

Report on Consensus Call on PCP Authentication Approach

Chairs: Dave & Reinaldo
with support from Ted Lemon (AD)

Background

- Two approaches for using EAP with PCP
 - Direct EAP-in-PCP
 - Using EAP-in-PANA with PCP
- Goal is a “successful” protocol, defined as “one that both meets its original goals and is widely deployed” [RFC5218]
- Sense of room at previous IETFs
 - IETF 84 was 2:1 for PANA but lots of confusion/disagreement
 - IETF 85 was 2:1 for EAP-in-PCP but lots of confusion/disagreement
- Significant progress since then
 - Requirements document is now stable
 - General understanding of solution approaches
- It was time to decide... chairs issued Consensus Call on list July 14-28

What we asked

- 1) Could you *live with* EAP-in-PCP? If not, state reason you would object.
- 2) Could you *live with* PANA? If not, state reason you would object.
- 3) If you said yes to both 1 and 2, but have a strong preference between the two, which approach do you prefer and why?

Some statistics

- Received responses from 20 people (15 public responses + 5 private to chairs and shared with AD)
- At least 13 different affiliations as far as we can tell
- At least 5 independent PCP implementations (including likely future implementations) represented

We judge strong consensus on the following

Based on earlier discussion and unchanged by this consensus call:

1. Either approach could be made to work technically
2. Either approach could provide the same level of security
3. Either approach could be made to meet all the agreed-on requirements
4. We want one mandatory-to-implement solution
5. We want to start deploying and using an auth solution where needed
6. We would rather just pick one now than keep arguing
7. It's not possible to make everyone happy

What is “rough consensus”?

- We found the discussion in draft-resnick-on-consensus useful
 - Read it if you haven't already!
- “Rough consensus is achieved when all issues are addressed, but not necessarily accommodated”

What issues were raised in consensus call?

- No *technical* objections were raised to either approach
 - Technical issues (whether real or perceived) were raised as preferences
- Architectural & business case issues were also raised and could be subjectively seen as either “objections” or “preferences”
 - So we chose to weigh non-technical “objections” and non-technical “preferences” the same

Summary of reasons given by respondees (in order of most-to-least mentioned)

For PANA

Existing standard

Existing implementation

Energy of people

For EAP-in-PCP

Simpler/optimized for PCP use

More likely to implement

PCP not really “network access”

Fewer inter-group dependencies

Not happy with own PANA impl’n

We considered multiple ways to judge consensus

- *Technical* arguments in favor: more for EAP-in-PCP
 - Belief (though disputed) in ability to be simpler and more optimized
- Architectural principles (see next slide)
- # of respondees: 11 to 7 for EAP-in-PCP
- # affiliations (hard to judge): ~more for EAP-in-PCP
- # existing auth implementations with PCP: ~more for PANA
- # independent implementation teams for: majority for EAP-in-PCP
 - *Multiple* implied much less likely to implement auth if PANA approach
- # deployment orgs for: more for EAP-in-PCP
 - Includes arguments of personnel training and tools

RFC 1958: Architectural Principles of the Internet

- “3.2 If there are several ways of doing the same thing, choose one. If a previous design, in the Internet context or elsewhere, has successfully solved the same problem, choose the same solution unless there is a good technical reason not to. Duplication of the same protocol functionality should be avoided as far as possible, without of course using this argument to reject improvements.”
 - Argument used by respondents to motivate choosing PANA
- “3.5 Keep it simple. When in doubt during design, choose the simplest solution.”
 - Argument used by respondents to motivate choosing EAP-in-PCP
- Both are debatable, hence “toss-up”

Declaring Rough Consensus

- Chairs declare (very) Rough Consensus for EAP-in-PCP
 - Chairs believe “all issues raised have been addressed, but not necessarily accommodated”
- The WG may move forward in this direction
- We ask WG participants to work together in a constructive fashion