Smartare Analys 2013

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STREAM-INTELCOM

metazone
an intelcom company

STREAM-INTELCOM

Smarter Analytics

Leveraging the Big Data Opportunity

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Agenda

- Brief introduction to Stream-Intelcom;

- Business Benefits Demonstrated using Smarter Analytics;

- Today's Business Challenges;

- Delivering Analytics and Business Value:

  – Stream-Intelcom's Approach;

  – Solution Examples;

- It is not just about Analytics;

- The Analytic Journey – considerations

Company overview

Leading Exclusive IBM Information Management / Business Analytics consultancy

- Professional Services & Software Sales organization
- *Offices in Stockholm, Oslo, London, Amsterdam, New York, Florida, Ottawa, Toronto, and Barbados*
- *Operating since 2002 with over 260 employees*

Worldwide Services Delivery

- *Europe, United States, Canada, Caribbean, China and Australia plus Offshore Development*

FOCUSED EXCLUSIVELY ON INFORMATION MANAGEMENT AND BUSINESS ANALYTICS SOLUTIONS DELIVERED THROUGH 5 PRIMARY PRACTICES:

1. MASTER DATA MANAGEMENT – ALL MDM SOLUTIONS
2. ENTERPRISE DATA INTEGRATION – CORE INTEGRATION PRACTICE
3. INFORMATION QUALITY MANAGEMENT – METADATA AND QUALITY SOLUTIONS
4. INFORMATION MANAGEMENT STRATEGY – GOVERNANCE AND BUSINESS STRATEGY
5. *ENTERPRISE ANALYTICS – NETEZZA, COGNOS, TM1, SPSS, BIG DATA*

   Our Strength: Our People

- *Senior individuals with proven track record*

Some Useful Definitions

- Gartner definition (2012) - **Big data** are high volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization.

- IBM - **Big data** is more than simply a matter of size; it is an opportunity to find insights in new and emerging types of data and content, to make your business more agile, and to answer questions that were previously considered beyond your reach

- TDWI - **Big data analytics** is the application of advanced analytic techniques to very large, diverse data sets that often include varied data types and streaming data.

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Major North American Telco needed to improve their ability to predict churn and to identify the right remediation strategy.

Findings

- Stream Research Centre found over 50 attributes that were significant predictors of churn that were not included in current models
- Developed 3 new churn models
- Identified external market data to enhance models

Solution & Technology

- Social diagrams to measure centrality of nodes in terms of in/out degree, closeness, and "betweenness"
- S-360 Database enriches client data
- Text Analytics to enhance models with Social media data
- BigInsights, AQL, Neo4J, PureData, SPSS

Benefits

- Increases ability to identify an additional 3% of churn to a 97% degree of accuracy
- 3% of the base amounts to a $420M lifetime value

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STREAM-INTELCOM

Major North American Retailer required more agility and insight to adjust their merchandising to dynamic consumer behaviours.

Findings

- Significant changes to customer base as loyalty segments age and less loyal segments increase
- Difficult to identify unique customers because ID's are linked to loyalty cards not financial cards
- Increasing variability in consumer preferences

Solution & Technology

- S-360 Database provides insight into key metrics on the competitors impact on the market
- Spatial analysis plots segments for a geographical view of the market
- Stream Big Data Architecture enables micro segmentation

Benefits

- Able to identify competitors market presence correlated to high conversion (in/out) segments
- Increased margins by improving short versus long-term buying decisions
- Higher penetration of profitable segments through more focused product assortments

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Financial Institution wanted to reassess the Student Loan Market to identify most effective way to target profitable customers.

Findings

- Social Media Analytics identified the buzz, sentiment, and hot topics around student loans
- Binding to demographic and consumer expenditure provided rich segmentation of the audience
- Identified niche players filling a void

Solution & Technology

- Stream Social Intelligence binds social media data to demographic and consumer expenditure data
- Text Analytics measures the buzz, sentiment, and proximity on topics.
- BigInsights, PureData for Analytics, SPSS, ESRI, Cognos

Benefits

- Able to segment the audience to understand most profitable segments
- Able to understand how to design offers to address expressed needs
- Able to determine marketing mode and geographic locations to reach desired segments

STREAM-INTELCOM

Large multi-national corporation fended off hostile takeover and wanted to prevent future attempts

Findings

- Multiple data points are required to determine when market conditions and a companies financial conditions align to attract merger and acquisition activity
- Stream's Research center of macroeconomic data scientist developed 100 M&A metrics

Solution & Technology

- S-360 corporate database aggregates all data on the top medium to large North American corporations
- Data is sourced from social media, publications, public financial metrics, and location intelligence
- BigInsights, PureData for Analytics, SPSS

Benefits

- Able to identify when the corporation is most susceptible for an M&A
- Able to determine which companies in the market are most likely to be M&A predators

STREAM-INTELCOM

Major Entertainment Corporation wanted to use Starbucks customer base to market movies.

