Network Function Instance Registration Project

RESTful Web Services (API’s)

Version 5.3.24

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| RESTful Services | Date:7-July-2023 |

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 2-July-2023 | 0.1 | Initial Project, Repository &  JPA entity Creation | Divyata Rathivadekar |
| 3-July-2023 |  | Post API, Get API Creation | Yuvraj Patil |

4-July-2023 Get All, Put API, Swagger, Chetana Chaudhari

Mapping, Exception handling

## **NFRegistration Management**

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| --- | --- |
| Step No | API Call |
| 1 | [Add NfRegistration information](#_NFRegistration_Management) |
| 2 | Update existing NfRegistration information |
| 3 | Get NfRegistration by using Id |
| 4 | Delete NfRegistration information by id |
| 5 | Get all NfRegistration information |
| 6 | Create a Get API to fetch all registered network functions using by nfType. |
| 7 | Create a Get API to fetch all registered network functions using by nfStatus. |

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| --- | --- |
| **URI** | https://localhost:8090/nfinstance |

Example- https://localhost:8080/connection

1. Add NFRegistration information

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8090/nfinstance /register | |
| **Request** | Method | POST |
| Content-type | application/json |
| Header |  |
| Body | {  "networkFunctionInstanceType" : "NRF",  "status" : "Registered",  "heartBeatTimer" : 40000,  "nfProfile" :  {  "ipV4Addresses" : "961:668:98.111",  "nfService" : [      {          "nfServiceName" : "nnrf\_disc",          "scheme" : "URIscheme\_http",          "apifullVersion" : "2.0.3",          "nfServiceStatus" : "Undiscoverable"      },      {            "nfServiceName" : "nnrf\_auth2",          "scheme" : "URIscheme\_http",          "apifullVersion" : "3.0.0",          "nfServiceStatus" : "Suspended"      }  ]  }  } |
| **Response** | {      "networkFunctionInstanceId": "NfTest69",      "networkFunctionInstanceType": "NRF",      "status": "Registered",      "heartBeatTimer": 40000,      "nfProfile": {          "nfProfileId": "NfProfileTest96",          "ipV4Addresses": "961:668:98.111",          "nfService": [              {                  "nfServiceId": "NfServiceTest9",                  "nfServiceName": "nnrf\_disc",                  "scheme": "URIscheme\_http",                  "apifullVersion": "2.0.3",                  "nfServiceStatus": "Undiscoverable"              },              {                  "nfServiceId": "NfServiceTest94",                  "nfServiceName": "nnrf\_auth2",                  "scheme": "URIscheme\_http",                  "apifullVersion": "3.0.0",                  "nfServiceStatus": "Suspended"              }          ]      }  } | |
| **Error** |  | |
| **Reference** |  | |

1. Update NFRegistration information

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8090/update/ NfTest95 | |
| **Request** | Method | PUT |
| Content-type | application/json |
| Header |  |
| Body | {      "networkFunctionInstanceType" : "PCF",  "status" : "Registered"  } |
| **Response** | {      "networkFunctionInstanceId": "NfTest95",      "networkFunctionInstanceType": "PCF",      "status": "Registered",      "heartBeatTimer": 55000,      "nfProfile": {          "nfProfileId": "NfProfileTest93",          "ipV4Addresses": "321:168:98.111",          "nfService": [              {                  "nfServiceId": "NfServiceTest5",                  "nfServiceName": "nnrf\_auth2",                  "scheme": "URIscheme\_http",                  "apifullVersion": "3.0.0",                  "nfServiceStatus": "Suspended"              },              {                  "nfServiceId": "NfServiceTest59",                  "nfServiceName": "nnrf\_nfm",                  "scheme": "URIscheme\_http",                  "apifullVersion": "2.0.3",                  "nfServiceStatus": "Suspended"              }          ]      }  } | |
| **Error** |  | |
| **Reference** |  | |

1. Get NFRegistration information by Id

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8090/nfinstance/ NfTest62 | |
| **Request** | Method | GET |
| Content-type | application/json |
| Header |  |
| Body | NA |
| **Response** | {      "networkFunctionInstanceId": "NfTest62",      "networkFunctionInstanceType": "UDM",      "status": "Non\_Registered",      "heartBeatTimer": 35000,      "nfProfile": {          "nfProfileId": "NfProfileTest80",          "ipV4Addresses": "961:668:98.111",          "nfService": [              {                  "nfServiceId": "NfServiceTest54",                  "nfServiceName": "nnrf\_auth2",                  "scheme": "URIscheme\_http",                  "apifullVersion": "3.0.0",                  "nfServiceStatus": "Suspended"              },              {                  "nfServiceId": "NfServiceTest71",                  "nfServiceName": "nnrf\_disc",                  "scheme": "URIscheme\_http",                  "apifullVersion": "2.0.3",                  "nfServiceStatus": "Undiscoverable"              }          ]      }  } | |
| **Error** |  | |
| **Reference** |  | |

1. DeRegister NFRegistration information by Id

|  |  |  |
| --- | --- | --- |
| **URI** | [http://localhost:8090/nfinstance/](http://localhost:8090/nfinstance/1)delete /NfTest62 | |
| **Request** | Method | DELETE |
| Content-type | application/json |
| Header |  |
| Body | NA |
| **Response** | {  Record is deleted.  } | |
| **Error** |  | |
| **Reference** |  | |

