17th Current Issues in Life Assurance
Module 2

26 November, 2021
02.00 PM to 05.00 PM (India Time)

Continuous Control Monitoring
Life Insurance

Session Map

Background discussion

- Drivers
- Three lines of Defense

Predictive Techniques

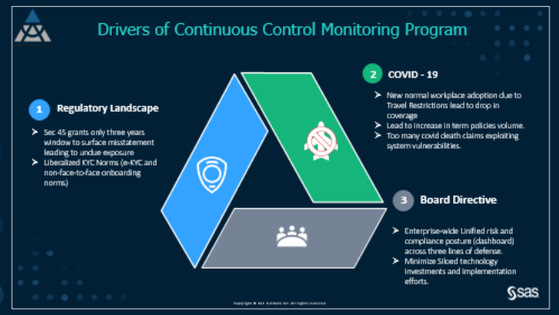
- Hybrid Analytics
- Risk Based approach
- Program Benfits

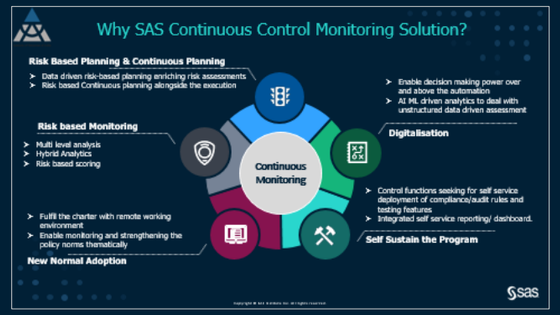
CCM Use cases

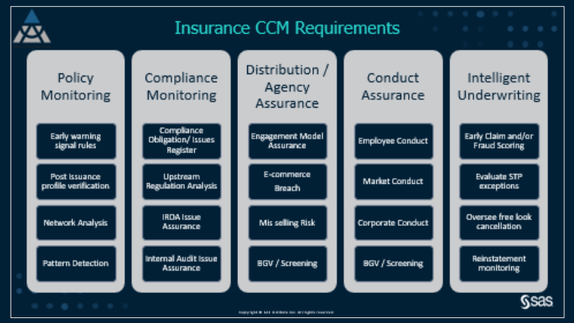
- Policy Monitoring
- Compliance Monitoring
- Intelligent Underwriting

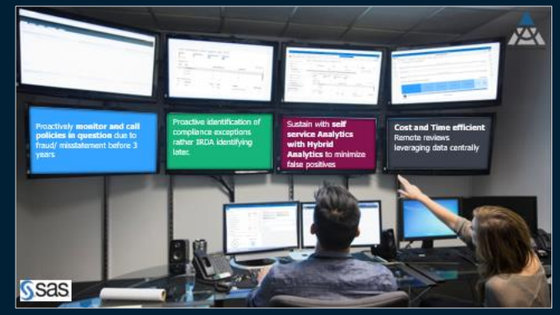
Tour & Conclusion

- Solution Tour
- Key Points to note
- Questions









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Drivers of Continuous Control Monitoring Program

1 Regulatory Landscape

- Sec 45 grants only three years window to surface misstatement leading to undue exposure
- Liberalized KYC Norms (e-KYC and non-face-to-face onboarding norms)

2 COVID - 19

- New normal workplace adoption due to Travel Restrictions lead to drop in coverage
- Lead to increase in term policies volume.
- Too many covid death claims exploiting system vulnerabilities.

3 Board Directive

- Enterprise-wide Unified risk and compliance posture (dashboard) across three lines of defense.
- Minimize Siloed technology investments and implementation efforts.

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Three lines of Defense - Challenges

Business Division

- Head of Underwriting
- Head of Claims Settlements
- Head of Customer Service
- RCU / ICU

Risk & Compliance

- Appointed Actuary
- Chief Risk Officer
- Head of Compliance
- Head of Fraud Management

Audit & Assurance

- Chief Audit Executive
- Head of Concurrent Audit
- Independent Committees / Board

Timely resolution of Underwriting exceptions

Early claim model overlaps with fraud scoring

Remediate compliance gaps before regulator reviews

Timely Assessment of claims to improve customer service

Underwriting scores are cryptic and not white box

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Claim Fraud Model scores are cryptic and not white box

Timely identification of compliance exception

Focus on claim stage is reactive

Remote / Offsite Review and Resolution

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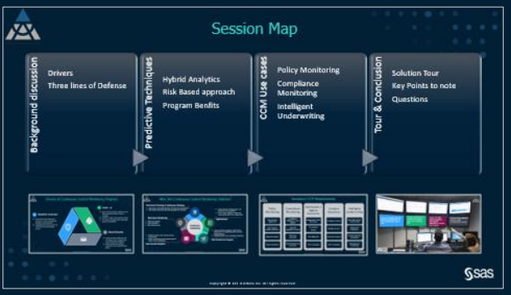

Timely Detection and Resolution of Exceptions

Remote / Offsite Review and Resolution

Dependency on business to provide data

Why SAS Continuous Control Monitoring Solution?

Risk Based Planning & Continuous Planning

- Data driven risk-based planning enriching risk assessments
- Risk based Continuous planning alongside the execution

Risk based Monitoring

- Multi level analysis
- Hybrid Analytics
- Risk based scoring

Digitalisation

- Enable decision making power over and above the automation
- AI ML driven analytics to deal with unstructured data driven assessment

Self Sustain the Program

- Control functions seeking for self service deployment of compliance/audit rules and testing features
- Integrated self service reporting/ dashboard.

New Normal Adoption

- Fulfil the charter with remote working environment
- Enable monitoring and strengthening the policy norms thematically

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Continuous Monitoring Initiative Benefits

Business

- ✓ **Conduct business** with better reputation and **Business Resilience**
- ✓ Eliminate redundancy & Efficient response to issues result in saved **business hours**.

Financial

- ✓ Minimize **Fraud Loss** by calling the policies under question on time.
- ✓ **Minimize** IRDA Guideline policy **breach penalties**
- ✓ Centralized investigation provides **cost efficiencies** eliminating travel and leverage common data.,

Compliance

- ✓ Proactively **prevent issues** rather than regulator / audit discovering later.
- ✓ Strengthen Compliance with **Upstream compliance analytics**.

Operational

- ✓ Leverage **synergies between Compliance, Audit and Fraud**
- ✓ **Time efficient** Audit or Compliance reviews and **Focused limited scope reviews**

Technical

- ✓ Data driven approach with centralized data access.
- ✓ Ease of use and build inhouse skills to **enable self service Analytics** and Reporting

