One-Way Active Measurement Protocol (OWAMP)

draft-ietf-ippm-owdp-11.txt

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Changes in draft-ietf-ippm-owdp-11.txt vs -09

- New legal boilerplate.

- Multiple minor editorial changes throughout the document.

- Get rid of start-in-the-past feature

- Clarify packet timings as part of sender behavior

- Significantly expand security considerations

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Changes in draft-ietf-ippm-owdp-11.txt vs -09, cont.

- New section (3.2, "Values of the Accept Field") defines computer-readable failure codes

- Fetch-Session results changed to include a list of ranges of sequence numbers that were skipped by the sender due to internal scheduling delays

- The special-case value of 0xFFFFFFFF (unknown) for the number of packets sent in a session is no longer valid

- Add acknowledgments

Get rid of start-in-the-past feature

- Previously: could specify session start in the past to effect immediate start

- Turned out to be less useful than originally thought

- Obscures actual start time (or requires unnecessary computation)

- Difficult to account for elegantly with skip ranges

- Removed, buried, forgotten

Clarify packet timings as part of sender behavior

- New section: 4.1.1, "Packet Timings", pp 26–27

- Makes explicit what was implicit in the previous draft
  - 3 MUSTs
  - 3 SHOULDs

Significantly expand security considerations

- Triple in size

- No new requirements

- Design decisions explained, sections 6.6–6.8

Values of the Accept Field

0 OK.

1 Failure, reason unspecified (catch-all).

2 Internal error.

3 Some aspect of request is not supported.

4 Cannot perform request due to permanent resource limitations.

5 Cannot perform request due to temporary resource limitations.

List of skipped ranges

- MUST now remember which packets could not have been sent due to internal scheduling problems

- The set is now transmitted as part of the results

- Set compression: list of ranges
  - typical case: zero ranges
  - rare case: one range
  - exceedingly rare: many

0xFFFFFFFF

- Previously: number of packets sent in a session could be sent to 0xFFFFFFFF

  - special meaning: unknown

  - could be used in some cases of internal failure

- Evidence: implementors like to always use (despite the SHOULD NOT)

- Solution: remove the special case

Add acknowledgments

- Current list: Guy Almes, Hamid Asgari, Steven Van den Berghe, Eric Boyd, Robert Cole, Joan Cucchiara, Stephen Donnelly, Kaynam Hedayat, Petri Helenius, Kitamura Yasuichi, Daniel H. T. R. Lawson, Will E. Leland, Bruce A. Mah, Allison Mankin, Al Morton, Attila Pasztor, Randy Presuhn, Matthew Roughan, Andy Scherrer, Henk Uijterwaal, and Sam Weiler

- If you commented on the draft or made any suggestions and you are not on this list, **please** let me know: electronic memory can be faulty

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Status

- During last meeting, security review was requested

- Steve Bellovin asked Bernard Aboba and Samuel Weiler to review

- Bernard won't be able to do that

- Sam, so far, hasn't sent a review

- Options:
  - Wait for security review
  - Working group last call

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- Questions?

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