

# Graph Adoption in Insurance

Sai D. Burra

Founder and Chief Innovation Officer

Abhay Solutions Inc

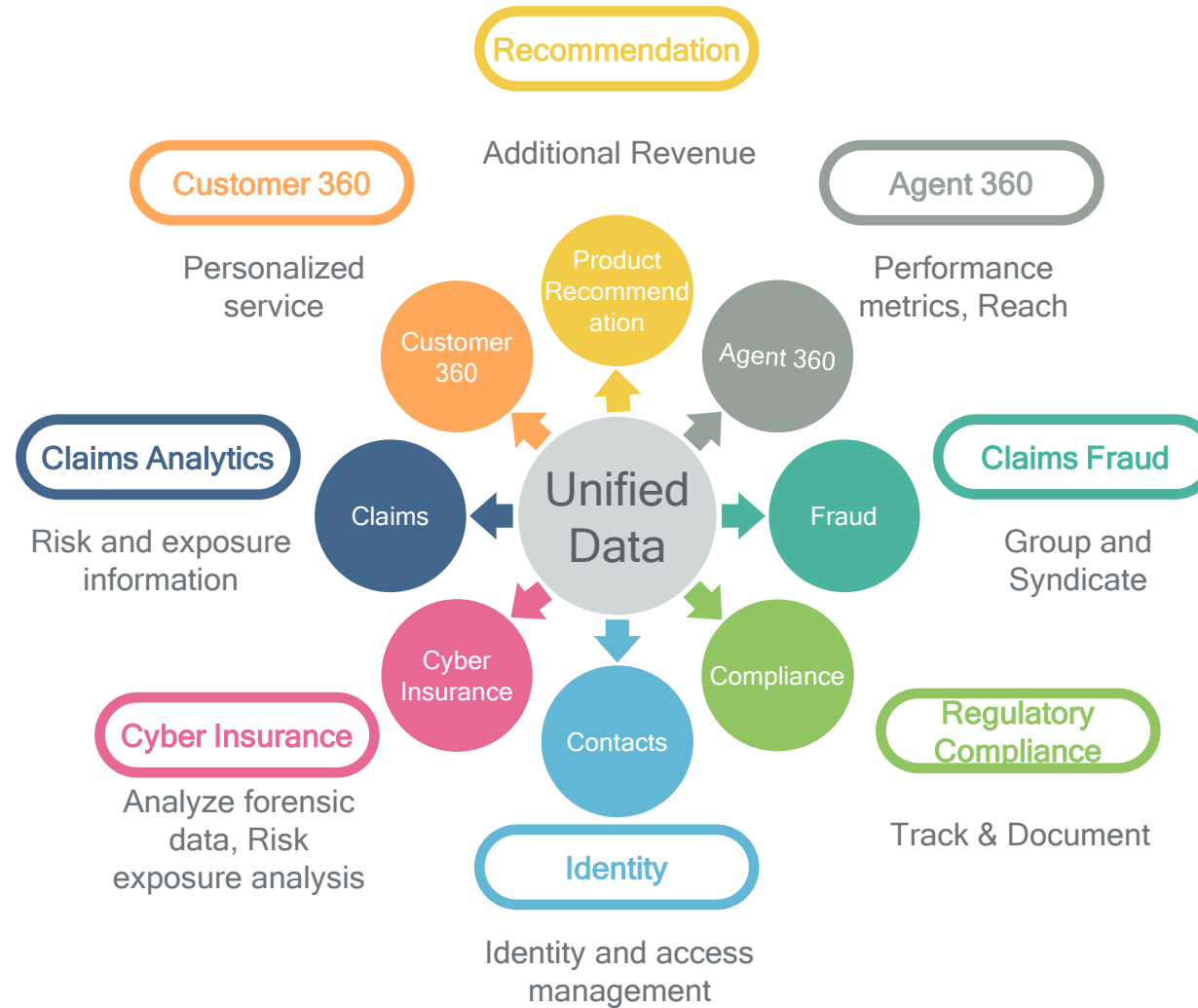
# Agenda

- Introduction
- Analytics in P&C Insurance and Challenges
- Graph & AI in Insurance
- How Graph and AI helps Insurance: Fraud Use case
- Demo
- Q & A

# Analytics in P&C Insurance and Challenges

- P&C Insurance Analytics
- Multiple LOBs and few dozens of external data integrations
- Analytics in Silos
- Data challenges
- Integration
- Unified View

# Applications portfolio



And so on.....

