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.