

Hypertext Transfer Protocol -- HTTP/1.0

Status of This Memo

This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

IESG Note:

The IESG has concerns about this protocol, and expects this document to be replaced relatively soon by a standards track document.

Abstract

The Hypertext Transfer Protocol (HTTP) is an application-level protocol with the lightness and speed necessary for distributed, collaborative, hypermedia information systems. It is a generic, stateless, object-oriented protocol which can be used for many tasks, such as name servers and distributed object management systems, through extension of its request methods (commands). A feature of HTTP is the typing of data representation, allowing systems to be built independently of the data being transferred.

HTTP has been in use by the World-Wide Web global information initiative since 1990. This specification reflects common usage of the protocol referred to as "HTTP/1.0".

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1. Introduction

1.1 Purpose

The Hypertext Transfer Protocol (HTTP) is an application-level protocol with the lightness and speed necessary for distributed, collaborative, hypermedia information systems. HTTP has been in use by the World-Wide Web global information initiative since 1990. This specification reflects common usage of the protocol referred to as "HTTP/1.0". This specification describes the features that seem to be consistently implemented in most HTTP/1.0 clients and servers. The specification is split into two sections. Those features of HTTP for which implementations are usually consistent are described in the main body of this document. Those features which have few or inconsistent implementations are listed in [Appendix D](#).

Practical information systems require more functionality than simple retrieval, including search, front-end update, and annotation. HTTP allows an open-ended set of methods to be used to indicate the purpose of a request. It builds on the discipline of reference provided by the Uniform Resource Identifier (URI) [2], as a location (URL) [4] or name (URN) [16], for indicating the resource on which a method is to be applied. Messages are passed in a format similar to that used by Internet Mail [7] and the Multipurpose Internet Mail Extensions (MIME) [5].

HTTP is also used as a generic protocol for communication between user agents and proxies/gateways to other Internet protocols, such as SMTP [12], NNTP [11], FTP [14], Gopher [1], and WAIS [8], allowing basic hypermedia access to resources available from diverse applications and simplifying the implementation of user agents.

1.2 Terminology

This specification uses a number of terms to refer to the roles played by participants in, and objects of, the HTTP communication.

connection

A transport layer virtual circuit established between two application programs for the purpose of communication.

message

The basic unit of HTTP communication, consisting of a structured sequence of octets matching the syntax defined in [Section 4](#) and transmitted via the connection.

request

An HTTP request message (as defined in [Section 5](#)).

response

An HTTP response message (as defined in [Section 6](#)).

resource

A network data object or service which can be identified by a URI ([Section 3.2](#)).

entity

A particular representation or rendition of a data resource, or reply from a service resource, that may be enclosed within a request or response message. An entity consists of meta-information in the form of entity headers and content in the form of an entity body.

client

An application program that establishes connections for the purpose of sending requests.

user agent

The client which initiates a request. These are often browsers, editors, spiders (web-traversing robots), or other end user tools.

server

An application program that accepts connections in order to service requests by sending back responses.

origin server

The server on which a given resource resides or is to be created.

proxy

An intermediary program which acts as both a server and a client for the purpose of making requests on behalf of other clients. Requests are serviced internally or by passing them, with possible translation, on to other servers. A proxy must interpret and, if necessary, rewrite a request message before

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