Userfeeds Documentation

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Grzegorz Kapkowski

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Contents

CHAPTER 1

Introduction to the Userfeeds Platform

Userfeeds is envisioned as an infrastructure platform which allows developers to utilize easily data sets of content rankings for their own use and build similar ones whenever needed.

The Userfeeds Platform can provide sets of data of ranked (filtered) information which can be used for reports and rankings and a request for the delivery of the information is exectuted through the *HTTP* of any *API* which allows to send a request and invoke particular algorithms for getting particular types of information and the result is obtaining data from and about transactions (calls).

The *Claim* is a basic data entity in the Userfeeds Platform and usually a part of each request. It may represent an "endorsement", a "like", an "upvote" for a given URL / Text / Identifier which is signed cryptographically. You can *sign* a *Claim* with the ECDSA and send it through the HTTP or make an Ethereum transaction with data of *Claim* which then will be treated as signed. The *transaction* can be seen as a way of transportation for a *claim*.

Rankings for transactions (calls) can be obtained through the utilization of algorithms which are actually pre-defined queries designed for searching through data aggregated from Ethereum blockchains. Those queries can also be seen as a set of tools supporting the interface. Examples of content rankings are: a list of products on amazon.com, songs in a playlist on spotify, news on NYTimes, and all other places which have some content (links, articles, songs) sorted in a particular way which you can access.

As a matter of fact it is possible to see in data reports how scores have been made, who and in what way has influenced the score, information on users who have made the score in a selected view.

The platform is also capable of tracking financial information regarding particular users and their transactions.

In order to make full use of the *API* and all algorithms, it is essential that you have a wallet (an address) for Ethereum.

Currently Ethereum (and Bitcoin in the future) is supported on the platform.

For easy set-up of both the wallet, we recommend using the MetaMask service available at https://metamask.io/.

In order to become familiar technically with the Userfeeds Platform and be able to use it efficiently, go to *Quick Start - Guide for Developers* and *API Reference* to see how to use our APIs and how to use the Ethereum blockchain for pushing information into the Userfeeds Platform.

Using the Userfeeds Platform can be shortly described as:

Making a transaction from an exemplary interface > Getting the requested data through the API > Transaction is returned with wanted data

In short it goes into three easy steps:

