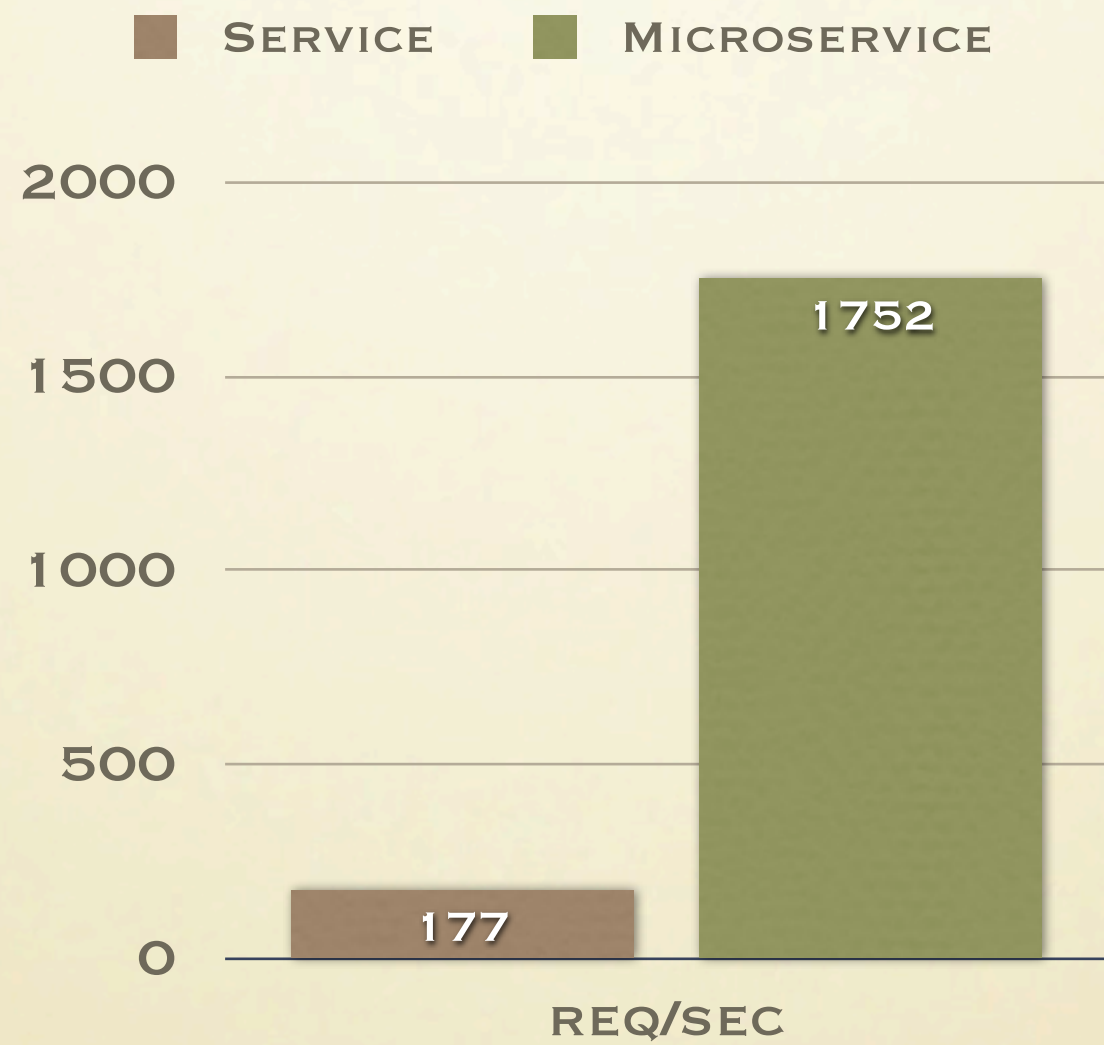


MICROSERVICES



i0rek



DISCLAIMER

- Benchmarking is hard
- Questions at the end

FRED GEORGE



WUNDERPAY

WUNDERPAY

- Create Subscriptions

WUNDERPAY

- Create Subscriptions
- Get subscription for a user

WUNDERPAY

- Create Subscriptions
- **Get subscription for a user**

RAILS

```
1 # app/controllers/s_controller.rb
2 class SController < ApplicationController
3   def show
4     if subscription = current_user.subscription
5       render json: subscription.as_json
6     else
7       render json: {}
8     end
9   end
10 end
```


