MICROSTRATEGY
ANALYTICS PLATFORM

Data Mining & Advanced Analytics

Expandiendo el alcance de sus modelos predictivos

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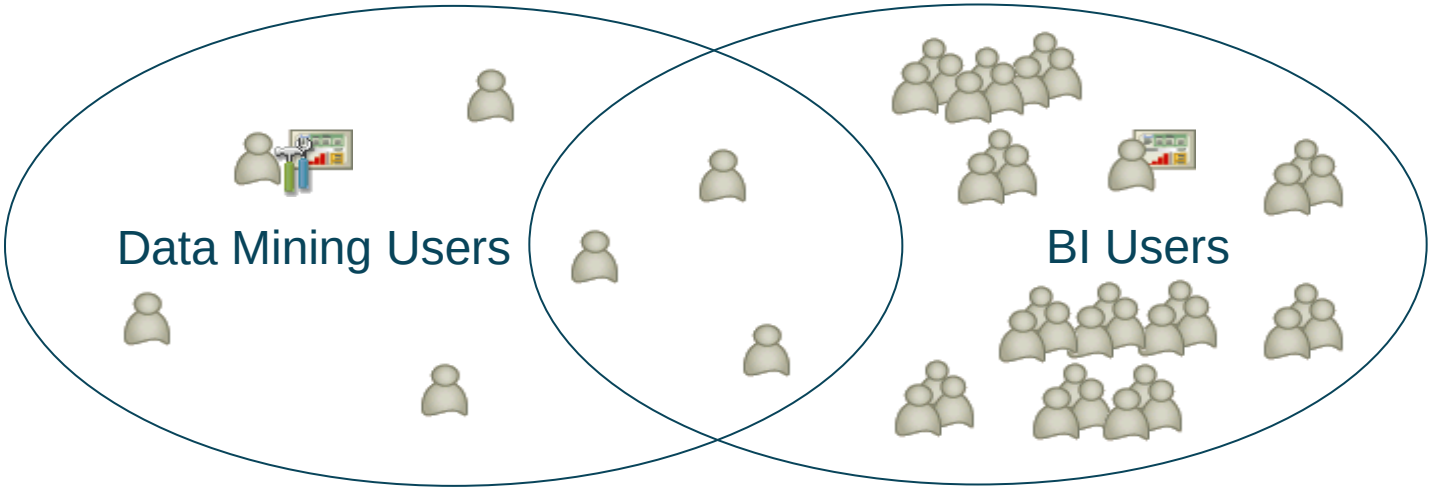
MicroStrategy

Current Situation

Users of Advanced Analytics



- Two types of users:
  - Builders of analytical models
  - Users of analytical models
- In an enterprise, there tends to be just a handful of builders
- In theory, there should be many, many more users

Model Deployment Challenges

- How do you get a model into the hands of the person who will be using it?
- How do you ensure the data used to score the model is consistent with the data used to build that model?
  - Is the data the same?
  - Is consistency automatically enforced?
- Models evolve over time – how can the model be updated without causing a lot of re-work?

Answer: Combine Analytics and Business Intelligence

MicroStrategy Data Mining Vision

Data Mining Services Vision

Leverage and Extend the BI Infrastructure

Deploy Advanced Analytics to Business Users

Relevant, Proactive & Provide a Competitive Edge

Leverage and Extend the BI Infrastructure

"50-75% of data mining is preparing a good dataset"

Enterprises using MicroStrategy have business rules & definitions that can be easily leveraged for Advanced Analysis. Users can focus on analysis, rather than collecting, integrating and modeling data from disparate systems.

Deploy Advanced Analytics to Business Users

Provide deep, rich analytics that hide the complexity of the underlying statistics. Users don't have adapt to new applications or interfaces, the application delivers sophisticated results to the touch points already used by MicroStrategy users: Web, Dashboards, Excel, PowerPoint, Alerts, Mobile, etc.

Relevant, Proactive & Provide a Competitive Edge

Organizations gain a competitive advantage when they can increase the sophistication of their applications to go beyond basic historical reporting to deliver strategic proactive insight. Specifically including predictive and model driven metrics, as well as predictive analytic alerts.

