

ORACLE®

ORACLE[®]
CONSULTING



Implementace řešení s Big Data

Oracle Consulting
Česká republika

Vít Hlaváček

Květen 2016

ORACLE[®]

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.



Around-the-clock
Availability



Consumer
Expectations



Real-time
Fulfillment



Flawless
Engagement



Personalized
Service



Information any
time, Anywhere



Insight



Employee
Expectations



Business Model



Speed to Market



New Markets

Digital Changes Everything

Oracle Consulting – Inovační tým

- **Oddělení inovací** - nové oddělení hledající nová řešení v IT
- Řešení skrz **všechny oblasti** lidské činnosti
- Maximalizovat využití **současných řešení** za využití integrací **s novými technologiemi**
- Oracle experti s bohatými **zkušenostmi** v IT oblasti
- Studenti vysokých škol a jejich **vysokoškolské projekty**
- **Výzkumné týmy** partnerských společností
- Vlastní **vývojový tým**
- **Inovační tým Oracle CZ** všechny sjednocuje ve stabilní společnosti



Oracle Consulting – vybrané inovační projekty



Internet věcí

Technologie LE iBeacon

- VIP přístup k zákazníkům
- sledování stavu pacienta



Bezpečnost s Big Data

Cyber Security řešení
Sémantická analýza textu
(čeština, arabština)



Archiv s Big Data

Garantované úložiště



Analýzy síťových grafů

Oracle Software Asset
Management v cloudu
Social Intelligence

Market Overview

Exponential Growth in Data Volumes

More Data

leads to

More Data Challenges

Big Data řešení – ukázkové případy



Financial Services

- Risk & Compliance Analytics
- Auditing, Deep Data Storage
- Fraud Detection / Predictive
- Trading Risk Insight
- Deposit Spread Maximization



Insurance

- Insurance Underwriting
- Customer Behavior Monitoring
- Next Best Product / Predictive
- Loan Processing w/New Data
- Litigation Propensity
- Subrogation Win Rates



Telecom

- Call Detail Records (CDRs)
- Infrastructure Investment
- Next Product to Buy (NPTB)
- Real-time Bandwidth Allocation
- New Product Development



Retail

- 360° View of Customer
- Analyze Brand Sentiment
- Localized, Personalized Promotions
- Website Optimization
- Optimal Store Layout



Manufacturing

- Monitor Recall Data
- Supplier Consolidation
- Supply Chain and Logistics
- Assembly Line Quality
- Predictive Maintenance
- Crowdsourcing Product Quality



Utilities, Oil & Gas

- Smart Meter Stream Analysis
- Slow Oil Well Decline Curves
- Optimize Lease Bidding
- Compliance Reporting
- Proactive Equipment Repair
- Seismic Image Processing



Healthcare

- Genomic Data for Medical Trials
- Monitor Patient Vitals
- Reduce Re-admittance Rates
- Store Medical Research Data
- Recruit Cohorts for Pharmaceutical Trials

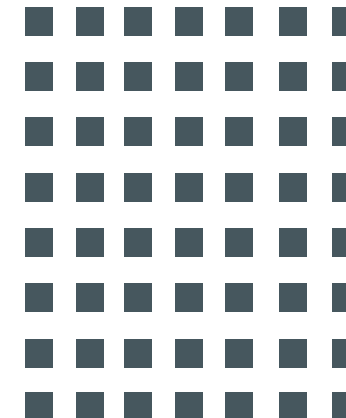
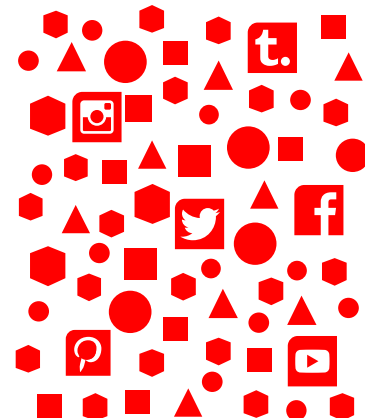
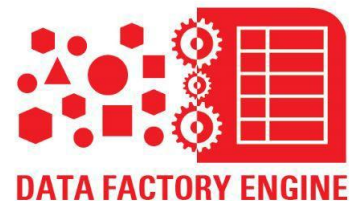


Public Sector

- Analyze Public Sentiment
- Protect Critical Networks
- Prevent Fraud and Waste
- Crowdsourcing Reporting for Repairs to Infrastructure
- Fulfill Open Records Requests

