



FULCRUM
TAKING CONTROL
OF YOUR LEGACY
TRANSFORMATION
JOURNEY

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EXECUTIVE SUMMARY

Across the insurance industry, legacy infrastructure has impeded companies' ability to address broad customer, digital, cost, consolidation and regulatory trends. To the extent it has been contemplated, migrating from these outdated systems has proved challenging and expensive.

To address these challenges, Oliver Wyman has developed Fulcrum, a proprietary platform that radically transforms the way insurers think about legacy systems. Fulcrum reconstructs legacy data for ready access and validates product and processing logic.

Specifically, Fulcrum:

- Creates a step-change in your ability to access **data and insights** across legacy systems
- Enables comprehensive **compliance** assessment and remediation
- Accelerates **legacy migrations** and **optimizes transformation spend**
- Increases **speed-to-market** for new products through legacy transformation

Fulcrum's success is driven by Oliver Wyman's ability to bring together deep product expertise and leading-edge technology capabilities to unpack legacy data, enable the validation of product features and the recreation of processing logic. Fulcrum leverages a modular, scalable design allowing for rapid implementation across a wide range of client products (e.g., whole life, universal life, variable annuities).

Today, Fulcrum has demonstrated successful application across multiple use cases for leading Life and Retirement companies. For interested clients, the practical first step is to engage with the Fulcrum team to understand the platform. We work with our clients to develop a low-risk, time-boxed Proof of Concept (POC), centered around clients' most critical challenges, to demonstrate Fulcrum's capabilities. Successful POCs tend to naturally extend toward long-term partnerships where we support our clients on their legacy transformation journey.

**"FULCRUM VERY QUICKLY PROVIDES
TRANSPARENCY AROUND DATA
AND PROCESSING LOGIC ON
LEGACY PLATFORMS."**

Randy Epright, Executive Vice President and
Chief Information Officer,
Athene Holding Ltd.

CONTEXT

For insurers, the pace of change has been slow due to challenges associated with legacy transformation. Consequently, the insurance industry continues to be characterized by slow speed to market, low ability to experiment with disruptive technology and difficulty in establishing effective partnerships with non-traditional, digital native firms.

Technology and operations account for a significant and growing portion of the industry's cost structure and leading institutions are focused on optimizing value from their investment dollars. However, legacy platforms—which in some instances are based on a plethora of 50-60-year-old systems—have real limitations and impose a significant complexity tax. Migrating from legacy technology continues to be challenging, driven by attrition of key SMEs, loss of system knowledge and limited documentation, particularly on acquired blocks of policies.

More broadly, the Financial Services industry has been making significant investments in legacy transformations. For example, the leading universal banks have spent the last 10-20 years trying to optimize across product types (e.g., securities and derivatives) and business silos (e.g., fixed income and equities in investment banking) by deploying service-oriented architectures and then combining with other business units (e.g., private banking and asset management) to create group shared services or centers of excellence. However a significant part of the insurance industry still lags leading players in terms of making strategic investments and transforming legacy infrastructure. These transformation programs can be complex, risky and expensive, making them one of the most challenging endeavors. But, if done right, they can also be one of the most rewarding.

Oliver Wyman has been working with insurance clients to solve these issues and help them think holistically about legacy transformation. We have leveraged our deep industry expertise and leading digital capabilities to develop Fulcrum, a proprietary platform that addresses legacy challenges, reduces transformation risk, accelerates timelines and streamlines costs.

This paper outlines how Fulcrum can support large scale transformation for an organization's technology infrastructure. We highlight the latest tools and techniques available and how our proprietary platform can support organizations to achieve what has been impossible – until now.

FULCRUM OVERVIEW

Fulcrum is a revolutionary platform that takes a product-centric approach to unpacking legacy data, to enable the recreation and validation of product and processing logic. Fulcrum leverages a modular, scalable design allowing for rapid implementation and validation across a wide range of client products.

Fulcrum's success is based on the following capabilities:

- **Differentiated:** Built upon Oliver Wyman's deep insurance and technology expertise
- **Scalable:** Initially focused on PAS migrations; evolved into a scalable platform to address multiple products and use cases
- **Proven:** Implemented across multiple carriers, with numerous repeat clients / projects
- **Global:** Active discussions to address legacy challenges globally
- **Modern:** Built on advanced technologies, including Python, SQL and Machine Learning algorithms

Fulcrum was purpose-built to support legacy transformation. Over time, Fulcrum has been successfully leveraged for a broad range of use cases across multiple products. These include data transformation, in-force compliance, legacy migration, new product testing and vendor assessment (as detailed in Exhibit 1 below).

