

The background features a light gray grid pattern. Scattered across the grid are various 3D-rendered objects: solid spheres in shades of blue, green, yellow, and purple, and hollow rings in blue, green, and purple. Some objects are larger and more prominent, while others are smaller and more subtle.

IBM Software

Information On Demand **2010** Comes To You

Unlock the True Value of Your Information

IBM Software

Information OnDemand **2010**
Comes To You

Joining the Dots....Crime Analytics

Ron Fellows

Global Lead, Crime Analytics

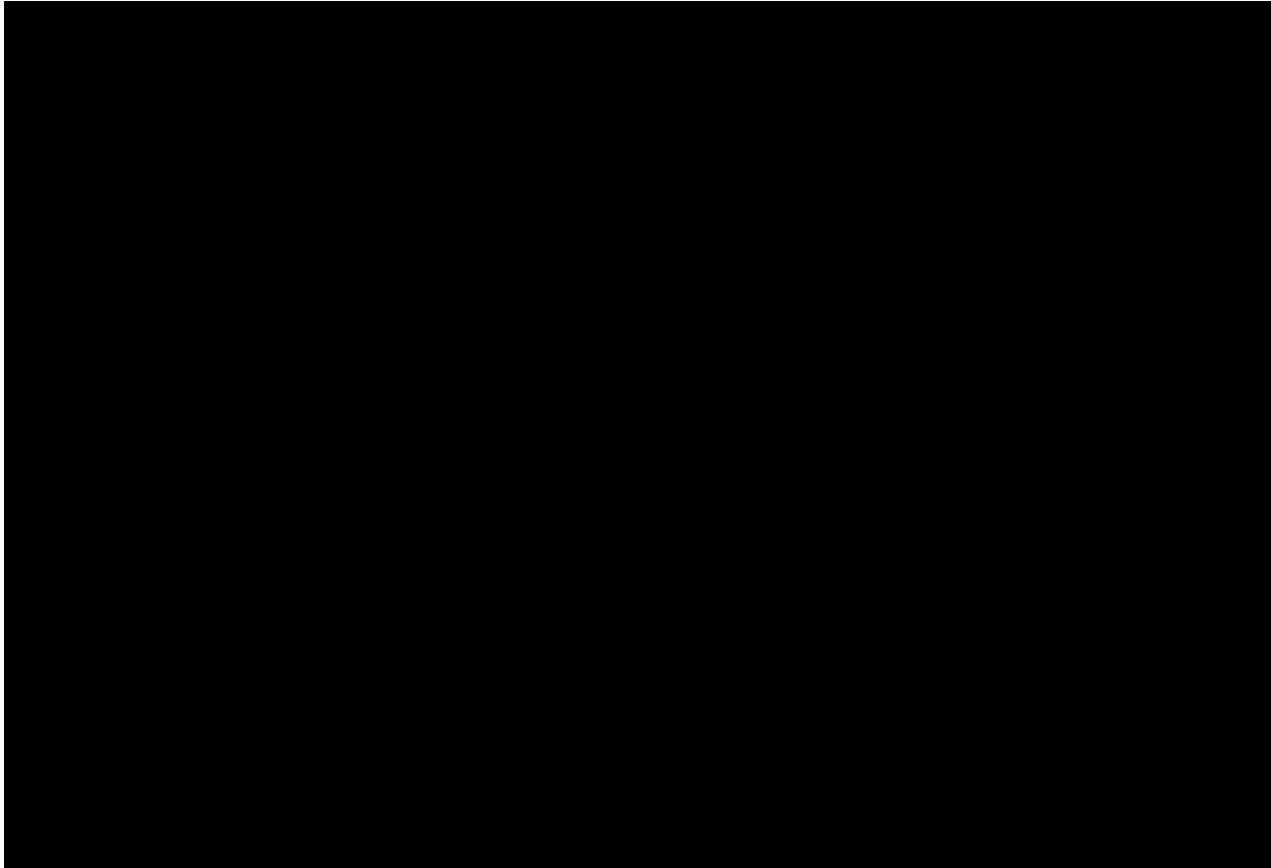
IBM Business Analytics and Optimisation

Unlock the True Value of Your Information

IBM has been involved in Crime Analytics for a long time...

