IBM Intelligent Investigation Manager
Optimizing fraud investigations

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Fraud costs private and public sector enterprises hundreds of billions in revenues each year

WARRANTIES
Upwards of **10%** to **15%** of claims are in some way suspect

BANKING
FBI reported that U.S. cybercrime had exceeded drug trafficking, and was estimated at more than **$1 billion**, in 2009

INSURANCE
Latest national estimate for claims fraud in the U.S. is **$79 billion**

"U.S. organizations lose an estimated **7 percent** of annual revenues to fraud… this percentage indicates a staggering estimate of losses around **$994 billion** among organizations, despite increased emphasis on anti-fraud controls and recent legislation to combat fraud." - Association of Certified Fraud Examiners

ENERGY and UTILITIES
Customers have stolen power for decades, costing utilities **1%** to **3%** of revenue — or about **$6 billion** industry-wide

WORKERS' COMPENSATION
25 percent of all workers compensation claims are fraudulent.

TAXATION
The IRS estimates that **15%** of all taxes owed are never paid

HEALTHCARE
National Health Care Anti-fraud Association (NHCAA) estimates that between **3%** and **10%** of all claims in the US are fraudulent or abusive, in 2009 this was estimated at **$65 billion**

TRAVEL
The average expense reimbursement scheme now costs a company **$60,000**, lasting on average two years before detection

Banking challenges: Fighting fraud and financial crimes

- No access to all of the relevant information

- Insufficient time to assimilate the information

- Unable to access **information** trapped in content

- No enterprise fraud and **financial** crimes framework

- Case investigation is becoming overwhelmingly complex

- Inadequate reporting and management dashboards

- Need for greater control over **social media** usage

- Need for smarter case analysts to help fine usage patterns

- Need more intelligent cross channel investigation

- Need more real time investigation

- Lack of insight into the **investigative process**

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Insurance fraud is on the rise

Market Dynamic		Impact
Economic downturn	▶	Individuals look to replace lost income through claim payments
Tougher banking controls	▶	Organized crime rings are shifting their sights to Insurance
Overloaded courts	▶	Scam artists know their risk is minimal if detected / caught
Ineffective policies or regulation	▶	Increased cost of doing business
Catastrophes	▶	Service providers realize there is less scrutiny over bills – high volume rapid disbursements encourage false / inflated charges
Soft market, depleted capital, reduced investment returns	▶	Loss costs must be reduced to show growth in current markets

Fraud investigations in the public sector have many challenges to overcome

Pro-Active Investigation

Identifying high risk fraud and at risk internal controls within an organization. Policy and Process assessment and automation improving data governance strategy and automation of rules and internal controls to mitigate risk

Reactive Investigations

Automation of investigation procedures and the need to provide a collaborative environment to co-ordinate all forms of evidence to decision to prosecute to prosecution documentation. Interviews and material management

Pattern Identification

Identify type of fraud: Duplicate Fraud, Multi-payer; shell-game; defective goods; defective service need to use technology to be more flexible in identifying pattern and type in order to properly investigate activity.

Evidence

Evidence gathering is key. The need to assess data, transactions, terms, times, contracts, video, social media, audio, records is critical. Technical capabilities are needed to aggregate..

