

**BusinessConnect and SolutionsConnect**  
It's time to make bold moves.

# The Modern Intelligence Platform



**What would you expect?**

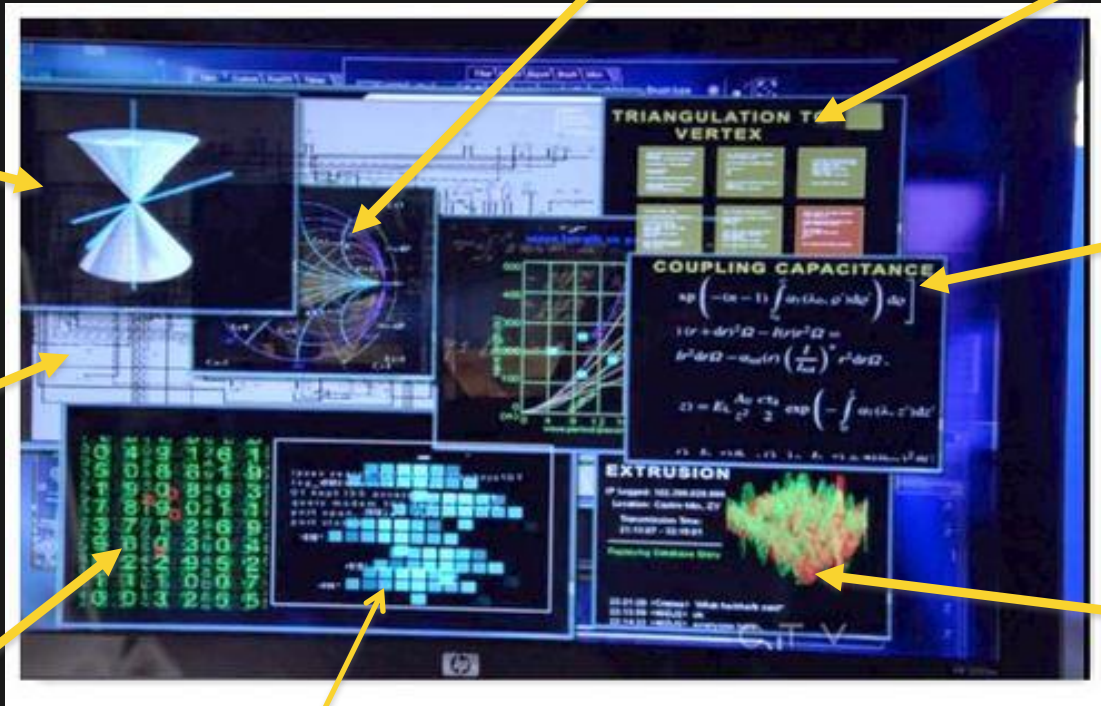
# Lots of arm waving?



# Three dimensional holographic models?



# Errr?



Spin shape spin, as fast as you can....

Circuit diagram for a microwave oven?

The Matrix

Tetris?

Flux Capacitor?

I didn't realise I needed my Vertex triangulated?

Coupling Capacitance?

Exactly what are we Extruding?



And then back to pen, paper and a whiteboard to understand it all.....



# Imagine the Challenges

## Vast Amounts of Information



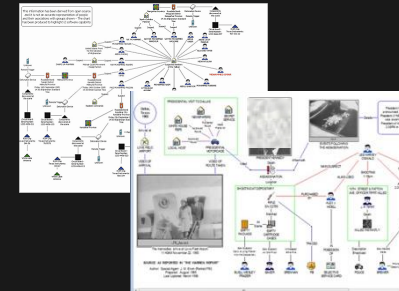
- Siloed Repositories
- Structured and Unstructured Data
- Security Restrictions
- Social Media
- Biometric
- Big Data

## Multiple Applications



- Web Based
- Thick Clients
- Multiple Searches
- Manual Data Entry
- Data Duplication

## Intelligence Asset Creation



- Entities and Relationships
- Provenance
- Temporal Analysis
- Social Network Analysis
- Geospatial
- Relationship Detection

# Now Imagine the solution

## Federated Search



- Single search
- Specify Source(s)
- Analyse Results

## Geospatial



- Plot items
- Query based on region or path
- Additional data sets

## Relationship Detection



- Non obvious relationship Detection
- 32 degrees of separation

## Unstructured



- Natural Language Processing
- Entity and Relationship extraction

## Social Media



- Relationship identification

## Facial Recognition



- Recognition from photos on social, phones, cameras, hard disks, etc.

