IBM BusinessConnect
Realize the art of the possible.

The big deal about Big Data

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University of Ontario Institute of Technology (UOIT) uses big data to improve quality of care for neonatal babies

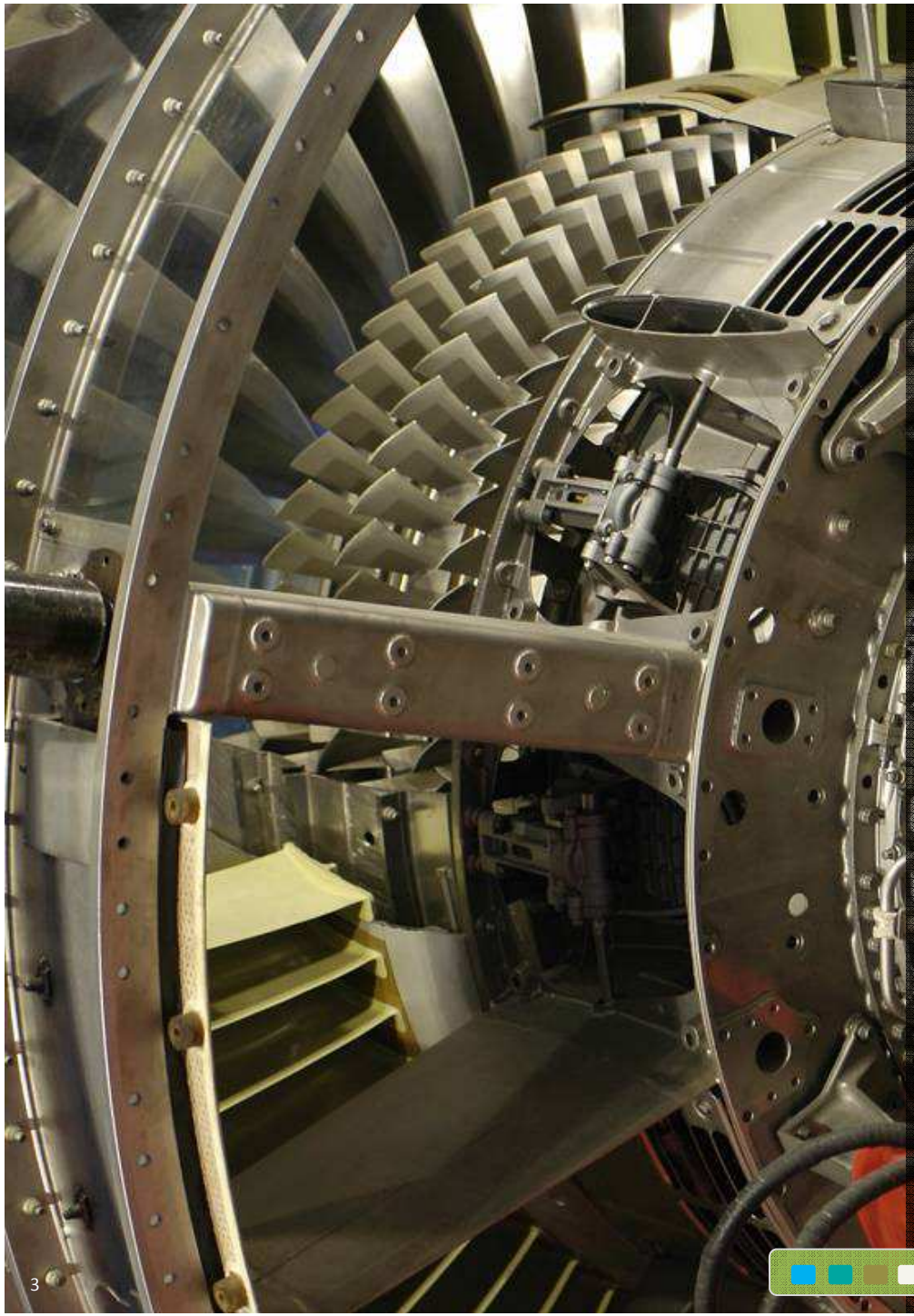
Need

- Performing real-time analytics using physiological data from neonatal babies
- Continuously correlates data from medical monitors to detect subtle changes and alert hospital staff sooner
- Early warning gives caregivers the ability to proactively deal with complications

Benefits

- Detecting life threatening conditions 24 hours sooner than symptoms exhibited
- Lower morbidity and improved patient care

UOIT
CHALLENGE INNOVATE CONNECT



Global aerospace manufacturer empowers staff with access to critical information

Need

- Improve operational efficiencies by providing a unified search, discovery and navigation capability to provide fast access to relevant information across the enterprise

Benefits

- Placed 50 additional aircraft into service worldwide during the first year without a staffing increase
- Saved USD36 million/year in supporting the 24/7 aircraft-on-ground program
- Provided supply chain visibility to reduce cycle time, saving millions of dollars on critical parts deliveries

Home

Asian telecommunications company reduces billing costs and improves customer satisfaction.

