ANIMA
Intent Policy and Format

IETF98 – ANIMA WG

Outline

1. Updates

2. ANIMA Intent policy and SUPA Policy model

3. Current consensus points

4. Technical objective and plan
    If work item in next charter

Changes -04 to -05

- Section 5 Use Cases
  - Removal of subsections
  - → **Now a common flow of use case overview/description**

- Sections 6 on Intent scope and 7 on Intent hierarchy
  - Removed
  - → **"Right" approach still being discussed/investigated**

- Some minor corrections

ANIMA Intent policy and SUPA Policy model

- SUPA is **not** chartered to work on the declarative form of policy.
- SUPA has defined a novel infrastructure capable of **representing any type of policy**:
  - a Policy is defined as a **container** that aggregates **statements**
  - **Statements** are made up of one or more **Clauses**
  - **Clauses** contain generic **objects** that can be used in a policy as well as building **blocks** that are specific to particular types of policies.
  - Examples of the former are **Addresses**; examples of the latter are **Events, Conditions, and Actions**.

ANIMA Intent policy and SUPA Policy model

- **RFC 7575**

  *Intent: An **abstract, high-level policy** used to operate the network. **Its scope is an autonomic domain**, such as an enterprise network. It does not contain configuration or information for a specific node… Intent is typically defined and provided by a central entity.*

- **draft-ietf-anima-reference-model-03**

  *Note that Intent is distributed through the ACP … **Intent is the policy language of an Autonomic Network** … It is a high level policy, and should change only infrequently (order of days) … Intent is also expected to be monolithic, and flooded as a whole … Intent and Policy-Based Network Management (PBNM) is already described inside the IETF (e.g., PCIM and SUPA)*

Current consensus points

- In PBM, the concept of **intent is called a declarative policy**.
- The use of declarative policies assumes **entities** in the Autonomic Network receiving the ANIMA Intent Policy are **capable of processing (refining and/or executing) the policy with no ambiguity**.
- An Autonomic Network will comprise **multiple ANIMA Intent Policies**.
- A **top-down flow** about **how an ANIMA Intent Policy is derived** through an autonomic network.
- The **distribution of intent** can be done by using GRASP and ACP.
- Intent is valid only for the domain it is defined for explicitly.
- Intent may be translated into lower level policies for devices.

Technical objective and plan

- Refinement of the intent concept initially defined in [RFC7575] for autonomic networks by providing
  - a more complete and formal definition,
  - a life-cycle,
  - a tentative format of the ANIMA Intent Policy,
  - modes of distribution,
  - means of transformation,
  - means of verification, validation and refinement,
  - applicability over some use cases,
  - place and interactions in the reference model.