WHITE PAPER

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Augmenting Decision Support for Underwriting and Claims

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Reducing dependency on subjective analysis through superior data management, predictive analytics, and automation.

Introduction

The effectiveness of an underwriters and claims adjusters depends on their ability to execute in-depth analysis, accurate forecasting, and sound judgment. The execution of judgment or decision making is the last of a series of critical steps that exposes the capital of an insurance company. Both claims and underwriting are essential business processes undergoing transformation by leveraging enabling technologies that support not only each process step but also the entire breadth of the value chain. Interestingly, we can compartmentalize the primary claims and underwriting lifecycles into two secondary business process threads – analysis and decision making. With a simplified function, we can reduce the outcome for both transactions as:

$$D = SA/OA * TDV$$

where, D represents an underwriter or claims adjuster's final **Decision**, which is the product of the company guidelines or **Objective Analysis** (OA), modified by the individual's **Subjective Analysis** (SA) multiplied by **Transaction Data Valuation** (dollar value of claim settlement or premium dollar amount). We can view the function in its entirety as the "Decision Process."

Enabling Decision Support Services

The precursor to carrying out analysis is the collection, ingestion, and processing of data into a structured format. That step allows for an efficient review of the claim/risk profile and sets the stage for proceeding to the decision-making process. Advances in automation, coupled with artificial intelligence, have made the extraction, transformation, and presentation of **both Objective and Subjective Data** not only more efficient but have also affected the entire value chain of both transactions – claim adjudication and risk pricing.

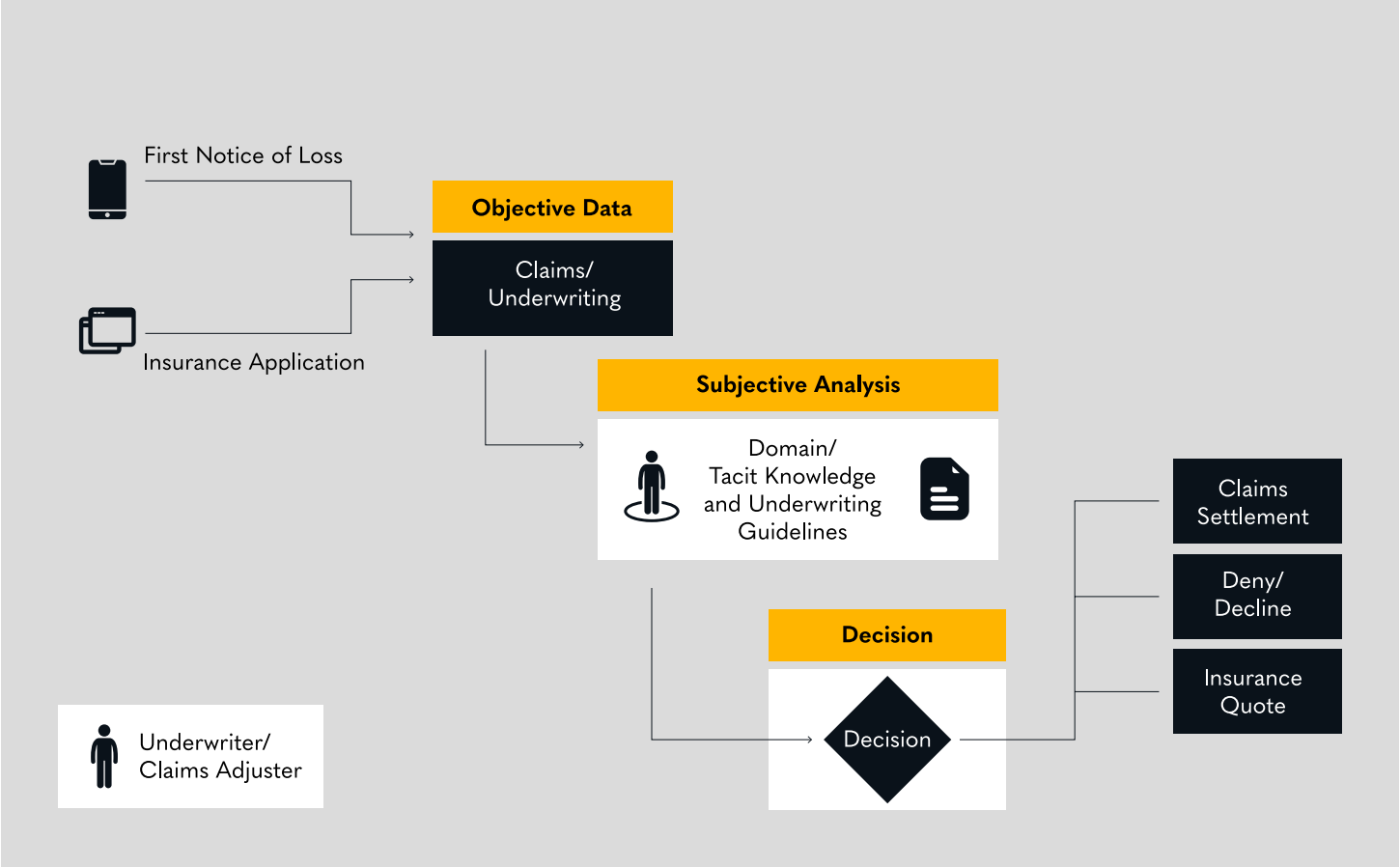
The decision support function of claims/underwriting has drawn the most significant investment from insurtech as the industry attempts to create efficiencies with automation supported by artificial intelligence and machine learning. **Decision Support Services** represent the convergence of predictive algorithms and automation technology to promote the value of historical data and limit the bias of human subjectivity. Advances in that convergence will help insurance organizations tap the unlimited potential of **Decision Support Services**.

