
Moxie Notifications Documentation

Release 0.1

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April 23, 2014

1.1 Endpoint

1.1.1 Format

Dates are expressed as YYYY-mm-DDTHH:mm:ss (e.g. 2013-11-08T16:00:00)

1.1.2 Methods

Endpoint to create and retrieve notifications

Warning: All the routes below refer to the root of the module. The identifier of the module should be concatenated (e.g. route / should be concatenated with the name of the module, /notifications).

POST /

Create a new notification

Requires authentication

Example request:

```
POST /notifications HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "message": "Bomb threat at X",
}
```

Example response:

```
HTTP/1.1 201 Created
Location: /notifications/774aaaa5-d45b-4687-b7fb-d59aae606eb9
```

```
{
  "ident": "774aaaa5-d45b-4687-b7fb-d59aae606eb9",
}
```

```
"status": "created"
}
```

Json Parameters

- **message** (*string*) – the message of the notification
- **timestamp** (*date*) – (optional) start date of the notification (defaults to current time)
- **expires** (*date*) – (optional) end date of the notification (defaults to one hour after current time)
- **url** (*string*) – (optional) url describing the notification
- **label** (*string*) – (optional) label describing the notification

Status Codes

- **201** – 201 Created: notification created
- **400** – 400 Bad Request
- **401** – 401 Unauthorized

POST /push

Request a notification to be pushed to registered devices

Requires authentication

Example request:

```
POST /push HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "notification": "{uuid}",
  "message": "Bomb threat at X, avoid the area"
}
```

Example response:

```
HTTP/1.1 202 Accepted
```

Json Parameters

- **notification** (*string*) – unique identifier of the notification
- **message** (*string*) – message of the push notification

Status Codes

- **202** – 202 Accepted: push request queued
- **400** – 400 Bad Request
- **401** – 401 Unauthorized

POST / (string: *uuid*)

Update a notification

Requires authentication

Example request:

```
POST /notifications/X HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "message": "Bomb threat at X, avoid the area!",
}
```

Example response:

```
HTTP/1.1 200 OK
Location: /notifications/{uuid}
```

Parameters

- **uuid** (*string*) – unique identifier of the notification

Json Parameters

- **message** (*string*) – the message of the notification
- **timestamp** (*date*) – (optional) start date of the notification
- **expires** (*date*) – (optional) end date of the notification
- **url** (*string*) – (optional) url describing the notification
- **label** (*string*) – (optional) label describing the notification

Status Codes

- **200** – 200 OK: update applied correctly
- **400** – 400 Bad Request
- **401** – 401 Unauthorized
- **404** – 404 Not Found: notification not found

POST / (string: *uuid*) /**followup**

Add a follow up to an existing notification

Requires authentication

Example request:

```
POST /notifications/X/followup HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{  
  "message": "security services have arrived on scene",  
}
```

Example response:

```
HTTP/1.1 201 Created  
Location: /notifications/X/followup/1
```

Parameters

- **uuid** (*string*) – unique identifier of the notification

Json Parameters

- **message** (*string*) – the message of the follow up
- **timestamp** (*date*) – (optional) date of the follow up

Status Codes

- **201** – 201 Created: followup created
- **400** – 400 Bad Request
- **401** – 401 Unauthorized
- **404** – 404 Not Found: notification not found

POST / (string: *uuid*) /**followup**/
string: *id* Update a follow up

Requires authentication

Example request:

```
POST /notifications/X/followup/1 HTTP/1.1  
Host: api.m.ox.ac.uk  
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1  
X-HMAC-Nonce: 12642  
Date: Fri, 10 Jan 2014 11:49:55 GMT  
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f  
Content-Type: application/json
```

```
{  
  "message": "Fire department working",  
}
```

Example response:

```
HTTP/1.1 200 OK  
Location: /notifications/{uuid}/followup/1
```

Parameters

- **uuid** (*string*) – unique identifier of the notification
- **id** (*string*) – identifier of the followup

