HTTP Redirect Codes for RESTful Services
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Abstract

This specification clarifies the use of HTTP redirect codes when used with RESTful services.

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1. Introduction

Representational State Transfer or REST is an architectural style for networked systems as described in Dr. Roy Fieldings Ph.D. dissertation [Fielding-REST]. Though [Fielding-REST] is not dependant upon any particular protocol, this specfiction pertains to services built upon HTTP as defined by [RFC2616] hereafter called RESTful services.

Section 10.3 of the HTTP specification defines several redirect response codes normally used to redirect user-agents (browsers) in response to HTTP requests. This specification clarifies the use of HTTP redirect code 307 (defined in [RFC2616]) and HTTP Redirect code 308 (as defined in [I-D.reschke-http-status-308]) with RESTful services.

1.1. Requirements Language

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].

2. RESTful Redirection

In order to preserve the integrity of REST operations, HTTP redirection codes 301-306 SHOULD NOT be used unless the service provider is aware the client is in fact a user-agent. Redirection code 301-306 require clients to convert requests to HTTP GET or HEAD and are not normally suitable.
REST servers MAY issue two types of HTTP redirects: HTTP redirect 307 for temporary redirection and HTTP redirect 308 for permanent redirection.

Upon receiving redirect code 307 OR 308, REST clients SHOULD preserve the HTTP request and the implied REST operation by applying the same request to the new resource location specified in the redirect.

2.1. Temporary Redirection

A service provider MAY temporarily redirect clients using HTTP 307 as specified in RFC2616. The original HTTP action MUST be preserved.

The REST client MUST use the original permanent URI when referencing the affected REST resource in any other REST operations or REST resource.

If there is no user-agent involved in the transaction, the REST client MAY proceed by automatically processing the redirect. Clients MUST ensure that the new location keeps the operation intent intact.

2.2. Permanent Redirection

In the event that a REST resource has been relocated or reassigned, a service provider MAY issue an HTTP 308 redirect. This redirect informs the REST client of the new permanent URI for the object.

REST clients MUST ensure that the new address keeps the operation intent intact and the same HTTP verb is used.

The REST client MUST use the new permanent URI when referencing the affected REST resource in any other REST operations or REST resource.

If there is no user-agent involved in the transaction, the REST client MAY proceed by automatically processing the redirect.

2.3. Alias Redirection

REST based services MAY use HTTP redirection code 308 in order to permit aliasing of RESTful resources.

Servers that DO NOT support REST resource aliases SHOULD respond with HTTP 404 (not found) if an alias request is received or is not otherwise resolvable.
2.3.1.  Self Referencing Alias

In situations where the client wishes to refer to the current security context of the user, the server MAY translate a URI of the form "<server-prefix>/me" to mean the resource represented by current authenticated subject where "<server-prefix" is the URI fragment of the REST service root.

If "<server-prefix>/me" does not resolve to a resource within the service endpoint requested, the service provider MUST respond with HTTP 404 (not found). If subject is resolved to a resource, the service provider MAY use HTTP 308 to redirect the SCIM client to the permanent URI of the authenticated subject.

3.  Acknowledgements

This specification was developed based on discussions within the SCIM working group. The author would like to thank the members for their input.

4.  IANA Considerations

This memo includes no request to IANA.

5.  Security Considerations

All security considerations that apply to HTTP redirects as specified by [RFC2616], apply to redirect 308.

6.  References

6.1.  Normative References


6.2.  Informative References

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