Findings

- Social Media was a good predictor of preferences towards genres, actors and current box office hits
- An external customer base could be used to identify markets for external products

Solution & Technology

- Stream Social Intelligence binds social media data to demographic and consumer expenditure data
- Text Analytics measures the buzz, sentiment, and proximity on topics.
- BigInsights, PureData for Analytics, SPSS, ESRI, Cognos

Benefits

- Able to segment the audience to understand most active segments and their movie preferences
- Able to determine marketing mode (Starbucks website or store locations) and geographic locations to reach desired segments

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Current Data Challenge

- Too much data; not enough information. Every day, we create 2.5 quintillion bytes of data — so much that 90% of the data in the world today has been created in the last two years alone (metrics sourced from IBM);
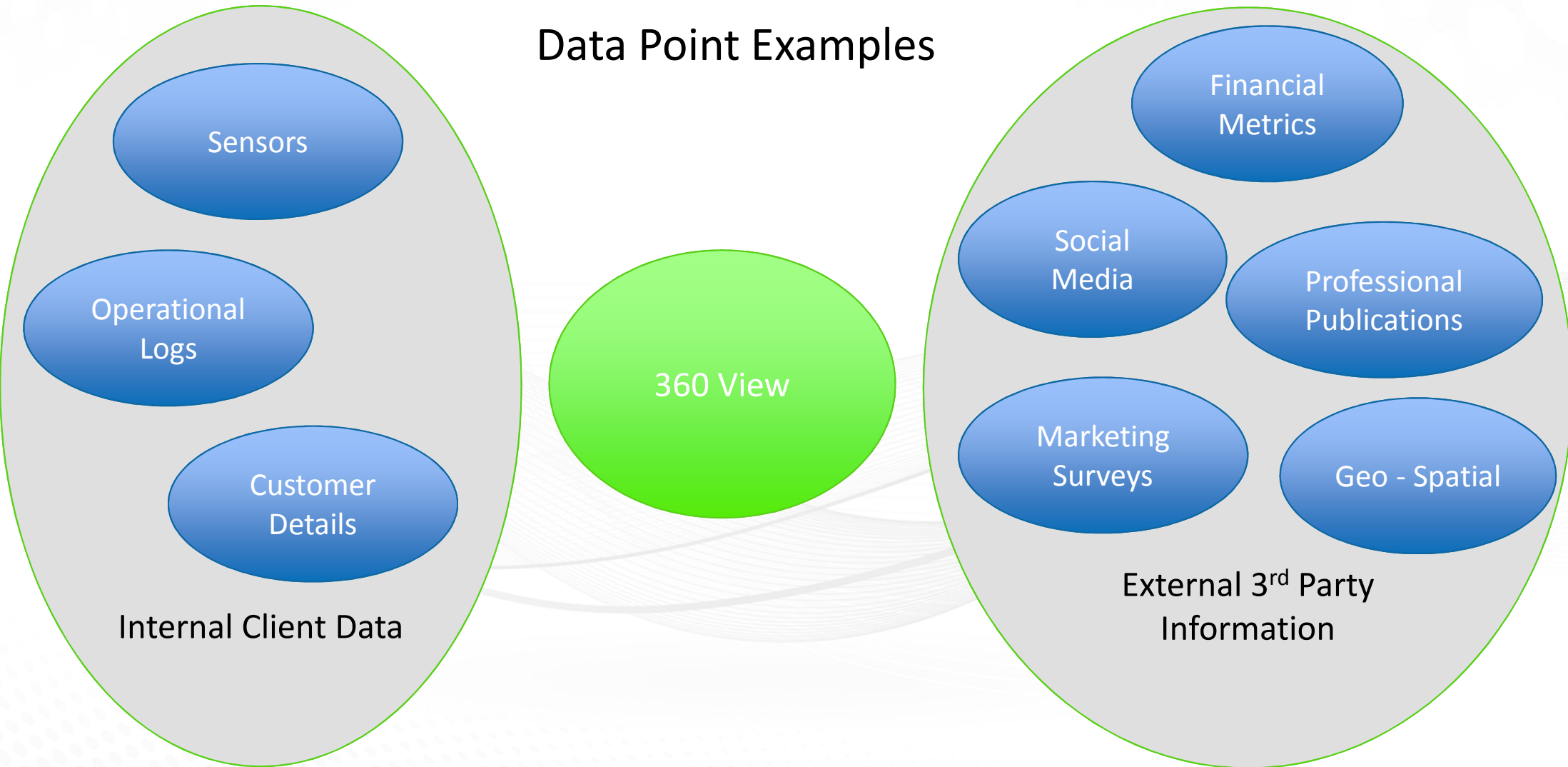 - How can we transform Data into an Asset?

