



Using Data: Big Data in rental car
Know more about your renter and your business



CAR RENTAL SHOW

APRIL 7-8, 2014 / RIO ALL-SUITE HOTEL & CASINO / LAS VEGAS

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SHOW

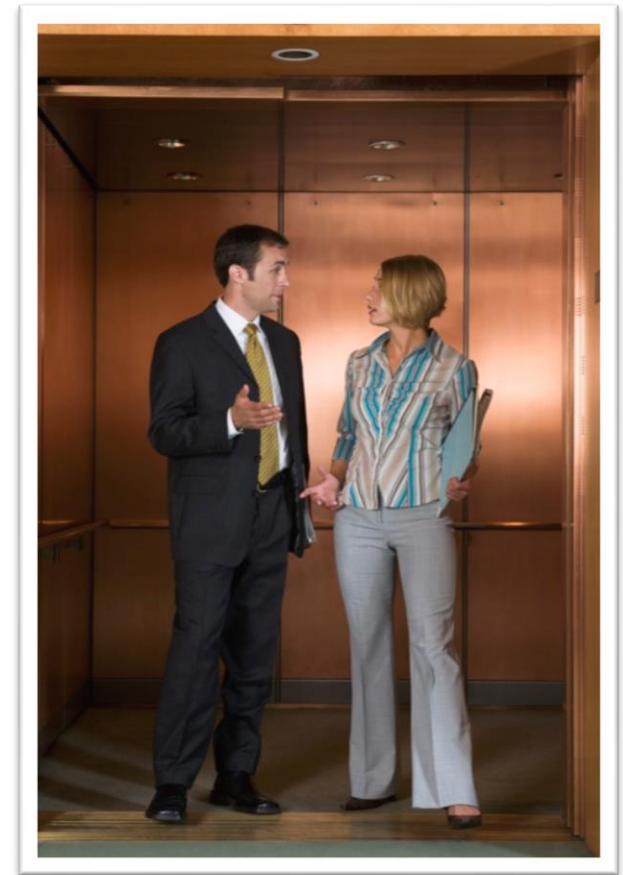
A GLOBAL MARKETPLACE FOR THE CAR RENTAL AGENCY



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The elevator pitch

- Analysis of internal data can help your day to day operations.
- Using external and shared industry data provides unique insights that cannot be attained otherwise
- Contributory data can have broad impact across the rental car market – it can take some time to reach “critical mass”, but it’s well worth it
- The technology platform must be able to do all of this in real-time



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Using Data: An Operator's Point of View



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Rate Management

- Shop airport and local market rates
- Manage rates

Loss Prevention

- Utilize LexisNexis' Accurint®
- Cash or debit card rentals process

Fleet Acquisition

- Carfax® or AutoCheck® reports
- Evaluate manufacturer's inventories



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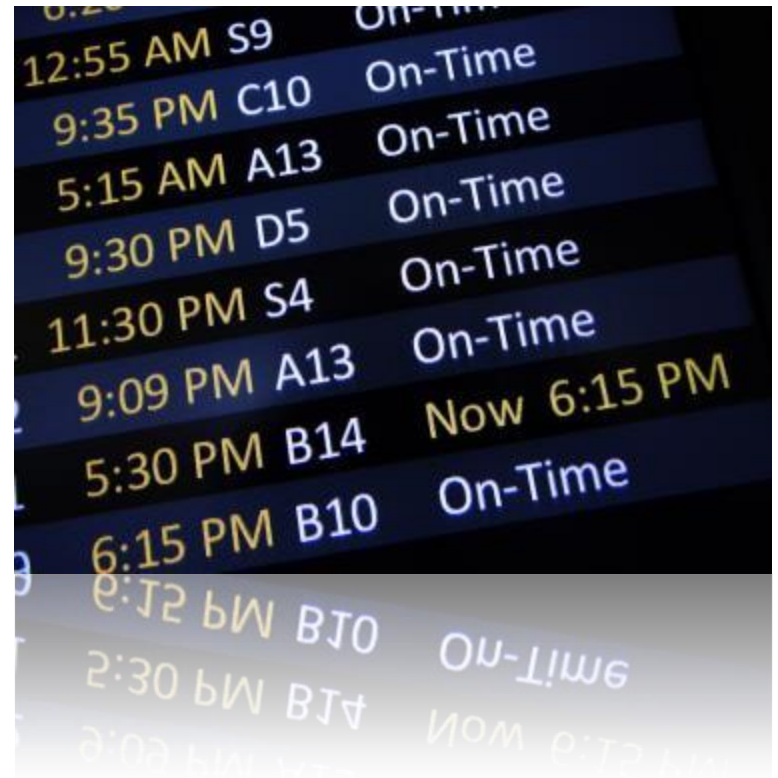
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Fleet Remarketing

