



# DIATEAM

MILITARY & CIVIL CYBERSECURITY  
SOLUTIONS

## HAPI Documentation

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# 1. Quick notes

## 1.1 Authentication

Unless specified, every call needs to be made with an *X-API-Key* header. The header must contain the full API key and will provide access to the same entities/rights as being authenticated with any other hynesim client with the user owning it.

If the provided api key is either not associated to any user or not providing enough rights for the operation you're trying to execute, the request will return a *401* status code.

## 1.2 The different ID types

There are 3 types of ID specified in this documentation.

- *UUID*: An *UUID* is a stable unique ID (consistent across master restarts). It's used to refer to entries in both the entities and the topologies catalog. For example, "404a058b-8b94-4eef-91fa-c42069981cf2".
- *HNS\_ID*: An *HNS\_ID* is a numeric value that is used to refer to entries that don't have an *UUID* such as wires, folders and entities built from templates. This value isn't stable and **will** change on a master restart.
- *ID*: An *ID* is a numeric value that is used everywhere the two others don't make sense. It's stable across master restarts.

## 1.3 A quick python example

The following example is a little python script that loads and starts all topologies the api key has access to. It uses the `requests` library which is fairly easy to use. While not really useful, this script shows the basics about the API usage in a programming language.

```
#!/usr/bin/env python3
import requests

API_KEY = "11da9587-f41a-4f37-acf5-47282aa521ab"
topos_uuids = requests.get("http://api.hns-platform.com/catalog/
↳topologies",
    headers={"X-API-Key": API_KEY}).json()
```

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```
for uuid in topos_uuids:
    if not requests.post("http://api.hns-platform.com/catalog/
↳topologies/%s:load" % uuid, headers={"X-Api-Key": API_KEY}).ok:
        print("Failed to load %s" % uuid)
        continue
    if not requests.post("http://api.hns-platform.com/topologies/
↳%s:start" % uuid, headers={"X-Api-Key": API_KEY}).ok:
        print("Failed to start %s" % uuid)
```

## 2. General routes

### 2.1 /

#### **GET /**

Does nothing. Can be used to test if the service is up and running

##### **Status Codes**

- 200 OK – Returns the HAPI version

##### **Response Headers**

- *Content-Type - text/plain*

---

**Note:** This route doesn't need you to be authenticated

---

### /doc -

#### **GET /doc**

Provides the API documentation

##### **Status Codes**

- 200 OK – Returns the PDF documentation

##### **Response Headers**

- *Content-Type - application/pdf*

---

**Note:** This route doesn't need you to be authenticated

---

## 3. Monitoring routes

### 3.1 /meshInfo

#### GET /meshInfo

Returns the map of current nodeInfo, augmented with master info

#### Status Codes

- 200 OK – The map of current nodeInfo augmented with master info

#### Response Headers

- Content-Type – *application/json*

```
{
  "master": {
    "serviceInfo": {
      "description": "This is a DIATEAM Master.",
      "host": "hns-master-admin",
      "hostname": "master\n",
      "maxThread": "3",
      "name": "Master",
      "shortName": "",
      "uptime": 272525
    }, "systemInfo": {
      "cpuUsage": 18.4,
      "disks": [
        {
          "filesystem": "/dev/sdb5",
          "freeSpace": 16942872,
          "mountPoint": "/",
          "percentageUsed": 38,
          "totalSpace": 28704676,
          "usedSpace": 10280640
        },
        {
          "filesystem": "/dev/sdb6",
          "freeSpace": 98230172,
          "mountPoint": "/home",
          "percentageUsed": 25,
          "totalSpace": 136307328,
          "usedSpace": 31083444
        }
      ]
    }
  },
}
```

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```
      "freeMemory": 4934960,
      "freeSwap": 48211268,
      "kernelInfo": "Linux 5.10.0-23-amd64 #1 SMP Debian 5.10.179-1 (2023-05-12) x86_64",
      "processors": ["Intel(R) Core(TM) i7-4810MQ CPU @ 2.80GHz"],
      "totalMemory": 16339680,
      "totalSwap": 48838652,
      "uptime": 3019245
    }, "versionInfo": {
      "revision": "6642bc397a",
      "version": "4.5.2",
      "versionDescription": "Pro Edition"
    }
  }, "node-1": {
    "diameshVersionInfo": {
      "revision": "1fbc48019a",
      "version": "3.4.0",
      "versionDescription": ""
    }, "platforms": {
      "HybridNetcard": {
        "enabled": true,
        "error": "",
        "name": "HybridNetcard"
      }, "KernelBridge": {
        "enabled": true,
        "error": "",
        "name": "KernelBridge"
      }, "KvmQemu": {
        "enabled": true,
        "error": "",
        "name": "KvmQemu"
      }, "NativeWire": {
        "enabled": true,
        "error": "",
        "name": "NativeWire"
      }, "OpenVSwitch": {
        "enabled": false,
        "error": "Platform blacklisted",
        "name": "OpenVSwitch"
      }, "TopologyGate": {
        "enabled": true,
        "error": "",
        "name": "TopologyGate"
      }
    }
  }, "resourceInfo": {
    "currentResources": {"cpu": 4, "memory": 4096},
    "definedEntities": 10,
    "hybridNetcardsMap": {
```

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```

        "Plug 1": "enxd8eb97b63f37",
        "Plug 2": "enxd8eb97b63f57",
        "Plug 3": "enxd8eb97b63f61",
        "Plug 4": "enxd8eb97b63f5f"
      }, "maxResources": {"cpu": 32, "memory": 28672}
    }, "serviceInfo": {
      "description": "",
      "host": "hns-master-admin",
      "hostname": "master\n",
      "maxThread": "",
      "name": "node-1",
      "shortName": "",
      "uptime": 82760
    }, "systemInfo": {
      "cpuUsage": 18.4,
      "disks": [],
      "freeMemory": 4934752,
      "freeSwap": 48211268,
      "kernelInfo": "Linux 5.10.0-23-amd64 #1 SMP Debian_
↪5.10.179-1 (2023-05-12) x86_64",
      "processors": ["Intel(R) Core(TM) i7-4810MQ CPU @ 2.
↪80GHz"],
      "totalMemory": 16339680,
      "totalSwap": 48838652,
      "uptime": 3019245
    }, "versionInfo": {
      "revision": "94fd080410",
      "version": "4.5.2",
      "versionDescription": "Pro Edition"
    }
  }
}

```

## 3.2 /nodeInfo

### GET /nodeInfo

Returns the map of current nodeInfo

#### Status Codes

- 200 OK – The map of current nodeInfo

#### Response Headers

- Content-Type – *application/json*

```

{
  "node-1": {

```

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```
"diameshVersionInfo": {
  "revision": "1fbe48019a",
  "version": "3.4.0",
  "versionDescription": ""
}, "platforms": {
  "HybridNetcard": {
    "enabled": true,
    "error": "",
    "name": "HybridNetcard"
  }, "KernelBridge": {
    "enabled": true,
    "error": "",
    "name": "KernelBridge"
  }, "KvmQemu": {
    "enabled": true,
    "error": "",
    "name": "KvmQemu"
  }, "NativeWire": {
    "enabled": true,
    "error": "",
    "name": "NativeWire"
  }, "OpenVSwitch": {
    "enabled": false,
    "error": "Platform blacklisted",
    "name": "OpenVSwitch"
  }, "TopologyGate": {
    "enabled": true,
    "error": "",
    "name": "TopologyGate"
  }
}
}
```

### 3.3 /systemInfo

#### GET /systemInfo

Returns some information about the system

##### Status Codes

- 200 OK – The map of current systemInfo

##### Response Headers

- Content-Type – *application/json*

```
{
  "cpuUsage": 18.4,
  "disks": [
    {
      "filesystem": "/dev/sdb5",
      "freeSpace": 16942872,
      "mountPoint": "/",
      "percentageUsed": 38,
      "totalSpace": 28704676,
      "usedSpace": 10280640
    },
    {
      "filesystem": "/dev/sdb6",
      "freeSpace": 98230172,
      "mountPoint": "/home",
      "percentageUsed": 25,
      "totalSpace": 136307328,
      "usedSpace": 31083444
    }
  ],
  "freeMemory": 4934960,
  "freeSwap": 48211268,
  "kernelInfo": "Linux 5.10.0-23-amd64 #1 SMP Debian 5.10.179-
→ 1 (2023-05-12) x86_64",
  "processors": ["Intel(R) Core(TM) i7-4810MQ CPU @ 2.80GHz"],
  "totalMemory": 16339680,
  "totalSwap": 48838652,
  "uptime": 3019245
}
```

## 3.4 /serviceInfo

### GET /serviceInfo

Returns some information about the current master

#### Status Codes

- 200 OK – The map of current serviceInfo

#### Response Headers

- Content-Type – *application/json*

```
{
  "description": "This is a DIATEAM Master.",
  "host": "hns-master-admin",
  "hostname": "master\n",
  "maxThread": "3",
  "name": "Master",
}
```

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```
"shortName": "",  
"uptime": 272525  
}
```

## 3.5 /versionInfo

### GET /versionInfo

Returns some version infos about the current master

#### Status Codes

- 200 OK – The map of current versionInfo

#### Response Headers

- Content-Type – *application/json*

```
{  
  "revision": "6642bc397a",  
  "version": "4.5.2",  
  "versionDescription": "Pro Edition"  
}
```

## 4. User and group management routes

### 4.1 /sessions

#### GET /sessions

Returns the list of connected sessions

##### Response Headers

- Content-Type - *application/json*