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Examples of business problems faced by Stream-Intelcom clients:

- Understanding your customer – Personal relationship. Segmentation of customers into 'buckets' no longer adequate;

- Brand awareness and customer sentiment;

- Customer retention (Churn) for consumer directed services business;

- Competitor awareness;

- Trade area analysis – geospatial;

- Targeted marketing and customer acquisition;

Achieving Business Value Through Smarter Analytics

Smarter Analytics is more than Social Media

Data Point Examples

Internal Client Data
- Sensors
- Operational Logs
- Customer Details

360 View

External 3rd Party Information
- Financial Metrics
- Social Media
- Professional Publications
- Marketing Surveys
- Geo - Spatial

"Remember that social media analytics is only one tool…It's another data point, but it's not the data point.", Lisa Joy Rosner, Chief Marketing Officer of Social Analytics, NetBase

"The largest pitfall is assuming that social data is a surrogate for qualitative, primary research. It is an additional, powerful tool in the marketing tool belt, not a cure-all.", Christine Crandell, President, New Business Strategies

Some companies currently analyzing social media:
- Crimson Hexagon, www.crimsonhexagon.com
- @WalMart Labs*, www.walmartlabs.com
- Networked Insights, www.networkedinsights.com
- Radian6, www.radian6.com
- Alterian, www.alterian.com
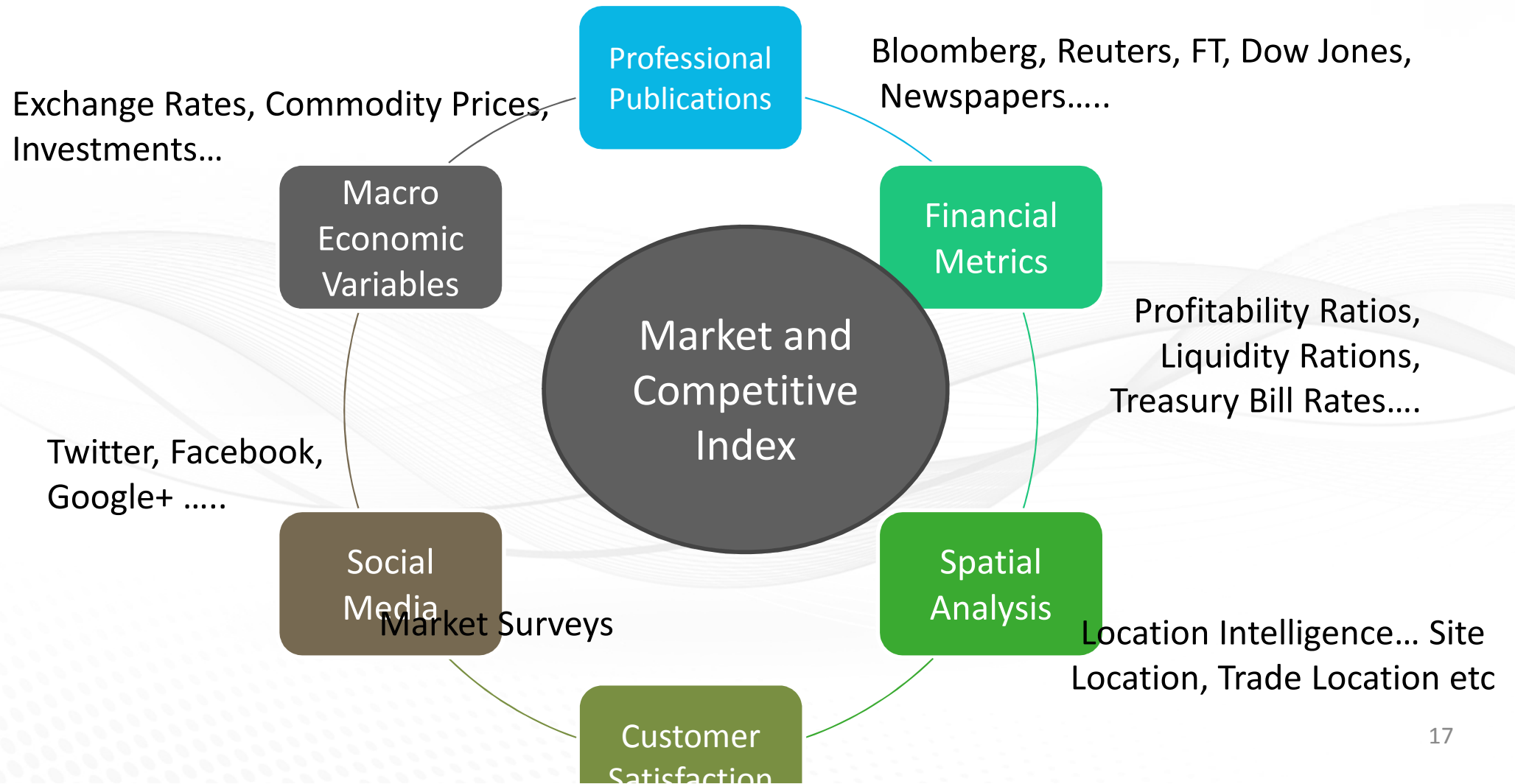- Clarabridge, www.clarabridge.com
- Simplify360, www.simplify360.com