- Rudi Giuliani was NY Mayor from 1994 to 2001
- Espoused the Broken Windows theory of 1992
 - Improve the urban environment
 - Make the citizen feel safer
- NYPD adopted CompStat
 - Geographically-analysed crime
 - Regular management of crime strategy
- IBM's Crime Information Warehouse was born in 1998

The New York experience.....



Compstat grew into the Real Time Crime Centre (RTCC)



The RTCC provides investigators in the field with information about crime scenes, potential suspects and other leads to bring criminals to justice as soon as possible.

Press Conference: www.nyc.gov and search for **Real Time Crime Center**
Video: www.youtube.com and search for **“Real Time Crime Center”**

RTCC is huge.....and growing

- 24 hours, 7 days-a-week
- 15 analyst workstations
- 26 crime analysts
- Access to powerful databases
- Over 5 million NYS criminal records, parole and probation files
- Over 120 million NYC criminal complaints, 911/311 calls and summonses
- Over 31 million national crime records
- Over 33 billion public records
- 25 years of history in some subject areas



Connecting the dots.... Seeing the big picture....

9 robbery incidents across 4 boroughs ...

3 robbers; rental car,

2 chrome plated handguns; mapped escape route ...

Faces covered with stockings and masks.

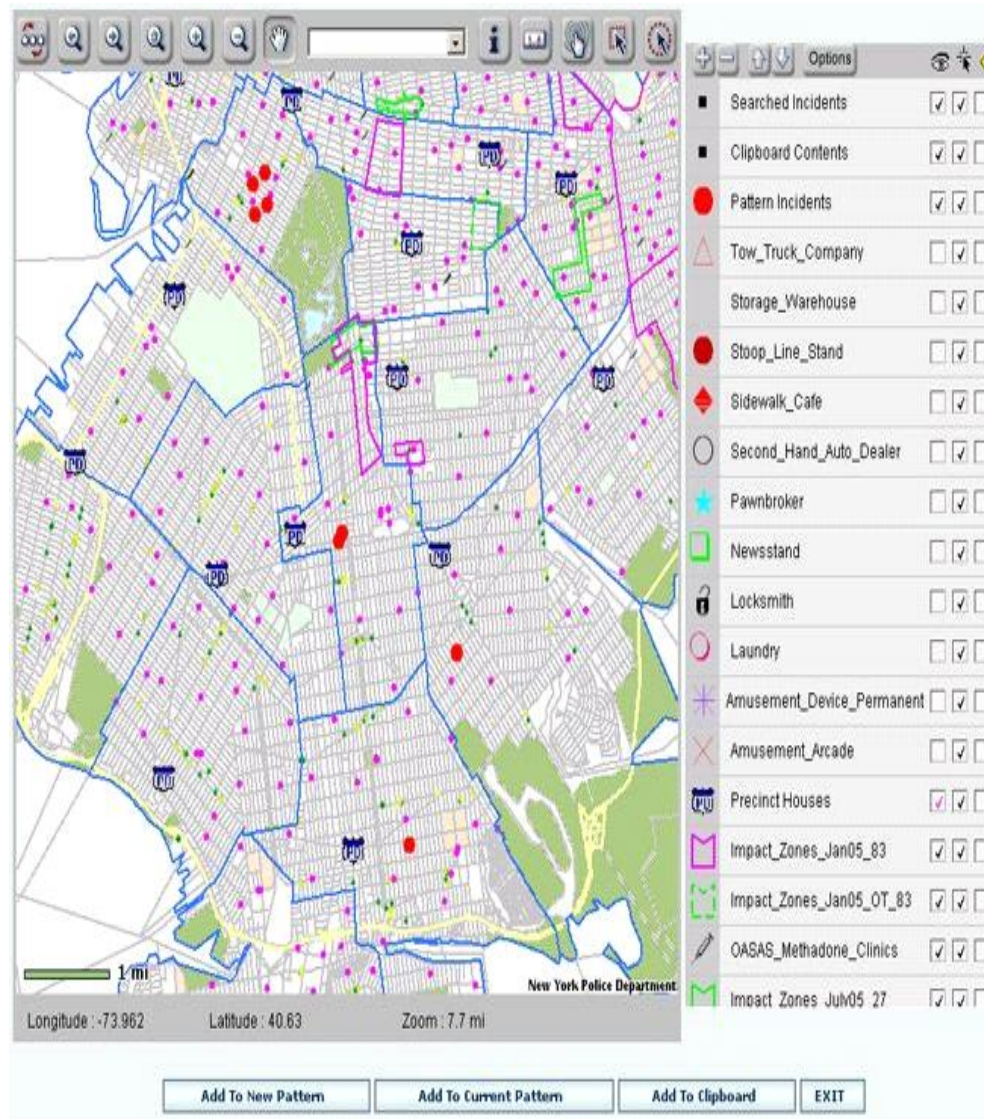
Citywide patterns across boroughs were hard to detect. "We've had incidents where it's taken time, more time, to identify a citywide pattern," said Police Commissioner Raymond W. Kelly.