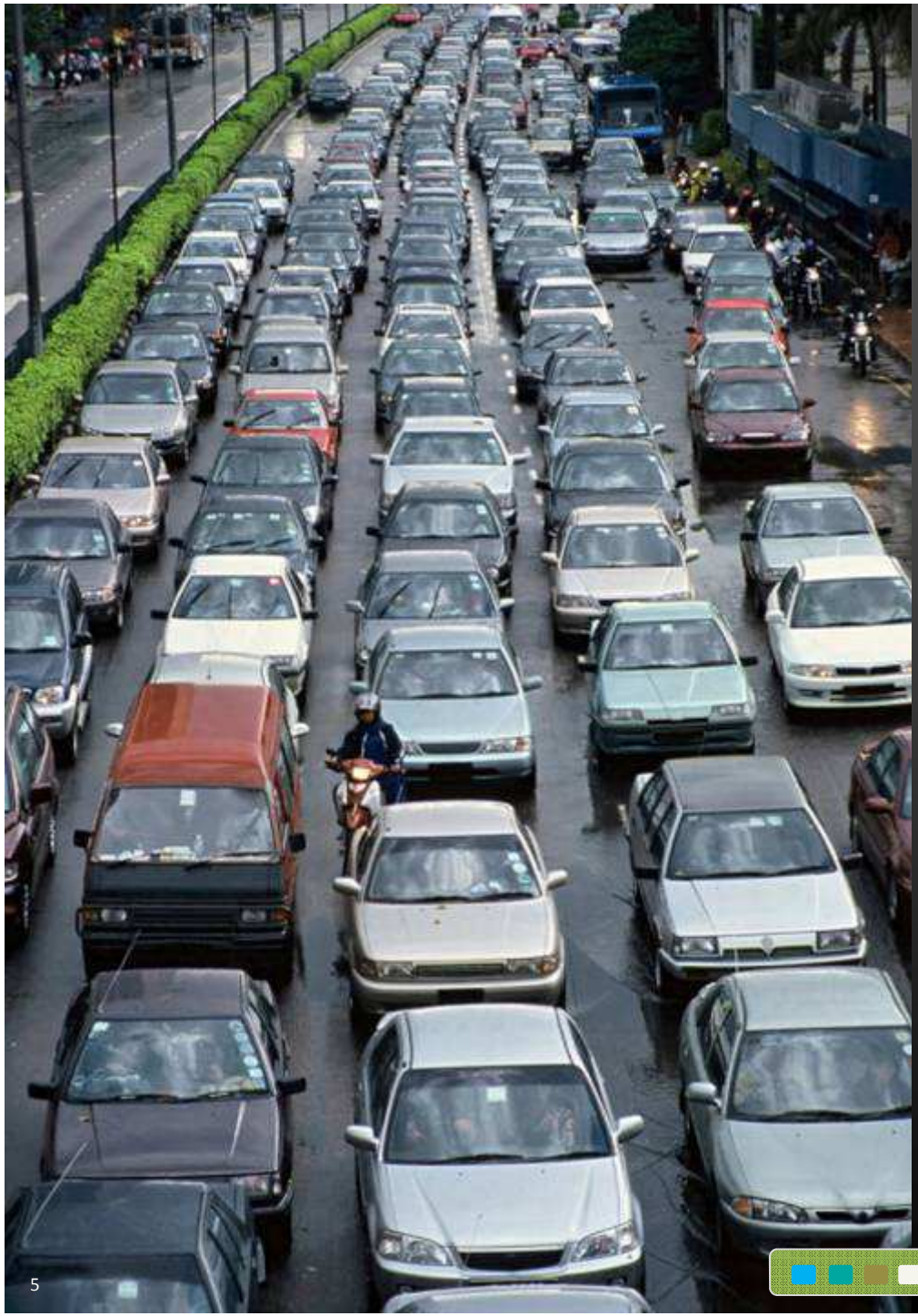
Need

- Could not achieve real time billing which required handling billions of Call Detail Records (CDR) per day and de-duplication against 15 days worth of CDR data

Benefits

- Real-time mediation and analysis of 5B CDRs per day
- Data processing time reduced from 12 hrs to 1 min
- Hardware cost reduced to 1/8th
- Proactively address issues (e.g. dropped calls) impacting customer satisfaction.

Home



KTH – Royal Institute of Technology analyzes real-time data streams to identify traffic patterns

Need

- Gather real-time traffic data from a variety of sources; integrate and analyze data to better manage traffic

Benefits

- Uses diverse data -- including GPS locations, weather conditions, speeds and flows from sensors on motorways, incidents and roadwork
- Analyzing large volumes of streaming data in real time is leading to smarter, more efficient and environmentally friendly traffic in urban areas

Home

The 5 Key Use Cases

Big Data Exploration

Find, visualize, understand all big data to improve decision making

Enhanced 360º View of the Customer

Extend existing customer views (MDM, CRM, etc) by incorporating additional internal and external information sources

Security/Intelligence Extension

Lower risk, detect fraud and monitor cyber security in real-time

Operations Analysis

Analyze a variety of machine data for improved business results

Data Warehouse Augmentation

Integrate big data and data warehouse capabilities to increase operational efficiency

What makes big analytics different?

