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
WGLC - mail list comments

• WGLC closed on 4\textsuperscript{th} 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?