

Identifying and Predicting Real Time Business Opportunities in GSM Networks – Temporal Location Based Marketing



Background

- Turkcell Technology has more than 15 years of development experience with its solutions applied and proven at leading operators in more than 10 countries
- From assisting the operation of network resources to improving business oriented intelligence, TTECH's experts provide an expanding portfolio of packaged and custom solutions for telecom network operators including;
 - **Network Services & Enablers**
 - **SIM Asset & Services Management**
 - **Mobile Marketing**
 - **Mobile Marketing**
 - **Mobile Internet & Multimedia**
 - **Business Intelligence & Support Systems**
- Specialized for over 10 years in BI in the Telecommunications industry, designing, building and running one of the largest data warehouses in telecom industry with a proven record of success in BI operations
- Early and leading Industry adopter of new real time BI trends, taking advantage of Event Driven Architectures, Event Pattern Analysis in a Spatial and contextual data context, leveraging the power of **Oracle** Complex Event Processing



Transformation

- GSM Network present many challenges with a wealth of streaming telecommunication elements and different data representations, the goal being to identify Real Time business opportunities in this data in motion
- The ability to immediately recognise the key event patterns in terms of call activations with associated locations could enable a new and massive collection of ways to enhance customer satisfaction by offering targeted services and promotions, when and where relevant
- As the leading GSM company in Turkey and one of the largest in Europe another challenge is the millions of customer subscribers and the vast amount of data which now flows;
 - **1.5 Billion events daily**
 - **On special occasions, records are broken with the handling of 300 Million SMS Text message in a day with over 16,000 messages/second at peak times**
- A highly available and scalable Event Stream Processing platform is vital



Outcome

- The implementation of **Oracle** Complex Event Processing enriched Turkcell's ability to capture real time streaming information immediately from their GSM network and benefit from its value
- Identifying Subscriber events from mobile devices with a GeoSpatial and SMS text message temporal relevance, enables Turkcell to offer a wide range of new valuable and interesting offers, delivered when they are most applicable
- Improved Customer satisfaction with a wide array of new revenue opportunities emerging, by determining and predicting trends based on changing locations, in association with environmental real time conditions, enabled by **Oracle** Complex Event Processing with its capabilities to dynamically inject and modify event patterns of interest, found in the flowing real time GSM data
- Complete solution reliability and scalability leveraging this Event Server and integrated **Oracle** Coherence