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# TOSCA template for e2e-service

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# 1 TOSCA template for e2e-service

## 1.1 Data Types

### 1.1.1 gso.datatypes.service.basicInfo

Describe the basic information for the service

#### 1.1.1.1 Properties

Name	Required	Type	Constraints	Description
createTime	No	string		The creation time of the service
updateTime	No	string		The update time of the service
creatorId	No	string		The identification of the creator
location	No	string		Location of the single domain

#### 1.1.1.2 Definition

```
# *****  
# data types  
# *****  
data_types:  
  gso.datatypes.service.basicInfo:  
    derived_from: tosca.datatypes.Root  
    properties:  
      createTime:  
        type: string  
        description: create time  
      updateTime:  
        type: string  
        description: update time  
      creatorId:  
        type: string  
        description: ID of the creator  
      location:  
        type: string  
        description: Location of the single domain
```

## 1.2 Interface Types

### 1.2.1 gso.interfaces.lifecycle.Standard

There is the lifecycle standard interface of the service.

#### 1.2.1.1 Properties

#### 1.2.1.2 Definition

```
# *****  
# interface_types  
# *****  
interface_types:  
  gso.interfaces.lifecycle.Standard:  
    derived_from: tosca.interfaces.Root  
    create:  
      description: Standard lifecycle create operation.  
    update:  
      description: Standard lifecycle configure and update operation.  
    instantiate:  
      description: Standard lifecycle instantiate operation.  
    terminate:  
      description: Standard lifecycle terminate operation.  
    delete:  
      description: Standard lifecycle delete operation.  
    query:  
      description: Standard lifecycle query operation.  
    scalingIn:  
      description: Standard lifecycle scalingIn operation.  
    scalingOut:  
      description: Standard lifecycle query operation.
```

## 1.3 Capability Types

### 1.3.1 gso.capability.SingleDomainNs

There is the depended capability of single domain network service.

#### 1.3.1.1 Properties

#### 1.3.1.2 Definition

```
capability_types:  
  gso.capability.SingleDomainNs:
```

derived\_from: tosca.capabilities.Root

## 1.4 Relationship Types

### 1.4.1 gso.relationship.DependOn

There is the relationship of single domain network service and global network service.

#### 1.4.1.1 Properties

#### 1.4.1.2 Definition

```
# *****  
# relationship types  
# *****  
relationship_types:  
  gso.relationship.DependOn:  
    derived_from: tosca.relationships.Root  
    description:  
    valid_target_types: [gso.capability.SingleDomainNs]
```

## 1.5 Node Types

### 1.5.1 gso.node.Root

Root is the super class of all the gs-o network service.

#### 1.5.1.1 Properties

Name	Required	Type	Constraints	Description
Id	Yes	string		The identification of the service
name	Yes	string		The name of the service
description	No	string		The description of the service

#### 1.5.1.2 Definition

```
# *****  
# node types  
# *****  
node_types:  
  gso.node.Root:  
    derived_from: tosca.nodes.Root
```

```

description: gso root type
properties:
  id:
    type: string
  name:
    type: string
  description:
    type: string
    required: false

```

## 1.5.2 gso.node.NetworkService

Describe the information for the network service

### 1.5.2.1 Properties

Name	Required	Type	Constraints	Description
baseServiceInfo	Yes	gso.datatypes.service.basicInfo		The basic information of the service
templateId	Yes	string		The template id of the service
serviceDefId	Yes	string		The csar package id of the service

### 1.5.2.2 Definition

```

gso.node.NetworkService:
  derived_from: gso.node.Root
  description: basic network service
  properties:
    baseServiceInfo:
      type: gso.datatypes.service.basicInfo
    templateId:
      type: string
    serviceDefId:
      type: string
  interfaces:
    standard:
      type: gso.interfaces.lifecycle.Standard

```

## 1.5.3 gso.node.SingleDomainNetworkService

Describe the information for the single domain network service

### 1.5.3.1 Properties

### 1.5.3.2 Definition

```
gso.node.SingleDomainNetworkService:  
  derived_from: gso.node.NetworkService  
  description: single domain network service
```

## 1.5.4 gso.node.CrossDomainNetworkService

Describe the basic information for cross domain network service

### 1.5.4.1 Properties

### 1.5.4.2 Definition

```
gso.node.CrossDomainNetworkService:  
  derived_from: gso.node.NetworkService  
  description: cross domain network service  
  requirements:  
    - realizes:  
      node: gso.node.SingleDomainNetworkService  
      capability: gso.capability.SingleDomainNs  
      relationship: gso.relationship.DependOn  
      occurrences: [2, UNBOUNDED]
```