Big Data řešení

Unikátní Data Factory Engine

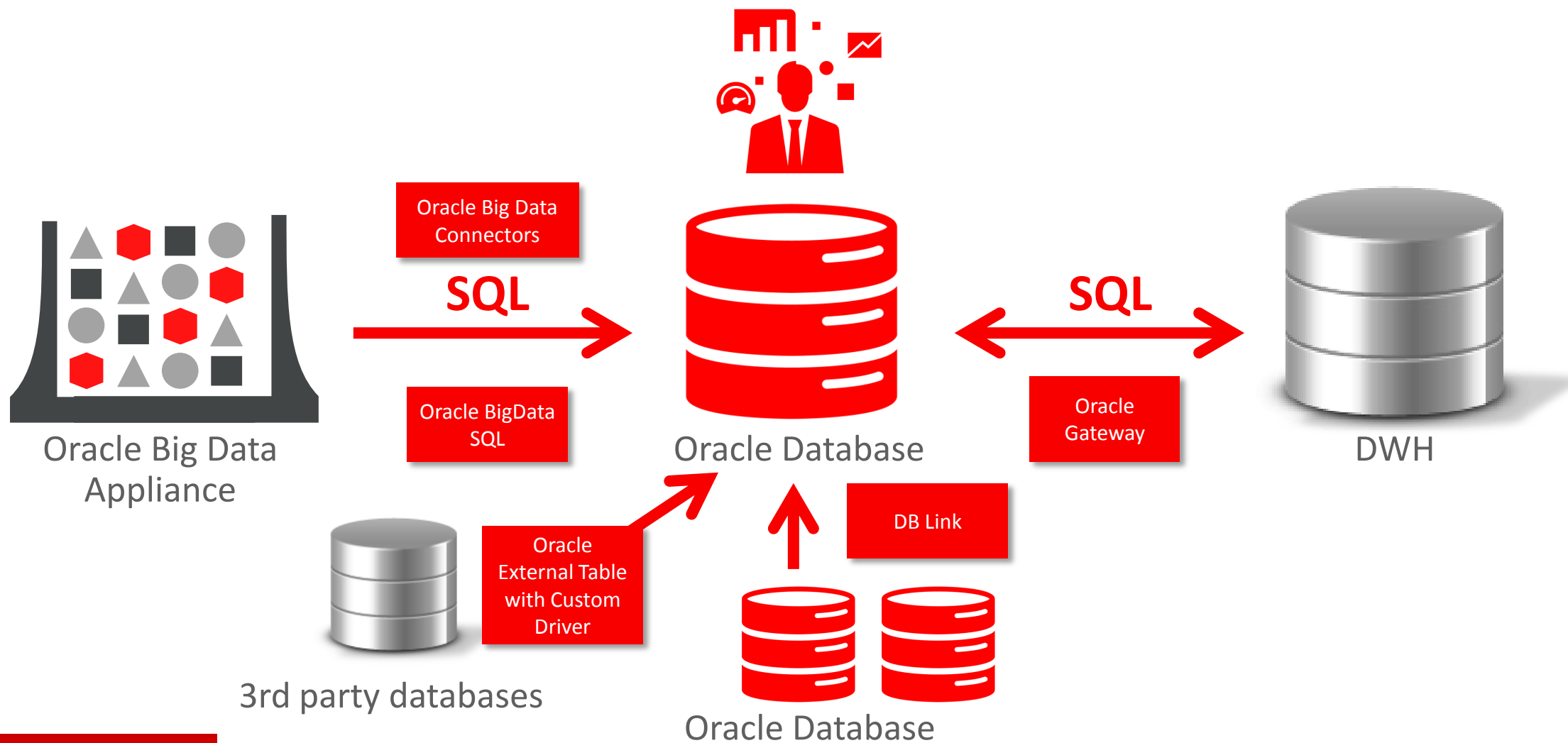


Emerging Sources
(Silos of Innovation)



Existing Sources
(Systems of Record)

