Big Data – Just Noise or Does it Matter?

Opportunities for Continuous Auditing

Presented by: **Solon Angel**

Product Manager Servers

The CaseWare Group.

- Founded in 1988.
- An industry leader in providing technology solutions for finance and accounting, governance, risk and audit professionals.
- Over 250,000 users of our technologies across 130 countries and 16 languages.
- Customers include Fortune and Global 500 companies, Governments as well as Big Four and other major accounting firms.
- Certified ISO 9001

If data is new oil…

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"Data is just like crude. It's valuable, but if unrefined it cannot really be used. It has to be changed into gas, plastic, chemicals, etc., to create a valuable entity that drives profitable activity; so must data be broken down, analyzed for it to have value."

– Michael Palmer

Agenda

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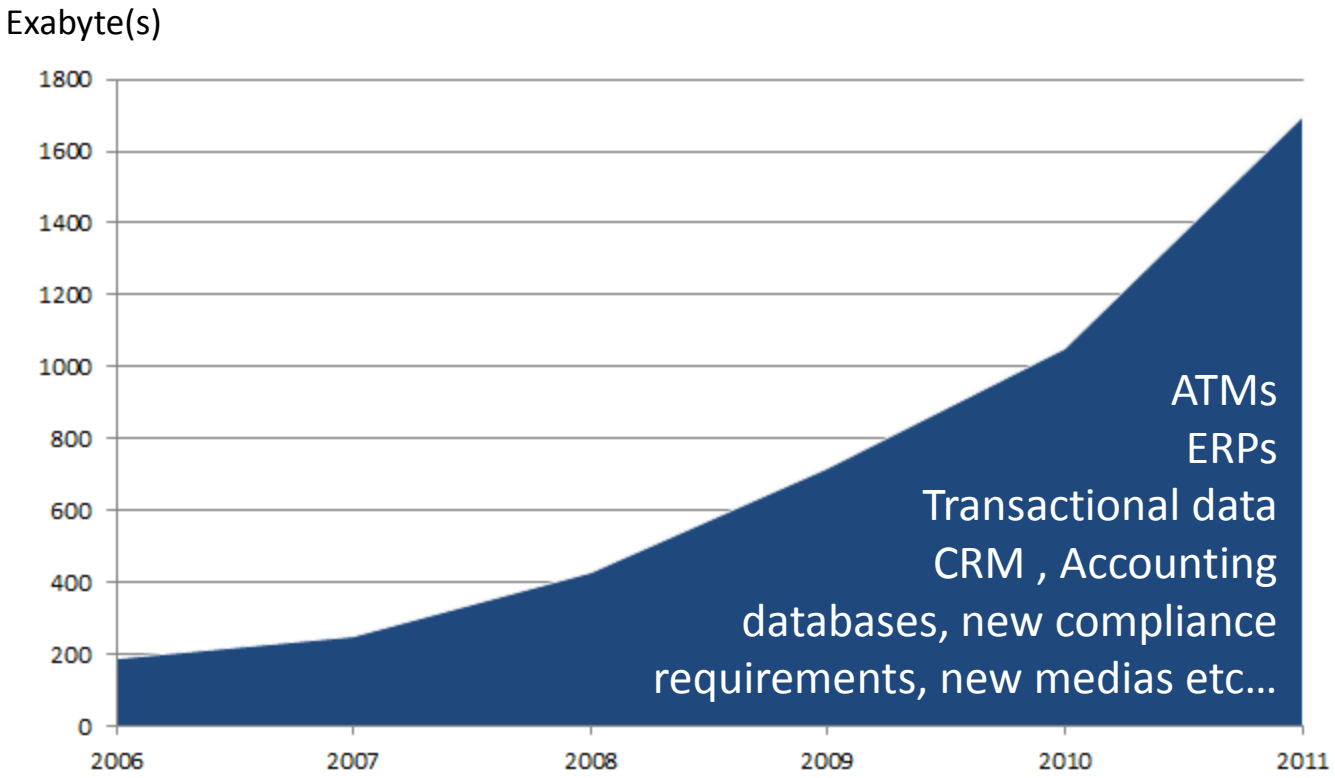
- Big data: history of a buzz word.
- What do you do with Big Data?
- Highlights from the marketplace

