



香港銀行學會
The Hong Kong Institute of Bankers

HKIB Annual Banking Conference 2015



Real-time Digital Banking With Fast Data

Kevin Pool - Asia CTO

Business is Evolving.

HKIB Annual Banking Conference 2015



Banking is Integrating into the Customers Life

STUDENT



ACTIVE



HOUSE HOLD



INVESTOR



09:00



OFFICE

12:00



LUNCH

18:00



SHOPPING

21:30



DINNER

CONTEXTUAL
CONVERSATIONS

HIGH VALUE



MOST PROFITABLE

LOW VALUE



LEAST PROFITABLE

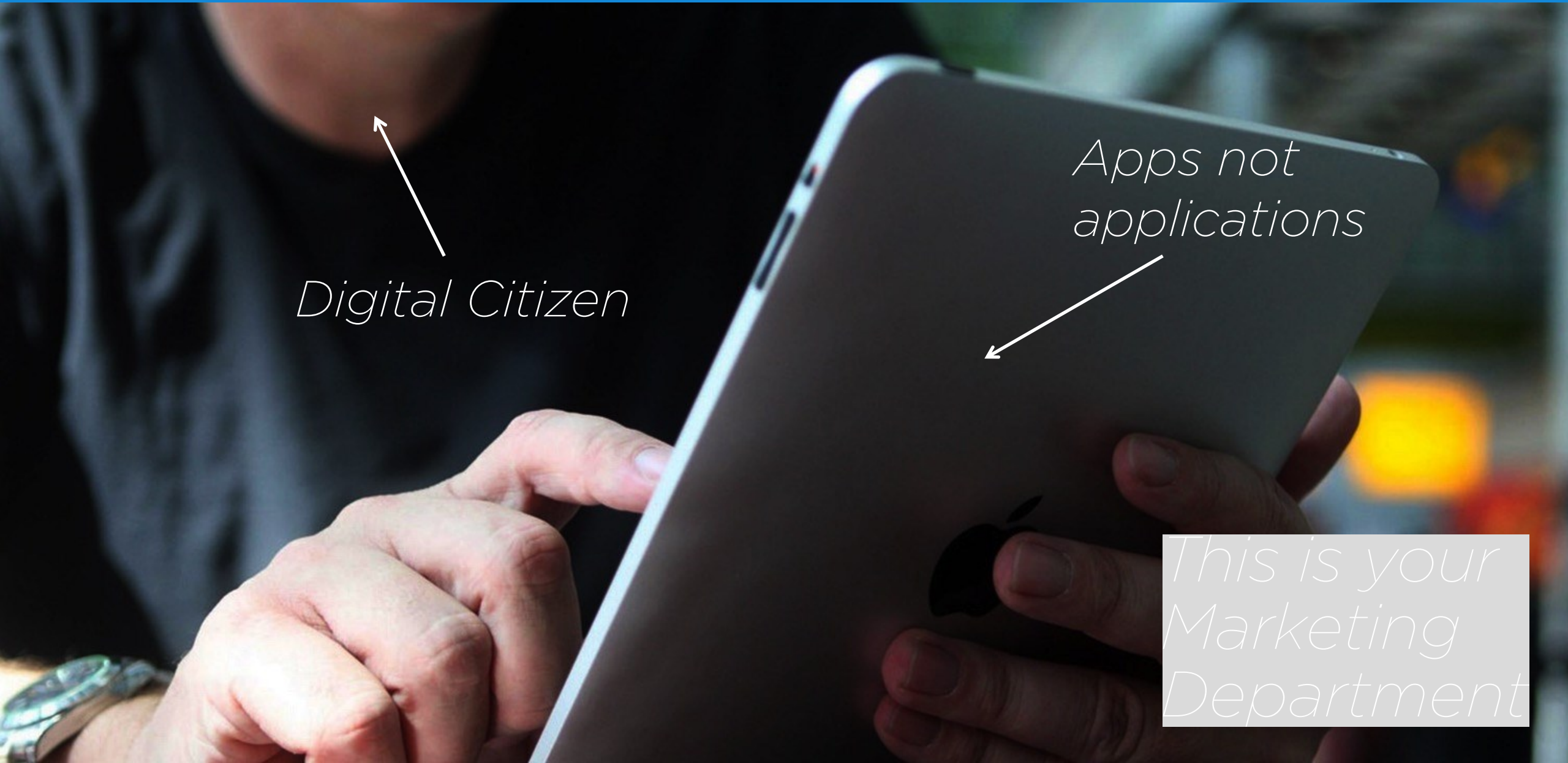


HIGH TOUCH

LOW TOUCH

AUTOMATION

Digital forces change in the Enterprise



Digital Citizen

*Apps not
applications*

*This is your
Marketing
Department*