Json Parameters

- **message** (*string*) – the message of the follow up

- **timestamp** (*date*) – (optional) date of the follow up

Status Codes

- **200** – 200 OK: update applied correctly
- **400** – 400 Bad Request
- **401** – 401 Unauthorized
- **404** – 404 Not Found: notification not found or followup not found

DELETE / (string: *uuid*)

Delete a notification

Requires authentication

Example request:

```
DELETE /notifications/X HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
```

Example response:

```
HTTP/1.1 200 OK
```

Parameters

- **uuid** (*string*) – unique identifier of the notification

Status Codes

- **200** – 200 OK: notification deleted
- **401** – 401 Unauthorized
- **404** – 404 Not Found: notification not found

DELETE / (string: *uuid*) /followup/

string: *id* Delete a follow up

Requires authentication

Example request:

```
DELETE /notifications/X/followup/1 HTTP/1.1
Host: api.m.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
```

Example response:

```
HTTP/1.1 200 OK
```

Parameters

- **uuid** (*string*) – unique identifier of the notification

- **id** (*string*) – identifier of the follow up

Status Codes

- **200** – 200 OK: follow up deleted
- **401** – 401 Unauthorized
- **404** – 404 Not Found: notification not found or follow up not found

GET /

Get ongoing notifications

Example request:

```
GET /notifications HTTP/1.1
Host: api.m.ox.ac.uk
Accept: application/json
```

Example response:

```
HTTP/1.1 200 OK
Content-Type: application/json
```

```
{
  "notifications": [
    {
      "uuid": "X",
      "timestamp": "2013-02-08T12:30",
      "message": "Bomb threat at X",
      "expires": "2013-02-08:16:00",
      "followups": [
        {
          "timestamp": "2013-02-08T13:30",
          "id": 1,
          "message": "bla bla"
        },
        ...
      ]
    }
  ]
}
```

Query Parameters

- **history** – boolean value (“true”, “True”, “1”, “t”) to display all notifications (defaults to false)

Status Codes

- **200** – 200 OK

GET / (string: *uuid*)

Get a notification

Example request:

```
GET /notifications/X HTTP/1.1
Host: api.m.ox.ac.uk
Accept: application/json
```

Example response:

```

HTTP/1.1 200 OK
Content-Type: application/json

{
  "uuid": "X",
  "timestamp": "2013-02-08T12:30",
  "message": "Bomb threat at X",
  "expires": "2013-02-08:16:00",
  "followups": [
    {
      "timestamp": "2013-02-08T13:30",
      "id": 1,
      "message": "bla bla"
    },
    ...
  ]
}

```

Status Codes

- **200** – 200 OK
- **404** – 404 Not Found: notification not found

1.2 Typical scenario when using the API to create a notification

1.2.1 Create a new notification

POST /notifications**Request:**

```

POST /notifications HTTP/1.1
Host: api.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json

```

```

{
  "message": "Bomb threat at X",
  "expires": "2013-11-08T16:00:00",
}

```

Response:

```

HTTP/1.1 201 Created
Location: /notifications/16d4a94fc58111a323437ec363d71f5a

```

1.2.2 (Optionally) push the notification to registered devices

POST /push**Request:**

```
POST /push HTTP/1.1
Host: api.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "notification": "16d4a94fc58111a323437ec363d71f5a",
  "message": "Bomb threat at X, avoid the area"
}
```

Response:

```
HTTP/1.1 202 Accepted
```

1.2.3 Add a follow up

POST /notifications/16d4a94fc58111a323437ec363d71f5a/followup

Request:

```
POST /notifications/16d4a94fc58111a323437ec363d71f5a/followup HTTP/1.1
Host: api.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "message": "security services have arrived on scene",
}
```

Example response:

```
HTTP/1.1 201 Created
Location: /notifications/16d4a94fc58111a323437ec363d71f5a/followup/1
```

