Guidelines for
Autonomic Service Agents
`draft-carpenter-anima-asa-guidelines-04`

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IETF 101
March 2018

Topics

- Reminder
- Recent changes
- Open issues
- Discussion, next steps

Reminder

- This document is intended to guide ASA writers in the general design of their code.
  - We expect ASAs to be written by a wide variety of programmers, specialised in the autonomic function concerned.
  - They are not expected to be GRASP experts. An API description will not be enough.

Recent changes

- Improved text about threading v event loop
  - Noted that simple ASAs may avoid this issue
- Added section about coordination with traditional tools.
- Added note about NFV/SFC services
- Added appendix with example logic flow (threaded model)

Simplified logic flow (1)

MAIN thread:
    initialise resource pool
    if master:
        start FLOODER to broadcast parameters
    start NEGOTIATOR and GARBAGE_COLLECTOR
    if not master:
        get resource parameters flooded by GRASP
        start ASSIGN thread (allocates resources)
    do forever:
        if resource pool is low:
            negotiate for more resource from GRASP peer(s)

Simplified logic flow (2)

FLOODER thread:
   periodically flood resource parameters to all GRASP nodes

NEGOTIATOR thread:
   wait for and satisfy negotiation requests from GRASP peers

GARBAGE_COLLECTOR thread:
   periodically compact the resource pool

ASSIGN thread:
   manage resource requests from non-autonomic devices & applications, assign resources from pool

To Be Done

- Additional text on coordination between autonomic functions
- Additional thoughts on typical interactions between ASAs: coordination, knowledge exchange, "governance" (intent), others?
- Example logic flow for event-loop model
- Reviews and WG adoption

Discussion + next steps

- Comments? Questions?