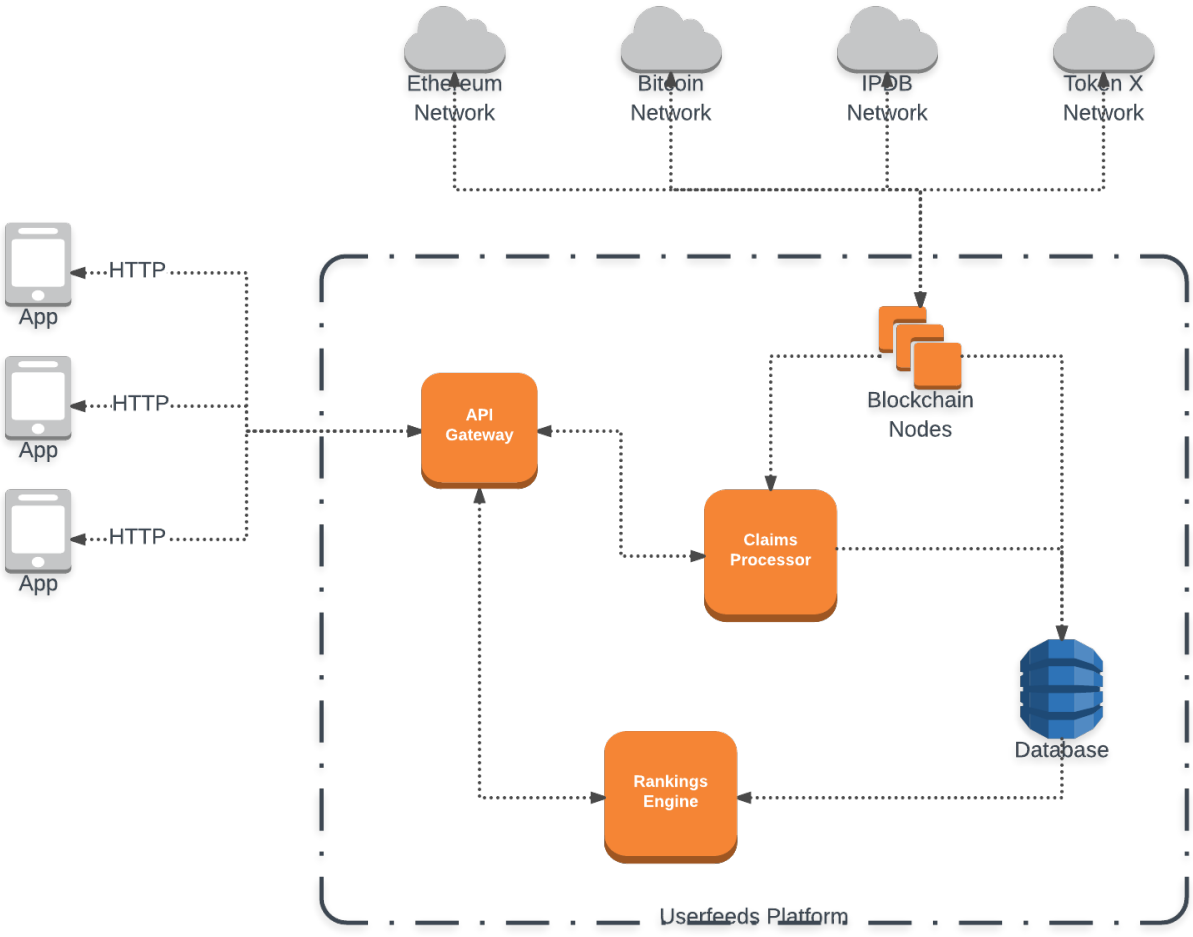
Send > Wait > Get

The basic process of obtaining information with use of the Userfeeds Platform can be compared to a simple query for serach results on Google.

Our mission - as owners of the Userfeeds Platform - is to help developers in obtaining information (data sets) and scores (reports on aggregated transaction data per a selected view) as well as monetizing their interfaces on web sites by providing them with 'ready-to-use' API's, libraries and algorithms which they can incorporate in an easy way into their software and web pages.

1.1 How does the Userfeeds Platform work?

The Userfeeds Platform is composed of a couple of parts which interact together in order to deliver rankings through *HTTP API's* to your application.



It is important to remember that any transaction is a *claim*. Such *Claim* is a basic information package signed cryptographically (with use of unique key) and connected with an address - in the json format - key - claim / key - target.

The *claim* can also be understood as metadata for any transaction.

Claims created with help of our algorithms land on the Ethereum blockchain from where they are collected and read. *Claims* can have extensions which make them a particular type.

In order to learn more about claims, go to claims

First it is the Userfeeds Platform which reads all the information from supported blockchains with help of various processes (applications and scripts) and stores it in an internal database. We store all transactions and contract calls in the Graph database and current balances in the standard SQL database.

When someone sends *Claim* data to the Userfeeds Platform through the HTTP or through the Ethereum network, it is processed and inserted into the Graph database for further use in ranking and other algorithms.

When an application makes a HTTP request to our Ranking API endpoint, a Ranking Engine takes the requested algorithm and applies it to the current data stored in the Graph database and the SQL database and returns sorted entries for application to display to the user.

1.2 Why use the Userfeeds Platform?

- Delivery of data sets of filtered infomation which is normally not possible for blockchains
- Delivery of business models for monetizing of the interface - there are different monetizing models available and tools for that can simply be described as “plug and play” for monetization
- Delivery of simple technologies which enable getting all information from blockchains

By being the user of the Userfeeds Platform you can also benefit from the offering of our partners:

> Cryptopurr.co (exemplary interfaces)

> Stateofthedapps.com (catalogue of projects built on Ethereum)

> Stroi.digitalartchain.com (the first fork of cyrptocurr)

CHAPTER 2

Quick Start - Guide for Developers

2.1 How to get all links connected with Ethereum

The code snippets presented below the Demo window return a list of news or messages shared to an Ethereum context and sorted according to our *simple* algorithms.

The obtained information and rankings shown in the Demo window below are a result of applying the algorithms presented per programming language in sections beneath the Demo.

The algorithm used for getting scores in the Demo is available here

Demo:

In order to get the same type of information as presented in the Demo, copy the URL provided below into your application or browser.