The necessity of creating efficiencies through decision support in either process requires a convergence of primary (objective) data with third-party external data to elaborate the breadth of potential factors within the data set. That process provides a more significant extension of the possible correlations among predictable factors and refines the accuracy of the final judgment. Traditionally, leveraging domain/tacit knowledge, the predictive model now leverages a refined historical reference with proxy data and related metrics.

The Value of Predictive Modeling

The following bilateral illustrations support the 'data to decision' value chain, as rationalized for the claims and underwriting lifecycles:

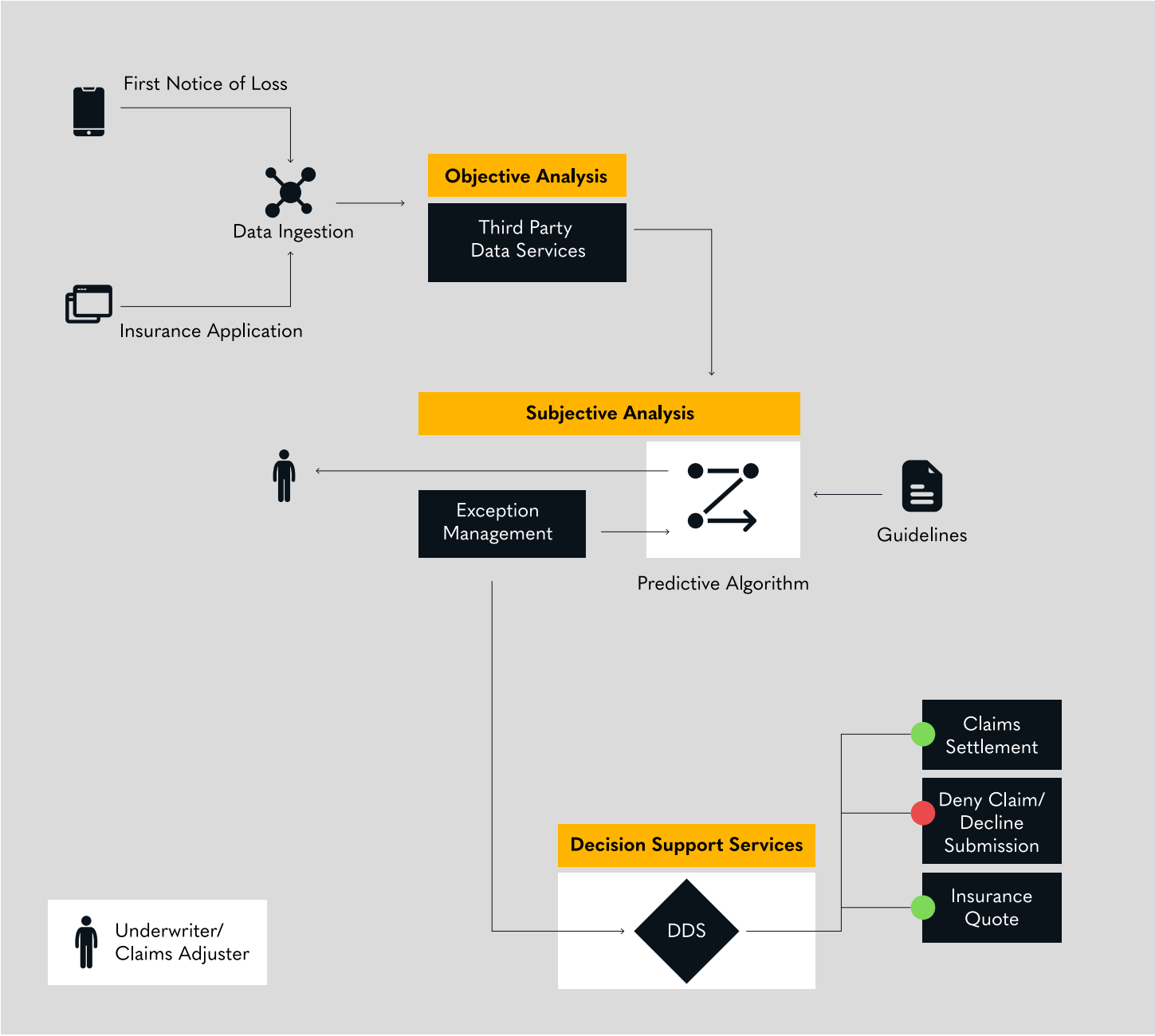
Current Implementation



The unique human factor of **Subjective Analysis** influences the outcomes and therefore creates unintended variability of decisions and inconsistency with target guidelines for claim settlements and underwriting pricing. Limiting or mitigating that variability requires the use of predictive algorithms.

Modeling algorithms further stabilize results across groups of line of business (LOB)-specific claims adjusters and underwriters. Migrating from a human-centric subjective analysis format, given the limitations cited above, would be recommended to neutralize the risks associated with human predisposition.