The Integrated Citizen – Contextual Awareness



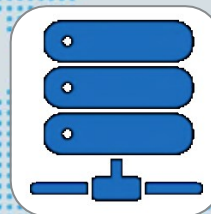
Marketing

- Campaign trending above expectation



Operations

- Delay causing check-in overflow



IT

- No messages for past 5 mins
- Increasing response time



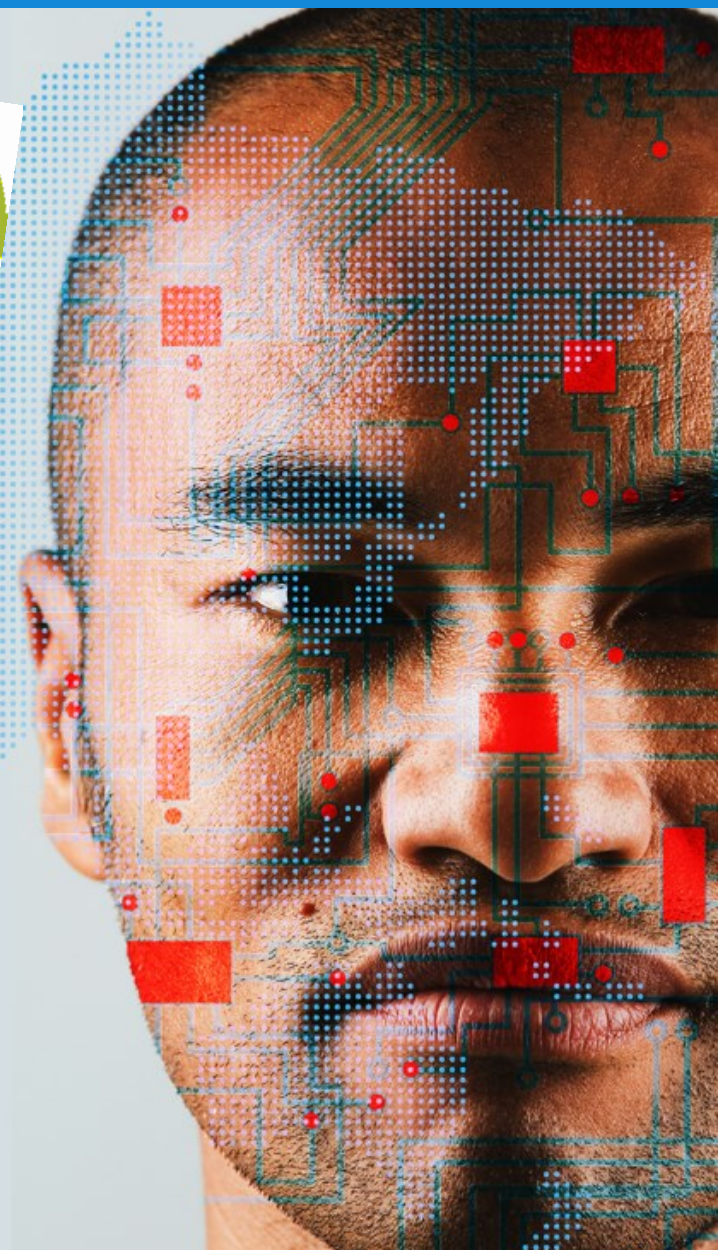
Sales

- New lead validated
- Contract reached W status

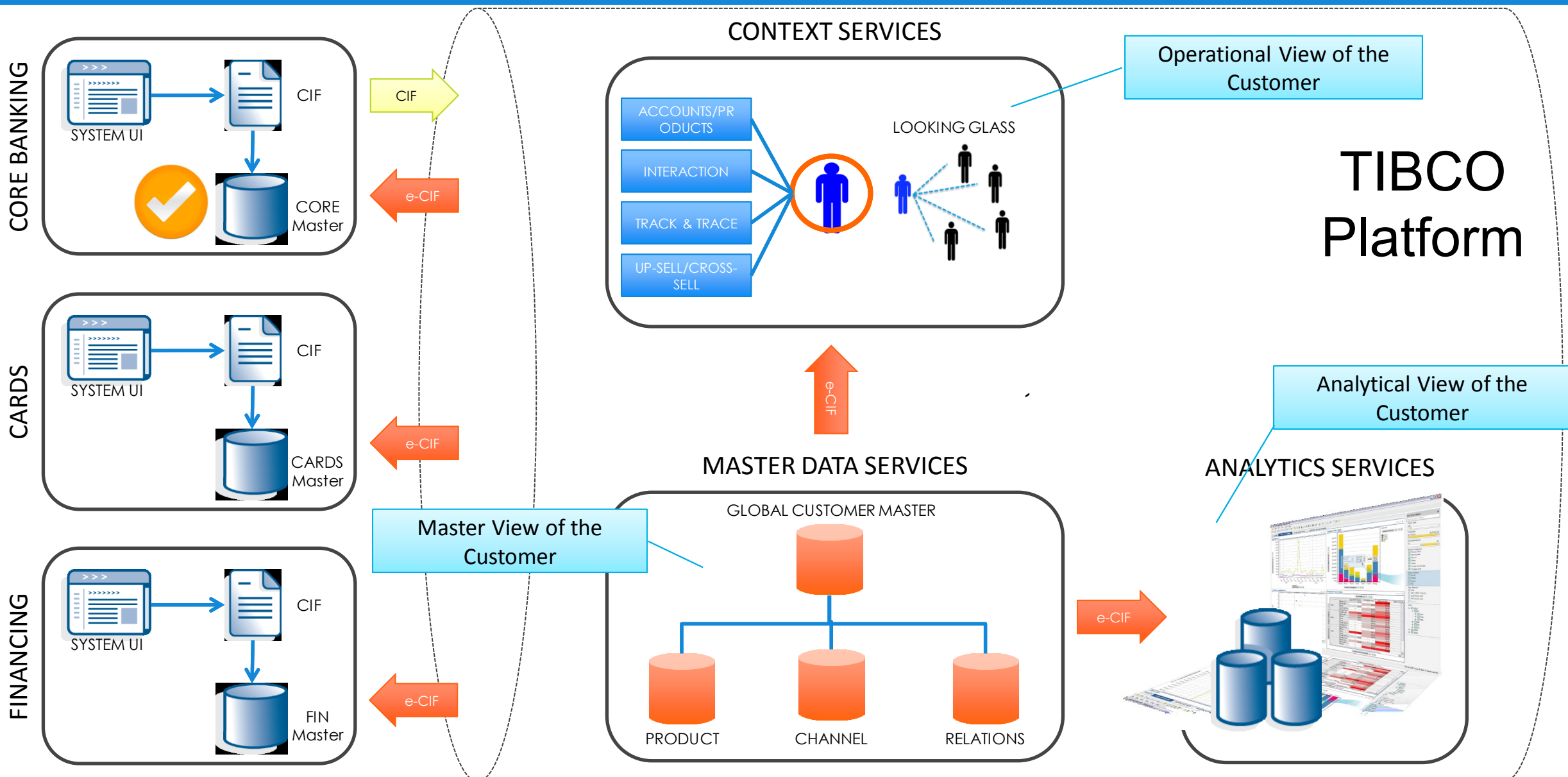


Operations

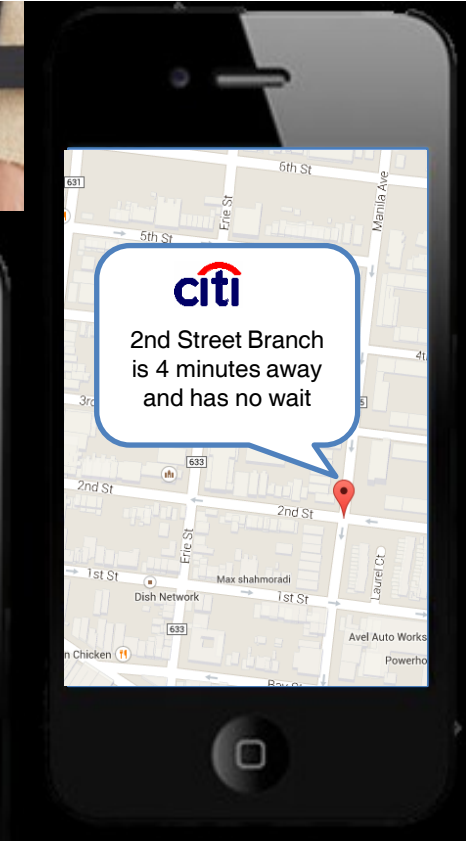
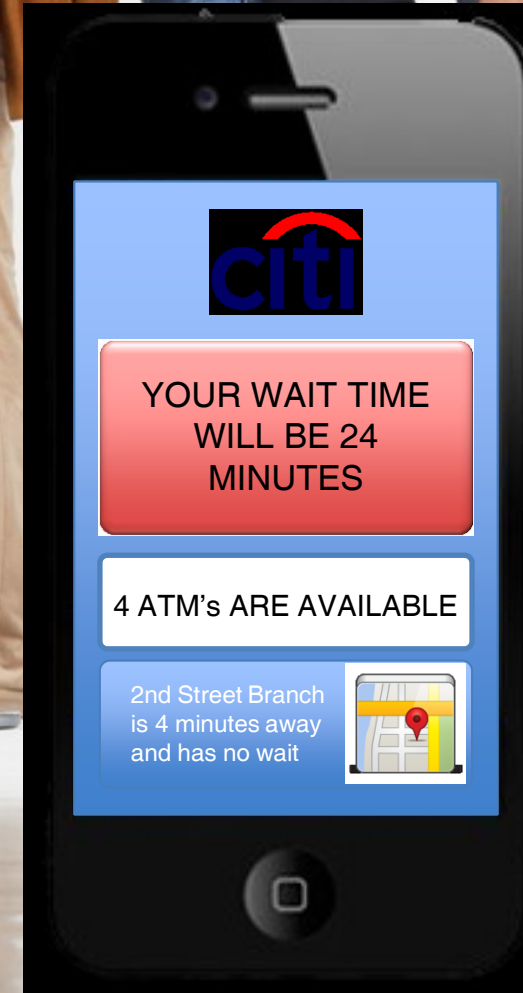
- Exceptional load delivered to warehouse



Achieving Customer Single View



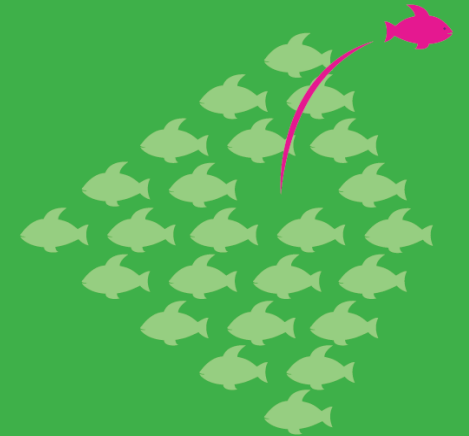
AUTOMATED AND PERSONALIZED CUSTOMER SERVICE



