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Foreword

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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.
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1 Scope

The present specification describes the protocol for the Common API Framework (CAPIF) for 3GPP Northbound APIs. The CAPIF and the related stage 2 architecture and functional requirements are defined in 3GPP TS 23.222 [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 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2".
- [3] Open API Initiative, "OpenAPI 3.0.0 Specification", <https://github.com/OAI/OpenAPI-Specification/blob/master/versions/3.0.0.md>.
- [4] IETF RFC 7230: "Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing".
- [5] IETF RFC 7231: "Hypertext Transfer Protocol (HTTP/1.1): Semantics and Content".
- [6] IETF RFC 7232: "Hypertext Transfer Protocol (HTTP/1.1): Conditional Requests".
- [7] IETF RFC 7233: "Hypertext Transfer Protocol (HTTP/1.1): Range Requests".
- [8] IETF RFC 7234: "Hypertext Transfer Protocol (HTTP/1.1): Caching".
- [9] IETF RFC 7235: "Hypertext Transfer Protocol (HTTP/1.1): Authentication".
- [10] IETF RFC 7540: "Hypertext Transfer Protocol Version 2 (HTTP/2)".
- [11] IETF RFC 5246: "The Transport Layer Security (TLS) Protocol Version 1.2".
- [12] IETF RFC 7159: "The JavaScript Object Notation (JSON) Data Interchange Format".
- [13] IETF RFC 6455: "The WebSocket Protocol".
- [14] 3GPP TS 29.122: "T8 reference point for northbound Application Programming Interfaces (APIs)".
- [15] 3GPP TS 29.522: "5G System; Network Exposure Function Northbound APIs; Stage 3".
- [16] 3GPP TS 33.122: "Security Aspects of Common API Framework for 3GPP Northbound APIs".
- [17] IETF RFC 2617: "HTTP Authentication: Basic and Digest Access Authentication".
- [18] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".
- [19] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces Stage 3".
- [20] IETF RFC 7239: "Forwarded HTTP Extension".
- [21] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3". [22] W3C HTML 4.01 Specification, <https://www.w3.org/TR/2018/SPSD-html401-20180327/>.