```
[
  {
    "prx": "1B917792-C179-421F-BA2A-27C82ED413B4 -t -e 1.
↪0:tcp -h hns-master-admin -p 5656 -t 60000",
    "info": {
      "connectionDateTime": 1546527357816,
      "clientIpAddress": "10.0.1.138",
      "serverIpAddress": "10.0.1.138",
      "userId": 1
    }
  }
]
```

### 4.2 /users

#### 4.2.1 Get a list of all registered users

#### GET /users

##### Status Codes

- 200 OK - The list of all users

##### Response Headers

- Content-Type - *application/json*

```
[
  {
    "hSetId": 1,
    "isEnabled": true,
    "createdOn": 1311608741,
  }
]
```

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```
    "firstname": "admin",
    "groupList": [
      { "name": "admin", "id": 1 }
    ],
    "lastname": "admin",
    "modifiedOn": 1545051568346,
    "name": "admin",
    "id": 1
  }
]
```

## 4.2.2 Get some information about one user

**GET** /users/{id}

### Query Parameters

- **id** (*int*) – The ID of the user

### Response Headers

- **Content-Type** – *application/json*

### Status Codes

- **200 OK** – The infos about the user
- **404 Not Found** – There are no user with the given ID

```
{
  "hSetId": 1,
  "isEnabled": true,
  "createdOn": 1311608741,
  "firstname": "admin",
  "groupList": [
    { "name": "admin", "id": 1 },
  ],
  "lastname": "admin",
  "modifiedOn": 1545051568346,
  "name": "admin",
  "id": 1
}
```

## 4.2.3 Register a new user

**POST** /users

### Request JSON Object

- **name** (*string*) – The new user's connection name

- **password** (*string*) – The password for the new user
- **firstname** (*string*) – (Optional) The new user's first name
- **lastname** (*string*) – (Optional) The new user's last name
- **isEnabled** (*bool*) – (Optional) Whether the new user is enabled or not

```
{  
  "name": "johndoe",  
  "lastname": "Doe",  
  "firstname": "John",  
  "isEnabled": false,  
  "password": "hunter2"  
}
```

#### Status Codes

- 200 OK – The user was created successfully

#### Response Headers

- **Content-Type** – *application/json*

#### Response JSON Object

- **id** – The new user's ID

2

## 4.2.4 Change some information about a registered user

**PUT** /users/{id}

#### Query Parameters

- **id** (*int*) – The ID of the user

#### Request JSON Object

- **name** (*str*) – (Optional) The user's name
- **lastname** (*str*) – (Optional) The user's last name
- **firstname** (*str*) – (Optional) The user's first name
- **isEnabled** (*bool*) – (Optional) Set to false if you want to disable the user, else defaults to true
- **hsetId** (*int*) – (Optional) The user's hset ID
- **groupList** (*[str]*) – (Optional) The user's group list
- **newPassword** (*str*) – (Optional) The user's new password

### Status Codes

- 204 No Content – The user has been updated
- 404 Not Found – There is no user with the given ID

```
{  
  "name": "johndoe",  
  "lastname": "Doe",  
  "firstname": "John",  
  "isEnabled": false,  
  "newPassword": "correct horse battery staple"  
}
```

---

**Note:** The provided JSON object may omit any field and only those provided will be updated.

---

## 4.2.5 Remove a user

**DELETE** /users/{id}

### Query Parameters

- `id` (*int*) – The ID of the user to delete

### Status Codes

- 204 No Content – The user has been deleted
- 404 Not Found – There is no user with the given ID

## 4.3 /apiKeys

### 4.3.1 Get list of all API keys

**GET** /apiKeys

### Status Codes

- 200 OK – The list of api keys

### Response Headers

- `Content-Type` – *application/json*

```
[  
  {  
    "userId": 1,  
  }  
]
```

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```
"description": "Service 1 key",
"id": 2496,
"key": "c6ad4d45-da14-47fa-9d04-ef8a004fd325",
"hSetId": 1
},
{
  "userId": 4,
  "description": "My key",
  "id": 2497,
  "key": "32934d41-ee62-4574-8879-213ac8d5958a",
  "hSetId": 1
}
]
```

### 4.3.2 Get some information about one API key

GET /apiKeys/{id}

#### Query Parameters

- **id** (*int*) – The ID of the API key

#### Status Codes

- **200 OK** – Some information about the API key
- **404 Not Found** – The provided ID doesn't match any key

#### Response Headers

- **Content-Type** – *application/json*

```
{
  "userId": 1,
  "description": "Service 1 key",
  "id": 2496,
  "key": "c6ad4d45-da14-47fa-9d04-ef8a004fd325",
  "hSetId": 1
}
```

### 4.3.3 Add a new API key

POST /apiKeys

#### Request JSON Object

- **userId** (*int*) – The user Id this API key is attached to
- **description** (*str*) – (Optional) The description for this API key



```
{  
  "userId": 1,  
  "description": "My new API key"  
}
```

#### Status Codes

- 200 OK – Returns the ID of the newly created API key
- 400 Bad Request – The required data is missing or wrong

#### Response JSON Object

- `int` – The new API key ID

```
2
```

### 4.3.4 Change some information about an API key

**PUT** /apiKeys/{id}

#### Query Parameters

- `id` (*int*) – The ID of the API key to change

#### Request JSON Object

- `description` (*str*) – (Optional) The new description for the API key

#### Status Codes

- 204 No Content – The API key was correctly updated
- 404 Not Found – The ID doesn't match any existing API key

```
{  
  "description": "My awesome description"  
}
```

### 4.3.5 Remove an API key

**DELETE** /apiKeys/{id}

#### Query Parameters

- `id` (*int*) – The ID of the API key to remove

#### Status Codes

- 204 No Content – The API key was successfully removed

- **404 Not Found** – The ID doesn't match any existing API key

## 4.4 /groups

### 4.4.1 Get a list of all groups

**GET** /groups

#### Status Codes

- **200 OK** – The list of groups

#### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "hSetId": 1,
    "name": "admin",
    "userList": [
      {
        "id": 1,
        "name": "admin"
      }
    ],
    "modifiedOn": 1311608741,
    "createdOn": 1311608741,
    "id": 1
  }
]
```

### 4.4.2 Get some information about one group

**GET** /groups/{id}

#### Query Parameters

- **id** (*int*) – The ID of the group

#### Status Codes

- **200 OK** – Some information about the group
- **404 Not Found** – The given ID doesn't match any group

#### Response Headers

- **Content-Type** – *application/json*

```
{
  "hSetId": 1,
  "name": "admin",
  "userList": [
    {
      "id": 1,
      "name": "admin"
    }
  ],
  "modifiedOn": 1311608741,
  "createdOn": 1311608741,
  "id": 1
}
```

### 4.4.3 Create a new group

POST /groups

#### Request JSON Object

- **name** (*str*) – The name of the new group
- **userList** (*[int]*) – (Optional) All ID of users you want add to the new group
- **hSetId** (*int*) – (Optional) The ID of the hierarchical rank (0 is Administrators and 1 is users)
- **parentGroup** (*int*) – (Optional) ID of the parent group
- **additionalFields** (*[str]*) – (Optional) Internal use only, do not modify

```
{
  "name": "students",
  "userList": [2],
  "hSetId": 1,
  "parentGroup": 1
}
```

#### Status Codes

- 200 OK – The ID of the newly created group
- 400 Bad Request – The required data is missing or wrong

#### Response JSON Object

- **int** – The new group ID

2

#### 4.4.4 Change some information about a group

**PUT** /groups/{id}

##### Query Parameters

- **id** (*int*) – The ID of the group to change

##### Request JSON Object

- **name** (*str*) – The name of the new group
- **userList** (*[int]*) – (Optional) All ID of users you want add to the new group
- **hSetId** (*int*) – (Optional) The ID of the hierarchical rank (0 is Administrators and 1 is users)
- **parentGroup** (*int*) – (Optional) ID of the parent group
- **additionnalFields** (*[str]*) – (Optional) Internal use only, do not modify
- **name** – The new name for the group

##### Status Codes

- **204 No Content** – The group was updated
- **404 Not Found** – The ID didn't match any group

```
{
  "name": "students",
  "userList": [2, 3],
  "hSetId": 1,
  "parentGroup": 2
}
```

#### 4.4.5 Remove a group

**DELETE** /groups/{id}

##### Query Parameters

- **id** (*int*) – The ID of the group to remove

##### Status Codes

- **204 No Content** – The group was removed
- **404 Not Found** – The ID didn't match any group

## 5. Catalog management routes

### 5.1 /catalog/topologies

#### 5.1.1 Get a list of all topologies

**GET** /catalog/topologies

##### Status Codes

- 200 OK – The list of all topologies

##### Response Headers

- Content-Type – *application/json*

```
[
  "bfe0fda2-ff15-4ca3-87ed-a18b55500fd4",
  "1b8a75f7-c570-4a83-987c-1f154fa2763b"
]
```

#### 5.1.2 Get some information about a topology

**GET** /catalog/topologies/{uuid}

##### Query Parameters

- uuid (*str*) – The UUID of the topology

##### Status Codes

- 200 OK – Some information about the topology
- 404 Not Found – The UUID didn't match any topology

##### Response Headers

- Content-Type – *application/json*

```
{
  "status": 0,
  "uuid": "bfe0fda2-ff15-4ca3-87ed-a18b55500fd4",
  "path": "Topologies Catalog:",
  "hns_id": 48678,
  "description": "",
  "shortName": "Intranet",
}
```

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```
"status_str": "TOPOLOGY_STATUS_OK",
"isPersistent": False,
"lock": "None",
"longName": "",
"parentId": 0,
"tagList": [],
"entitiesMap": {},
}
```

### 5.1.3 Update a topology entry

**PUT** /catalog/topologies/{uuid}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Request JSON Object

- **shortName** (*str*) – The short name of the topology
- **longName** (*str*) – The long name of the topology
- **description** (*str*) – The description of the topology
- **tagList** (*[str]*) – A list of tags
- **isPersistent** (*bool*) – True if it's a persistent topology, otherwise False
- **parentId** (*bool*) – The ID of the parent folder: Always 0 for topologies

#### Status Codes

- **204 No Content** – The topology was successfully updated
- **400 Bad Request** – The topology cannot be updated (eg. it is loaded or locked)
- **404 Not Found** – The UUID didn't match any topology

#### Response Headers

- **Content-Type** – *application/json*

The best way to change a topology information is to get it first, change what needs to be changed and send it back to this route. The topology must be unloaded.