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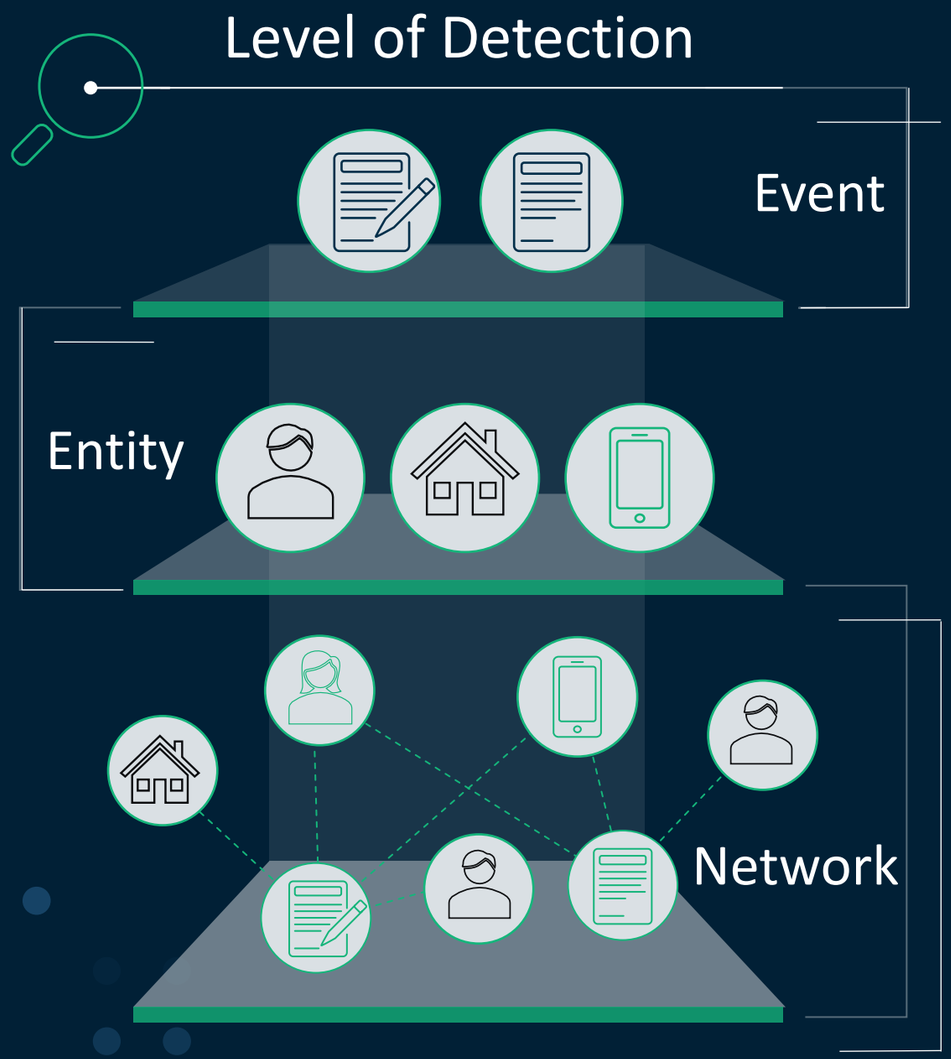
Multi level Continuous Control Monitoring



- Policy, Claim, Payment (maturity/claim)
- Policy servicing request, Complaint

- Client (Policy Holder, Life Assured , Nominee)
- Agent, Branch, Region, Zone
- Account Number, PAN, Address, Phone etc.,

- Group of Customer, Agent, Claims

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Hybrid Analytics for Continuous Control Monitoring

Anomaly Detection

Identify claimants who use common account numbers though unrelated

Machine Learning

Predictive modelling based on previous fraud outcomes. Reduce false positives and prioritise alerts. Discover new emerging threats. Extend the fraud use case e.g. image analysis.

Database Searches

Looking for matches to watchlists entities or previous intelligence

Automated Business Rules

Claim(s) close to proximity duration of 3 years plus (Sec 45)

Text and Image Mining

Similar suspicious death reasons descriptions occurring across multiple claims

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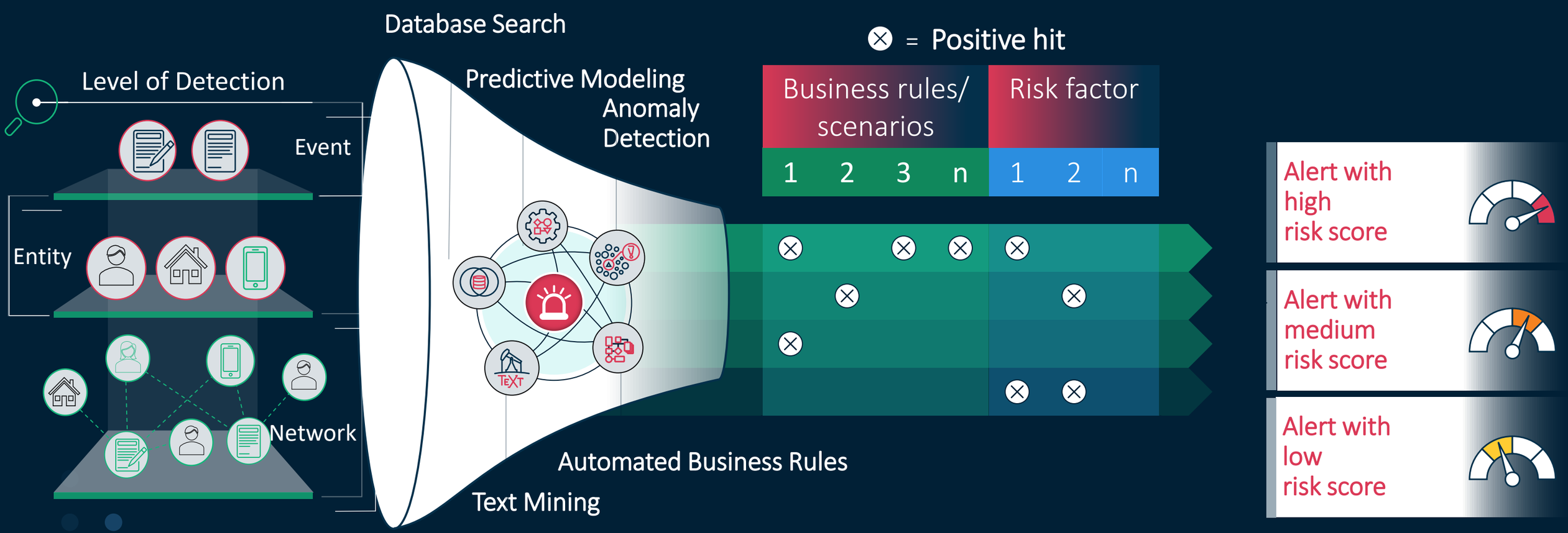
Risk Based Approach in Policy Monitoring



