



LFN Developer & Testing Forum

Multi-model support in SDC

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- Overview of the design problems being addressed by the Multi-Model support
- Overview of the the proposed solution in terms of
 - How models are associated with the TOSCA types
 - Designing Services
 - Onboarding Vendor Software Packages (VSP)
- Scope for Istanbul release.

Problem Statement

- Not possible to design ETSI SOL004 packages or edit onboarded packages
- Not possible to restrict design of ETSI SOL007 to SOL001 types or a particular version
- Not possible to support multiple data type versions, e.g., from different SOL001 versions
- Not possible to onboard SOL004 packages with TOSCA types not defined in the SDC model, e.g., vendor specific types. The types must be pre-defined.
- Onboarding true 2.5.1 SOL004 package is not possible as onboarding functionality depends on presence of 2.6.1 metadata

Proposed Solution

- Support multiple models
 - e.g.: SDC model, ETSI model, vendor/operator specific models
- Support onboarding, design and packaging of services/resources that adhere to any of the supported models instead of just the SDC model
- Support translation between models where appropriate/wanted
 - e.g.: translation of ETSI model to SDC model
- Existing support for onboarding, designing ONAP services and resources unaffected

Proposed Solution: Models and Types

- Add a type to the DB schema to define models
 - e.g., SDC model would be one instance, ETSI SOL001 would be another
- When adding TOSCA types in SDC (node types, data types, etc.), they can be associated with one or more models
- Unique Id of the types must be set to ensure types with the same name can exist in different models

Proposed Solution: Services

- On creating a new service:
 - Select the model applicable to the service
 - Only resources from that model, or based on that model, can be used in designing the service
 - Ensures, for example, that only ETSI types can be used when designing a ETSI Network Service
 - Where non SDC model is selected, the topology template is constructed without any ONAP specific structuring
 - Option to generate a service that is a mapping of the created (e.g., ETSI NS) service in the ONAP SDC model and using ONAP structure
 - This will be a separate service, but with the option to auto update as required
 - Automated generation for convenience, but creating as a separate service allows the user the opportunity to fine tune to address any gaps or short comings in the translation logic
- Distribution: It will be possible to distinguish ONAP from non-ONAP services in the distribution notification

Proposed Solution: VFs

- Onboarding a Vendor Software Package (VSP):
 - Select the model applicable to the VSP
 - Validator used in onboarding is selected based on the specified model
 - VF generated using the types from the specified model
 - Where new types are defined in the CSAR, a new model is created which is specific to the CSAR
 - Where ONAP model is selected, VF is import as today
 - Where another model is selected, the VF is created using the types defined for that model, and using standard tosca structure (e.g., the substitutable as node type is preserved in the generated VF)
 - Option to generate a VF that is a mapping of the created VF in the ONAP SDC model and structure (similar to what is proposed for services)

Scope for Istanbul

- Define model for ETSI SOL001 types
- Onboard ETSI SOL004 packages containing types not defined in SDC Model
- Onboard of ETSI SOL004 v2.5.1 packages without having to add v2.6.1 metadata
- Parsing of the SOL001 VNFD node type for use in NSD design
- Design of ETSI SOL007 NSD with properties, capabilities, requirements of the VNFs in the NS coming automatically from the relevant VNFDs



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