```
{
  "status": 0,
  "uuid": "bfe0fda2-ff15-4ca3-87ed-a18b55500fd4",
  "path": "Topologies Catalog:",
}
```

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```
"hns_id": 48678,  
"description": "new description",  
"shortName": "Intranet new",  
"status_str": "TOPOLOGY_STATUS_OK",  
"isPersistent": True,  
"lock": "None",  
"longName": "",  
"parentId": 0,  
"tagList": ["infra"]  
}
```

### 5.1.4 Get a list of entries in a topology

**GET** /catalog/topologies/{uuid}/entries

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The list of entities in the topology
- **404 Not Found** – The UUID didn't match any topology

#### Response Headers

- **Content-Type** – *application/json*

```
[{  
  "isTemplate": false,  
  "status": 0,  
  "tagList": [],  
  "hasResources": true,  
  "longName": "LXC",  
  "hns_id": 46328,  
  "description": "LXCDescription",  
  "parentId": 0,  
  "path": "Entities Catalog:/import",  
  "extra": {  
    "vcpu": 1,  
    "type": "lxc",  
    "immutable": false,  
    "baseUuid": "",  
    "diffUuids": [],  
    "netcards": [  
      {  
        "source": "eth0",  
        "description": "",  
        "model": "",  
      }  
    ]  
  }  
}
```

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```
        "target": "",
        "id": 0,
        "macAddress": "d2:96:e3:d8:56:97"
      },
    ],
    "memory": 262144
  },
  "type": "domain",
  "uuid": "46416ffd-8214-406c-af01-9e01cc4cf849",
  "shortName": "puppet.topo.infra",
  "customGraphic": "",
  "customGraphicWidth": 128,
  "customGraphicHeight": 128,
}]
```

### 5.1.5 Get a list of wire entries in a topology

**GET** /catalog/topologies/{uuid}/wireEntries

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The list of wires in the topology
- **404 Not Found** – The UUID didn't match any topology

#### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "hns_id": 0,
    "shortName": "Wire 1",
    "longName": "",
    "description": "",
    "uuid": "f7dbb3ce-7f7f-46b0-9101-0b732f1975c4",
    "path": "",
    "status": 0,
    "tagList": [],
    "parentId": 0,
    "isTemplate": false,
    "hasResources": false,
    "customGraphic": "",
    "customGraphicWidth": 128,
    "customGraphicHeight": 128,
    "type": "wire",
```

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```
"extra": {
  "propertyLR": {
    "loss": 0,
    "delay": 100,
    "dup": 0,
    "bandwidth": 0,
    "mtu": 0
  },
  "propertyRL": {
    "loss": 0,
    "delay": 0,
    "dup": 0,
    "bandwidth": 0,
    "mtu": 0
  }
}
}
```

### 5.1.6 Get a specific wire entry in a topology

**GET** /catalog/topologies/{uuid}/wireEntries/{hnsId}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hnsId** (*str*) – The hns ID of the wire

#### Status Codes

- **200 OK** – The wire entry in the topology
- **404 Not Found** – The UUID didn't match any topology

#### Response Headers

- **Content-Type** – *application/json*

```
{
  "hns_id": 0,
  "shortName": "Wire 1",
  "longName": "",
  "description": "",
  "uuid": "f7dbb3ce-7f7f-46b0-9101-0b732f1975c4",
  "path": "",
  "status": 0,
  "tagList": [],
  "parentId": 0,
  "isTemplate": false,
```

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```
"hasResources": false,  
"customGraphic": "",  
"customGraphicWidth": 128,  
"customGraphicHeight": 128,  
"type": "wire",  
"extra": {  
  "propertyLR": {  
    "loss": 0,  
    "delay": 100,  
    "dup": 0,  
    "bandwidth": 0,  
    "mtu": 0  
  },  
  "propertyRL": {  
    "loss": 0,  
    "delay": 0,  
    "dup": 0,  
    "bandwidth": 0,  
    "mtu": 0  
  }  
}
```

### 5.1.7 Get a topology screenshot

**GET** /catalog/topologies/{uuid}/screenshot

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The topology PNG screenshot
- **404 Not Found** – The UUID didn't match any topology

#### Response Headers

- **Content-Type** – *image/png*

### 5.1.8 Get the list of topology storages

**GET** /catalog/topologies/storages

#### Status Codes

- **200 OK** – The list of topology storages

#### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "name": "Topologies Catalog",
    "path": "/data/hynesim/catalog/topologies"
  }
]
```

### 5.1.9 Load all topologies

**POST /catalog/topologies:load**

#### **Status Codes**

- **204 No Content** – All the topologies that could be loaded are loaded

### 5.1.10 Unload all topologies

**POST /catalog/topologies:unload**

#### **Status Codes**

- **204 No Content** – All the loaded topologies have been unloaded

### 5.1.11 Load a topology

**POST /catalog/topologies/{uuid}:load**

#### **Query Parameters**

- **uuid** (*str*) – The UUID of the topology to load

#### **Status Codes**

- **204 No Content** – The topology is now loaded
- **404 Not Found** – The UUID didn't match any topology

### 5.1.12 Unload a topology

**POST /catalog/topologies/{uuid}:unload**

#### **Query Parameters**

- **uuid** (*str*) – The UUID of the topology to unload

#### **Status Codes**

- **204 No Content** – The topology is now unloaded

- **404 Not Found** – The UUID didn't match any loaded topology

### 5.1.13 Fix a topology

**POST /catalog/topologies/{uuid}:fix**

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to fix

#### Status Codes

- **204 No Content** – The topology is now fixed
- **400 Bad Request** – The topology either doesn't need to or can't be fixed
- **404 Not Found** – The UUID didn't match any topology

### 5.1.14 Clone a topology

**POST /catalog/topologies/{uuid}:clone**

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to clone
- **linkedClone** (*bool*) – Whether this clone should be a linked one (only KVM/QEMU domains will be linked clones). The default value is true.
- **cloneFlag** (*str*) – (Optional) See Entity Clone Flags annex
- **flags** (*str*) – (Optional) See Entity Clone Job Flags annex

#### Request JSON Object

- **newName** (*str*) – The name of the new topology

```
{  
  "newName": "Cloned topology",  
}
```

#### Status Codes

- **200 OK** – The topology clone job started, the clone job ID is returned
- **400 Bad Request** – The topology couldn't be cloned either because it's broken or locked
- **404 Not Found** – The UUID didn't match any clonable topology

#### Response Headers

- **Content-Type** – *application/json*

```
2
```

### 5.1.15 Export a topology

**POST** /catalog/topologies/{uuid}:export

Will fail if the topology is currently loaded.

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to export

#### Status Codes

- **204 No Content** – The export was successfully started
- **404 Not Found** – The UUID doesn't match any topology

#### Request JSON Object

- **archiveName** (*str*) – The name of the resulting export directory

```
{"archiveName": "My export"}
```

### 5.1.16 Remove a topology

**DELETE** /catalog/topologies/{uuid}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to remove
- **keepEntities** (*bool*) – Choice whether to delete topology entities or not. The default is false.

#### Status Codes

- **204 No Content** – The topology was successfully removed
- **404 Not Found** – The UUID doesn't match any topology

### 5.1.17 Get the list of all topology clone's job

**GET** /catalog/topologies/jobs

#### Status Codes

- **200 OK** – The list of all topology clone's job

#### Response Headers

- `Content-Type - application/json`

```
[1, 2]
```

### 5.1.18 Get information about a topology clone job

**GET** /catalog/topologies/jobs/{id}

#### Query Parameters

- `id (int)` – the ID of the clone job

#### Status Codes

- **200 OK** – Some information about the specified clone job
- **404 Not Found** – The ID didn't match any clone job

#### Response Headers

- `Content-Type - application/json`

```
{
  "jobId": 1,
  "progress": 1.0,
  "originalEntry": {
    "description": "",
    "parentId": 0,
    "longName": "",
    "hns_id": 50074,
    "status": 0,
    "tagList": [],
    "shortName": "original",
    "path": "Topologies Catalog:",
    "uuid": "f85071ad-695a-ba04-4bb1-ebc2365e142f"
  },
  "newEntry": {
    "description": "",
    "parentId": 0,
    "longName": "",
    "hns_id": 50074,
    "status": 0,
    "tagList": [],
    "shortName": "cloned",
    "path": "Topologies Catalog:",
    "uuid": "f85071ad-695a-4bb1-ba04-ebc2365e142f"
  },
  "status": "succeeded"
}
```

## 5.2 /catalog/entities

### 5.2.1 Get a list of all entities

**GET** /catalog/entities

#### Status Codes

- 200 OK – The list of entities

#### Response Headers

- Content-Type – *application/json*

