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Stage 3
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- 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

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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.

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- [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 7807: "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 4122: "A Universally Unique Identifier (UUID) URN Namespace".
- [16] 3GPP TS 36.413: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)".
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- [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)".
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- [28] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".
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- [37] BBF TR-470: "5G Wireless Wireline Convergence Architecture".
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- [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".
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- [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)".

- [50] 3GPP TS 33.503: "Security Aspects of Proximity based Services (ProSe) in the 5G System (5GS)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 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].

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].

5GC	5G Core Network
DNAI	Data Network Access Identifier
EUI	Extended Unique Identifier
GEO	Geosynchronous Orbit
GPSI	Generic Public Subscription Identifier
GUAMI	Globally Unique AMF Identifier
HFC	Hybrid Fiber Coax
LEO	Low Earth Orbit
MEO	Medium Earth Orbit
N5GC	Non-5G Capable
NSSAA	Network Slice- Specific Authentication and Authorization
PEI	Permanent Equipment Identifier
SBI	Service Based Interface
SUPI	Subscription Permanent Identifier

4 Overview

For the different 5GC SBI API, data types shall be defined. Data types identified as common data types shall be defined in this Technical specification and should be referenced from individual 5GC SBI API specifications.

Data types applicable or intended to be applicable to several 5GC SBI API specifications should be interpreted as common data types.

5 Common Data Types

5.1 Introduction

In the following clauses, common data types for the following areas are defined:

- Data types for generic usage;
- Data types for Subscription, Identification and Numbering;
- Data types related to 5G Network;

- Data types related to 5G QoS;
- Data types related to 5G Trace;
- Data types related to 5G ODBs.

5.2 Data Types for Generic Usage

5.2.1 Introduction

This clause defines common data types for generic usage.

5.2.1A Re-used Data Types

This clause specifies the re-used data types from other specifications.

Table 5.2.1A-1: Re-used Data Types

Data Type	Reference	Comments
NFType	3GPP TS 29.510 [29]	
ServiceName	3GPP TS 29.510 [29]	
DataSetId	3GPP TS 29.510 [29]	
PlmnSnssai	3GPP TS 29.510 [29]	
GeographicArea	3GPP TS 29.572 [43]	
CivicAddress	3GPP TS 29.572 [43]	

5.2.2 Simple Data Types

This clause specifies common simple data types.

[ETSI TS 129 571 V17.8.0 \(2023-01\)](https://standards.iteh.ai/catalog/standards/sist/a12ef3ce-6e6c-41df-9057-5ad5a6aeddd4/etsi-ts-129-571-v17-8-0-2023-01)

<https://standards.iteh.ai/catalog/standards/sist/a12ef3ce-6e6c-41df-9057-5ad5a6aeddd4/etsi-ts-129-571-v17-8-0-2023-01>

Table 5.2.2-1: Simple Data Types

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[ETSI TS 129 571 V17.8.0 \(2023-01\)](https://standards.iteh.ai/catalog/standards/sist/a12ef3ce-6e6c-41df-9057-5ad5a6aeddd4/etsi-ts-129-571-v17-8-0-2023-01)

<https://standards.iteh.ai/catalog/standards/sist/a12ef3ce-6e6c-41df-9057-5ad5a6aeddd4/etsi-ts-129-571-v17-8-0-2023-01>