

Data Analytics in Insurance Industry

Challenges, Use cases and case study on how we modernized Data Analytics landscape of a major Insurer.



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Major Challenges for the Insurance Industry



Identifying Fraud

The percentage of Fraudulent activity is mounting every day. Regardless of the level of fraud, insurers are paying heavy costs for it.



Policy Pricing

Irregular trends in determining insurance pricing policies and inability to access risk factors is leading to bad policy pricing.



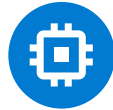
Claims Management

With more variables and data constantly coming into the play, claims processing is becoming more complex.



Risk Management

Failure to use appropriate risk metrics, Mismeasurement and no comprehensive risk assessment process in place are challenging.



Legacy Technologies

Relying on the siloed or legacy technologies turned out as a growth inhibitor for insurers.



Regulatory Changes






The unaddressed complexities between digitization and regulatory changes across the globe are posing a tough challenge.

How Analytics can help: Use Cases Across the Insurance Industry

Marketing	Sales	Pricing	Underwriting	Claims	Operations	Acturial
<ul style="list-style-type: none"> • Campaign design and tracking • Prospect analytics Campaign Effectiveness / ROI • Customer Segmentation and Targeting • Customer Acquisition, Churn and Retention • Cross-Selling or Up Selling 	<ul style="list-style-type: none"> • Channel spend optimization • Agent reward and compensation • Agent Productivity • Forward and Compensation Analytics 	<ul style="list-style-type: none"> • Pricing Loss • Modelling Pure Premium models • Price Optimization • Competitive Market Analytics 	<ul style="list-style-type: none"> • Fraud Analysis Automated Underwriting • Expense Allocation • Risk Analytics 	<ul style="list-style-type: none"> • Claims Propensity Modelling • Claim Fraud Detection • Automated adjuster alerts and triggers • Forward and Compensation Analytics • Expense Management • Reserve Analysis • Subrogation Effectiveness 	<ul style="list-style-type: none"> • Contact Center Analytics • Interactive Voice Response (IVR) Review • Call volume forecasting • Capacity planning • Staffing optimization 	<ul style="list-style-type: none"> • Price Optimization • Economic Modelling • Solvency II • Igloo Modelling • Prophet • Mathematical calculation • IBNR estimation 7 ultimate claims cost

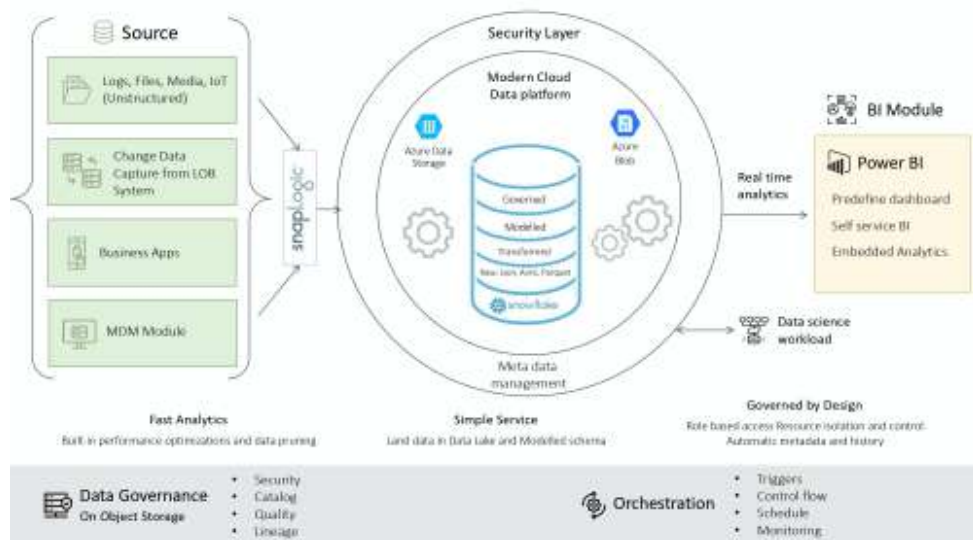
← Data Mining and Data Management | Reporting, Dashboarding and Visualization →
 Research, Contact Center Analytics | Model Development and Recalibration

Case Studies Summary at a Glance


Key Areas of Engagement	Solution	Industry
DW Modernization to Cloud	Provided Solution to help them modernize their existing Datawarehouse leveraging Snowflake DW platform. Also built Data Science workloads for the identified use cases to help them with end to end Business Analytics Layer.	 Insurance
End to End Data & Analytics Journey	Provided a BI and Analytics solution built on top of consolidated data from varied source Applications. Using a cloud-based reporting tool, senior executives were empowered to analyse data across all legal entities through Self-Service BI Capabilities and in near real time mode. All the users can now access the Canned Reports, Dashboards and Scorecards and can also receive them through scheduled notification emails.	 Energy & Utility
Analytics Modernization & Self-Service BI	Providing them the Enterprise Datawarehouse solution by consolidating Core banking data from 25+ source systems with Data Vault model. Also built the MDM module by defining the whole Data Governance process. Built Analytical Data Marts based on the use cases and providing Self-Service BI layer.	 Banking
Business Analytics Consulting & Development	Provided a centralized Datawarehouse and OLAP solution which consolidated and integrated data from multiple source systems, including a web application which would capture user input. This not only improved the performance of the existing reports but also gave the ability to perform Ad-Hoc analysis to the users.	 Retail
End to End Data & Analytics Journey	Built a consolidated cloud based BI and Analytics and reduced maintenance costs with Self service capabilities for ad-hoc analysis and improved user experience. Integration of data from varied data source types. Also provided a MDM solution which helped in creating consistent view of master data which rake in operational and customer support benefits and reduce cost overheads.	 Technology


CASE STUDY

Data and Analytics Landscape Transformation; Made Compatible for Data Science Workloads



 Industry
Insurance

 Years In Industry
30+ years

 No of Employee
700+

70%

Enterprise users enabled with Data-Insights.

30%

Reduction in Customer churn rate

2 Mn+

Saved with modernized framework

Challenges

- Lack of 'Single version of the truth' through Central Repository
- Time from Data to Insight is high, making business to lose on new opportunities
- Inability to ingest and integrate semi-structured and unstructured data
- Data Store management, maintenance of on-prem and multiple report requests are taking a lot of bandwidth from IT
- Lack of enriched data for data Science with no infrastructure

The Solution

As a technology partner of the customer, Technovert proposed and built 'Modern Data warehouse' solution framework consisting of 'Data Lake', 'MPP Columnar DW' and Self-Service BI Reporting layer. Also created the Staging area with enriched data and set up 'Data Bricks' for data science workloads.

Tech Stack



Our Data Analytics Capabilities

Go Further, faster with true end to end data integration and data analytics solutions



Data Integration



Modernizations /
Cloud Data Services



BI Dashboard



AI/ML Offerings



DBA Support Services

Solutions / Frameworks

- Data Validation Framework
- Cloud Migration Framework
- Self - Service BI Framework
- Healthcare and Telecom Analytics Solutions
- Usage and Operations Analytics

Technology Partners



Tech Stack



TECHNOVERT

Discuss With Our
DATA ANALYTICS
EXPERT



Get help on leveraging your vast amounts of data to derive actionable insights.

Contact Us Now