1. Get All NFRegistration information

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8090/nfinstance/getAll | |
| **Request** | Method | GET |
| Content-type | application/json |
| Header |  |
| Body | NA |
| **Response** | [      {          "networkFunctionInstanceId": "NfTest62",          "networkFunctionInstanceType": "UDM",          "status": "Non\_Registered",          "heartBeatTimer": 35000,          "nfProfile": {              "nfProfileId": "NfProfileTest80",              "ipV4Addresses": "961:668:98.111",              "nfService": [                  {                      "nfServiceId": "NfServiceTest54",                      "nfServiceName": "nnrf\_auth2",                      "scheme": "URIscheme\_http",                      "apifullVersion": "3.0.0",                      "nfServiceStatus": "Suspended"                  },                  {                      "nfServiceId": "NfServiceTest71",                      "nfServiceName": "nnrf\_disc",                      "scheme": "URIscheme\_http",                      "apifullVersion": "2.0.3",                      "nfServiceStatus": "Undiscoverable"                  }              ]          }      },      {          "networkFunctionInstanceId": "NfTest95",          "networkFunctionInstanceType": "NRF",          "status": "Non\_Registered",          "heartBeatTimer": 55000,          "nfProfile": {              "nfProfileId": "NfProfileTest93",              "ipV4Addresses": "321:168:98.111",              "nfService": [                  {                      "nfServiceId": "NfServiceTest5",                      "nfServiceName": "nnrf\_auth2",                      "scheme": "URIscheme\_http",                      "apifullVersion": "3.0.0",                      "nfServiceStatus": "Suspended"                  },                  {                      "nfServiceId": "NfServiceTest59",                      "nfServiceName": "nnrf\_nfm",                      "scheme": "URIscheme\_http",                      "apifullVersion": "2.0.3",                      "nfServiceStatus": "Suspended"                  }              ]          }      }  ] | |
| **Error** |  | |
| **Reference** |  | |

6.Create a Get API to fetch all registered network functions using by nfType.

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8080/nfinstance/getAllByType/UDM | |
| **Request** | Method | GET |
| Content-type | application/json |
| Header |  |
| Body | NA |
| **Response** | [  {  " networkFunctionInstanceId ": "nfTest26",  "networkFunctionInstanceType": "UDM",  "status": "Registered",  "heartBeatTimer": 50000,  "nfProfile": {  "nfProfileId": "nfProfileTest27",  "ipV4Addresses": "192.168.0.3",  "nfService": [  {  "nfServiceId": "nfServiceTest81",  "nfServiceName": "nnrf\_nfm",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Undiscoverable"  },  {  "nfServiceId": "nfServiceTest92",  "nfServiceName": "nnrf\_disc",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Suspended"  }  ]  }  },  {  "networkFunctionInstanceId": "nfTest33",  "networkFunctionInstanceType": "UDM",  "status": "Non\_Registered",  "heartBeatTimer": 40000,  "nfProfile": {  "nfProfileId": "nfProfileTest37",  "ipV4Addresses": "192.168.0.1",  "nfService": [  {  "nfServiceId": "nfServiceTest48",  "nfServiceName": "nnrf\_disc",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Suspended"  },  {  "nfServiceId": "nfServiceTest91",  "nfServiceName": "nnrf\_nfm",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Registered"  }  ]  }  }  ] | |
| **Error** |  | |
| **Reference** |  | |

7. Create a Get API to fetch all registered network functions using by nfStatus.

|  |  |  |
| --- | --- | --- |
| **URI** | http://localhost:8080/nfinstance/getAllByStatus/Registered | |
| **Request** | Method | GET |
| Content-type | application/json |
| Header |  |
| Body | NA |
| **Response** | [  {  "networkFunctionInstanceId": "nfTest26",  "networkFunctionInstanceType": "UDM",  "status": "Registered",  "heartBeatTimer": 50000,  "nfProfile": {  "nfProfileId": "nfProfileTest27",  "ipV4Addresses": "192.168.0.3",  "nfService": [  {  "nfServiceId": "nfServiceTest81",  "nfServiceName": "nnrf\_nfm",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Undiscoverable"  },  {  "nfServiceId": "nfServiceTest92",  "nfServiceName": "nnrf\_disc",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Suspended"  }  ]  }  },  {  "networkFunctionInstanceId": "nfTest28",  "networkFunctionInstanceType": "PCF",  "status": "Registered",  "heartBeatTimer": 30000,  "nfProfile": {  "nfProfileId": "nfProfileTest47",  "ipV4Addresses": "192.168.0.2",  "nfService": [  {  "nfServiceId": "nfServiceTest24",  "nfServiceName": "nnrf\_nfm",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Registered"  },  {  "nfServiceId": "nfServiceTest87",  "nfServiceName": "nnrf\_disc",  "scheme": "URIscheme\_http",  "apifullVersion": "1.0.0",  "nfServiceStatus": "Suspended"  }  ]  }  }  ] | |
| **Error** |  | |
| **Reference** |  | |