

Business Cloudification

Process, API's and Analytics

It is all about Business

Business Connexion Group



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Andy Brauer
CTO

Business Connexion

**Business
Connexion**
Connective Intelligence™

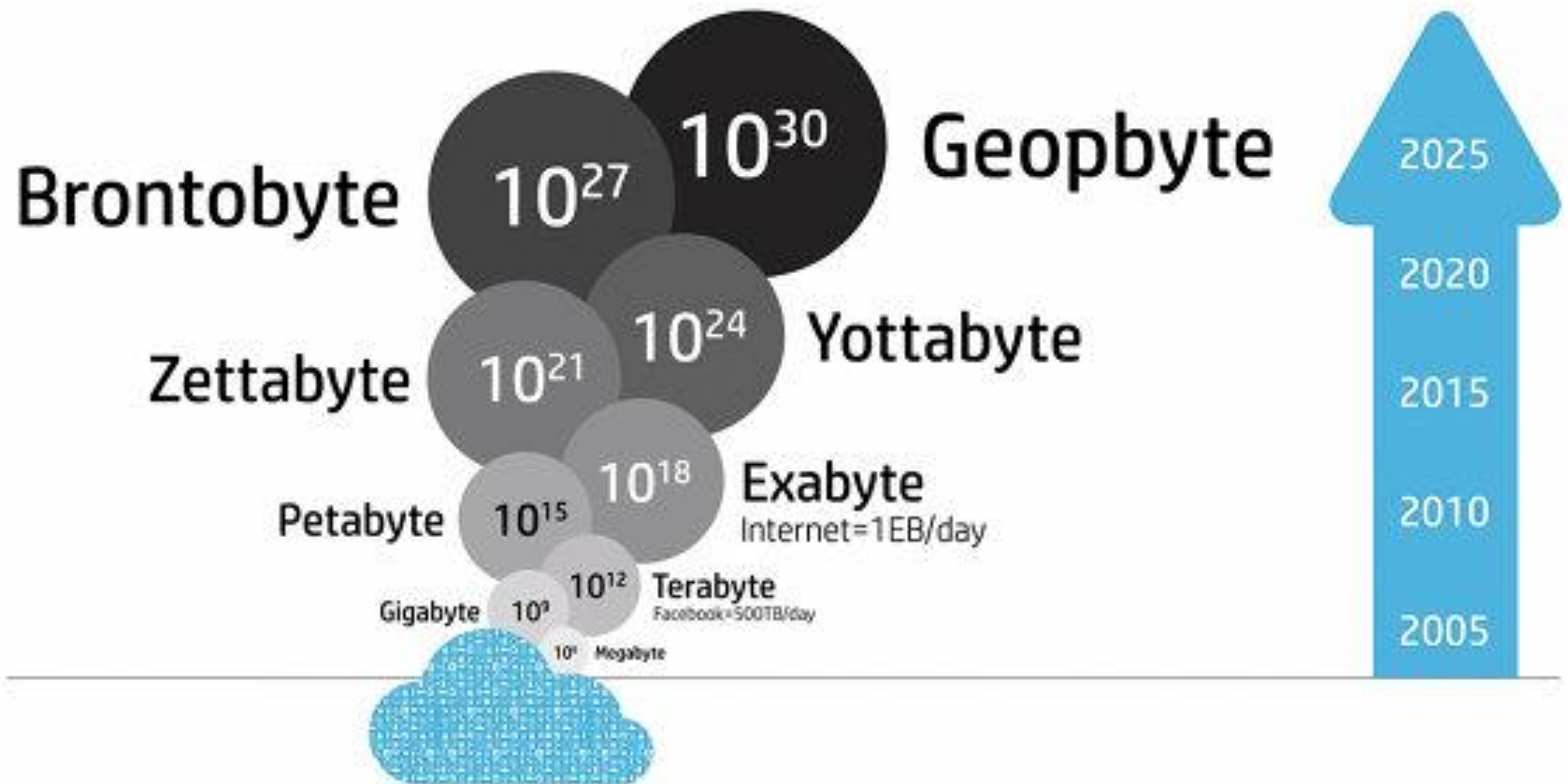


Synopsis

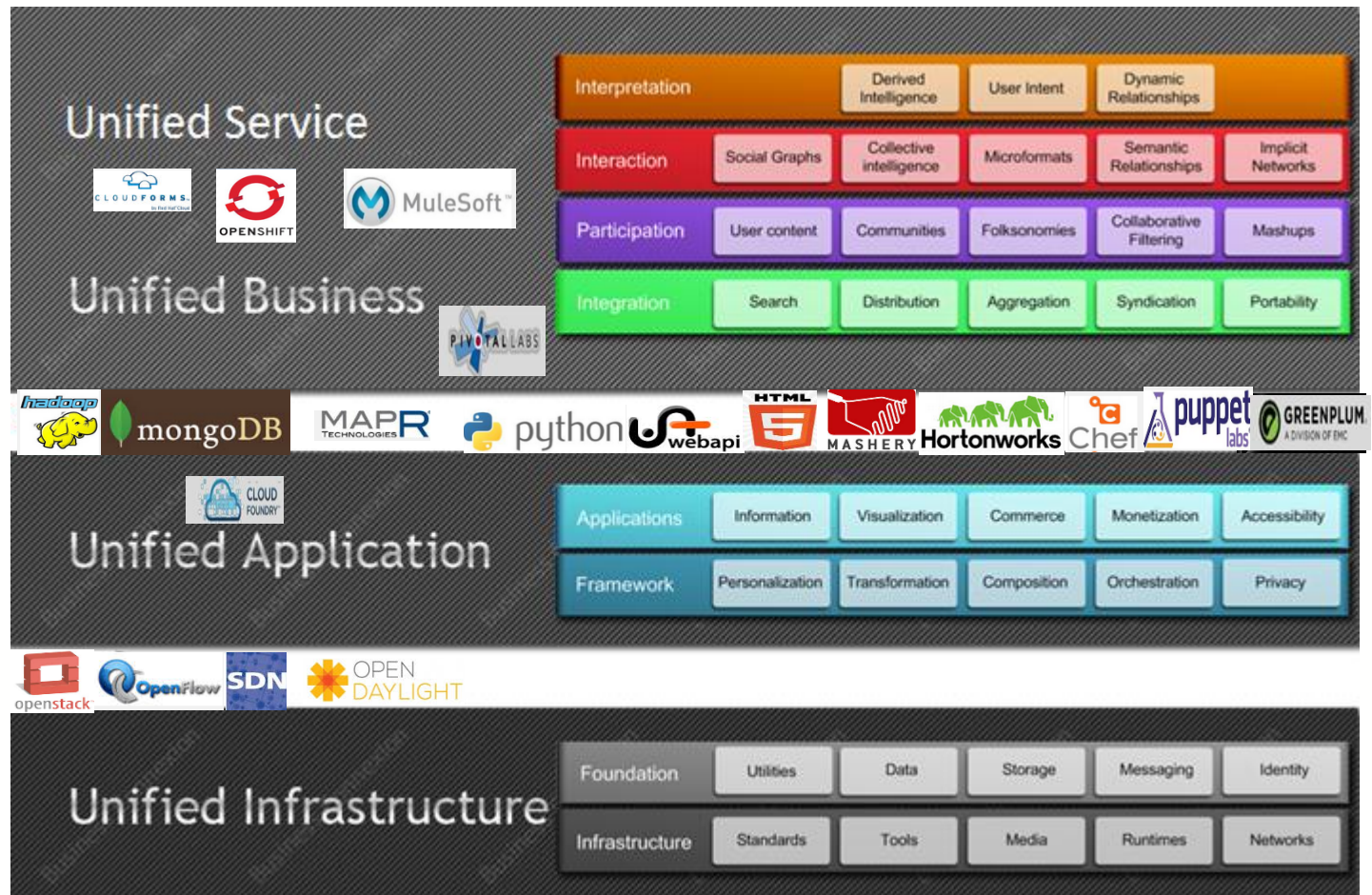
The era of micro applications is on the rise, Realtime Business Decisions and actions are of paramount importance. Time to react to market demand is key to any organisation. Any system that delivers the ability to integrate micro applications rapidly will have a clear advantage. Integrating with existing systems is best done with API gateways which means if a change happens on one side of an organisation only the gateway needs to be adapted rather than having to update thousands or millions of devices.