Giving the police access to the data is critical to pattern identification

- Pattern Comparison
- Complaints Analysis
- Map Correlation
- Pattern Management System

Map correlation is critical to visualise relationships among crime incidents and locations of incidents, such as **all night pharmacies**



Much of the success has been due to giving access to data



Sometimes just reporting the data isn't enough.....

The screenshot displays a web application interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL: `http://cognosdemo/cognos8/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.action=run&ui.object=%2fcontent%2fpackage%2f...`. The application title is "Cognos Viewer - Commander Dashboard - Predictive".

The main content area features a "Commander Dashboard" header with a navigation menu including "Keep this version", "Add this report", and "About". Below the header, there are two side-by-side map panels:

- Real Time View (Past 24 hours):** This panel shows a standard street map of a coastal area, likely New York City. It includes a "Show/Hide Real Time Params" button and a "Submit" button. The map displays various streets, landmarks, and a scale bar indicating 1 mile and 3 kilometers.
- Predicted Levels (Next 4 Hours):** This panel shows the same geographic area but with color-coded regions. The regions are colored in shades of red, yellow, and green, indicating different predicted levels or risk zones. It also includes a "Show/Hide Predictive Params" button and a "Submit" button. A scale bar indicates 1 mile and 3 kilometers.

The browser's status bar at the bottom shows "Done" and "Internet" with a 100% zoom level.

Increasingly, clues are coming from non-IT sources...

PC 143 (Hunter)

15 June 2006 23:47

Suspect identified himself as **John Setsuko**. Matched description given by night club doorman (IC1, Male, Ag 22-24 yrs, blue Everton shirt). Stopped whilst driving **White Ford Mondeo, W563 WDL**.

Address given as **22 East Dene Ridge, Copdock, Ipswich**.

Searched at scene and found in possession of **1oz Cannabis Resin** and **lockable pocket knife**.



Arresting_Officer	PC 143
Arrest_Date_Time	15/06/2006 : 23:47
Suspect_Forename	John
Suspect_Surname	Setsuko
Suspect_VRN	W563WDL
Suspect_Vehicle_Colour	White
Suspect_Vehicle_Make	Ford Mondeo
Suspect_Addr_Street	22 East Dene Ridge
Suspect_Addr_Town	Ipswich
Evidence_1_Description	1 oz Cannabis Resin
Evidence_2_Description	Lockable pocket knife

...and capture from new media is growing



News Sources



Social Media (Boards / Blogs)



Advocacy Groups



From the mass of data, the solution can spot hidden “gems”

POLE analysis allows you to see beyond a single entity to others they are related to...



Joseph Carbella

Arrested while driving a car owned by...