- Evaluate manufacturer's inventories
- Research vAuto
- Research national auction websites

No Shows & Lost Opportunities

- Staff for inclement weather
- Check flight schedules
- Evaluate flight schedules
- Prepaid rentals



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Website

- Evaluate Google Analytics
- Evaluate pay-per-click performance
 - Visits
 - Conversions



Customer Satisfaction

- Utilize Reputation.com



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Accident Management

- Utilize Vehicle Valuation Services
- Investigate accident report facts

Customer Relationship Management

- Social activity
- Monthly email marketing
- CRM software
- Monthly revenue reports



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Wish List

- A national “Do Not Rent” database



Do Not Rent List



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Tools For Daily Operations & Data : A Software Vendor's Point of View



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Topics

- Accessible Databases
- Data Integrity
- Data Mining



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Currently Available Database

- Credit Card Processors (for Authorizations then Settlements)
- Debit Card Detection
- Data Warehouses
- Equifax
- LexisNexis



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Data Integrity

- Garbage In – Garbage Out
- Required/Mandatory Fields

Email Address

Source of Business

Insurance Company/Policy#/Expiration Date



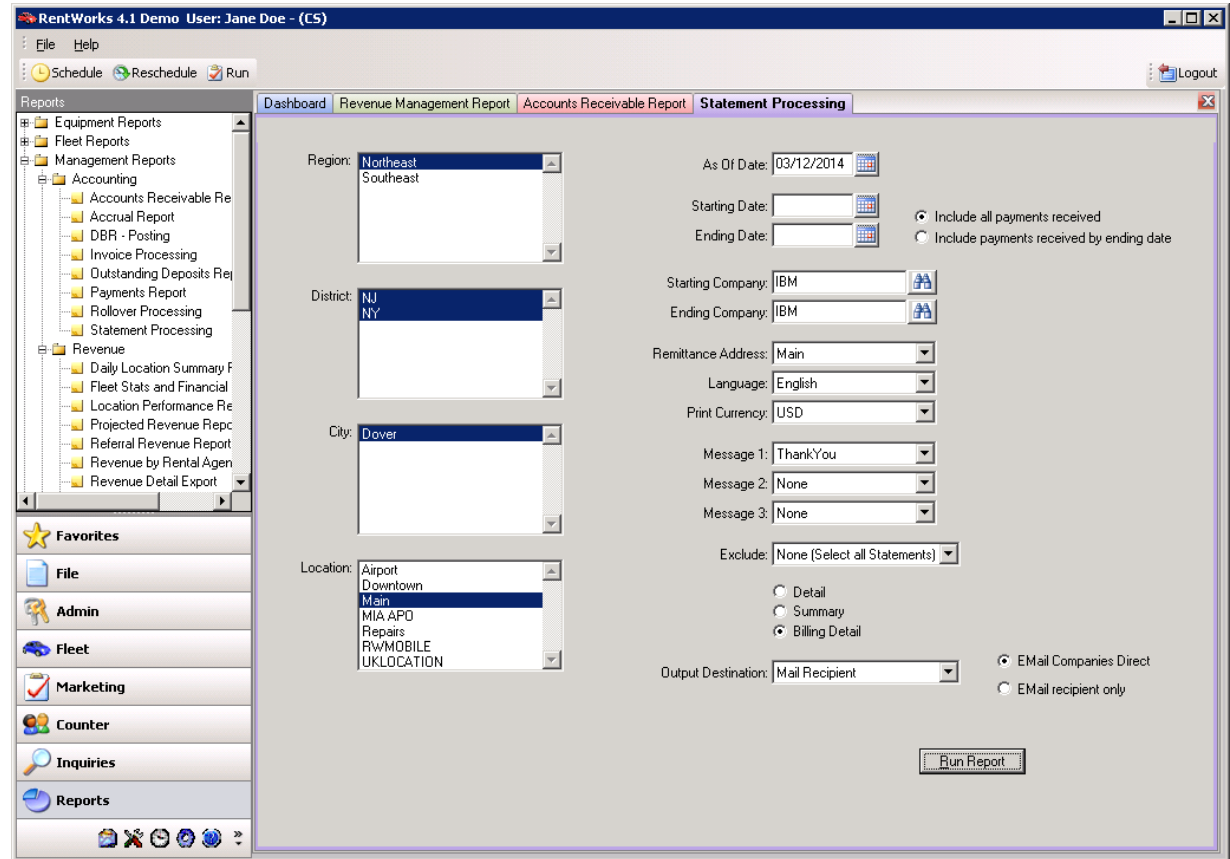
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Data Mining

