

# **MapRoulette Workshop**

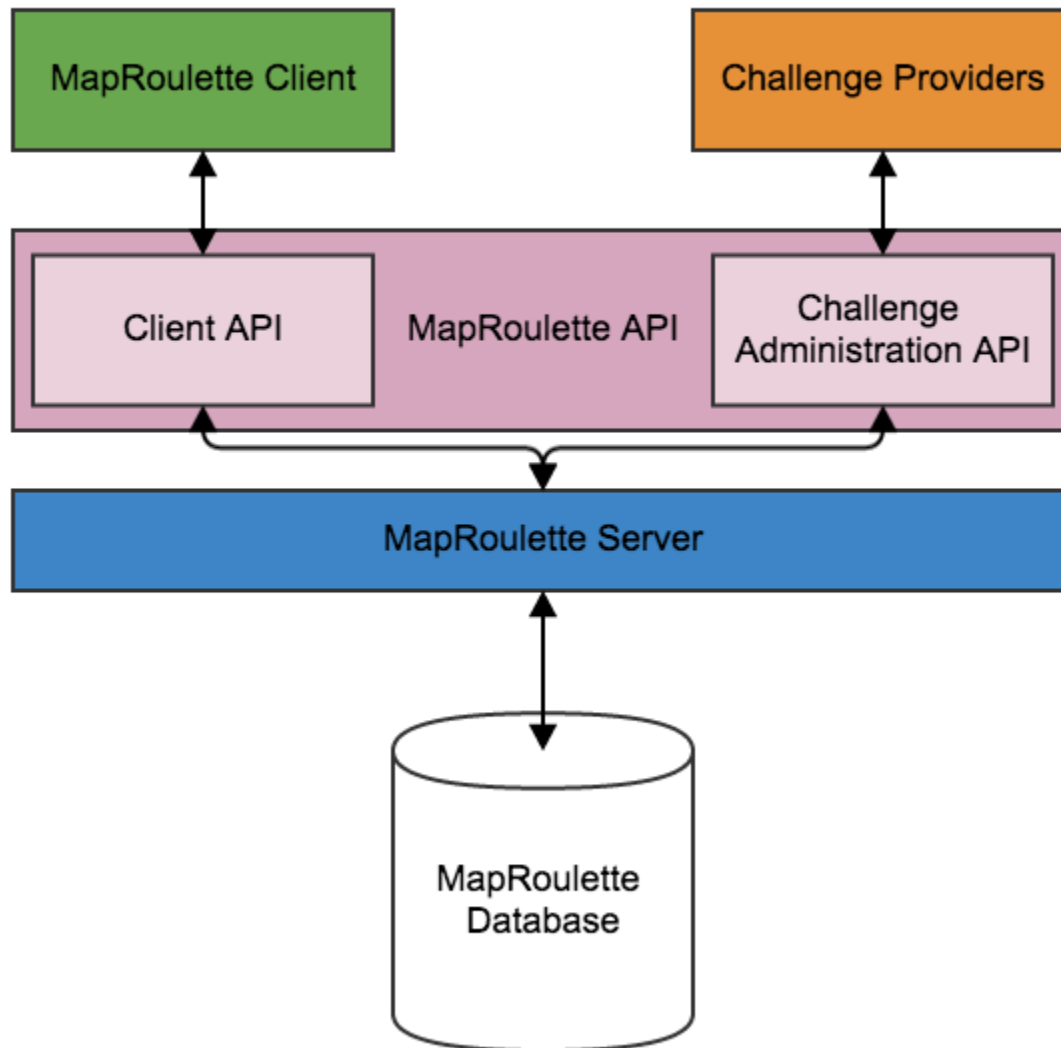
SOTM EU - 15.06.2014

Serge Wroclawski - Martijn van Exel

# Agenda

- MapRoulette Architecture
- What Makes A Great Challenge?
- Challenges and Tasks
- The Life of a Task
- The MapRoulette API
- A Simple Example: Shops Without Hours

# MapRoulette Architecture



# What You Need

- A Good Idea
- A way to query errors
- A way to connect to the MapRoulette API
- A strategy to keep your Challenge up-to-date
- A server for testing
- A user account on [maproulette.org](https://maproulette.org)

I will talk about most of these things now!