```
[
  "2e90c37b-afff-4aa6-abfb-ef9b848e24",
  "40d86858-9aba-40d1-890f-d272c3ad3b2d"
]
```

### 5.2.2 Get some information about an entity

**GET** /catalog/entities/{uuid}

#### Query Parameters

- **uuid** (*str*) – The UUID of the entity

#### Status Codes

- 200 OK – Some information about the entity
- 404 Not Found – The UUID doesn't match any entity

#### Response Headers

- Content-Type – *application/json*

```
{
  "hns_id": 45974,
  "shortName": "Jessie cloned",
  "description": "QEmu",
  "isTemplate": false,
  "extra": {
    "vcpu": 1,
    "type": "kvm",
    "immutable": true,
    "baseUuid": "c6136d21-8bdf-4e4b-9cc9-cf236d2a28c5",
    "diffUuids": [],
    "netcards": [
      {
        "model": "virtio",
        "macAddress": "00:50:84:82:4d:a4",

```

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```
        "source": "eth0",
        "target": "",
        "description": "",
        "id": 0
      }
    ],
    "memory": 1048576,
    "cdroms": [
      {
        "source": "ISOs Catalog:/spice-guest-tools.iso",
        "target": "xvda",
        "connected": true,
        "targetBus": "ide"
      }
    ]
  },
  "hasResources": true,
  "type": "domain",
  "status": 0,
  "tagList": [],
  "lock": "None",
  "uuid": "c741eb4b-d432-41ed-b9e0-d5793225218d",
  "parentId": 27655,
  "path": "Entities Catalog:/formation-initiale",
  "longName": "jessie_srv_tpl_console",
  "customGraphic": "",
  "customGraphicWidth": 128,
  "customGraphicHeight": 128
}
```

### 5.2.3 Get a list of all folders

**GET** /catalog/entities/folders

#### Status Codes

- 200 OK – The list of folders in the entities catalog

#### Response Headers

- Content-Type – *application/json*

```
[
  {
    "hns_id": 27654,
    "parentId": 0,
    "description": "",
    "shortName": "Bases",
    "lastModificationDateTime": 0,
  }
]
```

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```
    "creationDateTime": 0
  },
  {
    "hns_id": 27655,
    "parentId": 27654,
    "description": "",
    "shortName": "QEMU",
    "lastModificationDateTime": 0,
    "creationDateTime": 0
  }
]
```

## 5.2.4 Get some information about a folder

**GET** /catalog/entities/folders/{hns\_id}

### Query Parameters

- **hns\_id** (*int*) – The HNS\_ID of the folder

### Status Codes

- **200 OK** – Information about the folder
- **404 Not Found** – The hns\_id didn't match any existing folder

### Response Headers

- **Content-Type** – *application/json*

```
{
  "hns_id": 27655,
  "parentId": 27654,
  "description": "",
  "shortName": "QEMU",
  "lastModificationDateTime": 0,
  "creationDateTime": 0
}
```

## 5.2.5 Get a list of entity storages

**GET** /catalog/entities/storages

### Status Codes

- **200 OK** – The list of entities storages

### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "name": "Entities Catalog",
    "path": "/data/hynesim/catalog/entities"
  }
]
```

## 5.2.6 Get a list of clone jobs

**GET** /catalog/entities/jobs

### Status Codes

- 200 OK – The list of currently running clone jobs

### Response Headers

- Content-Type – *application/json*

```
[
  1,
  2
]
```

## 5.2.7 Get some information about a clone job

**GET** /catalog/entities/jobs/{id}

### Query Parameters

- id (*int*) – The ID of the clone job

### Status Codes

- 200 OK – Some information about the requested clone job
- 404 Not Found – The ID didn't match any clone job

### Response Headers

- Content-Type – *application/json*

```
{
  "jobId": 1,
  "status": "succeeded",
  "progress": 1.0,
  "originalEntry": {
    "type": "domain",
    "parentId": 0,
    "path": "Entities Catalog",
  }
}
```

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```
"hasResources": true,
"description": "QEmu",
"shortName": "Arch cloned",
"status": 0,
>tagList": [],
"isTemplate": false,
"hns_id": 1,
"extra": {
  "type": "kvm",
  "immutable": false,
  "netcards": [],
  "vcpu": 1,
  "memory": 1048576,
  "baseUuid": "",
  "diffUuids": []
},
"longName": "arch",
"uuid": "74215571-de2c-4f8e-a033-f61beafcda49",
"customGraphic": "",
"customGraphicWidth": 128,
"customGraphicHeight": 128,
},
"newEntry": {
  "type": "domain",
  "parentId": 0,
  "path": "Entities Catalog:",
  "hasResources": true,
  "description": "QEmu",
  "shortName": "Arch cloned",
  "status": 0,
  "tagList": [],
  "isTemplate": false,
  "hns_id": 2,
  "extra": {
    "type": "kvm",
    "immutable": false,
    "netcards": [],
    "vcpu": 1,
    "memory": 1048576,
    "baseUuid": "74215571-de2c-4f8e-a033-f61beafcda49",
    "diffUuids": []
  },
  "longName": "arch",
  "uuid": "bffc674f-f913-46ad-8dc5-d490c7adedf6",
  "customGraphic": "",
  "customGraphicWidth": 128,
  "customGraphicHeight": 128,
}
}
```

## 5.2.8 Change a folder's information

PUT /catalog/entities/folders/{hns\_id}

### Query Parameters

- **hns\_id** (*int*) – The HNS\_ID of the folder to change

### Request JSON Object

- **shortName** (*str*) – The name of the folder
- **description** (*str*) – (Optional) The description of the folder
- **parentId** (*int*) – (Optional) The ID of the parent folder (defaults to 0, the root folder)

### Status Codes

- **204 No Content** – The folder's information were successfully updated
- **400 Bad Request** – The provided information were either not coherent or absent
- **404 Not Found** – The ID doesn't match any folder

```
{
  "shortName": "templates",
  "description": "My bases for clones",
  "parentId": 0
}
```

## 5.2.9 Change an entity's information

PUT /catalog/entities/{uuid}

### Query Parameters

- **uuid** (*str*) – The UUID of the entity to change

### Request JSON Object

- **shortName** (*str*) – The name of the entity
- **longName** (*str*) – The long name of the entity
- **description** (*str*) – The description of the entity
- **tagList** (*[str]*) – The entity's tag's list
- **parentId** (*int*) – The entity's parent folder ID
- **customGraphic** (*str*) – The entity's graphic, "" for the default
- **customGraphicWidth** (*int*) – The entity's graphic width

- **customGraphicHeight** (*int*) – The entity’s graphic height
- **type** (*str*) – The entity type, cannot be changed
- **extra** (*object*) – Extra data depending on entity type:

---

**Note:** For domain entities:

---

### Request JSON Object

- **extra.memory** (*int*) – Memory size (kilobytes)
- **extra.vpcu** (*int*) – Vcpu count
- **extra.immutable** (*bool*) – Enable entity immutability
- **extra.netcards** (*[object]*) – List of network cards
- **extra.netcards [n].id** (*int*) – Netcard ID
- **extra.netcards [n].macAddress** (*str*) – Netcard MAC Address
- **extra.netcards [n].source** (*str*) – Netcard source device
- **extra.netcards [n].target** (*str*) – Netcard target device
- **extra.netcards [n].model** (*str*) – Netcard model
- **extra.netcards [n].description** (*str*) – Netcard description
- **extra.cdroms** (*[object]*) – (Optional) List of CD drives
- **extra.cdroms [n].source** (*str*) – (Optional) The source ISO image, defaults to “” (empty)
- **extra.cdroms [n].target** (*str*) – Target drive device
- **extra.cdroms [n].targetBus** (*str*) – (Optional) Target bus, defaults to “ide”
- **extra.cdroms [n].connected** (*bool*) – Whether the drive is connected

---

**Note:** For switch entities:

---

### Request JSON Object

- **extra.type** (*str*) – (Optional) “kernelBridge” (default) or “openVSwitch”
- **extra.ports** (*int*) – Number of ports

- **extra.isHub** (*bool*) – Hub or Switch
- **extra.stpEnabled** (*bool*) – Enable STP
- **extra.portMirroring** (*int*) – Enable port mirroring on this port (openVSwitch only), or -1 to disable
- **extra.vlans** (*[object]*) – List of vlans
- **extra.vlans[n].id** (*int*) – The ID for this vlan (typically the same as the tag)
- **extra.vlans[n].tag** (*int*) – The tag for this vlan (typically the same as the ID)
- **extra.vlans[n].name** (*str*) – Name of the vlan
- **extra.vlans[n].description** (*str*) – Description of the vlan
- **extra.vlans[n].portsMap** (*[object]*) – Ports in the vlan:
- **extra.vlans[n].portsMap[m].id** (*int*) – ID (number) of the port
- **extra.vlans[n].portsMap[m].tag** (*[object]*) – Whether packets are “tagged” (default) or “untagged” at this port

---

**Note:** For hybridNetcard entities:

---

#### Request JSON Object

- **extra.nodeName** (*str*) – The name of the node
- **extra.pluginIndex** (*str*) – The name of the plug

---

**Note:** For topologyGate entities:

---

#### Request JSON Object

- **extra.networkName** (*str*) – The name of the topologyGate network

---

**Note:** For wire entities:

---

#### Request JSON Object

- **extra.propertyLR** (*object*) – Wire properties in the “Left” to “Right” direction

- **extra.propertyRL** (*object*) – Wire properties in the “Right” to “Left” direction
- **extra.property\*.loss** (*int*) – Packet loss percentage
- **extra.property\*.delay** (*int*) – Delay in ms
- **extra.property\*.dup** (*int*) – Packet duplication percentage
- **extra.property\*.bandwidth** (*int*) – Bandwidth limit (KB/s)
- **extra.property\*.mtu** (*int*) – MTU in bytes

### Status Codes

- **204 No Content** – The entity was successfully updated
- **400 Bad Request** – The provided information were either not coherent, absent or the entity is locked (in a topology)
- **404 Not Found** – The UUID didn’t match any entity

The best way to change an entity’s information is to get the entity, change what needs to be changed, and send back it to this route.