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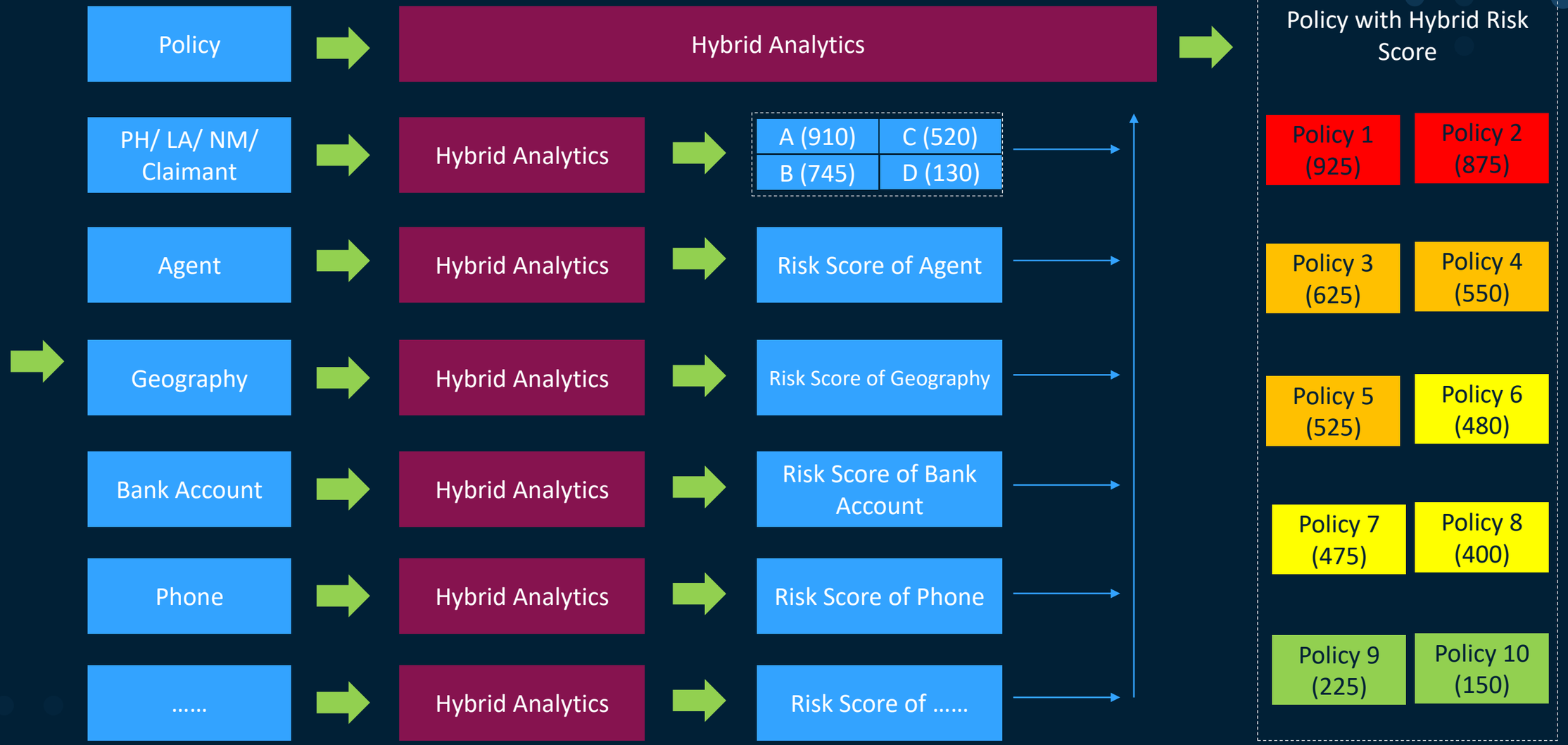
Detection with SAS Hybrid approach



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Life insurance CCM Typical Architecture

Continuous Monitoring

Lab

Source Systems

- Policy Administration
- ERP
- CRM
- Agency Administration
- Claims Management
- IIB

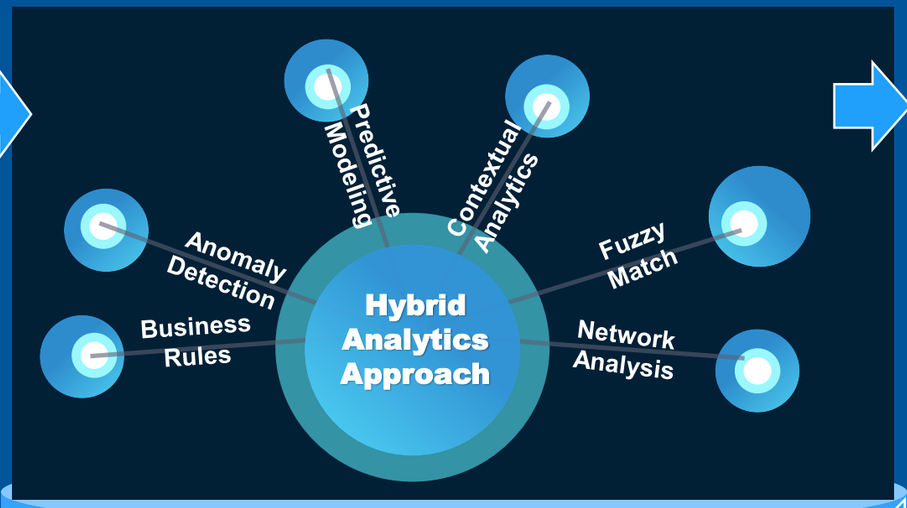
Data Management and Preparation

- Data Integration
- Data Quality
- Artificial Intelligence
- Machine Learning

CCM Data Mart

- Customers
- Policies
- Claims
- Agents
- Transaction
- Associates
- Customer Profile
- Augmented Data

Control Exception using Hybrid techniques



- Policy Monitoring
- Fraud Monitoring
- Compliance Monitoring
- Internal Audit

Dynamic Control Review (Import)

Ad-hoc DATA

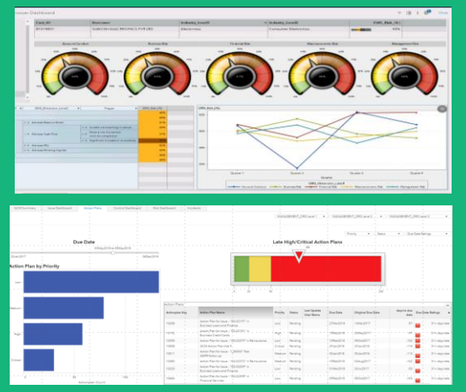
Support

- Developers
- Analyst

- Risk Users
- Assurance Lead
- Monitoring Users

Non repetitive Reviews

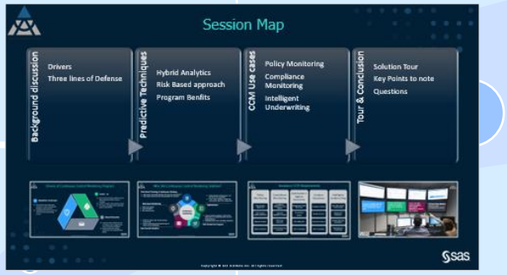
- File Audit
- Project Audits
- Ad-hoc Reviews / Reports
- Issue Validation



Analytics in Industry : Current State Vs Target State

	Known Behaviour	Unknown Behaviour
Organized Fraud	• Deduplication • IIB Validation and Checks	• Manual study of Modes Operandi • Vendor Provided model
Opportunistic Fraud	• Policy level Rule Based Detection	• Frequency-based priority • Whistle Blowing/Field
CURRENT STATE		

	Known Behaviour	Unknown Behaviour
Organized Fraud	• Text Analytics Model & Sentiment Analysis • Entity Resolution, Fuzzy Match Screening (IIB, Customer & repudiated claims)	• Network Analysis • Multi-entity Propensity Scoring Models • Composite Integrated Scorecard
Opportunistic Fraud	• Multi-entity Rule Based Detection • Surveillance & Oversight	• Anomaly detection rules • Fraud Exception Scoring • Insured Interest Analytics
TARGET STATE		



Impact per Fraud Instance

Impact per Fraud Instance

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Insurance CCM Requirements

Policy Monitoring

- Early warning signal rules
- Post Issuance profile verification
- Network Analysis
- Pattern Detection

Compliance Monitoring

- Compliance Obligation/ Issues Register
- Upstream Regulation Analysis
- IRDA Issue Assurance
- Internal Audit Issue Assurance

