

# IP/ICMP Translation Algorithm (rfc6145bis)

<https://datatracker.ietf.org/doc/draft-bao-v6ops-rfc6145bis/>

IETF93

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# Outline

- Referenced by ...
- Updates
  - Erratum report
  - Atomic Fragments
  - RFC6791
  - EAM algorithm

# Referenced by ...

- RFC references 28
  - Normative Reference 11
  - Informative Reference 17
- Drafts references (2015-07-16) 26
  - Normative Reference 11
  - Informative Reference 6

<https://datatracker.ietf.org/doc/rfc6145/referencedby/>

# Erratum

From

[http://www.rfc-editor.org/errata\\_search.php?rfc=6145](http://www.rfc-editor.org/errata_search.php?rfc=6145)

Section 5.1 says:

<Removed from RFC 2765 where it had existed after Destination Address field description>

It should say:

If any of an IPv6 Hop-by-Hop Options header, Destination Options header, or Routing header with the Segments Left field equal to zero are present in the IPv6 packet, those IPv6 extension headers MUST be ignored (i.e., there is no attempt to translate the extension headers) and the packet translated normally. However, the Total Length field and the Protocol field are adjusted to "skip" these extension headers.

etc

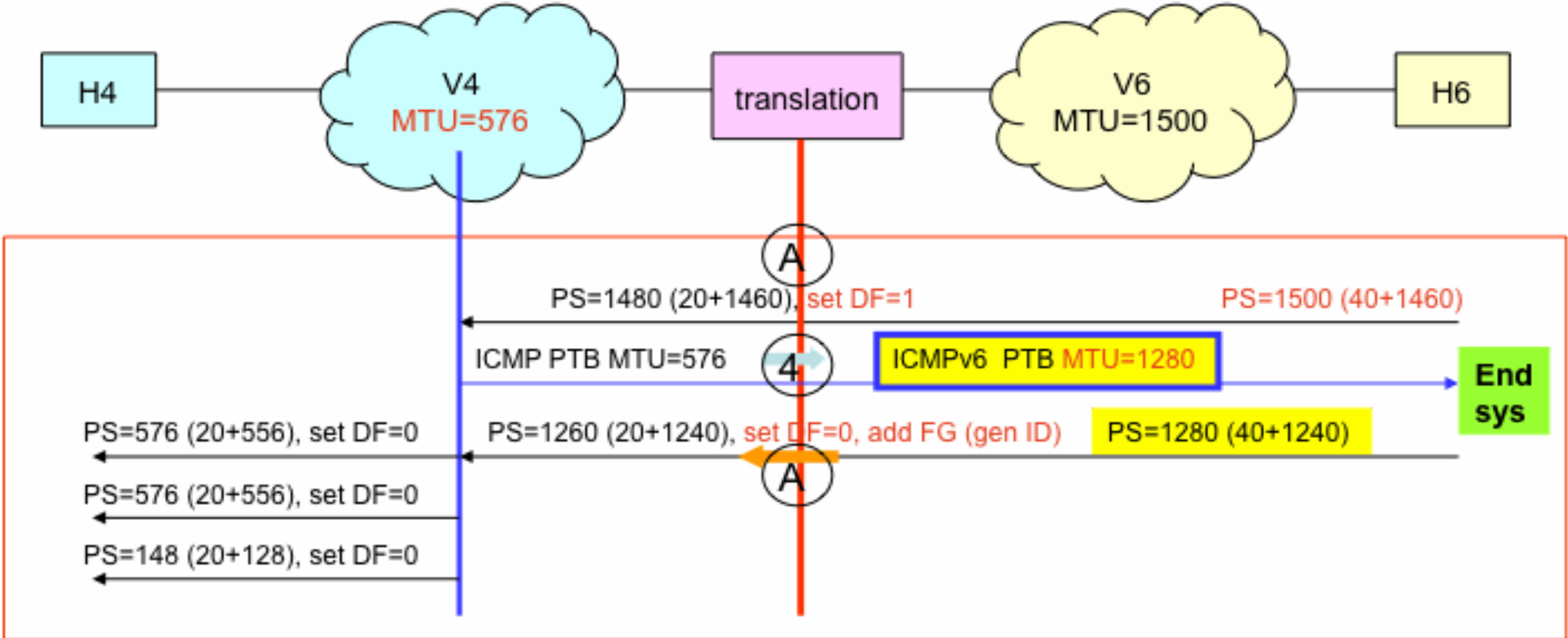
# Atomic Fragments

From 6man's document concerning "Deprecating the Generation of IPv6 Atomic Fragments"

<https://datatracker.ietf.org/doc/draft-ietf-6man-deprecate-atomfrag-generation/>

RFC6145 already has this mechanism, but it is just an option. The rfc6145bis makes this mechanism the default and the only one.

