Update to MIME regarding Charset Parameter Handling in Textual Media Types
draft-melnikov-mime-default-charset-00

Abstract

This document changes RFC 2046 rules regarding default charset parameter values for text/* media types to better align with common usage by existing clients and servers.

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1. Introduction and overview

[RFC2046] specified that the default charset parameter (i.e. the value used when it is not specified) is "US-ASCII".  [RFC2616] changed the default for use by HTTP to be "ISO-8859-1".  This encoding is not very common for new text/* media types and a special rule in HTTP adds confusion about which specification ([RFC2046] or [RFC2616]) is authoritative in regards to the default charset for text/* media types.  [[anchor2: At the time of writing of this document the IETF HTTPBIS WG is working on an update to RFC 2616 which removes the default charset of "ISO-8859-1" for "text/*" media types.  It is expected that the set of HTTPBIS documents will reference this document in order to use the updated rules of default charset in "text/*" media types.]]

Many complex text subtypes such as text/html and text/xml have internal (to their format) means of describing the charset.  Many existing User Agents ignore the default of "US-ASCII" rule for at least text/html and text/xml.

This document changes RFC 2046 rules regarding default charset parameter values for text/* media types to better align with common usage by existing clients and servers.

2. Conventions Used in This Document

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 [RFC2119].

3. New rules for default charset parameter values for text/* media types

Section 4.1.2 of [RFC2046] says:

"The default character set, which must be assumed in the absence of a charset parameter, is US-ASCII."

As explained in the Introduction section this rule is considered to be outdated, so this document replaces it with the following set of rules:

Each subtype of the "text" media type which uses the charset parameter can define its own default value for the charset parameter, including absence of any default.
In order to improve interoperability with deployed agents, "text/*" media type definitions SHOULD either a) recommend no default charset parameter value (i.e. the charset information is transport inside the payload, for example as in "text/xml") or b) require explicit unconditional inclusion of the charset parameter with the default value. "text/*" media types that can transport charset information inside the corresponding payloads SHOULD NOT specify any default, in order to avoid conflicting instructions if the charset parameter value and the value specified in the payload don’t agree.

New subtypes of the "text" media type that do define a default charset SHOULD use the "UTF-8" [RFC3629] charset as the default.

Protocols using MIME MUST NOT override default charset values for "text/*" media types to be different for their specific protocol.

4. Default charset parameter value for text/plain media type

The default charset parameter value for text/plain is unchanged from [RFC2046] and remains as "US-ASCII".

5. Security Considerations

TBD. Guessing of default charset is a security problem. Conflicting information in-band vs out-of-band is also a security problem.

6. IANA Considerations

This document asks IANA to update the "text" subregistry of the Media Types registry to additionally point to this document.

7. References

7.1. Normative References


7.2. Informative References


Latest version available at <http://www.w3.org/TR/xml>.

Appendix A. Acknowledgements

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