About draft-homenet-babel-profile REQ5

27 March 2017



draft-homenet-babel-profile

Technical but consensual draft. Two parts:

- 1. mandated parameters for Babel in Homenet e.g. use metric 96 for a GbE link; e.g. MUST IPv6, SHOULD IPv4.
- 2. interactions between HNCP and Babel e.g. if you announce an ext. IPv6 prefix over HNCP then you announce a source-specific default route over Babel.

The requirements are (meant to be):

- specific enough to ensure interoperability;
- general enough to allow both hnetd and shncpd.

draft-homenet-babel-profile (2)

This was meant to be a technical but consensual draft:

- 00 was a complete draft, but with a few TBD left (published 8 July 2016, discussed in Berlin);
- 01 was meant to be the final document (published 2 December 2016).

Things go wrong: REQ5

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REQ5: a Homenet implementation of Babel MUST implement HMAC-based authentication [...] and MUST enable and require authentication when instructed to do so by HNCP.

This has two issues:

- not precise enough to ensure interoperability;
- nobody has any plans to implement it.

This was raised:

- in private with the chairs and Markus Stenberg;
- on the mailing list

(detailed mail dated 4 January 2017).

REQ5 is not precise enough

In order to implement REQ5:

- need a consensus mechanism to decide whether a given link uses authentication;
- need a consensus mechanism to agree on a shared key for a given link.

We must:

- define a consensus algorithm;
- define the packet format;
- provide a reference implementation.

Nobody intends to implement REQ5

The Homenet working group has a proud tradition of working code.

Everything that the WG does has been implemented:

- at least once (source-specific routing);
- most often twice (core of HNCP, prefix assignment);
- sometimes thrice or more (Babel).

I do not wish to be the editor of a document that contains a requirement that nobody has any plans to implement.

Suggestions

How do we get out of this impasse? Suggestions:

- delegate authentication to a lower layer, remove REQ5 from draft-homenet-babel-profile.
- 2. find someone who volunteers to:
 - define suitable algorithms;
 - define the packet format;
 - provide a reference implementation.
 - (I volunteer to help, but not to do the work.)
- 3. pick a new editor

(I expect to remain as co-author).

4. Other ideas?

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Please tell me what to do.