# Appendix: Example 4 (non-RFC2460)



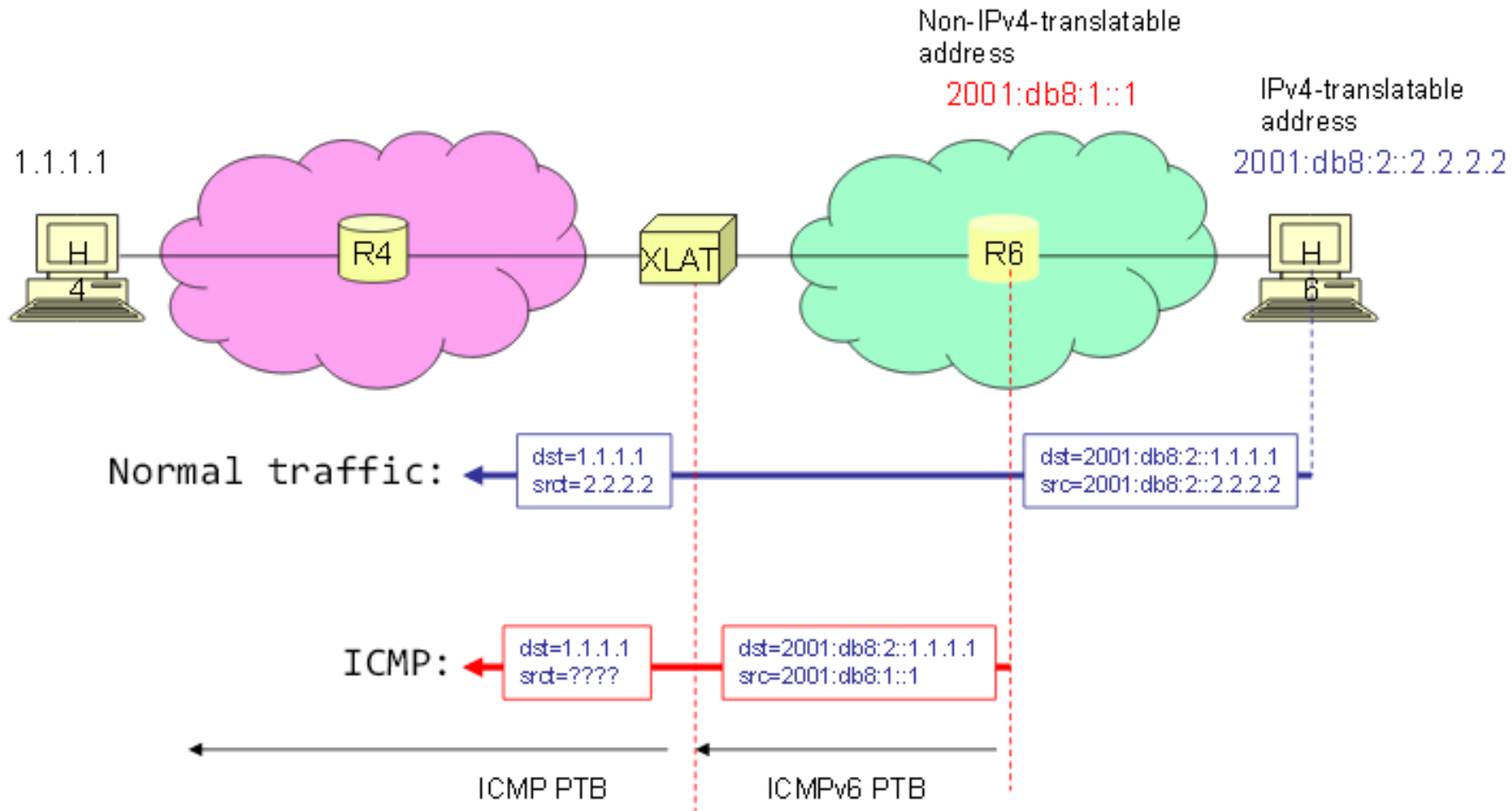
④ Workaround.

