Subscribe and Notify on VNF package

This document describes the procedure for sending notifications related to VNF package management.

Precondition: The subscribed API consumer has subscribed previously for notifications related to VNF package management.

If an event occurs that matches the filtering criteria which are part of the subscription, Etsicatalog will generate notification that includes information about the event, and sends it in the body of a POST request to the URI which the subscribed API consumer has registered as part of the subscription request.

The subscribed API consumer should acknowledges the successful delivery of the notification by returning a "204 No Content" response.

1. VnfPackage Onboarding Notification

When onboarding VNF package successfully, Etsicatalog will filter all Subscription records:

- notificationTypes == "VnfPackageOnboardingNotification"

&&

- VnfPackage's vnfdId / vnfPkgId / vnfProductsFromProviders matching subscription.filters

If there are matching subscription records, Etsicatalog will send a notification to the URI which is provided by the Client in its subscription request.

1.1 Flow of VnfPackage Onboarding Notification
1.2 Subscribe API example:
```json
curl -X POST
http://{{baseUrl}}//api/vnfpkgm/v1/subscriptions
-H 'Content-Type: application/json'
-d '{
  "filters": {
    "notificationTypes": [
      "VnfPackageOnboardingNotification"
    ],
    "vnfdId": [
      "uuid_vnfdid"
    ],
    "callbackUri": "http://www.vnf1.com/notification",
    "authentication": {
      "authType": ["BASIC"],
      "paramsBasic": {
        "userName": "username",
        "password": "userpwd"
      }
    }
  }
}'
```

### 1.3 Notification API example:

**POST URI is provided by the client when creating the subscription: VnfPackageOnboardingNotification**

For this example, the URI provided by client is http://www.vnf1.com/notification according to the subscription request above.

```bash
curl -X POST -u username:userpwd http://www.vnf1.com/notification
-H 'Content-Type: application/json'
-d '{
  "id": "notify_id",
  "notificationType": "VnfPackageOnboardingNotification",
  "timeStamp": "2019-12-16 14:41:16",
  "vnfpkgId": "vnfPackage_uuid",
  "vnfdId": "vnfdId_uuid",
  "subscriptionId": "subscription_id",
  "_links": {
    "subscription": {
      "href": "http://subscriptionuri"
    },
    "vnfPackage": {
      "href": "http://vnfPackageuri"
    }
  }
}'
```

### 2. VnfPackage Change Notification

When the VNF package is modified or deleted, Etsicatalog will filter all Subscriptions records:

- notificationTypes == "VnfPackageChangeNotification"
- VnfPackage’s vnfdId / vnfpkgId / vnfProductsFromProviders matching subscription.filters

If there are any matching subscription records, Etsicatalog will send a notification to the URI which is provided by the Client in its subscription request.

#### 2.1 Flow of VnfPackage Change Notification
2.2 Subscribe API example:
curl -X POST
http://{{baseUrl}}/api/vnfpkgm/v1/subscriptions
-H 'Content-Type: application/json'
-d '{
  "filters": {
    "notificationTypes": [
      "VnfPackageChangeNotification"
    ],
    "vnfdId": [
      "uuid_vnfdid"
    ],
    "callbackUri": "http://www.vnf1.com/notification",
    "authentication": {
      "authType": ["BASIC"],
      "paramsBasic": {
        "userName": "username",
        "password": "userpwd"
      }
    }
  }
}'

2.3 Notification API example:

POST URI-is-provided-by-the-client-when-creating-the-subscription-VnfPackageChangeNotification

For this example, the URI provided by client is http://www.vnf1.com/notification according to the subscription request above.

curl -X POST -u username:userpwd
http://www.vnf1.com/notification
-H 'Content-Type: application/json' \
-d '{
  "id": "notify_id",
  "notificationType": "VnfPackageChangeNotification",
  "timeStamp": "2019-12-16 14:41:16",
  "vnfpkgId": "vnfpkgPackage_uuid",
  "vnfdId": "uuid_vnfdid",
  "subscriptionId": "subscription_id",
  "changeType": "OP_STATE_CHANGE",
  "operationalState": "ENABLED",
  "_links":{
    "subscription":{
      "href": "http://subscriptionuri"
    },
    "vnfPackage":{
      "href": "http://vnfPackageuri"
    }
  }
}'

3. Client APIs

The client should implement the followed APIs when creating the subscription:

Client_API_notify_v1.yaml