Single User Interface

Intelligence Repository



# Capabilities Are Used by Clients In Multiple Sectors



## National Security

- Counter Terrorism
- Counter Intelligence
- Intelligence Analysis
- Border Security
- Cyber Risk

## Defense

- Establishing Civilian Structures
- Counter Intelligence
- Intelligence Analysis
- Target Analysis and Defense
- Peacekeeping
- Force Protection
- Pattern of Life Analysis
- Human Terrain Mapping

## Law Enforcement

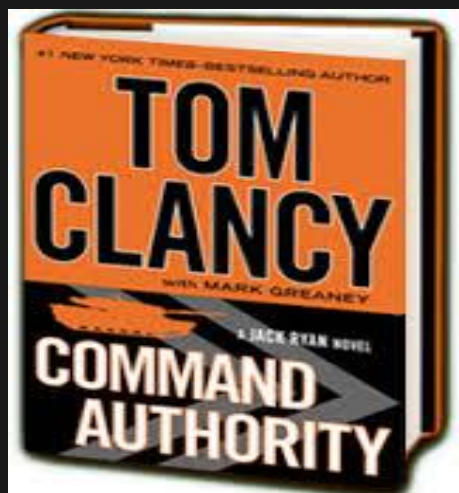
- Tactical Lead Generation
- Counter Terrorism
- Major Investigations
- Organized Crime
- Neighborhood/Community Policing
- Public Order/Major Event Management
- Volume Crime
- Fusion Centers

## Private Sector

- Security Investigations
- Industry Oversight & Compliance
- Cybercrime
- Risk Management
- Anti-Money Laundering
- Fraud

## Government

- Industry Oversight & Compliance
- Cybercrime
- Securities Investigations
- Anti-Money Laundering
- Fraud



He (Jack) soldiered on, and through his work on the theft of Galbraith's company he discovered that Gazprom had purchased the pieces of the Scottish-owned gas firm from a series of small foreign companies that sprang up out of nowhere to bid in the auction...To unravel it all, Ryan had a few weapons he could call on...Another tool Jack made use of was **IBM i2 Analyst's Notebook**. It was a data analysis tool that allowed him to put in all manner of different data sets, and then generate quick visual representations via graphs and charts that he could manipulate to track trends, see relationships between people in a target network, and allow himself a more dynamic way of interpreting whichever environment he was studying...Jack knew good data organized effectively was the most important commodity for any analyst.

## Example Scenario

- Bomb detonated damaging a main rail network
- Need to identify and capture individuals responsible
- A group has claimed responsibility

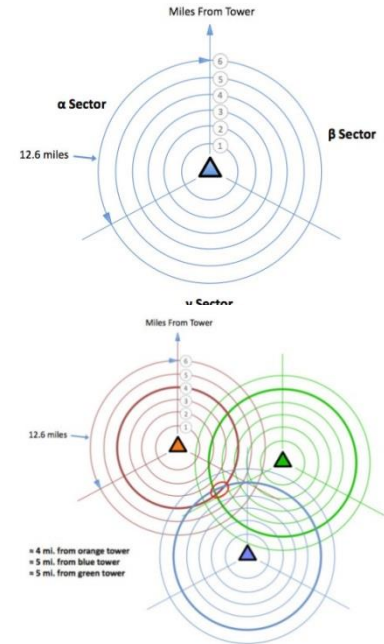
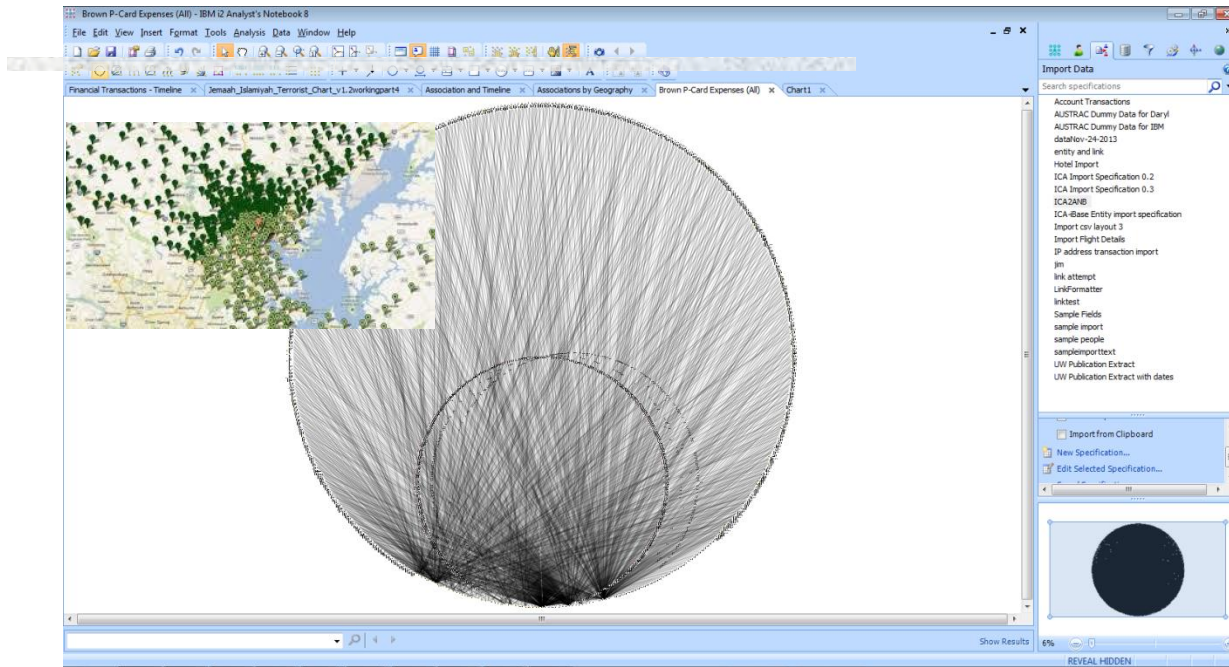








