

Kiwi.com's epic journey

from legacy system to Camunda

```
- :: > { [[ ) << ; ) {  
* _ - / // 0 * @ $  
> & % {  
^
```

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My dog Hagrid



```
> { [[ ) << ; ) { # % ::  
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PROLOGUE

Kiwi.com and the service



About Kiwi.com

Kiwi.com's innovative algorithm enables users to find better route options and prices other search engines can't see. **70K seats** sold at Kiwi.com daily.



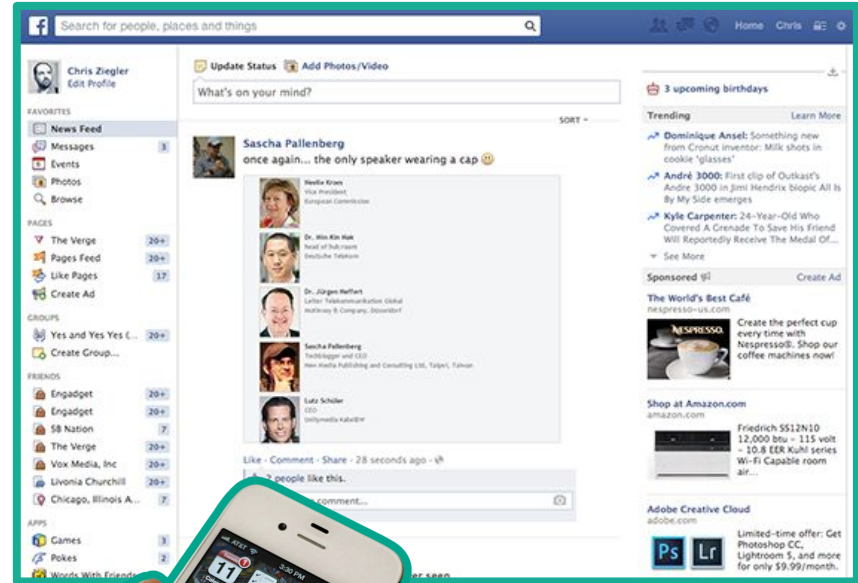


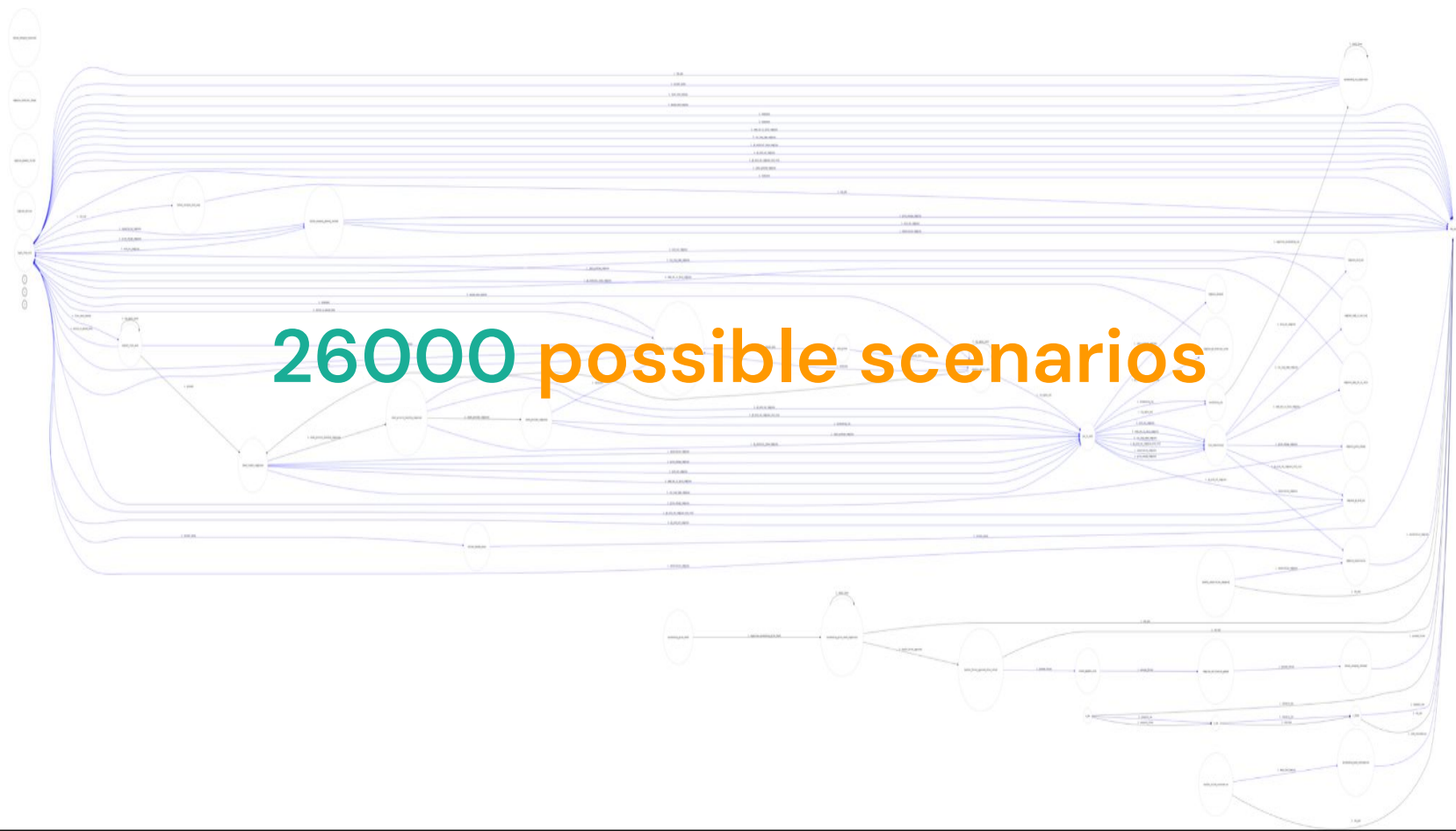
~2014/2015

Top 10 Most Traded in Phones of 2014:

1. Apple iPhone 4S – 11.2%
2. Apple iPhone 4 – 9.9%
3. Samsung Galaxy S3 – 9.1%

Common size of RAM
~3GB





26000 possible scenarios

> { [[) << ;) { # % ::
_ _ / // 0 * \$
* _ > %
[%

CHAPTER I

BPMN Picasso