Analytical Competitors

- Sports:
  - The A's & Moneyball → MLB → Soccer, NFL, … → *Everywhere*
- Politics:
  - Voter Vault & 2004 → UK Parliament, Dems, … → *Everyone*
- Financial Services:
  - Fraud Detection → Credit Targeting, Churn, … → *Must Have*
- Pharmaceuticals:
  - Prescriptions → Who → Who → Why, … → Requirement
- Entertainment:
  - Motion Pictures → DVDs → Netflix, Gaming, … → *Prerequisite*
- In Every Industry:
  - Healthcare , Pharma, Retailers, Shipping, Telco, Travel, …

Key Challenge: Most companies have the data; It's what to do with it!

Advanced Analytics

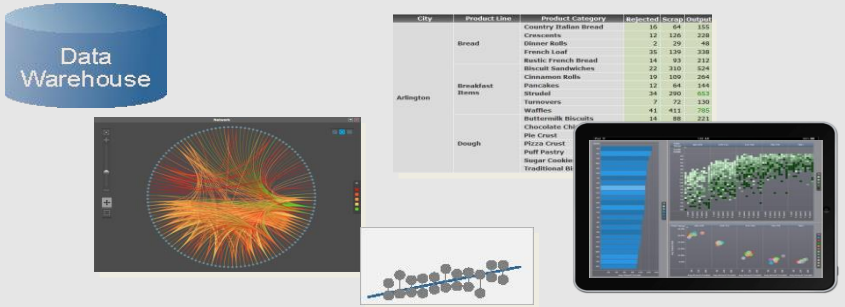
- Forecasting:
  - Sales, Costs, Profits, Inventory,…
- Classification:
  - Churn, Campaign management, Risk management…
- Association:
  - Market Basket Analysis,…
- Clustering:
  - Customer Segmentation, Product Segmentation,…

Combining Analytics & Business Intelligence

The Full Spectrum of Business Analytics in One Seamlessly Integrated Platform

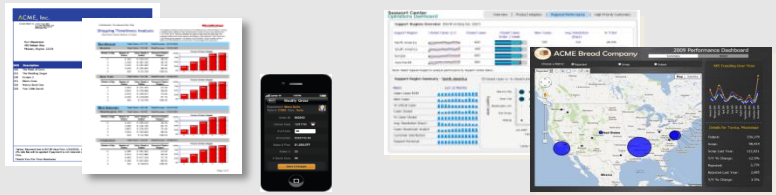
ANALYZE

- Predictive Analytics
- OLAP Analysis
- Data Discovery



MONITOR

- Enterprise Reports
- Dashboards



ACT

- Alerts
- Transactions

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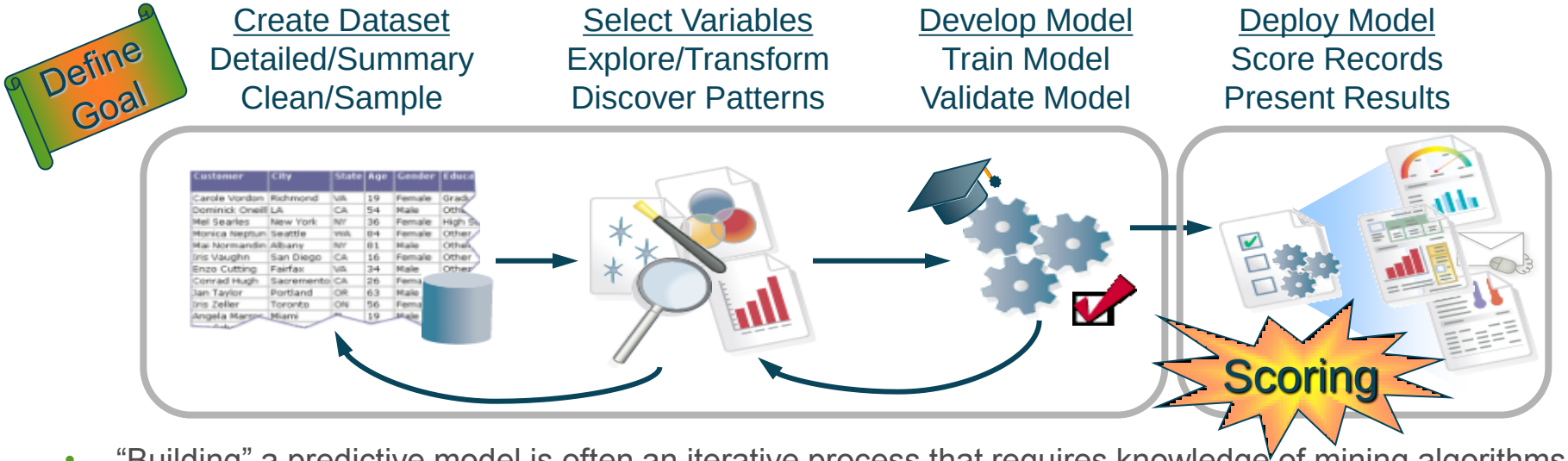
“Building” and “Scoring”: How Data Mining Can Be Integrated Into BI Applications