2.1.1 cURL

```
$ curl 'https://api.userfeeds.io/ranking/links;asset=ethereum'
```

2.1.2 In JavaScript (browser)

```
<!DOCTYPE html>
<html>
<head>
  <title>Simple ranking for Ethereum:</title>
</head>
<body>
  <script>
    fetch('https://api.userfeeds.io/ranking/links;asset=ethereum')
    .then(function(response) {
      return response.json();
```

```
    })
    .then(function(ranking) {
      var div = document.getElementById('ranking');

      for (var i = 0; i < ranking.items.length; i++) {
        var item = ranking.items[i];
        div.innerHTML += i.toString() + '.<a href="' + item.target + '">' + item.
↪target + '</a><br/>';
        div.innerHTML += 'Score: ' + item.score + '<br/><br/>';
      }
    });
  </script>
  <h1>Simple ranking for Ethereum</h1>
  <div id="ranking"></div>
</body>
</html>
```

2.1.3 In JavaScript (node.js)

```
const https = require('https');

const options = {
  hostname: 'api.userfeeds.io',
  port: 443,
  path: '/ranking/links;asset=ethereum',
  method: 'GET'
};

console.log('Simple ranking for Ethereum:\n')

const req = https.request(options, (res) => {
  let data = "";

  res.setEncoding('utf8');
  res.on('data', (chunk) => {
    data += chunk;
  });
  res.on('end', () => {
    let ranking = JSON.parse(data);
    for (let index in ranking.items) {
      console.log(`${index}. ${ranking.items[index].target}`);
      console.log(`Score: ${ranking.items[index].score}\n`);
    }
  });
});

req.on('error', (e) => {
  console.error(e);
});

req.end();


// Simple ranking for Ethereum:
//
// 0. http://example.com/one
```

```
// Score: 123.1234324
//
// 1. http://example.com/two
// Score: 32.234542343
```

2.1.4 In python

```
import requests

RANKING_URL = "https://api.userfeeds.io/ranking/links;asset=ethereum"

response = requests.get(RANKING_URL).json()

print("Simple ranking for Ethereum:\n")

for index, item in enumerate(response['items']):
    print("{0}. {1}".format(index, item["target"]))
    print("Score: {0}".format(item['score']))
    print()


# Simple ranking for Ethereum:
#
# 0. http://example.com/one
# Score: 123.1234324
#
# 1. http://example.com/two
# Score: 32.234542343
```

2.2 How to get all feeds existing on ERC721 token (such as CryptoKitty Captain Barbosa)

Note: It is important to remember that the ERC721 is recognized as one of standards for tokens.

The feed is the message (call) you send and any message (call) sent to you and about you.

The algorithm used for getting information presented in the Demo is available here

Demo:

In order to get all feeds existing on the ERC721 token, copy the URL provided below into your application or browser.

2.2.1 cURL

```
$ curl 'https://api.userfeeds.io/ranking/feed;
↪context=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:134330'
{"items":[{"about":null,"abouted":[],"author":
↪"0x6be450972b30891b16c8588dcbc10c8c2aef04da","context":"ethereum:0x0...
```

2.2.2 In JavaScript (browser)

```
<!DOCTYPE html>
<html>
<head>
  <title>Simple ranking for Ethereum:</title>
</head>
<body>
  <script>
    fetch('https://api.userfeeds.io/ranking/cryptopurr_feed;
↪context=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:134330')
    .then(function(response) {
      return response.json();
    })
    .then(function(ranking) {
      var div = document.getElementById('ranking');

      for (var i = 0; i < ranking.items.length; i++) {
        var item = ranking.items[i];
        div.innerHTML += i.toString() + '. ' + item.target.id + '<br/>';
      }
    });
  </script>
  <h1>Simple ranking for Ethereum</h1>
  <div id="ranking"></div>
</body>
</html>
```

2.2.3 In JavaScript (node.js)

```
const https = require('https');

const options = {
  hostname: 'api.userfeeds.io',
  port: 443,
  path: '/ranking/cryptopurr_feed;
↪context=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:134330',
  method: 'GET'
};

console.log('Simple ranking for Ethereum:\n')

const req = https.request(options, (res) => {
  let data = "";

  res.setEncoding('utf8');
  res.on('data', (chunk) => {
    data += chunk;
  });
  res.on('end', () => {
    let ranking = JSON.parse(data);
    for (let index in ranking.items) {
      console.log(`${index}. ${ranking.items[index].target.id}`);
    }
  });
});
```

```
req.on('error', (e) => {
  console.error(e);
});

req.end();


// Simple ranking for Ethereum:
//
// 0. http://example.com/one
// Score: 123.1234324
//
// 1. http://example.com/two
// Score: 32.234542343
```

2.2.4 In python

```
import requests

RANKING_URL = "https://api.userfeeds.io/ranking/cryptopurr_feed;
↪context=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:134330"

response = requests.get(RANKING_URL).json()

print("Simple ranking for Ethereum:\n")

for index, item in enumerate(response['items']):
    print("{0}. {1}".format(index, item["target"]["id"]))
    print()
```

2.3 How to get all bots (ERC721 tokens) owned by given address

Note: It is important to remember that the ERC721 is recognized as one of standards for tokens.

