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An HTTP Status Code to Report Legal Obstacles

Abstract

This document specifies a Hypertext Transfer Protocol (HTTP) status code for use when resource access is denied as a consequence of legal demands.

Status of this Memo

This is an Internet Standards Track document.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on Internet Standards is available in Section 2 of RFC 5741[1].

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc7725[2].

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[1] https://www.rfc-editor.org/rfc/rfc5741.html#section-2
[2] http://www.rfc-editor.org/info/rfc7725
[3] http://trustee.ietf.org/license-info

Table of Contents

1 Introduction....3

2 Requirements....4

3 451 Unavailable For Legal Reasons....5

4 Identifying Blocking Entities....6

5 Security Considerations....7

6 IANA Considerations....8

7 References....9

7.1 Normative References....9

7.2 Informative References....9

Appendix A Acknowledgements....10

Author's Address....11

1. Introduction

This document specifies a Hypertext Transfer Protocol (HTTP) status code for use when a server operator has received a legal demand to deny access to a resource or to a set of resources that includes the requested resource.

This status code can be used to provide transparency in circumstances where issues of law or public policy affect server operations. This transparency may be beneficial both to these operators and to end users.

[RFC4924] discusses the forces working against transparent operation of the Internet; these clearly include legal interventions to restrict access to content. As that document notes, and as Section 4 of [RFC4084] states, such restrictions should be made explicit.

2. Requirements

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 [RFC2119].

3. 451 Unavailable For Legal Reasons

This status code indicates that the server is denying access to the resource as a consequence of a legal demand.

The server in question might not be an origin server. This type of legal demand typically most directly affects the operations of ISPs and search engines.

Responses using this status code SHOULD include an explanation, in the response body, of the details of the legal demand: the party making it, the applicable legislation or regulation, and what classes of person and resource it applies to. For example:

```
HTTP/1.1 451 Unavailable For Legal Reasons
Link: <https://spqr.example.org/legislatione>; rel="blocked-by"
Content-Type: text/html

<html>
 <head><title>Unavailable For Legal Reasons</title></head>
 <body>
  <h1>Unavailable For Legal Reasons</h1>
  <p>This request may not be serviced in the Roman Province
  of Judea due to the Lex Julia Majestatis, which disallows
  access to resources hosted on servers deemed to be
  operated by the People's Front of Judea.</p>
 </body>
</html>
```

The use of the 451 status code implies neither the existence nor nonexistence of the resource named in the request. That is to say, it is possible that if the legal demands were removed, a request for the resource still might not succeed.

Note that in many cases clients can still access the denied resource by using technical countermeasures such as a VPN or the Tor network.

A 451 response is cacheable by default, i.e., unless otherwise indicated by the method definition or explicit cache controls; see [RFC7234].

4. Identifying Blocking Entities

As noted above, when an attempt to access a resource fails with status 451, the entity blocking access might or might not be the origin server. There are a variety of entities in the resource-access path that could choose to deny access — for example, ISPs, cache providers, and DNS servers.

It is useful, when legal blockages occur, to be able to identify the entities actually implementing the blocking.

When an entity blocks access to a resource and returns status 451, it SHOULD include a "Link" HTTP header field [RFC5988] whose value is a URI reference [RFC3986] identifying itself. When used for this purpose, the "Link" header field MUST have a "rel" parameter whose value is "blocked-by".

The intent is that the header be used to identify the entity actually implementing blockage, not any other entity mandating it. A human-readable response body, as discussed above, is the appropriate location for discussion of administrative and policy issues.

5. Security Considerations

Clients cannot rely upon the use of the 451 status code. It is possible that certain legal authorities might wish to avoid transparency, and not only demand the restriction of access to certain resources, but also avoid disclosing that the demand was made.

6. IANA Considerations

The HTTP Status Codes Registry has been updated with the following entry:

- Code: 451
- Description: Unavailable For Legal Reasons
- Specification: RFC 7725

The Link Relation Type Registry has been updated with the following entry:

- Relation Name: blocked-by
- Description: Identifies the entity that blocks access to a resource following receipt of a legal demand.
- Reference: RFC 7725

7. References

7.1. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <https://www.rfc-editor.org/info/rfc2119>.

[RFC3986] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, DOI 10.17487/RFC3986, January 2005, <https://www.rfc-editor.org/info/rfc3986>.

[RFC5988] Nottingham, M., "Web Linking", RFC 5988, DOI 10.17487/RFC5988, October 2010, <https://www.rfc-editor.org/info/rfc5988>.

[RFC7234] Fielding, R., Ed., Nottingham, M., Ed., and J. Reschke, Ed., "Hypertext Transfer Protocol (HTTP/1.1): Caching", RFC 7234, DOI 10.17487/RFC7234, June 2014, <https://www.rfc-editor.org/info/rfc7234>.

7.2. Informative References

[RFC4084] Klensin, J., "Terminology for Describing Internet Connectivity", BCP 104, RFC 4084, DOI 10.17487/RFC4084, May 2005, <https://www.rfc-editor.org/info/rfc4084>.

[RFC4924] Aboba, B., Ed. and E. Davies, "Reflections on Internet Transparency", RFC 4924, DOI 10.17487/RFC4924, July 2007, <https://www.rfc-editor.org/info/rfc4924>.

Appendix A. Acknowledgements

Thanks to Terence Eden, who observed that the existing status code 403 was not really suitable for this situation, and suggested the creation of a new status code.

Thanks also to Ray Bradbury.

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