Business Analyst

Gain **more complete answers** with access to more source data

- Customer 360° including social media data
- Broad transactional trends

Business Managers

Ask new questions about their business to uncover new value or realize cost-savings

- Warranty analysis & supply chain quality
- Customer experience & pipeline performance

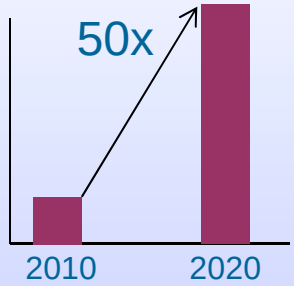
Executive

Explore and **experiment to find new opportunities** and create new business models

- Customer insights to share / resell to partners
- Personalized promotions

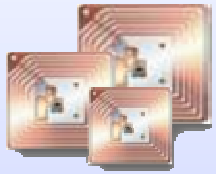
The characteristics of big data

Cost efficiently processing the growing **Volume**



35 ZB

Responding to the increasing **Velocity**



30 Billion RFID sensors and counting

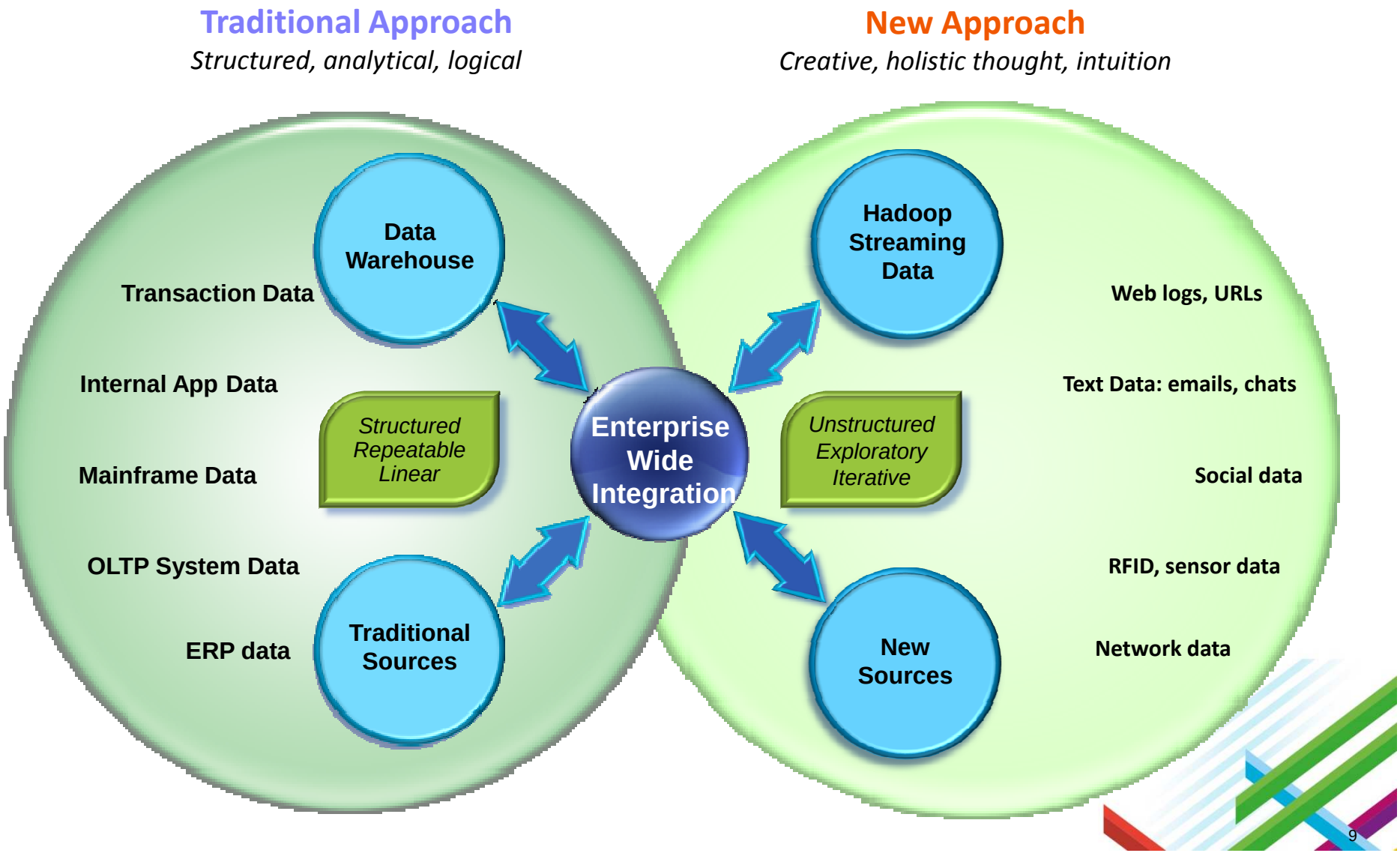
Collectively Analyzing the broadening **Variety**