# Gain information from local cell towers



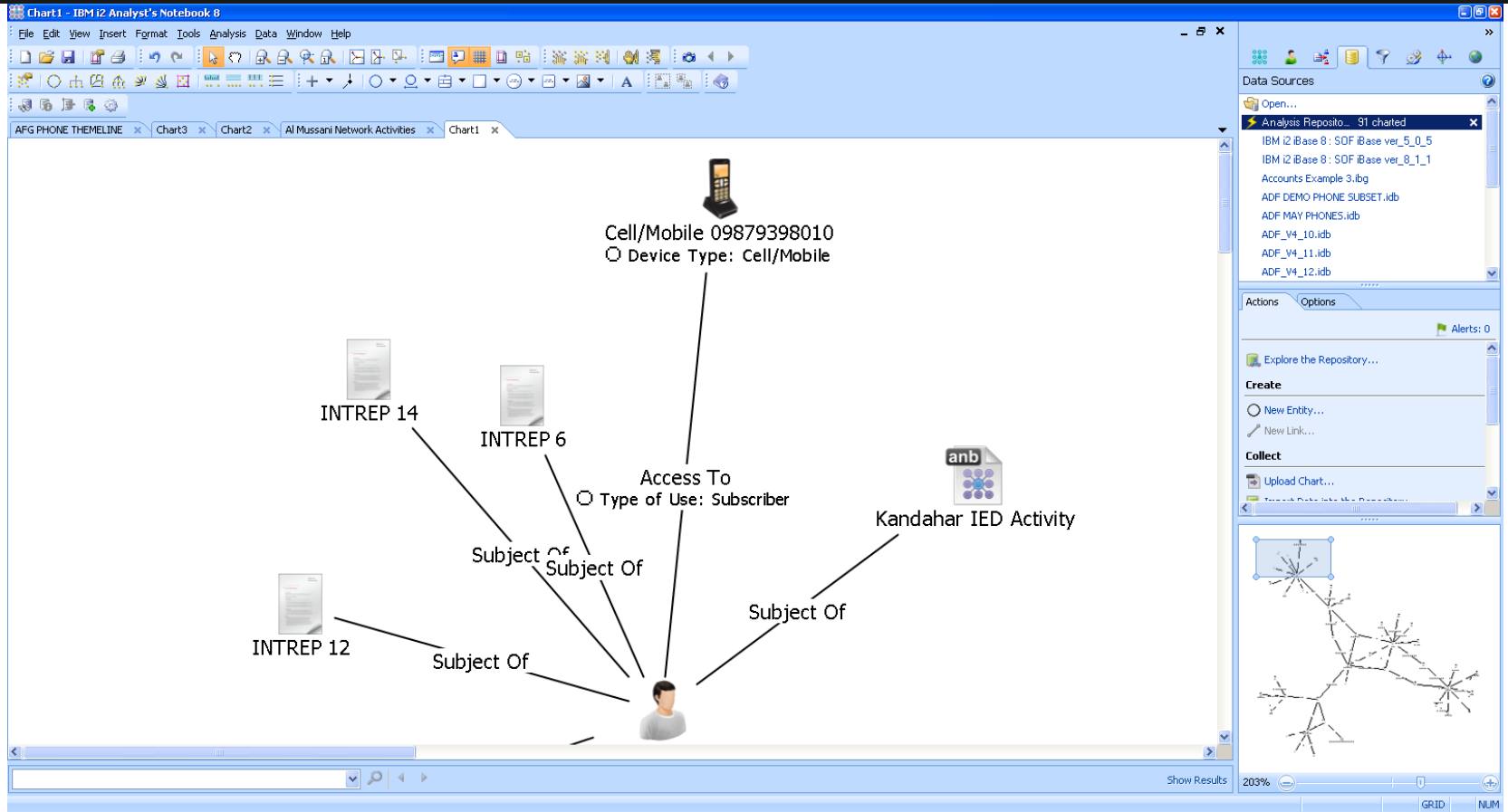


# Narrow down phones in the area around the time of the explosion – Geospatial Analysis

The screenshot displays the IBM i2 Analyst's Notebook interface, used for geospatial analysis of phone data. The main workspace shows a timeline from Tuesday, January 3rd, 2012, to Wednesday, January 4th, 2012. Vertical bars on the timeline represent phone activity for various numbers, such as 01193401854253471, 7165815778, and 3072426786. A pie chart in the top right corner visualizes the distribution of phone activity across different categories. The 'Data Sources' panel on the right lists various data files, including 'IBN i2 Base 8 - SDF Base ver\_5\_0\_5' and 'Accounts Example 3.log'. The 'Data Browser' panel at the bottom right shows a table of phone records.