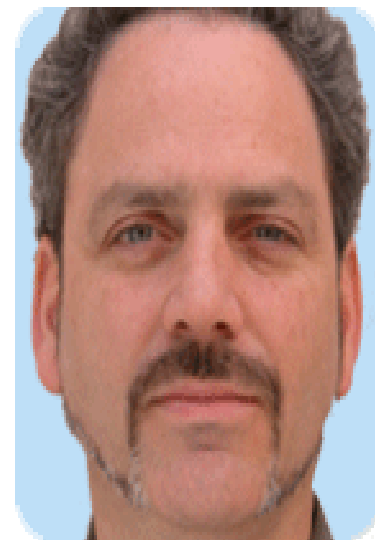
Andréa Duval

Who listed the same address as...



David Travers

Suspect in the armed robbery of a bank.
Who shares a phone number with...



Joshua Clark

Listed on MI5 watch list for funding terrorist activities.

The solutions enable probable relationships to be explored

The screenshot displays a web application interface for a person's profile. At the top right is the 'Initalize' logo. Below it are navigation tabs: 'Dashboard', 'Notifications', 'Search', and 'Jeffrey Harwell'. A 'Subscribe' link is in the top right corner.

The profile information is organized into two columns:

Name: Jeffrey Harwell	Alternate Name:	Citizenship:	Address: 4518 Dixie Boulevard Shreveport LA
Nationality:	Complexion:	DOB:	SSN: 574-11-8938
Passport:	Birth Place:	Phone: 318-304-8894	Height:
Weight:	Build:	Languages:	Marks:
Hair Color:	Eye Color:	Gender:	Remarks:

Below the profile is a navigation bar with tabs: 'Links', 'Records', 'Locations', 'Events', and 'Vehicles'. The main content area is split into two parts:

- Network Diagram:** A central node 'Jeffrey Harwell' is connected to several other nodes. Nodes include 'Ty Pelchatt', 'Jake Laning', 'Acme Distribu...', 'Donny Hollen...', and 'Bruce Hartsock'. Some nodes are accompanied by a yellow dollar sign icon. A location node '4518 Dixie Blvd...' is also connected to Jeffrey Harwell.
- Entity Summary Charts:** Three bar charts on the right show the number of connections for different entity types:
 - Person Entity:** Jeffrey Harwell (3), Ty Pelchatt (3), Bruce Hartsock (3), Donny Hollenbeck (3), Jake Laning (3).
 - Organization Entity:** Acme Distributors (5).
 - Location Entity:** 4518 Dixie Blvd Shreveport (1).

Digital Video Surveillance can trigger intervention

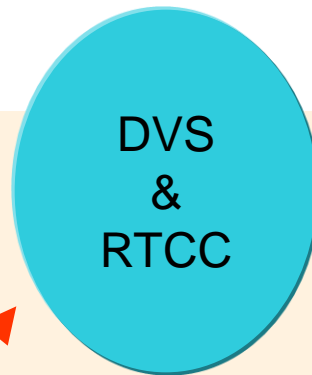
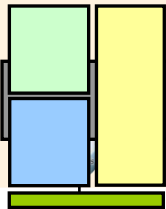
Feeds from all city cameras

Solution helps the law enforcement officials track 'High Interest' individuals as they come into the city and continually track what they are doing

