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Diameter Command Code Registration for the Third Generation Partnership Project (3GPP) Evolved Packet System (EPS)

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Abstract

This document registers a set of IANA Diameter Command Codes to be used in new vendor-specific Diameter applications defined for the Third Generation Partnership Project (3GPP) Evolved Packet System (EPS). These new Diameter applications are defined for Mobile Management Entity (MME)- and Serving GPRS (General Packet Radio Service) Support Node (SGSN)-related interfaces in in the architecture for the Evolved 3GPP Packet Switched Domain, which is also known as the Evolved Packet System (EPS).

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1. Introduction

The Third Generation Partnership Project (3GPP) is defining the Evolved 3GPP Packet Switched Domain - also known as the Evolved Packet System (EPS). As part of this architecture, the interfaces based on the Diameter protocol [[RFC3588](#)] require the definition of two new Diameter applications.

As defined in [[TS29.272](#)], the 3GPP S6a/S6d application (vendor-specific application id: 16777251) enables the transfer of subscriber-related data between the Mobile Management Entity (MME) and the Home Subscriber Server (HSS) on the S6a interface and between the Serving GPRS Support Node (SGSN) and the Home Subscriber Server (HSS) on the S6d interface.

Also defined in [[TS29.272](#)], the 3GPP S13/S13' application (vendor-specific application id: 16777252) enables the Mobile Equipment Identity check procedure between the Mobile Management Entity (MME) and the Equipment Identity Register (EIR) on the S13 interface and between the Serving GPRS Support Node (SGSN) and the Equipment Identity Register (EIR) on the S13' interface.

Both Diameter applications are defined under the 3GPP vendor-id "10415". This document defines the assigned values of the command codes used in these applications.

2. Terminology

The base Diameter specification ([Section 1.3 of \[RFC3588\]](#)) defines most of the terminology used in this document. Additionally, the terms and acronyms defined in [[TS29.272](#)] are used in this document.

3. Command Codes

The 3GPP S6a/S6d application described in Section 5 of [TS29.272] requires the allocation of command code values for the following command pairs:

- o 3GPP-Update-Location-Request/Answer (ULR/ULA)
- o 3GPP-Cancel-Location-Request/Answer (CLR/CLA)
- o 3GPP-Authentication-Information-Request/ Answer (AIR/AIA)
- o 3GPP-Insert-Subscriber-Data-Request/Answer (IDR/IDA)
- o 3GPP-Delete-Subscriber-Data-Request/Answer (DSR/DSA)
- o 3GPP-Purge-UE-Request/Answer (PUR/PUA)
- o 3GPP-Reset-Request/Answer (RSR/RSA)
- o 3GPP-Notify-Request/Answer (NOR/NOA)

The 3GPP S13/S13 application described in Section 6 of [TS29.272] requires the allocation of a command code value for the following command pair:

- o 3GPP-ME-Identity-Check-Request/Answer (ECR/ECA)

4. IANA Considerations

This section provides guidance to the Internet Assigned Numbers Authority (IANA) regarding registration of values related to the Diameter protocol, in accordance with BCP 26 [RFC5226].

This document defines values in the namespace that has been defined in the Diameter base specification [RFC3588]. Section 11 of [RFC3588] (that document's IANA Considerations) details the assignment criteria. IANA allocated the following command code values:

Code	Command Name	Abbrev.	Defined in
316	3GPP-Update-Location-Request	ULR	3GPP TS 29.272
316	3GPP-Update-Location-Answer	ULA	3GPP TS 29.272
317	3GPP-Cancel-Location-Request	CLR	3GPP TS 29.272
317	3GPP-Cancel-Location-Answer	CLA	3GPP TS 29.272
318	3GPP-Authentication-Information-Request	AIR	3GPP TS 29.272
318	3GPP-Authentication-Information-Answer	AIA	3GPP TS 29.272
319	3GPP-Insert-Subscriber-Data-Request	IDR	3GPP TS 29.272
319	3GPP-Insert-Subscriber-Data-Answer	IDA	3GPP TS 29.272
320	3GPP-Delete-Subscriber-Data-Request	DSR	3GPP TS 29.272
320	3GPP-Delete-Subscriber-Data-Answer	DSA	3GPP TS 29.272
321	3GPP-Purge-UE-Request	PUR	3GPP TS 29.272
321	3GPP-Purge-UE-Answer	PUA	3GPP TS 29.272
322	3GPP-Reset-Request	RSR	3GPP TS 29.272
322	3GPP-Reset-Answer	RSA	3GPP TS 29.272
323	3GPP-Notify-Request	NOR	3GPP TS 29.272
323	3GPP-Notify-Answer	NOA	3GPP TS 29.272
324	3GPP-ME-Identity-Check-Request	ECR	3GPP TS 29.272
324	3GPP-ME-Identity-Check-Answer	ECA	3GPP TS 29.272

5. Security Considerations

This document describes command codes used in applications that build on top of the Diameter base protocol and the same security considerations described in [RFC3588] are applicable to this document. No further extensions are required beyond the security mechanisms offered by [RFC3588].

6. Acknowledgements

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7. References

7.1. Normative References

- [RFC3588] Calhoun, P., Loughney, J., Guttman, E., Zorn, G., and J. Arkko, "Diameter Base Protocol", RFC 3588, September 2003.
- [TS29.272] 3rd Generation Partnership Project, "3GPP TS 29.272; Technical Specification Group Core Network and Terminals; Evolved Packet System; Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) Related Interfaces Based on Diameter Protocol", <http://www.3gpp.org/ftp/Specs/html-info/29272.htm>.

7.2. Informative References

- [RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 5226, May 2008.

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