```
{
  "hns_id": 2684,
  "shortName": "ERP",
  "longName": "",
  "description": "QEmu",
  "tagList": [],
  "parentId": 2675,
  "creationDateTime": 1674738960362,
  "lastModificationDateTime": 1680775838460,
  "uuid": "4e0e53d7-4e5e-4cce-814b-05dbe550adfc",
  "path": "Entities Catalog:/import",
  "lock": "Normal",
  "isTemplate": false,
  "hasResources": true,
  "customGraphic": "erp-server.png",
  "customGraphicWidth": 128,
  "customGraphicHeight": 128,
  "status": 0,
  "type": "domain",
  "extra": {
    "type": "kvm",
    "memory": 4194304,
    "vcpu": 2,
    "immutable": true,
    "netcards": [
      {
        "id": 0,
        "macAddress": "52:54:00:a7:b3:a9",
```

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```
        "source": "eth0",
        "target": "",
        "model": "virtio",
        "description": ""
    },
    ],
    "baseUuid": "5be5d802-4149-4940-8f3e-326cd5047736",
    "diffUuids": [],
    "cdroms": []
}
```

### 5.2.10 Create a new folder

POST /catalog/entities/folders

#### Status Codes

- **200 OK** – Returns the ID of the newly created folder
- **400 Bad Request** – The provided information were either not coherent or absent

#### Request JSON Object

- **shortName** (*str*) – The name of the new folder
- **parentId** (*int*) – (Optional) The ID of the parent folder (defaults to 0, the root folder)
- **description** (*str*) – (Optional) The description for the folder

```
{
  "shortName": "My new folder",
  "parentId": 0,
  "description": "My awesome new folder"
}
```

### 5.2.11 Clone an entity

POST /catalog/entities/{uuid}:clone

#### Query Parameters

- **uuid** (*str*) – The UUID of the entity to clone
- **linkedClone** (*bool*) – (Optional) Default is true
- **cloneFlag** (*str*) – (Optional) See Entity Clone Flags annex

#### Request JSON Object



- **newName** (*str*) – (Optional, deprecated) The cloned entity short-Name
- **shortName** (*str*) – (Optional) The cloned entity shortName
- **parentId** (*str*) – (Optional) The cloned entity parent folder ID
- **path** (*str*) – (Optional) The cloned entity storage path ({Catalog};{subpath})

```
{  
  "newName": "My awesome clone",  
}
```

Python example to make a full clone:

#### Status Codes

- 200 OK – The clone job ID
- 404 Not Found – The entity doesn't exist

```
2
```

### 5.2.12 Remove a folder

**DELETE** /catalog/entities/folders/{hns\_id}

#### Query Parameters

- **hns\_id** (*int*) – The HNS\_ID of the folder to remove

#### Status Codes

- 204 No Content – The folder has been removed
- 404 Not Found – The ID didn't match any folder

### 5.2.13 Remove an entity

**DELETE** /catalog/entities/{uuid}

#### Query Parameters

- **uuid** (*str*) – The UUID of the entity to remove

#### Status Codes

- 204 No Content – The entity has been removed
- 400 Bad Request – The entity couldn't be removed
- 404 Not Found – The UUID didn't match any entity

The entity must not be used in a topology (loaded or not).

### 5.2.14 List ISO files

**GET** /isos

#### Status Codes

- 200 OK – The list of ISO files

```
[  
  "ISO catalog:/debian-9.4.0-amd64-netinst.iso",  
  "ISO catalog:/virtio-win-0.1.141.iso"  
]
```

### 5.2.15 List custom resources (aka custom graphics / icons)

**GET** /customResources

#### Status Codes

- 200 OK – The list of custom resources

```
[  
  "osa_awareness.svg",  
  "osa_database.svg"  
]
```

## 6. Topology management routes

### 6.1 /topologies

#### 6.1.1 Get a list of loaded topologies

**GET** /topologies

##### Status Codes

- 200 OK – The list of loaded topologies

##### Response Headers

- Content-Type – *application/json*

```
[
  "ac2145c2-d27f-4712-96b3-e6a9efcf42aa",
  "a654de2e-74d3-4749-b8c3-07fce2c03934"
]
```

#### 6.1.2 Get some information about a loaded topology

**GET** /topologies/{uuid}

##### Query Parameters

- `uuid(str)` – The UUID of the topology

##### Status Codes

- 200 OK – All the information about the loaded topology
- 404 Not Found – The UUID didn't match any loaded topology

##### Response Headers

- Content-Type – *application/json*

```
{
  "shortName": "foo",
  "path": "Topologies Catalog:/import",
  "hns_id": 1,
  "catalog_id": 48834,
  "uuid": "ac2145c2-d27f-4712-96b3-e6a9efcf42aa"
}
```

### 6.1.3 Get the list of entities in a loaded topology

GET /topologies/{uuid}/entities

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The list of entities in the topology
- **404 Not Found** – The UUID didn't match any loaded topology

#### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "status": 1,
    "path": "",
    "remoteDisplayInfo": {
      "port": 0,
      "tls": false,
      "certSubject": "",
      "ca": "",
      "keymap": "",
      "password": "",
      "type": "NoViewer",
      "host": ""
    },
    "nodeName": "",
    "user_id": 1,
    "hns_id": 65,
    "uuid": "f32fd03a-8a89-41e5-98ca-4a390174bf12",
    "shortName": "Diode",
    "status_str": "UNDEFINED",
    "plugins": [
      {
        "id": 0,
        "name": "RX",
        "isPlugged": false
      },
      {
        "id": 1,
        "name": "TX",
        "isPlugged": false
      }
    ]
  }
]
```

## 6.1.4 Get some information about an entity in a loaded topology

GET /topologies/{uuid}/entities/{hns\_id|entity\_uuid}

### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity
- **entity\_uuid** (*str*) – The UUID of the entity

### Status Codes

- 200 OK – All the information about the entity
- 404 Not Found – The ID didn't match any entity in that topology

### Response Headers

- Content-Type – *application/json*

```
{
  "status": 1,
  "path": "",
  "remoteDisplayInfo": {
    "port": 0,
    "tls": false,
    "certSubject": "",
    "ca": "",
    "keymap": "",
    "password": "",
    "type": "NoViewer",
    "host": ""
  },
  "nodeName": "",
  "user_id": 1,
  "hns_id": 65,
  "uuid": "f32fd03a-8a89-41e5-98ca-4a390174bf12",
  "shortName": "Diode",
  "status_str": "UNDEFINED",
  "plugs": [
    {
      "id": 0,
      "name": "RX",
      "isPlugged": false
    },
    {
      "id": 1,
      "name": "TX",
      "isPlugged": false
    }
  ]
}
```

### 6.1.5 Get the entry of an entity in a loaded topology

**GET** /topologies/{uuid}/entities/{hns\_id|entity\_uuid}/entry

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity
- **entity\_uuid** (*str*) – The UUID of the entity

#### Status Codes

- **200 OK** – All the information about the entity
- **404 Not Found** – The ID didn't match any entity in that topology or the topology doesn't exist

#### Response Headers

- **Content-Type** – *application/json*

```
{
  "longName": "domain",
  "type": "domain",
  "extra": {
    "memory": 4194304,
    "type": "kvm",
    "baseUuid": "",
    "diffUuids": [],
    "netcards": [
      {
        "macAddress": "00:05:2c:6f:c0:25",
        "description": "",
        "id": 0,
        "source": "eth0",
        "target": "",
        "model": "e1000"
      }
    ],
    "vcpu": 4,
    "immutable": true
  },
  "parentId": 1759,
  "uuid": "4ad56f93-7778-43e7-9ece-9b3b33f15d9f",
  "hasResources": true,
  "description": "",
  "shortName": "domain",
  "status": 0,
  "tagList": [],
  "hns_id": 1830,
  "isTemplate": false,
  "path": "Entities Catalog:/import",
}
```

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```
"customGraphic": "",  
"customGraphicWidth": 128,  
"customGraphicHeight": 128,  
"lastModificationDateTime": 0,  
"creationDateTime": 0  
}
```

## 6.1.6 Change the information of an entity in a loaded topology

**PUT** /topologies/{uuid}/entities/{hns\_id|entity\_uuid}/entry

### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity to update
- **entity\_uuid** (*str*) – The UUID of the entity

### Status Codes

- **204 No Content** – The entity was successfully updated
- **400 Bad Request** – Either the provided piece of information were not coherent, absent or the entity cannot be updated
- **404 Not Found** – The UUID didn't match any loaded topology or entity

The best way to change an entity's information is to get it first, change what needs to be changed and send it back to this route.