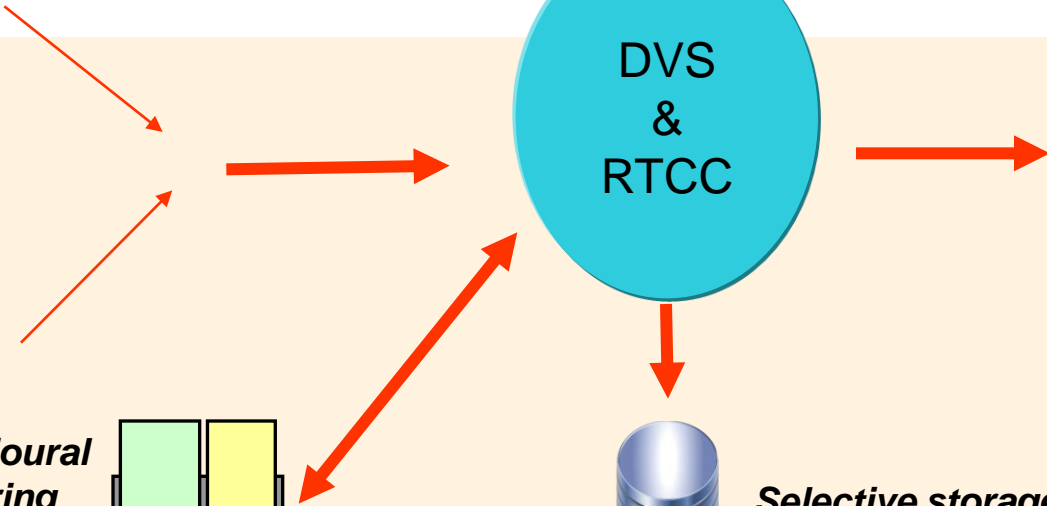
Generate warning and direct resources



Behavioural Scoring "Engine"



Selective storage for future reference

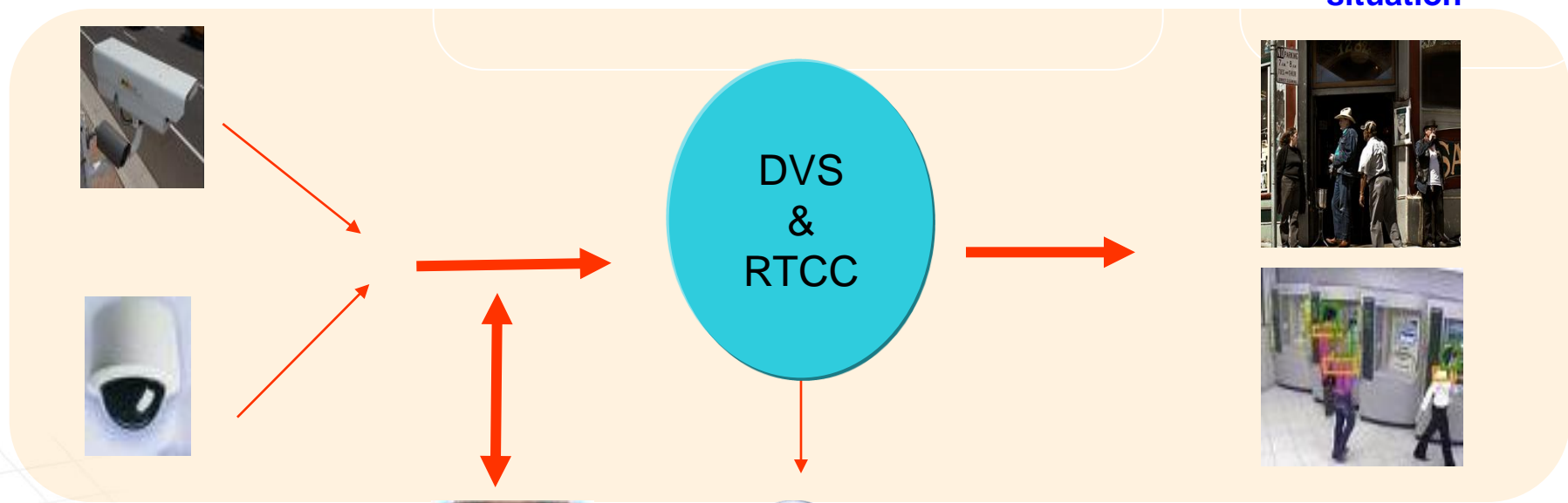


The use of DVS goes beyond the provision of location data

**Dispatch
Police to the
area to
address the
situation**

Feeds from city
cameras

Solution helps the law enforcement
officials detect loitering in public places by
consolidating video feeds