How big is Big Data



Unified Cloud Model





It is about Service

And of course it is all digital

Private Cloud
Public Cloud
Social Cloud
Hybrid Cloud
Media Cloud
Industrial Cloud
Instrumentation cloud
Personal Cloud
Government Cloud
Space Cloud
Network Cloud
Service Cloud
Aggregator Cloud
Military Cloud
Forensic Cloud
Hacker Cloud
Financial Clouds
Educational Clouds

Sky Clouds

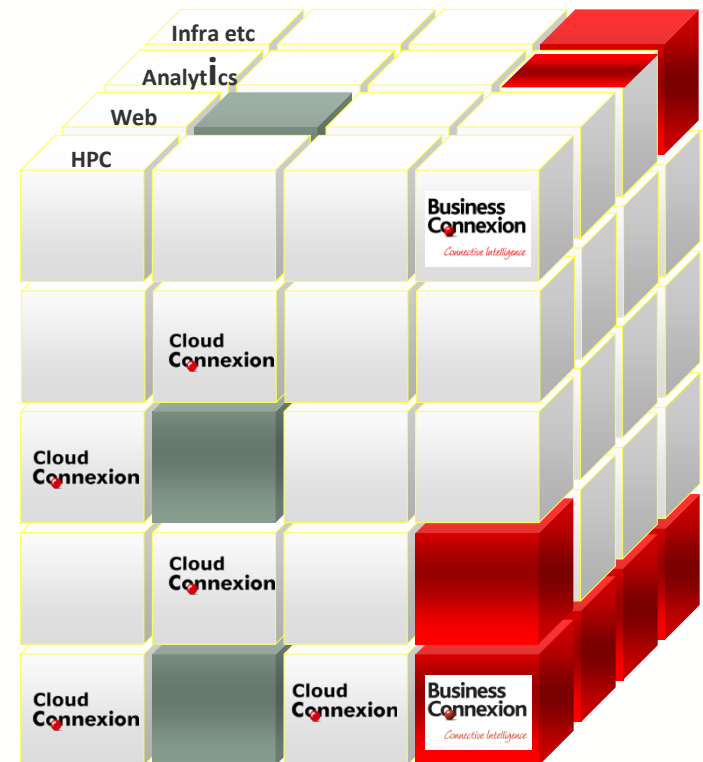
BUSAS

KAAS

SAAS

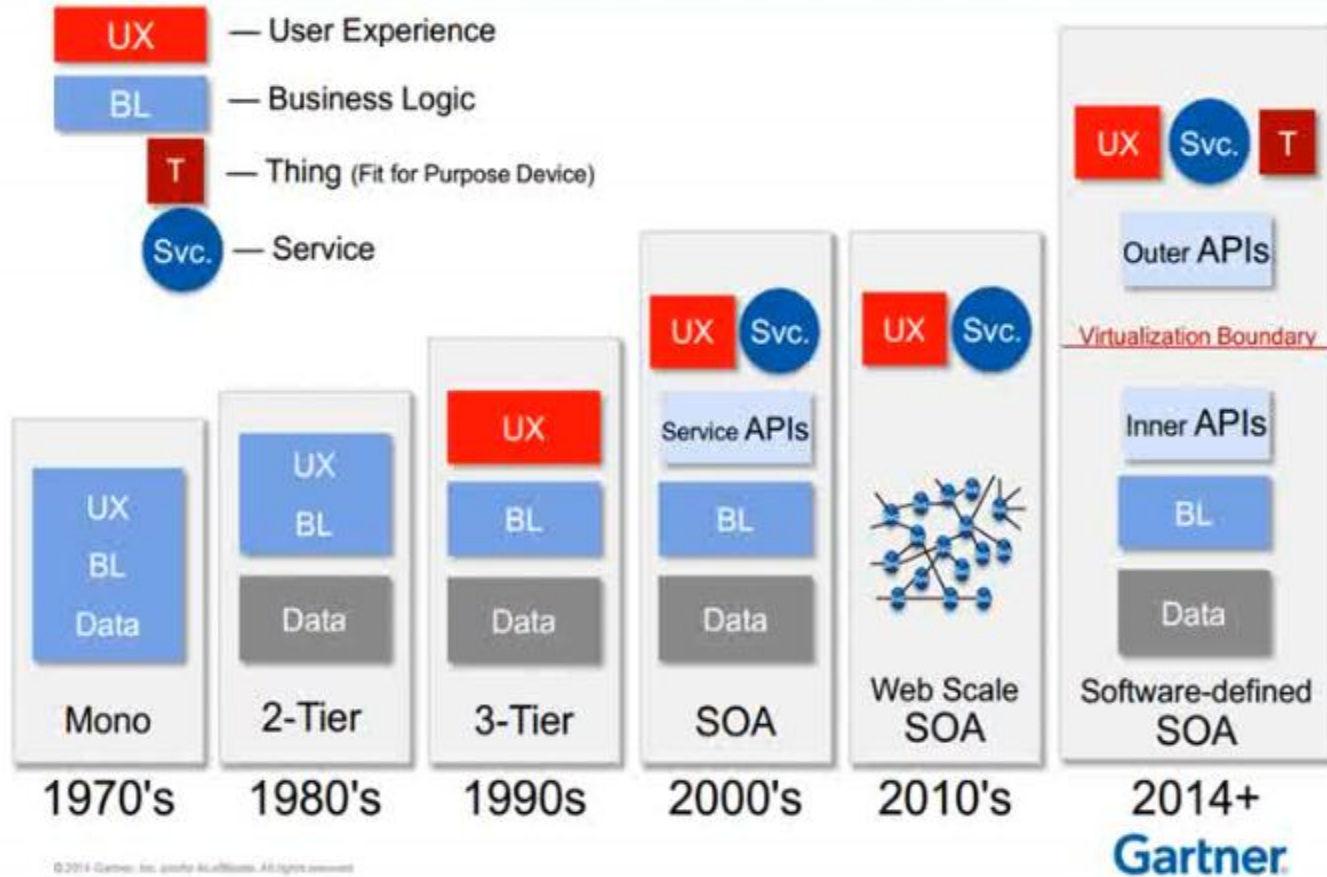
PAAS

IAAS

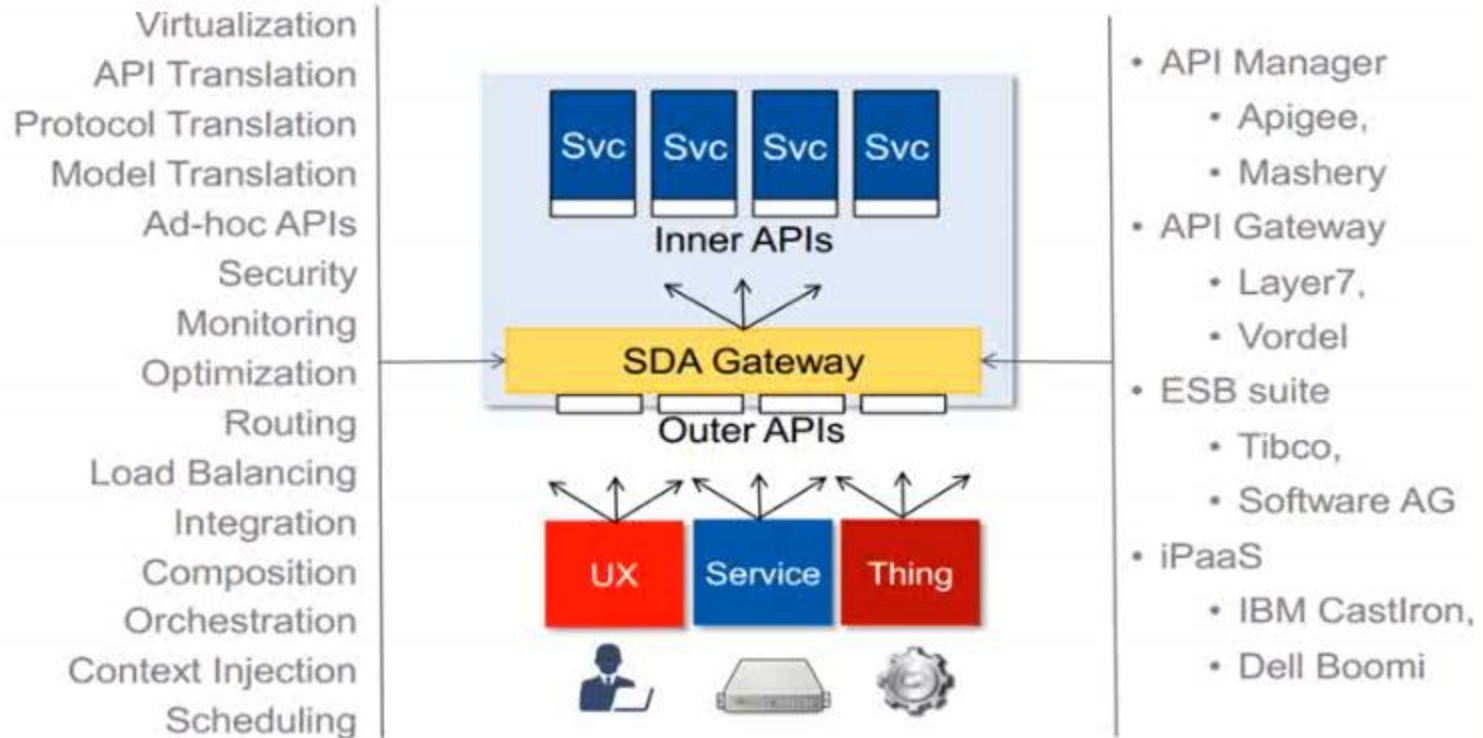


Social Public Hybrid Private

Software-defined Applications on the Application Architecture Road Map



Step Up to Digital Business: Software-defined Architecture for Applications

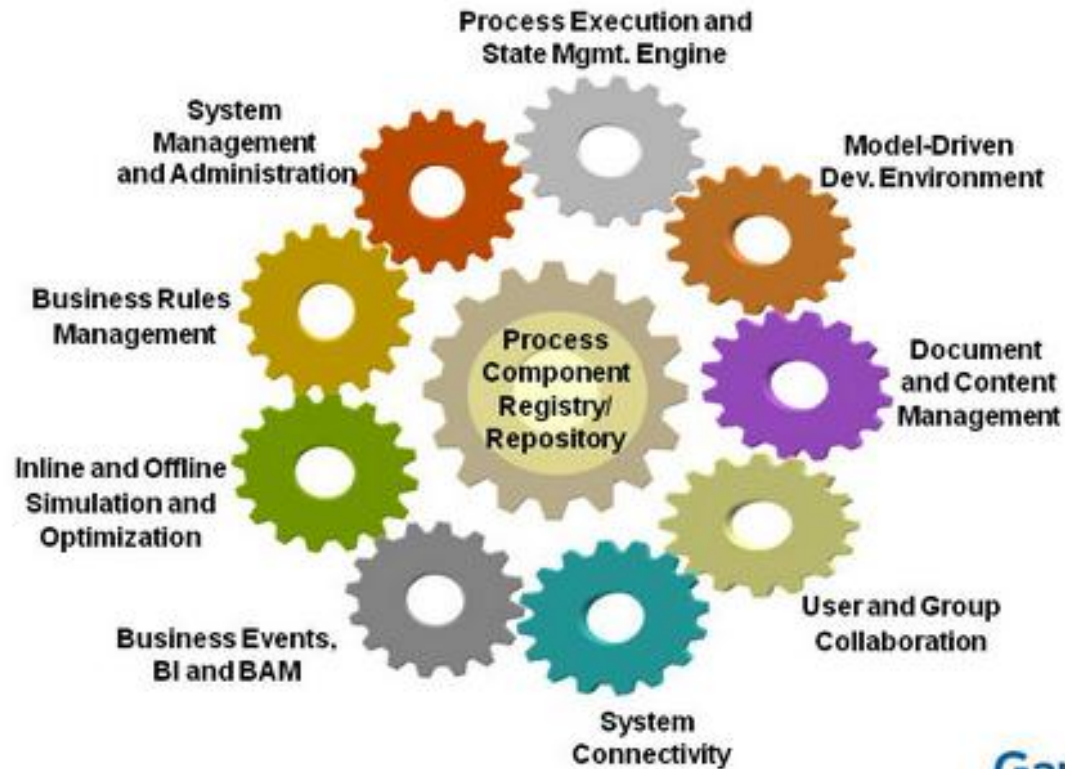


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Based in part on "Magic Quadrant For Application Services Governance"