```
> { [[ ) << ; ) { # % ::  
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[ %
```

The_good_team

The BPMN mapping team should contain:

- At least two developers
- Product manager
- Product owner



My product manager
(cleaned the BPMN to
final version)



My team leader
(did the first BPMN)

```
> { [[ ) << ; ) { # % ::  
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Process_mapping_strategy



Wings

Engine

Flaps

Magic?!

Turbine

Combustor

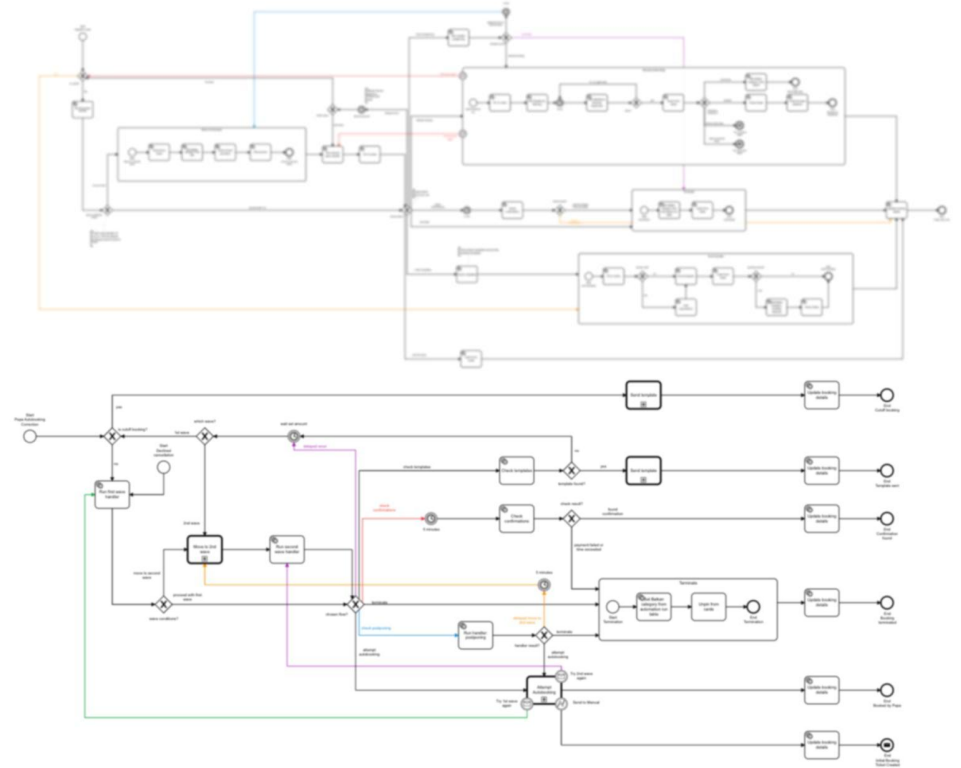
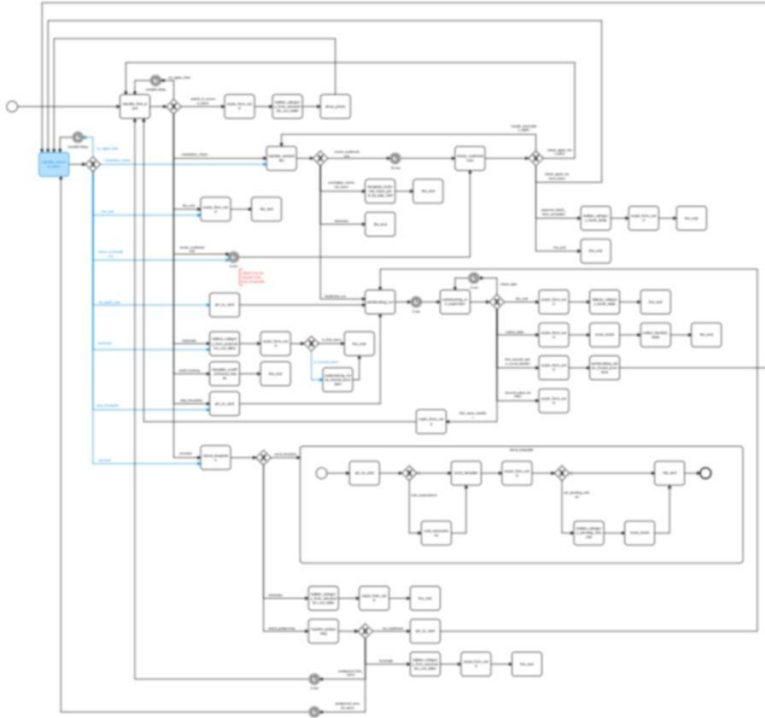
Visibility in BPMN

Documented parts in the activities





BPMN Picasso era took 1.5 months



> { [[) << ;) { # % ::
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The_BPMN_notation



Business is happy



Tester is happy



Product manager is happy



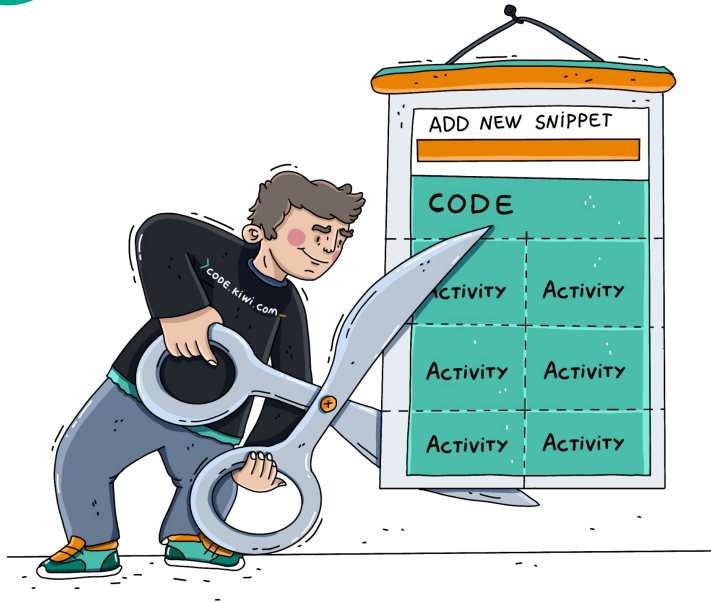
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CHAPTER II