## 6.1.7 Get a list of users connected to a loaded topology

**GET** /topologies/{uuid}/users

### Query Parameters

- **uuid** (*str*) – The UUID of the topology

### Status Codes

- **200 OK** – The list of connected users
- **404 Not Found** – The UUID didn't match any loaded topology

### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "hsetId": 1,
    "name": "admin",
    "firstname": "ad",
    "lastname": "min",
    "isEnabled": true,
    "groupList": [
      {
        "id": 1,
        "name": "admin"
      },
    ],
    "id": 1,
    "modifiedOn": 1545051568346,
    "createdOn": 1311608741,
  }
]
```

### 6.1.8 Get the layout of the topology, its entities and wires

**GET** /topologies/{uuid}/layout

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- 200 OK – The layout of the topology
- 404 Not Found – The UUID didn't match any loaded topology

#### Response Headers

- **Content-Type** – *application/json*

```
{
  "layoutOptions": {
    "width": 1280,
    "height": 1024,
    "colorCode": "#787878",
    "hasBackgroundImage": false
  },
  "entityLayouts": {
    "1": {
      "colorCode": "#000000",
      "x": 64,
      "y": 64
    }
  }
},
```

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```
"wireLayouts": {
  "2": {
    "colorCode": "#FF00FF",
    "x1": 128,
    "y1": 128,
    "x2": 256,
    "y2": 256
  }
}
```

### 6.1.9 Get a list of wires in a loaded topology

**GET** /topologies/{uuid}/wires

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The list of wires in the topology
- **404 Not Found** – The UUID didn't match any loaded topology

#### Response Headers

- **Content-Type** – *application/json*

```
[
  {
    "side1": "65:0",
    "hns_id": 67,
    "side2": "68:0"
  }
]
```

### 6.1.10 Get some information about a wire in a loaded topology

**GET** /topologies/{uuid}/wires/{hns\_id}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the wire

#### Status Codes

- **200 OK** – All the information about the wire

- **404 Not Found** – The ID didn't match any wire in that topology

### Response Headers

- **Content-Type** – *application/json*

```
{
  "side1": "65:0",
  "side2": "68:0"
}
```

## 6.1.11 Get a wire entry in a loaded topology

**GET** /topologies/{uuid}/wires/{hns\_id}/entry

### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the wire

### Status Codes

- **200 OK** – The wire entry
- **404 Not Found** – The ID didn't match any wire in that topology

### Response Headers

- **Content-Type** – *application/json*

```
{
  "customGraphic": "",
  "customGraphicHeight": 128,
  "customGraphicWidth": 128,
  "description": "",
  "extra": {
    "propertyLR": {
      "bandwidth": 0,
      "delay": 0,
      "dup": 0,
      "loss": 0,
      "mtu": 0,
    },
    "propertyRL": {
      "bandwidth": 0,
      "delay": 0,
      "dup": 0,
      "loss": 0,
      "mtu": 0,
    },
  },
  "hasResources": False,
}
```

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```
"hns_id": 0,  
"isTemplate": False,  
"longName": "",  
"parentId": 0,  
"path": "",  
"shortName": "Wire 1",  
"status": 0,  
"tagList": [],  
"type": "wire",  
"uuid": "e66b42a3-5d19-46c0-b117-a2717d856e14",  
}
```

### 6.1.12 Update a wire entry in a loaded topology

**PUT** /topologies/{uuid}/wires/{hns\_id}/entry

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the wire

#### Status Codes

- **204 No Content** – The wire entry was successfully updated
- **400 Bad Request** – Either the provided piece of information were not coherent, absent or the entity cannot be updated
- **404 Not Found** – The ID didn't match any wire in that topology

The best way to change a wire information is to get it first, change what needs to be changed and send it back to this route.

```
{  
  "customGraphic": "",  
  "customGraphicHeight": 128,  
  "customGraphicWidth": 128,  
  "description": "",  
  "extra": {  
    "propertyLR": {  
      "bandwidth": 0,  
      "delay": 0,  
      "dup": 0,  
      "loss": 0,  
      "mtu": 0,  
    },  
    "propertyRL": {  
      "bandwidth": 0,  
      "delay": 0,  
    }  
  }  
}
```

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```
        "dup": 0,  
        "loss": 0,  
        "mtu": 0,  
    },  
},  
"hasResources": False,  
"hns_id": 0,  
"isTemplate": False,  
"longName": "",  
"parentId": 0,  
"path": "",  
"shortName": "Wire 1",  
"status": 0,  
"tagList": [],  
"type": "wire",  
"uuid": "e66b42a3-5d19-46c0-b117-a2717d856e14",  
}
```

### 6.1.13 Create a new topology

POST /topologies

#### Request JSON Object

- **name** (*str*) – (Optional) The name of the new topology. Can also contain the destination catalog with the following syntax, “Catalog name:topology Name”
- **width** (*int*) – (Optional) The default value is 1000
- **height** (*int*) – (Optional) The default value is 1000
- **colorCode** (*str*) – (Optional) In hexadecimal, preceded by a # (example: “#504030”). The default value is “#787878”

```
{  
  "name": "My topology",  
  "width": 500,  
  "height": 500,  
  "colorCode": "#504030"  
}
```

#### Status Codes

- **200 OK** – The newly created topology
- **400 Bad Request** – The provided information were either not coherent or absent

```
{
  "uuid": "f143fd62-9807-420e-81a6-cb23ea85cfe6",
  "entities": [],
  "hns_id": 4,
  "shortName": "My topology",
  "path": "",
  "catalog_id": 48845
}
```

### 6.1.14 Save all topologies

POST /topologies:save

#### Status Codes

- 204 No Content – All loaded topologies were saved
- 400 Bad Request – One ore more topologies couldn't be saved

### 6.1.15 Execute an action on all loaded topologies

POST /topologies:{action}

#### Query Parameters

- **action** (*str*) – The action to perform on all topologies. Can be one of define, start, stop, undefine, pause, saveentity
- **nodeKey** (*str*) – (Optional) The node key the entities will defined on. Only relevant when the action is "define"

#### Status Codes

- 204 No Content – The action was successfully started
- 400 Bad Request – The action was invalid

---

**Note:** The fact that an action has been started doesn't mean it'll succeed. It is the user's responsibility to check for that.

Entities that do not support saving or pausing will be ignored.

---

### 6.1.16 Attempt to ACPI shutdown all loaded topologies

POST /topologies:shutdown

#### Status Codes

- 204 No Content – The shutdown order was successfully sent

---

**Note:** Entities that do not support ACPI shutdown will be stopped.

---

### 6.1.17 Execute an action on a specified loaded topology

POST /topologies/{uuid}:{action}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **action** (*str*) – The action to perform on the topology. Can be one of define, start, stop, undefine, pause, saveentity
- **nodeKey** (*str*) – (Optional) The node key the entities will defined on. Only relevant when the action is “define”

#### Status Codes

- **204 No Content** – The action was successfully started
- **400 Bad Request** – The action was invalid
- **404 Not Found** – The UUID didn’t match any loaded topology

---

**Note:** The fact that an action has been started doesn’t mean it’ll succeed. It is the user’s responsibility to check for that.

Entities that do not support saving or pausing will be ignored.

---

### 6.1.18 Attempts to ACPI shutdown a specified loaded topology

POST /topologies/{uuid}:shutdown

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **204 No Content** – The shutdown order was successfully sent
- **404 Not Found** – The UUID didn’t match any loaded topology

---

**Note:** Entities that do not support ACPI shutdown will be stopped.

---

### 6.1.19 Add an entity in a loaded topology

POST /topologies/{uuid}/entities

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Request JSON Object

- **uuid** (*string*) – The UUID of the entity to add to the topology
- **layoutX** (*int*) – (Optional) The default value is 0
- **layoutY** (*int*) – (Optional) The default value is 0

```
{
  "uuid": "f143fd62-9807-420e-81a6-cb23ea85cfe5",
  "layoutX": 500,
  "layoutY": 200
}
```

#### Status Codes

- **200 OK** – The entity was successfully added to the topology, its `hns_id` is returned
- **400 Bad Request** – The provided information were either not coherent or absent
- **404 Not Found** – The UUID didn't match any loaded topology

1

### 6.1.20 Execute an action on an entity in a loaded topology

POST /topologies/{uuid}/entities/{hns\_id|entity\_uuid}:{action}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity
- **entity\_uuid** (*str*) – The UUID of the entity
- **action** (*str*) – The action to perform on the entity. Can be one of define, start, stop, undefine, pause, saveentity
- **nodeKey** (*str*) – (Optional) The node key the entity will defined on. Only relevant we the action is “define”

#### Status Codes

- **204 No Content** – The action was successfully started

- **400 Bad Request** – The action was invalid
- **404 Not Found** – The ID didn't match any entity in the topology

---

**Note:** The fact that an action has been started doesn't mean it'll succeed. It is the user's responsibility to check for that.

The request will fail if saving or pausing an unsupported entity is attempted.

