ENI workshop
The NFV IFA Release 4 feature on policy enhancements & new WI

Center of AI and Intelligent Operation
China Mobile Research Institute (CMRI)
➢ FEAT26 introduction

➢ GR IFA 042 INTRODUCTION

➢ NFV MANO - ENI Interaction – Options

➢ LS introduction
FEAT26 introduction

➢ Feature background
  ✓ Lack of definitions of the policy models and contents in the existing IFA specs
  ✓ The expectations from SOL to refer to completed policy-related specs and update SOL specs

➢ Feature scope
  ✓ Analyse existing policy information and data models and identify solutions that potentially could be applied to NFV-MANO (GR IFA042)
  ✓ Clarify the main alternatives for policy management (between NFV-MANO and OSS/BSS)
  ✓ Determine the objectives and management alternatives for policy management applicable to NFV-MANO
  ✓ Identify policy information model and data model applicable to NFV-MANO

➢ User stories
  ✓ Global management policy--- Distribution of energy efficiency policies
  ✓ Management policy specific to VNF instance--- Auto-scaling policy pre-defined in the VNFD
  ✓ Management policy specific to NS instance--- Transferring NS healing policy to the NFVO
The work item will report on:

- analysis of NFV-MANO policy model potential requirements, including:
  - application scenarios
  - policy types involved
  - potential functional requirements
  - potential model objects and information elements requirements

- analysis of existing policy information and data models, including:
  - overview of policy models
  - classes, characteristics and design patterns
  - feature comparison and gap analysis

- identifying solutions that potentially could be applied to NFV-MANO, including:
  - application analysis of applying existing policy models to MANO use cases

- recommendations for policy models, potential options are:
  - referencing existing policy models with specific enhancements suitable for NFV-MANO
  - creating a new policy model based on NFV-MANO specific features

More details could be found in IFA 042 v4.0.2
➢ ENI is located between OSS/BSS and MANO

➢ ENI is responsible for policy management

➢ OSS/BSS interacts with ENI directly through external interfaces

➢ MANO receives operation commends from ENI and feedbacks completion of operations through external interfaces

➢ ENI verifies the policy completeness and sends results to OSS/BSS through external interfaces
Variant 2-1 ENI is built into every FB of MANO

ENI is responsible for all or part of the policy management functions

NFVO receives policies and other requests related to policies through traditional external interfaces; interactions between different FBs are through traditional external interfaces

ENI interacts to every FB through internal interfaces
NFV MANO - ENI Interaction - OPTION 2-2: Internal mode

- Variant 2-2 ENI is built into MANO independently
- ENI is responsible for all or part of the policy management functions
- OSS/BSS interacts with NFVO through traditional interfaces
- FBs request ENI to handle certain functions ENI responsible for through external interfaces (maybe NFVO is the anchor point)
NFV MANO - ENI Interaction - OPTION 3: Hybrid mode

- ENI is in different locations according to context and responsibilities

- For example:
  - NFVO could select ENI to bridge itself and OSS/BSS
  - VNFM could build ENI into itself
  - VIM could take on policy management functions itself, that is, ENI is not used

Conceptual options for discussion
The LS out to XYZ about policy models work at ETSI NFV (under discussion)

- Tentative target recipients: 3GPP SA5, ETSI ISG ZSM, ETSI ISG ENI, ONAP, ORAN...

- Conclusions from NFVIFA#209:
  - Main objective:
    - Notify organizations about the scope, progress and future work plans of the ISG on policy management and trigger future cooperation.
  - The LS plans to give some recommendations on potential future actions.
  - The LS draft is under discussion and more details are going to be discussed and updated soon.
  - You can refer to draft NFVIFA (20) 000653, discussion paper NFVIFA (20) 000597r3 and meeting report NFVIFA (20) 000648 for more information.
THANK YOU!

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