

software **engineering**

helvetic coding contest 2013 - epfl

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Software Engineers

16 March 2013



swiss made
software



ICSE 2012

June 2-9, 2012
Zurich • Switzerland



AdNovum – Swiss Engineering Quality

Core Competence: High-End Security & Software Engineering

- Est. in 1988 – privately owned joint stock company
- Zurich (HQ), Bern, Budapest (Hungary), Singapore
- 300 employees, 70% graduate engineers

Customers and Industry Focus

Finance

CIC BANQUE CIC |SUISSE|



RAIFFEISEN



SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIONALE SVIZZERA
SWISS NATIONAL BANK



six GROUP



Government



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

- EFD/BIT
- EJPD/BFM
- EVD/BLW
- UVEK/BAKOM



- Canton Zurich Tax Authorities
- Canton Zurich Building Management

Insurance

Die Mobiliar
Versicherungen & Vorsorge

Helsana



VISANA



Logistics / Industry



Telecom



Sunrise



About me – Marius Kleiner

- 1999 Graduated high school in Zurich
- 2008 Systèmes de Communication, EPFL
- 2010 Ph.D., EPFL

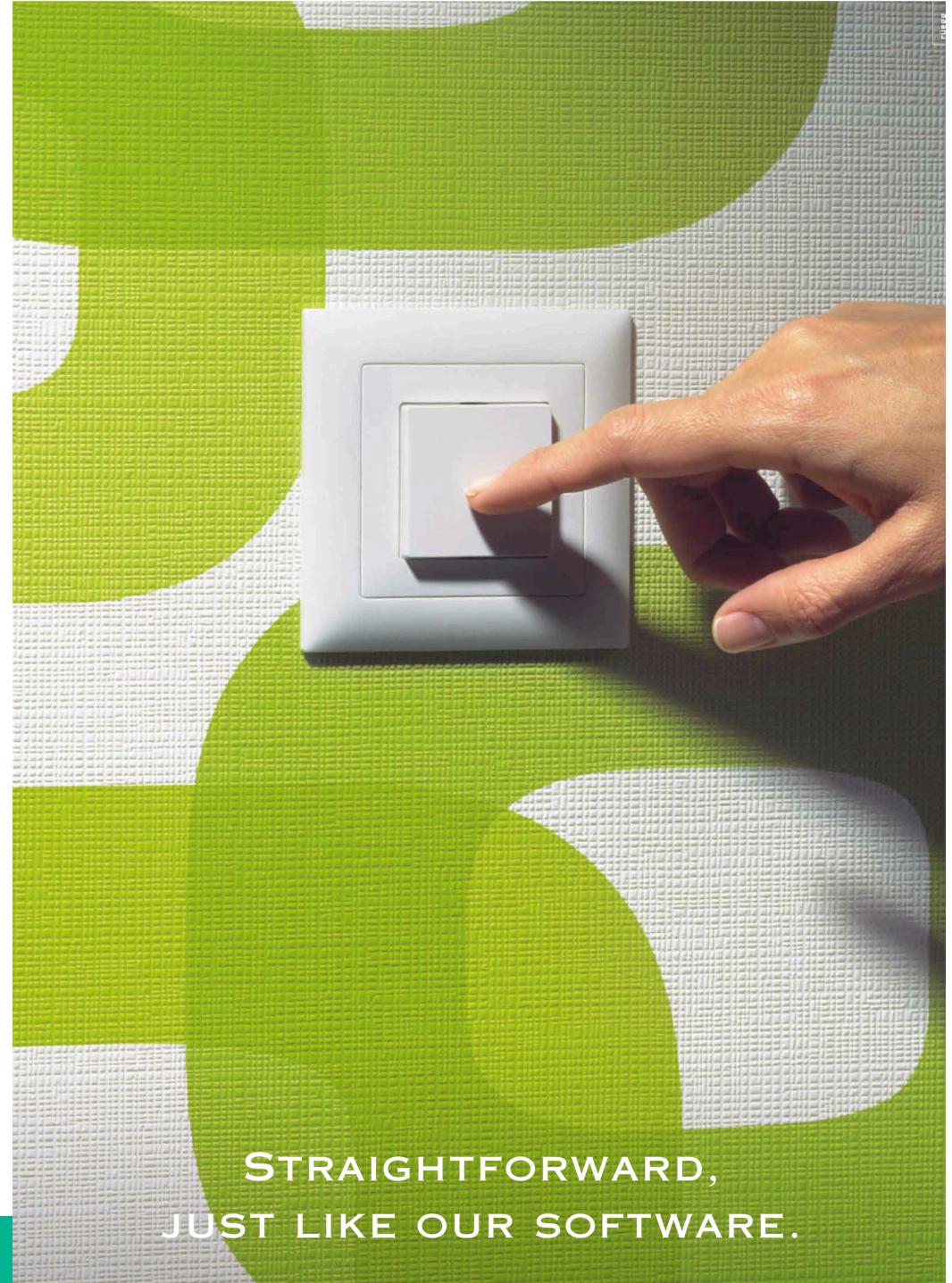
- Hobby



- Oktober 2010: Started at AdNovum as Software Engineer

project based software engineering

ADNOVUM

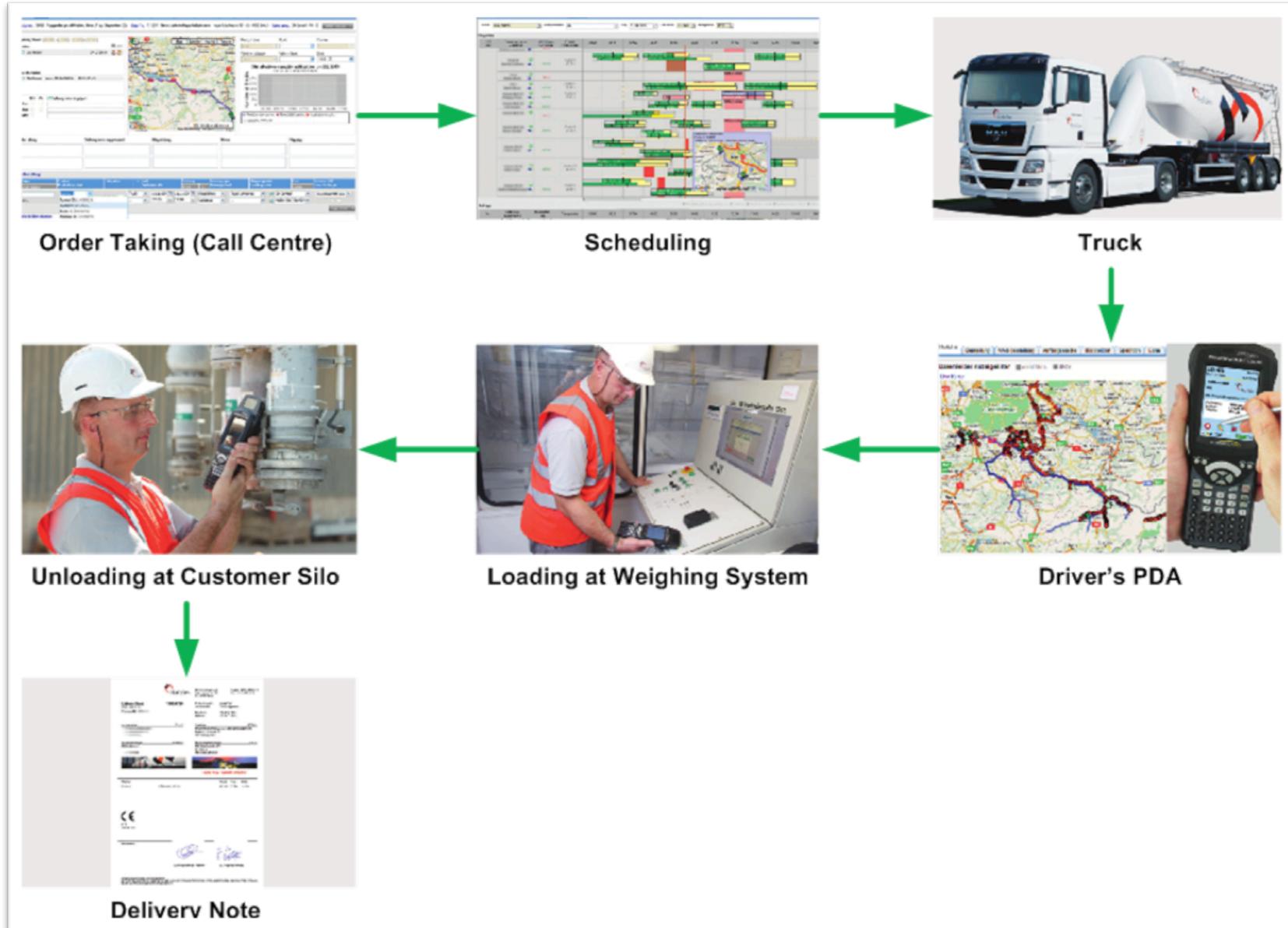


STRAIGHTFORWARD,
JUST LIKE OUR SOFTWARE.