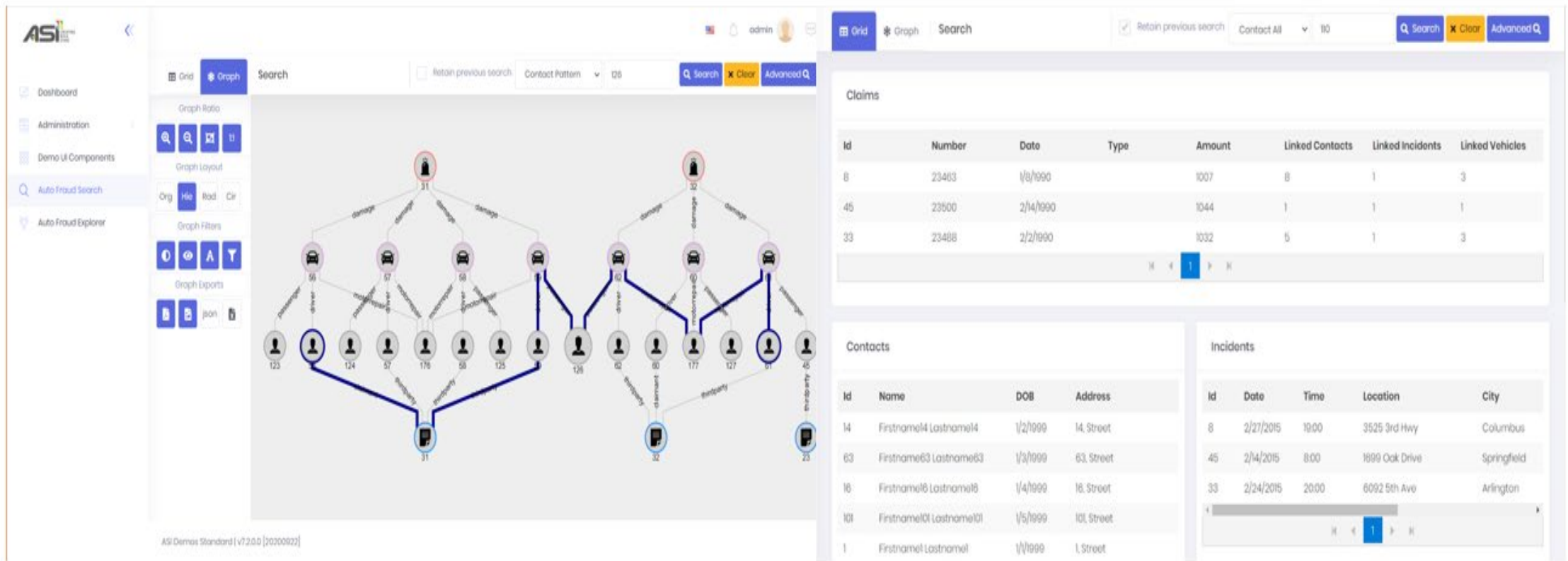
# Graph and AI in Insurance

- Graph enables disruptive thinking and leads to new insights
- Graph as data structure and Graph Learning
- More insights through Relationships and Deep link analysis
- Power to unify disparate data from various sources \*
- Power of Multi graph in analytics
- Explainable AI using Graph technologies
- Enabling business users to understand relationships better (Demo)

# Fraud analytics as use case

- Fraud detection
  - Enhance fraud detection
  - Identify Group fraud and fraud syndicates
- How Explainable AI helps Special Investigations Units (SIU)
- Enabling all business users to through Claims and their relationships.
- Demo

# Demonstrate Graph visual Vs Relational data



The screenshot displays the ASI software interface, comparing graph and relational data visualizations. The interface includes a sidebar with navigation options like Dashboard, Administration, and Demo UI Components. The main area is split into a graph view on the left and a list view on the right.

**Graph View (Left):** Shows a network graph with nodes representing entities and edges representing relationships. Nodes are labeled with IDs (e.g., 31, 32, 56, 57, 58, 123, 124, 57, 176, 58, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200). The graph shows a complex network of relationships between these entities.

**Claims Table (Top Right):**

Id	Number	Date	Type	Amount	Linked Contacts	Linked Incidents	Linked Vehicles
8	23483	1/8/1990		1007	8	1	3
45	23500	2/14/1990		1044	1	1	1
33	23488	2/2/1990		1032	5	1	3