- Canned Reports
- Custom Report Writers



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[Demonstration Database] Ford Vehicles.eq - Cyberquery

File Edit View Report Format Tools Help

Top of report:

Sorted by:

- Top Of / End Of Report
- Top Of / End Of Page
- Inv:Model/Count/Heading="@"

Record selection:

- Records selected
- Inv:Make = "ford"

List

Inv:Unitnumber Inv:Odometer Inv:Serialnumber Inv:Year/Nocommas Inv:Make Inv:Model
 Inv:Licensesnumber

Report: (this report may be out of date, select run to refresh)

Run date: 17-SEP-13 Bluebird Demo Database

Unit Number	Odometer	Serial Number	Year	Make	Model	Licens
1016	21,401	4856E94856G86	2008	Ford	Escort	SAI
Escort ITEMS 1						
001	13,500	0001	2007	Ford	Focus	REI
28967	1	55555	2012	Ford	Focus	WP
5252	1,835	MGJMGJ1233433300	2010	Ford	Focus	GO
78787	1,040	MJMP13V123433	2009	Ford	Focus	SPI
A001	3,000	100asdff01	2010	Ford	Focus	D5(
b00001	3,000	12345678	2011	Ford	Focus	AB)
B0001	123	111111111	2011	Ford	Focus	Ter
qw123456	1	127ryruiwow778899	2007	Ford	Focus	Ter
Focus ITEMS 8						
CD60NAP	600	CD34092	2010	FORD	GOLF	Ter
GOLF ITEMS 1						
108631	30,000	321321321321231	2009	Ford	Mustang	SSI
W01	1	KJJJK122366666+++	2013	FORD	MUSTANG	9YH
MUSTANG ITEMS 2						
NP66MDY	1,628	123456789	2010	Ford	Pontiac	Ter
Pontiac ITEMS 1						
1024	11,111	5678T4956H65976	2008	Ford	Taurus	TG
7788	1	B239673076HY	2010	Ford	Taurus	Ter
Taurus ITEMS 2						
AA10GRT	3,212	0000A	2010	FORD	TRANSIT	3U
AB10JWT	12,030	0000B	2010	FORD	TRANSIT	B9E
AC10DAN	6,344	0000C	2010	FORD	TRANSIT	D8:
BC10JWT	425	BC0000C	2010	FORD	TRANSIT	Ter
JWT123	700	B397629036622	2010	FORD	TRANSIT	JW

Zoom: 100%

Pulling it all Together: A Big Data Repository Point of View



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- “As the twentieth century draws to a close we find ourselves **drowning in a sea of data, all purporting to be information, and to which others may ascribe the label “knowledge”**. While **computers have aided our ability** to deal with these data, it seems not an exaggeration to state that for many of us the sea is complex, our **confidence in our ability to recognize and make use of value added knowledge** is under attack, and **our way-finding skills seem lacking.**”

•*Michael Lissack*



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How some people perceive **BIG DATA**