All Single Point Providers of Social Media Content

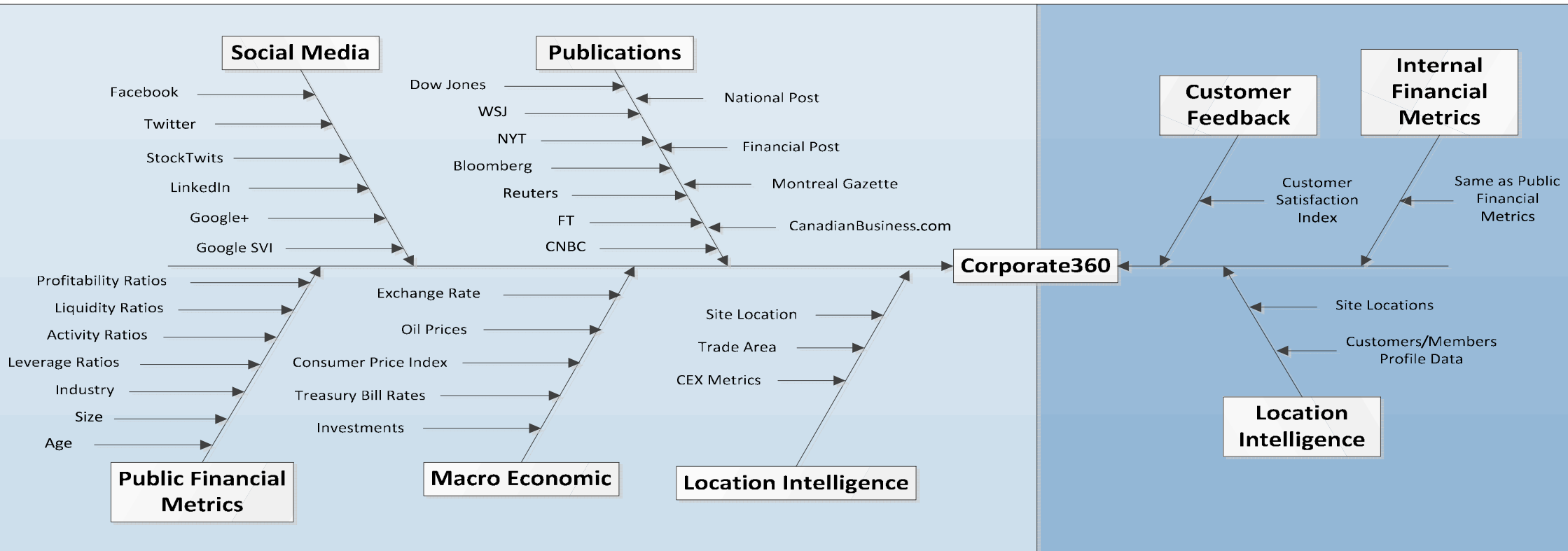* @WalMart Labs acquired Kosmix for $300m in 2011

Solving the Business Problem

- Analyse multiple data points, build associations between disparate sources to gain greater insight;

- Prebuilt solution delivering 360 corporate view; Social Media on its own cannot provide this level of insight;

- Bring 3rd party external information together with client data;

STREAM-INTELCOM

Professional Publications

Bloomberg, Reuters, FT, Dow Jones, Newspapers…..

Exchange Rates, Commodity Prices, Investments…

Macro Economic Variables

Financial Metrics

Market and Competitive Index

Profitability Ratios, Liquidity Rations, Treasury Bill Rates….

Twitter, Facebook, Google+ …..