Refactor everything


```
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```

The_challenges



Slice the codebase
to activities



Codebase changes over time
as business needs





Refactor all of the code (6 months)

31 activities in the end
(types of service tasks)

Worker

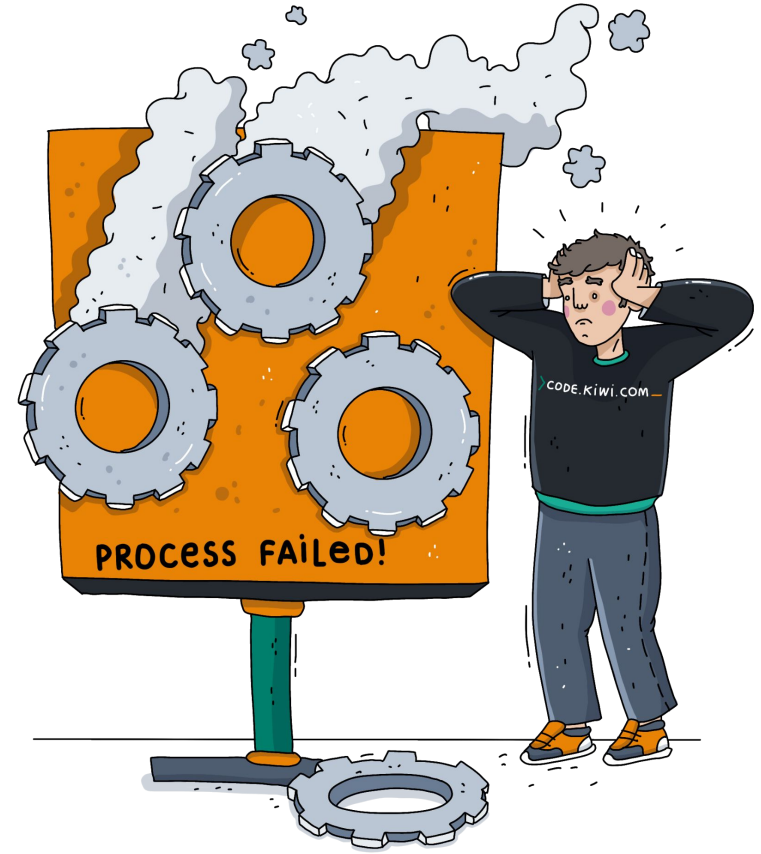
**Activity
handler**

**Task
interface**

**Integration
test**

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Integration testing is not enough



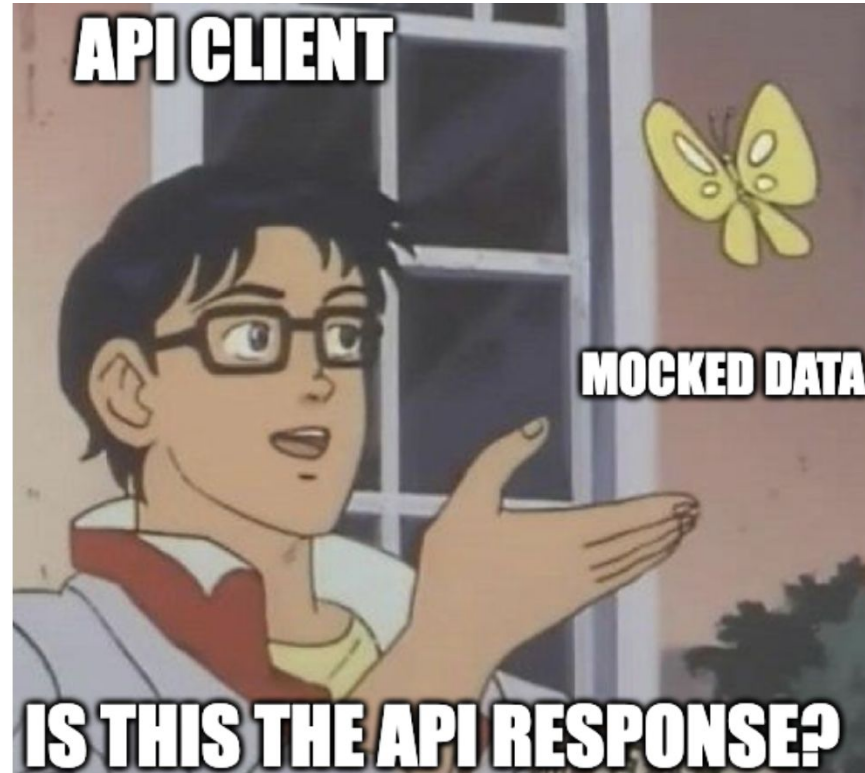
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CHAPTER III

Revenge of the ~~Sith~~ testing

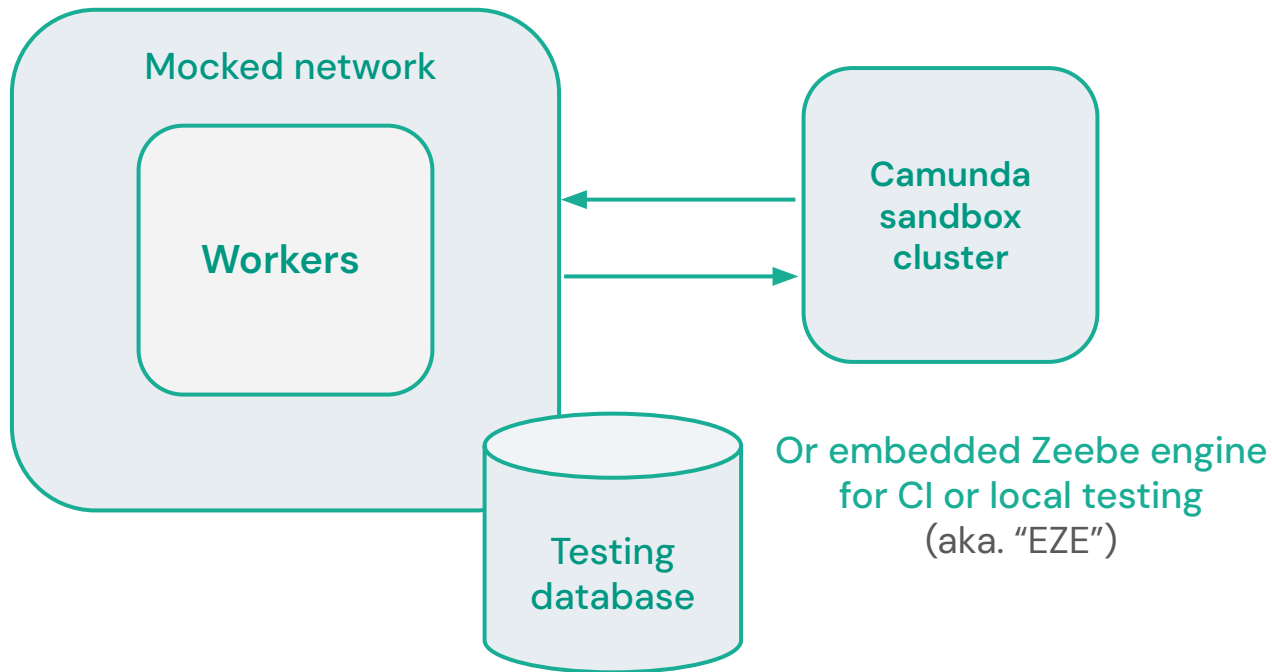
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Basic_testing_idea





E2E testing (1 month)



Data mining

- We logged **every** API Request/Response
- **81%** of cases happened in **18** scenarios
 - **26000** scenarios are due to loops
- We were able to obtain from logs **all 18** API communications



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Key features of testing

- Everything auto-generated from logs
- Possibility to replay any future error
- Possible to breakpoint



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WAS TESTING USEFUL?

YES.



54,000

Processes daily

0

Process errors
up till now
since July 2022

0

Migration of
system happened
without single
error

1

Developer error
(I did one typo
in process name)

```
> { [[ ) << ; ) { # % ::  
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EPILOGUE

Journey results

```
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Benefits

- Everyone understands each other
- Everything is documented
- We can debug faster and easier
- Activities are reusable



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THANK YOU.

Questions?

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