# What Makes A Great Challenge

- Quick and easy to fix (seconds not minutes)
- Needs a Human
- Needs a Right Answer
- Requires no local knowledge
- Machine-detectable

# Challenges and Tasks

- One MapRoulette problem is called a Task
- A collection of Tasks is a Challenge.
- Tasks need to have a geometry and a **unique identifier**
- Challenges need to have a **slug**, a title and a difficulty level
- A Task's Lifecycle is described with Actions

<http://maproulette.org/#t=waysneedingsmoothing/43208751589968057195529365967942>

# A Challenge

instruction

title  
description

This way has one or more unusually sharp angles. It can probably benefit from some smoothing and aligning with Bing imagery.

This way has one or more unusually sharp angles. It can probably benefit from some smoothing and aligning with Bing imagery.

We are in Baker, Lemhi County, Idaho, the United States of America.

**OpenStreetMap  
MapRoulette**  
signed in as [mvexel](#). [sign out](#)

**Ways Needing Smoothing**  
*Ways that need smoothing and / or realignment*

More help for this challenge

Select a different challenge

Challenge statistics

This challenge has about 93100 tasks, and we still need to fix about 41060 of them.

**THIS IS NOT AN ERROR**

**I'M NOT SURE / SKIP**

**EDIT IN ID**

**EDIT IN JOSM**

+  
-

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We are in Baker, Lemhi County, Idaho, the United States of America.

help

## Ways Needing Smoothing Help

See [this diary entry](http://www.openstreetmap.org/user/mvexel/diary/21270) for more information about this challenge.

OK

## Ways Needing Smoothing Help

[this diary entry](http://www.openstreetmap.org/user/mvexel/diary/21270) for more information about this challenge.

OK

Ways Needing Smoothing  
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This challenge has about 93100 tasks, and we still need to fix about 41060 of them.