# RFC6791

Refer to RFC6791 for "Stateless Source Address Mapping for ICMPv6 Packets"

<https://datatracker.ietf.org/doc/rfc6791/>

# Introduction



**RFC6145: The IPv6 addresses in the ICMPv6 header may not be IPv4-translatable addresses. ... A mechanism by which the translator can instead do stateless translation is left for future work.**



# EAM algorithm

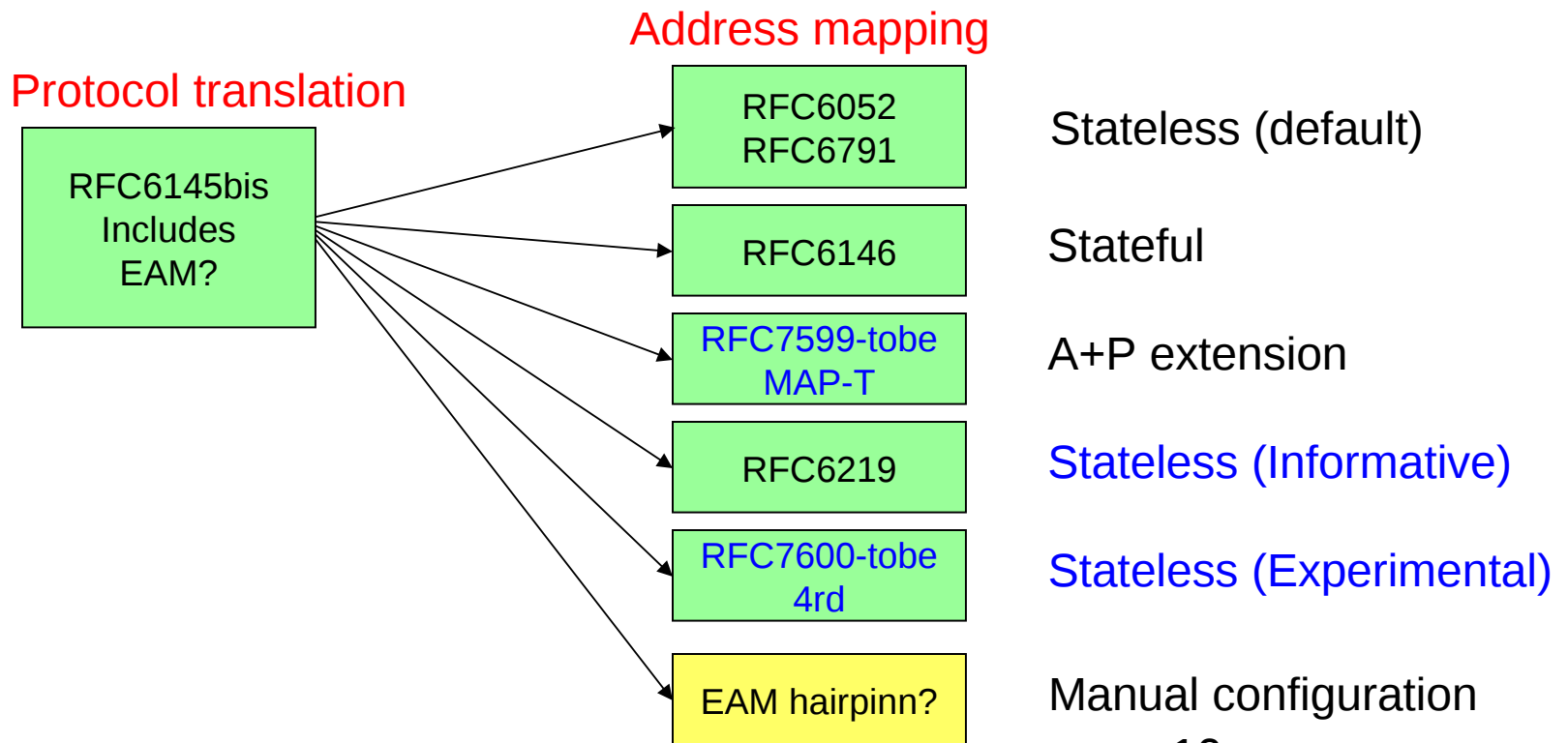
Include EAM address mapping algorithm which is the current work of v6ops, "Explicit Address Mappings for Stateless IP/ICMP Translation"

<https://datatracker.ietf.org/doc/draft-ietf-v6ops-siit-eam/>

There are some discussions concerning this issue, since EAM is an address mapping algorithm (RFC6052's alternative), not a protocol mapping algorithm. We include EAM in RFC6145bis because it is just a static configuration and simple. If additional details, for example hairpinning, needs to be included, I think those details should be in another document.

# Question 1

- Where to define details of EAM (e.g. hairpinn)?



# Question 2

- rfc6145bis
  - Take to v6ops list?