Milliman is enhancing its valuation software offerings to support the FASB standard "Targeted Improvements to the Accounting for Long-Duration Contracts" (FASB Targeted Improvements). Here we present our product road map for MG-ALFA®.

BACKGROUND

The Financial Accounting Standards Board (FASB) is issuing changes to existing GAAP accounting methods for life insurance. The expected implementation date is January 1, 2022. The calculations to support insurance contract financial reporting will change significantly, especially for traditional guaranteed life and health insurance products.

Solution overview

The MG-ALFA solution offers GAAP calculations under legacy methods (e.g., FAS 60, FAS 91, FAS 97, FAS 120) and is being enhanced to address the FASB Targeted Improvements requirements for all long-term life, annuity, and health products.

Although GAAP calculations have been supported in MG-ALFA for many years, in 2017 we initiated an overhaul of the GAAP processing, in anticipation of FASB Targeted Improvements. The first step was to enhance the legacy FAS 60 calculations to provide greater transparency and auditability within the standard actuarial logic visible to users.

The second step involved enhancements to our cohort-level processing, previously available to support legacy FAS 97 and FAS 120 calculations. The functionality released in June 2018 provides a more intuitive and transparent approach, including a stepwise process. This process starts with seriatim projections that are used to generate policy-level values, such as deferral amounts, amortization basis amounts (e.g., estimated gross profits or estimated gross margins), Statement of Position (SOP) 03-1 benefit and assessment amounts, and FAS 133 host contract and embedded derivative amounts. These results, along with historical values, feed a cohort-level process to calculate items requiring unlocking of assumptions and cohort-level amortization calculations.

For the FASB Targeted Improvements, this cohort processing structure continues to manage the calculations for legacy FAS 97 products as they did before. For the deferred acquisition cost (DAC) asset, straight-line amortization is used and there is no interest discount. In addition, the cohort structure also supports the calculations of DAC and benefit and expense reserves for traditional life and health products and immediate annuities. Reserve calculations are performed using original and current discount rates.

Because legacy FAS 97 products have historically used cohort processing, it will be a smooth transition to the new methodology. Therefore, we have incorporated support for FASB Targeted Improvements for products currently governed by FAS 97, for time-zero valuation, directly in the U.S. standard actuarial logic in the September 2018 release of MG-ALFA.

Support for time-zero valuation for legacy traditional life products using targeted GAAP improvement calculations was made available as a beta release in October 2018. In that release, the calculation of DAC and benefit reserves, using both original and current discount rates, was supported. This allows users to test the new functionality and provide feedback prior to the official release later in 2019.

Support for deferred profit liability (DPL) for traditional life was added in an update to the beta release in January 2019. Support was also added in the January 2019 release for DAC, benefit reserves using both original and current discount rates, deferred profit liability, immediate annuity and health/disability income (DI), and long-term care (LTC) products.

Additional functionality was added in an update to the beta release in June 2019. This functionality included time-zero income statement and balance sheet reflecting LDTI calculations, additional disclosure items related to transition, and the ability to lock-in the reserve net premium ratio.
We are also developing enhanced support for projected GAAP DAC and reserves, including the effects of unlocking, in order to produce projected GAAP income statements and balance sheets. We expect this functionality to be available in the third quarter of 2019.

**Road map**

Figure 1 summarizes the Milliman road map for MG-ALFA to support legacy and new GAAP valuation processing.

**FIGURE 1: MG-ALFA GAAP VALUATION SOLUTION ROADMAP**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
<th>TARGET DATE</th>
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<tbody>
<tr>
<td>1</td>
<td>Implementation of FAS 60 Traditional Life calculations in standard database</td>
<td>Mimics existing code embedded in the calculation engine Greater transparency Better auditability</td>
<td>Completed January 2018 (v11.0)</td>
</tr>
<tr>
<td>2</td>
<td>Initial support for legacy FAS 97 cohort line of business (LOB) in standard database</td>
<td>Seriatim staging runs for legacy FAS 97 calculations of estimated gross profits (EGPs) and SOP 03-1 Output from seriatim staging runs used as input to cohort run Cohort history data passed in tab-delimited text files Time-zero valuation cohort run reading cohort history and seriatim run output to perform FAS 97 amortization Cohort-level time-zero valuation calculations include DAC asset, SOP 03-1 reserve, sales inducement asset/liability, unearned revenue reserve</td>
<td>Completed June 2018 (v11.1)</td>
</tr>
<tr>
<td>3</td>
<td>Enhanced support for FAS 97 cohort LOB in standard database</td>
<td>Additional seriatim staging run for FAS 133 Host and value of embedded derivative (VED) Enable option to indicate legacy versus targeted GAAP improvement methods (could vary by projection key) If targeted GAAP improvements method is selected, DAC and other amortizations will be done on a straight-line basis, with no interest discount</td>
<td>Completed September 2018 (v11.2)</td>
</tr>
<tr>
<td>4</td>
<td>Initial beta release of FAS 60 cohort-level time-zero reserve/DAC calculations</td>
<td>Available to clients interested in testing Traditional life product support Benefit and expense reserves Commission and expense DAC Seriatim staging run to project benefits, commissions, expenses, and premiums Tab-delimited text file for historical benefits, commissions, expenses, and premiums Cohort runs to calculate commission and expense DAC, as well as net premium reserves using original and current discount rates DAC amortization based on straight-line method Calculation of separate change-in-reserve components between profit/loss and other comprehensive income Support for transition options Read-in existing values and project forward under new methodology Recalculate from issue under new methodology</td>
<td>Completed October 2018 (LDTI Beta 1.0)</td>
</tr>
<tr>
<td>5</td>
<td>Implementation of FAS 60 Health/DI calculations in standard database</td>
<td>Mimics existing code embedded in the calculation engine Greater transparency Better auditability Similar to Traditional Life implementation in v11.0</td>
<td>Completed January 2019 (v11.3)</td>
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| 6    | Revised beta release of FAS 60 cohort-level time-zero reserve/DAC/DPL calculations | Enhancements to initial beta release  
- Immediate annuity product support  
- Health/DI/LTC product support  
- Deferred profit liability support for all limited-payment legacy FAS 60 products | Completed January 2019 (LDTI Beta 2.0) |
| 7    | Revised beta release of FAS 60 cohort-level time-zero reserve/DAC/DPL calculations | Further enhancements to beta release  
- Time-zero income statement and balance sheet  
- Disclosure items related to adjustments in reserve and DPL at transition  
- Ability to lock-in reserve net premium ratio until assumptions are unlocked | Completed June 2019 (LDTI Beta 3.0) |
| 8    | New options for handling of market risk benefits | Build upon existing variable annuity guaranteed minimum benefits (GMxB) logic to support a seriatim staging run using stochastic valuation techniques, similar to existing FAS 133 logic  
Results can then be passed through to the cohort-level run using cyclical results reports | September 2019 |
| 9    | GAAP Projections | Leveraging the new cohort valuation processing and MG-ALFA’s new nested projections functionality  
Run projected valuations at future points to produce projected GAAP income statements and balance sheets  
Support for future unlocking | September 2019 |
| 10   | Reporting | Roll-forward reporting for DAC, benefit reserves, and DPL  
Additional disclosure reporting | Q4 2019 |