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# A Task

+

-

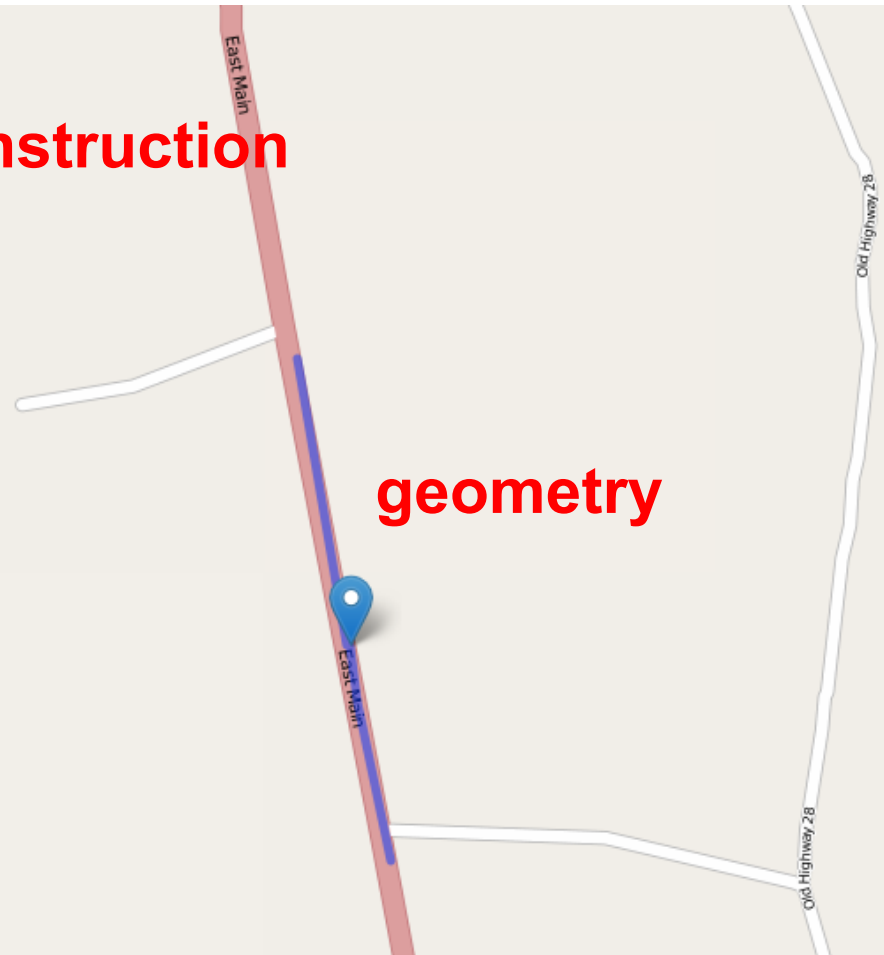
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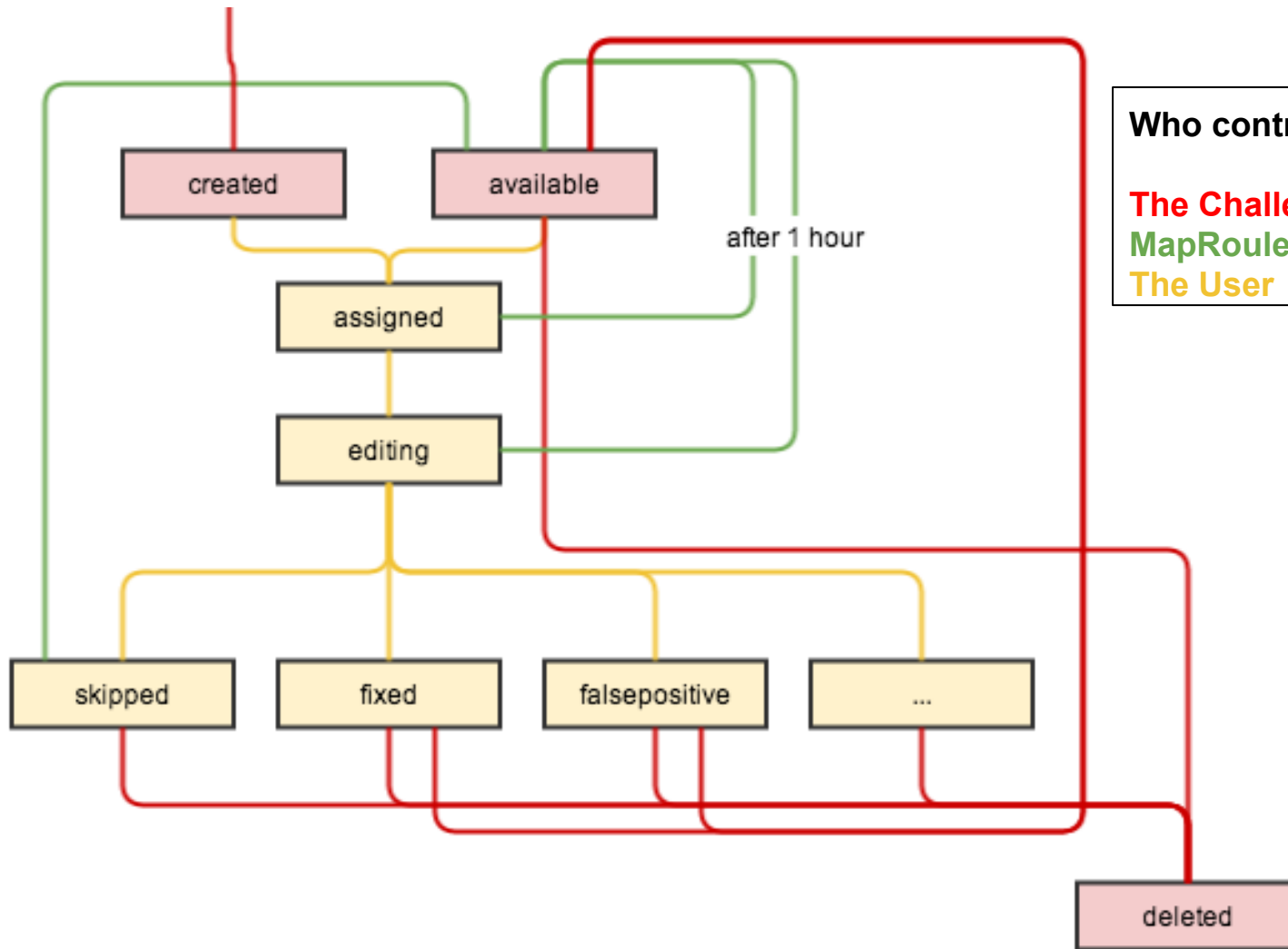
**instruction**

**geometry**





# The Life Of A Task



Who controls?