Exhibit 1: Fulcrum Use Cases



Data Transformation

Accelerated development of standardized data layers (SDL), across legacy systems and products, to support analytics, visualization and servicing



In-force Compliance

Ensure in-force compliance – at the policy / product level – by validating prospectus / contract logic relative to legacy platform implementation



Legacy Migration

Accelerate and de-risk migration by providing product and data transparency for legacy platforms; eliminates need for investigating legacy code



New Product Testing

Increased efficiency and effectiveness of new product testing process, supported by intelligent test case design and regular automated validations






Vendor Assessment

Detailed assessment and alignment of migration strategy, sequencing and risks to support vendor diligence and to de-risk migration execution

Fulcrum has demonstrated impressive success in the Life and Retirement businesses by enabling the migration from legacy systems from COBOL / Assembler mainframes to today's modern systems within a fraction of the time and with exponentially lower risk relative to traditional approaches. The case studies detailed in Exhibit 2 illustrate Fulcrum's capabilities for migration and in-force compliance use cases.

Exhibit 2: Case Studies for Policy Migrations and In-force Compliance

POLICIES PREPARED FOR MIGRATION		IN-FORCE COMPLIANCE		
 <p>Challenge</p>	<p>Oliver Wyman worked with a large annuity manufacturer to migrate legacy policy data to a new PAS platform</p> <p>Client challenges related to legacy:</p> <ul style="list-style-type: none"> Limited product documentation and IT support Lack of understanding on inter-related data, product logic and system issues 	<p>Oliver Wyman worked with a large life and annuity insurer to conduct an in-force prospectus compliance review and validation</p> <p>Client product testing challenges:</p> <ul style="list-style-type: none"> Client was unsure about delivering new products in a legacy environment Manual prospectus validation with limited capabilities 		
 <p>Solution</p>	<p>Deployed Fulcrum platform leveraging Oliver Wyman product expertise and transformation capabilities to accelerate and de-risk migration</p> <p>Product centric approach eliminated the need for re-engineering business and product logic</p> <p>Leveraged a strong suite of proprietary tools (e.g., smart search, configuration and validation engine)</p>	<p>Fulcrum configured to client's legacy PAS and processed sample policies</p> <p>Oliver Wyman identified 100% of policies that did not comply with prospectus and avoided false positives/negatives</p> <p>Detailed error diagnostics helped the client to accelerate creation of remediation plans</p>		
 <p>Benefits</p>	<p>~200k policies migrated</p>	<p>~400 plan codes</p>	<p>~1,100 tables of data</p> <p>16 weeks to provide data and product transparency</p>	<p>13 processing issues identified in legacy PAS</p> <p>100% of compliance issues and policies identified</p>

