GeneRic Autonomic Signaling Protocol

draft-ietf-anima-grasp-06

Brian Carpenter (editor)
Bing Liu (editor)
Carsten Bormann

IETF 96
July 2016

Topics

- Main changes since draft-carpenter-anima-gdn-protocol-04
- Status of prototype code
- Open issues
- Discussion, next steps

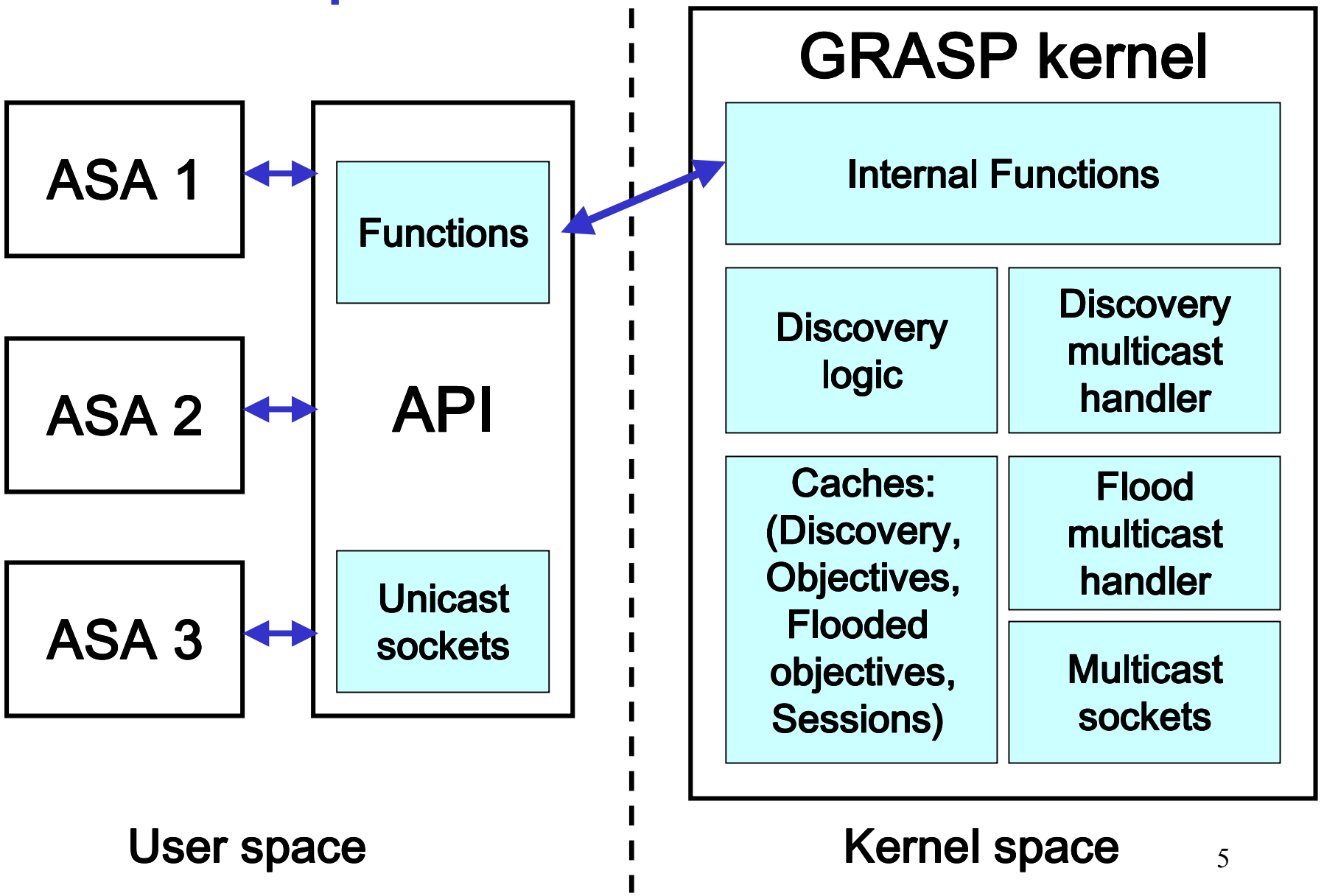
Main Changes (1)

- **draft-ietf-anima-grasp-05:**
  - Added requirement that ASAs can be independent user space programs.
  - Therefore, changed discovery response to include port number & transport protocol number.
  - Clarified that discovery and flood multicasts are handled by the GRASP kernel, not directly by ASAs.
  - Clarified that a node may discover an objective without supporting synchronization or negotiation.
  - Added Implementation Status section.

Main Changes (2)

- **draft-ietf-anima-grasp-06:**
  - Added text on discovery cache timeouts.
  - Noted that ASAs that are only initiators do not need to respond to discovery message.
  - Added text on unexpected address changes.
  - Added text on robust implementation.
  - Clarified text, or added open issues, according to reviews received.

Implementation model



Python prototype (1)

- A Python 3 implementation of GRASP as a module **`grasp.py`**
  - About 1300 lines of code
- A test suite to exercise as many code paths as possible, **`grasptests.py`**
- Two toy ASAs to test operation across the network, **`Briggs.py`** and **`Gray.py`**
- https://www.cs.auckland.ac.nz/~brian/graspy/

Python prototype (2)

- Tested on Windows 7 and Debian.
- Only real issue was a switch with defective MLD snooping for LL multicast.
  - But prototype has various limitations and does not separate user/kernel mode.
- Highly valuable in tuning protocol spec and API.

Open Issues (1)

- 7. Cross-check against other ANIMA WG documents for consistency and gaps.
- 43. Rapid mode is currently limited to a single objective for simplicity. A future consideration is to allow multiple objectives in rapid mode for greater efficiency.
- 48. Should the Appendix "Capability Analysis of Current Protocols" be deleted before RFC publication?
- 49. Say more about signaling between two autonomic domains.

Open Issues (2)

- 50. Is Rapid mode limited to on-link only?

Discussion + next steps

- We still need reviews of the draft.
- We still need people to think about implementation issues. Either play with the prototype or write your own!