

@mefiblogger and @maerlyng will talk about

Node.js @ Arkon

Node.js Budapest Meetup
03/26/2015

About Mefi

- Gábor Nádai
- webdev at Arkon's Frontend team
- twitter: @mefiblogger
- github/mefiblogger

About Arkon

- Hungarian company,
- ingatlan.com,
- Köpönyeg,
- Scrum,
- meetups
- mostly PHP and front-end,
- sometimes Python...
- ...and Node!

How We Got Started?

We had some situations to solve around:

- locations,
- sending mails and
- price changes.

What About Locations?

We needed an application, that can serve locations for different RESTful API queries.

What About Emails?

We wanted to notify our users when the price of their favourite listing has been changed.

What About Price Changes?

We would like to show a chart of a listing's price changes.

Why Node?

- for these problems, looked better than PHP,
- syntax is familiar,
- easy to learn,
- it's widely used,
- very great community,
- almost ∞ number of libraries (\heartsuit npm).

What was Strange After PHP?

- browser refresh is not enough anymore,
- async (callbacks, promises) and
- npm (still ♥).

The Priceobserver App

- listens to a RabbitMQ channel,
- gets notifications about price changes,
- collects user data from MySQL,
- calls a RESTful API for listing data and
- sends an email.

What are The Ingredients?

We mostly Googled for everything.

express (github/strongloop/express)

Fast, unopinionated, minimalist web framework for node.

```
var express = require('express')
var app = express()

app.get('/', function (req, res) {
  res.send('Hello World')
})

app.listen(3000);
```

knex (github/tgriesser/knex)

Knex.js is a flexible, portable, "batteries included" SQL query builder.

```
var knex = require('knex')({  
  client: 'mysql',  
  connection: {  
    host      : '127.0.0.1',  
    user      : 'your_database_user',  
    password  : 'your_database_password',  
    database  : 'myapp_test'  
  }  
}) ;
```

swig (github/paularmstrong/swig)

Swig is an awesome, Django/Jinja-like template engine for node.js.

```
<h1>{{ pagename|title }}</h1>
<ul>
  {% for author in authors %}
    <li{% if loop.first %} class="first"{% endif %}>{{ author }}</li>
  {% endfor %}
</ul>
```

request (github/request/request)

Request is designed to be the simplest way possible to make HTTP/HTTPS calls.

```
var request = require('request');
request('http://www.google.com', function (err, res, body) {
  if (!error && response.statusCode == 200) {
    console.log(body)
    // Show the HTML for the Google homepage.
  }
});
```

Nodemailer (github/andris9/Nodemailer)

Send e-mails from Node.js – easy as cake!

```
var nodemailer = require('nodemailer');
var transporter = nodemailer.createTransport();
transporter.sendMail({
  from: 'sender@address',
  to: 'receiver@address',
  subject: 'hello',
  text: 'hello world!'
});
```

log4js (github/stritti/log4js)

Log4js - The Logging Framework for JavaScript.

```
myLogger.info('an info');  
myLogger.warn('a warning');  
myLogger.error('an error');
```

Forever.js (github/foreverjs/forever)

A simple CLI tool for ensuring that a given script runs continuously (i.e. forever).

```
$ forever -m 5 examples/error-on-timer.js
```

Conclusion

- Priceobserver deployed on 27 january,
- for the first day, emails only sent to our team's address,
- from 28 january, more than 45 000 notifications sent and
- it took one sprint (2 weeks) for 2 developers to create it.

A hirdető csökkentette az árat:



Szabolcs-Szatmár-Bereg
megye, Ökörítőfülpös,
Kossuth Lajos utca 2

20 + 10 fél szoba

100 m²

Régi ár

55 M Ft

Új ár

53 M Ft

[Tovább a hirdetésre »](#)

Miért kapta ezt az e-mailt?

Az Árfigyelő szolgáltatás azonnal e-mailt küld Önnek, ha egy kedvencnek jelölt hirdetésénél a hirdető megváltoztatja az árat.

Ezt az e-mailt azért kapta, mert a fenti hirdetésénél be van kapcsolva az Árfigyelő. Az Árfigyelőt bármikor ki- vagy bekapcsolhatja.

[Nem szeretnék árfigyelőt kapni erről az ingatlanról >](#)

[Nem szeretnék árfigyelőt kapni semmilyen ingatlanról >](#)

Ezt az e-mailt erre a címre küldtük: frontendtesztiroda@ingatlan.com

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Questions?

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About Maerlyn

Gábor Fási

- webdev @ Arkon's Core team,
- twitter: @maerlyng
- github/maerlyn

PriceChangeLogger

Problem

- current price only
- no way to show trends



Solution

- message to rabbitmq,
- persist to redis,
- basic api (using express),
- ~200 LoC and
- ~20 tests.

LocationServer

Problem

- 3 main teams,
- different formats and
- synchronization.

Data Source

- MapsDB,
 - 2 cartographers,
 - ~150k locations,
 - ~50k changed since last version.
- manual transfer.

Prototype

- basic api,
- data loading,
- Backbone (on the backend).

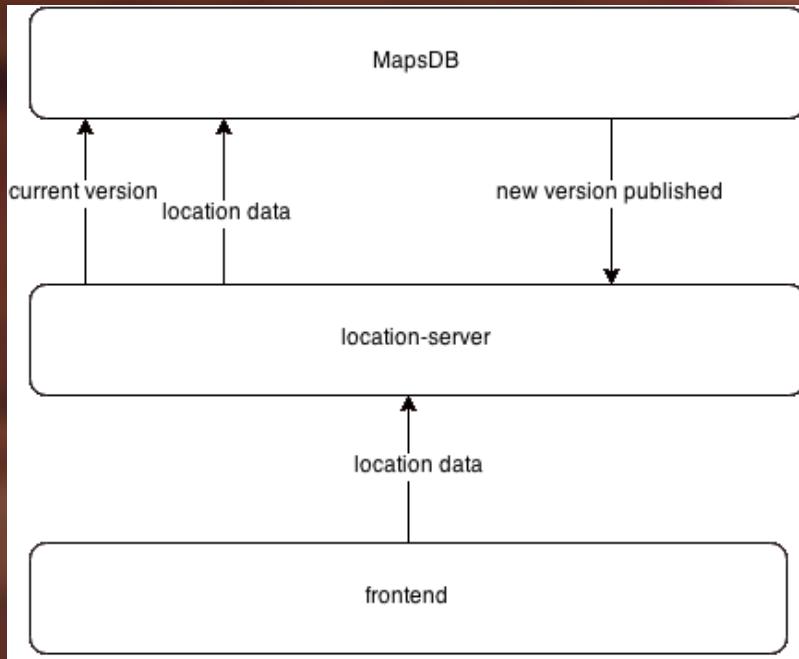
Data Source

- versioning,
- notify via rabbitmq.

Development

- frontend api (express),
- 2 developers,
- rabbitmq,
- old version loader,
- ~3 weeks.

Data flow



Performance

- Backbone: ~20k/min
- Backbone + index: ~37k/min
- native JS + index: ~120k/min

Cluster

- one master,
- (usually) one worker.

Challenges

- async IO,
- JS datastructures.

Final Version

- ~2k LoC,
- ~200 assertions,
- live for ~2 months.

Questions?

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