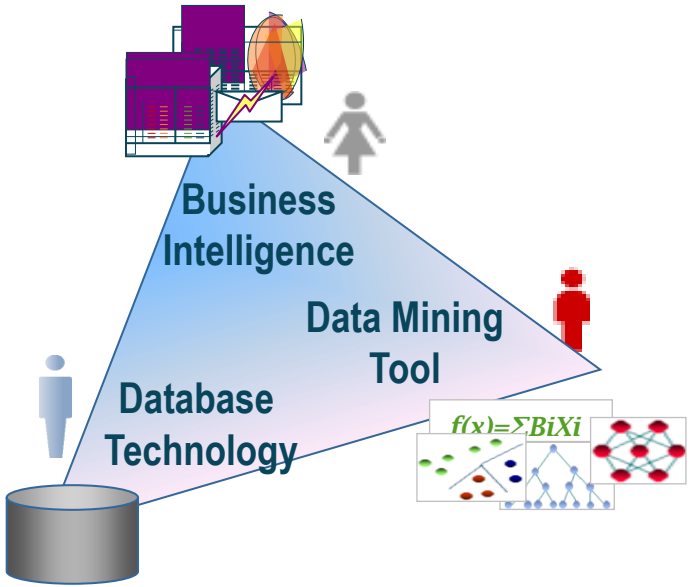


- “Building” a predictive model is often an iterative process that requires knowledge of mining algorithms
- “Scoring” is the process of applying the model to new data
- All business users can take advantage of these scores
  - Predictive analytics can be presented just like descriptive analytics
  - Scorecards, Dashboards, Personalized, Slice-and-Dice → BI
  - PhD is not required!

The Different Ways to Perform Scoring

- Three Approaches:
  1. Data Mining Tool does the scoring
  2. Database does the scoring
  3. BI does the scoring

MicroStrategy is the only BI Vendor to support them all!



Example: Scorecard combining descriptive & predictive

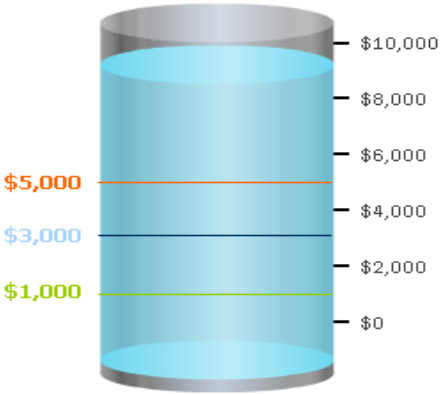
Customer Scorecard for Jackson Frazier

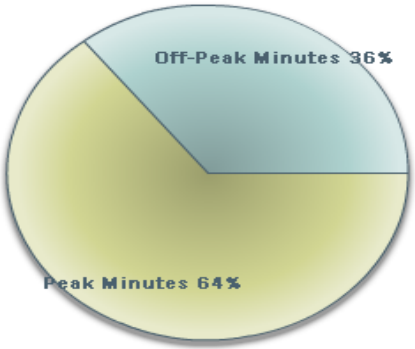
Click to select a different customer

Churn Prediction	**Predicted to Churn**
Recommended Action	**High Risk: Offer a new high-end phone and 500 additional minutes**
Churn Propensity	95.92%
Remaining Contract Value	$9,589
Revenue Risk	$9,197.22

Status	Revenue Risk Range
High Risk	> $5,000
Med Risk	$3,000 - $5,000
Low Risk	$1,000 - $3,000
No Risk	< $1,000

Revenue Risk Indicator





Jackson Frazier has a Revenue Risk of $9,197.22 and a Remaining Contract Value of $9,589.