80% of the worlds data is unstructured

Establishing the **Veracity** of big data sources

1 in 3 business leaders don't trust the information they use to make decisions

Complementary Analytics



An Institute for Business Value study highlights how organizations are adopting big data in four phases

Big data adoption

Educate	Explore	Engage	Execute
Focused on knowledge gathering and market observations	Developing strategy and roadmap based on business needs and challenges	Piloting big data initiatives to validate value and requirements	Deployed two or more big data initiatives and continuing to apply advanced analytics
Percentage of total respondents	Percentage of total respondents	Percentage of total respondents	Percentage of total respondents
24%	47%	22%	6%

When segmented into four groups based on current levels of big data activity, respondents showed significant consistency in organizational behaviors

Total respondents n = 1061

Totals do not equal 100% due to rounding

There are many use cases for a big data platform

Know Everything About your Customers

- Social media customer sentiment analysis
- Promotion optimization
- Segmentation
- Customer profitability
- Click-stream analysis
- CDR processing
- Multi-channel interaction analysis
- Loyalty program analytics
- Churn prediction

Innovate new Products Speed and Scale

- Social Media - Product/brand Sentiment analysis
- Brand strategy
- Market analysis
- RFID tracking & analysis
- Transaction analysis to create insight-based product/service offerings

Run Zero Latency Operations

- Smart Grid/meter management
- Distribution load forecasting
- Sales reporting
- Inventory & merchandising optimization
- Options trading
- ICU patient monitoring
- Disease surveillance
- Transportation network optimization
- Store performance
- Environmental analysis
- Experimental research

Instant Awareness of Risk and Fraud

- Multimodal surveillance
- Cyber security
- Fraud modeling & detection
- Risk modeling & management
- Regulatory reporting

Exploit Instrumented Assets

- Network analytics
- Asset management and predictive issue resolution
- Website analytics
- IT log analysis

Banking

Use Cases

Optimize Offers and Cross Sell

Description: IBM's Big Data solution provides the platform needed to analyze, predict & deliver the Cross-Sell Offer. The bank's KPI's improve: Customer Profitability / Satisfaction & Advocacy / Retention. The customer feels that the bank understands them as an individual & responds to their changing needs.

Enhanced 360˚ View of the Customer in Action

Contact Center Efficiency and Problem Resolution

Description: Analyze information from all customer interactions and data sources - use that data to gain customer and operational insights to take sales, marketing or service actions

Enhanced 360˚ View of the Customer in Action

Payment Fraud Detection and Investigation

Description: Reduce latency while increasing the depth of analysis

Security / Intelligence in Action

Counterparty Credit Risk Management

Description: Placeholder text…

Security / Intelligence in Action

Retail

Use Cases

Actionable Customer Intelligence

Description: Provide a single extensible repository of all multi-channel retail customer information to enable advanced analytics for all customer transactional data and external data sources (social media) . Deliver predefined market basket, segmentation, marketing campaign optimization, and next best action capabilities to deliver optimized retail customer reporting and analysis environment.

Enhanced 360 View of Customer

Merchandising Optimization Playbook

Description: Build on retail best practices to deliver a consistent view across retail organizations by bringing together data, analytics and business processes from multiple systems, including planning, merchandising, supply chain and store systems. Social data can now be incorporated as a leading indicator of trend enabling merchants to ingest this new data source for localized assortment optimization.

Data Warehouse Augmentation

Dynamic Pricing

Description: Use streaming technology to understand competitor pricing in real time from their websites (and traditional pricing monitor teams), map price variations by geography and locale. Adjust and optimize price points to capture market share with cognizance of traditional halo products and related online sentiment.

Big Data Exploration

Industrial Products

Use Cases

Channel Driven Customer Analytics (CDCA)

Description: Improved market penetration, increased cross-sell and up-sell opportunities, and stronger bottom line profitability

