

Design of RESTful API for NFFG verifier

Conceptual structure of the resources

verifier

The root resource. Includes nffgs

TODO

nffgs

The collection of nffg elements.

TODO

nffg

Includes info about the nffg: name, last update, nodes, links, policies??

TODO

policies

The collection of policies.

TODO

policy

TODO

result

TODO

Mapping of the resources to URLs

TODO

Operations by resource

Methods summary:

```
/
GET, DELETE
    nffgs/
GET, POST
    {nffg_id}/
GET, DELETE
    policies/
GET, POST
    {policy_id}/
GET, DELETE, PUT/PATCH
    result/ GET
    online_result/
POST (because need body request)
    policies/ GET
(flat view. readonly??)
    {policy_id}/ GET
??
    result/ GET
??
```

/ verifier root

This is the root resource, also the entry point. Returns all the informations about NFFGs and policies.

request response

method	type	type	explanation	errors
GET	-	verifier	get the informations (pagination)	
DELETE	-	OK	delete all the informations	

/nffgs

NFFGs collection

method	request type	response type	explanation	errors
GET	-	nffgs	get the collection of NFFGs (pagination)	
POST	nffg_req	nffg	create a new NFFG	4xx wrong request

TODO: the id of nffg (named entities) is the name? PROs: same type in POST request and in response, no duplicated unique attribute, no need to store name mappings to ids. CONs: the name is always a valid URL?

/nffgs/{nffg_id}

A single nffg identified by its id

method	request type	response type	explanation	errors
GET	-	nffg	get the NFFG	404: wrong nffg_id
			delete the	404: wrong

DELETE	-	OK	NFFG	nffg_id
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/nffgs/{nffg_id}/policies

Policies collection for this NFFG

method	request type	response type	explanation	errors
GET	-	policies	get the collection of policies (pagination)	404: wrong nffg_id
POST	policy_req	policy	create a new policy	404: wrong nffg_id, 4xx: wrong request

/nffgs/{nffg_id}/policies/{policy_id}

A policy identified by its id

method	request type	response type	explanation	errors
GET	-	policy	get the policy	404: wrong id
DELETE	-	OK	delete the policy	404: wrong id

/nffgs/{nffg_id}/policies/{policy_id}/result

The result of this policy

request	response
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method	type	type	explanation	errors
GET	-	result	the verification of policy is performed and the result is both stored and returned	404: wrong id

/nffgs/{nffg_id}/online_result

Verification endpoint for client policies, not stored on the service

method	request type	response type	explanation	errors
POST	policy_req	policy/result??	get the result for this policy	404: wrong id, 4xx: wrong request

</policies>

This is a flat view on the policies. But should be readonly: POST requests should also contain the NFFG name/id and another type should be created.

??? TODO: replication of subtree about policies