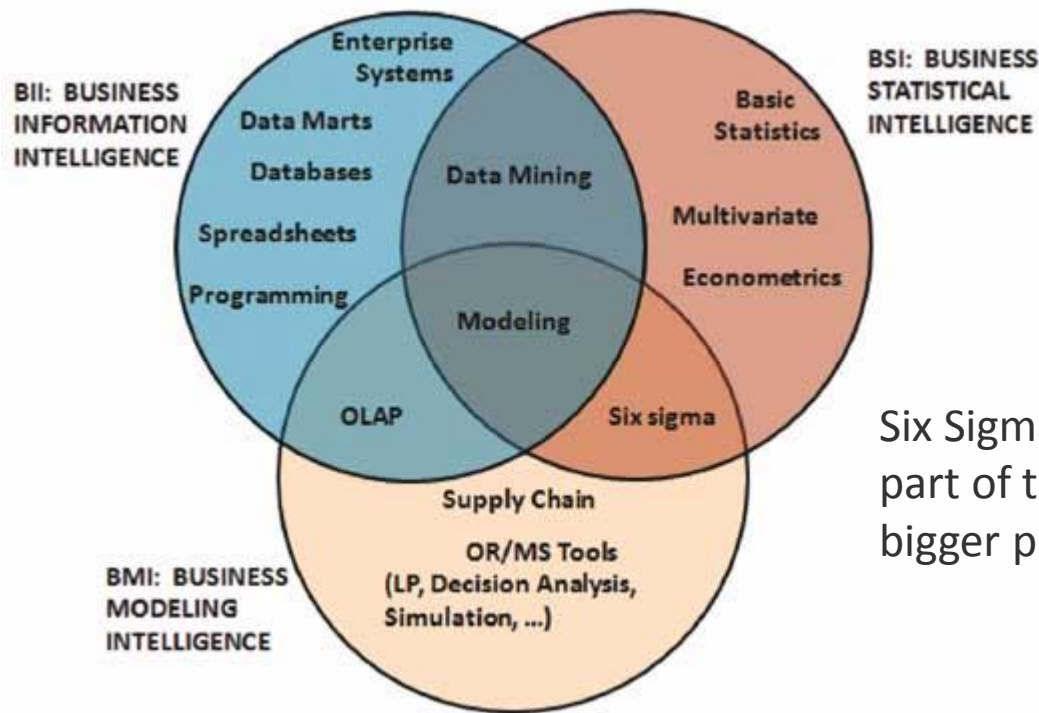
Gartner

BPM is an EcoSystem



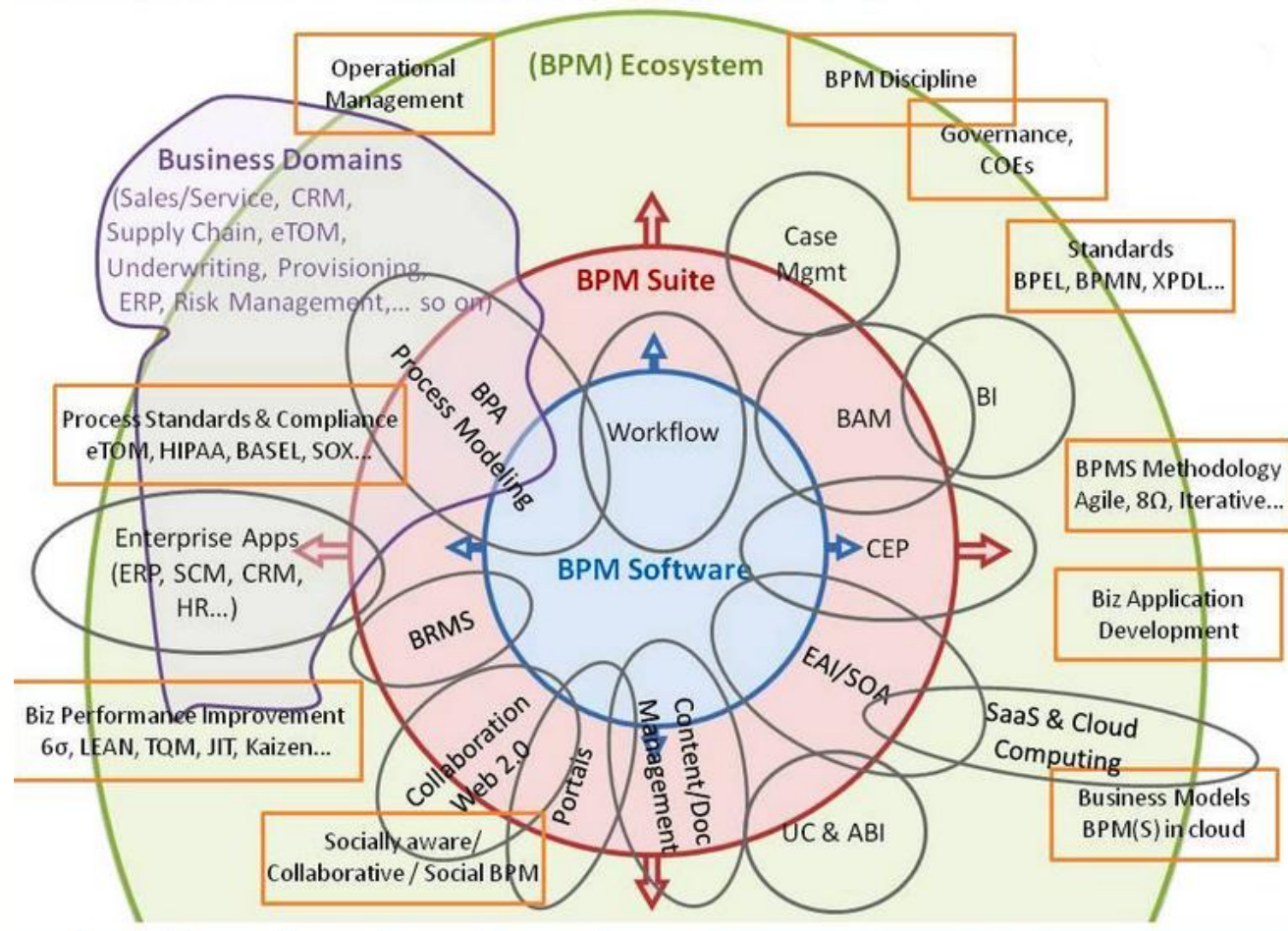
Gartner.

Business Intelligence has been an Internal Focus



Six Sigma only
part of the
bigger picture

Process Convergence





Unified Business

Business Event Processing

Every 20 years a new
disruptive innovation
changes the way we
do IT

Sense and
Respond to
Actionable
situation

1970s

1990s

2010s

**Event Driven
Paradigm**

Holistic (context oriented)
event processing

Process Driven Paradigm

Orchestration (process oriented) of human
and system tasks

Transaction Driven Paradigm

Discrete (data oriented) transaction
processing)

“The real world is mostly event driven, and event-driven situations are best addressed by event-driven business applications”.