Drivers for Digitalization

Innovate

New Solutions
Through
Experimentation

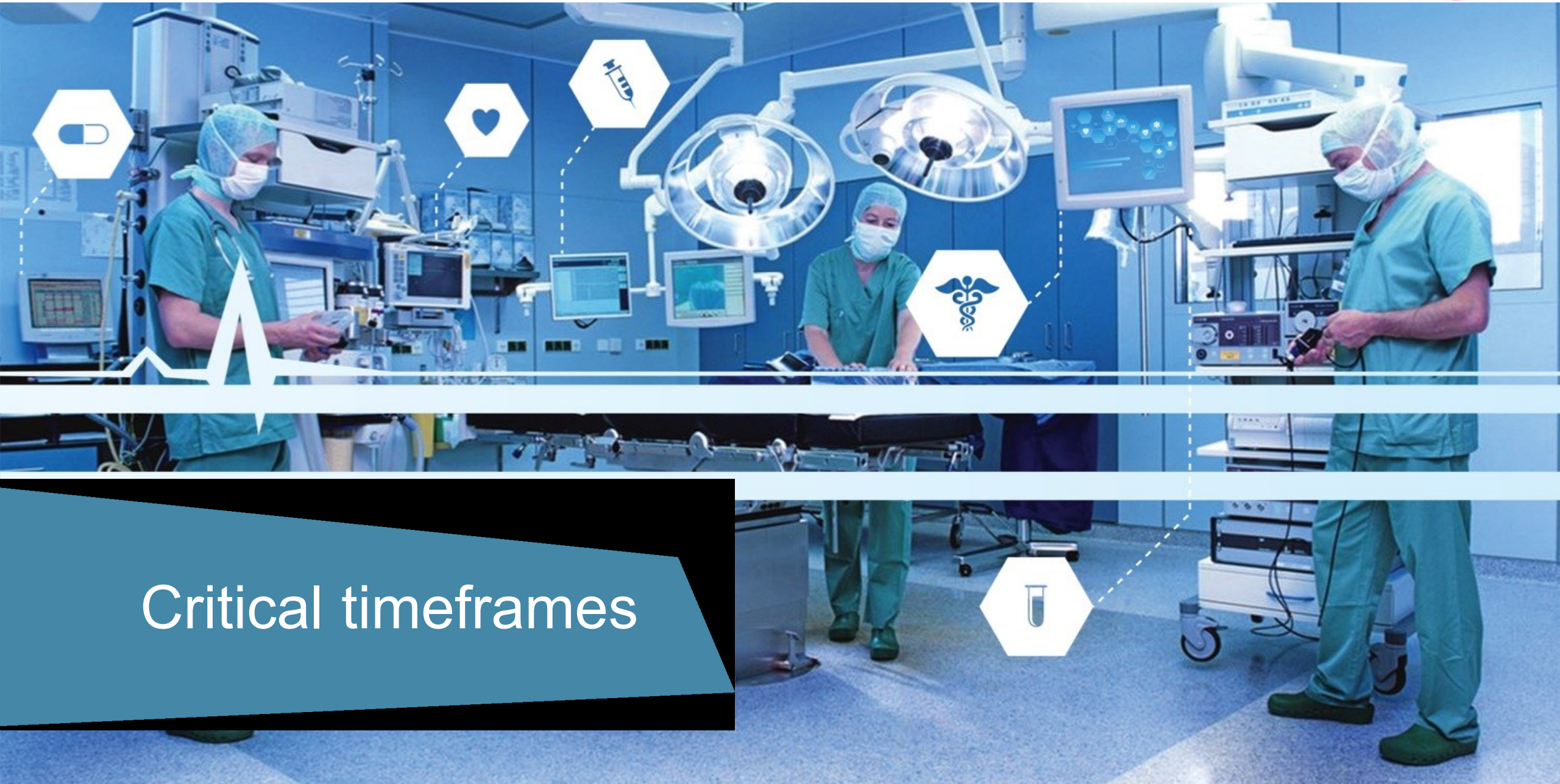


Every Business Should Collect and Analyze Big Data



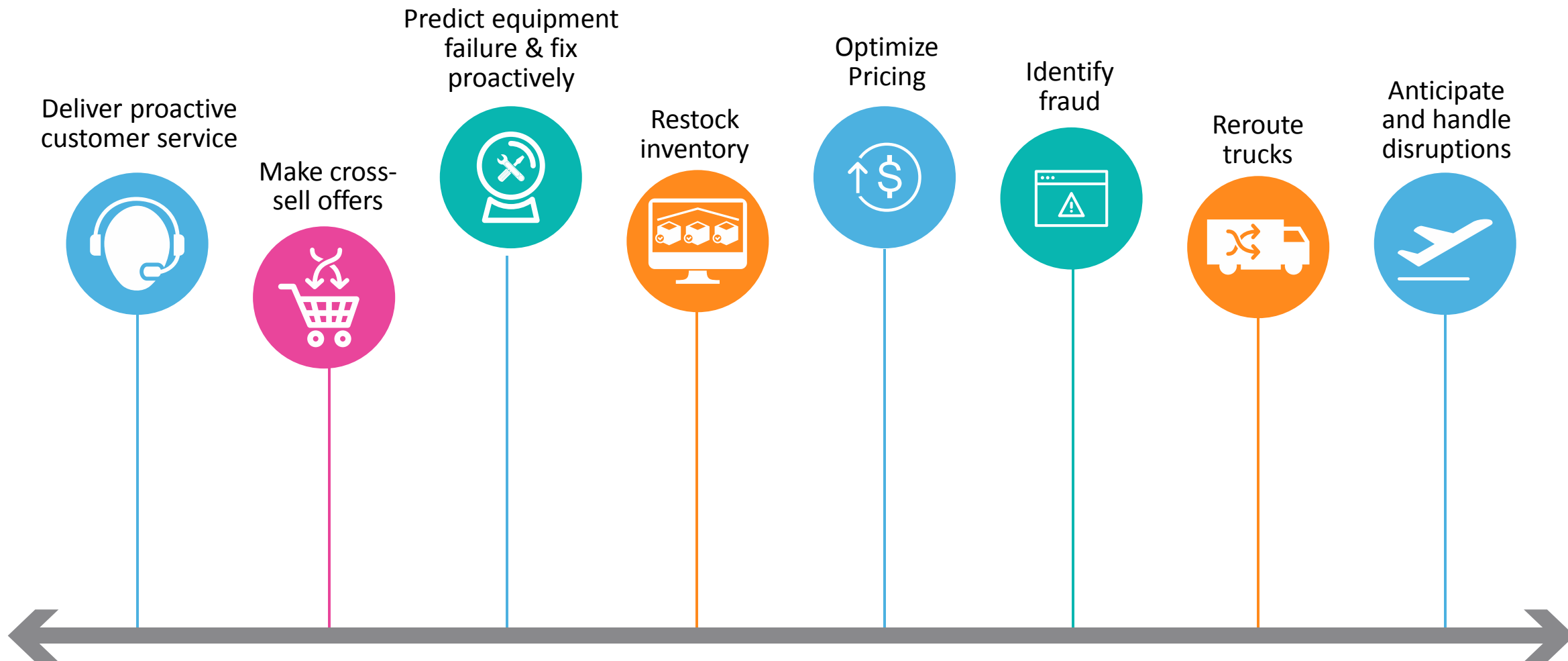
Short-lived opportunities





Critical timeframes

Find and Act on “Critical Business Moments”



“Business Moments” occur in Every Facet of Enterprise Operations, they drive competitive differentiation, customer satisfaction and business success!

FAST DATA

- Business Moments
- Changes in Values require Rapid Response
- Quickly Declining Business Value
- BIG VALUE comes from processing and intelligently reacting in Real Time

