GET /user

Login a user into the system. The API exploits a basic access authentication method. You can login into the system for testing purposes with the following credentials:

- Username: *ptp-demo*
- Password: *ptp-demo*

GET /sifis/triggerservice

Get all the IoT entities, i.e., devices and online services, saved in the system that expose some triggers, i.e., events that can be monitored. An example of an HTTP response in the JSON format is the following:

```json
[{
  "id": "sifis_time",
  "name": "Temporal Triggers",
  "color": "rgb(84, 89, 95)",
  "webId": 1,
  "image": "time.png",
  "triggers": null,
  "actions": null,
  "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_time"
}]
```

GET /sifis/triggerservice/{service}/triggers

Get all the specific triggers, i.e., events that can be monitored, of a given {service}. An example of an HTTP response in the JSON format is the following:

```json
[{
  "id": "sifis_every_afternoon_trigger",
  "description": "This trigger fires every afternoon",
  "name": "Every Afternoon",
  "service": {
    […]
  },
  "details": [
    […]
  ],
  "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_every_afternoon_trigger"
}]
```

GET /sifis/triggerservice/{service}/triggers/{trigger}/details

Get all the details of a specific {trigger} belonging to a given {service}. An example of an HTTP response in the JSON format is the following:

```json
[{
  "id": "sifis_hour_to_detail",
  "name": "2 - to [hh]",
  "type": "value",
  "value": null,
  "trigger": null,
  "action": null,
  "alternatives": null,
  "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_hour_to_detail"
}]
```

GET /sifis/actionservice

Get all the IoT entities, i.e., devices and online services, saved in the system that expose some actions that can be executed. An example of an HTTP response in the JSON format is the following:

```
[
  {
    "id": "sifis_video",
    "name": "Video Actions",
    "color": "rgb(255, 58, 58)",
    "webId": 2,
    "image": "video.png",
    "triggers": null,
    "actions": null,
    "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_video"
  },
  {
    "id": "sifis_audio",
    "name": "Audio Actions",
    "color": "rgb(15, 173, 247)",
    "webId": 3,
    "image": "audio.png",
    "triggers": null,
    "actions": null,
    "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_audio"
  }
]
```

GET /sifis/actionservice/{service}/actions

Get all the specific actions of a given {service}. An example of an HTTP response in the JSON format is the following:

```
[{
  "id": "sifis_dont_record_video_action",
  "name": "Do not record video",
  "description": "This action prevents video recording",
  "service": {
    [...]
  },
  "details": [
    [...]
  ],
  "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_dont_record_video_action"
}]
```

GET /sifis/actionservice/{service}/actions /{action}/details

Get all the details of a specific {action} belonging to a given {service}. An example of an HTTP response in the JSON format is the following:

```
[
  {
    "id": "sifis_location_detail",
    "name": "Location",
    "type": "location",
    "value": null,
    "trigger": null,
    "action": null,
    "alternatives": [
    {
      "id": null,
      "name": "Living Room",
      "url": "http://elite.polito.it/ontologies/sifis-home.owl/ptp-demo#livingroom"
    },
    {
      "id": null,
      "name": "Bedroom",
      "url": "http://elite.polito.it/ontologies/sifis-home.owl/ptp-demo#bedroom"
    }],
    "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_location_detail"
  }
]
```

GET /sifis/rule

Get all the high-level policies stored in the system. An example of an HTTP response in the JSON format is the following:

```
[{
    "dbId": 44,
    "trigger": {[…]},
    "action": {[…]},
    "parents": null,
    "timestamp": 1644237675570,
}]
```

POST /sifis/rule

Save a new high-level policy in the system. An example of a JSON payload is the following:

```
{
  "trigger": {
    "id": "sifis_every_morning_trigger",
    "description": "This trigger fires every morning",
    "name": "Every Morning",
    "service": {
      [...]
    },
    "details": [
      [...]
    ],
    "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_every_morning_trigger"
  },
  "action": {
    "id": "sifis_record_audio_action",
    "name": "Record audio",
    "description": "This action starts the audio recording",
    "service": {
      [...]
    },
    "details": [
      [...]
    ],
    "url": "http://elite.polito.it/ontologies/sifis-home.owl#sifis_record_audio_action"
  },
  "dbId": null,
  "timestamp": 1666080658017
}
```

DELETE /sifis/rule/{ruleId}

Delete a high-level policy by its {ruleId}.

GET /sifis/translate

Translate the current set of high-level policies stored in the system into a XACML formalism and download the corresponding XACML files.

POST /sifis/check

Check the current set of high-level policies stored in the system against inconsistencies and redundancies. An example of an HTTP response in the JSON format is the following:

```
{
  "rule": {[...]},
  "loops": null,
  "redundantRules": null,
  "inconsistentRules": [
    [...]
  ],
  "executedRules": [
    [...]
```

```
  ],
  "startTrigger": {
    [...]
  }
}
```