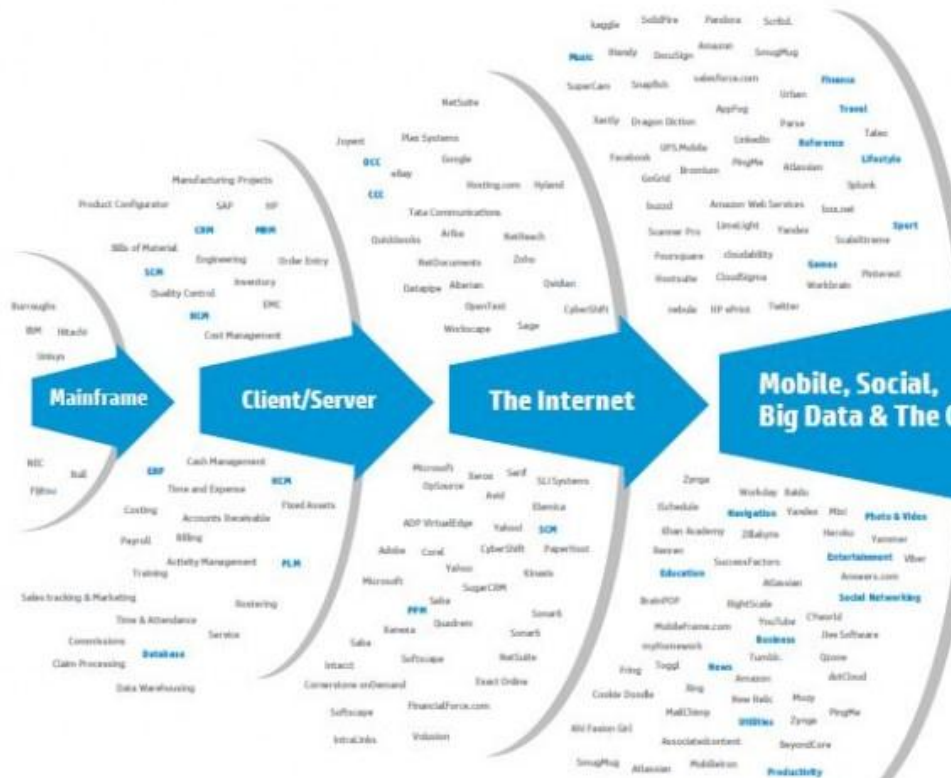
Social Media reflects Events faster than Traditional Business Systems



Business Process Decision Base

Template-based
State-based
Event-based
Role-based
Rule-based
Decision-based
Intelligence-based.
Data-based
Information-based
Knowledge-based
Community-based
Social intelligence based

Social knowledge based
Goal-based –Instance-based
Inter-process based.
Managerial based
Instinct-based
Inter-organisation based.
Resource-based.
Decomposition cascade
Assembling cascade
Combined cascade
Life-cycle-based