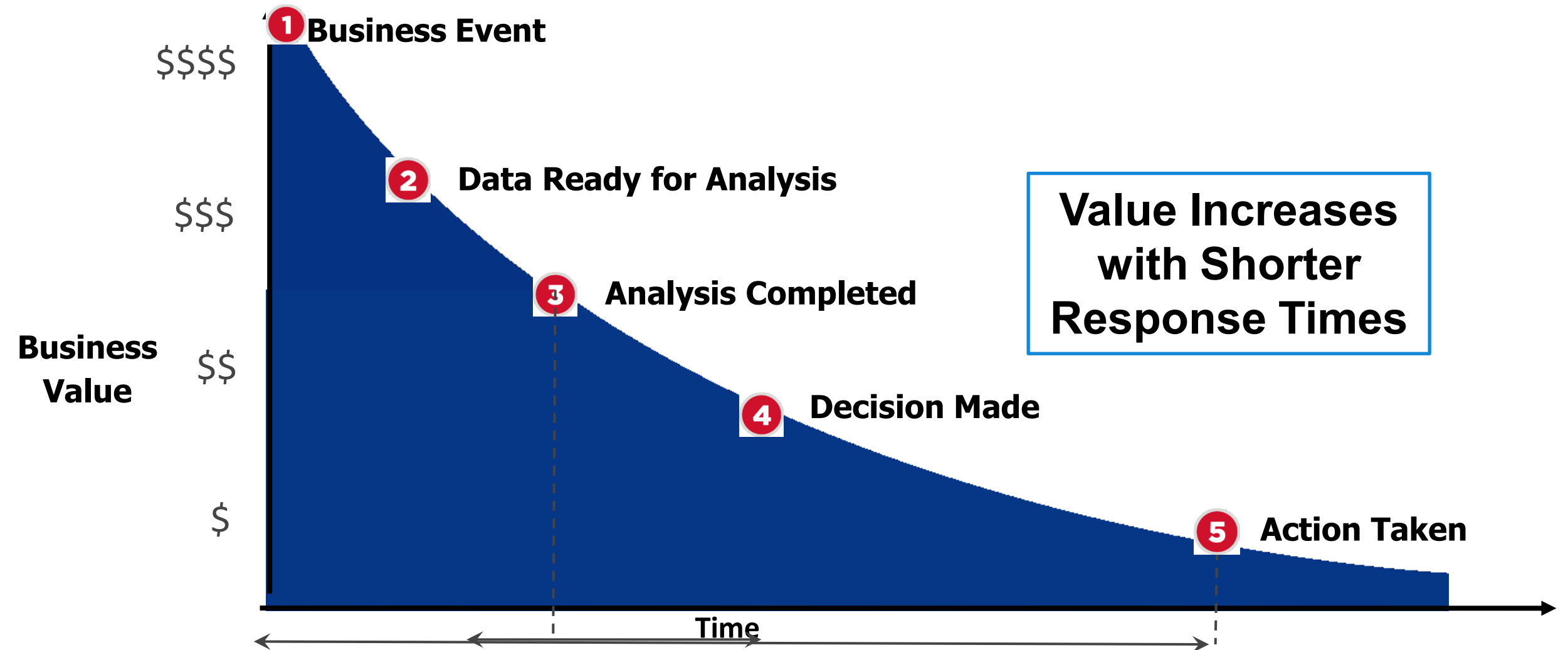


BIG DATA LETS YOU UNDERSTAND
WHAT'S ALREADY HAPPENED

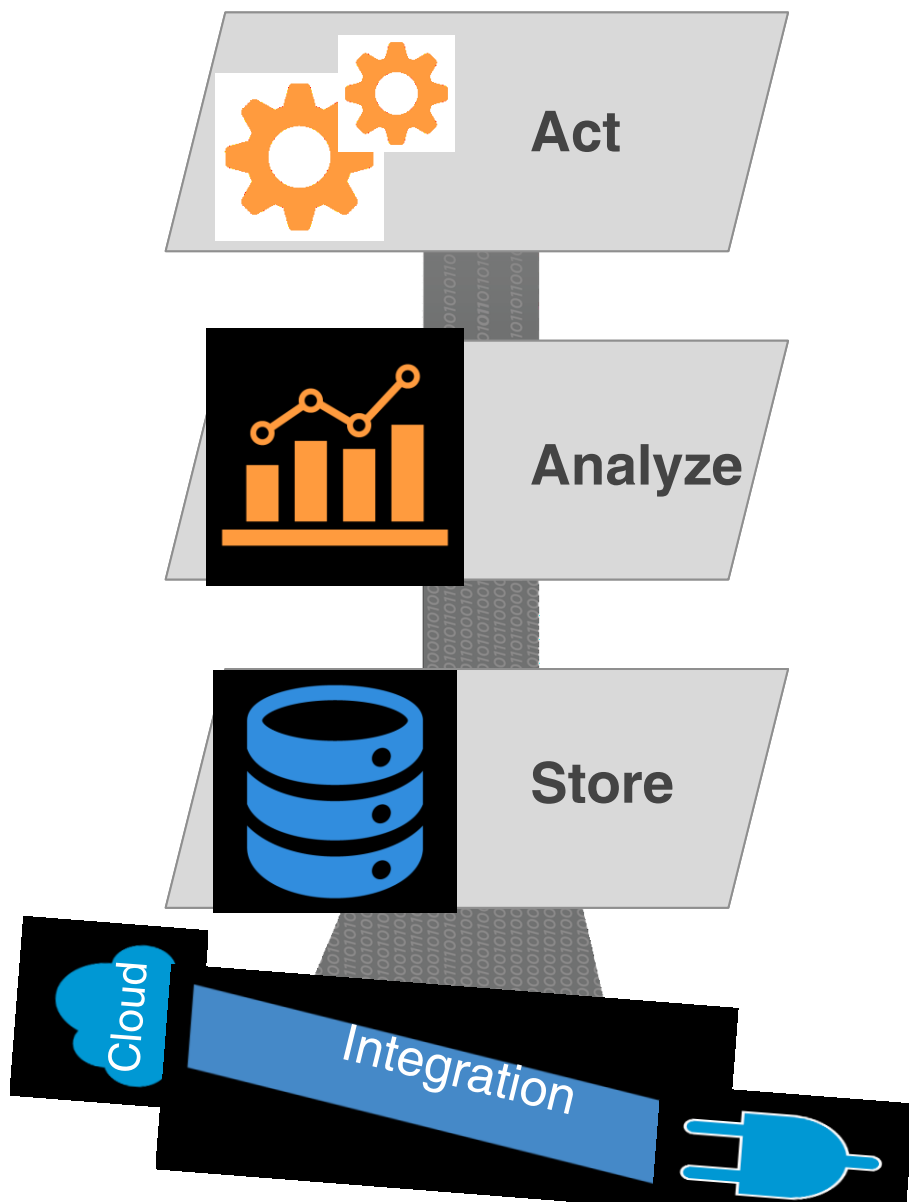


FAST DATA LETS YOU INFLUENCE
WHAT'S ABOUT TO HAPPEN

Fast Response = Big Value

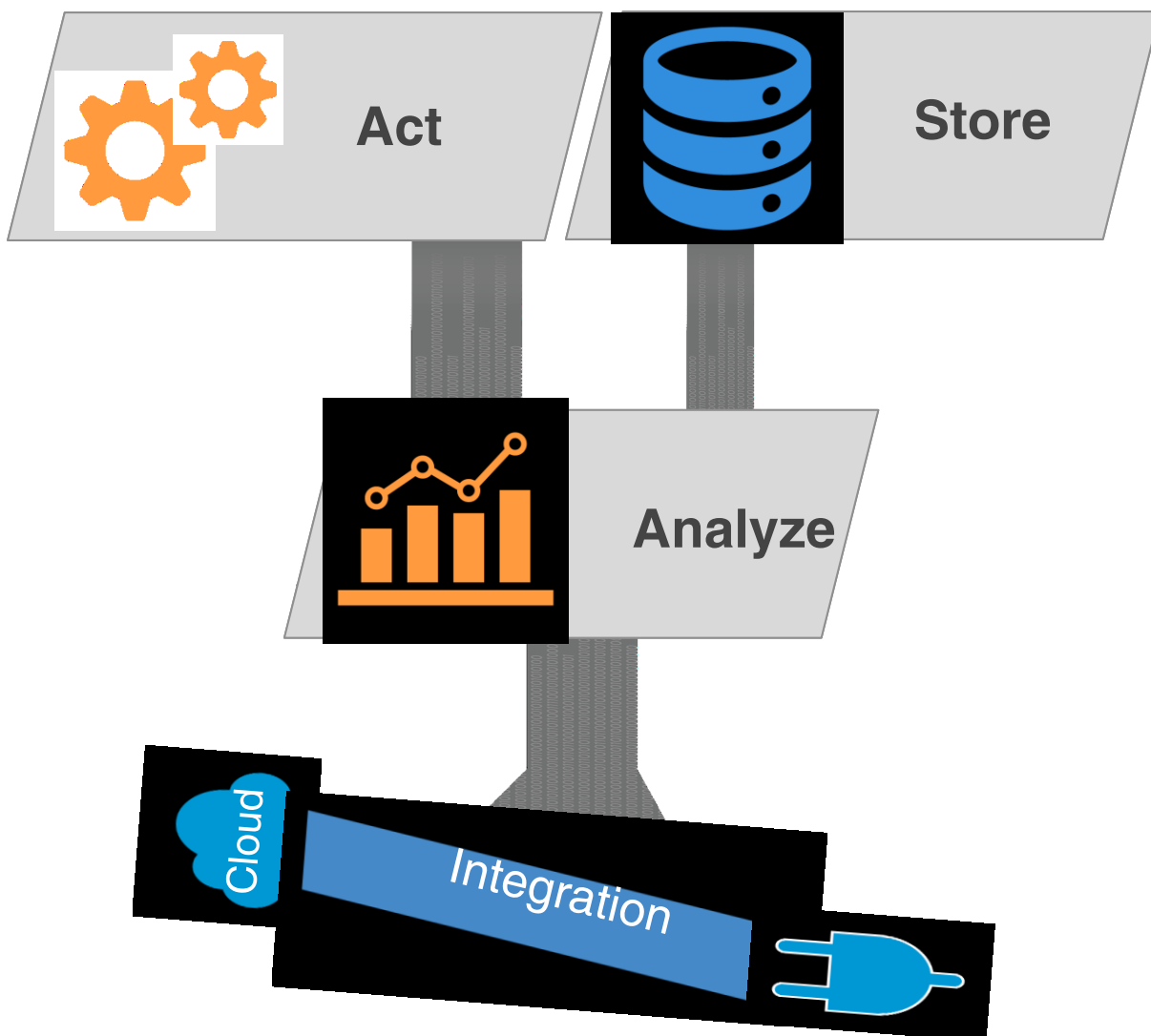


Issues with Traditional Data Processing



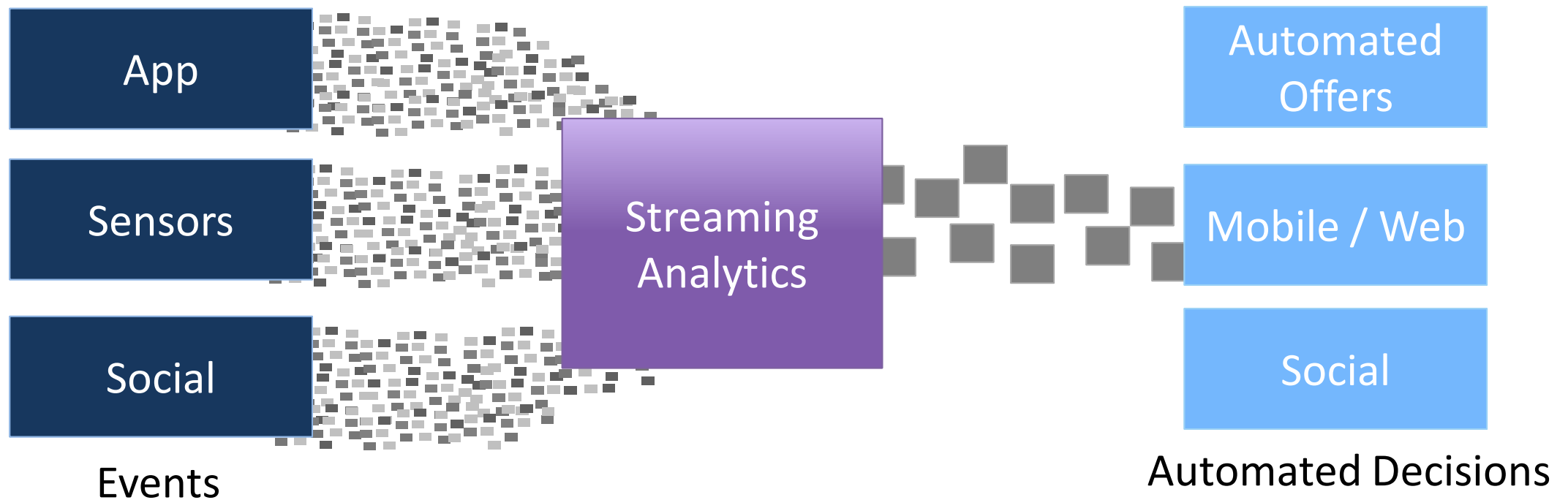
- Data collected from multiple sources and **periodically** placed in a persistent store.
- Analytical processes against stored data
- Introduces **too much “decision latency”**