Fraud schemes are becoming more complex

- Complex patterns ; many channels
- Structured and unstructured data
- Tight deadlines to assess risk and investigate possible fraud
- (LOB) Investigation Unit is focal part of the solution, involve other stakeholders to enrich investigation and raise awareness
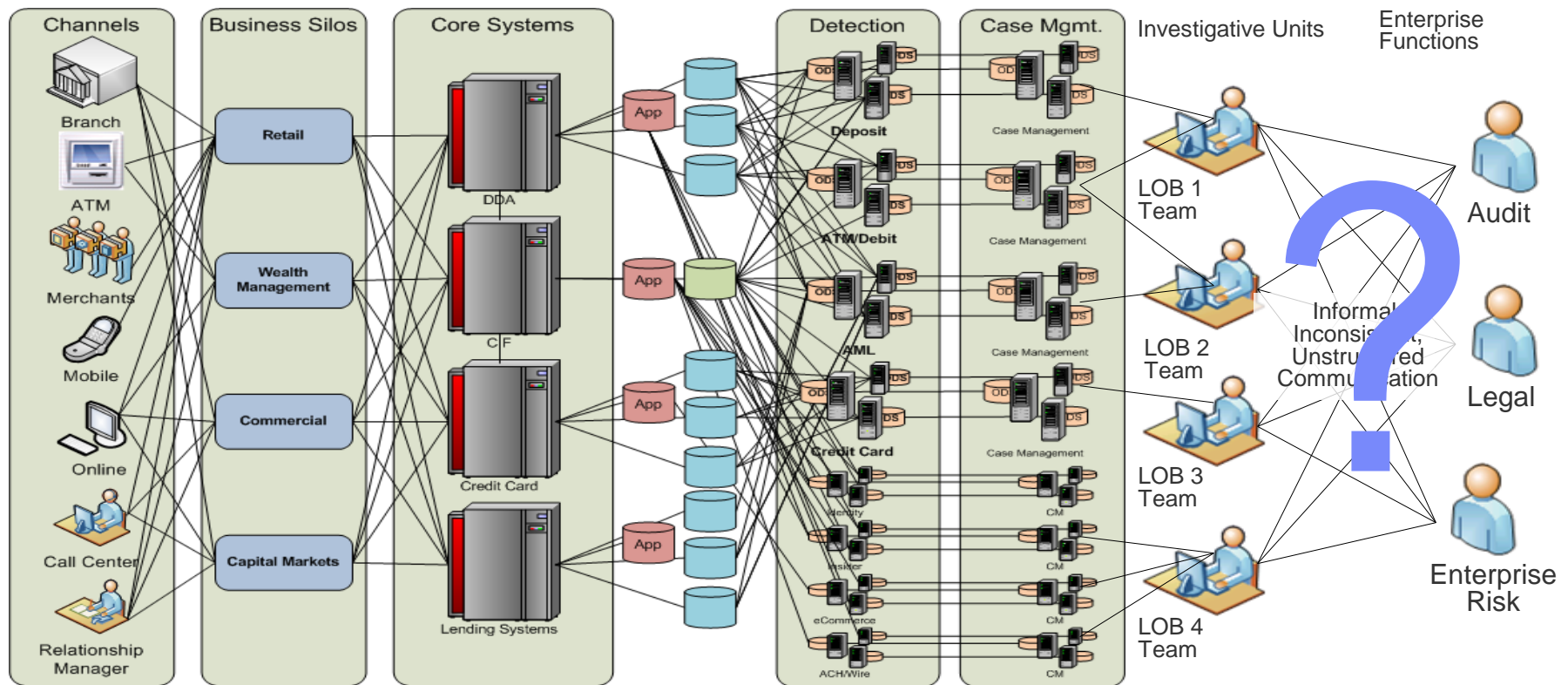
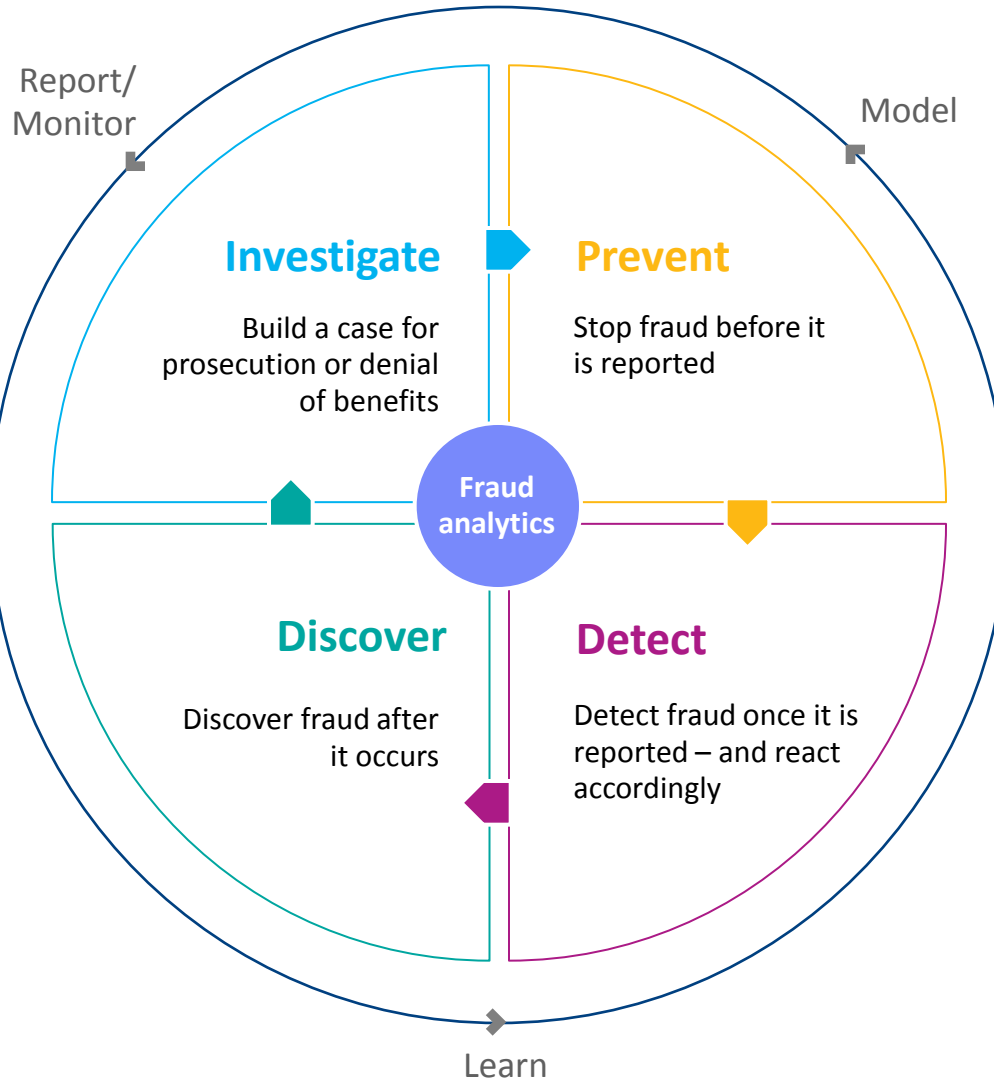# IBM's vision for fraud analytics

Investigate

Case management and visualization tools to aid investigators in building a case against fraudsters.

Today: Special investigations unit with manual adjusters

Discover

Continuous comparison of customer, account or transaction data to the data of cases known to be fraudulent in order to identify fraud that was not previously detected

Today: Not really done

Report/Monitor

Model

Investigate

Build a case for prosecution or denial of benefits

Prevent

Stop fraud before it is reported

Fraud analytics

Discover

Discover fraud after it occurs

Detect

Detect fraud once it is reported – and react accordingly

Learn

Prevent

Intervene if it appears the main purpose of the activity is to provide benefit to a fraudster

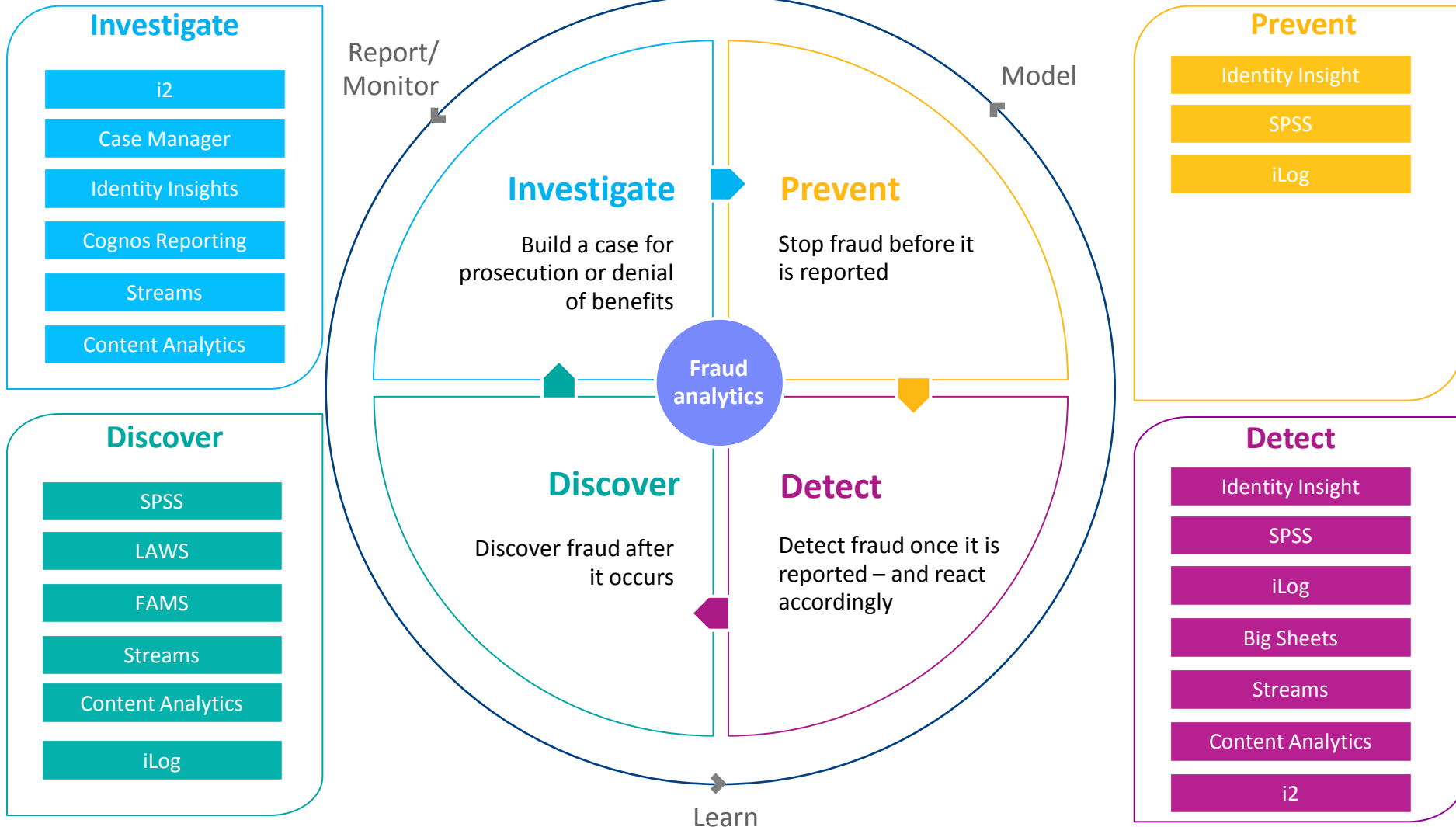**Today: Little is done to prevent fraud from occurring**

