INTERNET-DRAFT M. Yevstifeyev
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HTTP 'Headers-Not-Recognized' Header Field <draft-yevstifeyev-http-headers-not-recognized-11>

Abstract

This document defines mechanism which allows HTTP hosts to notify another hosts about not supported header fields - 'Headers-Not-Recognized' HTTP header field.

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1. Introduction

1.1. Motivation

HTTP is one of the most widely-used protocols in the Internet. One of the things which made it so popular is extensibility. One can easily add any header field to the HTTP message. However, all hosts are not able to support all the header fields. Generally, if a it host does not support the header field, it is simply ignored. The another side of exchange is not notified about not processed header fields.

This document proposes mechanism which allows HTTP hosts to notify another hosts about not recognized header fields.

The proposal is to send an HTTP message with definite header field to the host if one or more header fields of its message are not supported. This document defines 'Headers-Not-Recognized' HTTP header field to be used in such occasion.

1.2. Conventions

1.2.1. Conformance Criteria

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

1.2.2. Syntax Notation

This specification uses the Augmented Backus-Naur Form (ABNF) notation of [RFC5234].

The construction <n>#<m>element is used as defined in RFC 2616 [RFC2616], Section 2.1.

1.2.3. Terminology

HTTP refers to protocol, defined in RFC 2616 [RFC2616]

The terms client, server, proxy, gateway and tunnel have the same meaning as in the HTTP/1.1 specification ([RFC2616], Section 1.3).

The term host means client or server.

2. Technical Overview

2.1 Model of Work

If the HTTP host receives HTTP message which contains some header fields which are not supported by it, it is RECOMMENDED for it to include the Headers-Not-Recognized header field in the response to the host that sent message with not supported header fields.

Information about not supported header fields is to be put in the 'Headers-Not-Recognized' header field following the rules of Section 2.2 of this document. The 'Headers-Not-Recognized' header field MUST contain information only about not supported header fields - i.e. header fields which are not able to be processed anyway. It MUST NOT contain information about header fields, which are partly supported, whose entity cannot be processed while the header field is supported at all, etc.

When HTTP host receives HTTP message with Headers-Not-Recognized header field, it is RECOMMENDED that it avoids sending messages with header fields with mentioned in it names to source (for such message) host.

Intermediate systems (also called middle-boxes), such as proxies, tunnels, gateways, etc. SHALL transfer the messages with 'Headers-Not-Recognized' header field to the destination host without changing the entity of this header field if the not supported header field was present in the initial HTTP message (i. e. message which intermediate system received before transferring it to destination host), but SHALL omit it if Headers-Not-Recognized header field's entity concerns only to header fields added to initial message by middle-box. If the aforementioned header field concerns added header fields partly, middle-box SHALL change the entity so that it concerns only initial message header field.

2.2 Syntax

'Headers-Not-Recognized' header field has the following format:

headers_not_recognized = 1#header_name header_name = 1*VCHAR

3. IANA Considerations

The permanent message header field registry should be updated with the following registration (see [RFC3864]):

Header field name Headers-Not-Recognized

Applicable protocol http

Status

experimental

Specification document RFC xxxx

[RFC Editor: replace xxxx with assigned RFC number]
[Note: This registration should take place at http://www.iana.org/assignments/message-headers/perm-headers.html
This note is to be deleted upon publication.]

4. Security Considerations

This extension to HTTP is not believed to add any additional security concerns not already present in RFC 2616 [RFC2616].

5. Normative References

- [RFC2119] S. Bradner, "Key words for use in RFCs to Indicate Requirement Levels", <u>BCP 14</u>, <u>RFC 2119</u>, March 1997.
- [RFC2616] Fielding, R., Gettys, J., Mogul, J., Frystyk, H.,
 Masinter, L., Leach, P., and T. Berners-Lee, "Hypertext
 Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999.
- [RFC3864] Klyne, G., Nottingham, M., and J. Mogul, "Registration Procedures for Message Header Fields", <u>BCP 90</u>, <u>RFC 3864</u>, September 2004.
- [RFC5234] Crocker, D., Ed., and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008.

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Author's Addresses

Mykyta Yevstifeyev Kotovsk, Ukraine

EMail: evnikita2@gmail.com