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Zh and Zn Interfaces based on the Diameter protocol; Protocol details

CAUTION !

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Recommendation J.366.10

Zh and Zn Interfaces based on the Diameter protocol; Protocol details

Summary

This Recommendation defines the Diameter based implementation for bootstrapping Zh interface (BSF-HSS) and Dz interface (BSF-SLF) for HSS resolution for the BSF, and GAA Application Zn interface (BSF-NAF) in Generic Authentication Architecture (GAA). It contains procedures, message contents and coding. The procedures for bootstrapping and usage of bootstrapped security association are defined in 3GPP TS 33.220.

The Third Generation Partnership Project (3GPP) has developed the specification in a form optimized for the wireless environment. This Recommendation references the ETSI version of the 3GPP specification and specifies only the modifications necessary to optimize it for the cable environment.

New ITU-T Recommendation J.366.10 Generic Authentication Architecture (GAA); Zh and Zn Interfaces based on the Diameter protocol; Stage 3 Specification

1 Scope

The present stage 3 specification defines the Diameter based implementation for bootstrapping Zh interface (BSF-HSS) and Dz interface (BSF-SLF) for HSS resolution for the BSF, and GAA Application Zn interface (BSF-NAF) in Generic Authentication Architecture (GAA). The definition contains procedures, message contents and coding. The procedures for bootstrapping and usage of bootstrapped security association are defined in 3GPP TS 33.220 [5].

This specification is a part of the Generic Authentication Architecture (GAA) specification series. The Third Generation Partnership Project (3GPP) has developed the specification in a form optimized for the wireless environment. This Recommendation references the ETSI version of the 3GPP specification and specifies only the modifications necessary to optimize it for the cable environment. Additions are shown in blue underline and deletions in ~~violet strikethrough~~. It is an important objective of this work that interoperability between IPCom 2.0 and 3GPP IMS is provided. IPCom 2.0 is based upon 3GPP IMS, but includes additional functionality necessary to meet the requirements of cable operators. Recognizing developing converged solutions for wireless, wireline, and cable, it is expected that further development of IPCom 2.0 will continue to monitor and contribute to IMS developments in 3GPP, with the aim of alignment of 3GPP IMS and IPCom 2.0.

The modifications to ETSI TS 23-008 V6.8.0 (2005-12) Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 are listed below.

<The remainder of the Scope clause is unchanged>

2 References

The following documents contain provisions that, 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*.
- [IPCom2 defines several Recommendations which are based on 3GPP technical specifications. These IPCom2 Recommendations are commonly referred to as IPCom2 Delta Recommendations. For references within this Recommendation which have a corresponding IPCom2 Delta Recommendation, the IPCom2 Delta Recommendation must be used. The list of IPCom2 Delta Recommendations is:](#)

[J.366.1 \(TS-23.008\)](#) [J.366.5 \(TS-29.228\)](#)

[J.366.2 \(TS-23.218\)](#) [J.366.6 \(TS-29.229\)](#)

[J.366.3 \(TS-23.228\)](#) [J.366.7 \(TS-33.203\)](#)

[J.366.4 \(TS-24.229\)](#)

[J.366.8 \(TS-33.210\)](#)

[J.366.10 \(TS-
29.109\)](#)

[J.366. 9 \(TS-33.220\)](#)

- [References which have corresponding delta specifications are highlighted with an *](#)

- [1] IETF RFC 3588, "Diameter Base Protocol".
- [2] [*3GPP TS 29.228: "IP Multimedia \(IM\) Subsystem Cx and Dx Interfaces; Signalling flows and message contents"](#).
- [3] [*3GPP TS 29.229: "Cx and Dx interfaces based on the Diameter protocol"](#).
- [4] 3GPP TR 33.919 "Generic Authentication Architecture (GAA); System Description (rel-6)".
- [5] [*3GPP TS 33.220 "Generic Authentication Architecture \(GAA\); Generic Bootstrapping Architecture \(rel-6\) "](#).
- [6] 3GPP TS 33.221 "Generic Authentication Architecture (GAA); Support for Subscriber Certificates (rel-6) ".
- [7] 3GPP TS 24.109: "Bootstrapping interface (Ub) and Network application function interface (Ua);Protocol details".
- [8] 3GPP TS 29.230: "Diameter applications; 3GPP specific codes and identifiers (rel-6)"
- [9] IETF RFC 3589: "Diameter Command Codes for Third Generation Partnership Project (3GPP) Release 5".
- [10] [*3GPP TS 23.008: "Organisation of subscriber data" _](#).
- [11] 3GPP TS 33.222: "Generic Authentication Architecture (GAA); Access to network application functions using secure hypertext transfer protocol (HTTPS) (rel-6) ".
- [12] [*3GPP TS 23.228: "IP Multimedia Subsystem \(IMS\); Stage 2"](#)
- [13] [ITU-T Recommendation J.366.3 IP Multimedia Subsystem Stage 2 Specification \(TS 23.228\).](#)
- [14] [ITU-T Recommendation J.366.9 Generic Authentication Architecture Specification \(TS 33.220\)](#)
- [15] [ITU-T Recommendation J.366.1 Organization of Subscriber Data Specification \(TS 23.008\)](#)
- [16] [ITU-T Recommendation J.366.5 Cx and Dx Interfaces Specification \(TS 29.288.\)](#)
- [17] [ITU-T Recommendation J.366.6 Cx and Dx Interfaces, Diameter Protocol Specification \(TS 29.229\)](#)

3 Definitions, symbols and abbreviations

<There are no changes to Clause 3>

4 GBA Bootstrapping Zh interface

4.1 Generic bootstrapping network architecture

The network architecture of the Bootstrapping procedure is presented in Figure 4.1. The interface Ub (bootstrapping) is defined in 3GPP TS 24.109 [7] and the interface Zh in this specification.