

Homenet Architecture

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Changes since -06

- The main changes in -07 include:
 - Clarified NPTv6 not recommended
 - Clarified multiple CER multihoming in scope
 - Clarified ISP allocation text (RFC 6177)
 - Removed ‘proxy or extend’ section
 - Removed ‘advanced security’ model
 - Various edits, esp. to naming and service discovery (3.7), and realms and borders (3.3)
- See <http://tools.ietf.org/rfcdiff?url2=draft-ietf-homenet-arch-07.txt>

WGGLC - mail list comments

- WGGLC closed on 4th March
- A number of supportive comments
 - But also a couple of ‘not ready’ comments
 - And some specific and detailed feedback (thank you!)
- General comment:
 - Text too wordy – needs to be trimmed further
 - Add summary bullet section?
 - Number the principles/requirements (again)?
- Specific comment areas:
 1. Delegated ISP prefixes (3.4.1)
 2. Use of ULAs (3.4.5)
 3. Naming and service discovery (3.7)

1: Delegated ISP prefixes

- Suggested changes based on WGLC comments
 - Emphasise that ISP prefix **may** change, and that per-reboot change is unusual
 - Note that supporting forced (flash) renumbering for privacy appears to be a real requirement
 - Are we homenet or sohonet? State that a commercial network may be treated differently by the ISP
 - State that if only a /64 is offered, the homenet may be severely constrained; suggest error condition results
 - Thus emphasise RFC 6177 (BCP 157); i.e. ISP should offer “significantly more than a /64”
 - Some CER equipment only works if just a /64 is offered; state such equipment out of scope for homenet arch – design for what we want
 - Add that on renumbering, operators can help by reducing lease timers in advance

2: Use of ULAs

- A small number of comments
 - Also related to *draft-liu-v6ops-ula-usage-analysis-05*
- The arch text assumes that ULAs should be provisioned
 - Required for certain constrained devices, to support persistent connectivity during a renumbering operation, and to allow sustained disconnected operation
 - Need to define how to propagate information on which ULA prefixes are local to the homenet (for address selection)
- Assume that we leave the text as is
 - Shout now if you disagree

3: Naming and SD

- Issues raised in WGLC:
 - Concern that mDNS is being assumed; trimmed some examples and text adjusted to reflect that both zeroconf and Internet name services are currently used and should co-exist
 - Noted hybrid possibility (in addition to ‘proxy or extend’)
 - Noted need for device to device SD, not just user-centric SD
 - Added note on use of multiple name spaces
 - Removed DNS offload text
 - Need to determine what to say about UPnP, DLNA, etc? (currently no specific text)
 - Use of ULQDN? Should we keep the .UniqueString concept in the text? (it currently still is)
 - Added subsection about home devices that may leave homenet

Recent new draft - hipnet

- See *draft-grundemann-homenet-hipnet-00*
 - Largely homenet compliant
 - Avoids use of routing protocol; uses existing protocols
 - Doesn't use prefixes efficiently (hierarchical)
 - May not support arbitrary topologies (needs analysis)
 - Demonstrated successfully here
- Should we consider interoperability between potential solutions against the arch text – if so, how?
 - Unlikely we could mix hipnet and (for example) zOSPF?
- Should the arch text talk about routing functionality rather than routing protocol? (currently does not)

Next steps?

- WGLC completed a week ago
- Many comments taken on board
 - A new -08 will be needed; already working on it
 - Some edits are straight forward to make
 - Need to agree how to address certain comments
 - Especially the three specific areas mentioned here
 - Trim the text further where possible
 - Decide whether to add bullet points for clarity
- Probably need a second WGLC as soon as possible after this meeting?