Socket Application Program Interface (API) for Multihoming Shim

draft-ietf-shim6-shim-api-01.txt

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What is this document about?

• The document specifies a socket API which lets application have better control of:
  – Locator management
  – Failure Detection and Path Exploration (REAP)

• History:
  – Individual submission (June 2006)
  – Submitted as a WG item version 00, 01 (October 2006)

• Status:
  – Still in an early stage. Need more work.
Changes from previous versions (1)

Technical changes

- Determined to define the socket options at the level SOL_SHIM
- Defined a data structure for locator information
  - shim_locator
- Defined a data structure for path exploration parameters
  - shim_pathexplore
- Defined both read and write operation for each socket option (except for SHIM_ASSOCIATED socket option)
- Removed the descriptions about ‘stickiness’ of the socket options
  - Moved SHIM_FEEDBACK_POSITIVE and SHIM_FEEDBACK_NEGATIVE to Section 6
- Deprecated SHIM_IF_RECV and SHIM_IF_SEND (already covered by IPV6_PKTINFO, IPV6_PKTINFO)
- Gave a default value and an instruction how to disable each socket option
Changes from previous versions (2)
Editorial changes

• Rewrote Section 1 (Introduction) in a way that it gives clear statement what kind of application would need this API for what reason

• Added an usage (sample codes) of the socket options in Section 5
Things left & Next Steps

• Finalize the placeholder for locator information
• Specify negative/positive feedbacks
  – What exact information should be provided?
• Examine the impact to the existing socket APIs
• Open issues:
  – What if applications sharing the same shim context have different preference?
  – Error handling for invalid locator specified by an application
• Ask for more reviews by socket API experts and implementers
Thank you &
Any questions/comments?