Distribution / Agency Assurance

- Engagement Model Assurance
- E-commerce Breach
- Mis selling Risk
- BGV / Screening

Conduct Assurance

- Employee Conduct
- Market Conduct
- Corporate Conduct
- BGV / Screening

Intelligent Underwriting

- Early Claim and/or Fraud Scoring
- Evaluate STP exceptions
- Oversee free look cancellation
- Reinstatement monitoring

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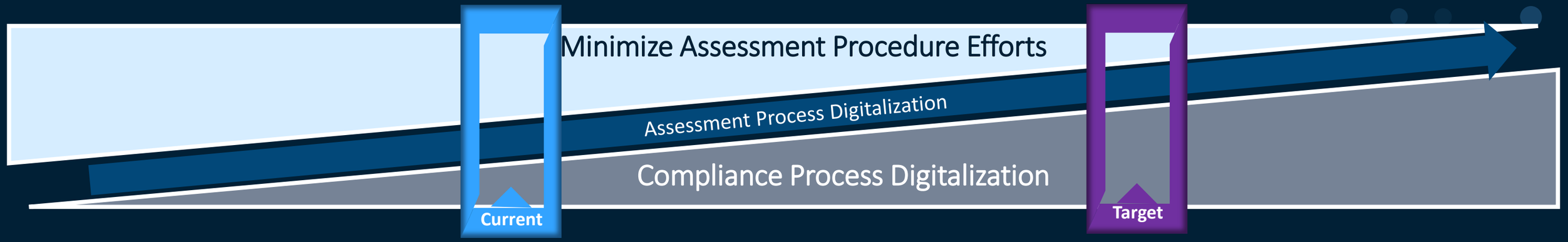
Assessment Digitalization in CCM



Control Data	Fully Digitalized and Integrated	Disintegrated System	Unstructured Text Data	Complex model-based approaches
HYBRID Analytical Techniques	- Rule Based Analytics	- Integrated Compliance Data Mart - Continuous Audit of 100% events	- Contextual Analytics - Natural Language Processing	- Image Analytics
Typical Audit Control	Continuous Product Compliance Review of the issued policies	Review the polices against the product parameters integrating multiple source data – Application, Policy, Nominee, Insured etc.,	Validate and Review the Delegation of Power or Email approvals	Validate the KYC and reports in image/video form.

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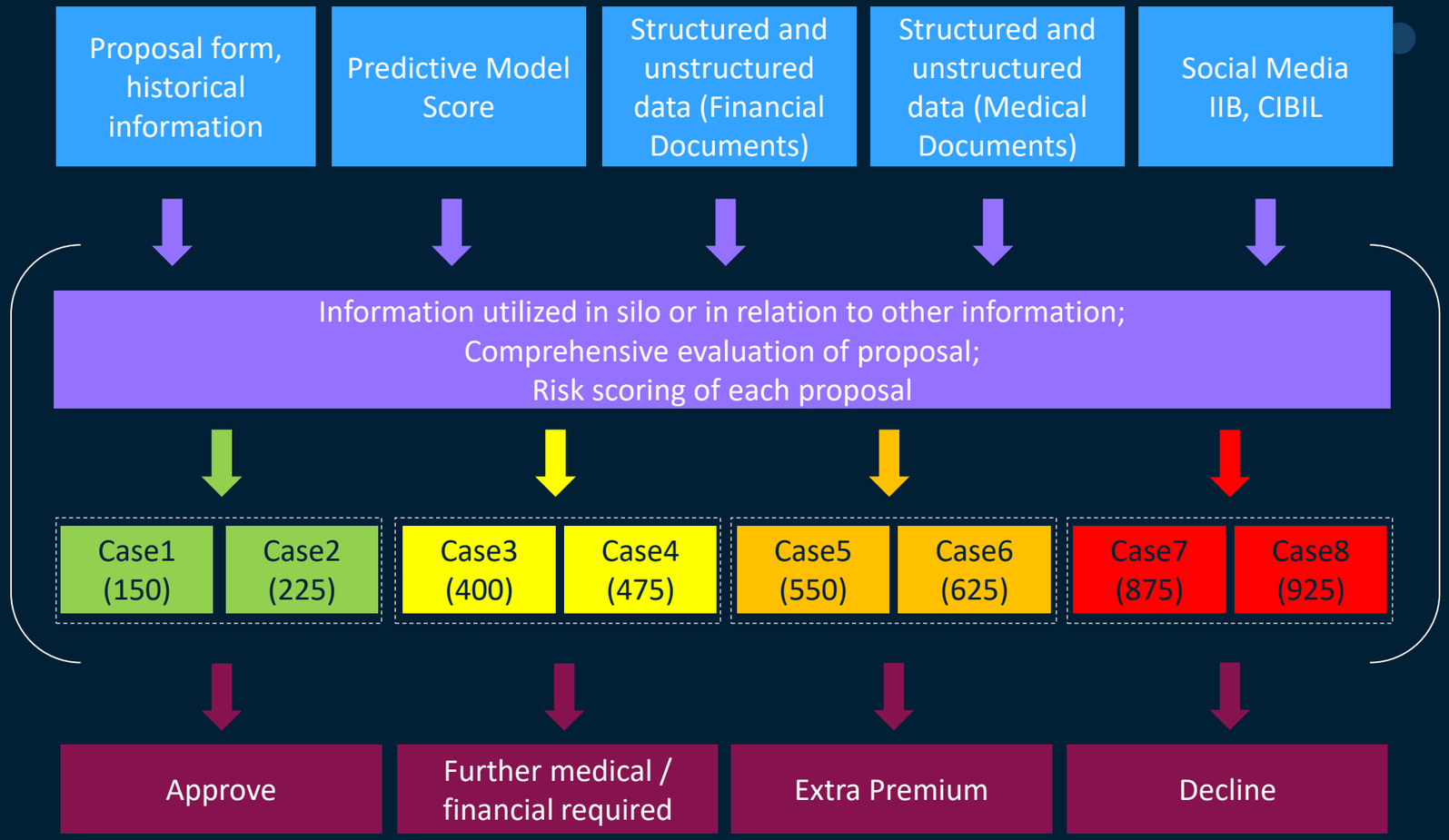
Life Insurance – Intelligent Underwriting

- Surveillance engine
- Alert and event management
- Transaction and Entity analysis
- Targeted investigations
- Search and discovery
- Case management