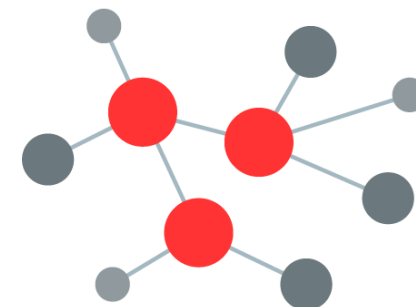
Využití jednotného SQL přístupu



Datový Analytik

SQL

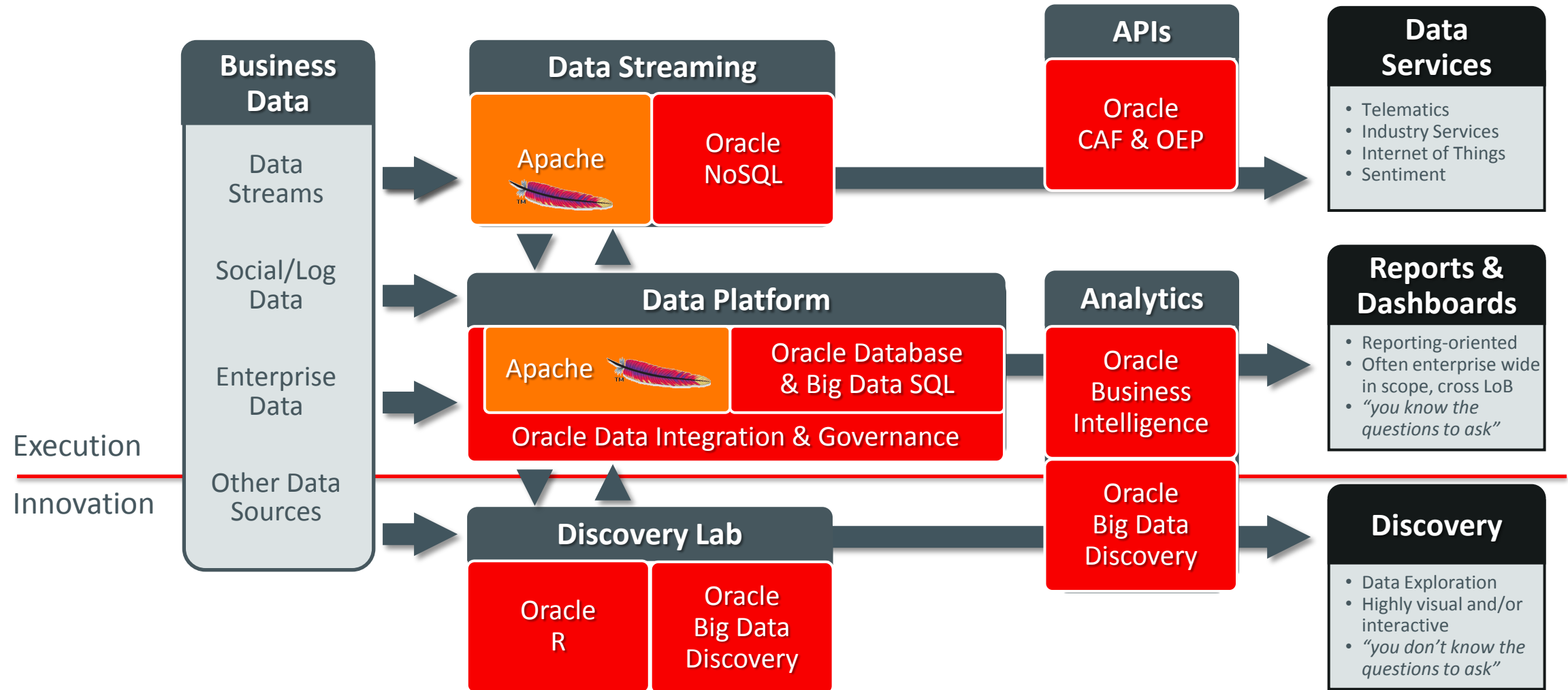
Datový vědec



python



Oracle Software Solution for Big Data



Oracle Big Data Spatial and Graph - Property Graph

- Massively-Scalable Distributed Graph Database



- Parallel loader ingests open formats

GML

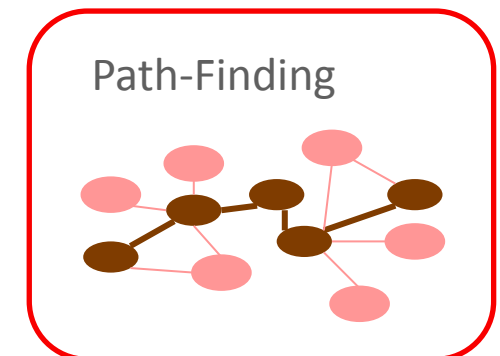
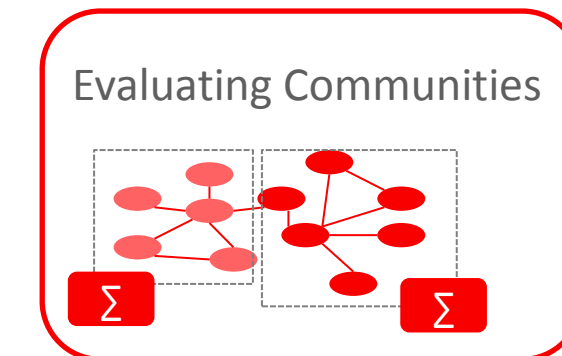
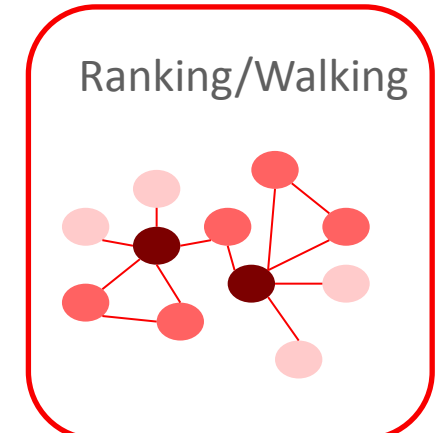
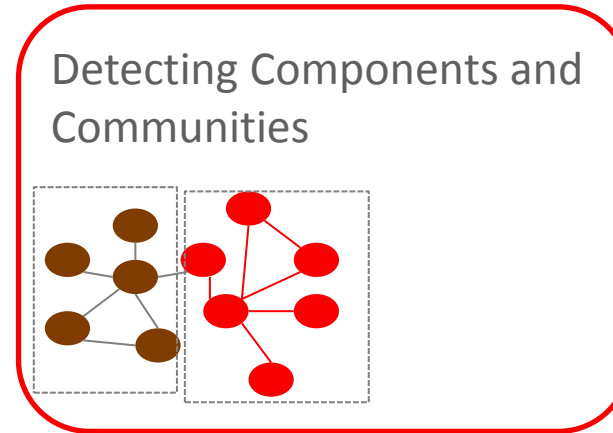
GraphML

GraphSON

Optimized Oracle file format

- In-Memory Analytst: 35 built-in Analytics

- Open interfaces:



Graph is a powerful tool for Data Analysis

Graph Analysis Use Cases

- Attribute searching (Get people with a given name)