---

### 6.1.21 Attempt to ACPI shutdown an entity in a loaded topology

**POST** /topologies/{uuid}/entities/{hns\_id|entity\_uuid}:shutdown

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity
- **entity\_uuid** (*str*) – The UUID of the entity

#### Status Codes

- **204 No Content** – The shutdown order was successfully sent
- **404 Not Found** – The ID didn't match any entity in the topology

---

**Note:** If the specified entity does not support ACPI shutdown it will be stopped instead.

---

### 6.1.22 Set the layout of the topology, its entities and wires

**POST** /topologies/{uuid}/layout

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Status Codes

- **200 OK** – The layout of the topology
- **404 Not Found** – The UUID didn't match any loaded topology

#### Request JSON Object

- **layoutOptions** (*object*) – (Optional) The layout of the topology
- **entityLayouts** (*object*) – (Optional) The layouts of the entities



- **wireLayouts** (*object*) – (Optional) The layouts of the wires

```
{
  "layoutOptions": {
    "width": 1280,
    "height": 1024,
    "colorCode": "#787878",
    "hasBackgroundImage": false
  },
  "entityLayouts": {
    "1": {
      "colorCode": "#000000",
      "x": 64,
      "y": 64
    }
  },
  "wireLayouts": {
    "2": {
      "colorCode": "#FF00FF",
      "x1": 128,
      "y1": 128,
      "x2": 256,
      "y2": 256
    }
  }
}
```

### 6.1.23 Add a wire in a loaded topology

POST /topologies/{uuid}/wires

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology

#### Request JSON Object

- **side1** (*str*) – (Optional) Connection to an entity: "hns\_id:plug".  
Default "": unconnected
- **side2** (*str*) – (Optional) Connection to an entity: "hns\_id:plug".  
Default "": unconnected

```
{
  "side1": "22:0",
  "side2": "23:0"
}
```

#### Status Codes

- 200 OK – The wire that was added

- **400 Bad Request** – The provided information were either not coherent or absent
- **404 Not Found** – The UUID didn't match any loaded topology

```
{  
  "side1": "22:0",  
  "side2": "23:0",  
  "hns_id": 71  
}
```

### 6.1.24 Save a loaded topology

**POST** /topologies/{uuid}:save

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to save

#### Request JSON Object

- **name** (*str*) – (Optional) The new shortName of the topology, optionally including its catalog

```
{  
  "name": "Topologies Catalog:my topo"  
}
```

#### Status Codes

- **204 No Content** – The topology was successfully saved
- **404 Not Found** – The UUID didn't match any loaded topology

### 6.1.25 Unload a topology

**POST** /topologies/{uuid}:unload

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology to unload

#### Status Codes

- **204 No Content** – The topology was successfully unloaded
- **404 Not Found** – The UUID didn't match any loaded topology

### 6.1.26 Remove an entity from a loaded topology

**DELETE** /topologies/{uuid}/entities/{hns\_id|entity\_uuid}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the entity to remove from the topology
- **entity\_uuid** (*str*) – The UUID of the entity

#### Status Codes

- **204 No Content** – The entity was successfully removed from the topology
- **404 Not Found** – The ID didn't match any entity in the topology

### 6.1.27 Remove a wire from a loaded topology

**DELETE** /topologies/{uuid}/wires/{hns\_id}

#### Query Parameters

- **uuid** (*str*) – The UUID of the topology
- **hns\_id** (*int*) – The HNS\_ID of the wire to remove from the topology

#### Status Codes

- **204 No Content** – The wire was successfully removed from the topology
- **404 Not Found** – The ID didn't match any entity in the topology

## 7. Capture jobs routes

### 7.1 /captureJob

#### 7.1.1 Get a list of capture jobs for an entity

**GET** /captureJob/topology/{topology\_hns\_id}/entity/{entity\_hns\_id}

##### Query Parameters

- **topology\_hns\_id** (*int*) – The HNS\_ID of the topology
- **entity\_hns\_id** (*int*) – The HNS\_ID of the entity

##### Status Codes

- **200 OK** – The list of capture jobs for that entity
- **404 Not Found** – Either the topology doesn't exist or the entity ID doesn't match any entity in it

```
[
  {
    "endDate": 1549467837869,
    "path": "Topologies Catalog:/f143fd62-9807-420e-81a6-
↪cb23ea85cfe6/pcap/eth0_06-02-2019-16-43-54_9138dc24-3cc3-47b7-
↪9ca9-6160ca8c7fca.cap",
    "interface": "eth0",
    "startDate": 1549467834565
  }
]
```

#### 7.1.2 Download a given capture job for an entity

**GET** /captureJob/topology/{topology\_hns\_id}/entity/{entity\_hns\_id}/{capture\_id}

##### Query Parameters

- **topology\_hns\_id** (*int*) – The HNS\_ID of the topology
- **entity\_hns\_id** (*int*) – The HNS\_ID of the entity
- **capture\_id** (*int*) – The ID of the capture to download

##### Status Codes

- 200 OK – Returns the capture file
- 404 Not Found – Either the topology doesn't exist, the entity ID doesn't match any entity in it or the capture ID is wrong

#### Response Headers

- Content-Type – *application/vnd.tcpdump.pcap*

### 7.1.3 Start a capture job for an interface of an entity

POST /captureJob/topology/{topology\_hns\_id}/entity/{entity\_hns\_id}/start/{interface\_id}

#### Query Parameters

- **topology\_hns\_id**(*int*) – The HNS\_ID of the topology
- **entity\_hns\_id**(*int*) – The HNS\_ID of the entity
- **interface\_id**(*int*) – The ID of the interface to start the capture on. Can be -1 to capture all interfaces.

#### Status Codes

- 200 OK – The capture job info
- 400 Bad Request – An error occurred while starting the capture job. Check that the provided interface ID is correct.
- 404 Not Found – Either the topology doesn't exist or the entity ID doesn't match any entity in it

```
{
  "entityId": 70,
  "jobId": 4,
  "topologyId": 4
}
```

### 7.1.4 Stop a capture job

POST /captureJob/topology/{topology\_hns\_id}/entity/{entity\_hns\_id}/stop/{job\_id}

#### Query Parameters

- **topology\_hns\_id**(*int*) – The HNS\_ID of the topology
- **entity\_hns\_id**(*int*) – The HNS\_ID of the entity
- **job\_id**(*int*) – The ID of the capture job to stop

#### Status Codes

- **204 No Content** – The capture job was successfully stopped. Note that stopping a job that's not running will return 204 too.
- **500 Internal Server Error** – There was an error while stopping the capture job. Check that the provided job ID is correct.

## 8. Import routes

**GET** /import/entities

### Status Codes

- 200 OK – The list of entities you can import

```
[  
  "773cc1b2-d05a-11e7-9f8b-1866da09ac73",  
  "777270d2-d05a-11e7-9272-1866da09ac73"  
]
```

**GET** /import/entities/{path}

### Query Parameters

- **path** (*str*) – The path of the importable entity (from the list of importable entities)

### Status Codes

- 200 OK – The importable information

```
{  
  "path": "0a37890f-5813-4db7-948d-1bf75ce9a350",  
  "size": -1,  
  "filetype": 1,  
  "filetype_str": "PlainFolder",  
  "entry": {  
    "hns_id": 0,  
    "shortName": "Switch 4 ports cloned",  
    "longName": "Switch 4 ports",  
    "description": "A switch with 4 ports",  
    "tagList": [  
      "sdfsdf"  
    ],  
    "parentId": 0,  
    "creationDateTime": 1534257346092,  
    "lastModificationDateTime": 1534257346093,  
    "uuid": "",  
    "path": "",  
    "status": 0,  
    "isTemplate": false,  
    "hasResources": false,  
    "customGraphic": "",  
    "customGraphicWidth": 128,  
  },  
}
```

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```
"customGraphicHeight": 128,
"type": "switch",
"extra": {
  "type": "kernelBridge",
  "ports": 4,
  "isHub": false,
  "stpEnabled": false,
  "portMirroring": -1,
  "vlans": [
    {
      "id": 0,
      "tag": 0,
      "name": "default",
      "description": "",
      "portsMap": [
        {
          "id": 0,
          "tag": "untagged"
        },
        {
          "id": 1,
          "tag": "untagged"
        },
        {
          "id": 2,
          "tag": "untagged"
        },
        {
          "id": 3,
          "tag": "untagged"
        }
      ]
    }
  ]
}
```

**GET /import/topologies****Status Codes**

- 200 OK – The list of topologies you can import

```
[
  "Topology-e9fbccb0-9ba2-4513-a341-8b154de52e66-20220309-
  ↪100140.tar",
  "Topology-e9fbccb0-9ba2-4513-a341-8b154de52e66-20220310-
  ↪095517.tar",
  "Topology-e9fbccb0-9ba2-4513-a341-8b154de52e66-20220309-
  ↪111824.tar"
```

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```
]
```

**POST** /import/entities/{path}**Query Parameters**

- **path** (*str*) – The path of the entity to import (from the list of importable entities)

**Request JSON Object**

- **storage** (*string*) – (Optional) The destination entity storage

```
{"storage": "Entities Catalog"},
```

**Status Codes**

- **200 OK** – The import job ID
- **400 Bad Request** – The provided storage doesn't exist

**POST** /import/topologies/{path}**Query Parameters**

- **path** (*str*) – The path of the topology to import

**Request JSON Object**

- **entityStorage** (*string*) – (Optional) The destination entity storage
- **topologyStorage** (*string*) – (Optional) The destination topology storage
- **newName** (*string*) – (Optional) The new topology's shortName

```
{  
  "entityStorage": "Entities Catalog",  
  "topologyStorage": "Topologies Catalog",  
  "newName": "My imported topology"  
},
```

**Status Codes**

- **200 OK** – The import job ID
- **400 Bad Request** – The provided storage doesn't exist

**GET** /import/jobs/{id}**Query Parameters**

- **hns\_id** (*int*) – The ID of the import job

### Status Codes

- 200 OK – Some information about the requested import job
- 404 Not Found – The ID didn't match any import job

### Response Headers

- Content-Type – *application/json*

```
{
  "jobId": 1,
  "status": "succeeded",
  "progress": 1.0,
  "entityEntries": [],
  "folders": [],
  "topologyEntries": []
}
```

---

**Note:** The `entityEntries`, `folders` and `topologyEntries` fields contains the objects of imported items. These are not expanded in the above example because of their size. These fields can be useful to find newly imported entities and topologies in the catalogs.