Social Media

Market Surveys

Spatial Analysis

Location Intelligence… Site Location, Trade Location etc

Customer Satisfaction

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Stream's Corporate Database

Client-Specific Data

Social Media
- Facebook
- Twitter
- StockTwits
- LinkedIn
- Google+
- Google SVI

Publications
- Dow Jones
- WSJ
- NYT
- Bloomberg
- Reuters
- FT
- CNBC
- National Post
- Financial Post
- Montreal Gazette
- CanadianBusiness.com

Public Financial Metrics
- Profitability Ratios
- Liquidity Ratios
- Activity Ratios
- Leverage Ratios
- Industry
- Size
- Age

Macro Economic
- Exchange Rate
- Oil Prices
- Consumer Price Index
- Treasury Bill Rates
- Investments

Location Intelligence
- Site Location
- Trade Area
- CEX Metrics

Corporate360

Customer Feedback
- Customer Satisfaction Index

Internal Financial Metrics
- Same as Public Financial Metrics

Location Intelligence
- Site Locations
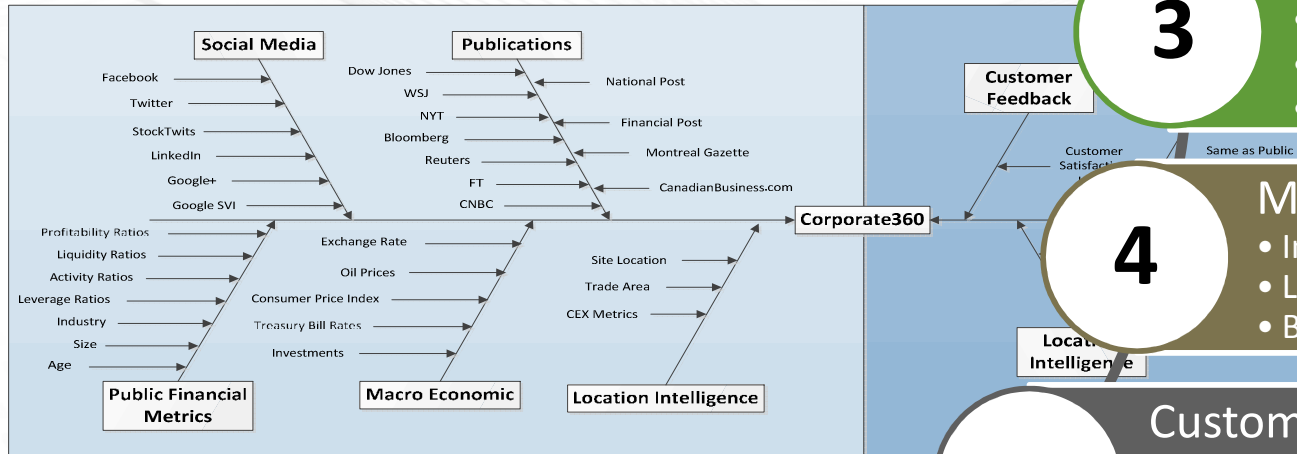- Customers/Members Profile Data

Core Services:

Database
- Corporate360 Database
- Custom Market 360

Reports & Assessments
- Member Executive Reports
- Custom Assessments & Consulting

1 Buzz Reports
- Firm, Competitor, Industry, Region
- Client-specific Word Watch

2 Competitive Metrics
- Financial Competitive Index
- Social Influence Index
- Performance Metrics

3 Industry 360 Spatial Analysis
- Social Intelligence
- Competitive Location Analysis
- Consumer Expenditure/Segmentation

4 Member Executive Reports
- Industry , Regional Analysis
- Like Size Company Analysis
- Buzz Trending by Industry and Region

5 Custom Assessment and Consulting
- M&A Assessment
- R&D Assessment
- Custom Market 360

Social Media — Facebook, Twitter, StockTwits, LinkedIn, Google+, Google SVI

Publications — Dow Jones, WSJ, NYT, Bloomberg, Reuters, FT, CNBC, National Post, Financial Post, Montreal Gazette, CanadianBusiness.com

Public Financial Metrics — Profitability Ratios, Liquidity Ratios, Activity Ratios, Leverage Ratios, Industry, Size, Age

Macro Economic — Exchange Rate, Oil Prices, Consumer Price Index, Treasury Bill Rates, Investments

Location Intelligence — Site Location, Trade Area, CEX Metrics

Corporate360

Customer Feedback — Customer Satisfaction, Same as Public

Location Intelligence

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Two examples of Corp360 in action:

- Corporate 360
  - Stream Social Intelligence
  - Customer Retention (Churn modelling)

Stream Social Intelligence provides deeper insights into:

- *what is being said in social media sites or blogs such as Facebook, Twitter, MySpace etc.*
- *more about who is saying it*
- *what it means for your business*

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Consumer Analysis

Learn more about your *customers*, your *prospective customers* and your *competitor's customers*

what they are interested in

what they like and what they don't like

their propensity to purchase

the factors that will influence their decisions

their propensity to convert

Market Analysis

Learn more about *your market and emerging markets*

- revenue potential
- market penetration
- positive and negative trends
- your brand health and awareness
- emerging products and project trends