- Responses are delivered **“after-the-fact”**.
- Decisions are made on **old and stale data**.
- **Maximum value is lost.**

The New Era: Fast Data Processing

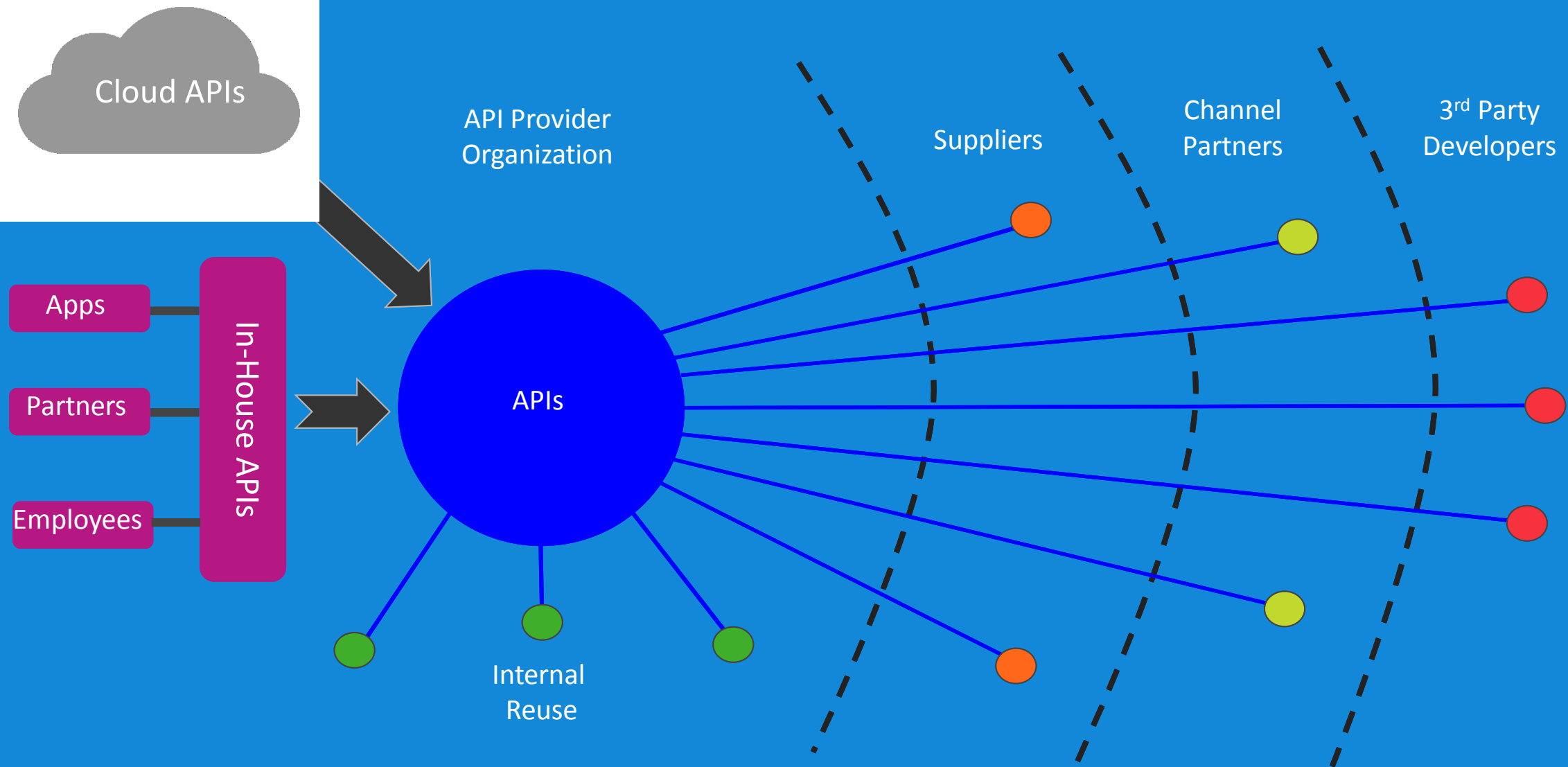


- Events are **analyzed and processed in real-time**.
- Decisions are **timely, contextual, and based on fresh data**.
- **Decision latency is eliminated**, resulting in:
 - ✓ Superior Customer Experience
 - ✓ Operational Excellence
 - ✓ Instant Awareness and Timely Decisions