IDC's observations



TENFOLD GROWTH OBSERVED IN FIVE YEARS

Today's hype engine

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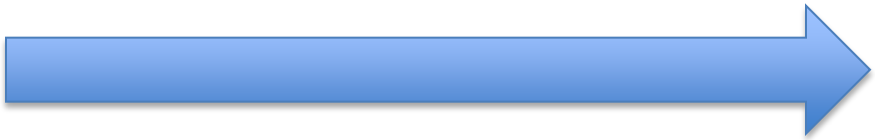
Hardware vendors

EMC²

IDC
Analyze the Future

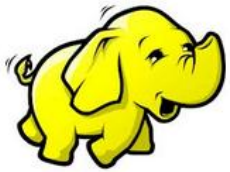
Gartner



Google

YAHOO!

Web economy



Definition

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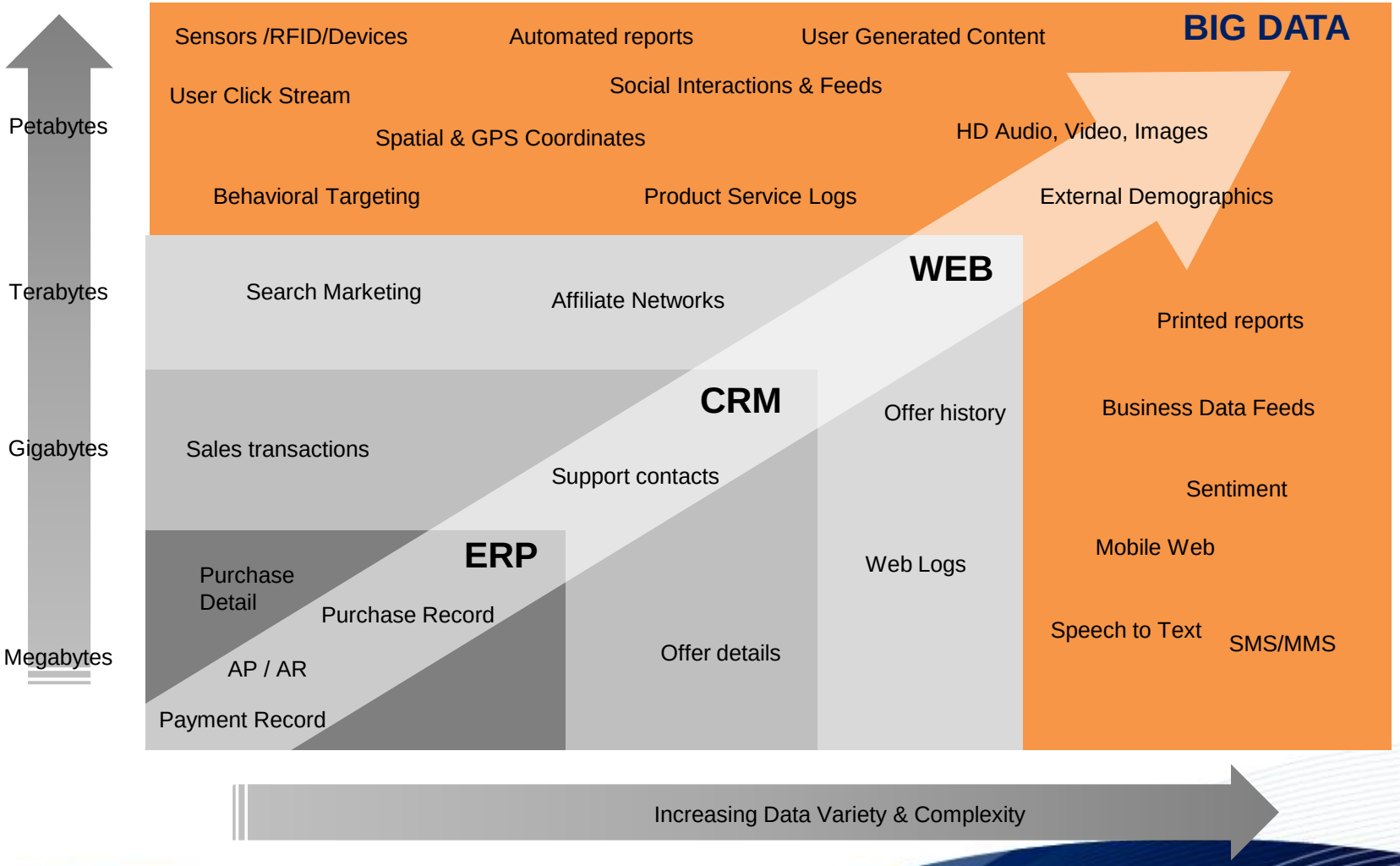
- “…data sets with sizes beyond the ability of commonly-used software tools…”

