

Network Intelligence & Advanced Analytics

DO MORE
WITH YOUR
DATA

OSS and BSS Integration
IEEE, San Diego, May 2012

William Cage
EMEA CoE,
Comms Media and
Entertainment

What is really unique about your business ?

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“The use of Big Data is becoming a key way for leading companies to outperform their peers. Across sectors, we expect to see value accruing to leading users of Big Data at the expense of laggards, a trend for which the emerging evidence is growing stronger.”

Big Data: The Next Frontier For Innovation, Competition And Productivity”

McKinsey Global Institute May 2011

McKinsey&Company

McKinsey Global Institute



June 2011

Big data: The next frontier
for innovation, competition,
and productivity



TERADATA
Raising Intelligence

Core Proposition:

1+1=3.....Integrating data to drive new insights and opportunities

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Integrating network Customer Experience (CEM) data with broader customer and commercial (CVM) data creates new insights that will drive

more accurate customer retention, value and network investment actions



Exploitation of Consolidated Data Across Multiple Functions

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ENGINEERING



CALL
CENTRE



MARKETING



FINANCE

INTEGRATED VIEW

EVENTS

EXPERIENCE

TRENDS

AVAILABILITY

UTILISATION

PROFITABILITY

SUBSCRIBER

DEVICE

NETWORK

CELL ID

LOCATION

BILLING

CRM

BUSINESS

SALES

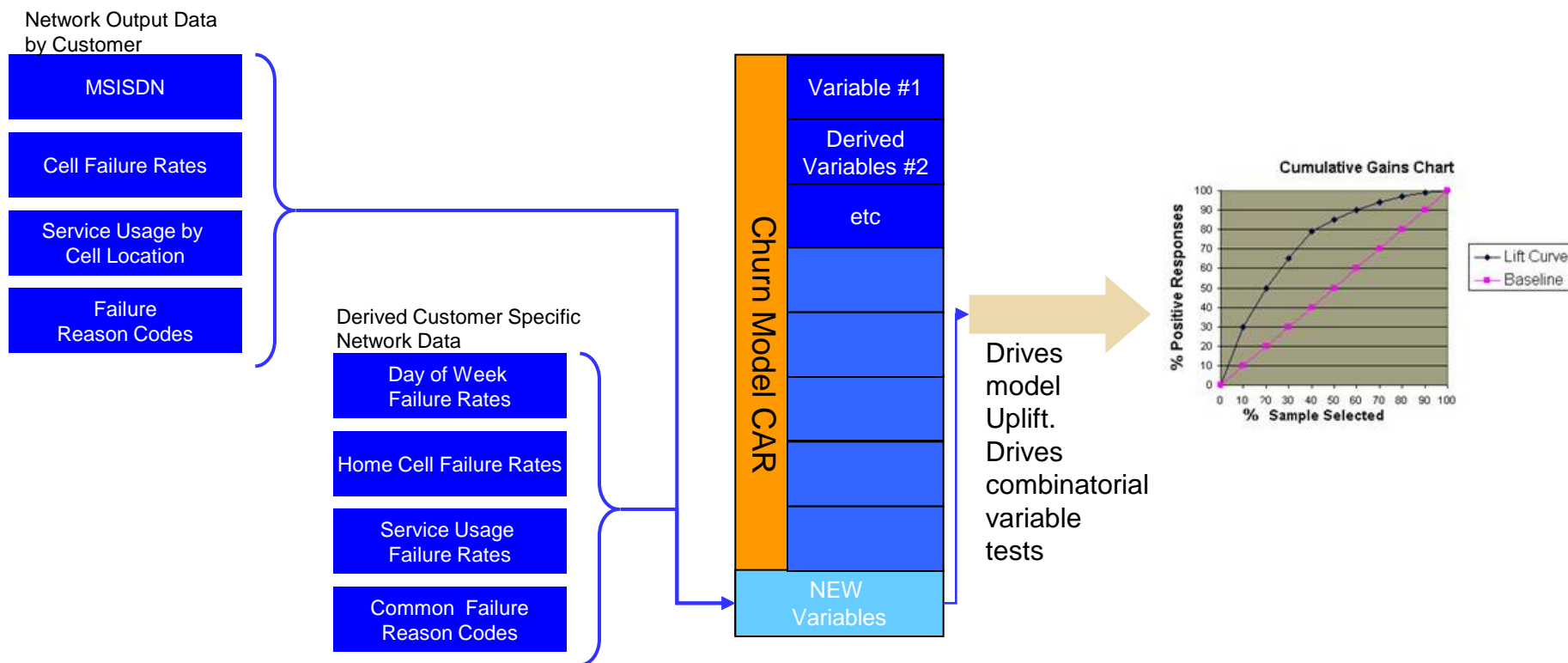
LOCATION

Analytic and Business Opportunities

Increased churn model accuracy

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Using CEM data and derived data in churn modelling

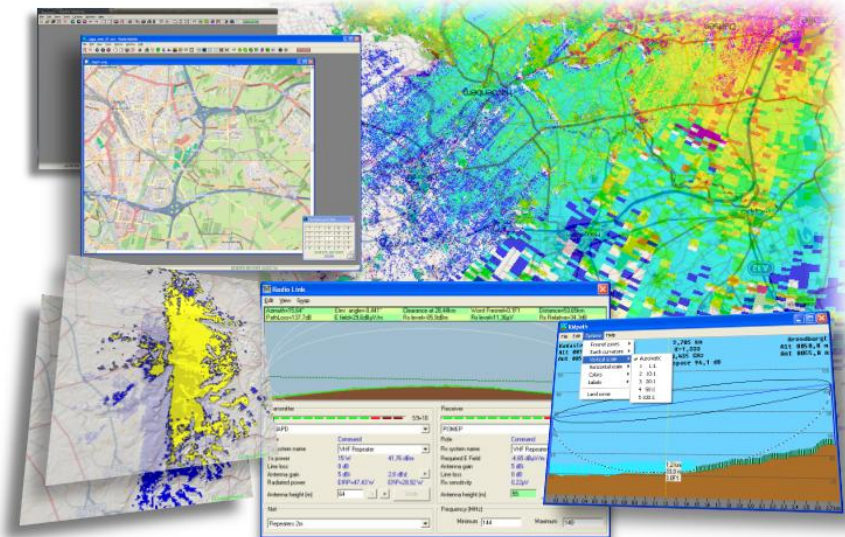
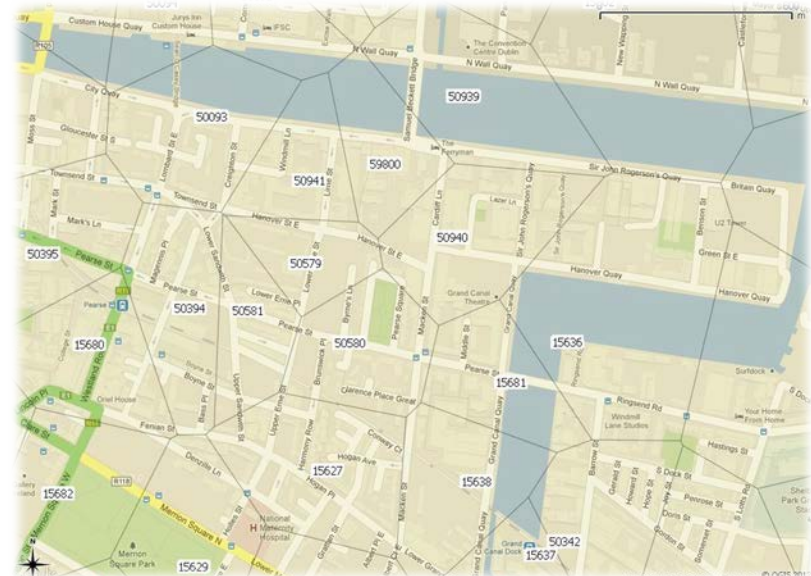


Example Use Case - Targeted network roll-out

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Telefonica is now driving its network investment strategy through customer and operational intelligence.