In order to get all CryptoBots owned by a given address, copy the URL provided below into your application or browser.

2.3.1 cURL

```
$ curl 'https://api.userfeeds.io/ranking/tokens;
↪identity=0x6be450972b30891b16c8588dcbc10c8c2aef04da;
↪asset=ethereum:0xf7a6e15dfd5cdd9ef12711bd757a9b6021abf643'
{"items":[{"sequence":5289388,"token":"4085"}]}
```

CHAPTER 3

Data Model - Claims

Claims are the smallest self-contained pieces of information - an arbitrary information package - inside the Userfeeds Platform. They are also the only way of introducing any information to databases which is sent via the so-called transports and then interpreted by algorithms in order to return the requested information to interfaces. All claims are signed cryptographically or have a reference to their cryptographic origin which can be a transaction (call) on the blockchain, for example.

3.1 Structure

The typical structure of a *claim* is presented in the Overview below:

3.1.1 Overview

The *Claim* may look as follows:

```
{
  "context": "CONTEXT",
  "type": ["TYPEA", "TYPEB", "..."],
  "claim": {
    "target": "TARGET",
    "additional": "fields",
    "go": ["here", "..."]
  },
  "credits": [
    {
      "type": "interface",
      "value": "INTERFACE IDENTIFIER"
    }
  ],
  "signature": {
    "type": "TYPE",
    "creator": "CREATOR",
```

```
    "signatureValue": "SIGNATURE"
  }
}
```

The format of *claims* is rather isolated from structure of data in a block-chain - and this is why it is in the json format

We cannot say that there are types of *claims* as they accompany transactions in general and it is the transaction which is the main part. And it is the contract on a given block-chain which defines in which way the claim will be read and treated. Basing on that we can that:

- There are *Claims* with a value for a defined account - usually used for getting to a higher position in a ranking – the value is the score – and it is the algorithm which decides if the structure of such *claim* is proper (it is transation with use of token)
- There are *Claims* serving solely for connecting sensual / graphic / text data with some transaction data
- There are *Claims* serving for limiting the number of users who can apply for transactions by defining parameters for such transactions and users

It is important to remember that claims are an optional part of transactions and in that way they are treated by algorithms.

Claims which do not bear or transfer a value (from the main Ethereum net) can be used on any block-chain as no token for the identification is needed. Therefore a normal *claim* without a value should be rather used outside of the Ethereum main net.

3.1.2 `Context`

Note: Populating this field is optional.

The **Context** field is used to denote a *destination* of a given claim. It can be interpreted as a name of any topic or thing about which people might want to share information. Usually it will have something to do with a blockchain space (but it doesn't have to). For example if you would like to share some information to all people interested in *Ethereum* blockchain you will send a claim with `ethereum` as the context.

Other examples of contexts may be:

- ethereum
- ethereumclassic
- bitcoin
- ethereum:0x4564567890abcdef....abc
- ethereumclassic:0x4564567890abcdef....abc
- myspecialcontext
- companyx
- companyx:departmenty

`ethereum:0x123....456` context identifiers are interpreted as *object 0x123....456 on ethereum* and usually will be used to share information about contracts / addresses on a given blockchain.

Special contexts such as starting with *userfeeds:* are *technical* and have a special meaning in the Userfeeds Platform, eg. *userfeeds:pairing* will create a special *PAIRED* relationship allowing one to connect their crypto-currency holdings with an additional public key which will only be used to sign claims.

3.1.3 Type

Note: Populating this field is optional.

The Type describes an additional data present in a *claim* object.

An example can be the *labels* type. The object of *claim* of that type needs to have a *labels* key with an array of values.

The description of all supported types can be found at *Types*

3.1.4 Claim

This key is used to store user provided information and it is mandatory for all claims. `claim` object will always have a `target` key and additional fields depending on the `type` array.

Target

The `Target` value identifies a target object which the user wants to share or tag with additional information.