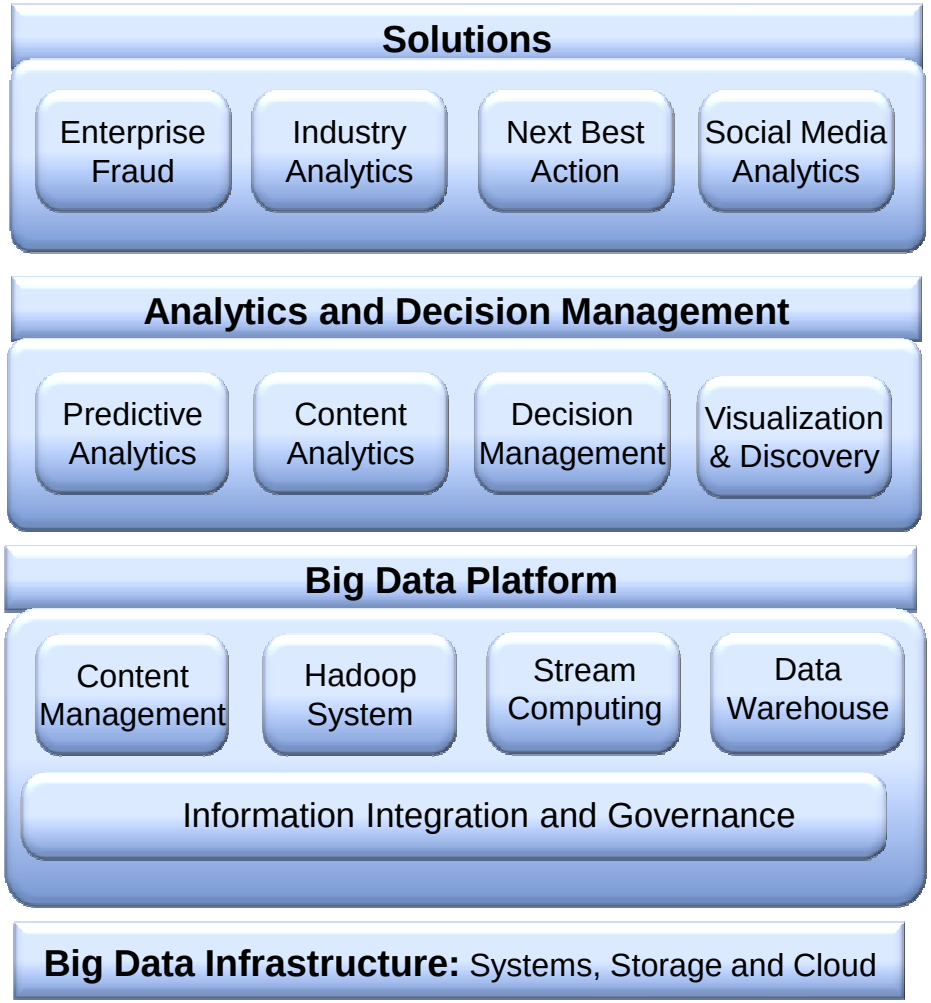
Enhanced 360 Degree View of the Customer

Predictive Asset Monitoring & Optimization (PAMO)

Description: Significant cost savings and production efficiency gains

Operations Analysis

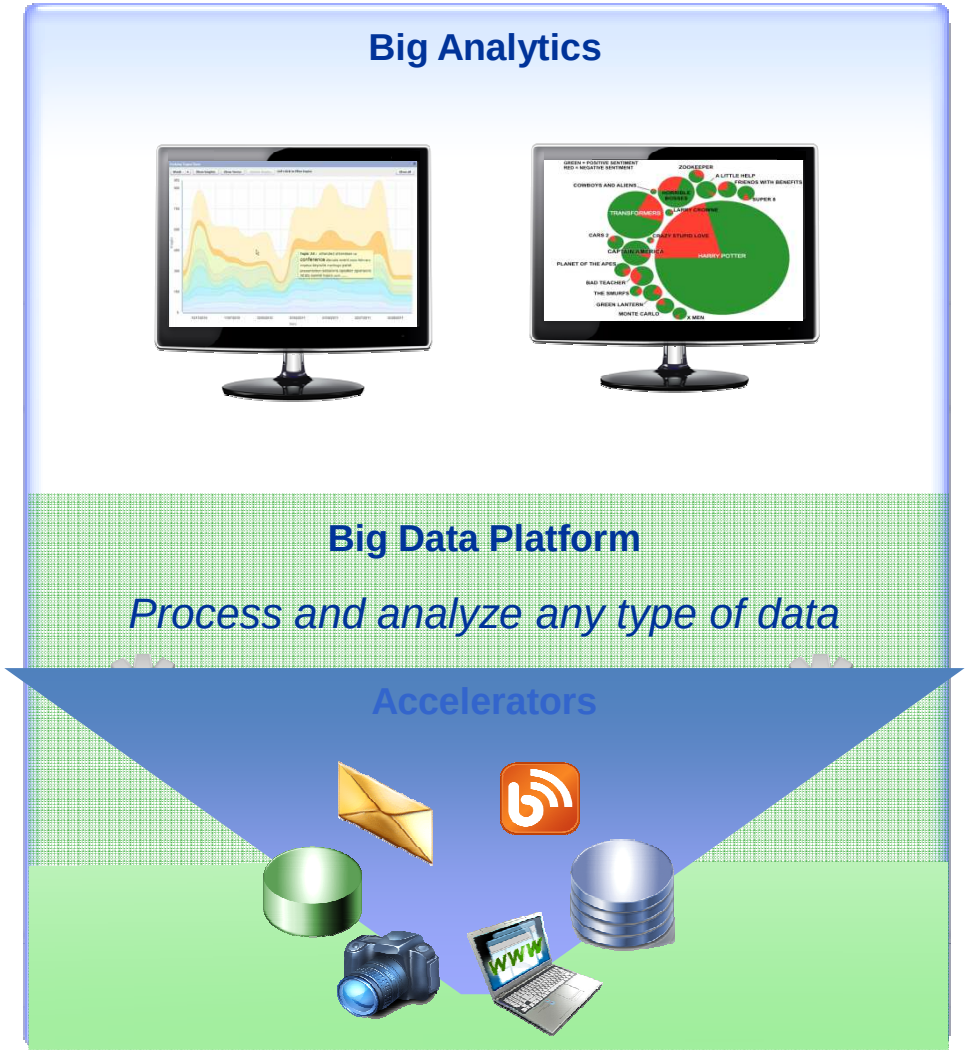
IBM provides a holistic and integrated approach to big data and analytics