Customer Revenue Details

Monthly Fees	$699
Monthly Profit	$599
Lifetime Value	$394
Net Present Value	$394

Contract/Usage Details

Active Months	8 months
Current Months	8 months
Remaining Months	0 months
Renewals	0
Avg Min per Month	9,114 minutes
Problematic Calls	**11**

Customer Demographics

Address	2060 N Center Hawthorne, California 90250
E-mail	jfrazier91@free.demo
Household Count	6
Income Bracket	>100K
Marital Status	Single
Education	Graduate
Gender	Male

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Example: Scorecard combining descriptive & predictive

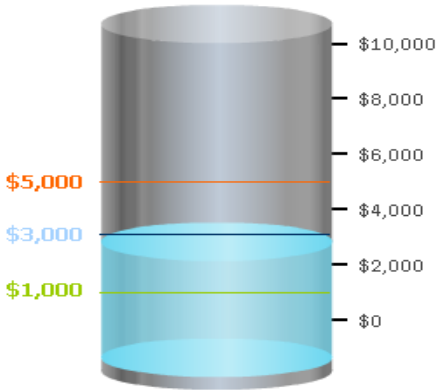
Customer Scorecard for Dargie Branson

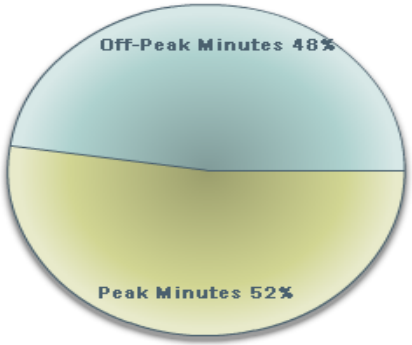
Click to select a different customer

Churn Prediction	**Predicted to Churn**
Recommended Action	Medium Risk: Offer 300 additional minutes and free text messaging
Churn Propensity	83.33%
Remaining Contract Value	$3,601
Revenue Risk	$3,001.16

Status	Revenue Risk Range
High Risk	> $5,000
Med Risk	$3,000 - $5,000
Low Risk	$1,000 - $3,000
No Risk	< $1,000

Revenue Risk Indicator





Dargie Branson has a Revenue Risk of $3,001.16 and a Remaining Contract Value of $3,601.

Customer Revenue Details

Monthly Fees	$500
Monthly Profit	$400
Lifetime Value	$1,602
Net Present Value	$1,602

Contract/Usage Details

Active Months	15 months
Current Months	15 months
Remaining Months	0 months
Renewals	0
Avg Min per Month	7,521 minutes
Problematic Calls	6

Customer Demographics

Address	1518 Macintosh Way Oxnard, California 93035
E-mail	dbranson26@univ.demo
Household Count	5
Income Bracket	91-100K
Marital Status	Married
Education	Graduate
Gender	Female

Example: Scorecard combining descriptive & predictive

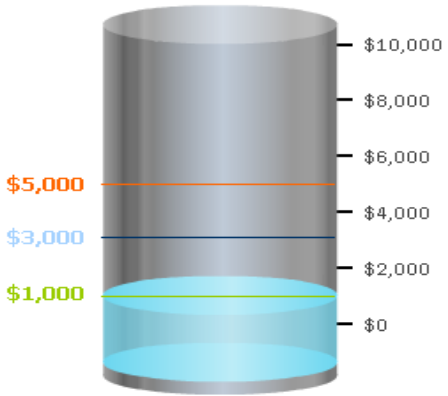
Customer Scorecard for Erich Catalano

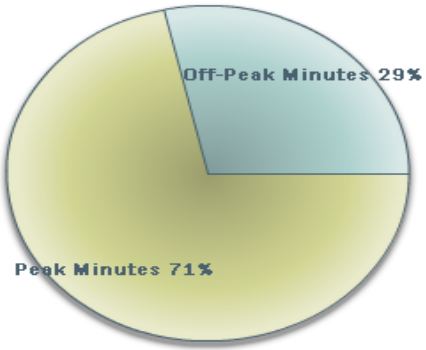
Click to select a different customer

Churn Prediction	**Predicted to Churn**
Recommended Action	**No Risk: Do not offer this customer an additional promotion**
Churn Propensity	98.61%
Remaining Contract Value	$1,014
Revenue Risk	$999.65