Ask Every Interesting Question Every Millisecond



APIs Extend the Edge of the Enterprise



Real-Time, Visual, Business Operations

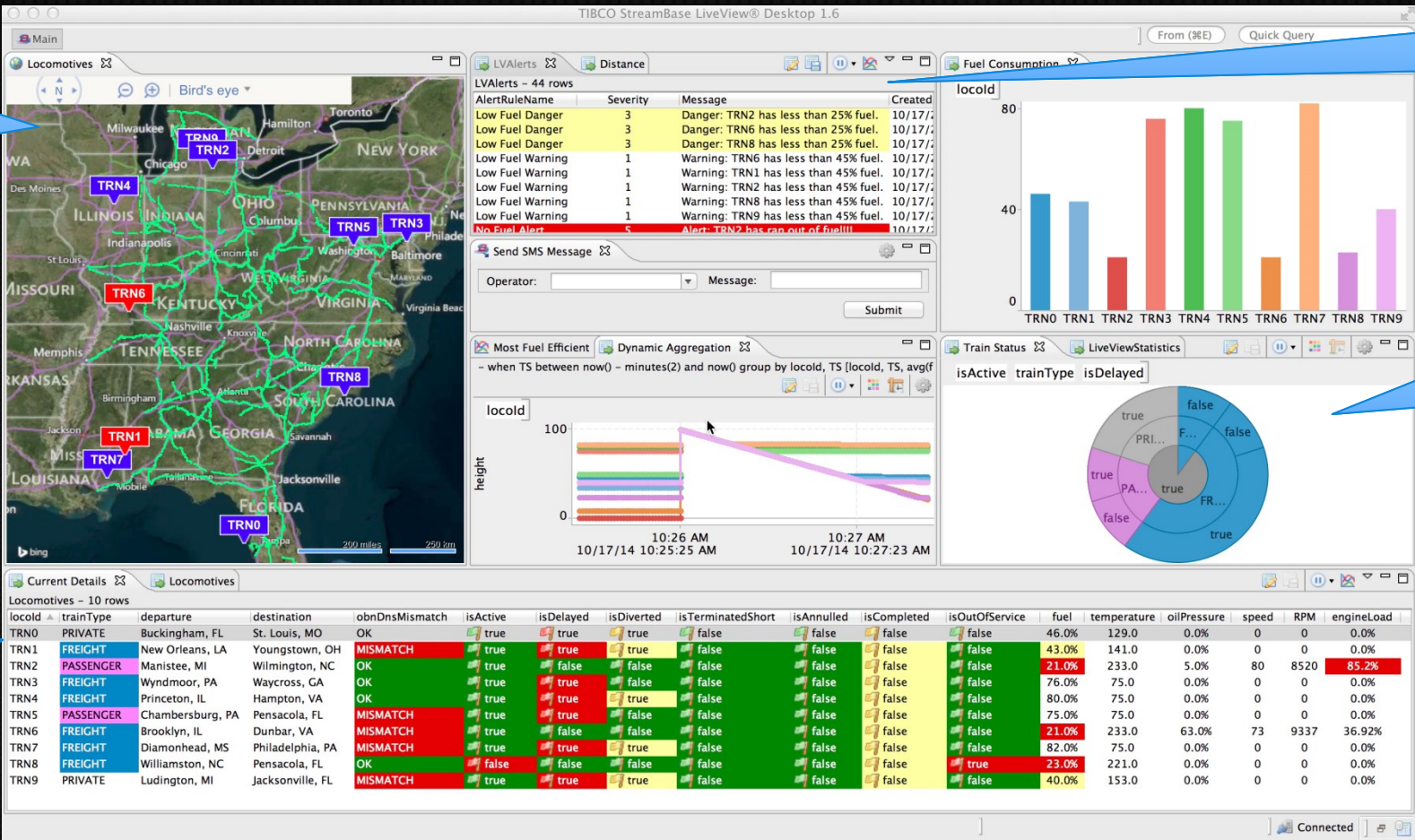
Live visualization

Alerts

Dynamic aggregation

Action

Ad-hoc continuous query



LiveView Continuous Query Processor



{ 21%
INCREASE
CONSUMER SPENDING

{ SHORTENED
TIME-TO-MARKET BY
92%



Omni-Channel Contextual Engagement



Before we even started house hunting, opportunity knocked.

citibank

citibank

Hermosa Beach

DATE 03-29-2011 TIME 13:40 ATM ID 130044172
CARD XXXXXXXXXXXX3069

ATM RECEIPT COPY

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Balance:
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\$ 335,778.49

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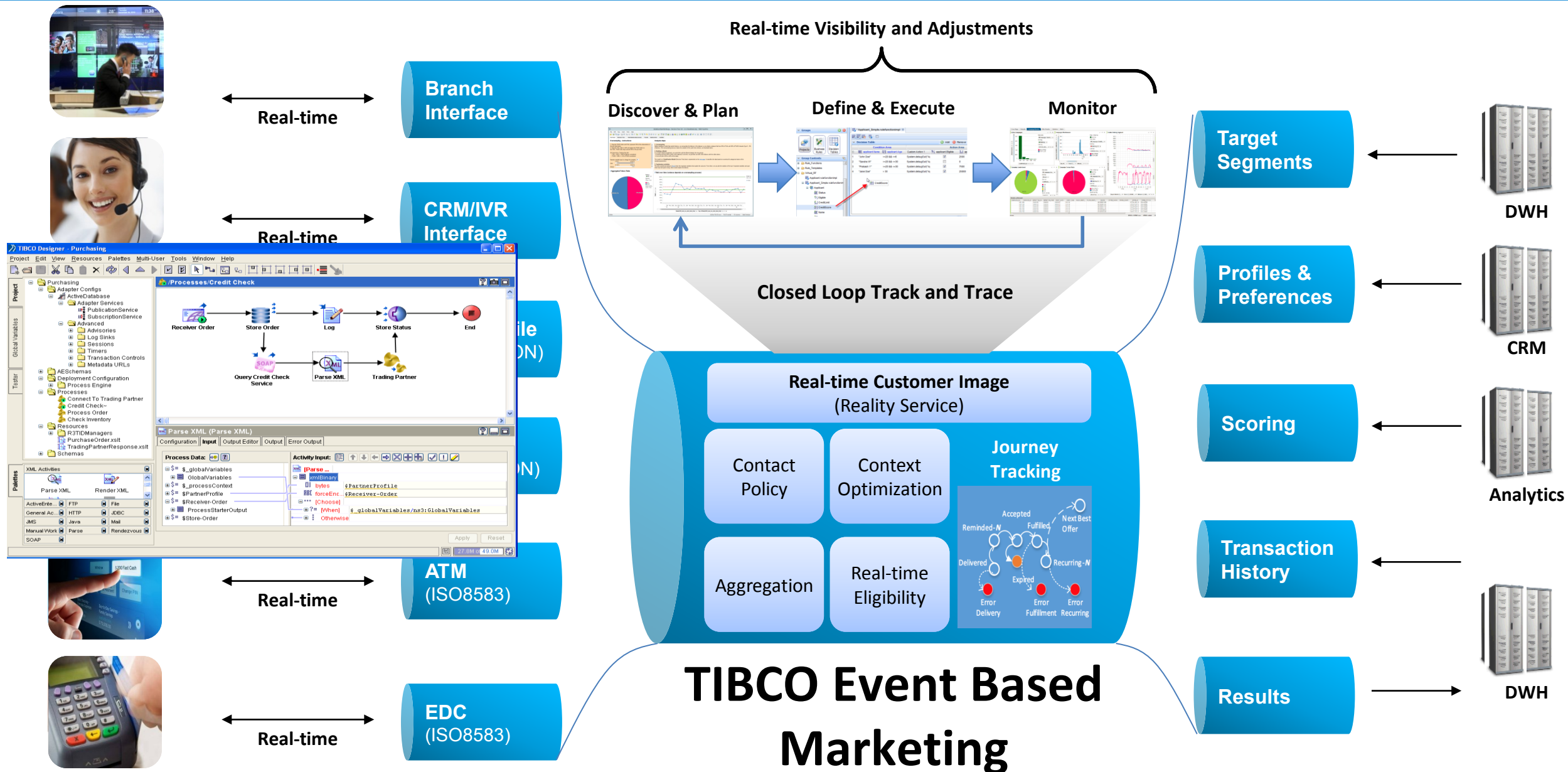
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Real-time Contextual Architecture



