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C. Bormann
Universität Bremen TZI
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impl-info: A link relation type for disclosing implementation
information
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Abstract

For debugging, it is often helpful to have information about the implementation of a peer. The present specification defines a link relation type, "impl-info", that can be used to convey such information via self-description, such as in the `"/.well-known/core"` resource.

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Internet-Draft

The impl-info relation type

September 2020

Table of Contents

1.	Introduction	2
2.	IANA Considerations	2
3.	Security considerations	2
4.	References	3
4.1.	Normative References	3
4.2.	Informative References	3
	Acknowledgements	4
	Author's Address	4

[1.](#) Introduction

When debugging an interoperability problem, it is often helpful to have information about the implementation version of a peer. To enable the disclosure of such information, HTTP defines header fields such as Server and User-Agent [[RFC7231](#)].

In CoAP [[RFC7252](#)], it is rarely appropriate to send information of this kind in every request or response. Instead, the present specification defines a link relation type, "impl-info", that can be used to convey this information via the self-description capabilities of the `/.well-known/core` resource [[RFC6690](#)] and the CoRE resource directory [[I-D.ietf-core-resource-directory](#)].

[2.](#) IANA Considerations

This specification requests the registration of the link relation type "impl-info".

The registration template as per [[RFC8288](#)] follows.

- * `_Relation Name_`: "impl-info"
- * `_Description_`: Refers to implementation information that may be helpful in diagnosing technical problems with the implementation of the context, such as lists of components and their implementation versions.
- * `_Reference_`: [[THIS](#)]

[3.](#) Security considerations

The security considerations listed in [Section 9.6 of \[RFC7231\]](#) and the sections referenced there apply.

Internet-Draft

The impl-info relation type

September 2020

The security considerations listed in [Section 11.3 of \[RFC7252\]](#) apply. As adding another link to `"/.well-known/core"` does increase the size of a response to a GET request for that resource, the mitigation mentioned in that section to limit the amplification factor becomes even more important.

Disclosing information about an implementation can make it easier for an attacker to select an attack, or to build automated tools that search for promising victims. Fingerprinting techniques can provide information to attackers that is usable in the same way, so adding information via self-description may or may not actually exacerbate this problem.

[4.](#) References

[4.1.](#) Normative References

[RFC8288] Nottingham, M., "Web Linking", [RFC 8288](#), DOI 10.17487/RFC8288, October 2017, <<https://www.rfc-editor.org/info/rfc8288>>.

[THIS] Bormann, C., "impl-info: A link relation type for disclosing implementation information", Work in Progress, Internet-Draft, [draft-bormann-t2trg-rel-impl-01](#), 27 March 2020, <<http://www.ietf.org/internet-drafts/draft-bormann-t2trg-rel-impl-01.txt>>.

[4.2.](#) Informative References

[I-D.ietf-core-resource-directory] Shelby, Z., Koster, M., Bormann, C., Stok, P., and C. Amsuess, "CoRE Resource Directory", Work in Progress, Internet-Draft, [draft-ietf-core-resource-directory-25](#), 13 July 2020, <<http://www.ietf.org/internet-drafts/draft-ietf-core-resource-directory-25.txt>>.

- [RFC6690] Shelby, Z., "Constrained RESTful Environments (CoRE) Link Format", [RFC 6690](https://www.rfc-editor.org/info/rfc6690), DOI 10.17487/RFC6690, August 2012, <<https://www.rfc-editor.org/info/rfc6690>>.
- [RFC7231] Fielding, R., Ed. and J. Reschke, Ed., "Hypertext Transfer Protocol (HTTP/1.1): Semantics and Content", [RFC 7231](https://www.rfc-editor.org/info/rfc7231), DOI 10.17487/RFC7231, June 2014, <<https://www.rfc-editor.org/info/rfc7231>>.

Bormann

Expires 31 March 2021

[Page 3]

Internet-Draft

The impl-info relation type

September 2020

- [RFC7252] Shelby, Z., Hartke, K., and C. Bormann, "The Constrained Application Protocol (CoAP)", [RFC 7252](https://www.rfc-editor.org/info/rfc7252), DOI 10.17487/RFC7252, June 2014, <<https://www.rfc-editor.org/info/rfc7252>>.

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Author's Address

Carsten Bormann
Universität Bremen TZI
Postfach 330440
D-28359 Bremen
Germany

Phone: +49-421-218-63921
Email: cabo@tzi.org