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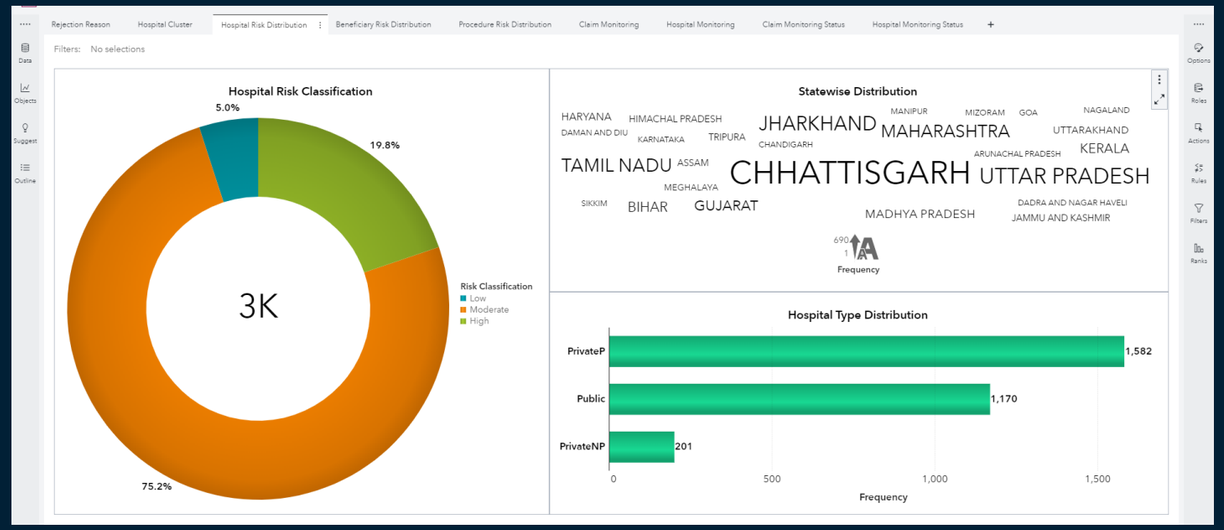
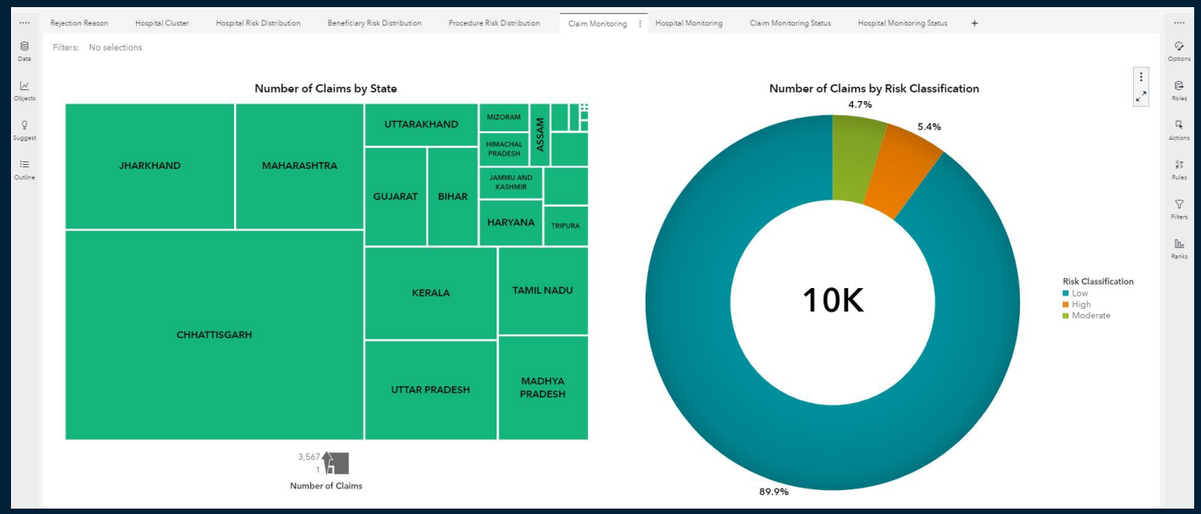
Senior Management | Policy Monitoring | Compliance Monitoring | Alert/ Case Manager | Rule Author | Predictive Analytics





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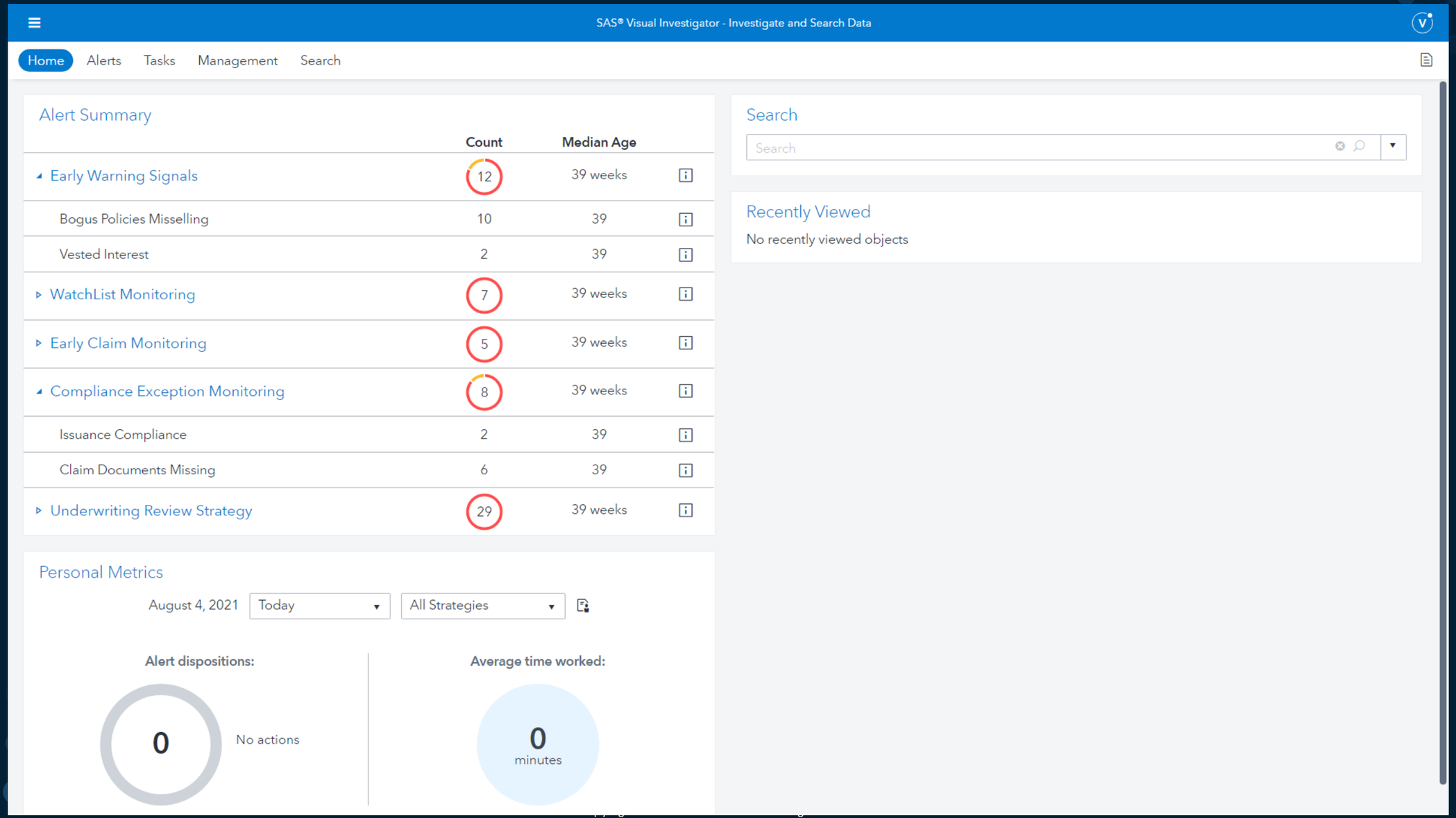

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SAS® Visual Investigator - Investigate and Search Data

