

may indicates permission to do something

need not indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

can indicates that something is possible

cannot indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

will indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

will not indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

might indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

might not indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

is (or any other verb in the indicative mood) indicates a statement of fact

is not (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

Sample Document

get full document from standards.iteh.ai

1 Scope

The present document specifies the stage 3 protocol and data model for common data types that are used or may be expected to be used by multiple Service Based Interface APIs supported by the same or different Network Function(s).

The Principles and Guidelines for Services Definition are specified in 3GPP TS 29.501 [2].

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 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".
- [3] OpenAPI: "OpenAPI Specification Version 3.0.0", <https://spec.openapis.org/oas/v3.0.0>.
- [4] IETF RFC 1166: "Internet Numbers".
- [5] IETF RFC 5952: "A recommendation for IPv6 address text representation".
- [6] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".
- [7] 3GPP TS 23.003: "Numbering, addressing and identification".
- [8] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".
- [9] IETF RFC 9457: "Problem Details for HTTP APIs".
- [10] IETF RFC 3339: "Date and Time on the Internet: Timestamps".
- [11] 3GPP TS 38.413: "NG-RAN; NG Application Protocol (NGAP)".
- [12] IETF RFC 6901: "JavaScript Object Notation (JSON) Pointer".
- [13] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".
- [14] IETF RFC 6902: "JavaScript Object Notation (JSON) Patch".
- [15] IETF RFC 9562: "Universally Unique Identifier (UUID)".
- [16] 3GPP TS 36.413: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)".
- [17] IETF RFC 7042: "IANA Considerations and IETF Protocol and Documentation Usage for IEEE 802 Parameters".
- [18] IETF RFC 6733: "Diameter Base Protocol".
- [19] 3GPP TS 32.422: "Telecommunication management; Subscriber and equipment trace; Trace control and configuration management".
- [20] 3GPP TS 24.501: "Non-Access-Stratum (NAS) Protocol for 5G System (5GS); Stage 3".

- [21] 3GPP TS 29.002: "Mobile Application Part (MAP) specification".
- [22] Void.
- [23] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".
- [24] ITU-T Recommendation Q.763 (1999): "Specifications of Signalling System No.7; Formats and codes".
- [25] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3".
- [26] 3GPP TS 23.015: "Technical Realization of Operator Determined Barring".
- [27] 3GPP TR 21.900: "Technical Specification Group working methods".
- [28] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".
- [29] 3GPP TS 29.510: "5G System; Network Function Repository Services; Stage 3".
- [30] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS)".
- [31] IEEE Std 802.11-2012: "IEEE Standard for Information technology– Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications".
- [32] CableLabs WR-TR-5WWC-ARCH: "5G Wireless Wireline Converged Core Architecture".
- [33] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access; Stage 2".
- [34] BBF TR-069: "CPE WAN Management Protocol".
- [35] BBF TR-369: "User Services Platform (USP)".
- [36] 3GPP TS 23.287: "Architecture enhancements for 5G System (5GS) to support Vehicle-to-Everything (V2X) services".
- [37] BBF TR-470: "5G Wireless Wireline Convergence Architecture".
- [38] IEEE "Guidelines for Use of Extended Unique Identifier (EUI), Organizationally Unique Identifier (OUI), and Company ID (CID)", <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/tutorials/eui.pdf>
- [39] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification".
- [40] IETF RFC 5580: "Carrying Location Objects in RADIUS and Diameter".
- [41] BBF TR-456: "AGF Functional Requirements".
- [42] 3GPP TS 38.331: "NR; Radio Resource Control (RRC); Protocol specification".
- [43] 3GPP TS 29.572: "5G System; Location Management Services; Stage 3".
- [44] ECMA-262: "ECMAScript® Language Specification", <https://www.ecma-international.org/ecma-262/5.1/>.
- [45] 3GPP TS 33.246: "Security of Multimedia Broadcast/Multicast Service (MBMS)".
- [46] 3GPP TS 33.501: "Security architecture and procedures for 5G system; Stage 2".
- [47] IETF RFC 7542: "The Network Access Identifier".
- [48] 3GPP TS 23.402: "Architecture enhancements for non-3GPP accesses".
- [49] 3GPP TS 23.558: "Architecture for enabling Edge Applications (EA)".