Detect

Detect if a transaction is likely a willful act to achieve financial gain through misrepresentation and/or falsification; and take steps to stop or send to Investigation

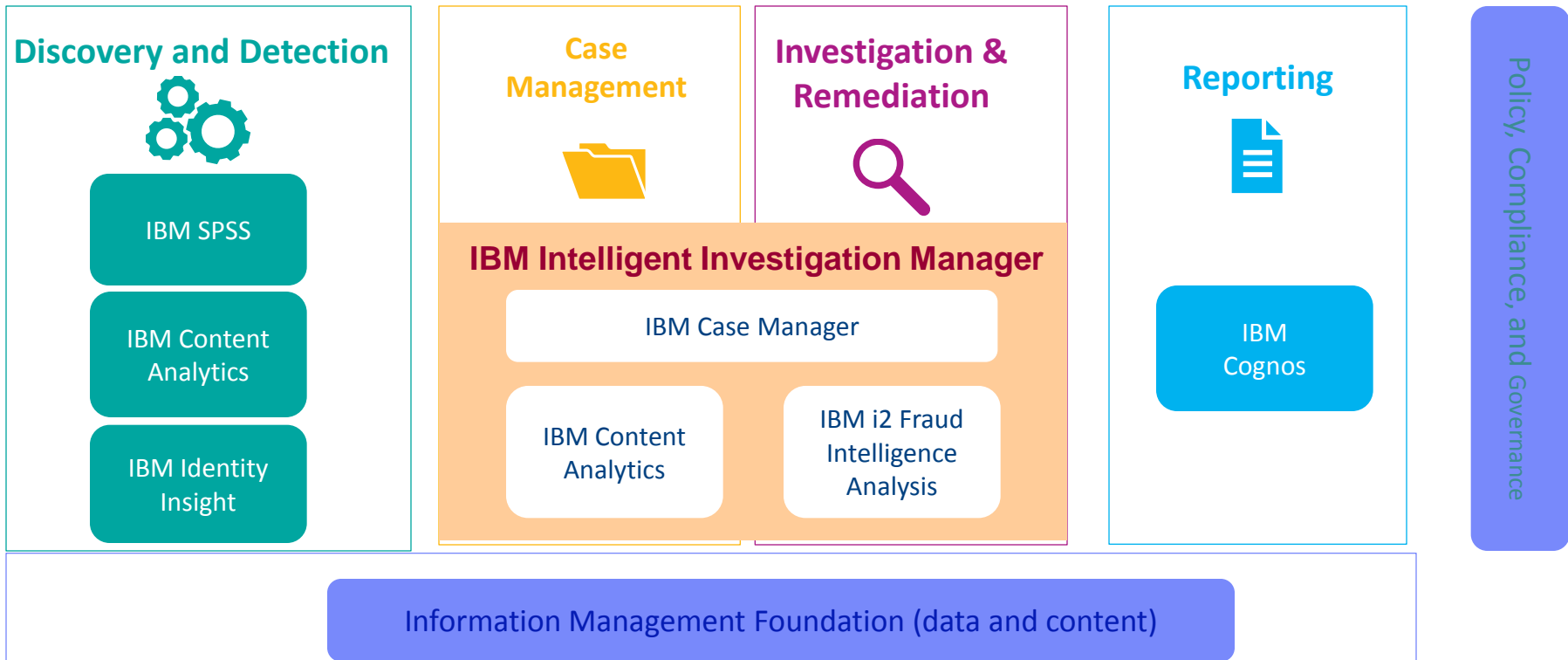**Today: Relies heavily on people to detect**

IBM's approach to managing fraud

Leveraging an integrated platform to address fraud across its lifecycle

Investigate

i2
Case Manager
Identity Insights
Cognos Reporting
Streams
Content Analytics

Prevent

Identity Insight
SPSS
iLog

Discover

SPSS
LAWS
FAMS
Streams
Content Analytics
iLog

Detect

Identity Insight
SPSS
iLog
Big Sheets
Streams
Content Analytics
i2

Report/Monitor

Model

Learn

Fraud analytics

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IBM Signature Solution - *Anti-Fraud, Waste & Abuse*

HEALTHCARE **TAX/REVENUE** **CUSTOMS** **INSURANCE** **BANKING** **SOCIAL SERVICES** **INTERNAL AUDIT**

Fraud Use Case Libraries and Templates

Discovery and Detection

- IBM SPSS
- IBM Content Analytics
- IBM Identity Insight

Case Management

Investigation & Remediation

IBM Intelligent Investigation Manager

- IBM Case Manager
- IBM Content Analytics
- IBM i2 Fraud Intelligence Analysis

Reporting

- IBM Cognos

Policy, Compliance, and Governance

Information Management Foundation (data and content)