Examples of proper `target` values are:

- http://some.url/path/
- text:base64:base64encodedtext
- ipfs:somehash
- ipdb:somehash
- claim:claimsignaturehash
- mediachain:somehash
- isbn:0451450523
- isan:0000-0000-9E59-0000-O-0000-0000-2
- btih:c12fe1c06bba254a9dc9f519b335aa7c1367a88a
- ethereum:0x4564567890abcdef...abc
- bitcoin:0x4afebcdef...123

Additional fields

That depends on the `type` array additional keys which might be present in `claim` object. See the *Types* for supported types.

3.1.5 Signature

This field is generated in order to denote the ownership of claim and the content can be a cryptographic signature or a pointer to the cryptographically secured origin of claim.

Type

Describes what type of signature we are dealing with. It could be `ecdsa.secp256r1` for the elliptic curve signature or `ethereum.transaction` for the claim origination from the Ethereum blockchain.

Supported Signature Types

`ecdsa.prime192v1` In python: ecdsa.NIST192p

`ecdsa.secp256r1` / `ecdsa.prime256v1` In python: ecdsa.NIST256p

`ecdsa.secp224r1` In python: ecdsa.NIST224p

`ecdsa.secp384r1` In python: ecdsa.NIST384p

`ecdsa.secp521r1` In python: ecdsa.NIST521p

`ecdsa.secp256k1` In python: ecdsa.SECP256k1

`ethereum.transaction`

> Claims posted on ethereum blockchain will be verified by comparing the blockchain content with the claim content.

Creator

This identifies a public key or an address which signed the claim.

Format: identifier

- hex:04861127b14bf0036e...ef7127b114988057
- rinkeby:0x1234567890abcdef...1456
- ethereum:0x1235...145
- bitcoin:0x123456...1234

Signature Value

This key holds a raw signature value as produced by the signing algorithm or it can be a transaction hash or any valid identifier of some externally verifiable origin of claim.

3.2 Types

3.2.1 Basic

Basic claim:

```
{
  "claim": {
    "target": "http://some.url/path/"
  },
  "context": "ethereum:0x4564567890abcdef....abc",
  "signature": {
    "creator":
↪"94d1aa6655d931294d524cf52b0df866976f89774bac38a730cf20e2d51dd24d34efc2bbb4d5bba91a7a6582511491dde1
↪",
```

```
    "signatureValue":
↪"304402203dac2176721d7e05cd8c580a27a504b64b0a8ee171b18a07630201cbed979ac7022013faf8735f90b957ca4656
↪",
    "type": "ecdsa.prime256v1"
  }
}
```

With the acknowledgment of the interface from which the claim was created:

```
{
  "claim": {
    "target": "http://some.url/path/"
  },
  "context": "ethereum:0x4564567890abcdef....abc",
  "credits": [
    {
      "type": "interface",
      "value": "http://blog.example.com/path/"
    }
  ],
  "signature": {
    "creator":
↪"0df1d4915347bcae90a0696c9efd6300e33b610d31130c3049d329fa61af138de7a7ee55f99057fd8d39c4664be9f1c343
↪",
    "signatureValue":
↪"304502206c243684007c9e412612b5d1a371b20eb146652e4b149bb1fc0e6da437e7f728022100b8c77983949feac478de
↪",
    "type": "ecdsa.prime256v1"
  }
}
```

3.2.2 Link

Additional keys:

- `title` **string**
- `summary` **string**

```
{
  "claim": {
    "summary": "summary",
    "target": "http://some.url/path/",
    "title": "title"
  },
  "context": "rinkeby:0xfe5da6ae3f65e7d5ce29121a9f5872ffd83b45e6",
  "credits": [
    {
      "type": "interface",
      "value": "http://blog.example.com/path/"
    }
  ],
  "signature": {
    "creator":
↪"ffc8c2f39e8a302bf9ca37b06fa9014f0cd3c85900c3d8b771f31a91ce33c050948faedad14d73a4f6c41f5937c3a010b5
↪",
    "signatureValue":
↪"304602210093c55c30be1868de005def995aefb391d7ff20f235457b37a01e6921427701f80221008e5fc2afc2c912466
↪",
```

```
    "type": "ecdsa.prime256v1"
  },
  "type": [
    "link"
  ]
}
```

3.2.3 Labels

Additional keys:

- `labels` **array** of **string**

```
{
  "claim": {
    "labels": [
      "Good",
      "Book",
      "Cats"
    ],
    "target": "http://some.url/path/"
  },
  "context": "rinkeby:0xfe5da6ae3f65e7d5ce29121a9f5872ffd83b45e6",
  "signature": {
    "creator":
↪"de9965ce03cf6f960a7efe423633409a0052ad8f9f2100e27026ad94551d4d69058c0a263dbd0cacf999ca3e97ddcc0afa
↪",
    "signatureValue":
↪"3044022069457927f1fc06b26467a7cc93c99085efea4d8811c6979ffab9ba2196be5ad702201587d3f88d2e9058d6ce48
↪",
    "type": "ecdsa.prime256v1"
  },
  "type": [
    "labels"
  ]
}
```

3.3 Value Transfer

Along with claims the Userfeeds Database contains normalized data about transfer of assets (tokens and others)

If the transfer of assets was accompanying a claim, they will be connected with the *TRANSFER* relation.