Spectrum


Petabytes
Terabytes
Gigabytes
Megabytes
BIG DATA
Sensors /RFID/Devices
Automated reports
User Generated Content
User Click Stream
Social Interactions & Feeds
Spatial & GPS Coordinates
HD Audio, Video, Images
Behavioral Targeting
Product Service Logs
External Demographics
WEB
Search Marketing
Affiliate Networks
Printed reports
CRM
Offer history
Business Data Feeds
Sales transactions
Support contacts
Sentiment
ERP
Mobile Web
Purchase Detail
Web Logs
Purchase Record
Speech to Text
SMS/MMS
Offer details
AP / AR
Payment Record
Increasing Data Variety & Complexity

Challenge always existed

- Auditors struggled to gain access to information.
- The auditor briefcase need to import from any accounting system.
- CPA firms still struggle to get relevant data from clients using ERPs.

Today: your competitive edge

- Auditors and risk seen as subject matter expert in their field
- CA implementations already required data centric approach, and auditors taking the lead in many banking initiatives.
- Supreme auditors, big 4 and F500 invested already in many data mining initiative stamped as “big data”.
- The auditors briefcase usually includes some data analytics.

➢ Audit and Governance professionals are suited to capitalize, and deliver insights from big data

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Delivering value out of Big Data

Analytics as a solution

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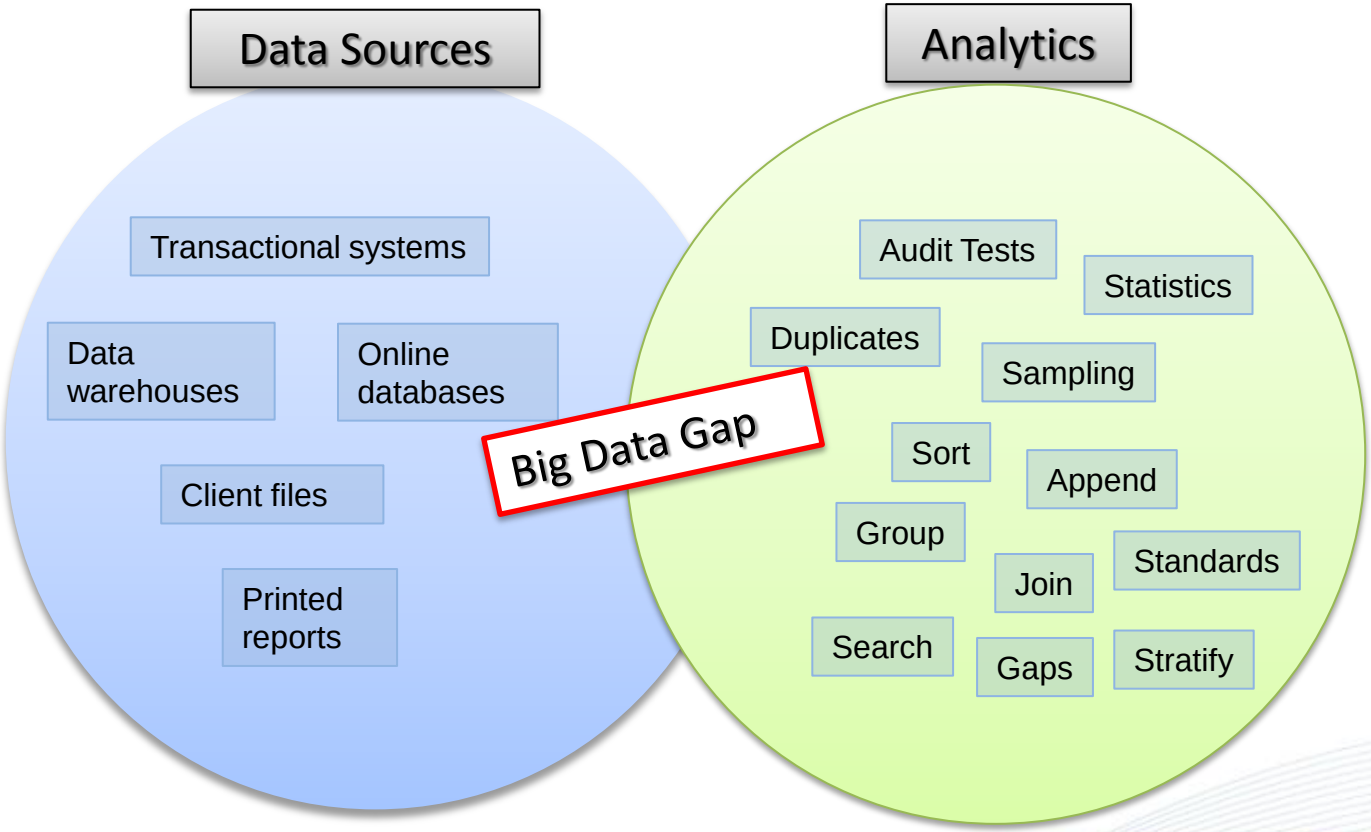
Big data is a problem… Analytics the solution