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Putting it Together

Detection Engine

New Claim

Claimant

Entity Analytics

Resolution, Relationships
And Watch List Identification

Business Rules

Predictive Fraud Model

Optimize Fraud Decisions

Entity Analytics

Anomaly Detection

Advanced Case Management

Case Application Design	Case Templates		Case Tasks
Case Runtime Framework	Case Infrastructure	360° View of Case	Case Context

Content | Events | Workflow | Rules | Collaboration | Social Software | Monitoring & Analytics

Intelligent Investigations
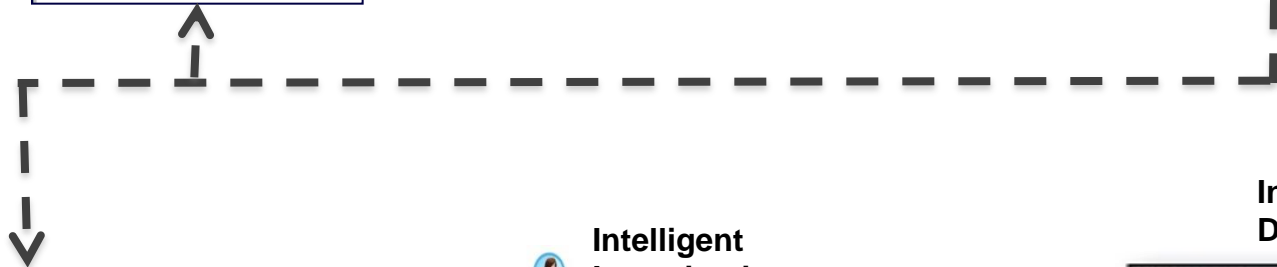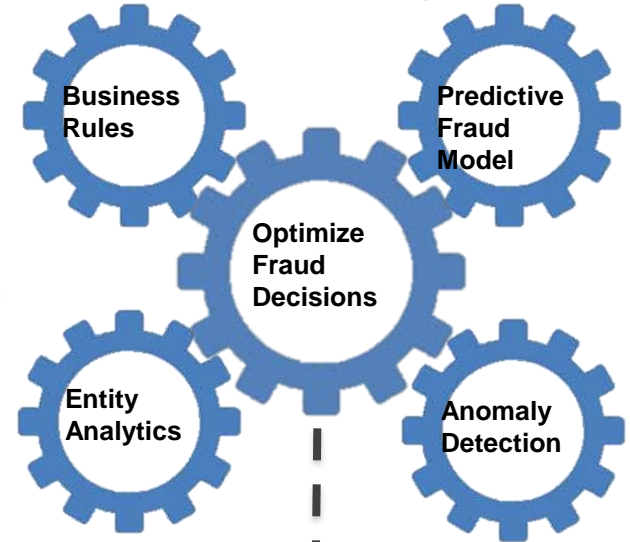
Intelligent Fraud Dashboards

- Visual Intelligence
- Exposes Unknown Organized Crime Rings
- Intelligence Sharing & Collaboration
- Alert created for High Risk Claims

Fraud Intelligent Briefing & Reporting

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Introducing IBM Intelligent Investigation Manager

A new solution for optimizing fraud investigation

- Leverages capabilities of IBM Case Manager, IBM i2 Fraud Intelligence Analysis and IBM Content Analytics

- Efficiently process cases and coordinate activity across the investigative team

- Conduct forensic analysis, generate leads, visualize the scope of the fraud and gather evidence. Capture results directly into the case.

- Discover new entities, patterns and insights by searching through structured and unstructured content

- Facilitate the management of the case including the handoff to supervisors, litigators or other authorities

- Provide transparency into the effectiveness of the investigative process using integrated KPI reporting and analytics
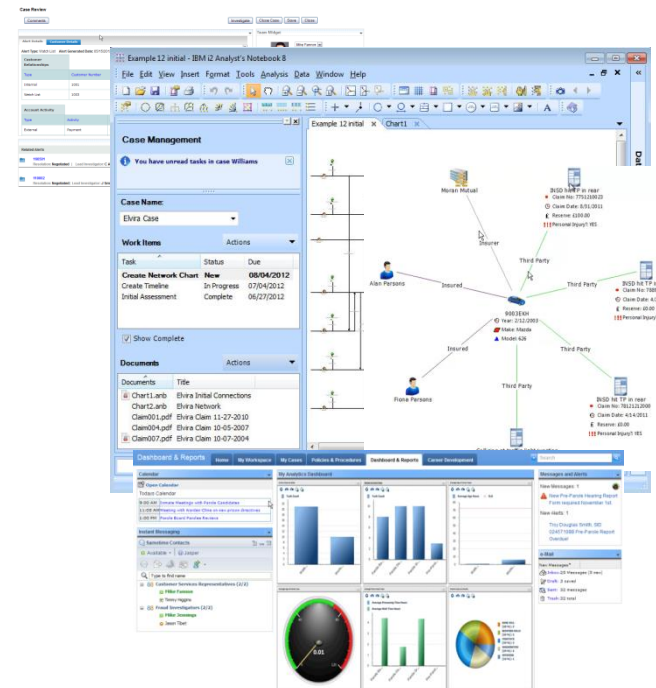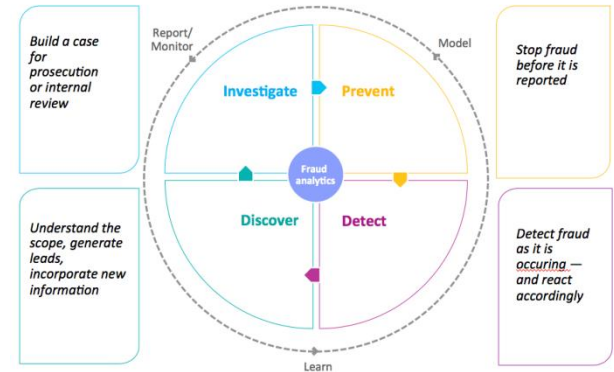
Intelligent Investigation Manager provides key capabilities for the IBM Anti-fraud signature solutions