CHAPTER 4

Contracts

Contracts can be decsribed as notaries or agents that mediate between *claims* and blockchains. Three types of contracts can be distinguished:

- Notary only - for non-value transations (calls) and *claims*
- Allowing to pass a value to a given address (acting as a proxy contract)
- For the token ERC20 only (which serve for money-related transations)

CHAPTER 5

API Reference

The API root is available at https://api.userfeeds.io/

5.1 Retrieving Data

read-only

The available algorithms are described in the *Algorithms* section.

```
 Schema:

 $ curl https://api.userfeeds.io/ranking/algorithm1Name;param1=value1;param2=value2...
↪/algorithm2Name...

Example:

 $ curl https://api.userfeeds.io/ranking/links;asset=ethereum
```

GET /ranking/algorithm1Name;param1=value1;param2=value2.../algorithm2Name...

Example request:

Example response:

OR

```
Schema:

$ curl -X POST -v -d '{"flow":[{"algorithm":"algorithm1name","params":{"param1":
↪"value1",...},...}]}' -H 'Content-Type: application/json' 'https://api.userfeeds.io/
↪ranking/'

Example:

$ curl -X POST -v -d '{"flow":[{"algorithm":"links","params":{"asset":"ethereum"}}]}'␣
↪-H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

`POST /ranking/`

Example request:

Example response:

CHAPTER 6

Algorithms

The Userfeeds Platform allows running custom algorithms on the top of data gathered from all supported sources such as Ethereum blockchain (mainnet, ropsten, rinkeby, kovan)

Algorithms can be referenced by their identifier which depends on how the author has decided to share them.

Note: The support is currently limited to built-in algorithms created by Userfeeds only. We will open custom algorithms for external developers in the near future.

6.1 Available built-in algorithms

6.1.1 Channel feed

Version: 0.1.0

Example:

```
curl -X POST \
    -d '{"flow":[{"algorithm":"experimental_channel_feed","params":{"id":"https://www.
↪google.com"}}]}' \
    -H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

Json claim example:

```
{
    "type":["about"],
    "claim":{
        "target":"Cool website, bro!",
        "about":"https://www.google.com"
    }
}
```

ERC721 example:

ranking/experimental_channel_feed;id=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:593163

Json claim example:

```
{
    "type": ["about"],
    "claim": {
        "target": "New cool kitten on the block",
        "about": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:593163"
    },
    "context": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:608827"
}
```

6.1.2 Channels

Version: 0.1.0

Example:

```
curl -X POST \
    -d '{"flow":[{"algorithm":"experimental_channels","params":{"starts_with":"https:/
↪/"}}]}' \
    -H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

Json claim example:

```
{
    "type":["about"],
    "claim":{
        "target":"Cool website, bro!",
        "about":"https://www.google.com"
    }
}
```

ERC721 example:

ranking/experimental_channels;starts_with=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d

Json claim example:

```
{
    "type": ["about"],
    "claim": {
        "target": "New cool kitten on the block",
        "about": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:593163"
    },
    "context": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:608827"
}
```

6.1.3 Claims

Version: 0.1.0

- Filter by id

  ranking/experimental_claims;id=claim:0x98a87...526e6:0

- Filter by author

  ranking/experimental_claims;author=0x7195ebc1bdbcff1d8557541a2b186c6dfd01aef8

- Filter by target

  ranking/experimental_claims;target=claim:0x1470e...fd0d1:0

All of above filters support filtering by multiple arguments:

ranking/experimental_claims;author=0x7195e...1aef8;author=0xda9d64...8d18e1

Filters can be put in any combination:

ranking/experimental_claims;author=0x7195e...1aef8;target=claim:0x1470ee...fd0d1:0

JSON claim example:

```
{
    "author": "0x7195ebc1bdbcff1d8557541a2b186c6dfd01aef8",
    "created_at": 1522921352000,
    "family": "kovan",
    "id": "claim:0x98a873f7f2843a12fa76d3026ba30072ee21a70f34324e9ec7875c21cb8526e6:0
↪",
    "sequence": 6727044,
    "target":
↪"claim:0x1470ee0b001370a4e84272a117c94182c092f8e0bfb22b60909c754ce9dfd0d1:0"
}
```

6.1.4 Context feed

Version: 0.1.0

ERC721 example:

ranking/experimental_context_feed;id=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:587035

Json claim example:

```
{
    "claim":{
        "target": "I love catnip"
    },
    "context": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:587035"
}
```

6.1.5 Contexts

Version: 0.1.0

ERC721 example:

ranking/experimental_contexts;starts_with=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d

Json claim example:

```
{
    "claim":{
        "target": "I love catnip"
    },
```

```
    "context": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:587035"
}
```

6.1.6 Feed

Algorithm used by https://userfeeds.github.io/cryptopurr/

Returns frontend specific structure of purrs.

Version: 0.1.1

Example:

ranking/cryptopurr_feed;context=ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d

Json claim example:

```
{
    "about": null,
    "abouted": [],
    "author": "0x460031ae4db5720d92a48fecf06a208c5099c186",
    "context": "ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d:593163",
    "created_at": 1523000940000,
    "family": "kovan",
    "id": "claim:0x464762e30e39458af1bfed2756adfdd3c673caefa4fb84544b21bbd90d03d262:0
↪",
    "sequence": 6742075,
    "target": {
        "id": "Hurry up!"
    },
    "targeted": [],
    "type": "regular"
}
```

6.1.7 Filter claim hodl

Version: 0.1.0

For now it filters claims authored by identities which received at latest one transfer of given asset.

Possible root assets: *ethereum*, *rinkeby*, *ropsten*, *kovan*

Any ERC20: *ethereum:0xe41d2489571d322189246dafa5ebde1f4699f498*

Example:

ranking/experimental_claims;target=claim:0x49994...bf8e8:0/experimental_claim_hodl;asset=rinkeby

6.1.8 Filter by labels

It filters claims by those labeling target with given labels. Also adds info about those (filtered) labels to each claim.

Version: 0.1.0

Examples:

ranking/experimental_context_feed;id=ethereum:0x06012...a266d:341605/experimental_filter_labels;id=like rank-
ing/experimental_context_feed;id=ethereum:0x06012...a266d:341605/experimental_filter_labels;id=follow;id=favourite

6.1.9 Sort

Sorts items by given key. To sort in reversed order pass *order=desc*.

Version: 0.1.0

Example:

ranking/experimental_tokens;identity=0x157da...2bee3;asset=ethereum:0x06012...a266d/experimental_sort;by=sequence

ranking/experimental_tokens;identity=0x157da...2bee3;asset=ethereum:0x06012...a266d/experimental_sort;by=sequence;order=DES

6.1.10 Valid erc721

It filters claims authored by an owner of context. It parses claim context to get collectible id and erc721 contract address. Then it verifies if claim author was an owner of this collectible at the time of creating claim.

Version: 0.1.0

Example:

ranking/experimental_context_feed;id=ethereum:0x06012...a266d:341605/experimental_valid_erc721

6.1.11 Tokens

Returns all erc721 tokens of given asset owned by given identity.

Version: 0.1.0

Example:

ranking/experimental_tokens;identity=0x157da...2bee3;asset=ethereum:0x06012...7a266d

6.1.12 Receivers

Version: 0.1.0

Returns receivers of given asset since given timestamp but not older than one day. Timestamp have to be in milliseconds.

Example:

```
curl -X POST \
    -d '{"flow":[{"algorithm":"experimental_receivers","params":{"timestamp
↪":1523450030000,"asset":"ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d"}}]}' \
    -H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

6.1.13 Receivers

Version: 0.1.0

Returns all addresses which historically received given asset.

