Digitization of ABN AMRO products in the Mobile Journey
Introduction

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Infosys

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Agenda

ABN AMRO in short

Mobile Banking – Business Strategy

IT challenges

How does it work

What did we learn during this journey?
ABN AMRO
in short
### Retail

<table>
<thead>
<tr>
<th>±5 million retail customers</th>
<th>300k SME customers</th>
<th>€674m H1 2016 profit</th>
</tr>
</thead>
</table>

1<sup>st</sup> in mortgage  
3<sup>rd</sup> in saving  
#1 bank for 21% the Dutch

### Private

<table>
<thead>
<tr>
<th>&gt;100,000 customers</th>
<th>€96m H1 2016 profit</th>
</tr>
</thead>
</table>

### Corporate

<table>
<thead>
<tr>
<th>±70,000 customers</th>
<th>€436m H1 2016 profit</th>
</tr>
</thead>
</table>
“Culture eats strategy for breakfast.”

- Peter Drucker (1909 – 2005)
Mobile Banking
a business strategy
+2 million
Active users in our Mobile banking app
App store

Our customers: 49% of our customers rate Mobile banking with a 9+ (out of 10)

App portfolio: 6th in the world

Mobile banking: 4th in the world
ABN AMRO’s vision on Digital Banking

- Block / unblock your debit card
- Identified calling
- Customer on boarding with Selfie

Ease of use & fast
Personal & relevant
Wow-factor
ABN AMRO’s IT challenges

Secure & Convenient authentication
Cost effective development
Speedy delivery of sales & services
Our solutions for the IT challenges
Our solutions for the IT challenges

1. Create seamless journey & killer UX between Web & App

2. Orchestrate digital process steps by using standard process capabilities
Our solutions for the IT challenges

1. Create seamless journey & killer UX between Web & App

2. Orchestrate digital process steps by using standard process capabilities
Create seamless journey & killer UX between Web & App

Native App for daily use
- Focus on daily banking activities
- Optimal experience
- Sustained security with maximal user-friendliness
- Make use of Native capabilities

Combined with web for less frequent banking
- Re-use of web-applications across different channels.
- Flexible for (frequently changing) content
Create seamless journey & killer UX between Web & App (II)

Mobile Banking

Single Sign on

Signing in the App

Responsive Web Development
Our solutions for the IT challenges

1. Create seamless journey & killer UX between Web & App

2. Orchestrate digital process steps by using standard process capabilities
Standard process flow

Data entry → Approval → Create proposal → Confirm & sign → Execute
Standard process building blocks

- Process management
- Customer/actor selection
- Notifications
- Proces status information
- Logging
- Document creation
- File upload
- Signing

Standard process building blocks
Rekeningen

Bij- en afachrijvingen

W YOFVUY
Privérekening
NL.79 ABNA 0419 4778 37

€ 165,49

5 mei 2017

AJ
akhtliwa Jclzfqyr-Tnlev
- 1,00

4 mei 2017

AJ
akhtliwa Jclzfqyr-Tnlev
- 1,00

16 jan., 2017

ABN AMRO Bank N.V.
- 1,57

6 jan., 2017

ABN AMRO Bank N.V.
- 1,57

17 sep., 2016

Overboeken
How do we use TIBCO?
What do we use where?

System of engagement

Presentation layer

Engagement layer

System of record

ESB

Product administration
What do we use where?

System of engagement

Presentation layer

Engagement layer

System of record

ESB

Product administration
What do we use where? – Engagement layer

<table>
<thead>
<tr>
<th>TIBCO BusinessWorks</th>
<th>TIBCO BusinessEvents</th>
<th>TIBCO iProcess</th>
<th>TIBCO Spotfire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expose restful interface</td>
<td>Business rules management</td>
<td>SLA management</td>
<td>Analytics</td>
</tr>
<tr>
<td>Handle end-user security</td>
<td>Stateful models</td>
<td>Fulfilment processes</td>
<td></td>
</tr>
<tr>
<td>Call business services and workflow processes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Presentation layer – Native

Presentation layer – Responsive Web

Engagement layer

Authorization
Check customer eligibility
Check product eligibility
Credit morality scoring
Process Income details
Credit capacity scoring
Generate contract (PDF)
Create sign item
Generate contract (PDF)
Create sign item

ESB
Eligibility services
Credit Risk services
Income classification service
Credit calculation services
Document services

Fulfillment Orchestration
Product instantiation
Send confirmation
Archival & MI data
Product Instantiation services
Distribution services
Archival services

Additional colors

Colors for text

Colors for graphs

Colors for tables

Border

Highlight

Headings

Body

Left Margin

Sign In App

Thanks & Feedback

App or Web signing

Sign via Web

0

146

134

193

216

47

121

131

140

147

209

204

73

169

66

228

230

232

141

198

63

202

205

208

199

239

236

242

242

242

218

0

0

0

84

100

108

0

127

117

121

131

140

What do we use where? – process layer
What do we use where? – process layer

Data entry
- Check customer eligibility
- Check product eligibility
- Credit mortality
- Process Income details
- Credit capacity scoring

Approval

Create proposal
- Product
- Confirm & sign

Execute
- Send
- Archival & MI data
- ESB
- Eligibility services
- Credit Risk services
- Income classification service
- Credit calculation services
- Document services
- Payment & Instrumentation services
- Distribution services
- Archive services

Fulfilment Orchestration

App or Web signing

Sign via Web

Sign In App

Thanks & Feedback

Colors for text
"Colors for graphs"

0 146 134 193 216 47 121 131 140

Colors for tables

Additional colors
0 100 128 243 192 0 218 0 0

84 100 108 0 127 117 121 131 140

Border

Highlight

Headings

Body

Left Margin
How do we do this?
With over 20 scrum teams we have digitized most of our Sales & Services Processes

- Access Contracts
- Advice Proposal
- Alerting
- Child Future Savings
- Coming of Age
- Commercial Accounts
- Consumer Loans
- Credit Cards
- Debit Cards

- Digital Customer Onboarding
- Small Business Credits
- Fiscal Savings
- Investment Insurances
- Investments
- Loyalty
- Manage Customer Data
- Mortgage Maintenance
- Overdraft
- Packages
- Savings
- Small Business Loans
- Unified Advice
- Unified Advice

The agile way of working helped us to reduce the project time for large epics from 24 months to 5 months
Besides features for our customers we have invested in CICD

85% testcases automated

Deployment:
- 24 hours
- 8 minutes

Testing:
- 4 weeks
- 1 week

This has resulted in increased quality and more releases
Lessons learned
What did we learn during this journey? #1

Current framework-based approach >40 teams creates a lot of dependency and requires extensive coordination
Execute PoC’s with more flexible architecture

• Experiment with BusinessWorks Container edition on Azure

• Create MicroServices with orchestration in Front-End rather than back-end
What did we learn during this journey? #2

Digitalization of the full journey takes (too much) effort
Introducing more mixed flavours

Customer interaction → Digital execution

Customer interaction → Manual execution

Thank you