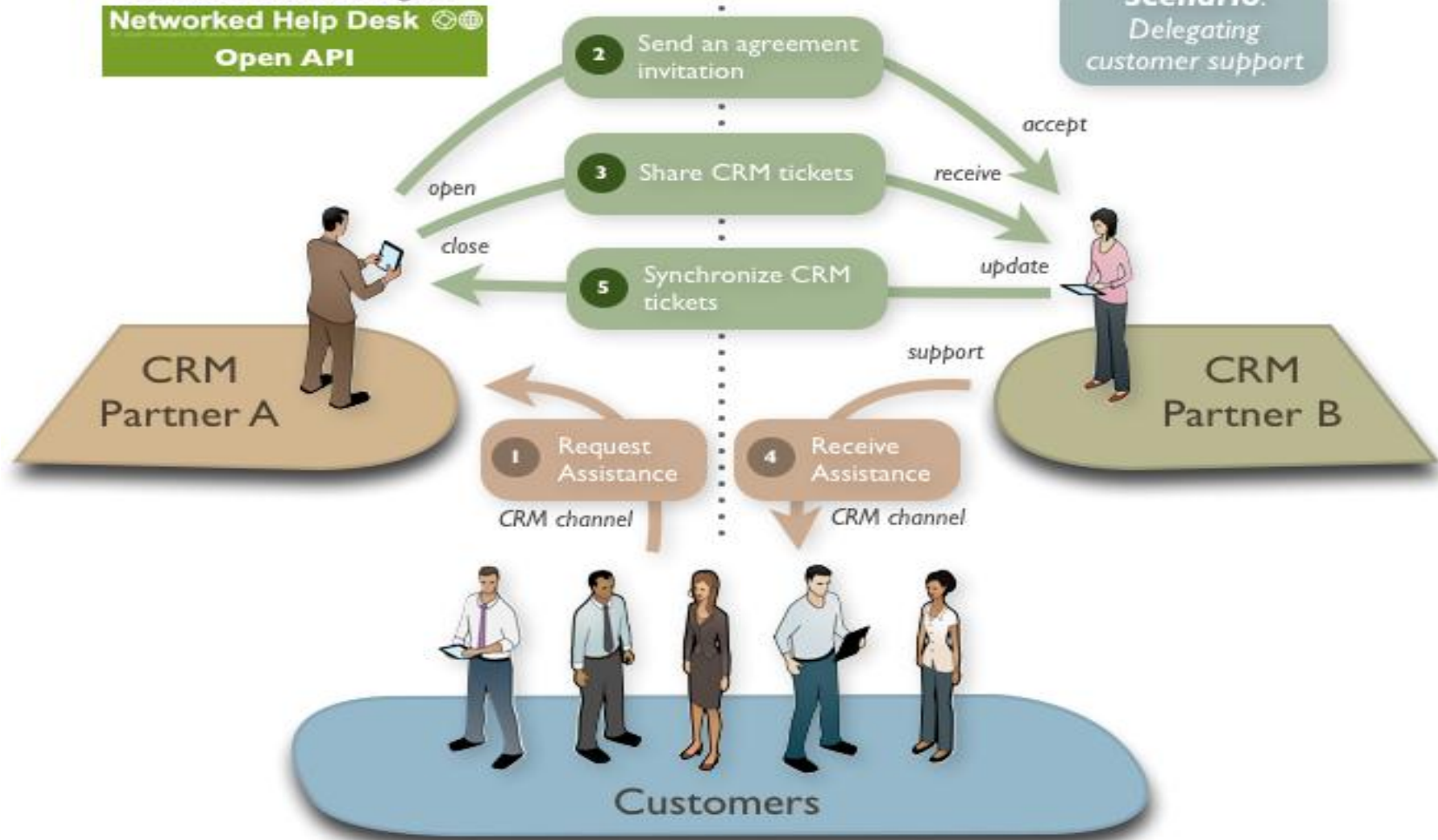
Enabling collaboration with open APIs

Depicts open standards based customer service using the

Networked Help Desk Open API

collaborative boundary &
open API boundary

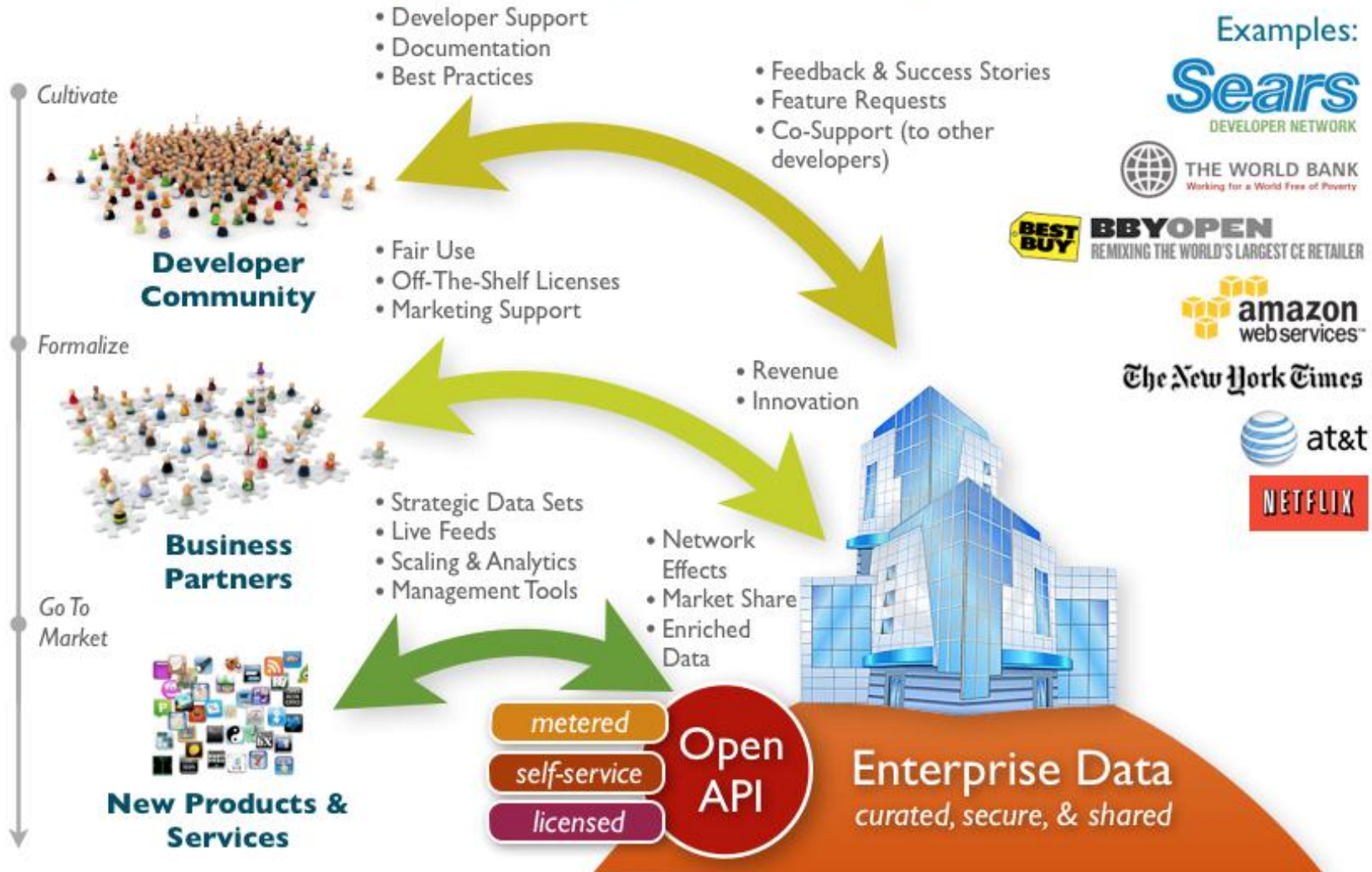
Scenario:
Delegating customer support



From <http://blogs.zdnet.com/Hinchcliffe>

The Business of Open APIs

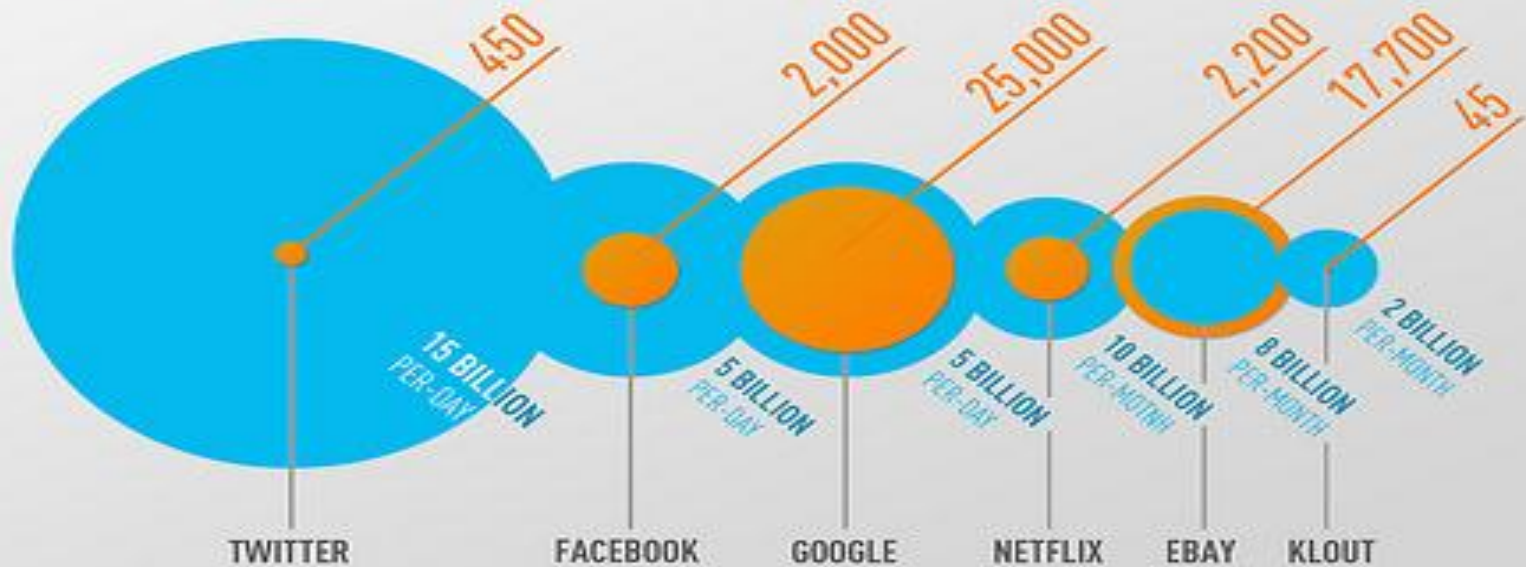
Cultivating a Partner Ecosystem Based on Strategic Shared Data