AB RAILS

```
$ ab -n 1000 http://127.0.0.1/user/123A  
Requests per second:      177.88 [# /sec]  
Time per request:         5.622 [ms]
```

RAILS - Y U SLOW??

```
1 # app/controllers/s_controller.rb
2 class SController < ApplicationController
3   def show
4     if subscription = current_user.subscription
5       render json: subscription.as_json
6     else
7       render json: {}
8     end
9   end
10 end
```


RAILS - Y U SLOW??

- Assumption: DB is the limiting factor

RACK PART 1

```
1 require 'sequel'
2 class Database
3   def self.connection
4     @connection ||= Sequel.connect(
5       'mysql:
6       //root@localhost/wunderpay_development'
7     )
8   end
9 end
10 class Subscription
11   def self.exists_for(user_id)
12     Database.connection[
13       "SELECT 1
14       FROM Subscriptions
15       WHERE user_id = '#{user_id}'
16       LIMIT 1"
17     ].count > 0
18   end
19 end
```


RACK PART 2

```
1 class MyApp
2   def call(env)
3     if env['REQUEST_PATH'] =~ /user\/(\w*)\/
4       unless Subscription.exists_for($1)
5         [200, {}, ["{}\n"]]
6       else
7         [ 301,
8           {"Location" => "http://wunderpay.de"},
9           ["\n"]
10        ]
11      end
12    end
13  end
14 end
```

AB RACK

```
$ ab -n 1000 http://127.0.0.1/user/123A  
Requests per second:      856.72 [# /sec]  
Time per request:         1.167 [ms]
```


RACK Y U SO FAST??

- Assumption was WRONG
- 5times faster than Rails

RACK MICROSERVICE

```
1 class MyApp
2   def call(env)
3     if env['REQUEST_PATH'] =~ /user\/(\w*)\/
4       unless Subscription.exists_for($1)
5         [200, {}, ["{}\n"]]
6       else
7         [ 301,
8           {"Location" => "http://wunderpay.de"},
9           ["\n"]
10        ]
11      end
12    end
13  end
14 end
```