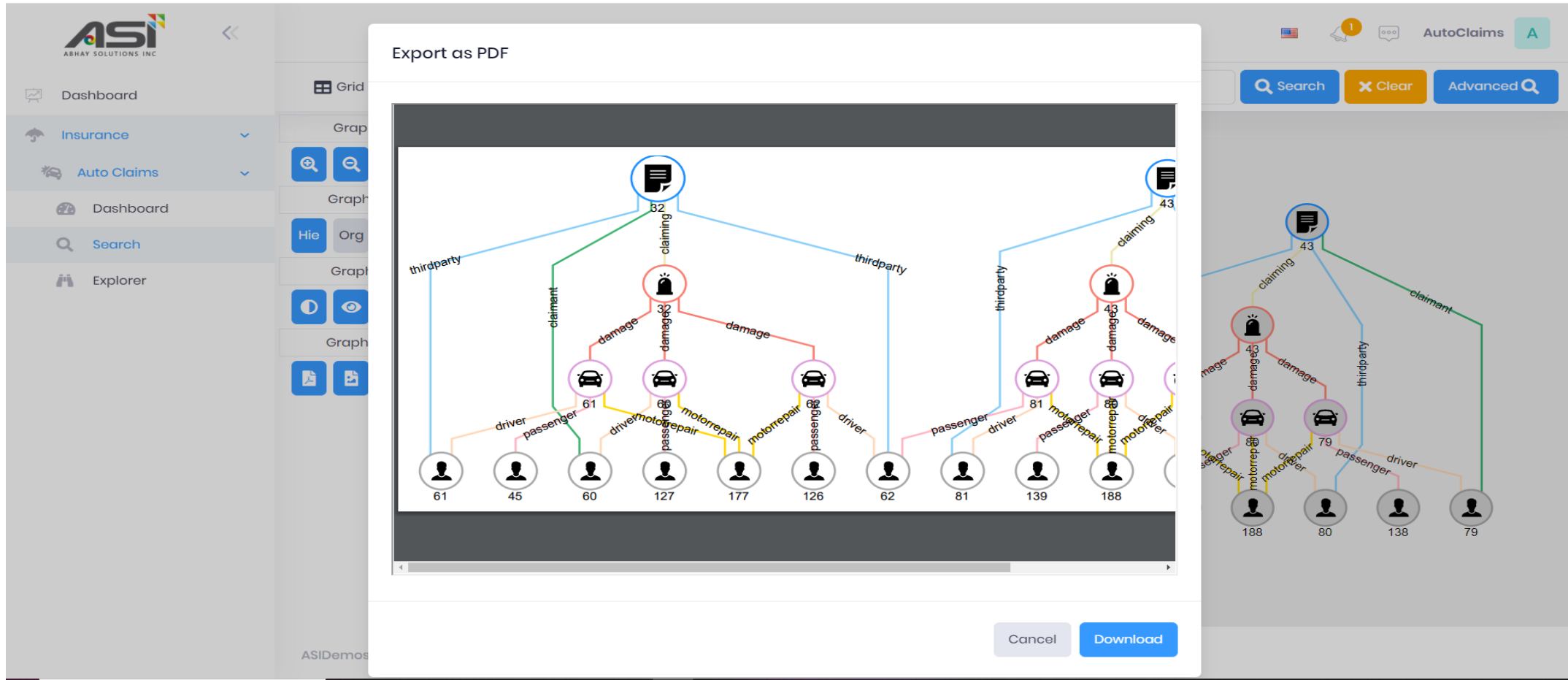
**Contacts Table (Bottom Left):**

Id	Name	DOB	Address
14	Firstname14 Lastname14	1/2/1999	14, Street
63	Firstname63 Lastname63	1/3/1999	63, Street
16	Firstname16 Lastname16	1/4/1999	16, Street
101	Firstname101 Lastname101	1/5/1999	101, Street
1	Firstname1 Lastname1	1/1/1999	1, Street

**Incidents Table (Bottom Right):**

Id	Date	Time	Location	City
8	2/27/2015	19:00	3525 3rd Hwy	Columbus
45	2/14/2015	8:00	1699 Oak Drive	Springfield
33	2/24/2015	20:00	6092 5th Ave	Arlington

# Document fraud: PDF Export to Document Evidence



The screenshot displays the ASI software interface. On the left is a navigation sidebar with options like 'Dashboard', 'Insurance', 'Auto Claims', and 'Explorer'. The main area shows a network diagram with nodes representing individuals (IDs: 61, 45, 60, 127, 177, 126, 62, 81, 139, 188) and relationships like 'driver', 'passenger', 'motorrepair', 'damage', 'claiming', and 'thirdparty'. A 'Export as PDF' dialog box is open in the center, showing a preview of the same network diagram. The dialog has 'Cancel' and 'Download' buttons. The background interface includes a search bar and a 'AutoClaims' header.

PDF Export of this view for presentations, documentation, demonstration or as part of evidence



# Q&A

- Name: Sai D. Burra
- Email id: [SaiBurra@AbhaySolutionsInc.com](mailto:SaiBurra@AbhaySolutionsInc.com)
- Phone: +1 630 853 2257
- Website: [www.AbhaySolutionsInc.com](http://www.AbhaySolutionsInc.com)