Data is collected from conversations defined by specified **keywords**

The **word cloud** and pie chart identify the topics with the most "buzz"

The stacked bar provides a breakdown of **buzz by social media site.**

This view provides an exploratory view of *what* is being said regarding specified keywords in each market at a point in time

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The bubble chart shows **a measure of "buzz"** across the x-axis and the proximity along the y-axis

Proximity provides a **measure of value** that the word contributes to the overall conversation

A larger bubble indicates more positive sentiment

The market contributing to each word in this conversation is broken down by **age and gender**

This view provides a view into the demographics and **expenditure behaviours**

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Consumer Expenditure View

The stacked column chart provides a breakdown of **the top words by market**

The line chart shows a selection of consumer expenditure measures by zip code

SSI has a comprehensive inventory of **consumer expenditure** measures for enhanced market segmentation

This view provides a deeper view into **who** is in the market behind these conversations

Market: All Markets   **Date:** All Dates   **Keyword:** COLLEGE

Word
- FINANZ.COM
- INFORMATION
- CONGRESS
- SEMINAR
- EXPERIENCE
- SEARCHING
- PRIVATE
- GRADUATE
- RATES
- PERCENT

Word Count (000's)

Market Name: CHICAGO, HOUSTON, LOS ANGELES, MIAMI, NEW YORK, PHILADELPHIA, PHOENIX, SAN DIEGO

Dollars (USD)

Zipcode: 90077, 10007, 77094, 10282, 33158, 77005, 10281, 100069, 77059, 92130

Financial Demographics (Average)
- Education Exp...
- College Tuition...
- Elementary/HS...
- Change in Sav...
- Change in Che...

Market Information

Average Education Expenses	$1,169
Total Male Population	5,877,515
Total Female Population	5,929,294
Largest Age Group	20-24
Average Vehicle Loans	$4,388
Average Purchase Price of Property (Owned Home)	$12,363

Spatial Analysis View

Spatial Analysis is an effective way to visualize **demographics** and **consumer expenditure data** geographically

The example shows store locations with their trade areas in concentric circles

The locations with the highest contribution to the conversation are identified by black rectangles

This view helps determine a plan of action for inserting yourself into the conversation to reach the desired audience

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Customer Retention - Churn
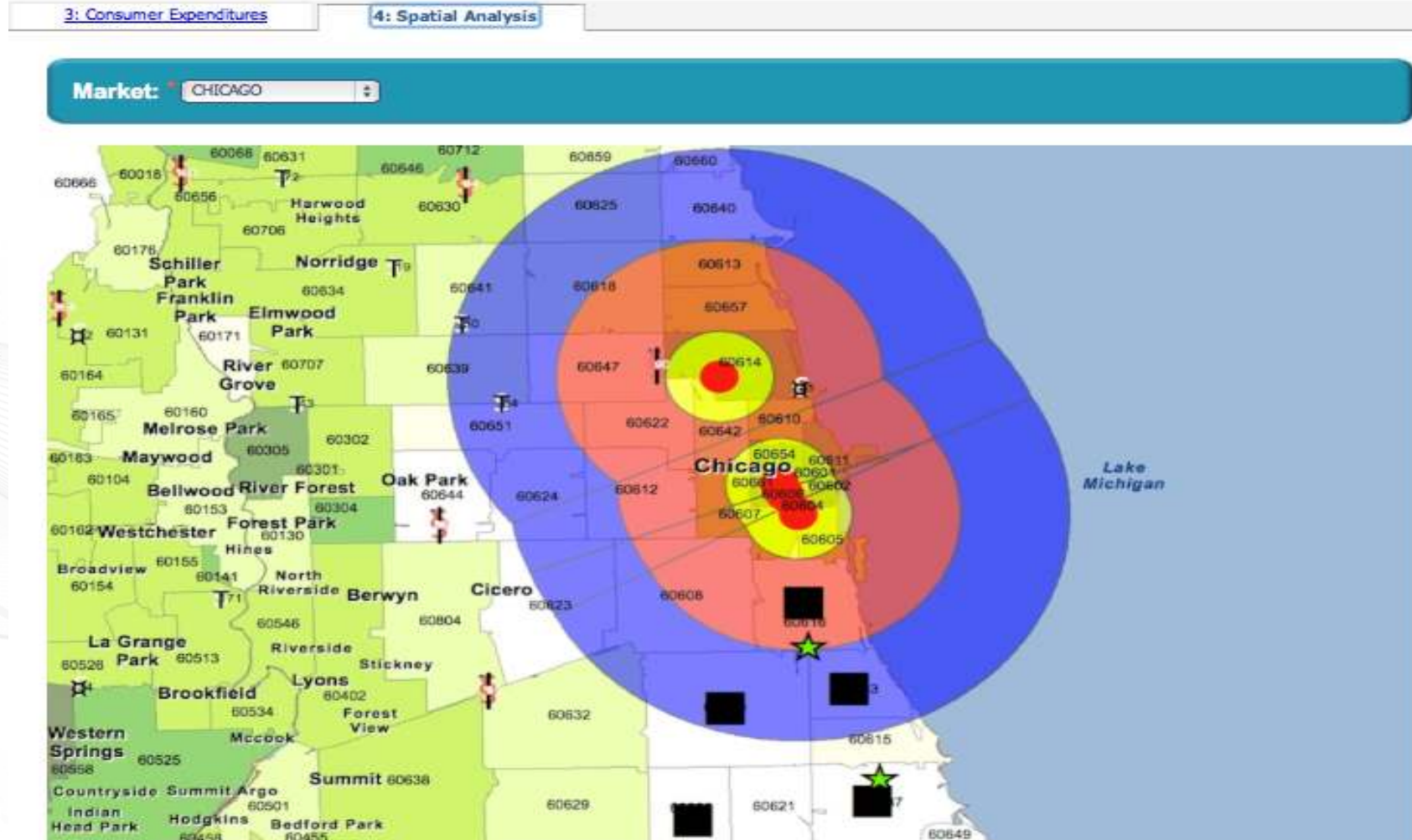
Predicting Churn more accurately than existing models