ID	Identity	Network Type	Registration	D	Date	New	Label Value	Location	City	New Attribute
786140	011930001402262410	Telcel	Thru Line		1/3/2012 10:25		Phase 0 Share	Alghamran		
786294	011930001402262411	Telcel	Thru Line		1/3/2012 10:25		Phase 0 Share	Alghamran		
786324	011930001402143114	Telcel	Thru Line		1/3/2012 10:25		Phase 0 Share	Alghamran		
786388	011930001402143100	Telcel	Thru Line		1/3/2012 10:25		Phase 0 Share	Alghamran		
802376	011930001044022700	Telcel	Thru Line		1/3/2012 10:24		Phase 0 Share	Alghamran		
802408	011930001044022701	Telcel	Thru Line		1/3/2012 10:24		Phase 0 Share	Alghamran		
803476	011930007770041904	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
120059	011930001402143106	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
142325	011930001402143205	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
142472	011930001044042712	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
167190	011930001402143103	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
176183	011930001402143105	Telcel	Thru Line		1/3/2012 10:23		Phase 0 Share	Alghamran		
186275	011930001402262706	Telcel	Thru Line		1/3/2012 10:22		Phase 0 Share	Alghamran		
122447	011930001402143177	Telcel	Thru Line		1/3/2012 10:22		Phase 0 Share	Alghamran		
190196	011930001402143103	Telcel	Thru Line		1/3/2012 10:22		Phase 0 Share	Alghamran		
191720	011930001044131310	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
194843	011930001402143103	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
170308	011930001242032308	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
120420	011930001402143103	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
803476	011930007770041904	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
802376	011930001044022700	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
803301	011930001402032301	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
151760	011930001402131700	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
140800	011930001402143100	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
152319	011930001402032319	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
176422	011930001402143103	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
802324	011930001044022704	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
120100	011930001402143104	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
191301	011930001402131301	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
176504	011930001402143104	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
151181	011930001402131381	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
120185	011930001402143105	Telcel	Thru Line		1/3/2012 10:21		Phase 0 Share	Alghamran		
180448	011930001280400408	Telcel	Thru Line		1/3/2012 10:20		Phase 0 Share	Alghamran		
120747	011930001402143107	Telcel	Thru Line		1/3/2012 10:20		Phase 0 Share	Alghamran		
151174	011930001402131374	Telcel	Thru Line		1/3/2012 10:20		Phase 0 Share	Alghamran		
101404	011930001044042826	Telcel	Thru Line		1/3/2012 10:20		Phase 0 Share	Alghamran		