Enabling organizations to:

- Discover and assemble relevant information
- Analyze patterns and predict outcomes
- Visualize and explore for answers
- Take action and automate processes
- Optimize analytical performance and IT costs
- Manage, govern & secure information

Next wave of analytics harnesses the value of the new mix of information



Big Analytics

- Visualize and explore the variety, velocity and volume of big data
- Apply advanced analytics to uncover patterns previously hidden
- Blend traditional structured information with data previously unavailable

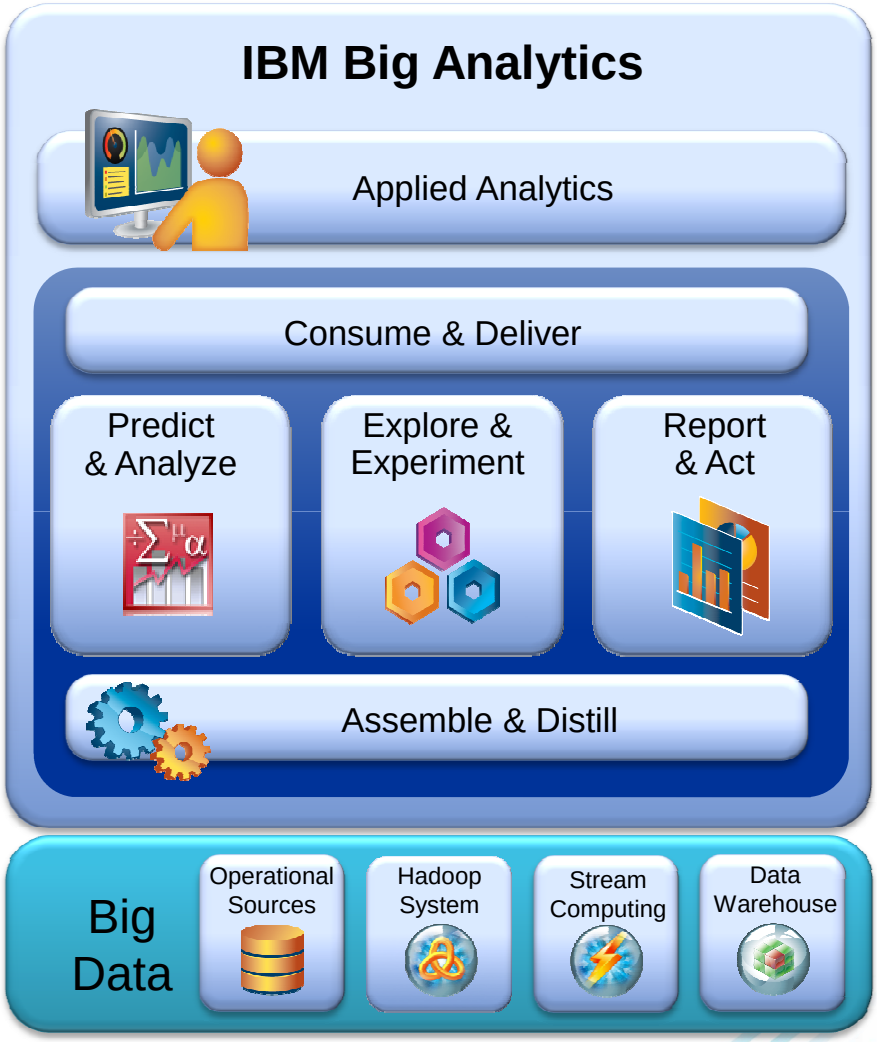
Big Data Platform

- Integrate and manage the full variety, velocity and volume of data
- Apply advanced analytics to information in its native form
- Development environment for building new analytic applications

IBM Big Analytics

Next wave of analytics harnesses the value of the new mix of information

- Visualize and explore the variety, velocity and volume of big data
- Apply advanced analytics to uncover patterns previously hidden
- Blend traditional structured information with data previously unavailable
- Optimize access and delivery to take insight to action
- Extend existing capabilities to address specific analytic applications