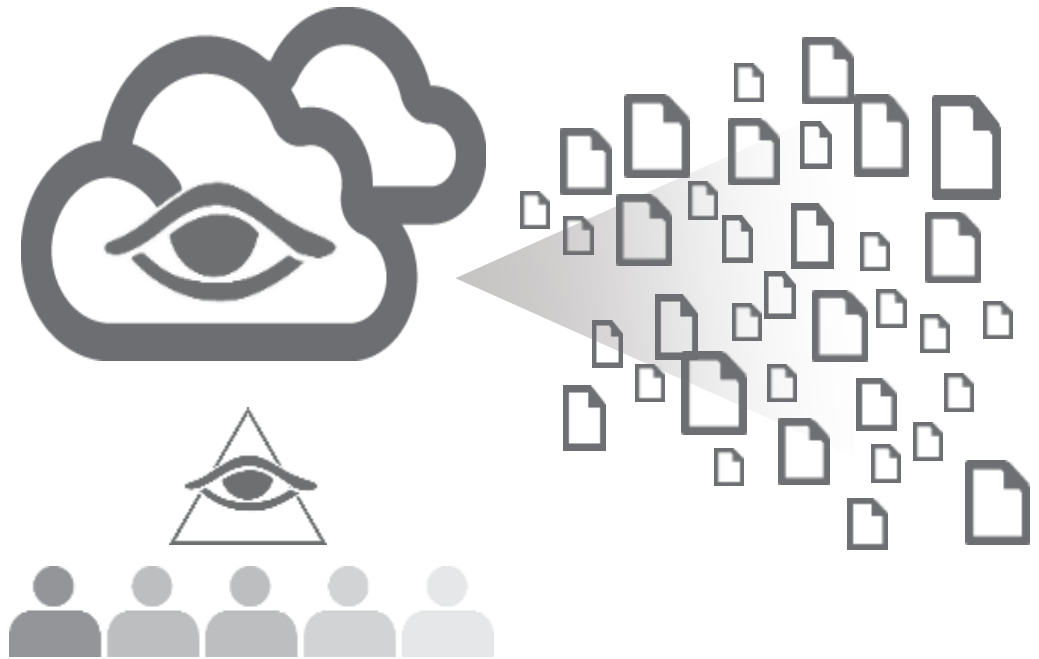
2,500,000,000,000,000,000,000

Consultants say that
2.5 Quintillion bytes
of Data are created every day!

It comes from **EVERYWHERE**

It knows **ALL!**

According to Wikipedia,
its name is **“BIG DATA”**



“BIG DATA” lives in the cloud. **IT** knows what we do!



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Or as Wikipedia defines it – The whole is greater than the sum of its parts

Big Data: refers to the growing worldwide phenomenon in which data production and collection is exceeding an organization's ability to process it into actionable information in a meaningful and timely fashion via the tools and systems that they have on hand

What:

Very large (e.g., tera or petabyte) data sets so large...complex and difficult to process using ...traditional data processing; the secure storage facilities created and manipulated by hardware and software tools; and the processes and procedures used to do all of this.



Source: http://en.Wikipedia.org/wiki/Big_Data

Why:

“...the information derivable from the analysis of a single large set of related data...compared to separate smaller sets... allowing correlations to be found to "spot business trends...prevent diseases... combat crime, and determine real-time roadway traffic conditions.”