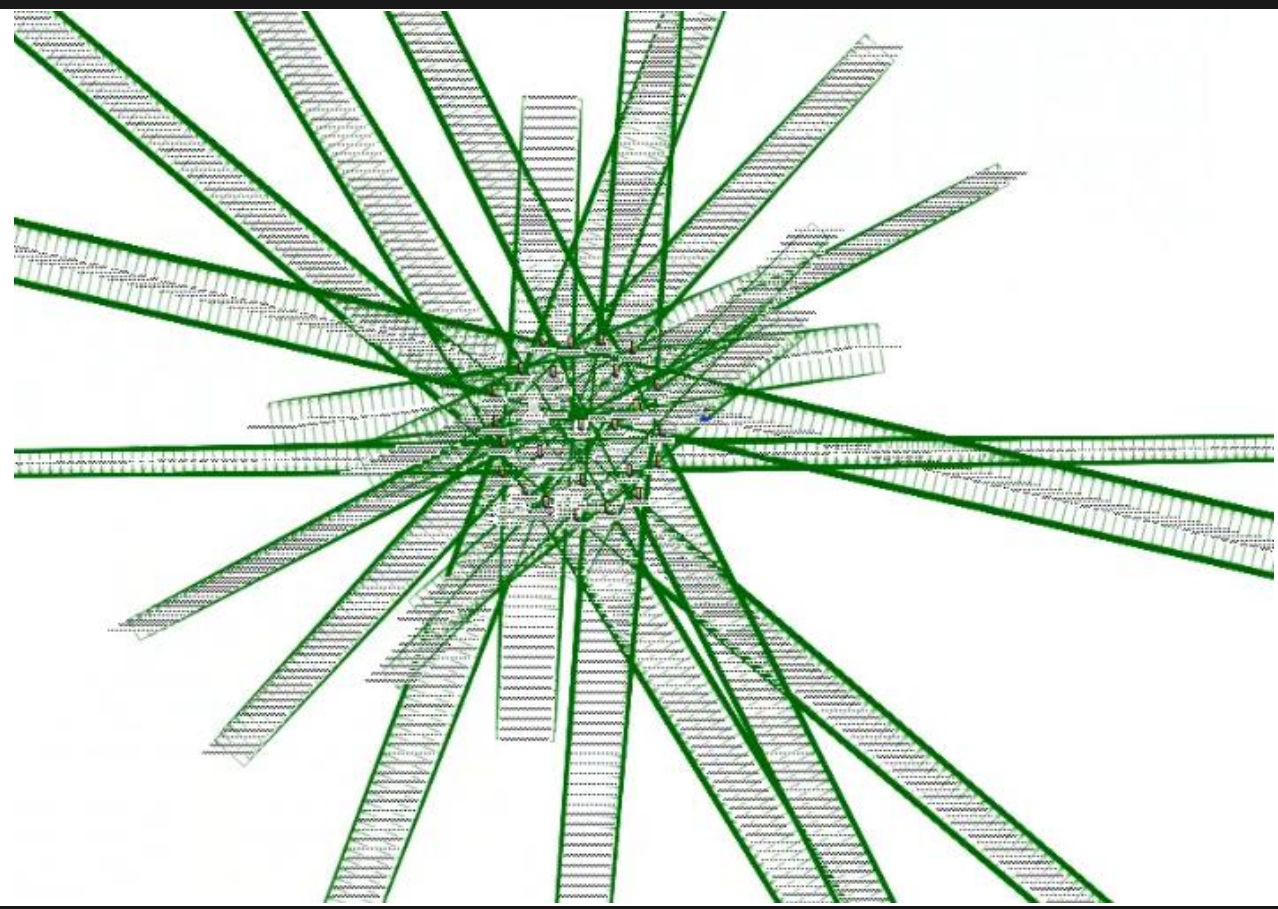
# Do we recognise any of the numbers



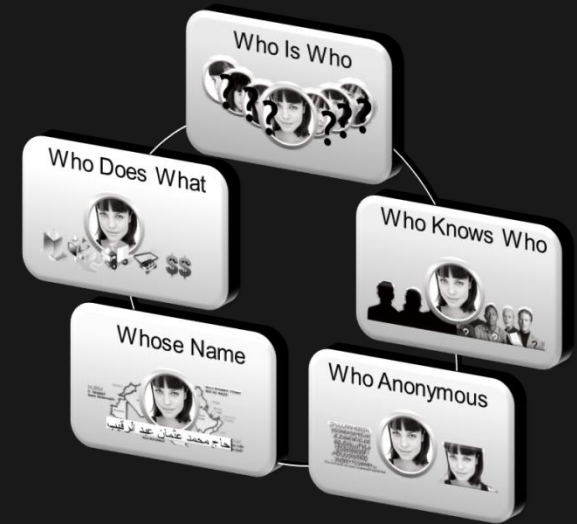
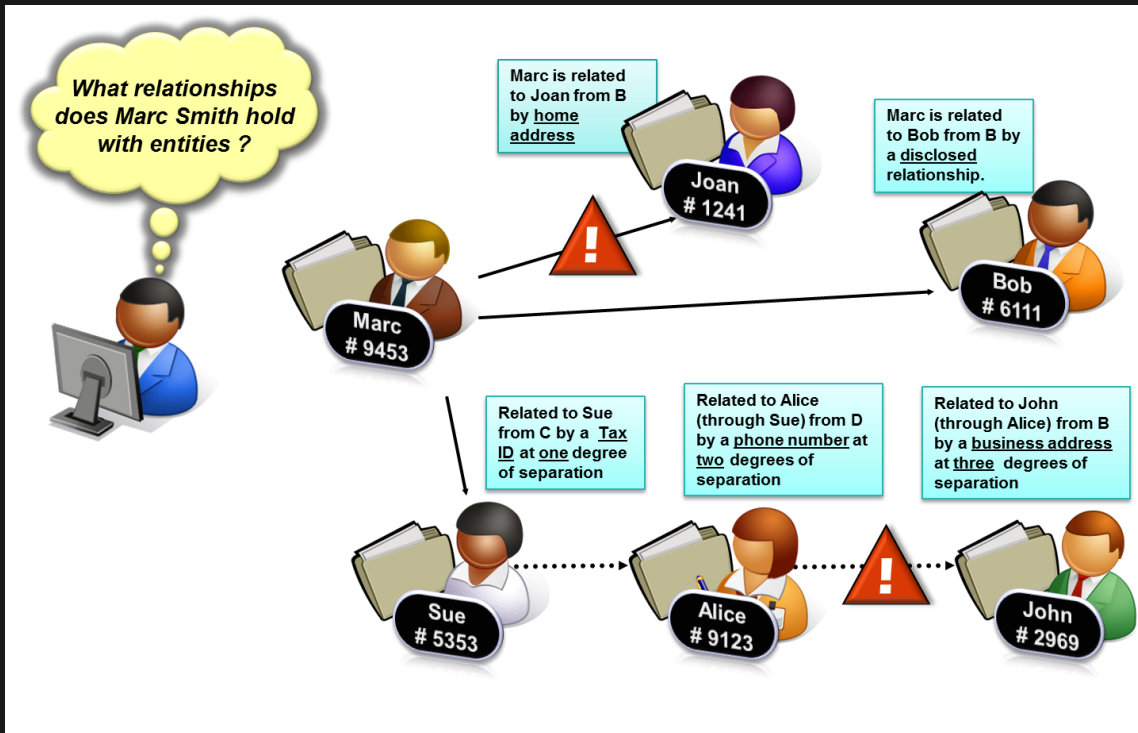
# Request call logs for relevant numbers and owners from cell companies



