Compatibility

Apache HTTP Server Compatibility

This wiki content attempts to catalog known compatibility questions between common HTTP servers, browsers, other user-agents, and other proxy agents such as firewalls or load balancers. Note that Apache HTTP Server acts as both a server, and as a proxy server, also as a user-agent communicating with a back-end server. The implementation of the specs listed below may vary between these two roles.

Applicable Specifications

Apache HTTP Server implements a number of specifications, each of which poses interoperability challenges for any implementer. Different implementations may;

- Apply a different interpretation of the same reading when the specification is unclear
- Choose to be permissive where multiple readings are possible, or to strictly conform when the plain reading is clear
- Deviate from the specification in error, for their own purpose, or to accommodate another implementation

Apache HTTP Server since inception has erred on the side of being lenient in accepting questionable input, and strict in emitting responses from the server, which helped to fuel the adoption of the HTTP protocol. In response to a number of attack vectors which rely on the differences in accepting and interpreting questionable input, the server is evolving to more strictly require that input conform to the relevant specifications.

The current version of HTTP implements the following specifications, with specific wiki pages dedicated to each topic (this list not exhaustive);

Spec	Comments	Title				
RFC 7230	RFC 7230 Notes	Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing				
RFC 7231	RFC 7231 Notes	Hypertext Transfer Protocol (HTTP/1.1): Semantics and Content				
RFC 7232	RFC 7232 Notes	Hypertext Transfer Protocol (HTTP/1.1): Conditional Requests				
RFC 7233	RFC 7233 Notes	Hypertext Transfer Protocol (HTTP/1.1): Range Requests				
RFC 7234	RFC 7234 Notes	Hypertext Transfer Protocol (HTTP/1.1): Caching				
RFC 7235	RFC 7235 Notes	Hypertext Transfer Protocol (HTTP/1.1): Authentication				
<ac:structured-macro ac:name="unmigrated-wiki-markup" ac:schema-version="1" ac:macro-id="6eb82a54-7dde-4d11-896e-4fa48fc9b401"><ac:plain-text-body><![CDATA[	[RFC 3986]	https://tools.ietf.org/html/rfc3986]	[RFC 3986 Notes	RFC3986Notes]	URI Generic Syntax [By reference in RFC 7230]	]]></ac:plain-text-body></ac:structured-macro>

Interoperability Issues

See specific Notes above for issues related to each specification. General Issues between specific clients and back-end servers are called out below.

Specific Client Issues (httpd as a Server)

Specific Server Issues (httpd as a User-Agent)