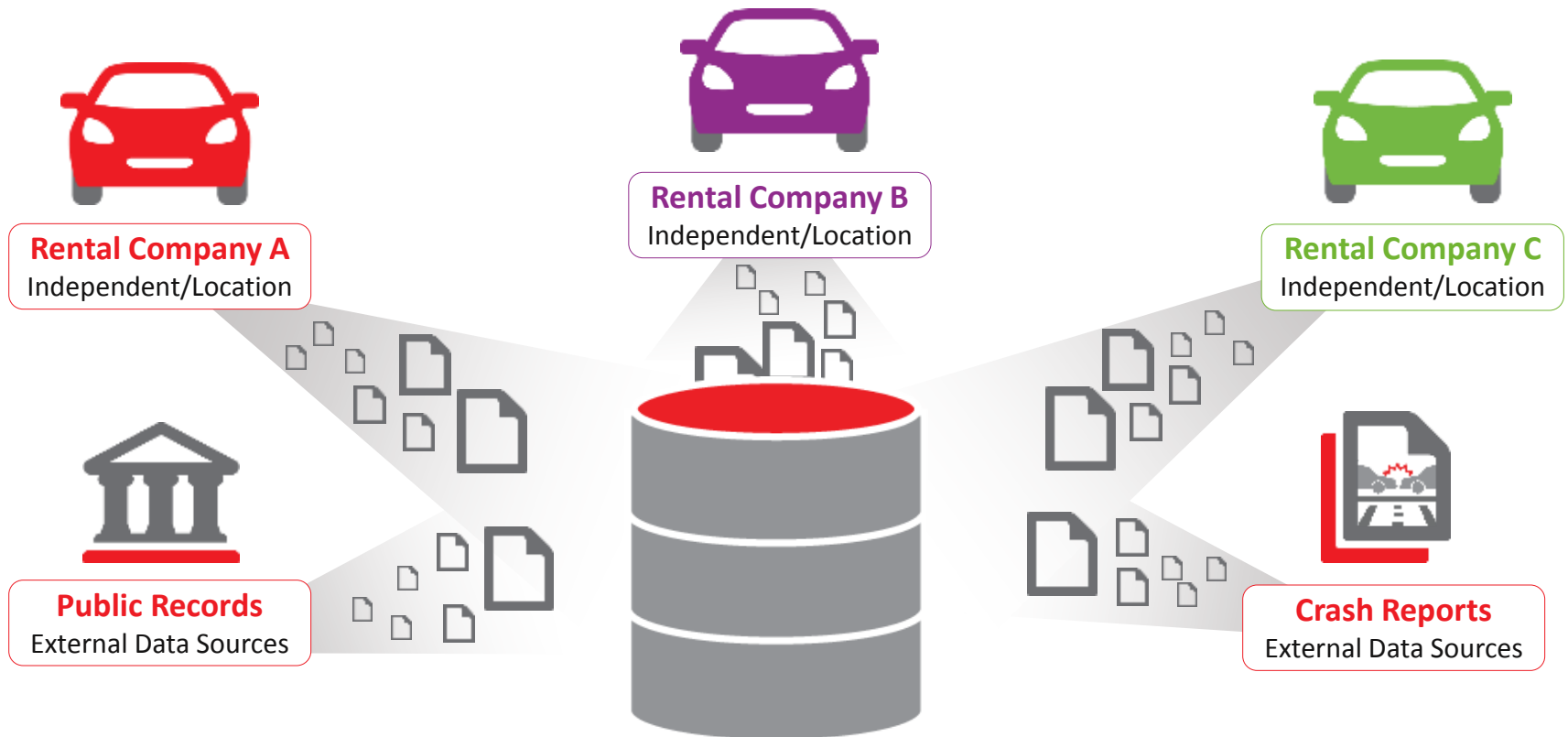


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What IS **BIG DATA** anyway?



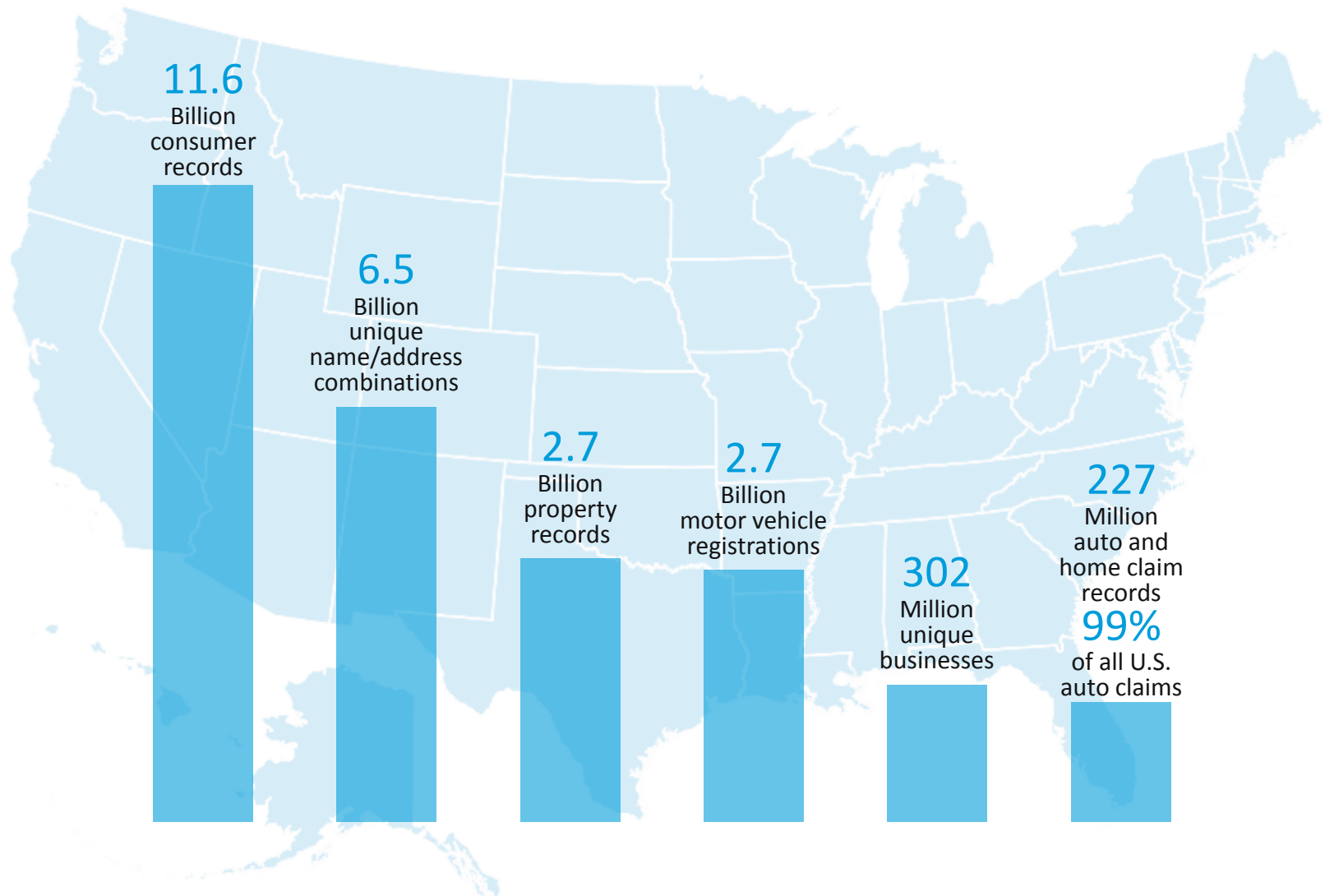
Billions of bytes of information generated