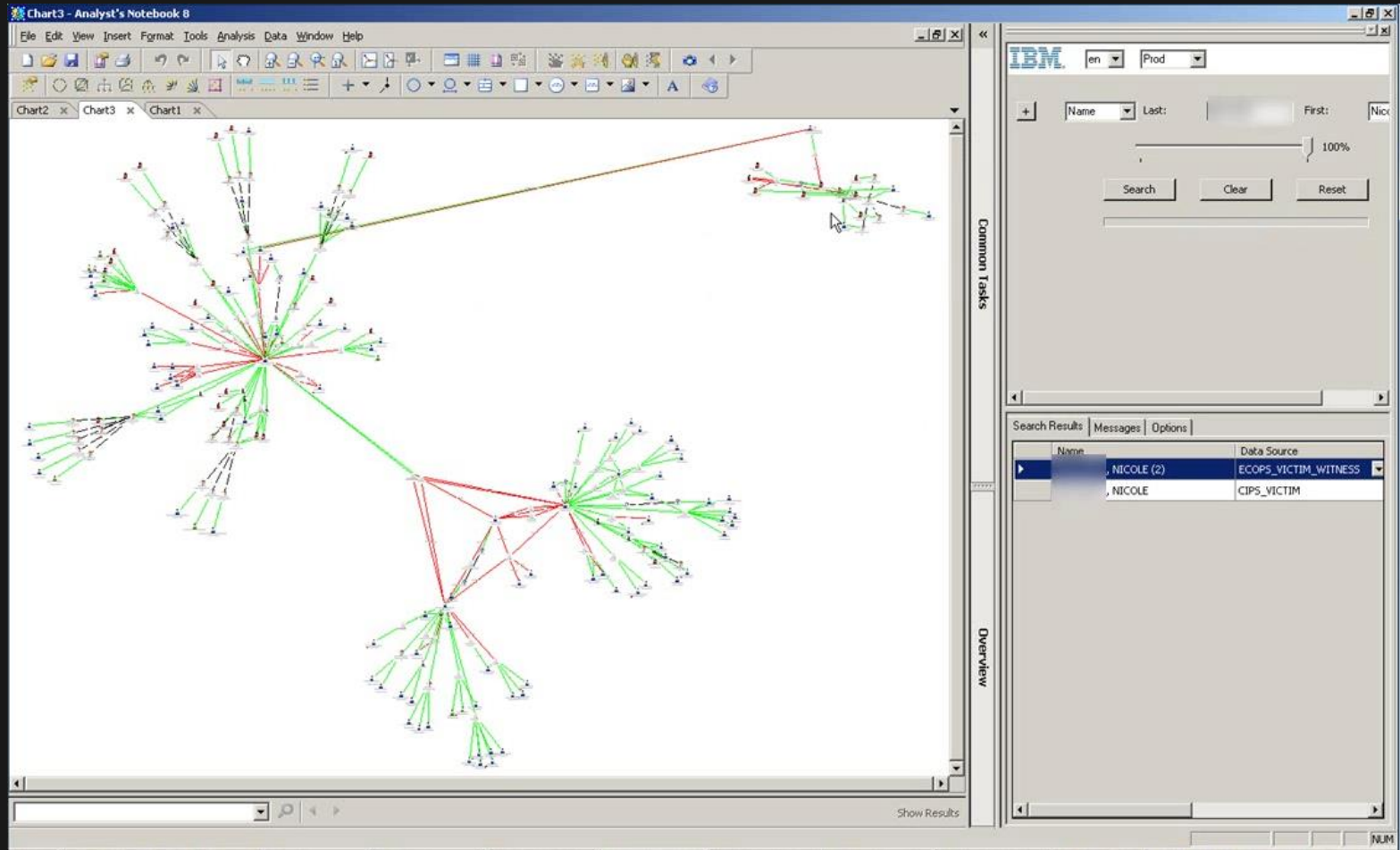
# Any calls between these numbers, or known numbers



