NYU IT Changelog API v1

Overview

The NYU IT Changelog API provides a RESTful API to notifications regarding updates to NetIDs. As of this version, notifications are only generated when there is an update to corresponding Directory data. No information about the update is provided in the Changelog record, instead a separate query to the NYU IT Directory API v1 must be made to obtain the latest information about the NetID.

This API is based on the CIFER Registry Extraction API.

Servers

The Changelog API is available on the following servers:

- **Prod**: isapi.home.nyu.edu
- **Test/QA**: qaisapi.home.nyu.edu

⚠️ The service is not yet installed. This service is currently on hold pending decision to move the functionality to WSO2.

Authentication

The Directory API uses Basic Auth over HTTPS for authentication. For access, a Special Purpose NetID and appropriate authorization are required.

Event Serial Numbers

Each event is assigned a unique serial number. These serial numbers are sequential, so later events will always have larger serial numbers than earlier events.

Query for an Event

An event can be retrieved via its serial number using this endpoint:

https://SERVER/v1/events/SERIALNUMBER

replacing **SERIALNUMBER** with the event serial number you wish to query for.

The response will be one of:

- **200 OK**: Record found. Response is a JSON object consisting of attribute/value pairs, with possible attributes defined below.
- **400 Bad Request**: There was an error in your request. The response may contain a JSON object with an error attribute explaining what went wrong. Fix your request before trying again.
- **401 Unauthorized**: The provided username and password are not valid.
- **404 Not Found**: Event serial number does not exist, or is associated with a record that is not public.
- **500 Internal Server Error**: There is a problem with the server. The response may contain a JSON object with an error attribute explaining what went wrong. Try again later, or report the error for further assistance.

**Example**

```
GET https://qaisapi.home.nyu.edu/v1/events/12

200 OK
{
   "serialNumber": "12",
   "sor": "gds",
   "entity": "/v1/people/network:abc123",
   "comment": "Record updated",
   "timestamp": "2015-07-31T16:06:23Z",
   "messageType": "partial",
   "attributes": {
      "roles": [{
         "meta": {
            "id": 518674
         },
         "affiliation": "employee",
         "status": "current",
         "employeeType": "administrator"
      }]
   }
}
```

**Query for Multiple Events**

It is also possible to query for all events since a particular event. With this interface, clients may track the last event serial number they have seen and query for subsequent events. The endpoint is:

https://SERVER/v1/events?since=SERIALNUMBER

replacing SERIALNUMBER with the event serial number after which you wish to query for. That is, the first event returned will be SERIALNUMBER + 1.

The response will be one of:

- **200 OK**: Record(s) found. Response is a JSON object consisting of attribute/value pairs, with possible attributes defined below.
- **400 Bad Request**: There was an error in your request. The response may contain a JSON object with an error attribute explaining what went wrong. Fix your request before trying again.
- **401 Unauthorized**: The provided username and password are not valid.
- **404 Not Found**: Event serial number does not exist, or is associated with a record that is not public.
- **500 Internal Server Error**: There is a problem with the server. The response may contain a JSON object with an error attribute explaining what went wrong. Try again later, or report the error for further assistance.

**Example**
GET https://qaisapi.home.nyu.edu/v1/events?since=10

200 OK
{
  "events": [
    {
      "serialNumber": "11",
      "sor": "gds",
      "entity": "/v1/people/network:def234",
      "comment": "Record updated",
      "timestamp": "2015-07-31T16:03:15Z",
      "messageType": "partial",
      "attributes": {
        "roles": [{
          "meta": {
            "id": 529757
          },
          "affiliation": "employee",
          "status": "current",
          "employeeType": "administrator"
        }]
      }
    },
    {
      "serialNumber": "12",
      "sor": "gds",
      "entity": "/v1/people/network:abc123",
      "comment": "Record updated",
      "timestamp": "2015-07-31T16:03:23Z",
      "messageType": "partial",
      "attributes": {
        "roles": [{
          "meta": {
            "id": 518674
          },
          "affiliation": "employee",
          "status": "current",
          "employeeType": "administrator"
        }]
      }
    }
  ]
}

Register Event

Suitably authorized API clients may register an event to the Changelog. The event will then become available for querying as described above.

The endpoint is:

https://SERVER/v1/events

accessed via POST. The post body consists of the attributes defined below, except serialNumber may not be specified. If timestamp is omitted, now is assumed.
The response will be one of:

- **200 OK**: Event recorded. Response is a JSON object consisting of the serial number.
- **400 Bad Request**: There was an error in your request. The response may contain a JSON object with an error attribute explaining what went wrong. Fix your request before trying again.
- **401 Unauthorized**: The provided username and password are not valid.
- **500 Internal Server Error**: There is a problem with the server. The response may contain a JSON object with an error attribute explaining what went wrong. Try again later, or report the error for further assistance.

### Example

```json
POST https://qaisapi.home.nyu.edu/v1/events
{
    "entity": "/v1/people/network:js1",
    "sor": "guest",
    "comment": "Record updated",
    "timestamp": "2015-07-31T16:10:58Z"
}
```

200 OK
{
    "serialNumber": "13"
}

### Attributes

The following attributes are defined for event records:

- **serialNumber**: The event serial number, a unique, sequential identifier for the event. Events with lower serial numbers occurred before events with higher serial numbers.
- **sor**: The system of record that generated the event. Currently, the following SORs are known:
  - **gds**: The Global Directory Service, which processes directory data from the NYU IT Identity Registry and uses it to publish the NYU Person Directory.
- **entity**: The subject of the event. Typically this is a URL path that can be queried for using the [NYU IT Directory API](https://directory.nyu.edu).
- **comment**: A human readable description of the event.
- **timestamp**: Time the event took place, in ISO 8601 UTC format.
- **messageType**: Indicates whether only the changed attributes are passed ("diff"), only a subset of attributes are passed ("partial"), or the full record is passed ("full").
- **attributes**: The set of attributes as described by messageType. These are the same attributes available via the [NYU IT Directory API](https://directory.nyu.edu) v1.