

May, 2004

EAP lower layer attributes for AAA protocols
<[draft-mariblanca-aaa-eap-lla-00.txt](#)>

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Abstract

This document defines a new AVP to be transported in RADIUS or Diameter when EAP is carried over these protocols. The purpose of this AVP is to determine which layer 2 protocol was used to encapsulate the EAP messages at the point they were initiated.

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1. Introduction

This document defines a new AVP to be transported in RADIUS or Diameter when EAP [[EAP](#)] is carried over these protocols. This information will be useful for the EAP server to determine which service initiated the EAP procedure. This situation will be common when EAP is used over a layer 2 protocol for which the EAP server is not one of the termination points. The access node where EAP is decapsulated from such layer 2 protocol will package the EAP messages over RADIUS [[RFC3579](#)] or Diameter [[DEAPapp](#)] and send them to the EAP server, which in some situations will need to have some information about the origin of the EAP messages. For example, the EAP server may wish to allow/deny access from a given lower layer for every subscriber. The AVP defined in this document will provide this information to the EAP server. The EAP server MAY use this AVP at the moment of the authorization decision, and once this decision is taken, the rest of the exchange SHOULD NOT be affected.

1.1 Abbreviations

EAP Extensible Authentication Protocol

2. Conventions

The keywords MUST, MUST NOT, REQUIRED, SHALL, SHALL NOT, SHOULD, SHOULD NOT, RECOMMENDED, NOT RECOMMENDED, MAY, and OPTIONAL, when they appear in this document, are to be interpreted as described in [[RFC2119](#)].

3. Attributes

3.1 EAP-Lower-Layer AVP

The EAP-Lower-Layer AVP indicates the layer 2 protocol which has been used to carry EAP messages. This attribute MAY be used by access devices acting as EAP pass-through authenticators, such as network access servers passing EAP from a PPP interface to a RADIUS or DIAMETER interface.

This AVP MAY be included in the Diameter-EAP-Request (DER) Command. It MUST NOT be present in the Diameter-EAP-Answer (DEA) Command. In case of RADIUS, the EAP-Lower-Layer AVP MAY be included in the Access-Request message, and MUST NOT be included in any other RADIUS message.

The format of the EAP-Lower-Layer AVP is shown below.

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

```
+-----+
|EAP-Lower-Layer| Length = 1 | Underlying Protocol |
+-----+
```

The values for this attribute are:

Protocol	Value
PPP	1
802.1X	2
IKEv2	3
PANA	4

4. Acknowledgements

The author would like to thank Hannes Tschofenig, Bernard Aboba and Jari Arkko for their help in the creation and edition of this document.

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6. References

- [EAP] Blunk, L., Vollbrecht, J., Aboba, B., Carlson, J. and H. Levkowetz, "Extensible Authentication Protocol (EAP)", [draft-ietf-eap-rfc2284bis-09](#) (work in progress), February 2004.
- [DEAPapp] P. Eronen, T. Hiller, G. Zorn, Diameter Extensible Authentication Protocol (EAP) Application , [draft-ietf-aaa-eap-05.txt](#) (work in progress), April 2004.
- [RFC3579] B. Aboba, P. Calhoun, RADIUS (Remote Authentication Dial In User Service) Support For Extensible Authentication Protocol (EAP) , [RFC 3579](#), September 2003

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Acknowledgment

Funding for the RFC Editor function is currently provided by the Internet Society.