# Non-obvious relationship detection

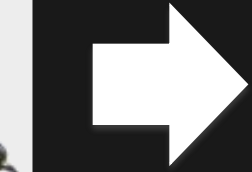


# Non-obvious relationship detection



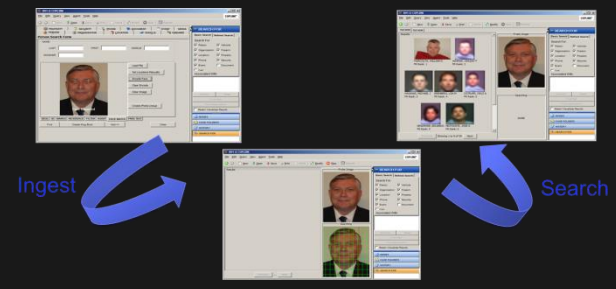


# Pull in suspects – seize mobile phone – Rip off information and photographs



Entity	Links	Identity	Semantic Type	Representation	D	Date	Time	Label Value	Location - City...	New Attribute...
201630		011935001242501630	Telecoms	Theme Line				1.1935001630...	Mazar e Sharif	Afghanistan
501610		011935001452501610	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
3386241		011935001452386241	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
113214		011935001452113214	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
521088		011935001452521088	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
822760		01193500164822760	Telecoms	Theme Line				1.1935001648...	Mazar e Sharif	Afghanistan
31692385		0119294300731692385	Telecoms	Theme Line				1.1929430073...	Chitral	Pakistan
20347804		0119292077620347804	Telecoms	Theme Line				1.1929207762...	Mardan	Pakistan
3306591		011933001243306591	Telecoms	Theme Line				1.1933001243...	Kandahar	Afghanistan
1412225		0119350014521412225	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
16247712		011939320169247712	Telecoms	Theme Line				1.1939320169...	Makand	Pakistan
8257453		0119350013268257453	Telecoms	Theme Line				1.1935001326...	Mazar e Sharif	Afghanistan
1412483		0119350014521412483	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
3822275		0119350014523822275	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
224477		01193500124224477	Telecoms	Theme Line				1.1935001242...	Mazar e Sharif	Afghanistan
2812295		0119350014522812295	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
1517210		011935001594517210	Telecoms	Theme Line				1.1935001594...	Mazar e Sharif	Afghanistan
3300433		0119350014523300433	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
253108		01193500124253108	Telecoms	Theme Line				1.1935001242...	Mazar e Sharif	Afghanistan
4299428		011935001694299428	Telecoms	Theme Line				1.1935001694...	Mazar e Sharif	Afghanistan
1834726		011933007854834726	Telecoms	Theme Line				1.1933007854...	Kandahar	Afghanistan
852753		011935001452852753	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
3031201		0119350014523031201	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
3317700		0119350014523317700	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
1844880		01193500159444880	Telecoms	Theme Line				1.1935001594...	Mazar e Sharif	Afghanistan
3221193		0119350014523221193	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
2384223		011935001452384223	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
822234		01193500159422234	Telecoms	Theme Line				1.1935001594...	Mazar e Sharif	Afghanistan
2251185		011935001242251185	Telecoms	Theme Line				1.1935001242...	Mazar e Sharif	Afghanistan
321321		011935001242321321	Telecoms	Theme Line				1.1935001242...	Mazar e Sharif	Afghanistan
2780394		011935001452780394	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
231181		01193500145231181	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
231185		01193500145231185	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
1650495		0119242012851650495	Telecoms	Theme Line				1.1924201285...	Lahore	Pakistan
207547		011935001452207547	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
1311774		011935001452311774	Telecoms	Theme Line				1.1935001452...	Mazar e Sharif	Afghanistan
1106636		011933001041106636	Telecoms	Theme Line				1.1933001041...	Kandahar	Afghanistan