Status	Revenue Risk Range
High Risk	> $5,000
Med Risk	$3,000 - $5,000
Low Risk	$1,000 - $3,000
No Risk	< $1,000

Revenue Risk Indicator





Erich Catalano has a Revenue Risk of $999.65 and a Remaining Contract Value of $1,014.

Customer Revenue Details

Monthly Fees	$245
Monthly Profit	$145
Lifetime Value	($2,862)
Net Present Value	($1,938)

Contract/Usage Details

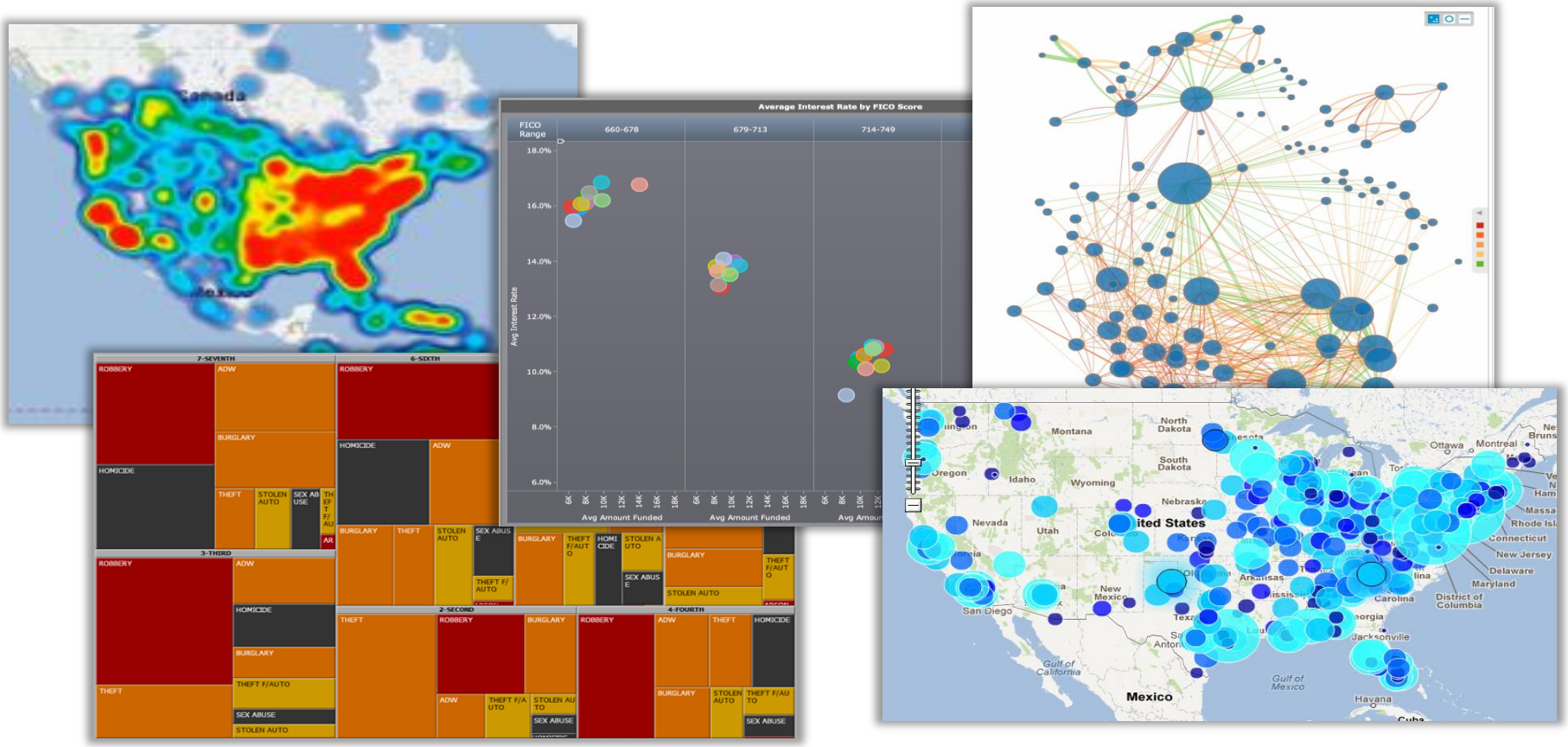
Active Months	41 months
Current Months	17 months
Remaining Months	24 months
Renewals	1
Avg Min per Month	2,199 minutes
Problematic Calls	3