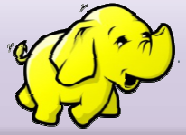
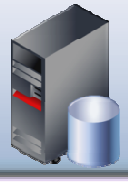
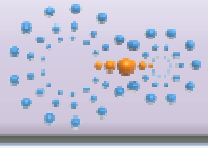
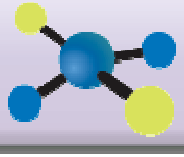
Big Data Platform

Move the Analytics Closer to the Data

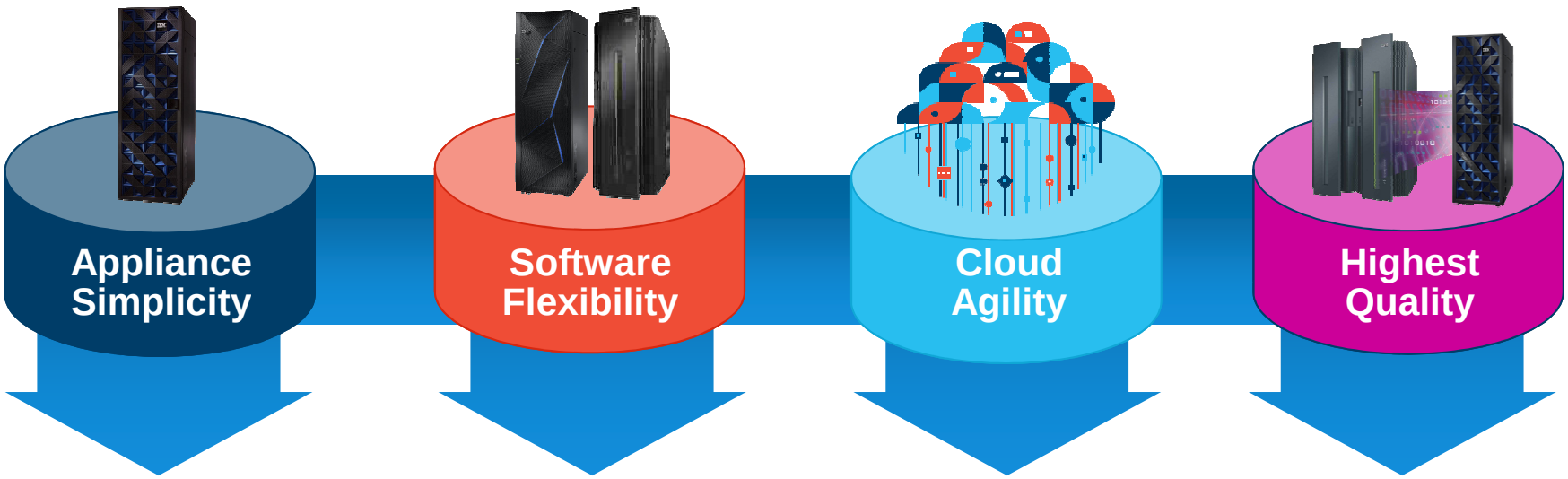
New analytic applications drive the requirements for a big data platform

- Integrate and manage the full variety, velocity and volume of data
- Apply advanced analytics to information in its native form
- Visualize all available data for ad-hoc analysis
- Development environment for building new analytic applications
- Workload optimization and scheduling
- Security and Governance

Leveraging Big Data requires multiple platform capabilities

Understand and navigate federated big data sources		Federated Discovery and Navigation
Manage & store huge volume of any data		Hadoop File System MapReduce
Structure and control data		Data Warehousing
Manage Streaming Data		Stream Computing
Analyze Unstructured Data		Text Analytics Engine
Integrate and govern all data sources		Integration, Data Quality, Security, Lifecycle Management, MDM