---

## 9. Access control low level API

**GET** /aclmanager/rights

### Status Codes

- 200 OK – The nested registered rights structure array

### Response Headers

- Content-Type – *application/json*

```
[
  {
    "id": 22,
    "name": "diamesh.user",
    "parent": {
      "id": 2,
      "name": "diamesh",
      "parent": {
        "id": 1,
        "name": "*",
        "parent": null
      }
    }
  },
  {
    "id": 25,
    "name": "diamesh.user.password",
    "parent": {
      "id": 22,
      "name": "diamesh.user",
      "parent": {
        "id": 2,
        "name": "diamesh",
        "parent": {
          "id": 1,
          "name": "*",
          "parent": null
        }
      }
    }
  }
]
```

**GET** /aclmanager/targettypes

### Status Codes

- **200 OK** – The hash association between registered target types and their target key for ACL use

### Response Headers

- **Content-Type** – *application/json*

```
{
  "::Diamesh::ApiKey": "k",
  "::Diamesh::Group": "g",
  "::Diamesh::User": "u",
  "::Hns::DiodeEntry": "entityEntry",
  "::Hns::DomainEntry": "entityEntry",
  "::Hns::EntityEntry": "entityEntry",
  "::Hns::Folder": "folder",
  "::Hns::HybridNetcardEntry": "entityEntry",
  "::Hns::SwitchEntry": "entityEntry",
  "::Hns::TopoGateDescription": "topogate",
  "::Hns::TopologyEntry": "topologyEntry",
  "::Hns::TopologyGateEntry": "entityEntry",
  "::Hns::WifiAPEntry": "entityEntry",
  "::Hns::WireEntry": "entityEntry"
}
```

## GET /aclmanager/acl

### Query Parameters

- **target** (*string*) – The target we are searching an ACL for. This is typically a user or any kind of entry.
- **subject** (*string*) – The subject we are searching an ACL for. This is typically a user or a group.

```
{
  "target": "folder.591",
  "subject": "u.1",
}
```

### Status Codes

- **200 OK** – The ACL for the tuple (target, subject) if one exists

### Response Headers

- **Content-Type** – *application/json*

```
{
  "target": "folder.591",
  "subject": "u.1",
  "rights": [26, 49],
}
```

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```
"hSetId": 1,  
}
```

**DELETE /aclmanager/acl****Query Parameters**

- **target** (*string*) – The target we are searching an ACL for. This is typically a user or any kind of entry.
- **subject** (*string*) – The subject we are searching an ACL for. This is typically a user or a group.

```
{  
  "target": "folder.591",  
  "subject": "u.1",  
}
```

**Status Codes**

- **204 No Content** – The ACL for the tuple (target, subject) has been deleted
- **404 Not Found** – There is not ACL for the tuple (target, subject)
- **400 Bad Request** – ACL deletion failed

**PUT /aclmanager/acl****Status Codes**

- **204 No Content** – The ACL for the tuple (target, subject) has been updated
- **404 Not Found** – There is not ACL for the tuple (target, subject)
- **400 Bad Request** – ACL update failed

**Request JSON Object**

- **target** (*str*) – The ACL target
- **subject** (*str*) – The ACL subject
- **rights** (*[int]*) – The list of right's ID
- **hSetId** (*int*) – (Optional) The hSetId for the ACL

```
{  
  "target": "*",  
  "subject": "u.1",  
  "rights": [1, 2],  
  "hSetId": 1,  
}
```

**GET /aclmanager/testright****Query Parameters**

- **target** (*string*) – The target we are checking a right for. This is typically a user or any kind of entry.
- **userId** (*int*) – The user ID we are checking a right for
- **rightId** (*int*) – The right ID we are checking a right for

```
{  
  "target": "*",  
  "userId": 1,  
  "rightId": 26  
}
```

**Status Codes**

- **200 OK** – A boolean telling if the user has the requested right on the requested target
- **404 Not Found** – There is no user with the given ID

**Response Headers**

- **Content-Type** – *application/json*

```
true
```

## 10. About some data structures

### 10.1 The different status

#### 10.1.1 Topologies

- *TOPOLOGY\_STATUS\_OK*: 0  
The topology doesn't have any known problem.
- *TOPOLOGY\_CONTAINS\_ENTITY\_WITH\_UUID\_CONFLICT*: 1  
The topology contains an entity whose *UUID* is conflicting with another.
- *TOPOLOGY\_UUID\_CONFLICT*: 2  
The topology's *UUID* isn't unique.
- *TOPOLOGY\_LOADING\_ERROR*: 3  
There was an error while loading the topology.
- *TOPOLOGY\_BUSY\_EXPORTING*: 4  
The topology is currently being exported.
- *TOPOLOGY\_BUSY\_CLONING*: 5  
The topology is currently being cloned.

Every status except *TOPOLOGY\_STATUS\_OK* means that the topology can't be loaded at that instant.

#### 10.1.2 Catalog entities

- *ENTITY\_STATUS\_OK*: 0  
The entity doesn't have any known problem.
- *ENTITY\_STATUS\_UUID\_CONFLICT*: 1  
The entity doesn't have a unique *UUID*.
- *ENTITY\_STATUS\_NOT\_IN\_FILE\_STORAGE*: 2  
The entity isn't physically present on the disk anymore. This can happen if it's been removed manually from the entity catalog.

### 10.1.3 Entities

- *NO\_STATE*: 0
- *UNDEFINED*: 1
- *STOPPED*: 2
- *STARTED*: 3
- *BUSY*: 4
- *PAUSED*: 5
- *SAVED*: 6
- *UNIMPLEMENTED*: 7
- *PM\_SUSPENDED*: 8

## 10.2 Entity Clone Flags

- *FULL\_CLONE*  
Request to perform a full clone of the entity
- *LINKED\_CLONE*  
Request to perform a linked clone of the entity
- *REBASED\_CLONE*  
Request to perform a rebased clone of the entity

## 10.3 Entity Clone Job Flags

- *NO\_FLAG*  
Performs a default clone
- *KEEP\_MAC\_ADDRESSES*  
Keeps the network interface MAC addresses

## 10.4 Entry Lock Types

- *None*  
The entry is not locked



- *Normal*  
The entry is used
- *Clone*  
The entry is being cloned
- *Export*  
The entry is being exported

## 10.5 Entities description

### 10.5.1 Switch

```
{
  "shortName": "Switch infra",
  "remoteDisplayInfo": {
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 5,
  "uuid": "faacc90b-bbb7-46e6-bfe3-b9f9d5158786",
  "path": "Entities Catalog:/import",
  "status": 1,
  "plugins": [
    {
      "id": 0,
      "isPlugged": false,
      "name": "port_0"
    },
    {
      "id": 1,
      "isPlugged": false,
      "name": "port_1"
    },
    {
      "id": 2,
      "isPlugged": false,
      "name": "port_2"
    }
  ]
}
```

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```
        "id": 3,
        "isPlugged": false,
        "name": "port_3"
      }
    ],
    "nodeName": "",
    "user_id": 1,
    "status_str": "UNDEFINED"
  }
}
```

## 10.5.2 Domain

```
{
  "shortName": "Fail2Ban",
  "remoteDisplayInfo": {
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 6,
  "uuid": "c4539dd2-e8a1-4719-9ece-b32677cba8ec",
  "path": "Entities Catalog:/import",
  "status": 1,
  "plugins": [
    {
      "id": 0,
      "isPlugged": false,
      "name": "eth0"
    }
  ],
  "nodeName": "",
  "user_id": 1,
  "status_str": "UNDEFINED"
}
```

## 10.5.3 Topology gate

```
{
  "shortName": "Topology gate 0.0",
  "remoteDisplayInfo": {
```

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```
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 7,
  "uuid": "a84b1917-a965-4a92-87f2-9cf70b406cc2",
  "path": "",
  "status": 1,
  "plugins": [
    {
      "id": 0,
      "isPlugged": false,
      "name": "gate"
    }
  ],
  "nodeName": "",
  "user_id": 1,
  "status_str": "UNDEFINED"
}
```

## 10.5.4 Diode

```
{
  "shortName": "Diode",
  "remoteDisplayInfo": {
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 1,
  "uuid": "a6c32ce9-7e6e-443b-9c58-91d50a9fabef",
  "path": "",
  "status": 1,
  "plugins": [
    {
      "id": 0,
      "isPlugged": false,
```

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```
        "name": "RX"
      },
      {
        "id": 1,
        "isPlugged": false,
        "name": "TX"
      }
    ],
    "nodeName": "",
    "user_id": 1,
    "status_str": "UNDEFINED"
  }
}
```

### 10.5.5 Wifi AP

```
{
  "shortName": "HotSpot",
  "remoteDisplayInfo": {
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 2,
  "uuid": "b363fe78-b655-4c2a-b0b2-e5a30cca0469",
  "path": "",
  "status": 1,
  "plugs": [
    {
      "id": 0,
      "isPlugged": false,
      "name": "wlan"
    }
  ],
  "nodeName": "",
  "user_id": 1,
  "status_str": "UNDEFINED"
}
```

### 10.5.6 Hybrid card

```
{
  "shortName": "Internet",
  "remoteDisplayInfo": {
    "type": "NoViewer",
    "password": "",
    "host": "",
    "keymap": "",
    "certSubject": "",
    "port": 0,
    "tls": false,
    "ca": ""
  },
  "hns_id": 3,
  "uuid": "fc76f533-8a99-4dc0-a06b-d7131a57efc5",
  "path": "",
  "status": 1,
  "plugs": [
    {
      "id": 0,
      "isPlugged": false,
      "name": "hybrid"
    }
  ],
  "nodeName": "",
  "user_id": 1,
  "status_str": "UNDEFINED"
}
```