**The Challenge Admin API**  
**MapRoulette Internal**  
**The User**

# The Challenge Administration API

- Creating or updating a Challenge
- Getting current statuses for all tasks
- Creating or updating Tasks

<http://bit.ly/maproulette-apidocs>

# Create A Challenge

```
PUT /api/admin/challenge/mychallenge
```

```
{  
  "title": "Repair Motorways",  
  "description": "Repair all motorways",  
  "blurb": "For this challenge, the idea is to repair all motorways",  
  "help": "Repair the motorway where it is broken as indicated on the map",  
  "instruction": "Look at the map for broken pieces of way. Go into you editor and repair  
them as needed",  
  "active": false,  
  "difficulty": 2  
}
```

# Create Some Tasks

PUT /api/admin/challenge/mychallenge/tasks

```
[{
  "geometries": {
    "features": [
      {
        "geometry": {
          "coordinates": [[-82.46102, 27.94211], ...],
          "type": "LineString"
        },
        "properties": {
          "osmid": 10982458
        },
        "type": "Feature"
      },
      {
        "geometry": {
          "coordinates": [-82.461465, 27.941024],
          "type": "Point"
        },
        "properties": {},
        "type": "Feature"
      }
    ],
    "type": "FeatureCollection"
  },
  "identifier": "-245422134830019020515072624911431000923134125997",
  ...
}]
```

# Verify Your Tasks Are There

```
GET /api/admin/challenge/mychallenge/tasks
```

```
[  
  {  
    "identifier": "-417552606960620657971358843856641634245254110348",  
    "status": "created"  
  },  
  {  
    "identifier": "-245422134830019020515072624911431000923134125997",  
    "status": "created"  
  }  
]
```

# Activate Your Challenge

```
PUT /api/admin/challenge/mychallenge
```

```
{  
  "active": true,  
}
```

# Example Loader Script

In examples dir - HIGHLY EXPERIMENTAL

```
$ ./process.py --title "Shop Hours" --instruction "Enter the opening  
hours for this shop" --server http://localhost:5000/ shop_hours use-db  
--database osm --user martijnv --host localhost "select * from nodes  
where tags?'shop' and not tags?'opening_hours'"
```

# Keeping Your Challenge Up-To-Date

## WHY?

- Tasks get fixed outside of MapRoulette
- You may tweak your query based on feedback

## HOW?

- Get Current Task Statuses (=latest Action)
- Compare with your local task set
- CRUD as needed

It is recommended to do this daily.



# Testing Your Work

- Use dev.maproulette.org - completely open
- Install your own local instance

The latter has the advantage of more meaningful error messages.

It's pretty easy to do:

<http://bit.ly/run-maproulette-local>

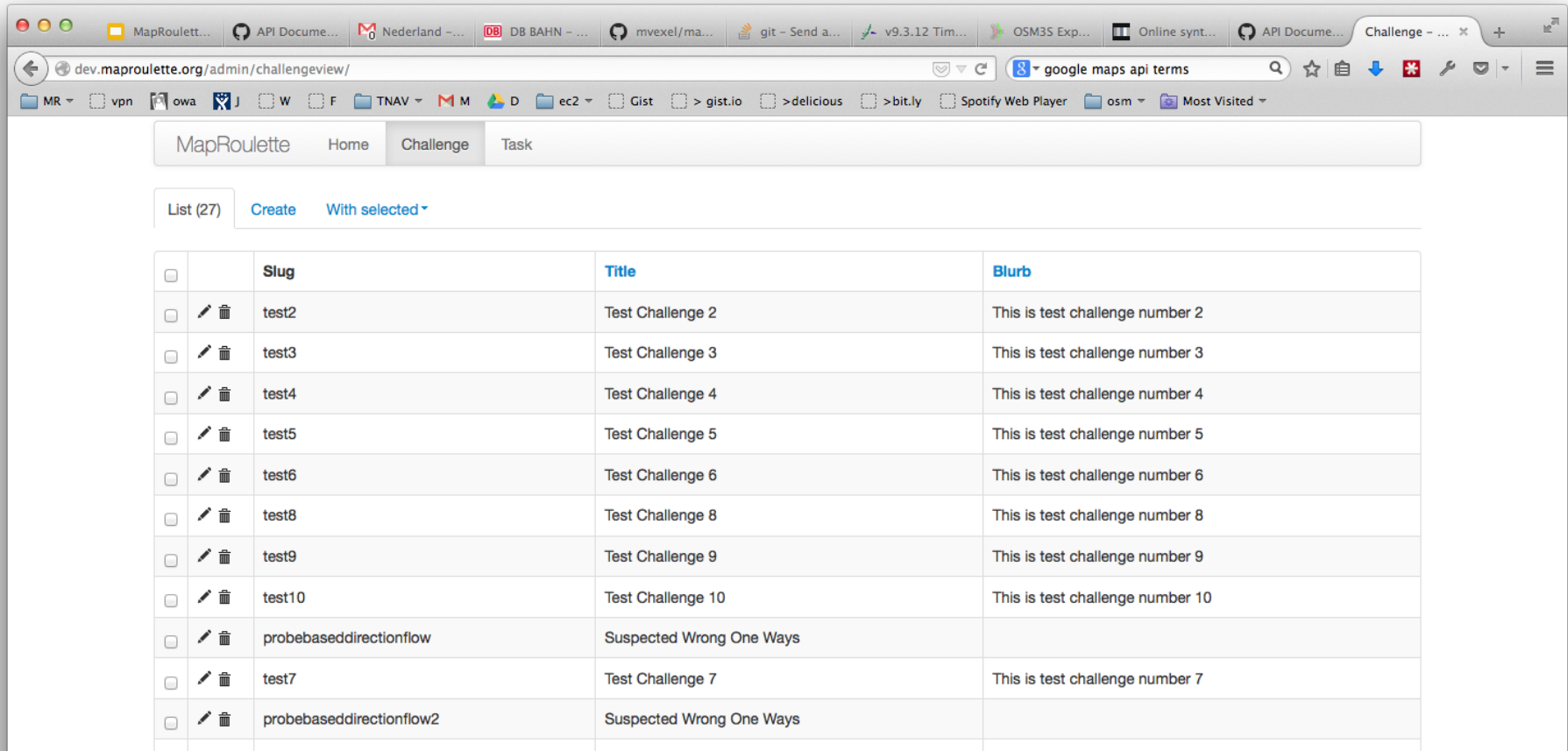
# Getting your Challenge on maproulette.org

- API has localhost access only, so you need a user account and create a tunnel





















```
$ ssh -f maproulette@maproulette.org -L 2000:maproulette.org:80 -N
$ curl http://localhost:2000/api/ping
["I am alive"]
```

# Admin interface

- This is a Work In Progress
- Inspect / create / del Challenges and Tasks



The screenshot shows a web browser window with the URL `dev.maproulette.org/admin/challengeview/`. The browser's address bar and tabs are visible at the top. Below the browser window, there is a navigation bar with the following items: `MapRoulette`, `Home`, `Challenge` (selected), and `Task`. Below the navigation bar, there is a section with the text `List (27)`, `Create`, and `With selected`. Below this section is a table with the following columns: `Slug`, `Title`, and `Blurb`. The table contains 14 rows of data, each with a checkbox, edit/delete icons, and the corresponding challenge information.

		Slug	Title	Blurb
<input type="checkbox"/>		test2	Test Challenge 2	This is test challenge number 2
<input type="checkbox"/>	 	test3	Test Challenge 3	This is test challenge number 3
<input type="checkbox"/>	 	test4	Test Challenge 4	This is test challenge number 4
<input type="checkbox"/>	 	test5	Test Challenge 5	This is test challenge number 5
<input type="checkbox"/>	 	test6	Test Challenge 6	This is test challenge number 6
<input type="checkbox"/>	 	test8	Test Challenge 8	This is test challenge number 8
<input type="checkbox"/>	 	test9	Test Challenge 9	This is test challenge number 9
<input type="checkbox"/>	 	test10	Test Challenge 10	This is test challenge number 10
<input type="checkbox"/>	 	probasedirectionflow	Suspected Wrong One Ways	
<input type="checkbox"/>	 	test7	Test Challenge 7	This is test challenge number 7
<input type="checkbox"/>	 	probasedirectionflow2	Suspected Wrong One Ways	

# More?

Contact Serge or Martijn at  
[maproulette@maproulette.org](mailto:maproulette@maproulette.org)

The repo at <https://github.com/osmlab/maproulette>

Thank you <3

*Martijn*