Demo: Insurance Fraud Scenario
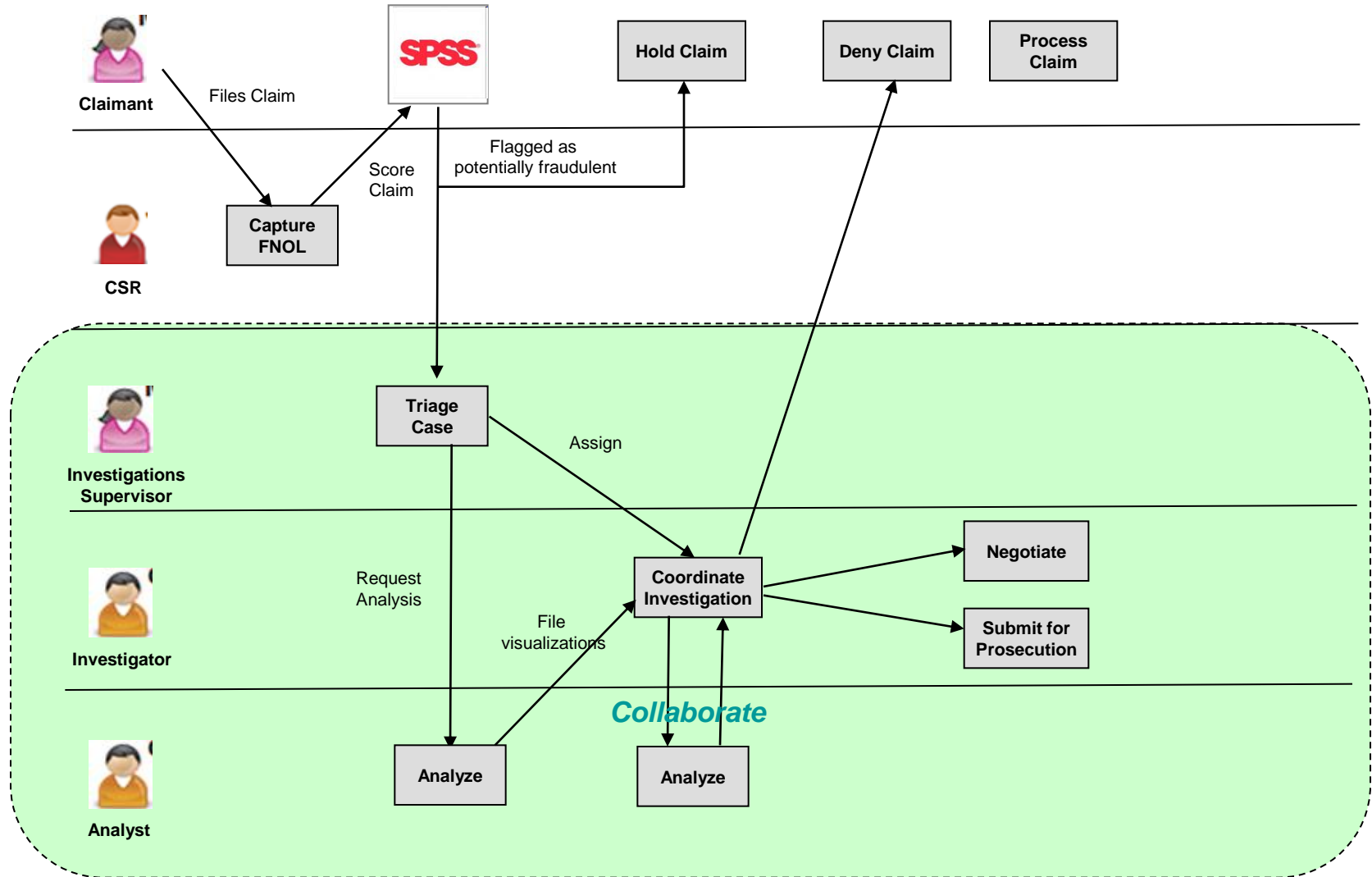
Intelligent Investigation Manager components

IBM Intelligent Investigation Manager

IBM Case Manager

IBM Content Analytics

IBM i2 Fraud Intelligence Analysis
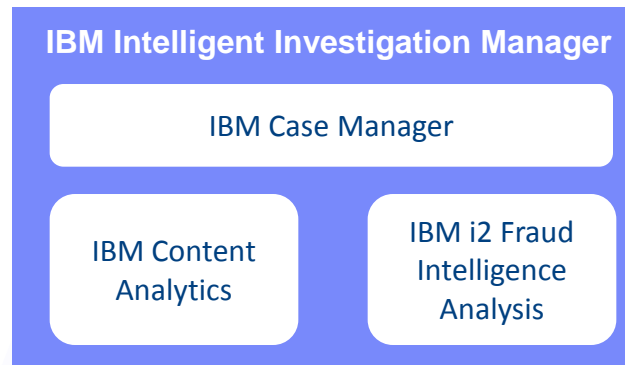
IBM Case Manager for delivering customizing investigative solutions that enable investigative teams to efficiently manage an investigation

IBM i2 Fraud Intelligence Analysis for conducting forensic analysis in the context of the investigation

IBM Content Analytics for driving the discovery process across all available data during the investigation

IBM Advanced Case Management

Brings people, process and information together … in context of a case

process people

Case Management
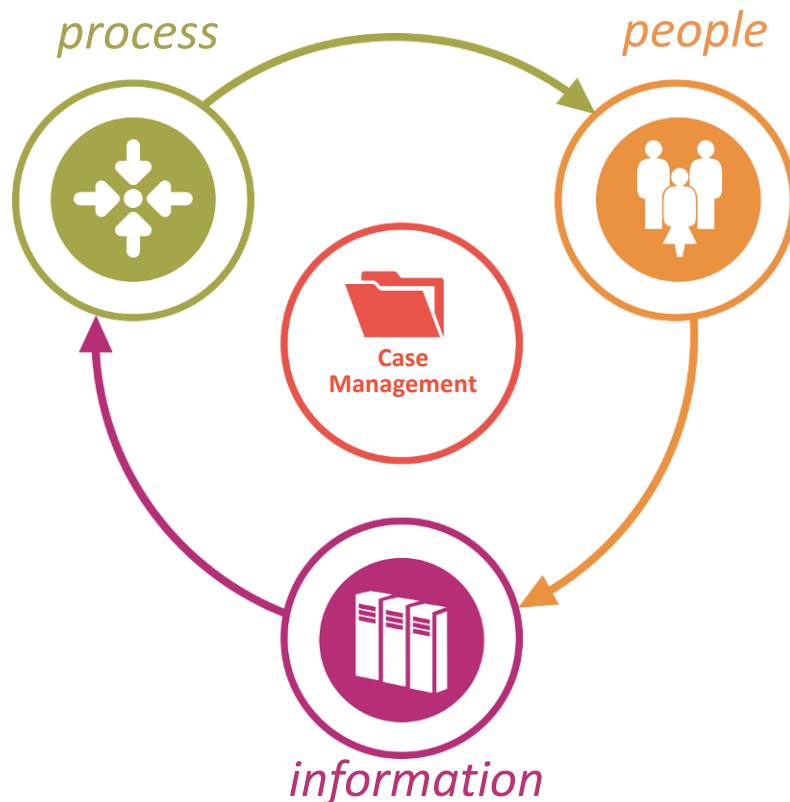
information

- Delivers **optimized case outcomes**

- Supports **dynamic**, runtime work management

- Delivers **trusted information** to the case – structured or unstructured

- Manages and governs **entire case lifecycle**

- Provides the line-of-business and IT with tools to **rapidly deliver** case-based solutions