Example:

```
curl -X POST \
    -d '{"flow":[{"algorithm":"experimental_all_receivers","params":{"asset":
↪"ethereum:0x06012c8cf97bead5deae237070f9587f8e7a266d"}}]}' \
    -H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

6.1.14 Airdrop receivers

Version: 0.1.0

Returns all addresses which historically received transfer connected with given airdrop id.

Example:

```
curl -X POST \
    -d '{"flow":[{"algorithm":"experimental_airdrop_receivers","params":{"id":
↪"claim:0xb08b45fe956e1c0b31dfdf7d6f1007cb910799a77f4de2307a6a19a1f85a386c:0"}}]}' \
    -H 'Content-Type: application/json' 'https://api.userfeeds.io/ranking/'
```

CHAPTER 7

Transports

Transports are manners of passing claims to blockchains. They can simply be seen as transport layers. Transports can also be seen as intermediaries between claims and blockchains.

7.1 Ethereum Transaction

You can send a *claim* through an Ethereum Blockchain transaction.

Note: The Userfeeds Platform does not monitor every transaction for potential claims yet.

In order to send a *claim* through a transaction you need to call special contracts which are monitored by the Userfeeds Platform.

Properties:

In-transport secrecy The *claim* is available from the moment it is distributed through the Ethereum network and can be sniffed before it reaches its desired ranking.

Independent distribution The *claim* will be a part of the Etherum Blockchain and will be available from all copies of the blockchain.

7.2 HTTP

You can send signed *claims* through the HTTP Gateway of the Userfeeds Platform.

Properties of transports are as follows:

In-transport secrecy The *claim* cannot be sniffed on transport thanks to a HTTPS connection and will only be available to the outside world after it is incorporated into the Userfeeds Platform through APIs rankings and database dumps.

Independent distribution The *claim* exists only inside the Userfeeds Platform database and will be distributed with Userfeeds Platform database dumps.

An example of posting a *claim* directly to the Userfeeds Platform through the HTTP transport:

```
$ curl \--=der43
  -X POST https://api.userfeeds.io/storage/ \
  -H "Content-Type: application/json" \
  -H "Authorization: 59049c8fdfed920001508e2a03414df648e34ea665f544a17d5c113b" \
  -d '{"claim":{"target":"http://some.url/path/"},"context":
↪"ethereum:0x4564567890abcdef....abc","signature":{"creator":
↪"82fb68fc14719b94b36e99e588c9988458ca187d4791463164285bb064458232c4bb5bb638158096f4ed957e275e2e157
↪","signatureValue":
↪"c675d123fb1e99ffe59e7626c655806ebe47ec1ca4100b953029731159c2e14f4461e2ebf7f43a071b847b57cbcbd66bd
↪","type":"ecdsa.prime256v1"}}'
```

7.2.1 Contracts

With a value transfer:

Code

```
pragma solidity ^0.4.11;

contract Userfeeds {

    event Claim(address sender, address userfeed, string data);

    function post(address userfeed, string data) payable {
        userfeed.transfer(msg.value);
        Claim(ms4g.sender, userfeed, data);
    }
}
```

ABI

```
[
  {
    "constant":false,
    "inputs":[
      { "name":"userfeed", "type":"address" },
      { "name":"data", "type":"string" }
    ],
    "name":"post",
    "outputs":[],
    "payable":true,
    "type":"function"
  },
  {
    "anonymous":false,
    "inputs":[
      { "indexed":false, "name":"sender", "type":"address" },
      { "indexed":false, "name":"userfeed", "type":"address" },
      { "indexed":false, "name":"data", "type":"string" }
    ],
    "name":"Claim",
    "type":"event"
```

```
  }
]
```

Addresses

- For Mainnet: ...
- For Rinkeby: 0x0a48ac8263d9d79768d10cf9d7e82a19c49f0002
- For Ropsten: 0xa845c686a696c3d33988917c387d8ab939c66226
- For Kovan: ...

Without a value transfer:

Code

```
pragma solidity ^0.4.11;
contract Userfeeds {

    event Claim(address sender, string data);

    function post(string data) {
        Claim(msg.sender, data);
    }
}
```

ABI

```
[
  {
    "constant":false,
    "inputs":[
      { "name":"data", "type":"string" }
    ],
    "name":"post",
    "outputs":[],
    "payable":false,
    "type":"function"
  },
  {
    "anonymous":false,
    "inputs":[
      { "indexed":false, "name":"sender", "type":"address" },
      { "indexed":false, "name":"data", "type":"string" }
    ],
    "name":"Claim",
    "type":"event"
  }
]
```

Addresses

- For Mainnet: ...
- For Rinkeby: 0x09dcdf34e0c28b106fdfe51009cb71ae92bf8bbc
- For Ropsten: 0x5c3fe6b94b57c1e294000403340f12f083e71b83
- For Kovan: ...

7.3 Whisper Protocol

TODO: Direct message The data on topic will be available soon.

TODO: Broadcast The data on topic will be available soon.

CHAPTER 8

Indexes and tables

- genindex
- modindex
- search

/ranking

Python Module Index

a

Index

A