Telecommunication

Development of an online service for
B2B market capability analysis (crowd analytics)

For a globally operating, highly profitable telecommunication corporation, comSysto is developing a software product for the processing, provisioning, and visualisation of geographic data from mobile networks.

Requirements

- International provision of services (according to the requirements of the locations)
- Design and development of a prototype (pre alpha), the alpha and the beta versions of a crowd analytics software
- Three main components: footfalls, catchment and mobile network monitoring
- Development of new business fields, establishment of a new, data-based business model, commercial introduction in the UK

Technologies

- Infrastructure: Amazon Web Services IaaS and PaaS offers (e.g. EC2, S3, EMR, Elastic Beanstalk, Cloud Formation)
- Data Engineering: AWS EMR, MapR M5, jumboDB, mongoDB
- Data Science: R, R Studio, Zeppelin, Spark, MapReduce
- Web: jQuery, D3.js, HTML5, Wicket, JSON, Spring, AngularJS, Highcharts
- Test automation: TestNg, Mockito, Wicket Tests, Jasmine and Karma, Spring test classes, Groovy, DBUnit, REST-Mocks, h2 in-memory DB, Selenium
- Continuous Delivery: Git, Maven, Jenkins, Nexus, Shell scripts

Procedures and Methods

- Support of the startup-like structure with agile and targeted processes
- Exploration of the data, market requirements and demands using established agile and lean startup methods
- Fast prototyping as well as very frequent demonstrations and user testing
- Support in the use of open source-based software architecture, flexible and highly automated cloud infrastructure, as well as continuous delivery processes
- Final industrialisation, go live, and commercial introduction of the complete solution

Advanced Analytics/Data Science

- Visual and statistical data exploration
- Data curation such as extrapolations when values are missing
- Determination of the type of area based on card data
- Feature extraction and operationalisation of the predictive models for movement flow
- Definition and operationalisation of anomaly detection algorithms