IBM Case Manager

Simplifying the delivery of investigative solutions
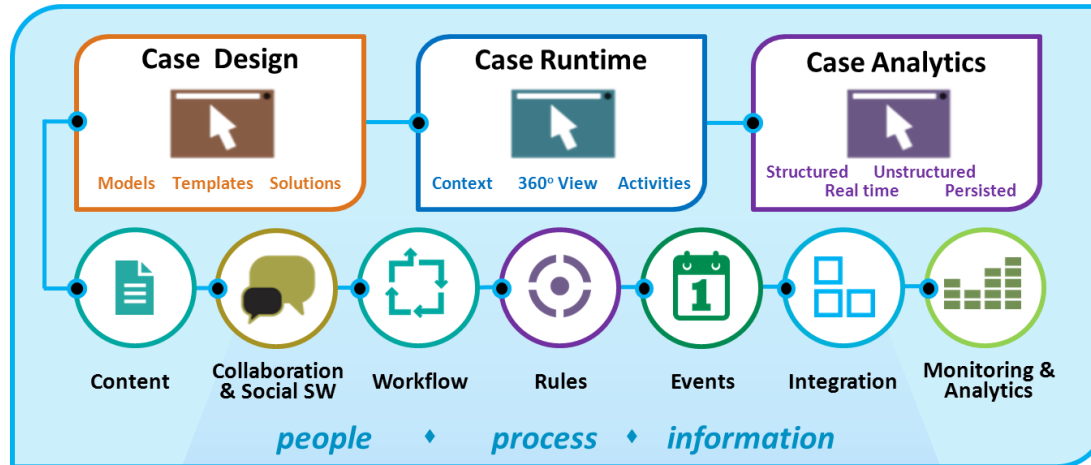
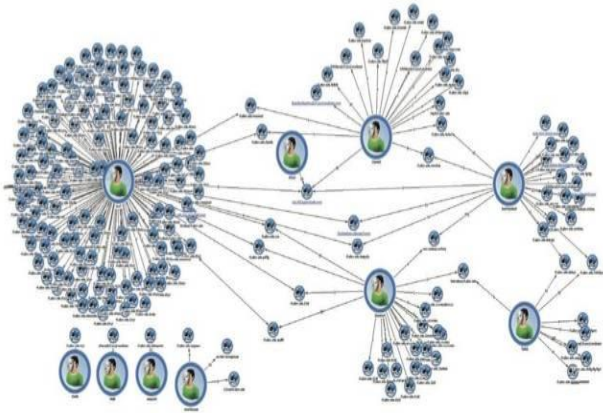Built on IBM FileNet P8 Business Process Manager

Includes Content Analytics, WebSphere ILOG jRules, Cognos RTM, Lotus Sametime and Mashups – for use within case solutions

Extensible to the entire ECM portfolio

Deep integration to WebSphere Process Server for connectivity

Intelligence discovery & analysis

IBM's solutions bring together seemingly unrelated information for high-value awareness and provides sophisticated solutions to:

People, places, things, dates and times

- Predictive Fraud Analytics
- Opportunistic Fraud Analysis
- Entity resolution
- Visual & Link analysis
- Transactional analysis
- Social network analysis
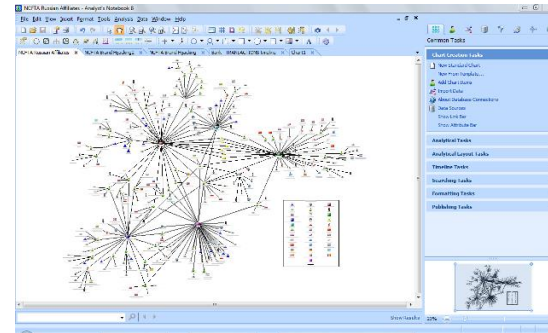- Geo-spatial analysis

Mine

Analyze

Visualize

Share & Communicate
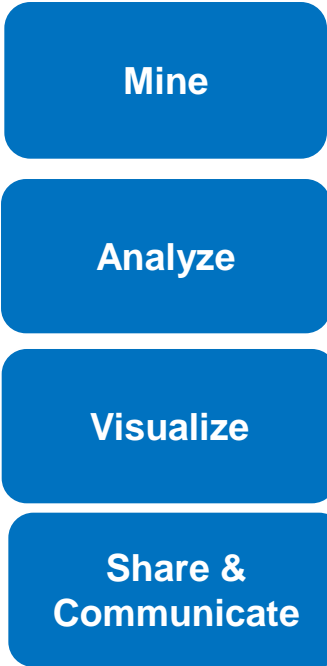
- Quickly and easily share and collaborate fraud intelligence