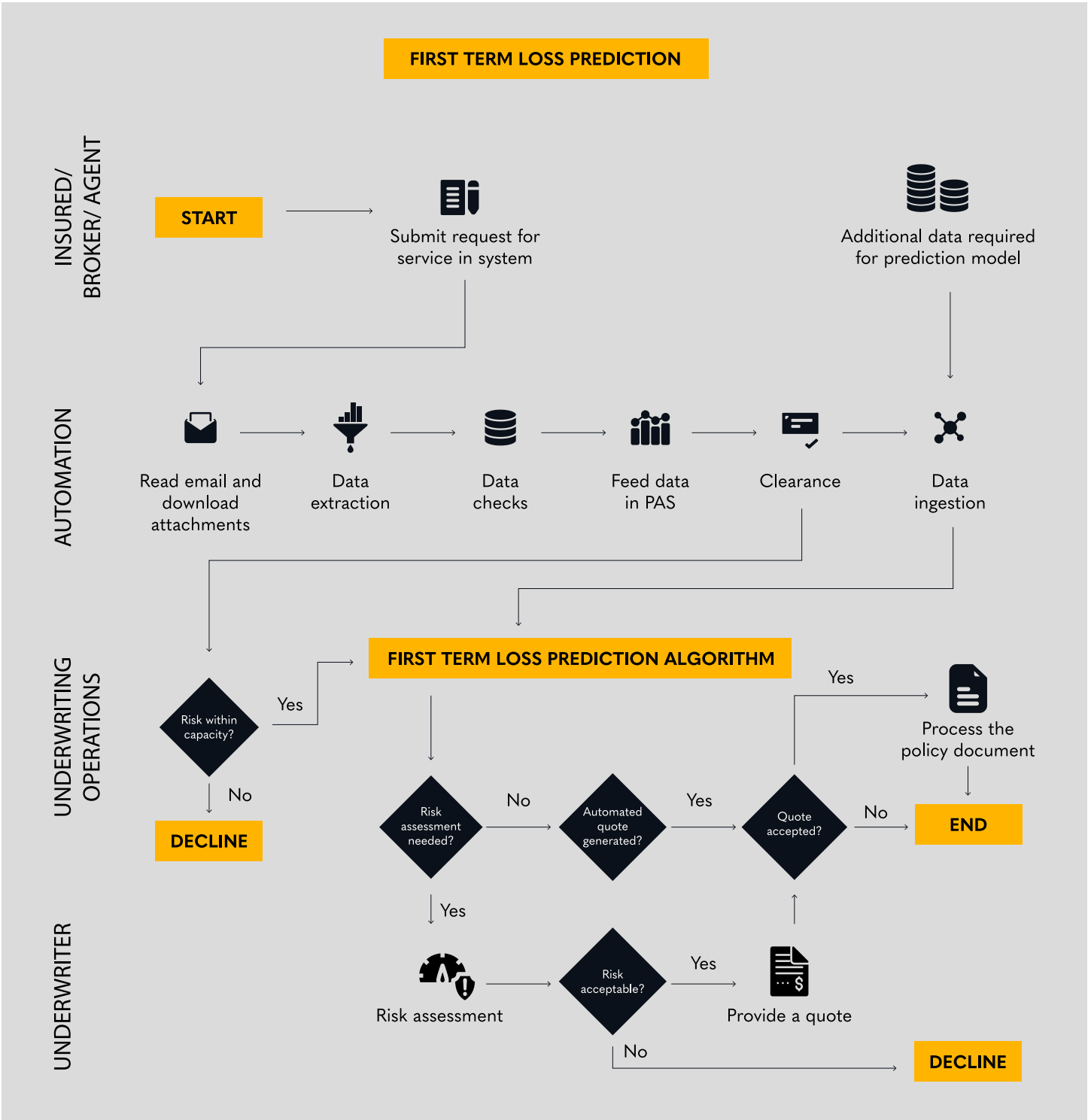
Target Implementation



The technology enabling decision support leverages its value as a packaged solution where the sum is greater than the parts . For example, where complexity is low, and decisions are highly objective, implementation of automation and machine learning technologies is appropriate.

However, where complexity is high, and the historical perspective is paramount, predictive algorithms enabling decision support will provide the most significant value.

Take, for example, the following scenario where a loss prediction algorithm is utilized by an insurance carrier to enable insights into expected losses for a new submission:



Going forward, artificial intelligence will augment human decision making. However, there will be a need for monitoring Decision Support Services to ensure synchronization with strategic business objectives. CXOs must implement solutions that enable Decision Support Services for both underwriting and claims – the two primary transaction processes that control inflow/ outflow of capital. Solving critical industry challenges will necessitate that a broader perspective of technology implementations be introduced in scope and application to impact all intended business outcomes positively.

About the Author

Michael Parcelli is responsible for building innovative solutions for Xceedance clients. He has held senior roles with an international brokerage, an MGU, and as a specialty and standard lines property/casualty underwriter. As a seasoned insurance expert with 35 years of experience, Michael applies a technology-centric consulting approach to business problems, driving profitable growth and operational excellence for insurance organizations. His underwriting knowledge, coupled with in-depth technical understanding of automation, enables Michael to provide holistic and future-ready solutions across the insurance lifecycle.

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