Capturing Value from Big Data & Analytics

Shashank Luthra
Director, Cisco Consulting Services
“The network will play a crucial part in how we develop the car; gathering data, learning from it and adapting will ultimately determine our season”

Christian Horner
Team Principal, Infiniti Red Bull Racing
Today’s discussion

- The evolving challenge in analyzing big data
- Cisco’s perspective on addressing this challenge
- What can you do today?
An accelerating explosion of data

**Consumer Data**
- 210 billion email messages per day
- 72 hours of video uploaded every minute
- In 2013, global mobile traffic grew by 80%

**Corporate Data**
- Smart grid to grow utility data generation $\times 10$
- Corporate IT data growing yearly by 60%

Source: Cisco, FERC, Radicati Group, BT, Youtube
**Big Data and Analytics Power 44% of IoE Value at Stake = $6.4 Trillion Opportunity over next 10 years**

<table>
<thead>
<tr>
<th>Retail &amp; Store Operations</th>
<th>54% after tax profit gain from social, video and mobile analytics</th>
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<tbody>
<tr>
<td>Supply Chain</td>
<td>Reduction of “out of stock” by 16%</td>
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<td>E-Commerce</td>
<td>Analytic recommendation engines can increase revenue by 30%</td>
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<td>Marketing</td>
<td>CPM lifts of up to 50%</td>
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<td>8-10% increase in returns on investment</td>
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<td>Healthcare</td>
<td>Reduced Operating costs by 40% by integrating EMR, Clinical, Cost data</td>
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<td>Detection of infections in premature infants 24 hours before symptoms</td>
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<tr>
<td>Energy</td>
<td>Reduced response time for wind forecasting by 97%</td>
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Source: Cisco Consulting Services primary research, 2013

References:
Most organizations adopt a similar approach to Big Data Analytics.

From Raw Data to Informed Business Decisions

- **Raw Data**
- **Relevant Facts**
- **Knowledge / Insights**
- **Informed Decisions**

**Data Acquisition**
- Connecting people in more relevant, valuable ways

**Storage**
- Delivering the right information to the right person (or machine) at the right time

**Search / Filter**
- Leveraging data into more useful information for decision making

**Data Science & Analytics**
- Physical devices and objects connected to the Internet and each other for intelligent decision making

**Decision Engine**
- Informed Decisions

**Action**
- Information Enrichment

**From Raw Data to Informed Business Decisions**
- Connecting people in more relevant, valuable ways
- Delivering the right information to the right person (or machine) at the right time
- Leveraging data into more useful information for decision making
- Physical devices and objects connected to the Internet and each other for intelligent decision making
However, the world of Big Data Analytics continues to evolve...
85 percent of business data is made up of cold data that is accessed infrequently

Source: IDC, Storiant

Access to real time data is the top priority for Service Providers

Source: IBM, Said Business School

Through 2017, premiums for big data-related technology and project skills will remain **20% to 30%** above norms for traditional information management skills

Source: Gartner

“It’s about the actions we need to take, not just the dashboards.”

Source: Cisco Public Sector customer
Cisco and the Network bring Unique Capabilities to addressing these challenges

**Analytics at the edge:** We move analytics capabilities to the source of the data, enabling real-time insights and decisions

- **Wi-Fi**
  - Location analytics
- **Store Cameras**
  - Customer behavior
- **Call Center**
  - Customer segmentation & churn
- **Machines**
  - Supply chain
- **Web**
  - Brand awareness & sentiment
- **Collaboration Tools**
  - Sales force productivity

**Network-enabled analytics:** We combine network-based and real-time streaming analytics and other data sources, both at the core and the edge of the network
Data is collected everywhere, with network always in the middle—able to see, correlate patterns, and take action.

Context can be seen by the network (Location, Identity, Presence, etc.)

Action can be taken through network control points.

Cisco and the Network will remain central to Big Data and Analytics-Enabled Decisions.
Cisco offers a complete data analytics stack

<table>
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<tr>
<th>Analytics Strategy + Services Data Science</th>
<th>Cisco Services</th>
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<tr>
<td>Visualization</td>
<td>splunk, tableau</td>
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<td>BI / Analytics</td>
<td>SAP, SAS</td>
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<td>Hadoop / NoSQL</td>
<td>cloudera, MapR</td>
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<td>DBMS</td>
<td>Oracle, Microsoft</td>
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<td>Data Capture, Handling &amp; Virtualization</td>
<td>Truvis, Composite, TigerMe</td>
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<td>Network based analytics</td>
<td>Prime, ThinkSmart</td>
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<tr>
<td>Servers, Storage &amp; Networking</td>
<td>Nexus, UCS, EMC²</td>
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Partner Acquisition
Cisco has connected analytics offerings in six areas:

- **IT**: Optimized networks for service agility
- **Contact Center**: Personalized contact center service in real-time
- **Collaboration**: Organizational effectiveness, collaborative selling
- **Retail**: Store operations and customer service
- **Service Provider**: Customer stickiness and operational efficiency
- **IoE**: Enabling new business models for innovation, agility, and efficiency
Case Study: Analyzing impact of video collaboration in Banking

Customer Challenge
- What is the real value we are capturing from our video assets?

Offer / Solution
- Quantify ROI from hard travel savings
- Predict optimum locations for assets
- Estimate other benefits

Value
- 254% ROI in hard travel savings
- 20% - 30% higher utilization of video assets
Case Study: Improving policy renewals in Insurance

Customer Challenge
- Improve customer intimacy at critical points in the customer journey
- Improve sales force efficiency and marketing effectiveness

Offer / Solution
- Mine call center and communication infrastructure data to understand
  - Customer call behavior
  - Best way to contact during policy renewals

Value
- 2% reduction in customer churn
- 10% increase in revenue via improved segmentation
- 20% increase in sales force productivity
Case Study: Proactively planning for outages at a Public Utility

**Customer Challenge**
- Mitigate impact on customers from planned outages
- Improve customer experience

**Analytics Solution**
- Use analytics to
  - Enable 360-degree view of the customer
  - Implement First Contact Resolution

**Impact on Customer**
- 1% reduction in contact center costs
- 1% increase in Customer Satisfaction
Case Study: Improving Asset Utilization in the Exploration of Oil & Gas

Customer Challenge

• Seeking an integrated, holistic, view of exploration and production asset data

Analytics Solution

• “Single Source” with Cisco Data Virtualization for easy access to 45+ source systems, 30+ subject areas across 650+ standard entities

Impact on Customer

• 30-40,000 business queries per day
• 50% less costly than legacy solutions
• 1/3 of the time – saving $2M per year
Organizations See the Upside, But Express Need for a Strategic Plan

4 in 5 analyze data today, but only 1 in 4 get strategic value from it. Over 1 in 3 say they need a strategic plan.

Leadership, Governance, Capabilities, Architecture