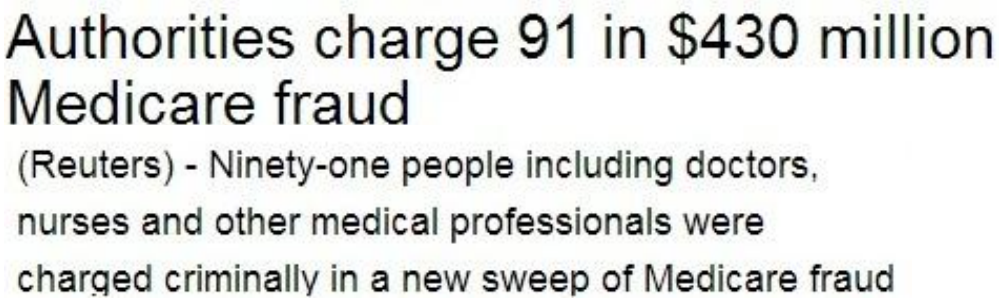


Examples

- Medicare fraud
- In modern science

Example

- Medicare:
  - Massive data sets
  - Spread across all states and insurance
  - Applying analytics on “low hanging fruits”:



Authorities charge 91 in $430 million Medicare fraud

(Reuters) - Ninety-one people including doctors, nurses and other medical professionals were charged criminally in a new sweep of Medicare fraud

Modern science

- Protein folding
  - Human DNA code
  - Protein folding is one of the hardest computational problems in biology

September 4, 2012 5:00 PM

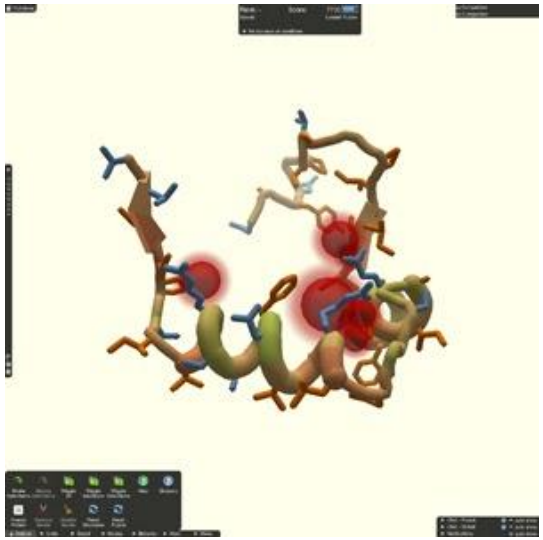
Last year, two teams of gamers co-authored a paper describing an HIV-related protein that had long stumped scientists. Not only did they puzzle out the protein's elusive shape, they did it in just three weeks. Their scientific method: Play a multiplayer online game called Foldit.

