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The Preliminary Request Denied HTTP Status Code  
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## Abstract

This specification defines a HTTP status code to indicate that the server is denying a prefetch or preload request.

## About This Document

This note is to be removed before publishing as an RFC.

The latest revision of this draft can be found at <https://httpwg.org/http-extensions/draft-ietf-httpbis-pre-denied.html>. Status information for this document may be found at <https://datatracker.ietf.org/doc/draft-ietf-httpbis-pre-denied/>.

Discussion of this document takes place on the HTTP Working Group mailing list (<mailto:ietf-http-wg@w3.org>), which is archived at <https://lists.w3.org/Archives/Public/ietf-http-wg/>. Working Group information can be found at <https://httpwg.org/>.

Source for this draft and an issue tracker can be found at <https://github.com/httpwg/http-extensions/labels/pre-denied>.

## Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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## 1. Introduction

[FETCH] introduces a mechanism whereby HTTP [HTTP] user agents can speculatively request a representation of a resource, in order to improve perceived performance.

In some circumstances, a server might have information that leads it to believe that sending a full response will not improve performance, and could have negative impacts.

When this happens, it is common practice to use a 503 (Service Unavailable) status code. However, this has been shown to cause confusion: a server operator who sees a spike in that status code being sent tends to draw the conclusion that there is a server-side operational issue.

While other status codes (e.g., 403 (Forbidden)) could be used, they can also suffer (to varying degrees) from the same problem: being confused with an error, operational problem, or other condition.

This specification defines a new status code to specifically address this situation.

### 1.1. Notational Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

## 2. The 4xx (Preliminary Request Denied) Status Code

The 4xx (Preliminary Request Denied) status code indicates that the server is refusing a preliminary request.

A preliminary request is one that contains a Sec-Purpose header field [FETCH] containing the value "prefetch".

This indication is only applicable to the associated request; future preliminary requests might or might not succeed.

## 3. IANA Considerations

The following entry should be registered in the "HTTP Status Codes" registry:

- \* Code: 4xx
- \* Description: Preliminary Request Denied
- \* Specification: RFC nnnn (this document)

## 4. Security Considerations

The security considerations of [HTTP] and [FETCH] apply. Conceivably, the use of this status code could leak information about the internal state of the server; caution should be exercised to assure that it does not.

## 5. Normative References

- [FETCH] WHAT Working Group, "Fetch", 2026, <<https://fetch.spec.whatwg.org/>>.
- [HTTP] Fielding, R., Ed., Nottingham, M., Ed., and J. Reschke, Ed., "HTTP Semantics", STD 97, RFC 9110, DOI 10.17487/RFC9110, June 2022, <<https://www.rfc-editor.org/rfc/rfc9110>>.

- [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/rfc/rfc2119>>.
- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <<https://www.rfc-editor.org/rfc/rfc8174>>.

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