- Identify areas of fraud threats currently undetected

- Leverage IBM's analysis capabilities across the enterprise
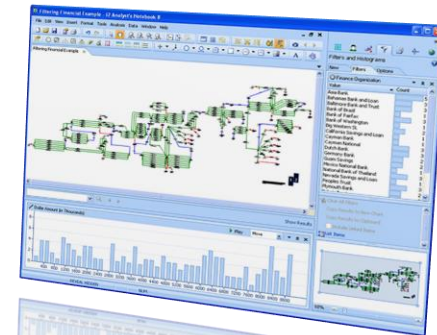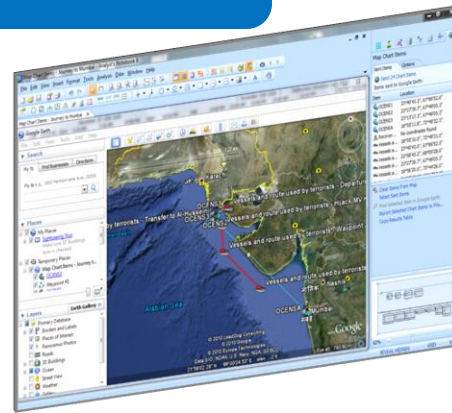
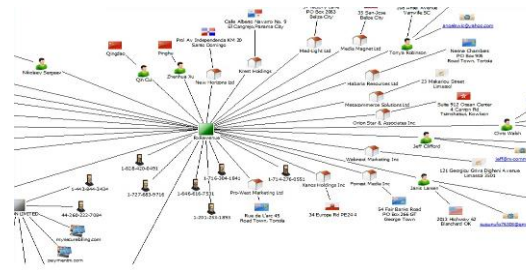# Solution "deliverables" – document, repudiate, prosecuting
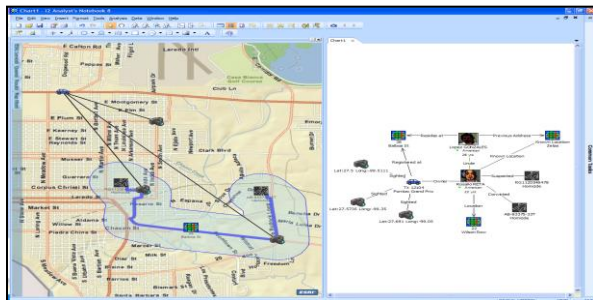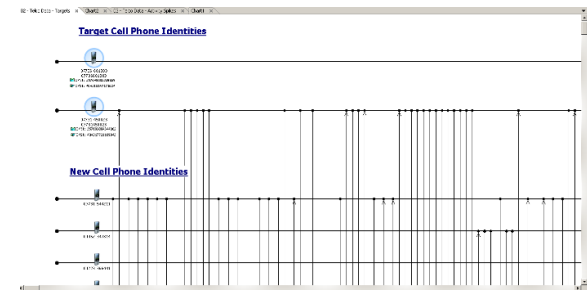## Quickly and effectively
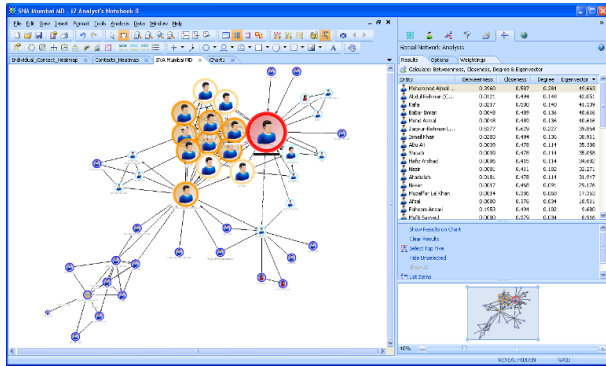
WHO
Document fraud rings

WHAT
Visualize and analyze complex networks and events

WHERE
Document incidents to support investigation and prosecution

WHEN
Plot transactional timelines

IBM i2 Analyst's Notebook Premium – Analysis for the Analyst

Analyst's Notebook backed up by optimized analysis repository

Rich data-centric analysis environment

Enhanced discovery of connections

Extended capability controlled via familiar environment

Proven analytical and visualization environment
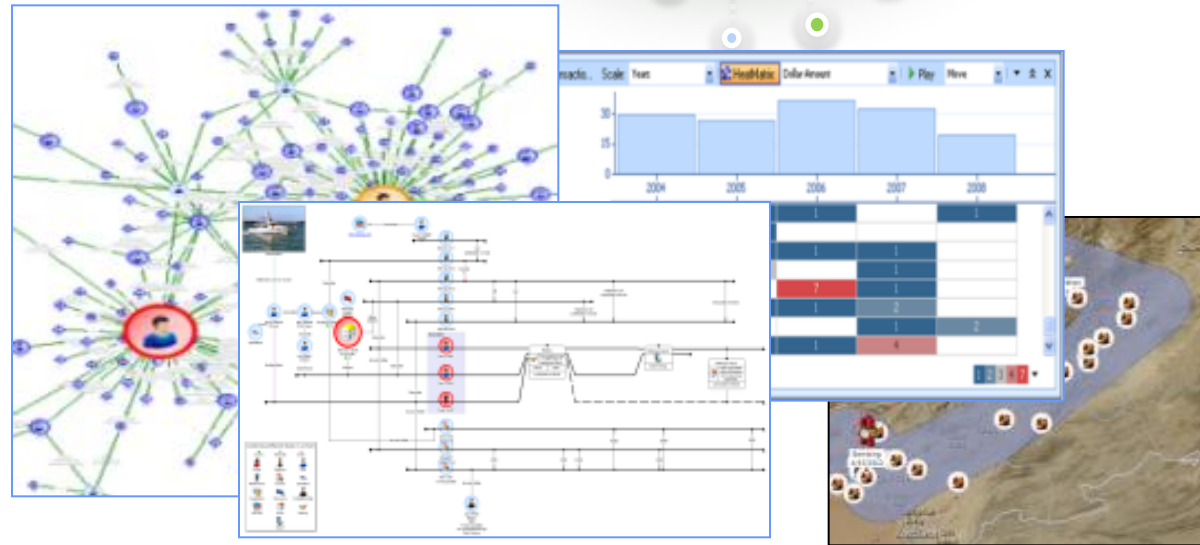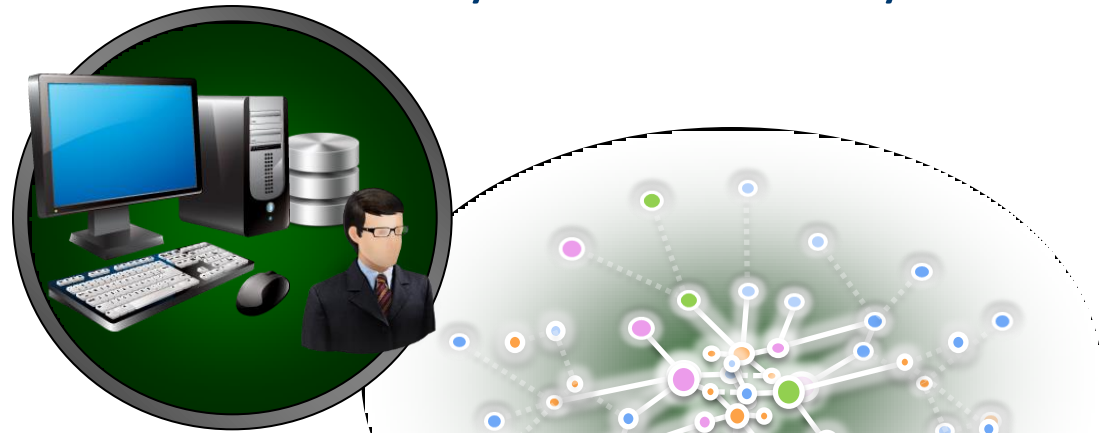
IBM i2 Fraud Intelligence Analysis Platform

Ingest any data to support investigation

Analysis and information for all

Powerful search & discovery tools

Extensible and scalable service-orientated architecture

Robust and highly configurable security model

Content Analytics enables customers to ingest, search and analyze unstructured and structured data from multiple sources