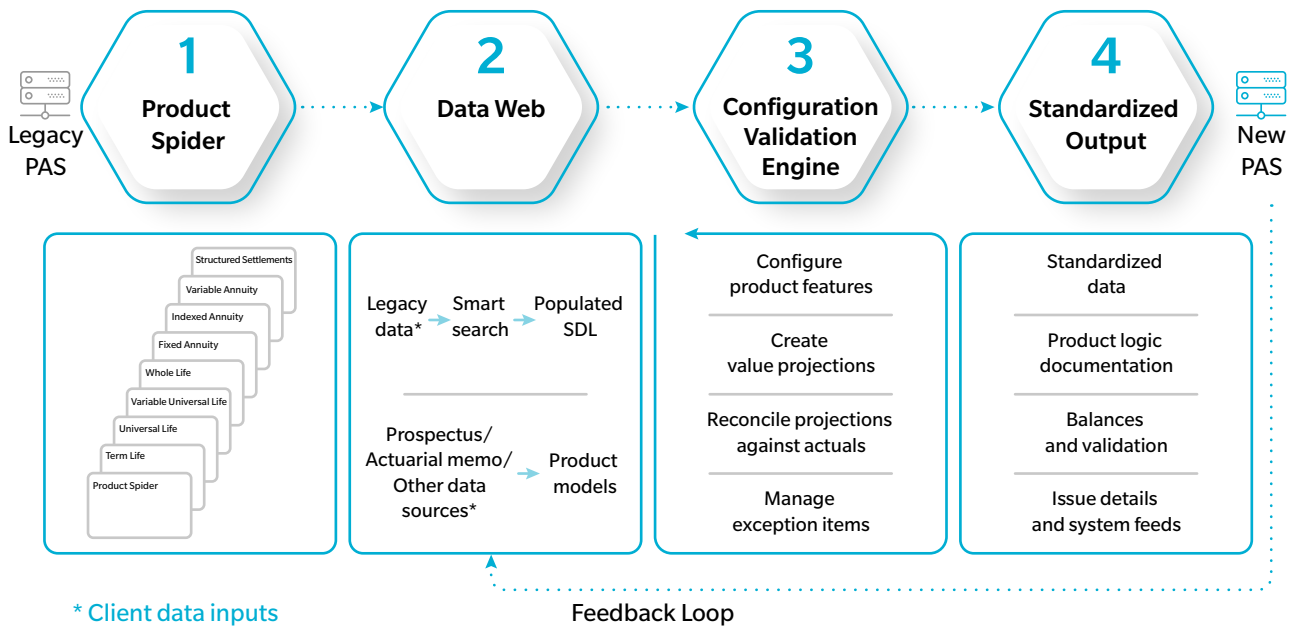
Fulcrum leverages a radically different approach to resolving the legacy transformation challenge. Fulcrum has four key components as described below (highlighted in Exhibit 3).

These include:

- 1. Product Spider:** Product Spider is a library of Oliver Wyman proprietary product chassis for life and annuity products and enables a targeted approach to obtaining core data elements from overly complex legacy databases including legacy COBOL / Assembler systems
- 2. Data Web:** We leverage proprietary smart search algorithms to search and source the critical fields required to define the product and develop a standard data layer (SDL), which provides a clean set of data to drive downstream activities. This approach vastly reduces the time and effort required for data transformation
- 3. CAVE (Configuration and Validation Engine):** Instead of reverse engineering legacy systems, we leverage CAVE to configure product features and processing logic to project key values over time that are compared to legacy system values in order to identify and resolve any issues relating to legacy coding errors. CAVE is modular and has a flexible design where modules can be easily configured and customized for the most complex products, client needs, remediation parameters and migration requirements. CAVE enables end to end data and product logic validation, error capture and remediation to enable accelerated migration/validation efforts

4. Standardized output: The Fulcrum platform produces standardized output that can be used to migrate to a new system or to perform product testing or compliance. The output includes the standardized data layer, product configuration logic documentation, a list of validated policies and associated legacy system errors. Finally, Fulcrum validates the new policy admin implementation to ensure a successful migration. Oliver Wyman is in discussions with many of the future state policy administration systems providers on how to seamlessly link Fulcrum results to our clients' chosen future state systems.

Exhibit 3: Fulcrum components



PRACTICAL NEXT STEPS

For insurance companies, in a prolonged low interest rate environment, there isn't a do-nothing option. Insurers need to start to pursue the path followed by the universal banks and consider building and optimizing technology across multiple product lines (such as life, retirement and group) and across business units (Life and P&C).

Fulcrum represents advanced new technology and a dramatically different way of thinking about legacy transformation. Fulcrum has been proven in multiple client scenarios to enable migration for life and annuity systems, as well as to facilitate in-force compliance and new product testing initiatives to deliver high impact results.

ENGAGING WITH OLIVER WYMAN

Clients looking to leverage Fulcrum typically start out with a Proof of Concept (POC). The POC is a low-risk, timeboxed exercise, centered around clients' most critical challenges. Conveniently, Fulcrum requires minimal client interaction and does not necessitate onsite presence. The Fulcrum platform is supported by robust visualization and error identification capabilities.

Fulcrum has been operationalized across multiple Life and Retirement companies, who can provide vocal testimonial to the value it brings to their legacy transformation journey. Through Fulcrum and our industry expertise, Oliver Wyman is proud to be supporting clients in reinventing their legacy technology paradigm and in enhancing their digital, operational, fiscal and market capabilities.

To learn more about Fulcrum, please visit: www.oliverwyman.com/fulcrum

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Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

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