Popular Mechanics 2012

- Traditionally requires:
  - Mathematicians and developers able to write algorithms
  - Highly qualified scientists capable of interpreting results

Modern science

- How did they do it?
  - ➢ New approach, new tools:
    - — Distributed computing grid
    - — Easy-to-use interface providing a single view of the problem, without the need to interpret data
    - — Enabling collaboration of hundreds of individuals



In Today's World.

- Modern Science

To play, gamers wiggle, shake, and pull digital models of proteins into new shapes—the more compact the shape, the higher the score. People who cooperate tend to be most effective. "You

"You don't find many soloists among the top scorers."

Global Moderator

How CA initiatives can help

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1. A framework for gaining **insights**.
2. Effective analytics requires **domain expertise**, CA technologies minimize the interpretation.
3. CA technologies include a **collaborative** component (escalation, ownership etc..) .

➢ Empowers IT initiatives to focus on infrastructure.

Highlights from the marketplace

THE WALL STREET JOURNAL.
WSJ.com

August 31, 2012, 12:25 PM GMT

Getting the Big Picture on Big Data

ByBen Rooney

The fact that "big data" is the next big thing is hardly new, but there are obstacles to its adoption. Manipulating data to get it to reveal patterns and useable information is hard and requires skills that many do not possess. In companies, it tends to be the preserve of IT departments.

Now, a company that grew out of research in Stanford, Calif., hopes to go some way toward putting sophisticated and powerful data visualization tools into the hands of anyone comfortable using a spreadsheet.

We caught up with Jock Mackinlay, the director of visual analysis at Tableau software, during his fleeting visit to London. Tableau is a range of software tools that allow pretty much anyone who can navigate Excel to combine large datasets and produce rich interactive data presentations. The people it "data enthusiasts." (Full disclosure: Some reporters at The Wall Street Journal have been using Tableau to create interactive graphics

is to use the data to tell a story. The ability to tell stories, he says, is a key part of making thing you have to do is go and tell someone about it."

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Schumpeter

Building with big data

The data revolution is changing the landscape of business

May 26th 2011 | from the print edition

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he world. Requiring people to be able to program

d you not require people to be programmers, they

orbes

Gil Press, Contributor

TECH | 8/31/2012 @ 7:05PM | 851 views

Local Governments: Ready for Big Data?

News yesterday from the U.S. Census Bureau that there are 89,004 local governments in the United States today. All ready for transformation by big ata?

t year, Mckinsey estimated that the application of big data in the public r in Europe "could save more than €100 billion ($149 billion) in ional efficiency improvements alone... not including using big d fraud and errors and boost the collection of tax revenues entially reduce the costs of administrative activit id Mckinsey, and "can play a similar role

ingled out recenth one of thr

"NOW IS THE TIME TO DEFINE A PRAGMATIC APPROACH TO BIG DATA WITH ADVANCED AUTOMATED ANALYTICS"

Forbes

Gartner

FORRESTER®

BIG DATA WILL DRIVE **$96- $120 BILLION** IN IT SPENDING IN 2013.

Driving factors

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- Which application scenario for big data?
  1. (44%) **Improved risk management**
  2. (42.7%) Improved product development
  3. (40%) IT Analysis
  4. (36%) Improved management control
  4. (36%) Improved Customer Service

Source: IDC

Biggest challenge for big data

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- What is the most important gap for successful big data initiatives:
  1. Data storage
  2. **Qualified experts**
  3. Costs

… where does CA fits?