Content Analytics for investigation

Enables agencies to ingest and analyze investigative documents
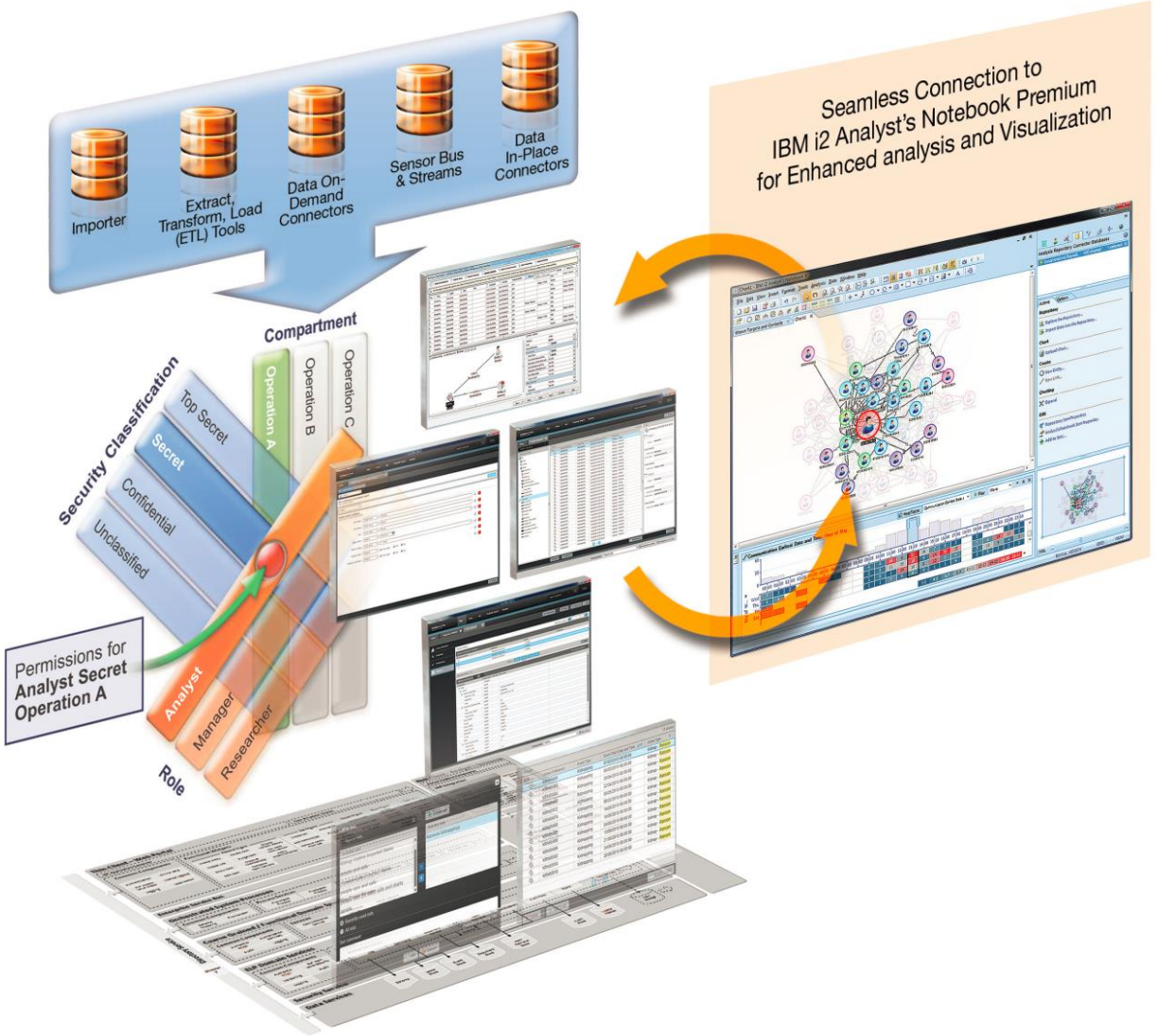
Correlation of data

- Correlate unstructured information (reports, notes) to structural systems

Analysis of unstructured information

- Derive and identify new trends, patterns and anomalies

Connections between structured and unstructured data

- Provide a 360-degree view of suspects and relationships

Advanced analytical features

- Semantic searching, risk alerting, SNA etc… help turn volumes of data into a wealth of insights

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IBM's unparalleled capabilities in Security and Fraud

Industry Recognition

- 2011 **Top Analytics and Business Intelligence Service Provider** (Gartner Group)
- 2010 **Best Security Company** (SC Magazine)
- 2009 **#1 Identity and Access Management** (IDC Market Share Leadership)
- 2011 **Dynamic Case Management Strategy Leader** (Forester Report)
- 2008 **Leading analytic model solution** (last Gartner Group Report)

Broad and Deep Domain Expertise

- Broad expertise & experience across all of Financial Crimes (AML, Fraud, Case Management, Sanctions, Governance, Enterprise Risk, Identity and Access Mgmt)
- Tested reference models for financial crimes (architecture, workflows, business processes, risk assessments, scoring models, scenarios, IAM)
- Proven IBM-WWPMM project management methodology
- System Implementation Accelerators
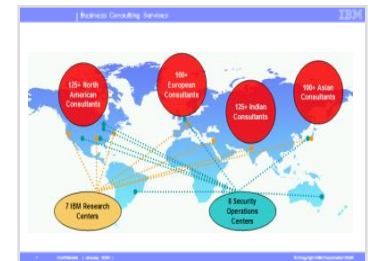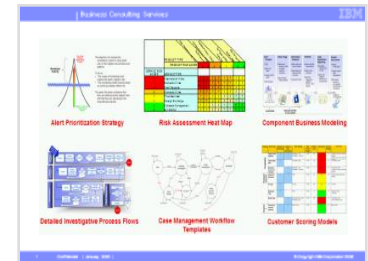
IBM's unparalleled capabilities in Security and Fraud

Capabilities and Experience

- 1500 Risk & Compliance consultants globally who have actually developed parts of the key solutions in the industry
- 125-person Risk and Compliance CoE 100-person Analytics CoE, 75% of whom had graduate or Ph.D. level degrees in related fields, growing at 25% annually
- 7 IBM Research Labs worldwide, producing cutting-edge analytical methods and solutions
- 9 Security Research Centers (two more under construction) and 11 Security Development Labs
- Over 900 Professional Security Consultants

Proven Track Record

- Delivered measurable results in our past engagements
- Managed entire lifecycle of implementations with ability to establish strong project management and governance
- Deep relationships with top Financial Institutions around the globe

Existing Relationship

- Local team of industry consultants who have prior experience at your institution across numerous projects
- Dedicated team within IBM focused on understanding your architecture and current business challenges in order to identify solutions

Questions?