Home | Alerts | Tasks | Management | Search

Fraud Monitoring | All Active Alerts | Assignment | Dispositions

Score	Actionable Entity Type	Actionable Entity Label	Queue	Actionable Entity ID
80	Agent_SP	Leelawati Kothari AG0013	Agent Activity Monitoring	AG0013
90	Policies	POL0030	Early claim fraud (90 days)	POL0030
90	Policies	POL0088	Early claim fraud (90 days)	POL0088
90	Policies	POL0039	Early claim fraud (90 days)	POL0039
90	Policies	POL0074	Proximity Claims (after 3 years)	POL0074
90	Policies	POL0086	Proximity Claims (after 3 years)	POL0086
95	Customer	Sabina Bobal	Customer Watch List Queue	CUST00022

1 - 9 of 9 | Page size: 100

Scorecard

Jul 14, 2020 3:21:55 AM — 80

Leelawati Kothari AG0013

Scenario	Value	Score
Mutiple/recycled Nominee ...	6	80

Alert Information

Alert ID:
1ec7fec5-4d01-4c46-8bcb-fa95c1d56f3a

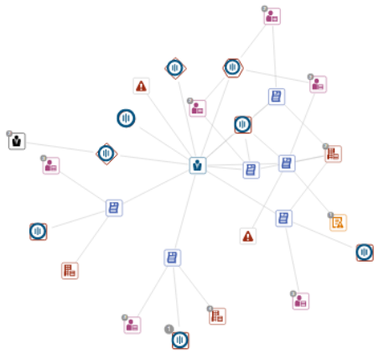
Actionable entity name:
Leelawati Kothari AG0013

Actionable entity type:
Agent_SP

Actionable entity ID:
AG0013

Score:
80

Network



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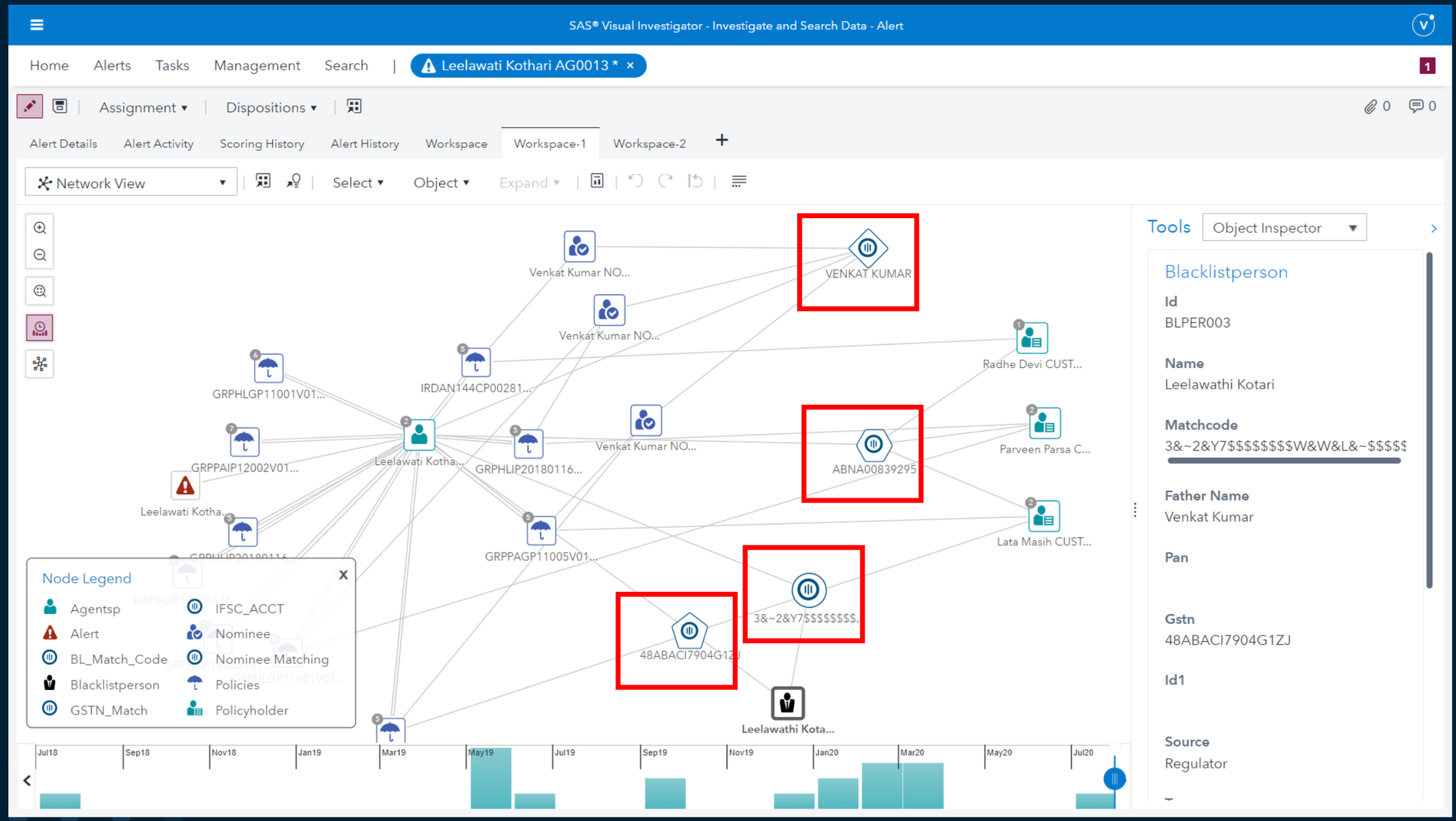