Logical conclusions

- The subject matters experts that you are will be even more consulted

- Opportunities to deliver *fast* results and implementations of the technology and best practises will only increase

Our recommendations

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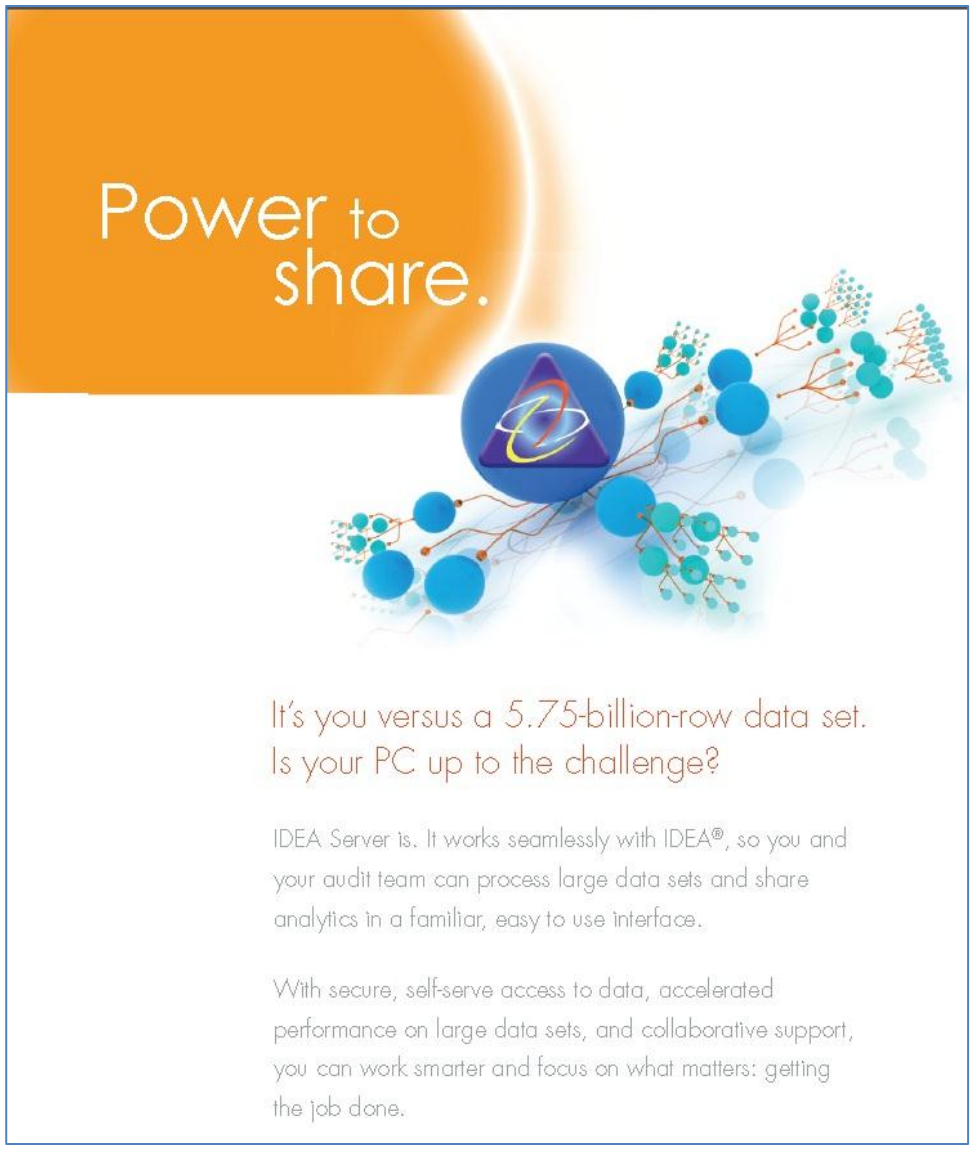
1. Engage and commit IT efforts to positive cash flow outcomes.

2. Develop an enterprise-wide view based on CA technologies.

3. Start small with existing data for immediate returns, go for the quick wins, build analytical capabilities progressively.

4. Create a business case based on measured ROI for larger picture.



Questions

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