BNY ConverEx: Fraud / Compliance Analytics

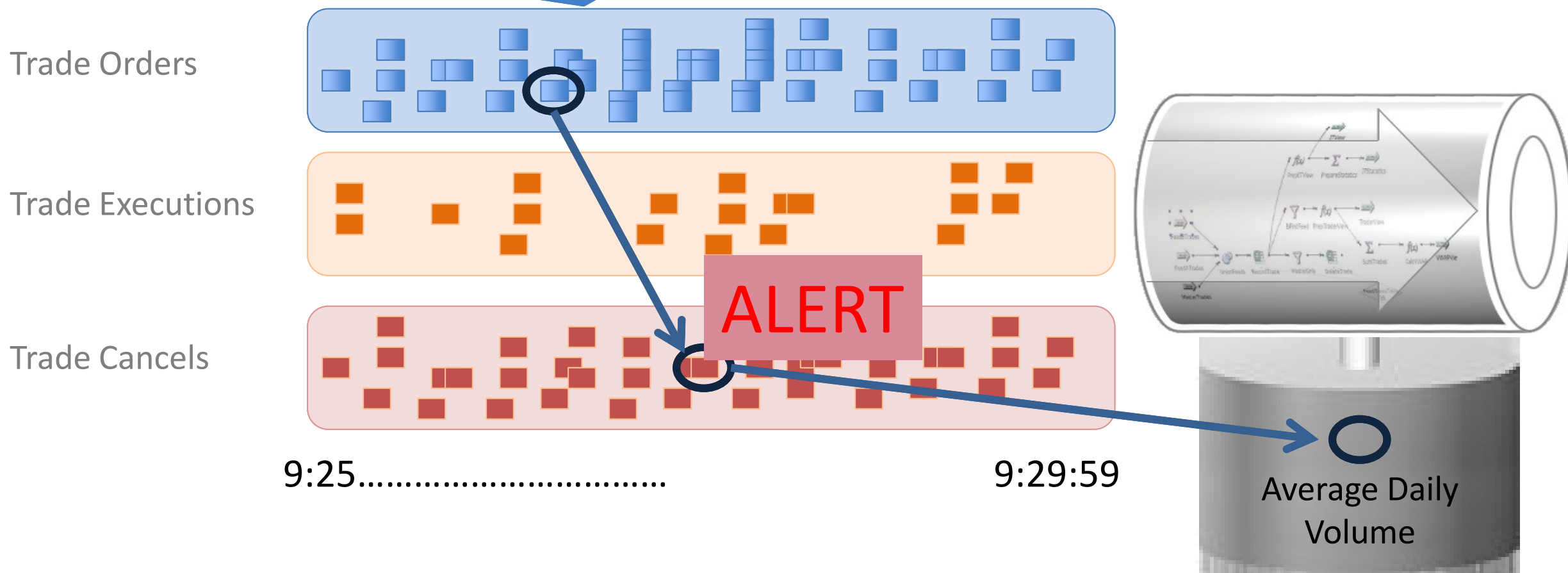
Fraud Compliance, risk & surveillance system built in record time, low cost



- **Situation: Real-Time Compliance Requirement for Brokers**
 - VortEx, the BNY ConverEx dark liquidity agency brokerage, required a new risk and compliance application to comply with SEC Rule 15c3-5
- **Problem: Existing Commercial Products Lacking**
 - Most existing products are not designed to provide an effective, intuitive way of filtering and investigating large amounts of real-time events.
- **Solution: CRSS, Based on TIBCO StreamBase**
 - Developed and deployed the Compliance Risk Surveillance System, which provides a simple, intuitive, ad-hoc way to view and investigate real-time events.
- **Impact: Market Disruption, First Mover Advantage**
 - Quadrupled employee productivity by allowing them to process more data in less time.
 - Due to increased productivity, ConverEx has expanded business because they can take on – and manage the risk – of more trade flow.

Real-Time Correlation Based on Timing and

“WHEN any security that has 2 million shares or less in 30-day ADV **AND** has 25 or more cancels **BETWEEN 9:25AM AND 9:30AM**, log as possible Spoof and **STOP TRANSACTION”**



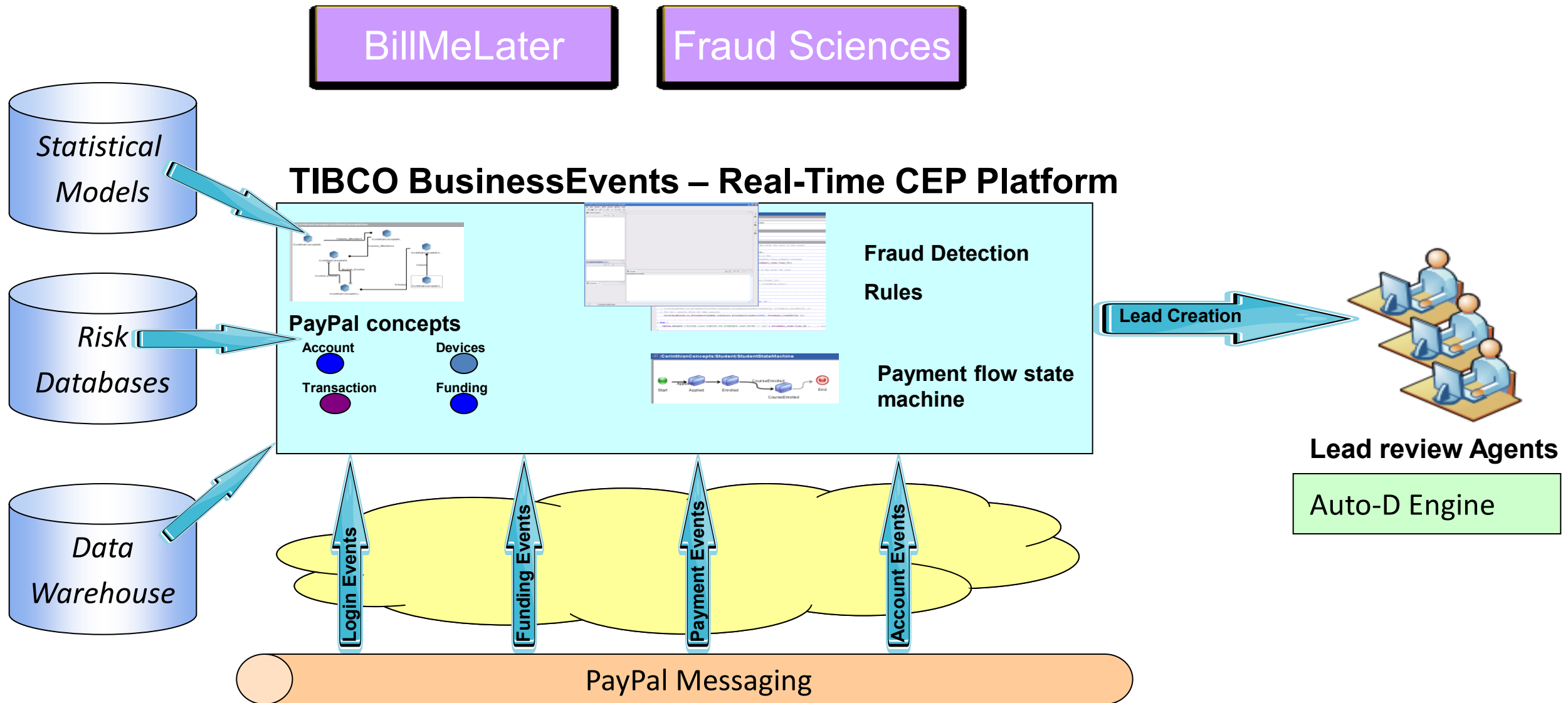
“TIBCO makes it easy for our operations staff to
**whittle 100 million trading events down
to the hundreds a day matter.**

