Autonomic Functions Coordination

draft-ciavaglia-anima-coordination-00

IETF93 – Prague

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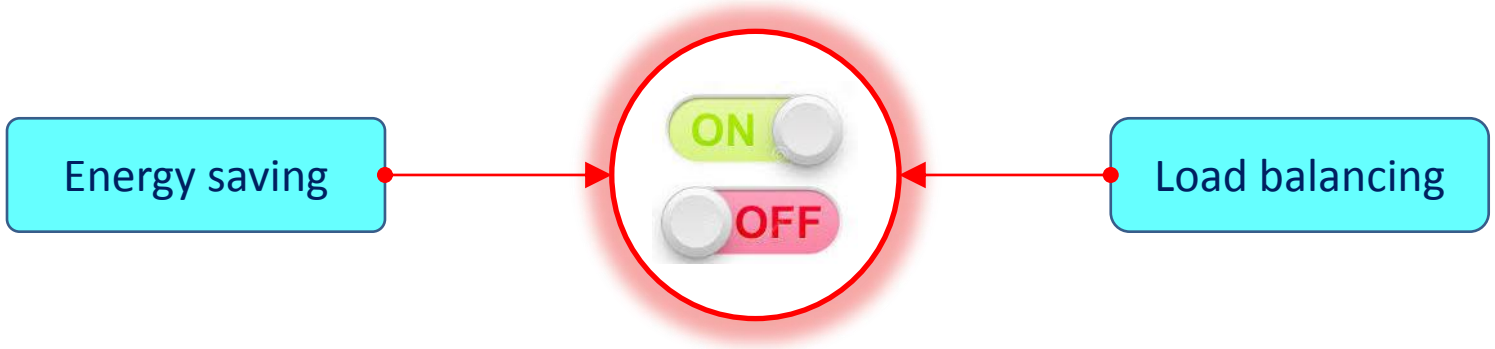
(remote participation)

Background

- Topic presented at IETF92/Dallas.
- Section 8 of ANIMA reference model.
- Based on work from EU project UniverSelf.
- Many other references in the literature…

Proposal

- Each AF works towards its individual goal.
- Goals may conflict (cf. diagram).
- Coordinate collective behavior via a common function available in all AFs.



What's in the draft (1)

- Problem statement (cf. previous slide)
- Guiding principles
- Sketch of the solution
- *Requirements (FFS)*
- *Specifications (FFS)*

What's in the draft (2)

- 13 guiding principles
  - Expressing requirements on
    - The coordination function
    - Other components/elements (AF, ACP…)

What's in the draft (3)

- Sketch of the solution
  - Assumptions on AF states / lifecycle
  - Families of algorithms for coordination
    - Random, Time separation, Efficiency bids
  - Coordination lifecycle
    - Sub-functions: identifying, grouping, solving
    - Build-, Deploy- and Run-time

Discussion

- A common function available in all AFs
  - Challenging on many aspects but necessary
  - ANIMA guidance/scoping/inputs needed
- Next steps
  - Revise based on comments received
  - Document impact on other components (AF, ACP, GRASP…)
  - Detail sub-functions and operation
  - Provide evaluation(s) and example(s)