IBM provides the broadest set of deployment options



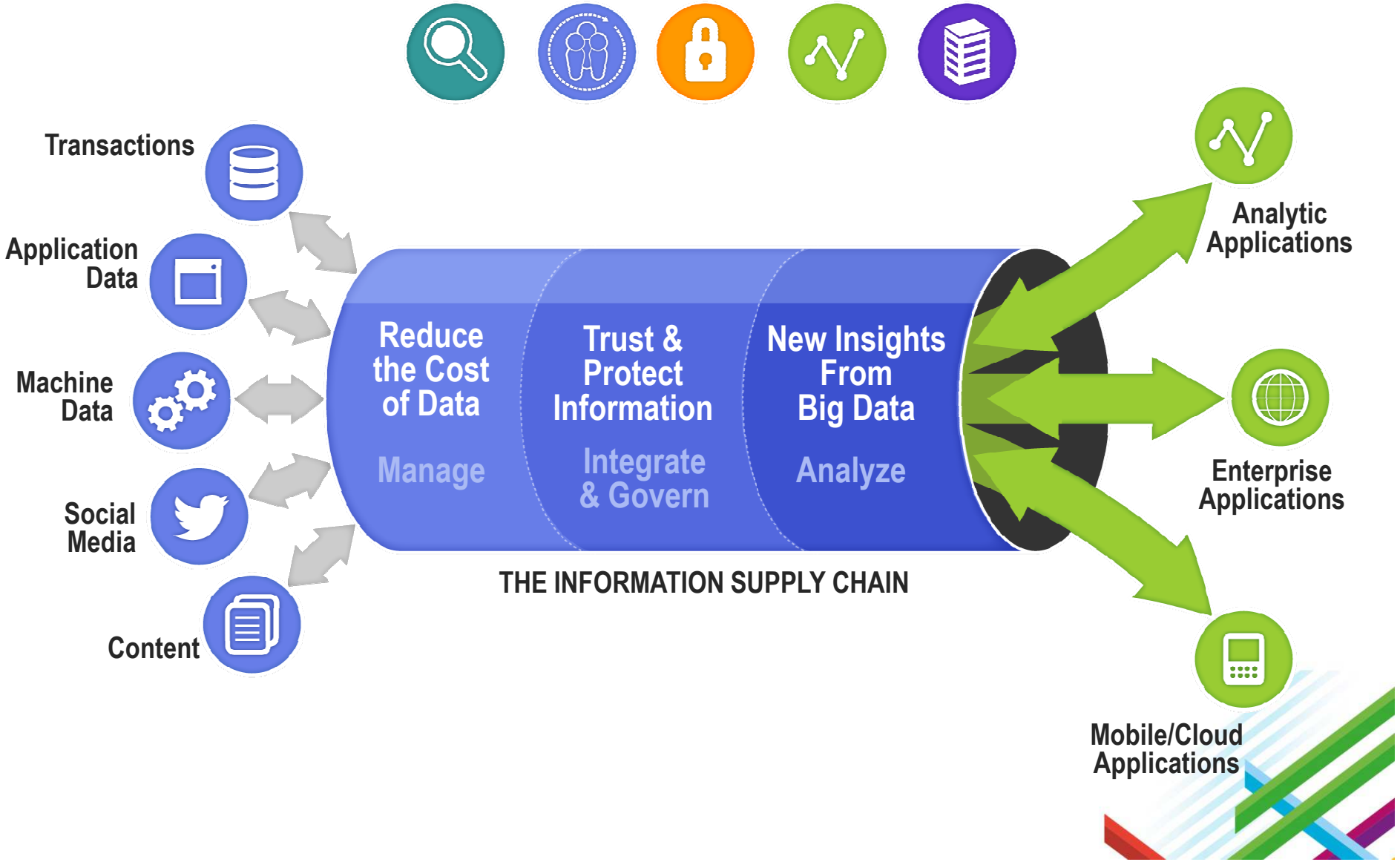
Simplicity
of pre-optimized deployment and management

Flexibility
of platform choice and multi-workload capabilities

Agility
to deliver new services without impacting on-premise IT

Quality
of service that System z uniquely delivers

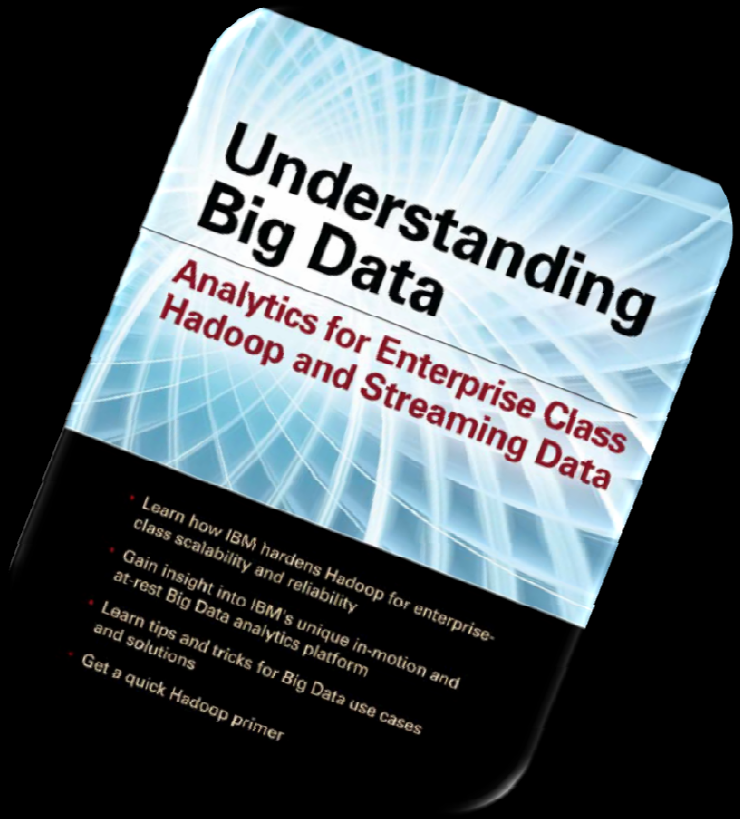
Big Data and the information supply chain



@patrickbillens

THINK

BIG



Thank You!