- By joining up customer usage patterns with the detailed costs of each network site, they have created a model to measure the margin of each base station.
- Factoring in location knowledge enables solid projections to be made about new sites. Accurately forecasting costs and customer usage for proposed new sites empowers informed investment decisions and strategic investments.
- The same model facilitates a very informed post investment review



Device related Corporate Customer Behaviour & Experience

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Using network data for profiling handset performance

Daily/Cumulative from Network

IMEI
TAC
MSISDN / IMSI
Cell Failure Rates
Service Usage by Cell Location
Handset Performance (dropped Call, Dropped data session)
Cell ID

+

Data from EDW

Customer/Subscription
Tenure/Subsidy
Tariff History
Device/Upgrade history

= Handset Performance in correlation to user & Network elements



Device Analytics that drive device management, configuration but also device software mgmt.



- Usage profile per device
- Device level traffic volume vs. signalling overhead (to device S/W variant level)
- Device distribution, location and penetration
- User segments, application & service profiling
- Understand and quantify the impact of “disruptive” Apps e.g. Viber, Skype
- Identify which devices are particularly good/bad for voice/data services etc.

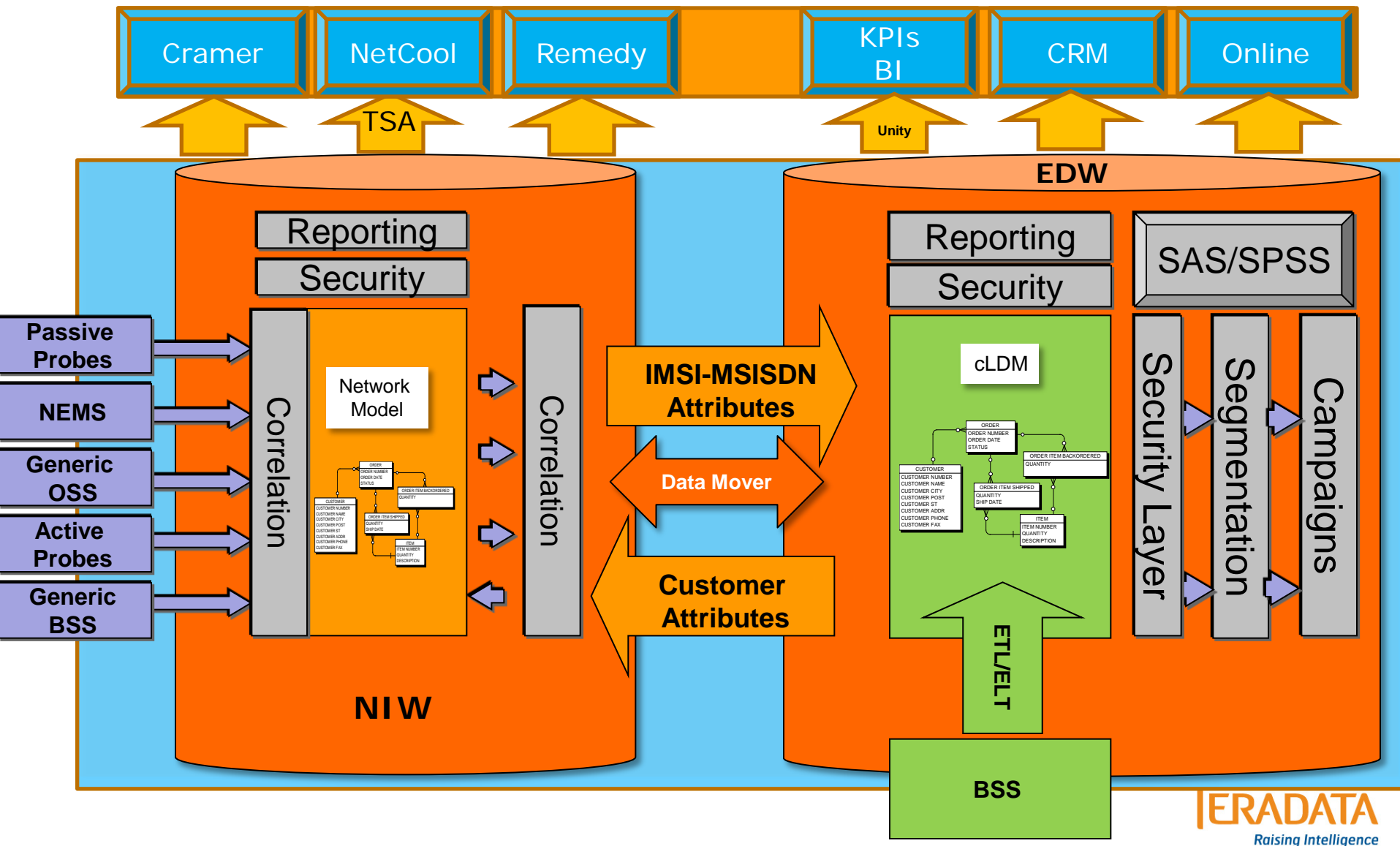
Proven Value from CEM<->CVM to date

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- Typical correlation between customer network experience and churn = x3 in heavy usage Pre-pay
- Removing 1% of the unprofitable, heavy data users = UK£Ms pa in savings
- Increase in lift with real-time top-up and bonus campaigns at live Events (e.g. Sports, Retail Openings etc) = 25%-30% uplift
- Femtocell campaign uplifts by improved targeting = 1.5%-2% uplift

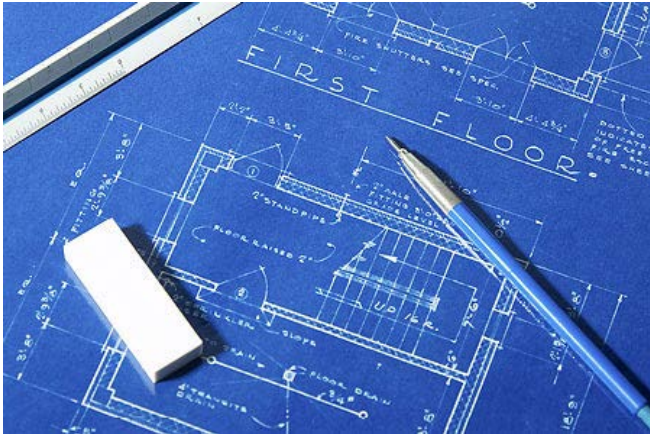
Solution Architecture

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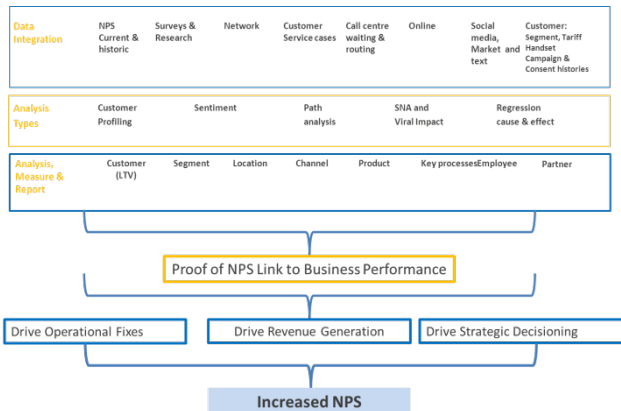
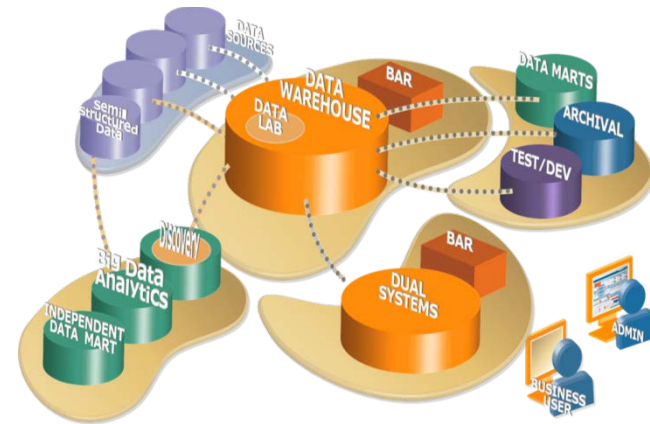
Take-Aways – We Can Help Teradata and our Customers alike

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Design for Maximum Flexibility
Start Small & Build Incrementally

Work towards an Integrated Analytical Eco System



Understand and Influence KPIs such as NPS, CSSR, PDD, TTD...
Either Top-down or Bottom-up