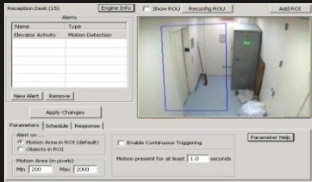
# Facial Recognition



# Phone whereabouts – waypoint tracking



# Pull in data from CCTV and run analysis



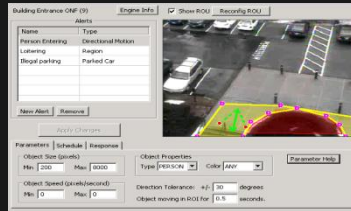
## Motion Detection

Triggers on any motion that fits size/duration constraints



## Tripwire

Triggers when object center passes over a virtual line



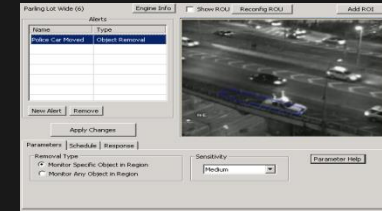
## Directional Motion

Triggers when object moves in a certain of directions



## Abandoned Object

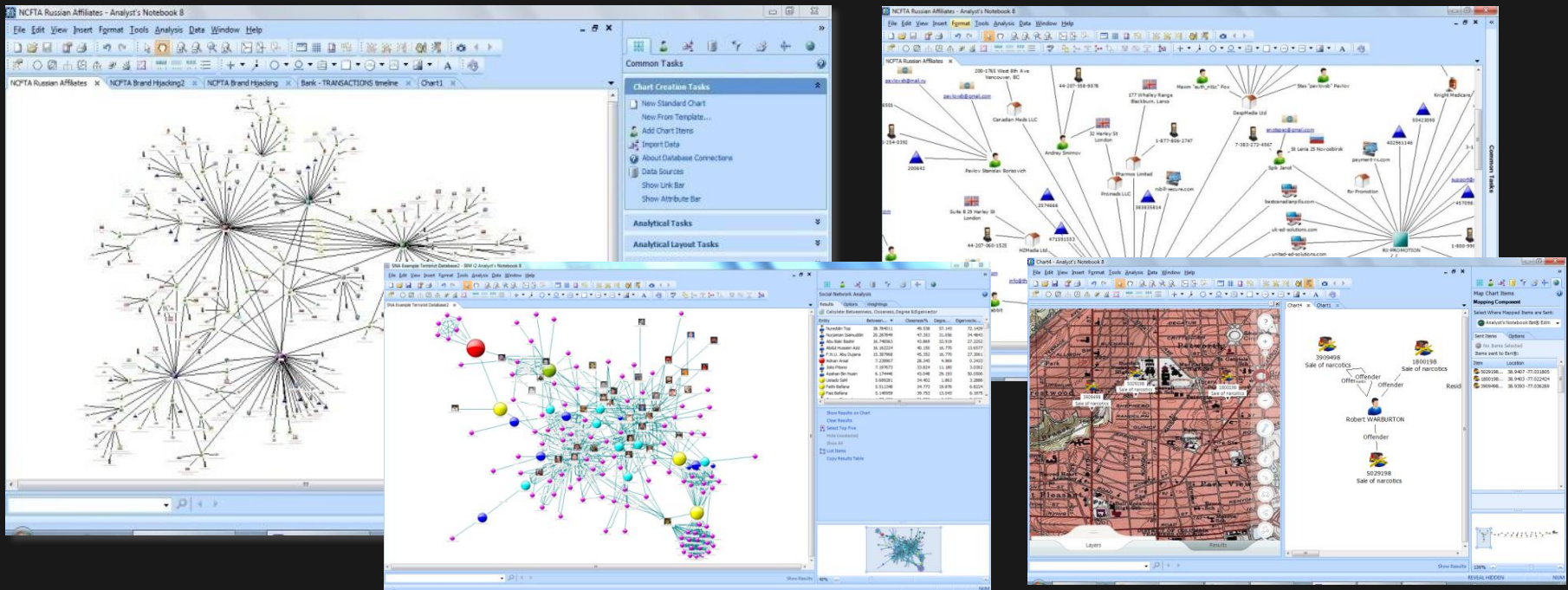
Triggers when object appears in region, stops and remains still for period of time.



## Object Removal

Triggers when object which has been still in image for long time starts to move.

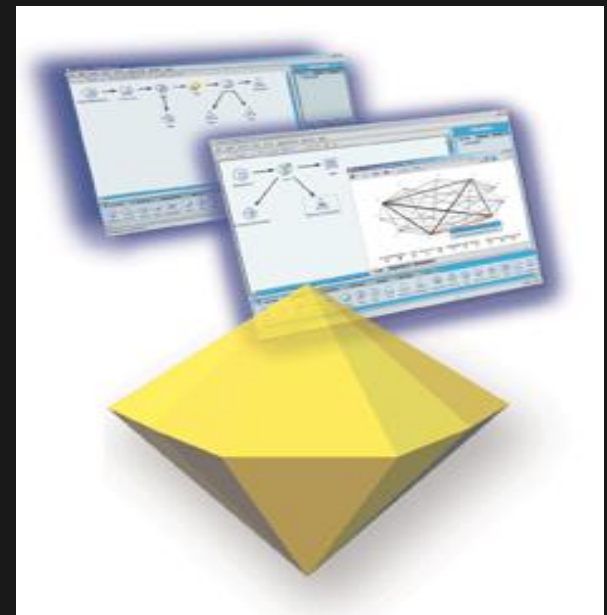
# Identifies Individuals, Groups, Events, Locations, Commodities, Communications, etc. and build relationships





# In Summary

- Accessing VAST amounts of information
- Improve productivity during investigations
- Quickly identifying non obvious relationships
- Turning Information into Intelligence
- Reduce the Analysis time cycle through to enforceable actions





THANK  
YOU



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