That enables us to **fix compliance issues** during the day

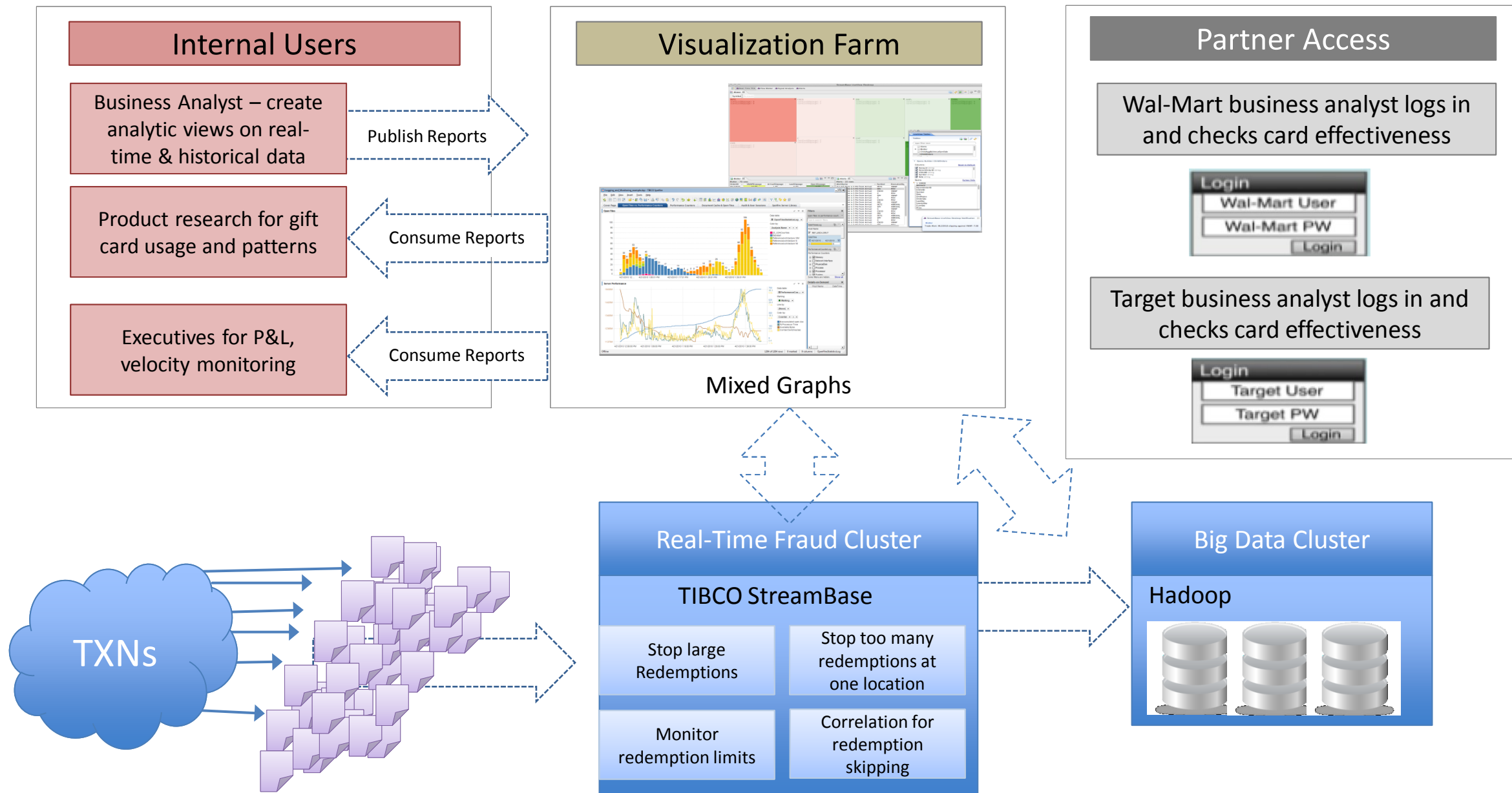
Instead of waiting for the end of the day
to do a forensic dig.”

- Bruce Osterover, Head of IT, BNY ConvergeEx”

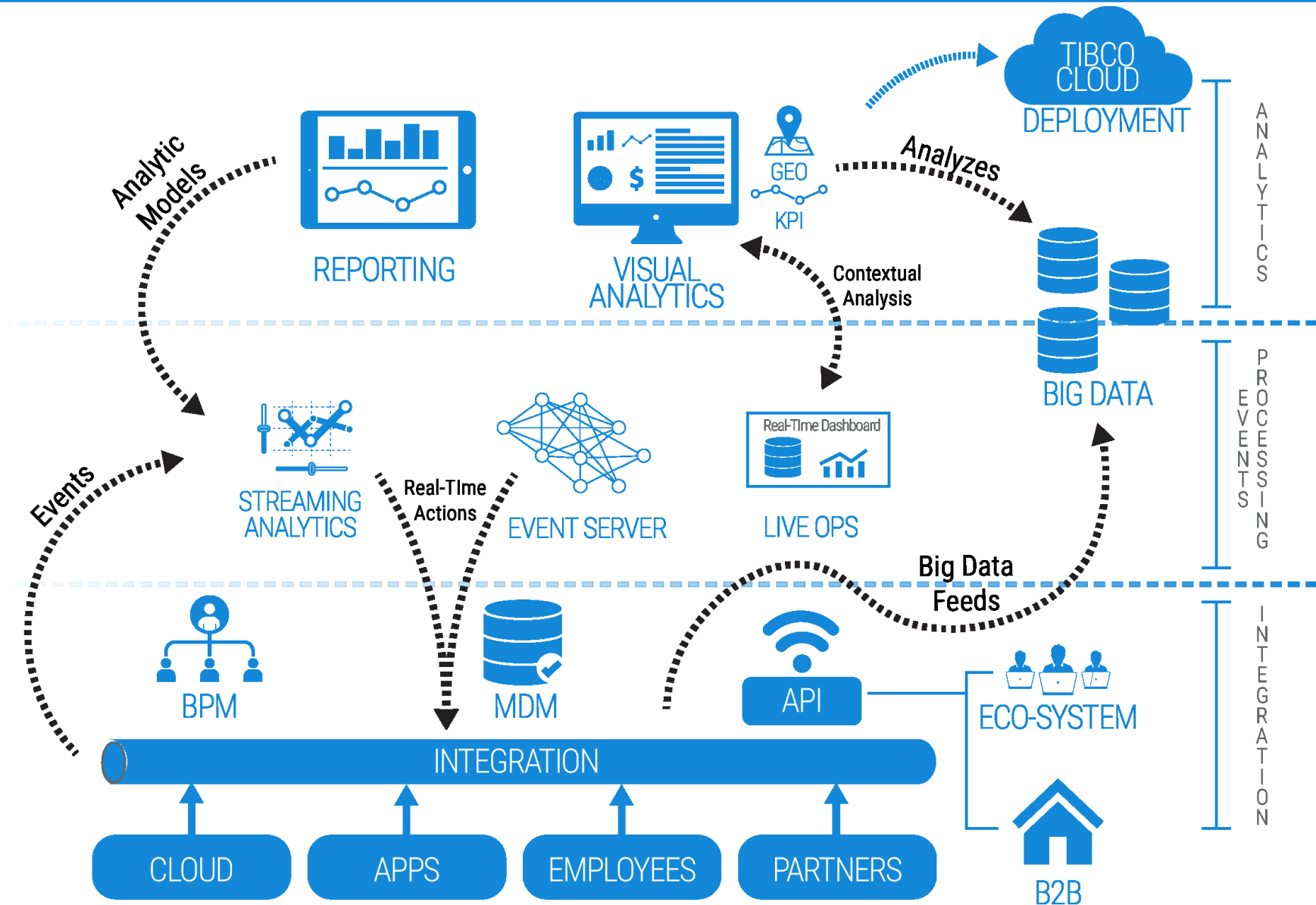
Fraud: PayPal Risk Management Platform



Prepaid Gift Card Fraud



A new blueprint to build applications





Fast Data



turns *Data*
into *Differentiation*

THE TIBCO PLATFORM IS UNIQUE IN ITS ABILITY TO SEEK,
UNDERSTAND AND RESPOND TO REAL-TIME EVENTS

