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A convention for URIs operating a HTTP-CoAP reverse proxy
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Abstract

CoAP is a RESTful transfer protocol for constrained nodes and networks. In many applications, CoAP will be used via cross-protocol proxies from HTTP clients. HTTP client libraries may make it hard to operate an HTTP-CoAP forward proxy by not providing a way to put a CoAP URI on the HTTP Request-Line; reverse-proxying may therefore lead to wider applicability of a proxy. This specification will define a convention for URIs operating such a HTTP-CoAP reverse proxy.

The current version of this specification is a placeholder only. It is meant to pick up <http://trac.tools.ietf.org/wg/core/trac/ticket/259> and provide a home for its considerations. It might be merged with other documents later.

Status of this Memo

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CoAP reverse cross-proxy convention

December 2012

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1. Introduction

(see abstract for now)

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 [RFC 2119](#), [BCP 14](#) [[RFC2119](#)] and indicate requirement levels for compliant CoAP implementations.

In this document, the term "byte" is used in its now customary sense as a synonym for "octet".

Where bit arithmetic is explained, this document uses the notation familiar from the programming language C, except that the operator "**" stands for exponentiation.

[2.](#) Convention

(This is a placeholder document. This section will provide a convention.)

3. Examples

In his original contribution, Cullen Jennings proposed translating

http://www.proxy.com/.wellknown/core-translate/1.2.3.4_4567/foo/bar?a=3

to

`coap://1.2.3.4:4567/foo/bar?a=3`

[4.](#) IANA Considerations

(none foreseen.)

[5.](#) Security Considerations

TBD.

The original point that this document might be needed was brought up by Cullen Jennings.

[7.](#) References

[7.1.](#) Normative References

- [I-D.ietf-core-coap] Shelby, Z., Hartke, K., Bormann, C., and B. Frank, "Constrained Application Protocol (CoAP)", [draft-ietf-core-coap-12](#) (work in progress), October 2012.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [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.

[7.2.](#) Informative References

- [REST] Fielding, R., "Architectural Styles and the Design of Network-based Software Architectures", Ph.D. Dissertation, University of California, Irvine, 2000, <http://www.ics.uci.edu/~fielding/pubs/dissertation/fielding_dissertation.pdf>.

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