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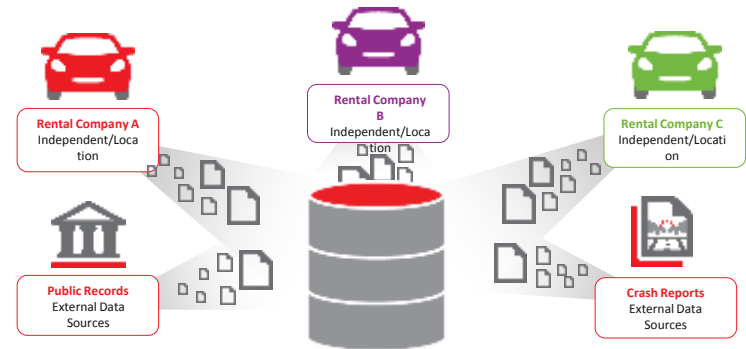


For example, billions of public and proprietary data on individuals and businesses
warehoused by LexisNexis



Using contributed data

- It's **BIG DATA** built using information (data) provided to a central repository (the database) by participants (contributors)
- Typically this data cannot be exchanged or combined usefully without an intermediary (*recall the earlier slides reference to numerous small data sets versus one large data set*)
- Together, the parties create the rules: 'the Do's and Don'ts' for the data



Examples:



C.L.U.E.®



Current Carrier®



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Visualization of a suspicious seller network