- Predict churn and identify core causes leveraging the Stream Corp360 Advanced Analytics platform
- Consolidate data around 4 dimensions:
  - Social Network
  - Client Demographic
  - Client Call Profile and Plan Attributes
  - Bill/Payment Information
- Apply Stream Corp360 model to:
  - Identify who is likely to churn
  - Define marketing offers and tactics to reduce churn

Further details of Churn Solution

For this solution, StreamIntelcom brought the following qualifications:

- A highly skilled team of researchers, data modelers and an extended research facility built in partnership of University of Texas at El Paso

- The ability to provide low cost hosting and analytics "**as-a-service**"

- End-to-end analytics competency in the areas of Business intelligence, Big Data Analytics, Predictive Analytics and Information Management

- StreamIntelcom embrace shared-risk partnership models that demonstrate confidence in our ability to deliver

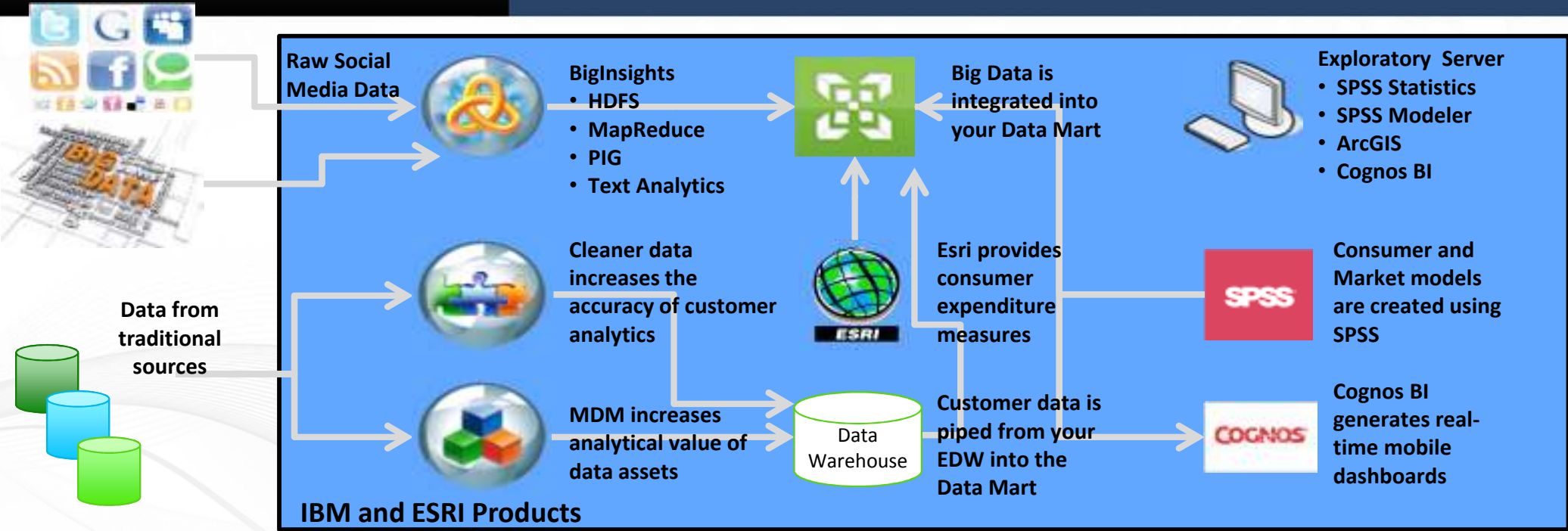**Key Components to a full 360 View**

Information Governance

Data Quality	Master Data Management	Analytics

Client Information

3rd Party Information

Stream goes End-to-End with Big Data

Raw Social Media Data

BigInsights
- HDFS
- MapReduce
- PIG
- Text Analytics

Big Data is integrated into your Data Mart

Exploratory Server
- SPSS Statistics
- SPSS Modeler
- ArcGIS
- Cognos BI

Cleaner data increases the accuracy of customer analytics

Esri provides consumer expenditure measures

Consumer and Market models are created using SPSS

Data from traditional sources

MDM increases analytical value of data assets

Data Warehouse

Customer data is piped from your EDW into the Data Mart

Cognos BI generates real-time mobile dashboards

IBM and ESRI Products

Stream Solutions and Accelerators

Stream Media Connector	Social Media Analytics	PureData System Integration	SC-360
	StreamClean Quality Service	Stream Spatial Binding	Stream Consumer Analytics
	MDM Framework	Integration Framework	Social Intelligence (SSI)

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Analytics Practice Industry and Domain Expertise

STREAM-INTELCOM

Domain	Industry				
	Retail	Finance	Healthcare & Science	Entertainment & Hospitality	Telco
Predictive and Exploratory Analysis	• Demand Forecasting • Merchandise Planning • Revenue Optimization • Promotion Planning • Customer Lifetime Value • Customer Behavior	• **Customer Acquisition and Retention** • Campaign Optimization • Customer Behavior • Risk Mitigation	• Treatment/Outcome • Patient Load • Resource Optimization • Revenue Optimization	• Demand Forecasting • Patron Behavior • Personal Advertisement • Patron Segmentation	• **Churn** • Customer and Market Optimization • Customer Segmentation