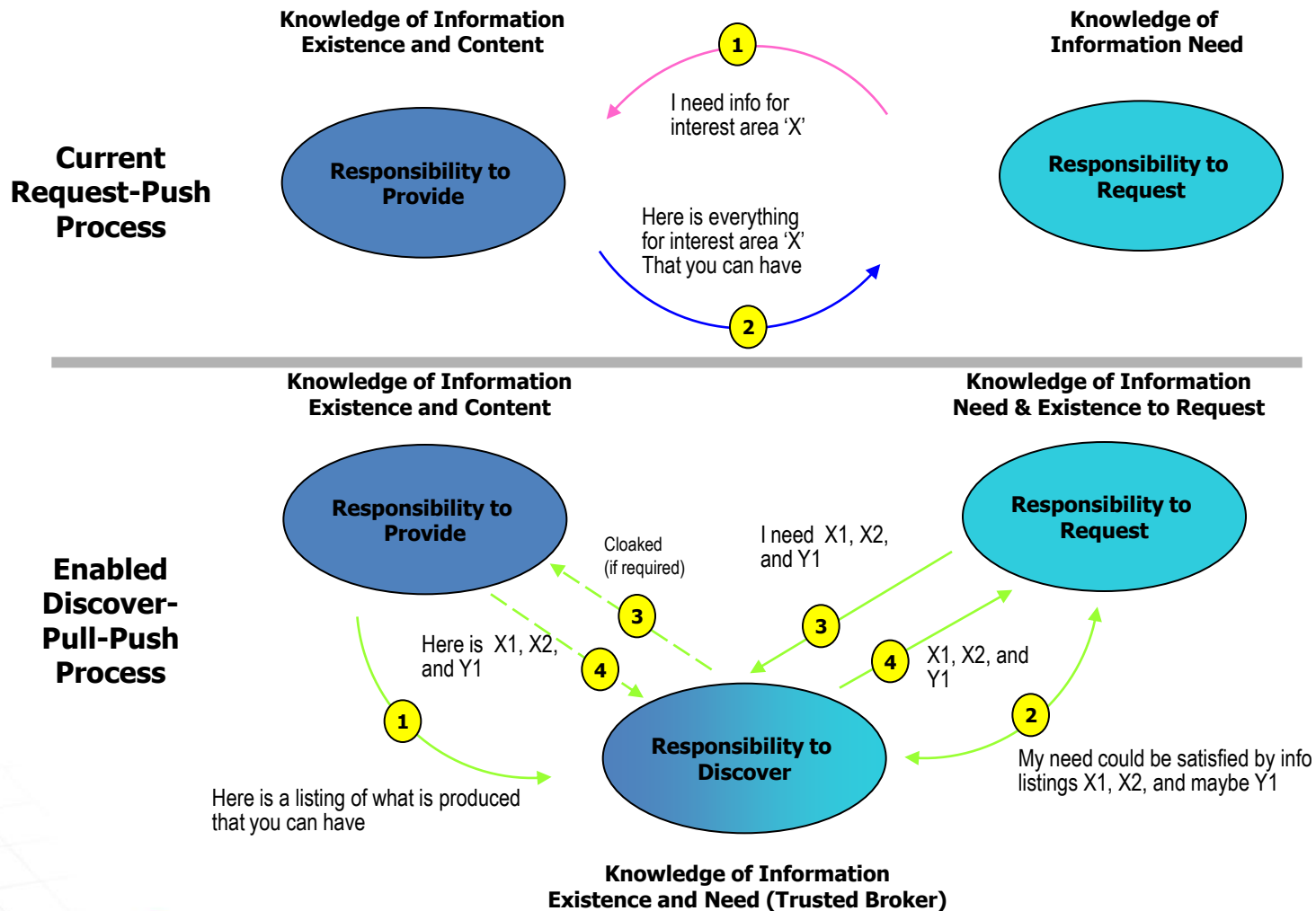


**Identity &
Relationship
“Engine”
generates Alerts**



**Selective storage
for future reference**

It's no longer enough to work in isolation. Data must be shared...



IBM Software

Information On Demand 2010 Comes To You

Thank You 😊

- Ron Fellows
- fellowsr@uk.ibm.com

Unlock the True Value of Your Information

IBM Software

Information On Demand **2010** Comes To You

Unlock the True Value of Your Information