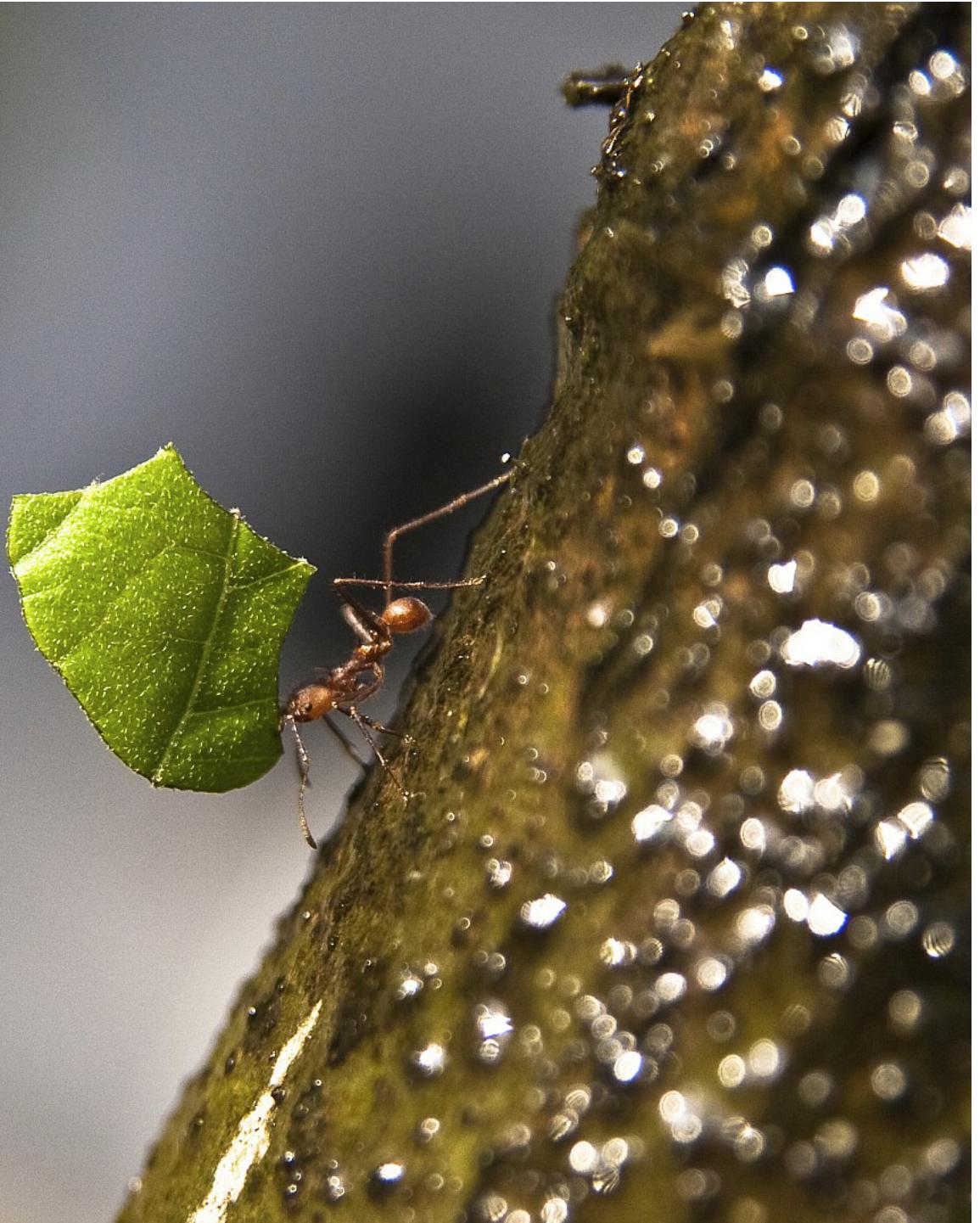


BUILDING BLOCKS

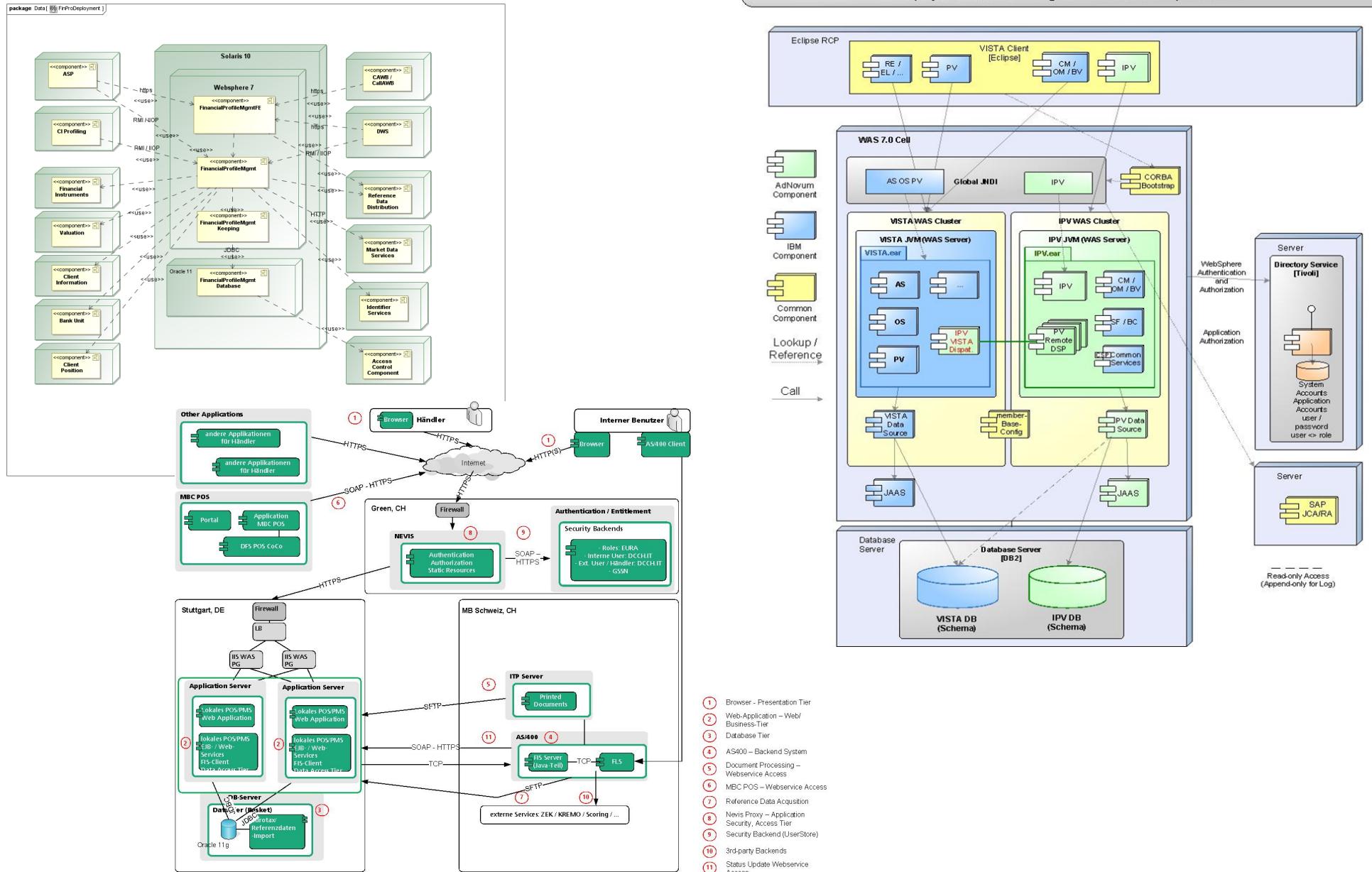




LOAD BALANCER



IPV Deployment Scenario – Integration mit IBM – WebSphere Details



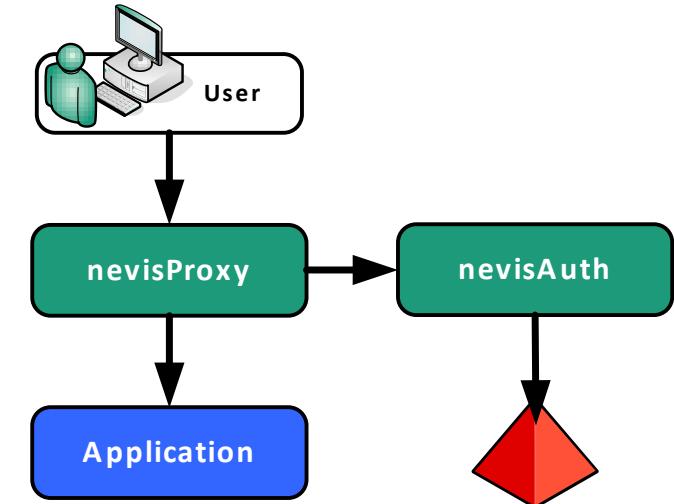


FIRE

WALL

Nevis - Web Access Security Framework

- **Reverse Proxy & WAF**
- **Authentication Workflow**
- **Identity Management**
- **Single-Sign-On (SSO)**



- **High flexibility: adaptable to application's needs & capabilities**
 - Various credentials (password, certificate, SMS, OTP, Ticket, ..), Level of authentication, SSO, etc.
- **Cryptography & Security**
 - Input Validation, Protection against ever changing attacks & vulnerabilities (0-day exploits)



<> EIGENE SPUREN LEGEN. >>

Our Experiences

- Produce useful software
- Diversity in every aspect
- „Right“ size of company
- Large dev teams, distributed globally
- Possibility to work abroad
- Soft skills important too

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