Customer Demographics

Address	2243 Grandview Ave Oxford, Ohio 45056
E-mail	ecatalano17@aol.demo
Household Count	5
Income Bracket	41-50K
Marital Status	Married
Education	High School
Gender	Male

Advanced + Agile Analytics

Experiment with insightful visualizations to find patterns, trends, and relationships

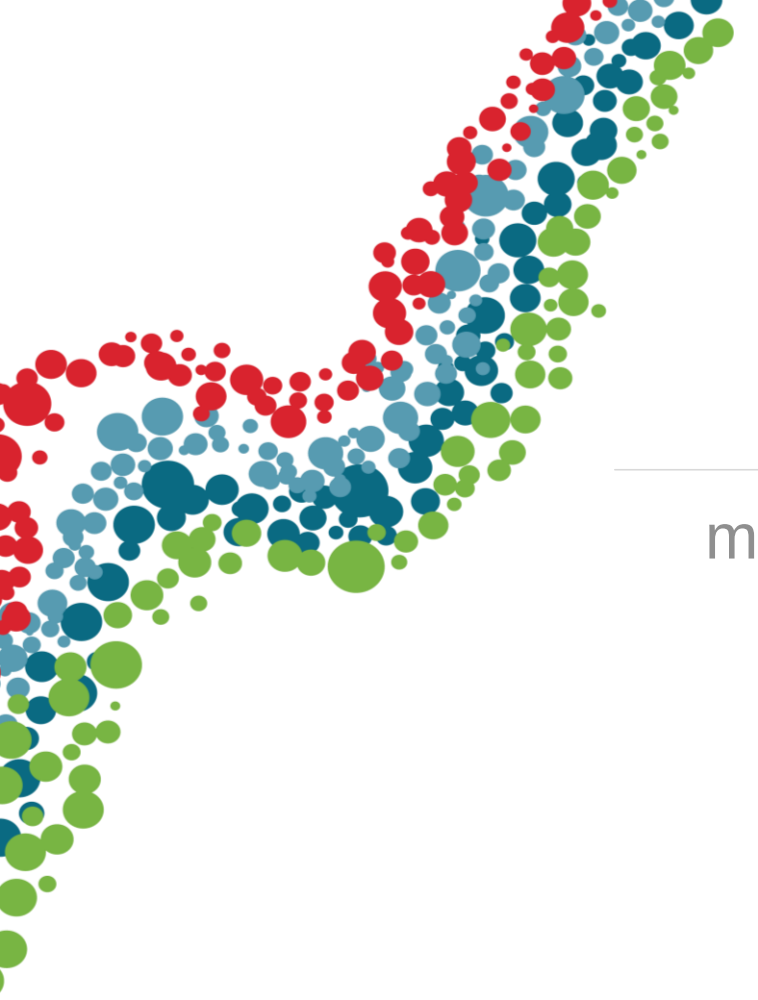


Demo

Summary

Summary

- Turn your enterprise data into a competitive advantage
- End users can simultaneously use descriptive and predictive analysis along side traditional BI capabilities
  - Prompting
  - Slice and Dice
  - Thresholds and Alerts
  - New Metrics based on predictive metrics
  - Deliver content with predictive metrics via e-mail, mobile, etc..
  - Scorecards and Dashboards with predictive metrics
- Be an Analytical Competitor by using BI to Out-Think & Out-Execute the rest of your industry



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Gracias!

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