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Foreword

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1 Scope

The present document is part of a series of documents that specify charging functionality and charging management in GSM/UMTS networks. The GSM/UMTS core network charging architecture and principles are specified in 3GPP TS 32.240 [1], which provides an umbrella for other charging management documents that specify:

- the content of the CDRs per domain and subsystem (offline charging);
- the content of real-time charging messages per domain / subsystem (online charging);
- the functionality of online and offline charging for those domains and subsystems;
- the interfaces that are used in the charging framework to transfer the charging information (i.e. CDRs or charging events).

The complete document structure for these TSs is defined in 3GPP TS 32.240 [1].

The present document specifies the Offline and Online Charging description for the 3GPP interworked Wireless LAN (WLAN), based on the functional stage 2 description of 3GPP WLAN interworking in 3GPP TS 23.234 [201] as well as the Charging support and Charging differentiation for Mobility between 3GPP-Wireless Local Area Network (WLAN) interworking and 3GPP systems, based on the functional stage 2 description of mobility between 3GPP-WLAN and 3GPP systems in 3GPP TS 23.327 [202]. This charging description includes the offline and online charging architecture and scenarios specific to the 3GPP interworked WLAN, as well as the mapping of the common 3GPP charging architecture specified in 3GPP TS 32.240 [1] onto the 3GPP interworked WLAN. It further specifies the structure and content of the CDRs for offline charging, and the charging events for online charging. The present document is related to other 3GPP charging TSs as follows:

- The common 3GPP charging architecture is specified in 3GPP TS 32.240 [1].
- The parameters, abstract syntax and encoding rules for these CDR types are specified in 3GPP TS 32.298 [51].
- A transaction based mechanism for the transfer of CDRs within the network is specified in 3GPP TS 32.295 [54].
- The file based mechanism used to transfer the CDRs from the network to the operator's billing domain (e.g. the billing system or a mediation device) is specified in 3GPP TS 32.297 [52].
- The 3GPP Diameter application that is used for WLAN offline and online charging is specified in 3GPP TS 32.299 [50].
- The Online and Offline Charging description for Trusted WLAN Access Network to the 3GPP EPC, based on the functional stage 2 description in 3GPP TS 23.402 [209], is specified in 3GPP TS 32.251 [11].

All terms, definitions and abbreviations used in the present document, that are common across 3GPP TSs, are defined in the 3GPP Vocabulary, 3GPP TR 21.905 [100]. Those that are common across charging management in GSM/UMTS domains or subsystems are provided in the umbrella document 3GPP TS 32.240 [1] and are copied into clause 3 of the present document for ease of reading. Finally, those items that are specific to the present document are defined exclusively in the present document.

Furthermore, requirements that govern the charging work are specified in 3GPP TS 22.115 [102].