1.2.4 Update the notification to be displayed until the end of the day

POST /notifications/16d4a94fc58111a323437ec363d71f5a

Request:

```
POST /notifications/16d4a94fc58111a323437ec363d71f5a HTTP/1.1
Host: api.ox.ac.uk
X-Moxie-Key: d51459b5-d634-48f7-a77c-d87c77af37f1
X-HMAC-Nonce: 12642
Date: Fri, 10 Jan 2014 11:49:55 GMT
Authorization: ccd61eddf0c6be849b13e524c171e4c14a0d571f
Content-Type: application/json
```

```
{
  "expires": "2013-02-08T18:00:00"
}
```

Response:

HTTP/1.1 200 OK

Location: /notifications/16d4a94fc58111a323437ec363d71f5a

2.1 Configuration

2.1.1 Database

You do need to have a database configured, the key `SQLALCHEMY_DATABASE_URI` in the `flask` section should be documented.

See [SQLAlchemy documentation](#) for more information on engines.

```
flask:  
  SQLALCHEMY_DATABASE_URI: 'sqlite:///tmp/test.db'
```

2.1.2 NotificationsService

`NotificationsService` is configured with the API key's and shared secrets of users configured to use the notifications.

users Mapping of API keys (chosen however you want) to shared secrets (used by the client to create HMAC requests).

moxie_notifications.providers.gcm.GCMProvider:

api_key API Key obtained from Google.

url (optional) URL to GCM Server.

moxie_notifications.providers.apns.APNSProvider:

address Address to APNS server.

cert_file Path to the certificate file (PEM format) registered with APNS.

key_file (optional) Path to key in PEM format from file.

passphrase (optional) Passphrase for private key file.

`moxie_notifications.providers.mail.EmailNotificationsProvider`

This is mainly used for development purpose.

smtp_server Address of the SMTP server

sender_email Email address of the sender

send_to List of email addresses where notifications should be send to

2.1.3 Example Configuration

```
notifications:
  NotificationsService:
    users:
      myuserapikey: 'usersharedsecret'
      anotherapikey: 'secondsharedsecret'
    providers:
      moxie_notifications.providers.gcm.GCMProvider:
        api_key: 'APIKEY'
      moxie_notifications.providers.apns.APNSProvider:
        address: 'push_sandbox'
        cert_file: '/srv/moxie/foo.pem'
      moxie_notifications.providers.mail.EmailNotificationsProvider:
        smtp_server: 'smtp.com'
        sender_email: 'noreply@msmsms.com'
        send_to: ['user@msmsms.com']

  KVService:
    backend_uri: 'redis://localhost:6379/4'
```

2.2 Models

A notification is the top-level object which MAY contain a number of followup.

2.2.1 Notification

Properties:

- **message**: main content of the notification
- **timestamp**: date when the notification has been created
- **expires**: notification valid until given date
- **url**: (optional) url to attach to the notification
- **label**: qualifier of the notification (e.g. “flood”, “security”)

Relations:

- list of followup

2.2.2 Follow up

Properties:

- `message`: message of the follow up
- `timestamp`: date of the follow up

Relations:

- `notification`: parent notification of the follow up

2.2.3 Push notification

Properties:

- `message`: message of the push notification (restricted to X characters)

Relations:

- `notification`: related notification for this push notification

Indices and tables

- *genindex*
- *modindex*
- *search*

/

GET /, ??
POST /, ??

/(string:uuid)

GET /(string:uuid), ??
POST /(string:uuid), ??
DELETE /(string:uuid), ??
POST /(string:uuid)/followup, ??
POST /(string:uuid)/followup/(string:id),
??
DELETE /(string:uuid)/followup/(string:id),
??

/notifications

POST /notifications, ??
POST /notifications/16d4a94fc58111a323437ec363d71f5a,
??
POST /notifications/16d4a94fc58111a323437ec363d71f5a/followup,
??

/push

POST /push, ??