- Node/edge adjacency (Get people that like a given Web page)
- Fixed-length paths (Get the friends of the friends of a given person)
- Reach-ability (Is there a "friend" connection between two people?)
- Pattern matching (Get the common friends between two people)
- Aggregates (Get the number of friends of a given person)

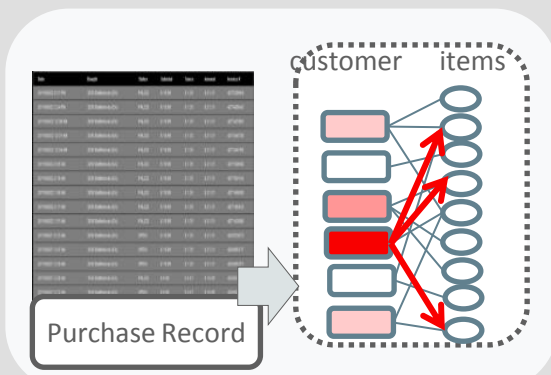
Recommend the most *similar* item purchased by *similar* people

Find out people that are *central* in the given network – e.g. influencer marketing

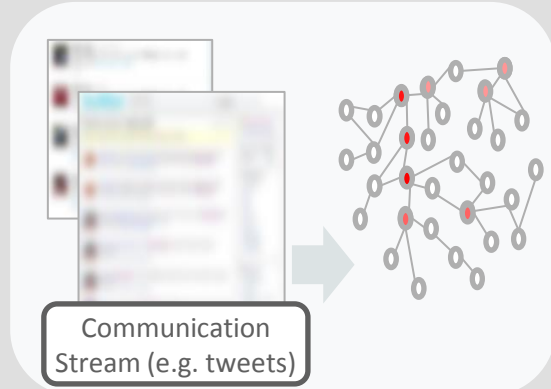
Identify group of people that are close to each other – e.g. target group marketing

Find out all the sets of entities that match to the given pattern – e.g. fraud detection

