

# Representing IPv6 Zone Identifiers in Uniform Resource Identifiers

draft-ietf-6man-uri-zoneid-02

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# Motivation

- Literal addresses in URIs are intended for operational and diagnostic use.
- Sometimes, there is a need to make tests that relate to a specific interface on the host.
  - A web browser might be the handiest tool for this
- For link-local addresses, RFC 4007 defines a text representation of the Zone Identifier (in practice usually equal to an interface name).
  - There is no defined mapping for the Zone ID in URI syntax, so browsers cannot support it.

# Agreed so far

- Proposes an update to the ABNF for URIs (RFC 3986)
  - Use - (hyphen) as separator, unlike RFC 4007
  - Modifies the *IP-literal* branch of the ABNF
  - No objection from uri@w3.org (but they really hope it's the last update)
  - Thus http://[fe80::a-en1] becomes a legal URL

# Open issues (1)

- It would be useful operationally if cut & paste was possible between tools such as ping and a URI
- That requires
  - *either* tools accept new syntax  
(ping6 fe80::a-en1)
  - *or* browsers accept % syntax  
(http://[fe80::a%en1])

## Open issues (2)

- `http://[fe80::a%en1]` is generally agreed to break formal URI syntax, since `%` is always an escape.
- In any case, Internet Explorer already accepts `http://[fe80::a%25en1]` and this format is used in Windows internal APIs.
- Therefore, consistent browser behavior seems unattainable with “`%`” .

## Open issues (3)

- Dave Thaler suggested that for consistency we should formally update RFC 4007 to add the “-” syntax.
- That implies that tools like ping need updating.
- Also causes glitches in at least three other ways
  - RFC 4001 (MIB textual convention)
  - RFC 6021 (yang syntax)
  - URI comparison (is “%” or “-” canonical?)

# Authors' proposal

- It looks like guaranteeing cut & paste is like squaring the circle.
- It looks like formally updating RFC 4007 causes as many problems as it solves.
- We think we have to back off from both of these points.
- That means limiting section 3 of the draft to a factual note about the issues listed above.

# Discussion

- Accept Authors recommendation?
- Something else?