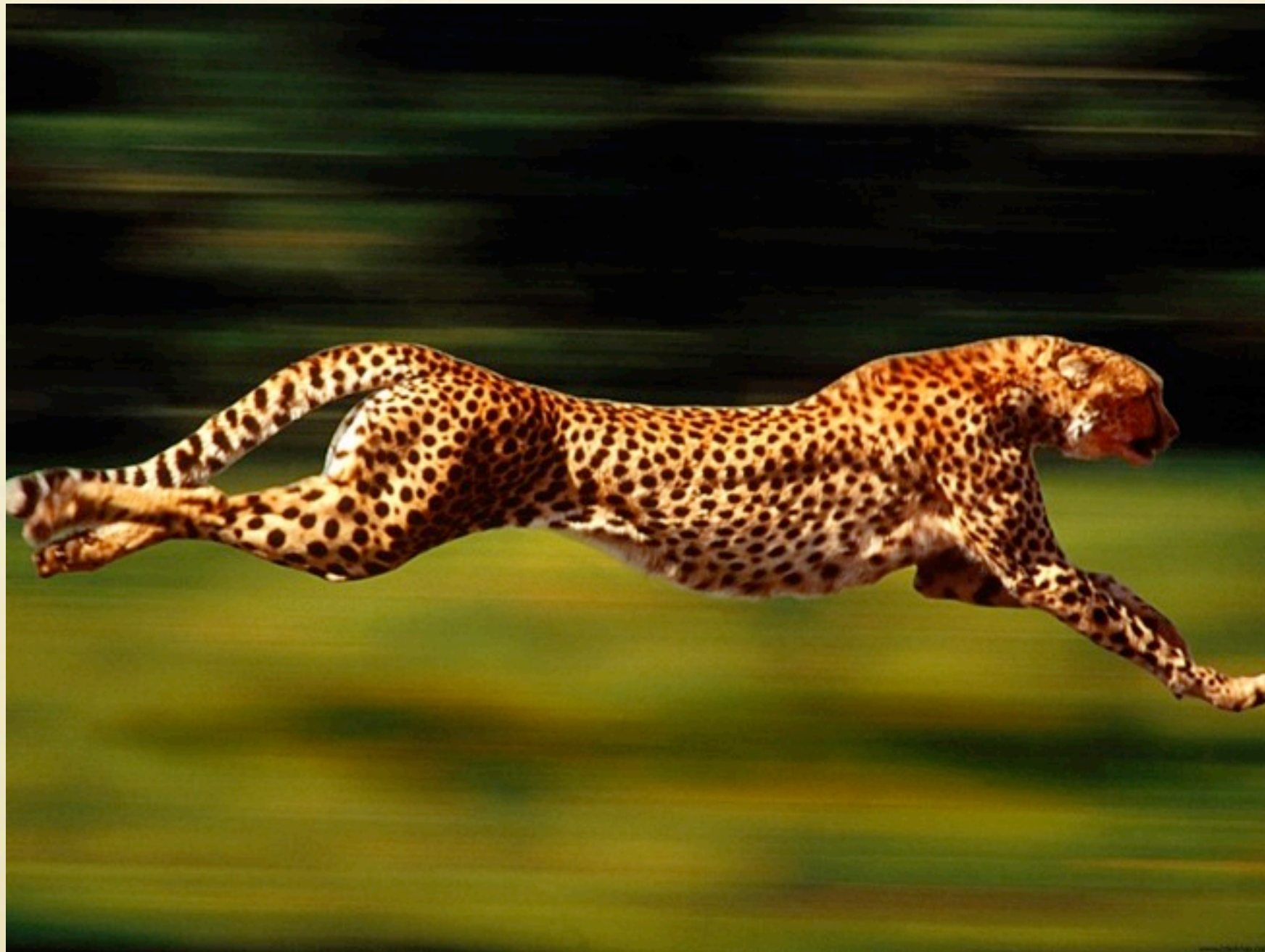
RACK MICROSERVICE

- Transparent
- Throw away
- Simple.Simple.Simple

RACK MICROSERVICE



HOW FAST CAN WE GET?



NGINX & LUA

NGINX & LUA PART 1

```
1 worker_processes 1;
2 error_log logs/error.log;
3 events {
4     worker_connections 1024;
5 }
6 http {
7     server {
8         listen 8080;
9         location ~ /user/(\w*) {
10             set $user_id $1;
11             content_by_lua '';
12         }
13     }
14 }
```

NGINX & LUA PART 2

```
1 local mysql = require "resty.mysql"
2 local db, err = mysql:new()
3 db:set_timeout(1000)
4
5 local ok, err, errno, sqlstate = db:connect{
6     host = "127.0.0.1",
7     port = 3306,
8     database = "wunderpay_development",
9     user = "root"
10 }
11
12 res, err, errno, sqlstate = db:query(
13     "SELECT 1 " ..
14     "FROM subscriptions " ..
15     "WHERE user_id = \' " .. ngx.var.user_id ..
16     "\' "
17 )
18 if next(res) == nil then
19     ngx.say("{}")
20 else
21     ngx.redirect("http://wunderpay.de")
22 end
```

AB NGINX & LUA

```
$ ab -n 1000 http://127.0.0.1/user/123A  
Requests per second:      1752.04 [#/sec]  
Time per request:         0.571 [ms]
```


RESOURCES

RESOURCES

1.Rails

2.Rack

3.Nginx & Lua

Q & A