API BILLIONAIRES CLUB

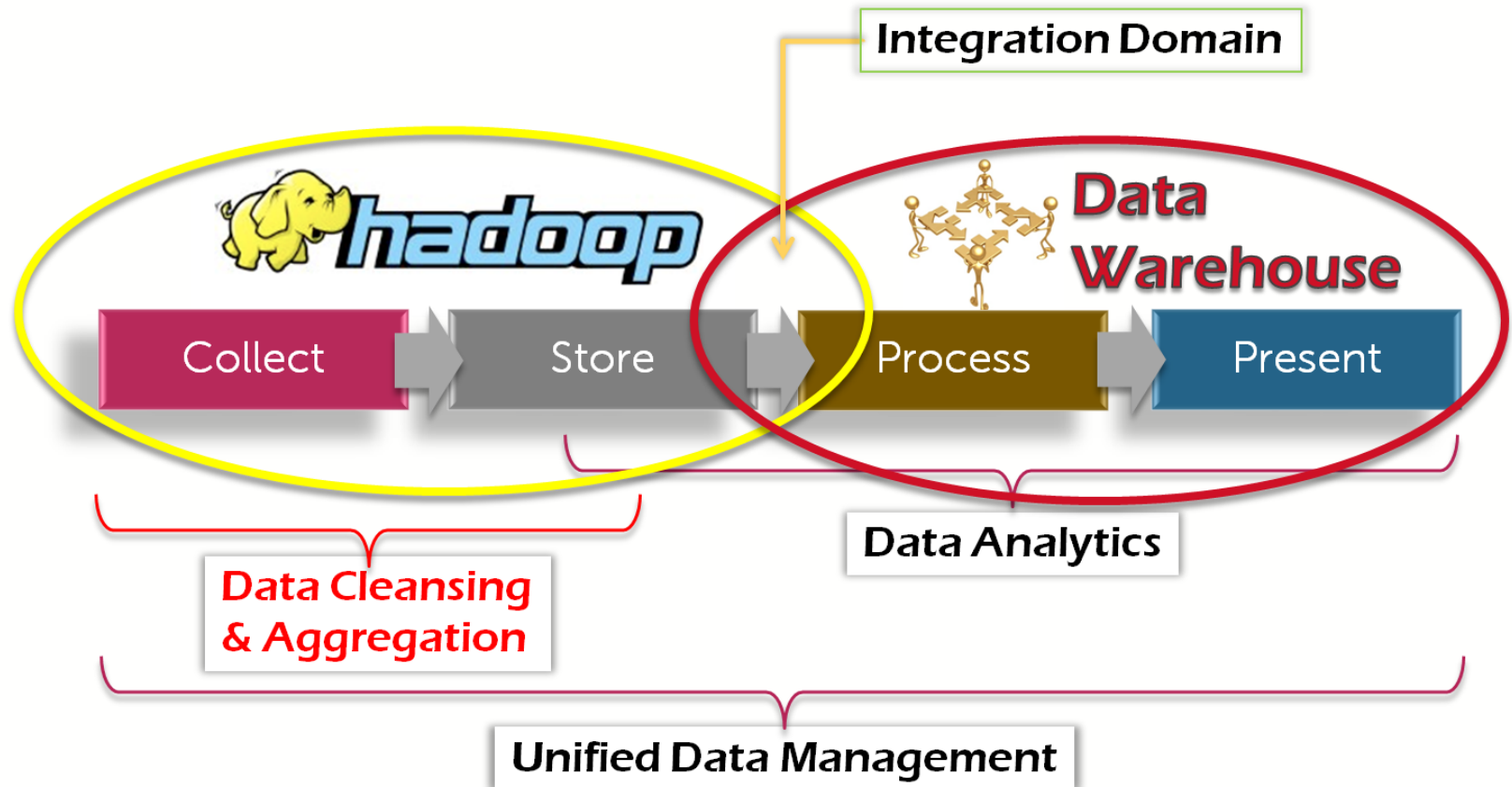
API CALLS

EMPLOYEES

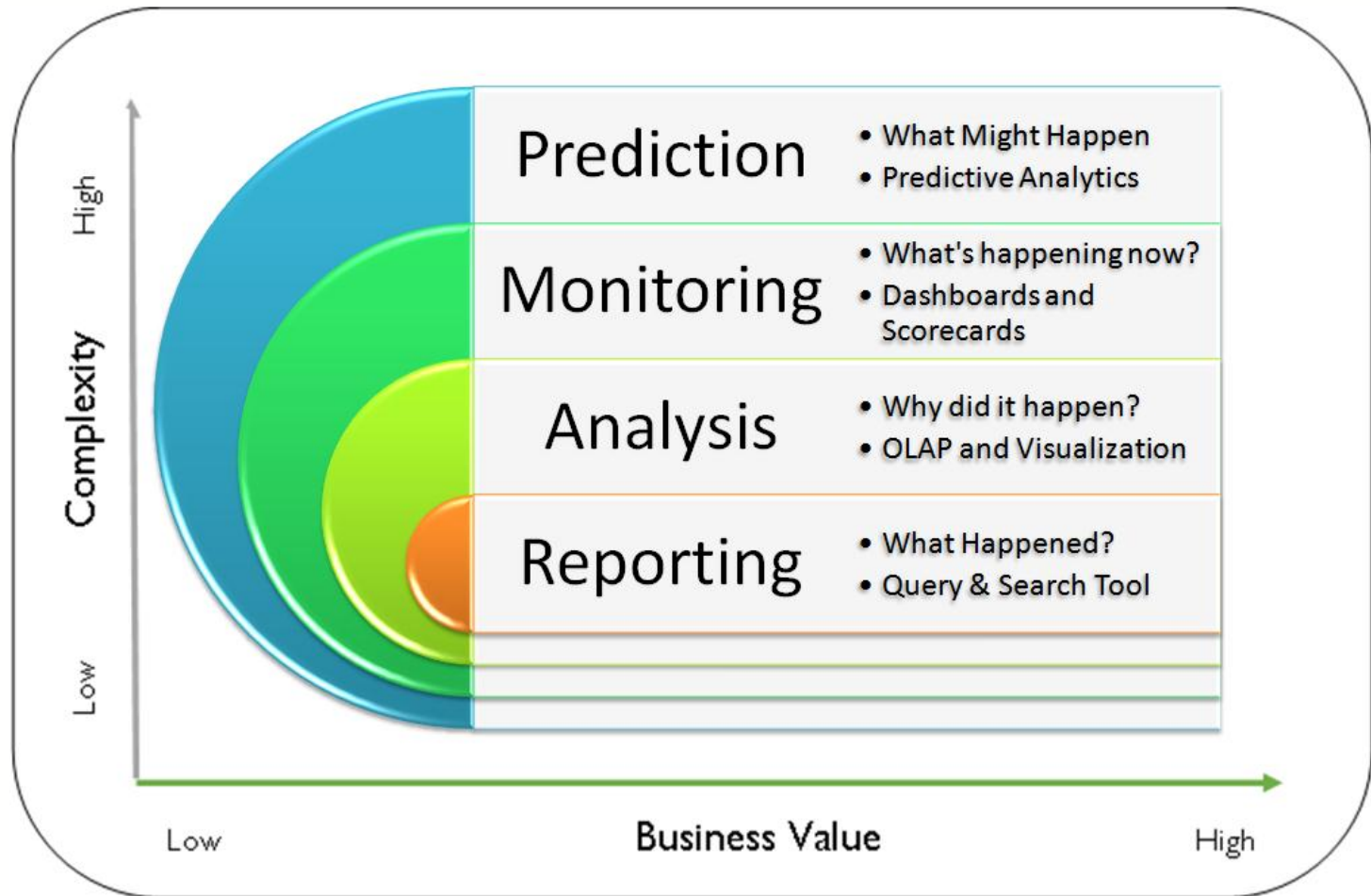




Unified Data Management



Real Time Focus



Prevention is better than cure

Insurance fraud has
reached an estimated

\$80 billion
per year in the US alone¹

In South Africa,
the rate of short-term
insurance fraud is about

15%
of premium costs²



25-33%
of all automobile insurance claims
have an element of fraud to them³



Detecting Fraud Using Predictive Analytics

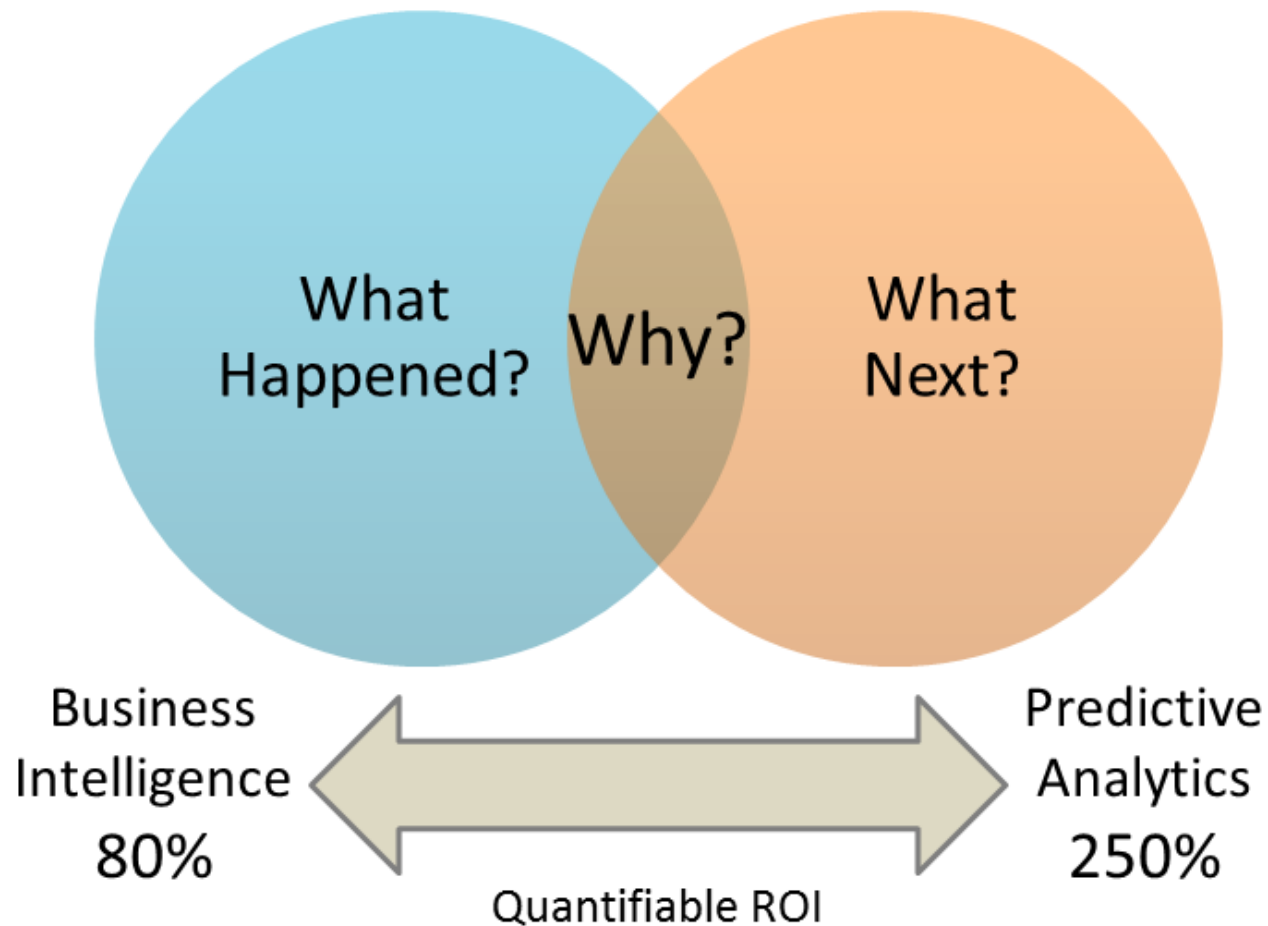
Organizations applying
predictive analytics are

2.2
times more likely to
outperform their peers⁴

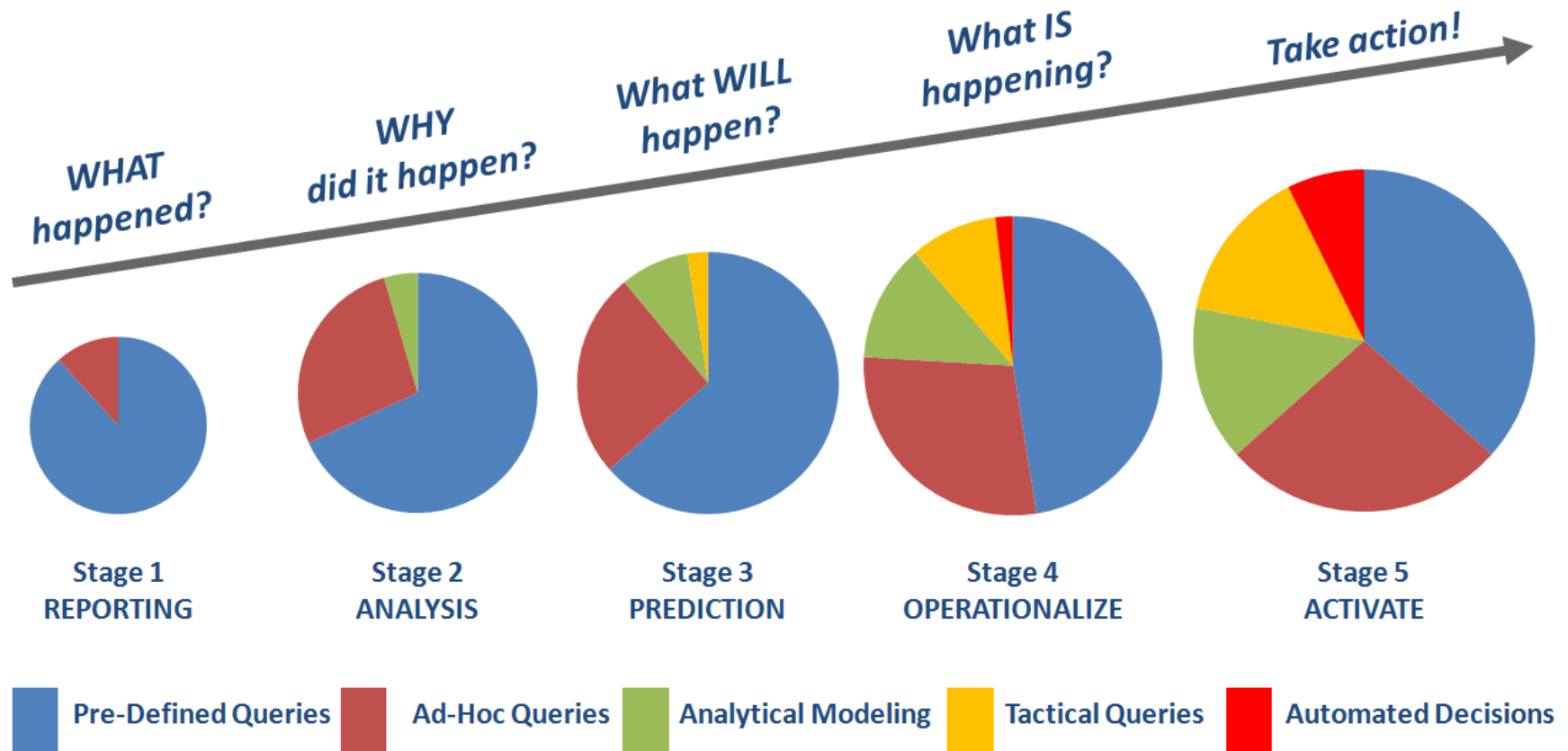
^{1,2,3} "Insurance Fraud in South Africa". www.insurancejunction.co.za/insurance-fraud

