

UURS

Corr-Clar: SNI vs. Uri-Host

2025-06-20 draft-ietf-core-corr-clar-02
Constrained Application Protocol (CoAP):
Corrections and Clarifications

Plan: Work on issues via PRs
<https://github.com/core-wg/corrclar/issues>

<https://github.com/core-wg/corrclar/issue/49>
Uri-Host vs. SNI in **DTLS**

👁️👁️ Uri-Host vs. SNI in DTLS #49

CoAP Option **Uri-Host** has a default:

- IP address of the **request destination** [avoid bulky text form!]
- CoAP over TLS **only** (RFC 8323): SNI (Server Name Indication)

For CoAP over TLS, these default values are the same, unless **Server Name Indication (SNI) [RFC6066] is negotiated. In this case, the default value of the Uri-Host Option in requests from the TLS client to the TLS server is the SNI host.**

DTLS (RFC 7252) surely should have this default, too?
It doesn't.

Resolving #49

- There is no ambiguity, no clarification required.
- There is appetite for a change!
- Make SNI set the default Uri-Host for DTLS as well
 - No change to RFC 8323 (CoAP/TLS etc.)
 - Update to RFC 7252 DTLS modes

Transition?

- What would this do to existing deployments/running code?
- Ease of changing implementations to new behavior?
(Do we get at the SNI in DTLS implementations?)

Do we need to indicate:

- Client **requires** new semantics
- Server **supports/assumes** new semantics

Couple this to **DTLS 1.3?!**

CRIIS

[draft-ietf-core-href-23](#)

Constrained Resource Identifiers [CRIs]

In IESG processing (IETF last call ends 2025-07-29)

CRIs: Touching the destination address default

Conversion from CoAP Options to CRIs and back

<https://github.com/core-wg/href/pull/131>

Mostly editorial issue: Name needed for:

- "CoAP Options in the context of a request destination address"

CRIs: Zone identifiers



URIs have an interoperability problem

Zone id URI syntax got removed (RFC 6874 obsoleted)

Zone identifiers only make limited sense in URIs anyway

CRIs do not have a syntax problem

Link-local addresses important in many CRI applications

→ keep zone identifiers in CRIs

Zone identifiers: AD review resolution (-23)

- Explain that this is a situation in flux (better references)
- Offer a **stable island** for zone ids in CRIs
 - host-ip = (bytes .size (4/16), ?zone-id)
 - zone-id = text
- Clarify copiously that there is **no URI representation**

Section 6.1, Paragraph 4 now (emphasis mine)

- The inclusion of zone-ids [RFC4007] in URIs has a **complex history** and currently has no interoperable representation (the previous specification for this, [RFC6874], is now obsoleted by [I-D.ietf-6man-zone-ui]; more background information is available in [I-D.schinazi-httpbis-link-local-uri-bcp]).
- The CRI specification **does not define** a conversion from a CRI containing a zone-id to a URI.

- As keeping a zone-id with an IP address in a URI turned out to be useful while [RFC6874] was in effect, CRIs maintain a [position in the grammar](#) to optionally store a zone-id.
- This can be used by [consenting CRI implementations](#) to exchange zone information without being concerned by the lack of a specification at the URI syntax level.
- The goal is to achieve approximate feature parity with the zone-id support in [I-D.ietf-netmod-rfc6991-bis] (*), which also contains further clarifications on the use of zone-ids with IP addresses. [\[\(*\) Approved 2025-06-26\]](#)