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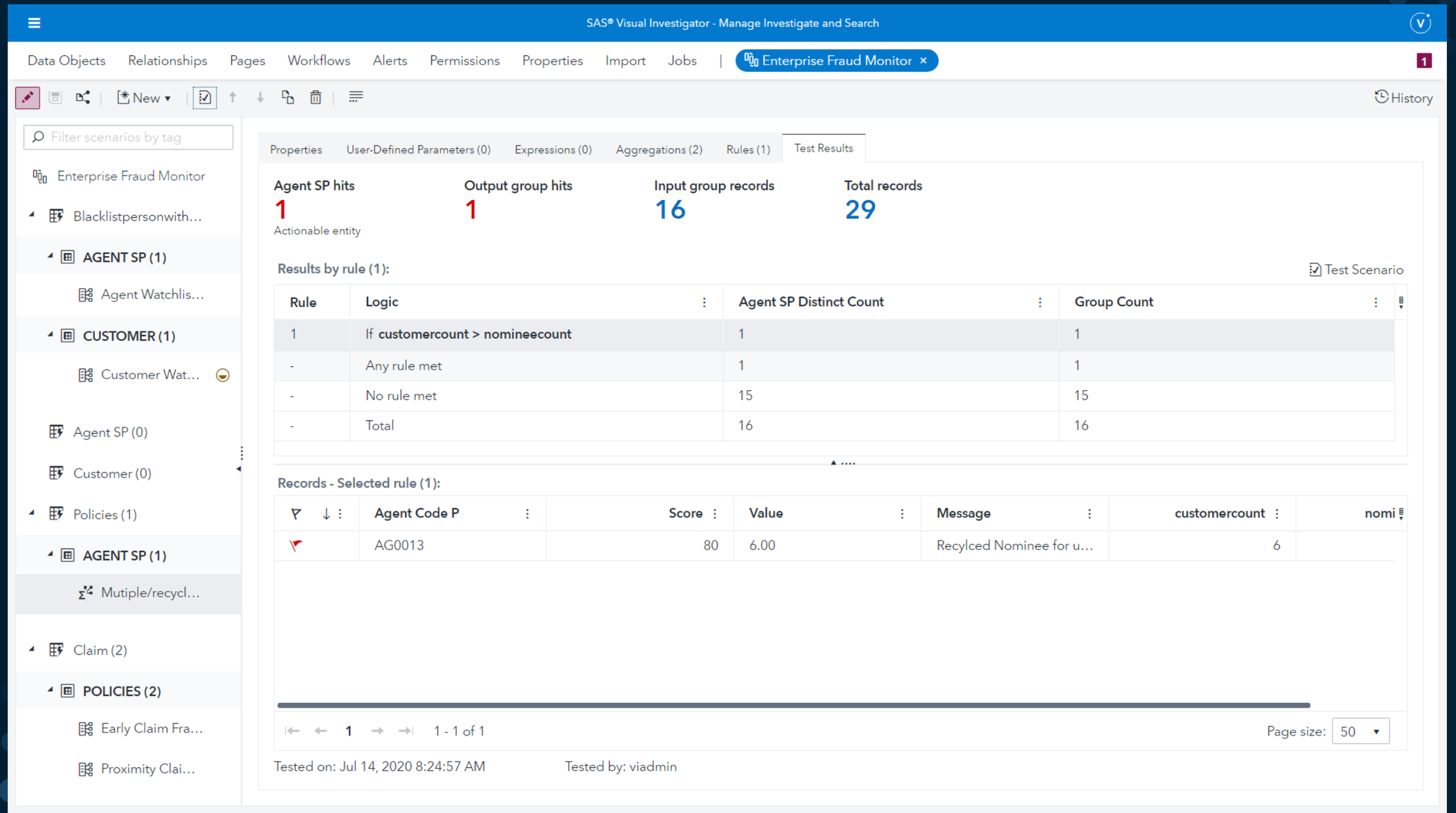

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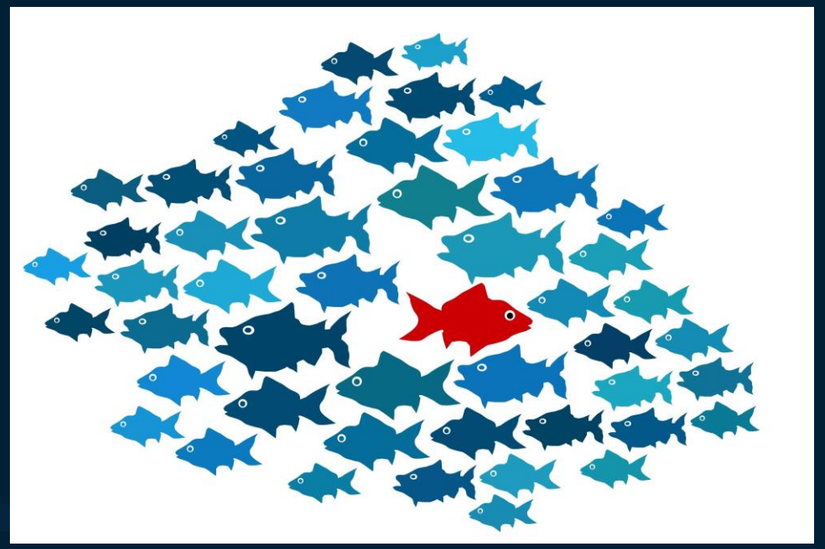
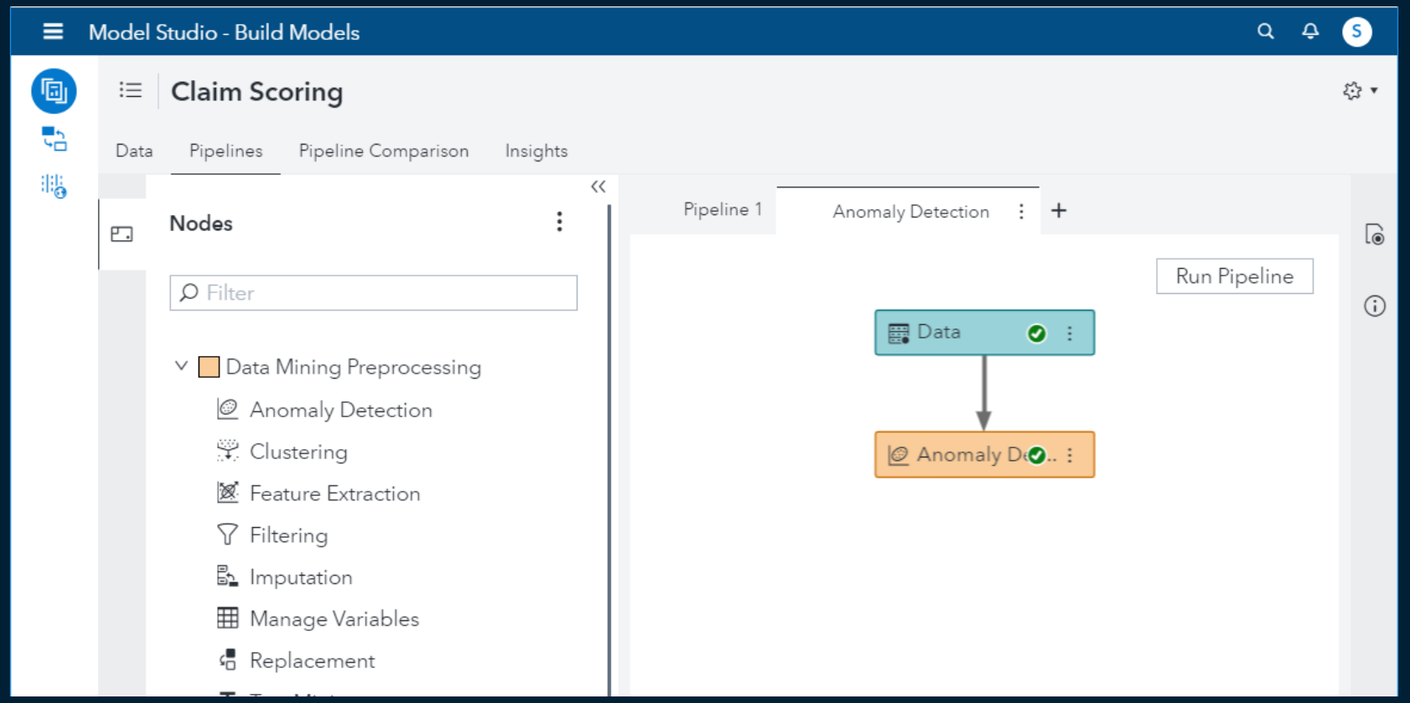
Known Pattern



Unknown Pattern



Examine current data to identify outliers and abnormal transactions that are somewhat different from ordinary transactions

Include univariate and multivariate outlier detection techniques, such as peer group comparison, clustering, trend analysis, and so on.

