

# Milliman IFRS 17 solution: MG-ALFA and Integrate roadmap



Charlie Linn, FSA, MAAA  
Amritpal S. Khangura, FIA

Milliman is developing an end-to-end IFRS 17 solution. Here we present our product roadmap, including enhancements to our market-leading MG-ALFA calculation engine and Integrate capabilities to support IFRS 17.

## BACKGROUND

IFRS 17 is the new International Accounting Standards Board (IASB) standard for insurance contract reporting. The expected implementation date is 1 January 2021. The calculations to support insurance contract financial reporting will change drastically.

## Solution overview

An Integrate-based software-as-a-service solution offers companies an end-to-end IFRS workflow that is industrialized, fully automated, auditable, and version controlled, with access to virtually unlimited and secure resources.

Underpinning the end-to-end solution is an MG-ALFA® IFRS 17 calculation engine. This derives all necessary components of the IFRS balance sheet for each of the three measurement approaches, including re-measurement/release of CSM over time, as well the on-going management of CSM for onerous and profitable contracts.

Figure 1 illustrates the end-to-end Integrate™ solution for IFRS 17.

## Component overview

Our IFRS 17 solution is based on a number of MG-ALFA and Integrate components, including:

- Nested stochastic projections
- Cyclical results files
- Granular economic scenario data
- Data storage and processing management
- End-to-end workflow management

A key part of the IFRS 17 solution is the MG-ALFA calculation engine. This MG-ALFA model calculates the best estimate net present value (BENPV), risk adjustment and contract service margin (CSM) values. This is included as part of the MG-ALFA maintenance fee.

In addition to the MG-ALFA IFRS 17 valuation system, an Integrate solution is available to orchestrate the end-to-end IFRS 17 valuation process. This is available at an additional fee.

Optional Integrate capabilities include the ability to feed the IFRS 17 calculation engine with information from MG-ALFA or other third-party actuarial projection systems.

Figure 2 summarizes the Milliman Life Technology Solutions roadmap for MG-ALFA and Integrate to support IFRS 17.

FIGURE 1: END-TO-END INTEGRATE SOLUTION

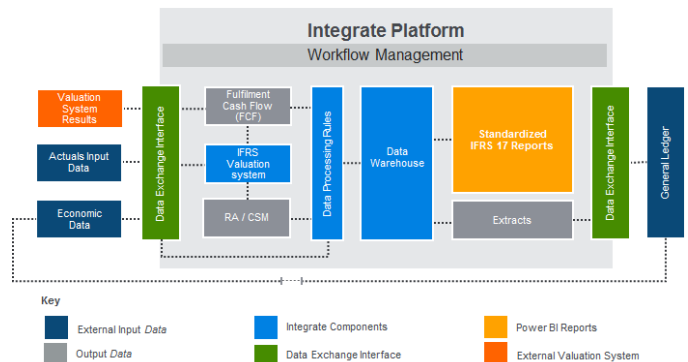


FIGURE 2: MG-ALFA AND INTEGRATE IFRS 17 SOLUTION ROADMAP

| ITEM | DESCRIPTION  | IFRS 17 USE CASE  | TARGET DATE              |
|------|--|---|--------------------------|
| 1    | MG-ALFA cyclical output-as-input data                                    | Foundation functionality to summarize IFRS 17 current valuation date cash flow by policy group.<br>Through configuration, IFRS 17 cash flows can be at the policy group or policy level.  | Completed<br>30 Sep 2016 |
| 2    | MG-ALFA granular IFRS 17 cash-flow calculations at the model point level | No specific development required; each company will have its view with respect to IFRS 17 cash-flow definition for its business.<br><br>Note: Core MG-ALFA formula database provides the functionality for companies to implement this business logic.  | Not applicable           |
| 3    | More granular economic scenario data                                     | IFRS 17 discounting is expected to be based upon a spot yield curve or forward yield curve. This feature allows the IFRS 17 discount rates to be explicit MG-ALFA input.  | 31 Dec 2017              |
| 4    | MG-ALFA nested stochastic projection type                                | This provides the foundation to produce robust IFRS 17 balance sheet and income statement projections.<br><br>The outer loop scenarios are typically the business plan (base case, optimistic and pessimistic). The inner loop scenarios may be single-scenario deterministic or market-consistent stochastic. An inner loop ESG file is required for each projected valuation date. Initially, inner loops will be generated on the fly using the AAA generator or can be sourced externally.<br><br>A future enhancement may support other economic scenario generators that are currently supported in MG-ALFA UDFs, such as Milliman real-world and/or Milliman risk-neutral generator.   | 31 Dec 2017              |
| 5    | MG-ALFA IFRS 17 line of business   | A new MG-ALFA line of business is added to the US standard formula database.<br><br>This line of business calculates the IFRS 17 BENPV, RA and CSM based upon input that includes the following: <ul style="list-style-type: none"> <li>▪ Prior valuation date cyclical output-as-input data. This is sourced using the item (1) functionality described above.</li> <li>▪ Current valuation date cyclical output-as-input data. This is sourced using a combination of items (1) and (2) functionality described above.</li> <li>▪ Current valuation data model point file at the policy group level. This is sourced outside of MG-ALFA.</li> </ul> The overarching principle is that for business subject to stochastic valuation, the BENPV input is average net present value (i.e., discounting is done outside of the line of business). | 31 Dec 2017              |
| 6    | Integrate IFRS 17 solution   | This is an IFRS 17 configuration using the Milliman Integrate platform: a cloud based SaaS end-to-end valuation with proper governance and controls.<br><br>The current valuation date IFRS 17 cash-flow input is generic and can be sourced from a variety of calculation engines. The current and prior valuation results are stored in an SQL Azure data warehouse. Valuation reports are drilldown-interactive using Microsoft Power BI embedded technology. Valuation extract output is available for downstream processing such as general ledger posting.  | 30 June 2018             |



Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

[milliman.com/IFRS](http://milliman.com/IFRS)

[integrate-solutions.com](http://integrate-solutions.com)

**FOR FURTHER INFORMATION, CONTACT:**

Charlie Linn  
[charlie.linn@milliman.com](mailto:charlie.linn@milliman.com)

Amritpal S. Khangura, FIA  
[amritpal.khangura@milliman.com](mailto:amritpal.khangura@milliman.com)