Hortonworks & SAS

Analytics everywhere.
A change in focus.

A shift in **Advertising**
From mass branding → ...to 1x1 Targeting

A shift in **Financial Services**
From Educated Investing → ...to Automated Algorithms

A shift in **Healthcare**
From mass treatment → ...to Designer Medicine

A shift in **Retail**
From static branding → ...to Real-time Personalization

A shift in **Telco**
From break then fix → ...to repair before break

allow organizations to shift interactions from...

**Reactive**
Post Transaction

**Proactive**
Pre Decision
We estimate that within 3 years 50% of the world's data will reside on Hadoop....
Data is doubling in size every 2–3 years…. Traditional or not?

Source: IDC

2.8 ZB in 2012
85% from New Data Types
15x Machine Data by 2020
40 ZB by 2020

Applications

- Business Analytics
- Custom Applications
- Packaged Applications

Data System

Repositories

- RDBMS
- EDW
- MPP

Sources

Existing Sources

- (CRM, ERP, Clickstream, Logs)
Hadoop stores and processes the data your customers currently do not or cannot.

1: Cost profile.
2: Data Structure.
Hadoop enables scalable compute & storage with a compelling cost profile....
Hadoop enables scalable compute & storage for all data structures....
The Net Result:

A modern data architecture capable of storing, processing, correlating, analysing, matching, aggregating, searching and exposing….

….all data & insights…. 
when integrated with the right tools capable of delivering the right results
The Modern Data Architecture is a Plus +1.
From….

SAS accesses and extracts data from Hadoop to a SAS server for processing, and writes results back.

With….

SAS accesses and processes Hadoop data on SAS Servers while keeping the data and computations massively parallel.

and In…

Hadoop

SAS processes data directly in the Hadoop cluster.
Access to Hadoop

- Uses Existing SAS Interfaces
- Standard Libname syntax
- PROC HADOOP
- Datastep and Proc SQL translated to Hive
- Filename support
- Execute Pig Scripts and MapReduce
- Push-down of certain procedures
- Custom SerDe
SAS + with Hadoop | SAS Rack architecture
SAS + **in** Hadoop | in-memory analytics (and BI)
Turns Big Data Into Real-time Customer Insights

**Challenge:**
Unable to analyze huge amounts of data to optimize and improve real-time customer insights

- **Understand audience:** Having the largest volume of data sets, audience segments/profile in Canada while leading the Canadian marketplace in privacy and governance.
- **Find Audience:** Being leaders in identifying and targeting audiences across channels, platforms and devices.
- **Engage Audience:** Driving engagement across platforms and formats.
- **Measure Audience:** Exceeding client expectations with transparent reporting and accurate attribution models.

**Solution**
Rogers’ Media Audience Platform: Integration of all data collected across organizations

- **Query all data in one location:**
  - Blend of online and offline data, subscription, ecommerce, loyalty programs, etc.
- **Land massive click stream log files:**
  - 100+ M records / day
  - 30 million unique IDs / month
- **Use 100% of the data for Analysis and Visualization instead of smaller random samples (over sampling)**

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**Telcos**

- Rogers Media is a subsidiary of Rogers Communications, which owns Canada’s largest publishing company.
- Has more than 70 consumer and business publications.
- Rogers Media Inc. also owns 54 radio stations, and several television properties including terrestrial television stations and cable television channels.

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Resources

Customer Video:
Rogers Media discusses SAS and Hadoop

Demos:
SAS Visual Analytics, Ingest SAS to Hive

Webinars:
SAS and the Modern Data Architecture
SAS and Hortonworks use cases

www.hortonworks.com/SAS
Thank you.

Questions