⁴ "Outperforming in a Data-Rich, Hyper-Connected World" IBM

Return on Investment



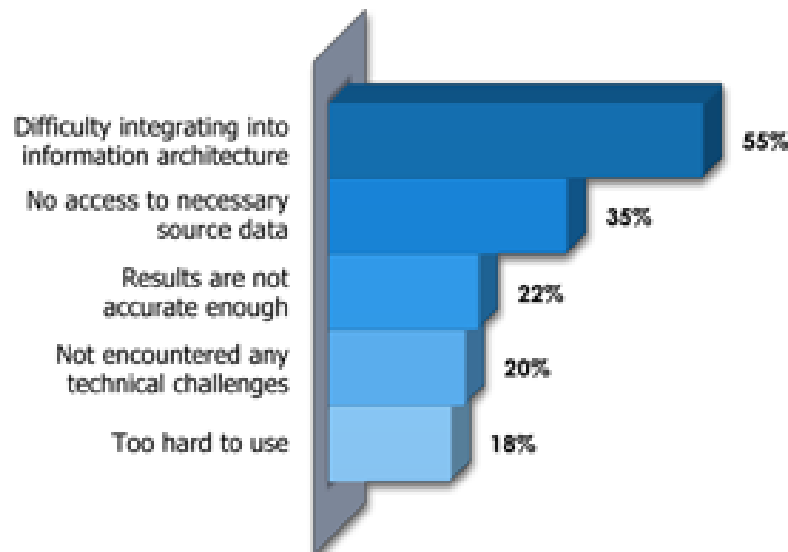
The Big Picture



Obstacles and Benefits

Predictive Analytics Obstacles

Integration and data issues impact business

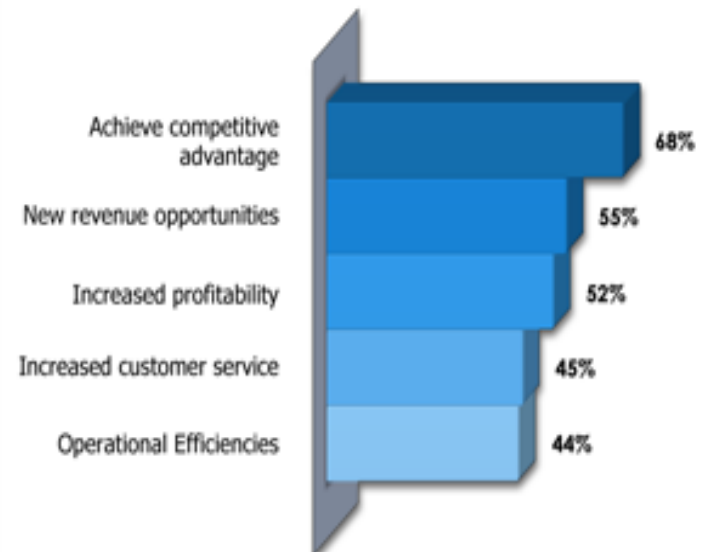


Source: Ventana Research Predictive Analytics Benchmark Research



Benefits of Predictive Analytics

Competitive edge and revenue growth top list

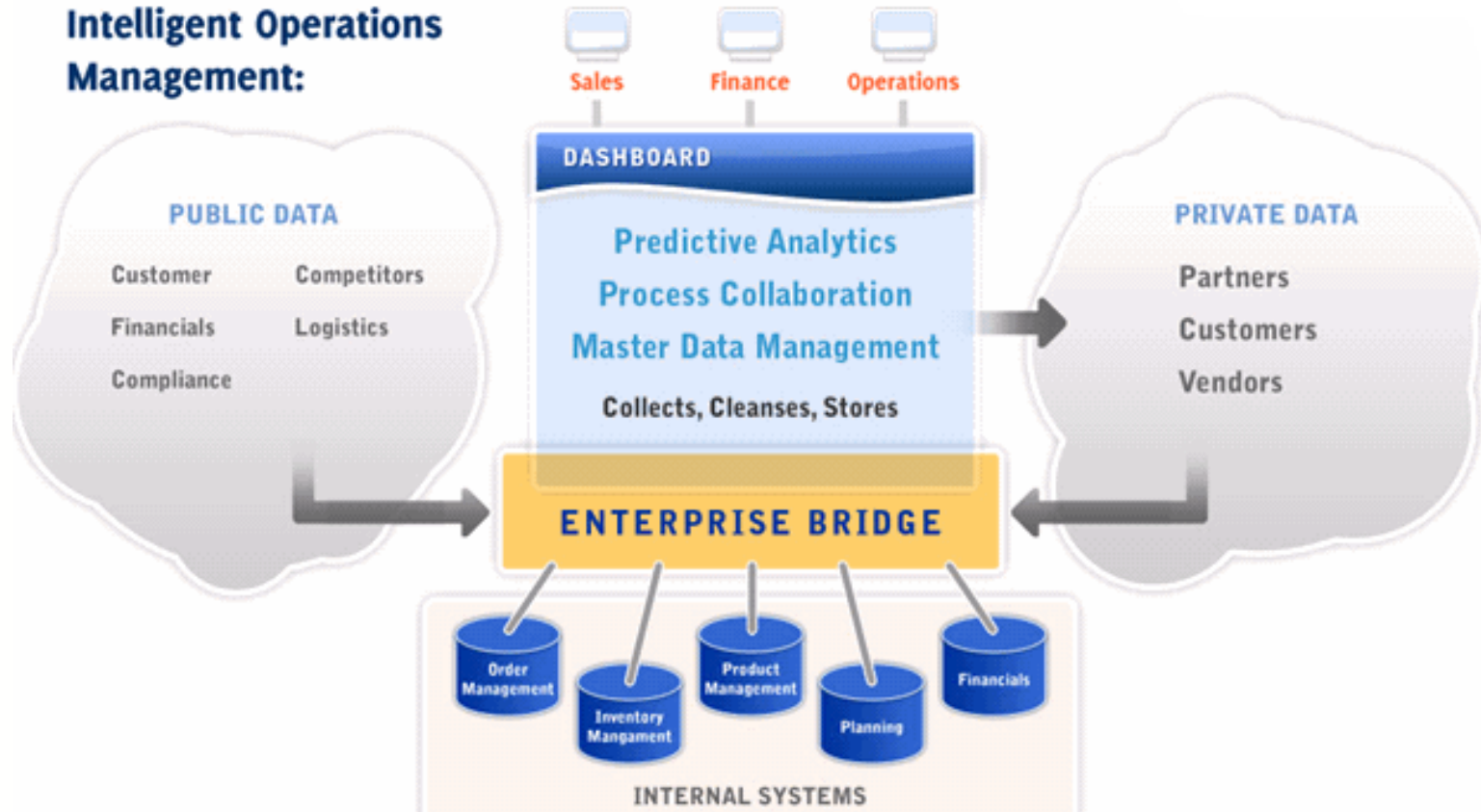


Source: Ventana Research Predictive Analytics Benchmark Research

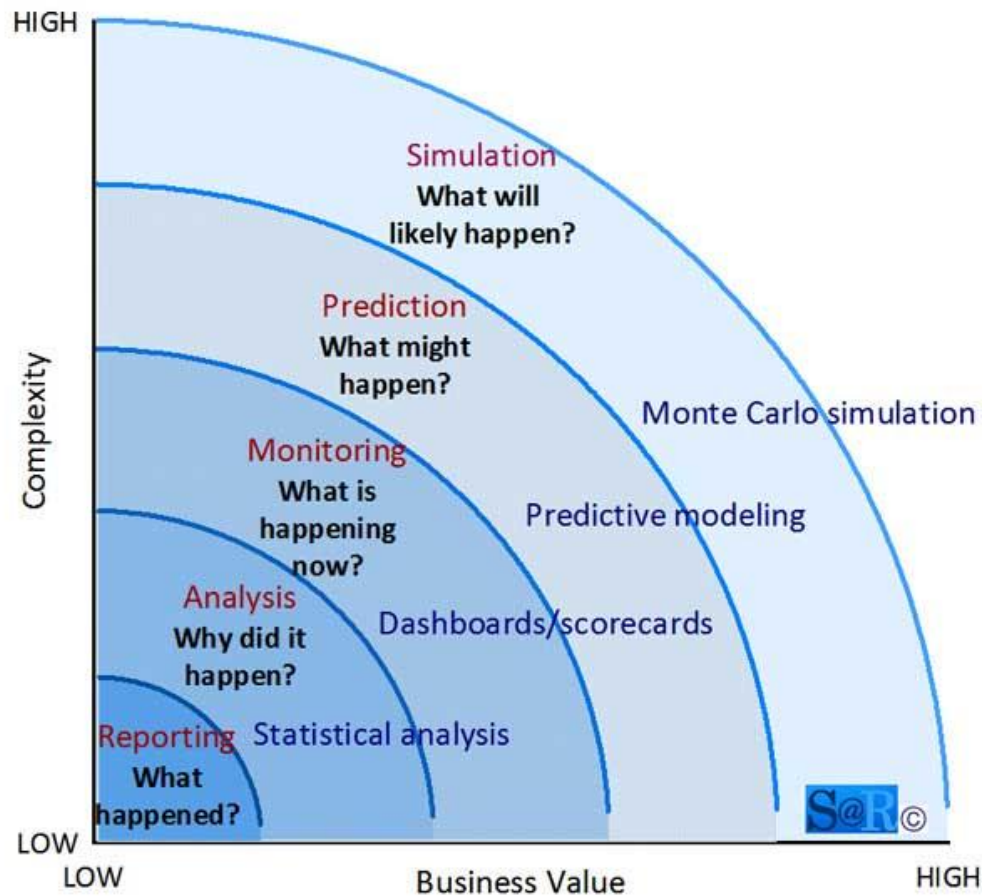


Variables and API's

Intelligent Operations Management:



Monte Carlo Simulation



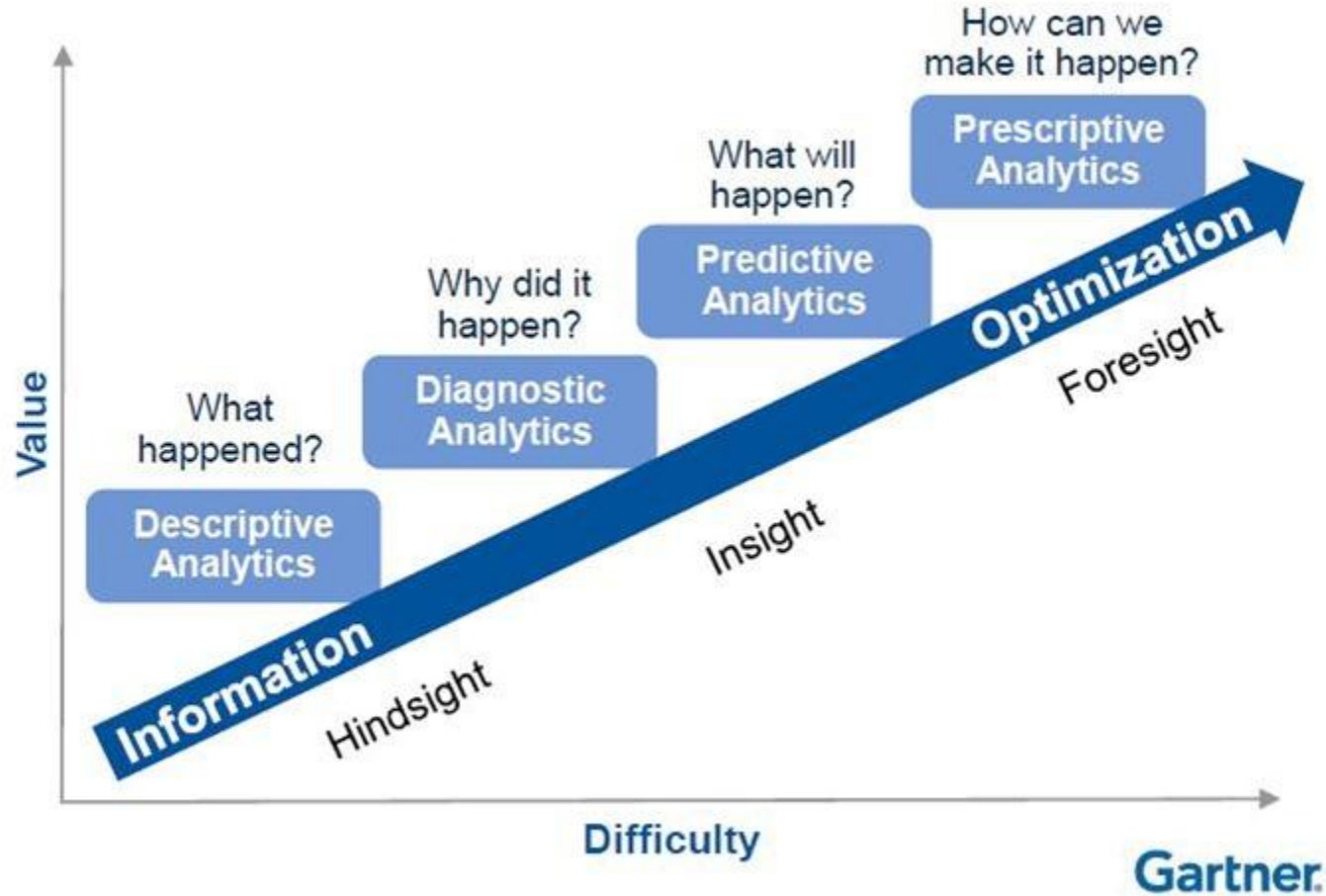
Business Activity Monitoring has started to include Business Analytics Prediction



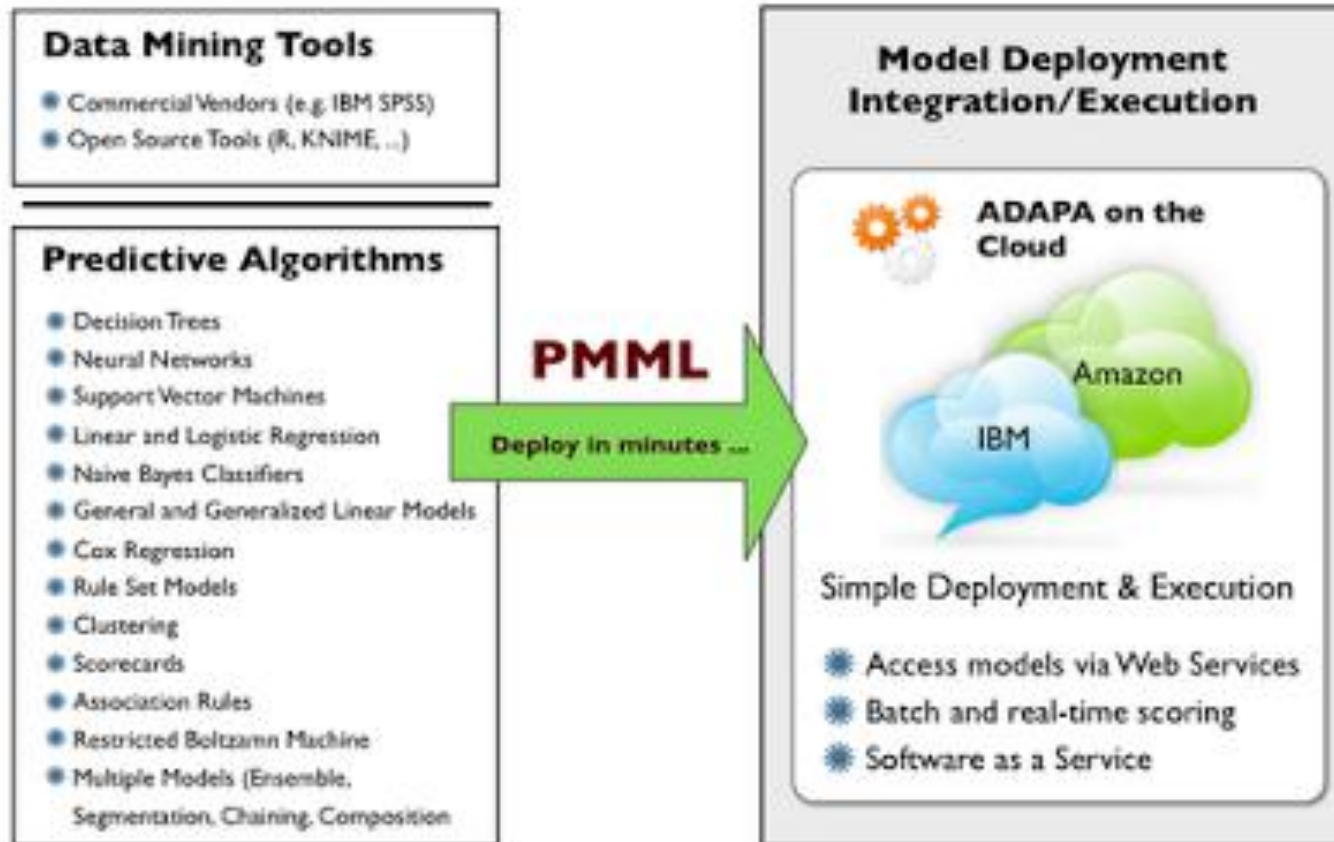
Nash Equilibrium

$$\left\{ \begin{array}{l} \frac{\partial \text{Exp}(\text{Payoff}_m)}{\partial b_m} = 0 \\ \text{OR } \left(b_m = 1 \text{ AND } \frac{\partial \text{Exp}(\text{Payoff}_m)}{\partial b_m} \geq 0 \right) \\ \text{OR } \left(b_m = 0 \text{ AND } \frac{\partial \text{Exp}(\text{Payoff}_m)}{\partial b_m} \leq 0 \right) \end{array} \right\} \quad \forall m \in \Theta$$

We are aiming for Prescriptive Analytics



Predictive Modelling Markup Language





Key Questions to Drive Business Value from Data

- What business opportunity/problem are we trying to solve?
- What questions do we need to answer to solve the problem?
- What data do we need to answer the questions?
- What data do we have?
- How can data help differentiate us in the market?
- What is IP for us? Revenue generating for us?
- How do we integrate the right data together?
- How do we manage the quality of the data?
- What data does this relate to (master data)?
- Do we have all the data about this (person, event, thing, etc.)?
- What are the permissible purposes of the data? (compliance, regulatory environment)
- Who is allowed to access the data? Use this data?



Success measures

- Information is trusted
- Speed to market for new products or services is improved
- Time spent looking for data is reduced
- Time-to-answer ratio is inversed
- Questions are answerable (e.g. What is the value of a customer?)
- Stratification and insight of customer is achieved
- Customer intimacy achieved
- Integration and development time slashed
- How well is the process performed



Key important strategy for Process and predictive Analytics

- Digitize your processes.
- Identify key data sources.
- Validate your source and ensure master data can be trusted
- Make use of API Gateways to gather diverse sources of key data.
- Ensure you have a place to house the data.
- Ensure that you have a mechanism to distil the data.
- Turn the Data into Information use or develop your algorithms.
- Turn the Information into knowledge use or develop your algorithms.
- Turn Information into Intelligence use or developed your algorithms.
- Use the system with new found wisdom.



Build predictive analytics expertise for business use

Stand **out** from the crowd





Thank You