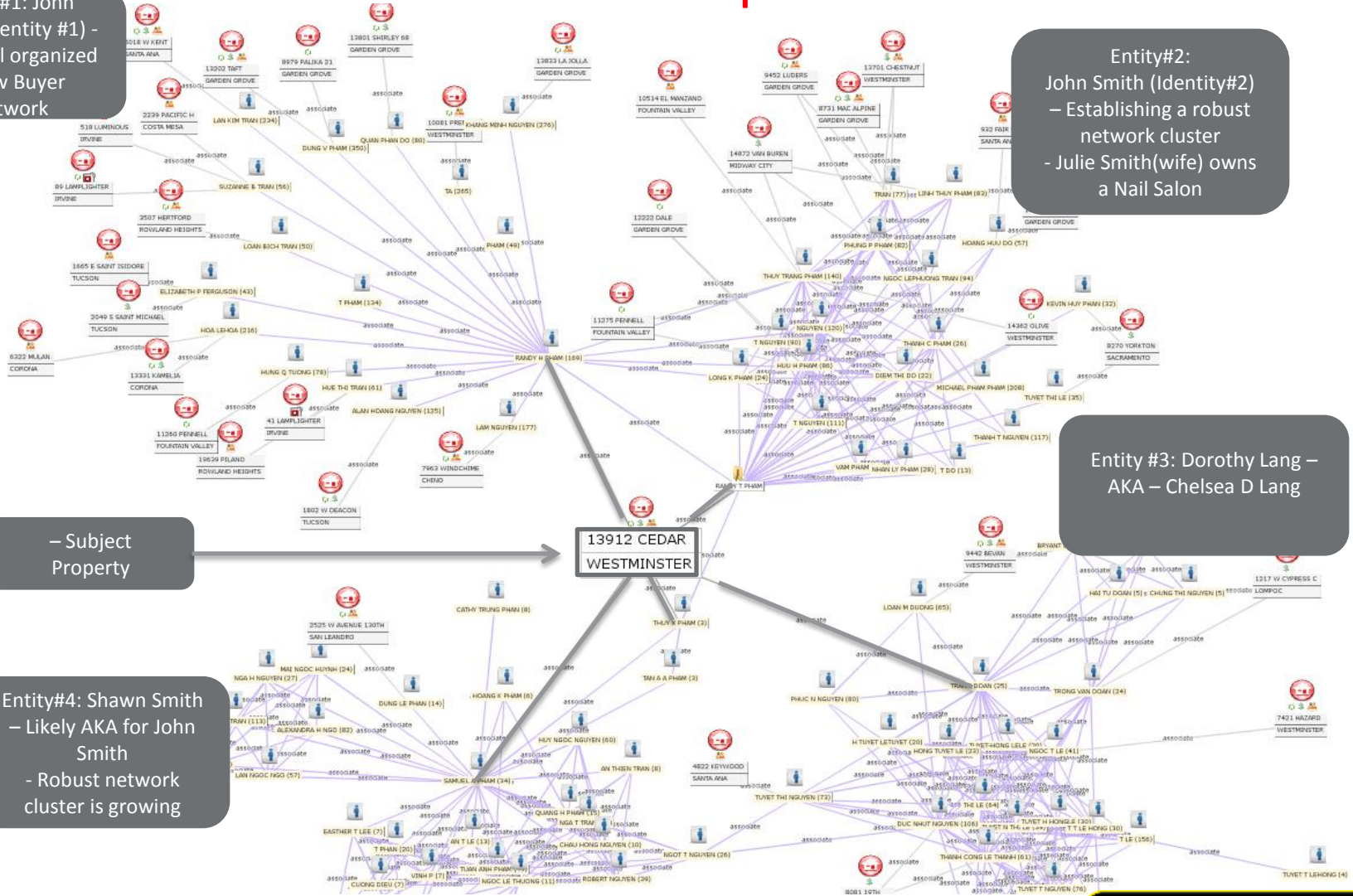
Entity#1: John Smith (Identity #1) - Potential organized Straw Buyer network

Entity#2: John Smith (Identity#2) - Establishing a robust network cluster - Julie Smith (wife) owns a Nail Salon

Entity #3: Dorothy Lang - AKA - Chelsea D Lang

- Subject Property
 13912 CEDAR WESTMINSTER

Entity#4: Shawn Smith - Likely AKA for John Smith - Robust network cluster is growing



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Using **BIG DATA*** in car rental – Identity proofing and risk scoring



- Use external data to **'proof' your renter** – does the renter exist, and is the person presenting the information the rightful owner of that identity?



- More **contract accuracy** – Prefill the agreement with just a few keystrokes.



- **Renter Insight** – Know how likely the renter is to buy optional counter products to help increase your counter sales.



- **Loss Control** – Is the renter was more likely than others to damage your car? Use this to change your vehicle assignment practice or pricing practice.



- **Fleet Utilization** – Know at time of reservation if the renter has a higher than average no-show rate. Use this knowledge to require a guaranteed reservation.



- **Fraud Prevention** – Know if the renter at the counter already has other cars out on rent with you or another company.

*(including contributory data)



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A checklist for a **BIG DATA** solution



Data

- Can it handle all your current and historical data (regardless of where your data sits)?
- What is the data ingestion and data delivery method?



Speed

- Does it scale to extreme workloads quickly and easily?
- Does it increase speed of development leading to faster production/delivery?
- Does it improve developer productivity?



Capacity

- Can it handle massive joins, merges, sorts, transformations or tough N2 problems?
- Will it help you increase business responsiveness or accelerate creation of new services rapidly?
- Will it offer a platform for collaboration and innovation leading to better results?



Cost Savings

- Can it use commodity hardware and can fewer people do much more in less time?
- Does it leverage IT resources efficiently via sharing and higher system utilization?



Cloud

- Is it accessible from the Cloud? (Public and Private)



Enterprise Ready

- Does it have a complete Production ready environment?



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Thank you!



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