



An Intent-based Framework of Network Services

Autonomic Deployment and Management

(draft-ietf-anima-network-service-auto-deployment)

-07version, reawaked from -06

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Major changes from -06 (Apr 2024)

- Dedicate to intent-based mechanisms
 - -06 was more general based on resource-ASA discovery
- The concept of network service is expanded from network management to also cover requests from trustworthy users
- This framework is generic and applicable to most types of network resource (covered them in below two new drafts)
- Referring to two relevant new drafts:
 - draft-zhu-anima-service-intent, Definition of Service Intent in Autonomic Networks
 - draft-du-anima-service-intent-auto-deployment, The Autonomic Deployment Mechanism of Service Intent in Autonomic Networks

Detailed changes

Title: Changed from “A Generic Autonomic Mechanism for Resource-based Network Services” to “An Intent-based Framework of Network Services Autonomic Deployment and Management.”

Introduction Section (Section 1): :

- ✓ Reworded the problem statement to highlight the dynamic and diverse requirements of **trustworthy users**.
- ✓ Revised the description of the proposed solution to emphasize "**intent-based framework**".
- ✓ Updated the list of use cases to better describe "Quality transmission," "Difference transmission," "In-network cache/storage," "Computing offload," and added a specific use case for "**Multiple resource management in data centers**."



Detailed changes (2)

Terminology Section (Section 3):

- ✓ Network Service (newly added): Revised the definition to specify a service is a "customizable composite of network resources."
- ✓ Service Intent (newly added): the declarative expression of requirements that specifies network services, serving as the input for resource dispatching
- ✓ Service Initiator: Modified the definition to state it "receives and processing a Service Intent by parsing the intent into discrete resource requests."



Detailed changes (3)

Service Deployment (Section 4): describes the generic procedures of autonomic deployment and management of the resource-based network services in abstract way and defines the Autonomic Resource Management Objectives

- ✓ Section 4.1 (Newly added): Service Intent initiates RM ASA for Service Deployment.
- ✓ Minor editorial changes for the rest parts
- **Removed Section 5 “Process of the Quality Network Transmission Service Auto-deployment”**

Next Steps ✓ It was an example for only transmission resources rather than generic resources.

Complete the whole framework together with, Definition of Service Intent (draft-zhu-anima-service-intent) and the autonomic deployment mechanism (draft-du-anima-service-intent-auto-deployment), including the implementation and demonstration.



Thanks and comments!