Big Data	• POS/Scan Data • **Web/Social Media**	• Fraud Detection • **Web/Social Media**	• Genome Sequencing • Patient Records • **Web/Social Media**	• Passive/Active RFID • Machine Stream Data • **Web/Social Media**	• CDR Analysis • **Web/Social Media**
Spatial Analysis	• Customer Profile • Performance Metrics • **Trade Area Analysis** • Site Evaluation/Sunk Costs Analysis	• Site Location Analysis • **Trade Area Analysis** • Customer Segmentation	• Clinic Location Analysis • Facility Management	• Queuing • Crowd Flow Analysis • Games/Event Location Analysis • Facility Management	• Network Analysis • Distribution Channels • Facility Management
Modeling and Simulation	• Customer Satisfaction • Profitability Index	• Risk/Return Tradeoff • Portfolio Evaluation • Probabilistic Finance Models	• Patient Satisfaction • Service Mix	• Patron Satisfaction • Profitability Index • **Influence/Brand Impact**	• Customer Satisfaction • Profitability Index • Influence/Brand Impact
Supply Chain Management	• Supplier and Inventory Analytics • Logistics Performance • Supply Disruptions • Green Purchasing • Sustainability Outcomes	• Market Concentration • Green Purchasing • Service Recovery • Sales and Operations Planning Process	• Throughput Analysis • Resource Consumption • Labor Productivity • Design & Innovation • Use of IT • Impact on Community	• Sustainability Outcomes • Green Purchasing • Planning/Execution Capabilities • Organizational Citizenship	• Service Recovery • Risk Analysis • Design & Innovation

Some considerations

- For organisations embarking into advanced and predictive analytics, some considerations:
  - Do not lose focus of importance for Data Quality;
  - If using new technology consider starting with controlled scope but that will provide business value and ROI in short time scales;
    - Example is customer or brand sentiment, location analysis etc;
  - Embed new technology and discover the art of the possible;
  - New approach to thinking; You cannot define what you do not know:
    - Sandboxed analysis of varied data to provide insight, where traditionally the question could not be defined!
      - Role of data scientist/analyst;
      - Trend may see IT and Marketing boundaries merge;
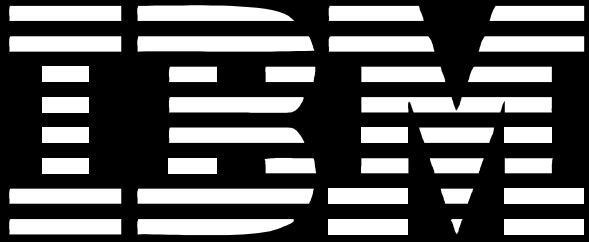 - Use accelerators and existing solutions where available.

Thank you

For additional information, please contact:

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