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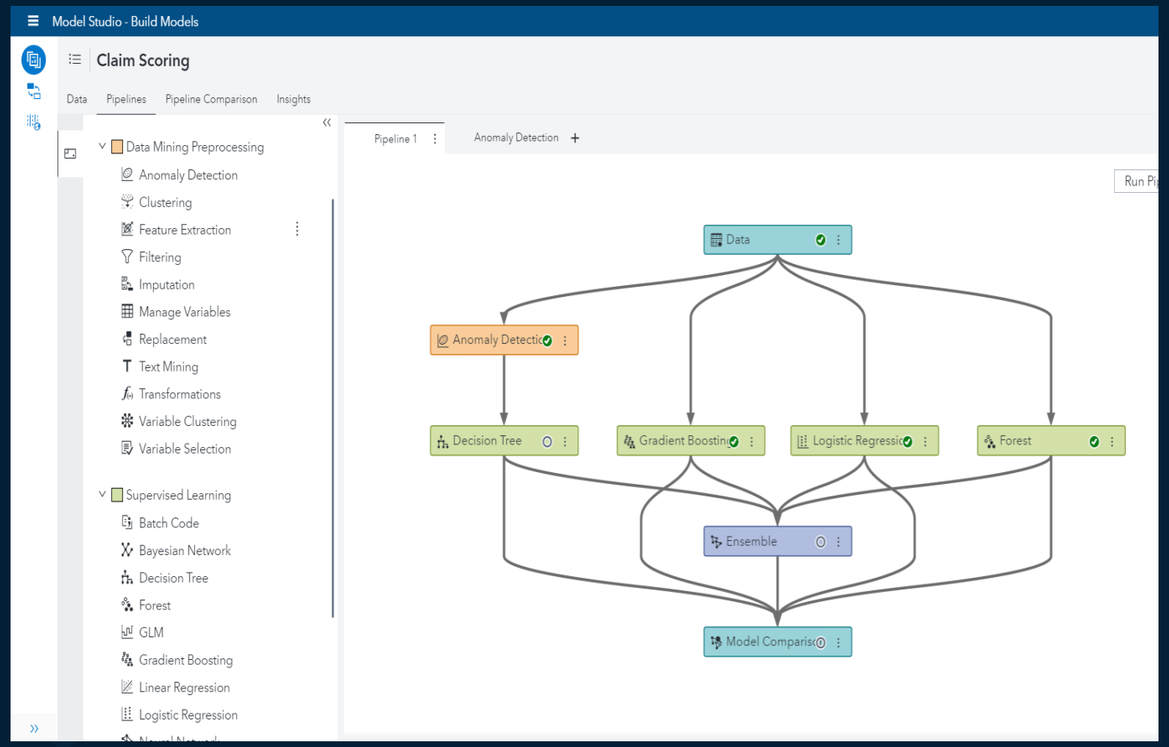
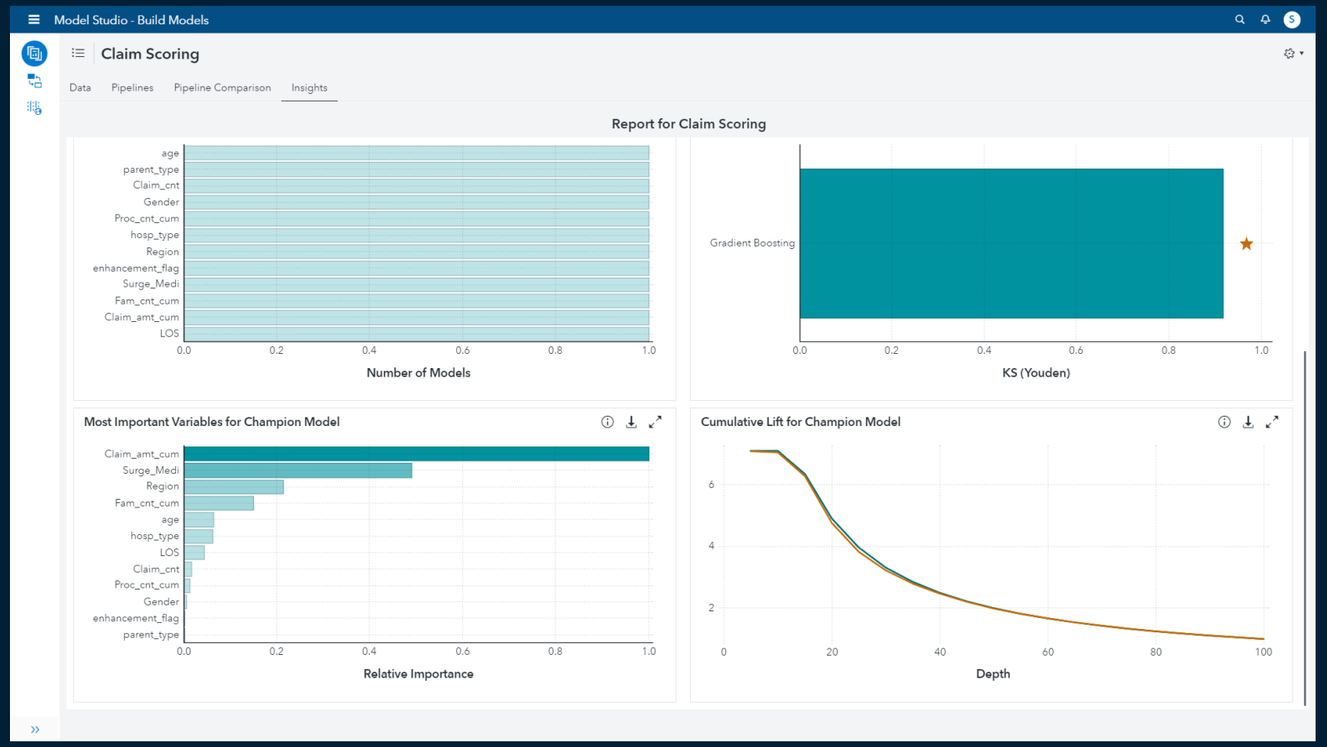
Predictive Modelling

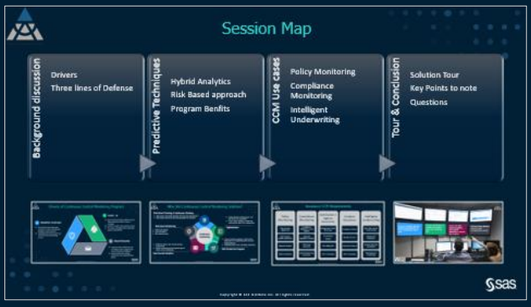




Use historical behavioural information of known event to identify suspicious behaviours similar to previous fraud patterns

Include multiple modelling techniques, such as regression analysis, generalized linear models, decision tree, neural networks etc.

Outcome of the Model support Risk Scoring of Claims, Policies, Agents, Hospitals to adjust the alert triggers based on risk ranking or score alerts based on risk ranking.



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Proactively **monitor and call policies in question** due to fraud/ misstatement before 3 years
Proactive identification of compliance exceptions rather IRDA identifying later.
Sustain with **self service Analytics with Hybrid Analytics** to minimize false positives
Cost and Time efficient
Remote reviews leveraging data centrally

Questions ?

To know more, contact us @

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What does SAS do?

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Analysts rank SAS as a leader in:

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REAL-TIME MARKETING

DATA INTEGRATION

DATA QUALITY

FRAUD DETECTION

RISK MANAGEMENT

STREAMING ANALYTICS

RETAIL ANALYTICS

TEXT ANALYTICS

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