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(Deprecated) Protected E-mail Headers
draft-autocrypt-lamps-protected-headers-04

Abstract

This is a tombstone document of an abandoned effort to provide end-to-end cryptographic protections for e-mail headers. It has been superseded by RFC 9788.

Status of This Memo

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Table of Contents

1. This Document Is Deprecated	2
2. References	2
2.1. Normative References	2
2.2. Informative References	2
Appendix A. Document History	2
Appendix B. Acknowledgements	3
Authors' Addresses	4

1. This Document Is Deprecated

This document has been superseded by [RFC9788].

2. References

2.1. Normative References

[RFC9788] Gillmor, D. K., Hoeneisen, B., and A. Melnikov, "Header Protection for Cryptographically Protected Email", RFC 9788, DOI 10.17487/RFC9788, August 2025, <<https://www.rfc-editor.org/rfc/rfc9788>>.

2.2. Informative References

[Autocrypt] "Autocrypt Specification 1.1", 13 October 2019, <<https://autocrypt.org/level1.html>>.

[OpenPGP-Email-Summit-2019] "OpenPGP Email Summit 2019", 13 October 2019, <<https://wiki.gnupg.org/OpenPGPEmailSummit201910>>.

[xkcd936] Munroe, R., "xkcd: Password Strength", 10 August 2011, <<https://www.xkcd.com/936/>>.

Appendix A. Document History

Significant changes between version -03 and -04:

- * Update "Tombstone" to point to released RFC9788.

Significant changes between version -02 and -03:

- * "Tombstone" this document in favor of draft-ietf-lamps-header-protection

Significant changes between version -01 and -02:

- * Added S/MIME test vectors in addition to PGP/MIME
- * Legacy Display parts should now be text/plain and not text/rfc822-headers
- * Cryptographic Payload must have protected-headers parameter set to v1
- * Test vector sample Message-Ids have been normalized
- * Added encrypted-only (unsigned) test vectors, at the suggestion of Russ Housley

Changes between version -00 and -01:

- * Credit Randall for "correct horse battery staple".
- * Adjust test vectors to ensure no line in the generated .txt format exceeds 72 chars.
- * Minor formatting cleanup to appease idnits.
- * Update references to more recent documents (RFC 2822 -> 5322, -00 to -01 of draft-ietf-lamps-header-protection-requirements).

Appendix B. Acknowledgements

The set of constructs and algorithms in this document has a previous working title of "Memory Hole", but that title is no longer used as different implementations gained experience in working with it.

These ideas were tested and fine-tuned in part by the loose collaboration of MUA developers known as [Autocrypt].

Additional feedback and useful guidance was contributed by attendees of the OpenPGP e-mail summit ([OpenPGP-Email-Summit-2019]).

The following people have contributed implementation experience, documentation, critique, and other feedback:

- * Holger Krekel
- * Patrick Brunschwig
- * Vincent Breitmoser
- * Edwin Taylor

* Alexey Melnikov

* Russ Housley

The password example used in previous versions comes from [xkcd936].

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