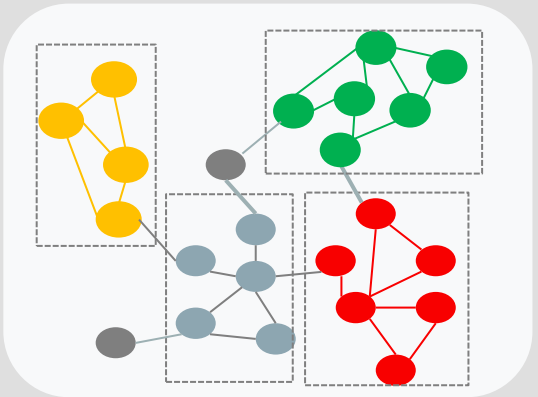
Product Recommendation



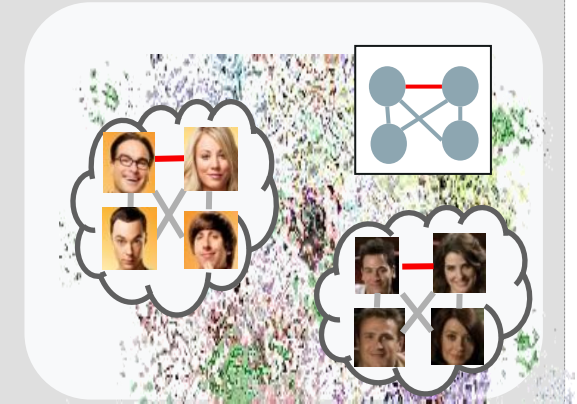
Influencer Identification



Community Detection

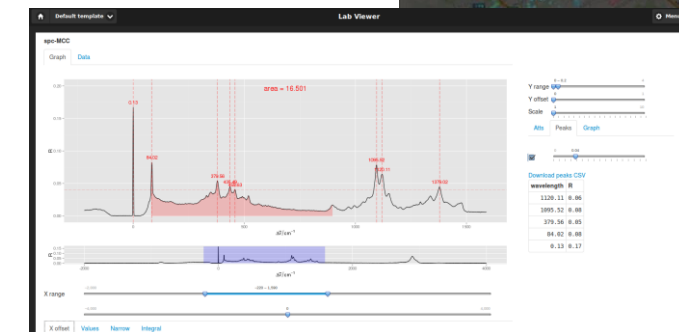
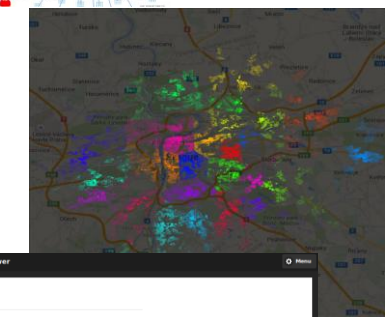
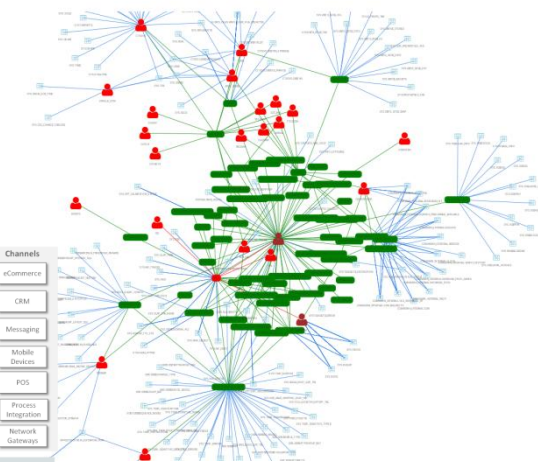
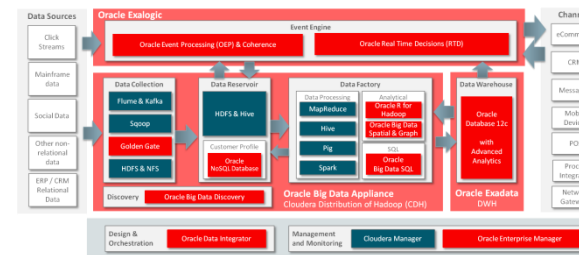


Graph Pattern Matching



Oracle Consulting ČR – zkušenosti a inovace

- **Mainframe offload** s Oracle Big Data Appliance
- **NoSQL databáze** v průmyslu
- **Security řešení** s Big Data
- **Analýza laboratorních dat** s Big Data
- **Prediktivní úlohy** s Oracle R a Oracle Advanced Analytics
- **Clickstream analýza**
- Koncepce a nasazení **řešení Data Lake**
- **Integrace Hadoop** pro SAS Visual Analytics
- Řešení pro **Business Intelligence** s využitím Big Data



ORACLE®