Guidelines for Autonomic Service Agents


Brian Carpenter
Laurent Ciavaglia
Sheng Jiang
Pierre Peloso

IETF 110 – ANIMA WG
draft-ietf-anima-asa-guidelines-00

• Adopted as WG document (Nov 2020)
• Document shepherd: Toerless Eckert
• Diff from draft-carpenter-anima-asa-guidelines-09
  • Only editorial fixes: updating references
• Detailed review from Toerless E.
  1. Introduction
     • Suggestions for clarification, consider example (later in the doc)
  2. Logical Structure of an Autonomic Service Agent
     • Suggestions for clarification, diverse approach for base design of ASA
  3. Interaction with the Autonomic Networking Infrastructure
     • Discussion on security bootstrapping
     • Suggestions for clarification, consider examples
     • Request to update text on policy/intent
  4. Interaction with Non-Autonomic Components
     • Suggestion to move part of the section to security considerations
  5. Design of GRASP Objectives
     • Suggestions for improvement on GRASP, Dry Run mode, JSON/CBOR, NETCONF/YANG considerations
Detailed review from Toerless E. (bis)

6. Life Cycle
   • Suggestions to fix/revise use of requirements wordings, missing definitions, use of term "objectives" -> GRASP objectives, and various text improvements

7. Not commented (but will need to be fixed anyway)

8. Coordination with Traditional Management Functions
   • Suggestions for text improvements/new section

9. Robustness
   • Useful observation ASA robustness design

10. Security Considerations
    • Suggestions for text improvements and clarifications on "Authorization"

13. References
    • Need to fix normative/informative references
Feedback from ASA life cycle proof-of-concept, Brian C. [1]  

... "ASA loader" that can load (and unload) multiple ASAs onto the same GRASP instance.

**Conclusion:** the only new feature needed, as far as the ASA programmer is concerned, is one function that must be **called regularly in the main loop**. I called it checkrun(), and if it returns **True the ASA may continue**, and if it returns **False, the ASA must exit gracefully** (i.e. conclude all current actions first).

[1]: https://mailarchive.ietf.org/arch/msg/anima/u1TCJQ0PpOJ5VS9bdqr5akwA25w/
Objectives for version -01

• **Address review comments**
  • BTW, additional reviews and feedback are most welcome

• **Refine content**
  • Document has been quite stable, even before WG adoption
  • Few request for technical change expressed/received

• **Set good foundations for future work in ANIMA WG (“ASA ecosystem”)**
  • Link to use cases and applications, detailing examples of different AFs and ASAs
  • Design, implementation and deployment considerations

• **Target: end of March 2021**