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Prefer Header for HTTP
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Abstract

This specification defines a new HTTP header that can be used by a client to request that certain behaviors be implemented by a server while processing a request.

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1. Introduction

This specification defines a new HTTP header that can be used by a client to request that certain behaviors be implemented by a server while processing a request.

In this document, the key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" are to be interpreted as described in [[RFC2119](#)].

2. The Prefer Request Header

The Prefer request-header is used to indicate that particular server behaviors are preferred, but not required, by the client. Prefer is similar in nature to the Expect header defined by [[RFC2616](#)] with the exception that servers are allowed to ignore a clients stated preferences.

```
Prefer      = "Prefer" ":" 1#preference

preference  = "return-no-content" |
              "return-content" |
              "return-status" |
              preference-extension
preference-extension = token [ "=" ( token | quoted-string )
                              *prefer-params ]
prefer-params = ";" token [ "=" ( token | quoted-string ) ]
```

This header is defined with an extensible syntax to allow for future values included in the Registry of Preferences (see [Section 7.1](#)). A server that does not recognize or is unable to comply with particular preference values in the Prefer header of a request MUST ignore those values and MUST NOT stop processing or signal an error.

Comparison of preference values is case-insensitive for unquoted

tokens and is case-sensitive for quoted-string preference-extensions.

An HTTP proxy MAY choose to honor a preference even if the origin server does not. The Prefer request-header MUST be forwarded by the proxy if the request is forwarded.

[3.](#) The Preference-Applied Response Header

The Preference-Applied response header MAY be included in the response message to indicate which Prefer request header values were honored by the server and applied to the request.

```
Prefer      = "Preference-Applied" ":" 1#preference
```

[4.](#) The "return-no-content" Preference

The "return-no-content" token indicates that the client prefers that the server not include an entity in the response to a successful request. Typically, such responses would use the 204 No Content status code as defined in [Section 10.2.5 of \[RFC2616\]](#), but other status codes can be used as appropriate.

[5.](#) The "return-content" Preference

The "return-content" token indicates that the client prefers that the server include an entity representing the current state of the resource in the response to a successful request.

[6.](#) The "return-status" Preference

The "return-status" token indicates that the client prefers that the server include an entity describing the status of the request in the response to a successful request.

[7.](#) IANA Considerations

The 'Prefer' request header should be added to the permanent registry

(see [[RFC3864](#)]).

Header field name: Prefer

Applicable Protocol: HTTP

Status: standard

Author/Change controller: IETF

Specification document: this specification

[7.1.](#) The Registry of Preferences

This registry is maintained by IANA and initially contains three values: "return-no-content", "return-content" and "return-status". New assignments are subjects to IESG approval, as outlined in [[RFC2434](#)]. Requests should be made by email to IANA, which will then

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forward the request to the IESG, requesting approval. The request should use the following template:

- o Preference: (A value for the Prefer request header that conforms to the syntax rule given in [Section 2](#))
- o Description:
- o Expected server behavior:
- o Security considerations:

[8.](#) Security Considerations

Specific preferences requested by a client can introduce security considerations and concerns beyond those discussed in [[RFC2616](#)]. Implementors must refer to the specifications and descriptions of those preferences to determine the security considerations relevant to each.

[9.](#) Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate

Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.

- [RFC2434] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", [BCP 26](#), [RFC 2434](#), October 1998.
- [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", [BCP 90](#), [RFC 3864](#), September 2004.

[Appendix A](#). Acknowledgements

The author gratefully acknowledges the input from the IETF HTTP mailing list on the development of this document.

[Appendix B](#). Changes

TODO

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[Appendix C](#). Notes to RFC Editor

The RFC Editor should remove this section and the Changes section.

[Appendix D](#). Editorial Notes

We need to determine how new preference codes are created/registered

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