Milliman Mind IFRS 17

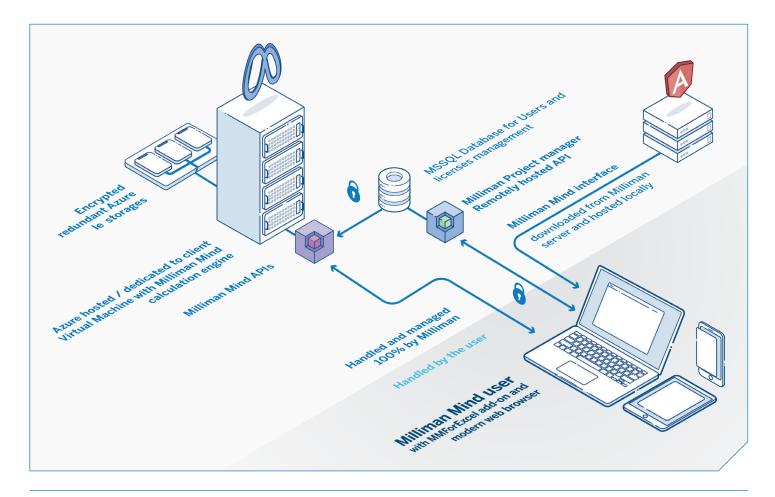![Milliman logo]

Milliman Mind

C# Platform in Microsoft Azure Cloud

- Each client has its own Virtual Machine (VM). Client projects do not share VMs (single tenant)
- Milliman Mind is secured by a specialized Milliman team based in Seattle
- Milliman Mind is a test-driven Scrum app, meaning regular updates are applied on behalf of the tenant by Milliman teams, who ensure the update tests fully
- The solution requires no installation by the client, and regular security/functional updates ensure it always meets users' needs
- The platform is fully managed by Milliman

Encrypted redundant Azure le storages

Azure hosted / dedicated to client Virtual Machine with Milliman Mind calculation engine

Milliman Mind APIs

MSSQL Database for Users and licenses management

Milliman Project manager Remotely hosted API

Milliman Mind interface downloaded from Milliman server and hosted locally

Handled and managed 100% by Milliman

Handled by the user

Milliman Mind user with MMForExcel add-on and modern web browser

IFRS 17 calculation and posting model in Milliman Mind

Designed in 2019

- Includes lessons learned during two years of IFRS 17 implementation in Europe
- Adoption of clever solutions

Focus on Analysis of Movement steps

- Standardisation of step calculations
- Optionality in order of the steps
- Accounting events triggered by:
  - Delta with previous step
  - Step type

Maximal transparency and auditability

- Detailed, step-by-step, variable-by-variable analysis of movement
- Full Excel shadow model replicating the model for one group of contracts at the time

Tailored during implementation

Local Milliman office support
- Mapping of available input files
- Review calculation logic with client
- Mapping to Chart of Accounts
- Post-implementation support

Analysis of movement steps: backbone of the model design

- Portfolio
- Group of Contracts
- Reporting Periods
- AOM Steps
- Discount rates
- Variables

The steps are defined to achieve maximum standardisation:
1. Previous step present values
2. Current step present values
3. Accounting events on delta present values

		Discount rates		
		Curve type		AOCI
		Locked	Current	Delta AOCI
	Liabilities - BOP	-814,74	-812,93	-1,82
	Premiums	9269,92	9339,95	-70,03
	Acquisition costs amortisation	-97,14	-97,57	0,44
	Claims	-8074,85	-8142,51	67,66
	Expenses	-807,49	-814,25	6,77
	NDIC	0,00	0,00	0,00
	Profit sharing	0,00	0,00	0,00
	Risk adjustment	524,29	527,31	-3,03
Interest accretion *(Vars)*	Premiums	-83,63	-83,40	-0,24
	Acquisition costs amortisation	0,78	0,78	0,00
	Claims	73,57	73,43	0,15
	Expenses	7,36	7,34	0,01
	NDIC	0,00	0,00	0,00
	Profit sharing	0,00	0,00	0,00
	Risk adjustment	-4,29	-4,27	-0,02
Experience	Premiums	-8353,56	-8423,35	69,79
	Acquisition costs amortisation	77,92	78,35	-0,43
	Claims	7348,42	7415,94	-67,52
	Expenses	734,84	741,59	-6,75
	NDIC	0,00	0,00	0,00
	Profit sharing	0,00	0,00	0,00
	Risk adjustment	-428,58	-431,59	3,01
Change non economic assumptions	Premiums	-8353,56	-8423,35	69,79
	Acquisition costs amortisation	77,92	78,35	-0,43
	Claims	7348,42	7415,94	-67,52
	Expenses	734,84	741,59	-6,75
	NDIC	0,00	0,00	0,00
	Profit sharing	0,00	0,00	0,00
	Risk adjustment	-428,58	-431,59	3,01

Analysis of movement steps

Implementation components

Mind+
(annual licence)

- Mind+: annual fee for cloud environment and maintenance support
- CPU usage and memory scalable at additional cost
- Optional API to launch Mind+ from your own platform

MM IFRS 17 model
(one-off cost)

Single purchase price for a standard IFRS 17 model that entails:
1. General Measurement Method
2. Variable Fee Approach
3. Premium Allocation Approach
4. Reinsurance

Implementation
(time & material basis)

- Implementation by local Milliman office
- Full tailoring of the open-source model to your situation

Post-implementation support

- The Milliman consultants involved at implementation remain closely available for support
- Mind licence can be used for other actuarial models as well (e.g., to upgrade current Excel models to C#)

Milliman

Global reach, local expertise

Independent for over 70 years, Milliman delivers market-leading services and solutions to clients worldwide.

Why Milliman?

- A recognized leader in developing solutions for financial industries
- Over 70 software products for financial industries
- Combine global expertise and market-leading technical skills with local market presence, leveraging our in-depth knowledge of the regulations and markets in which we operate
- Deep expertise in providing advanced predictive analytics and machine learning solutions for the insurance industry
- Advise over 80% of the world's leading insurers, working with 44 of the top 50 insurers globally

Contact us

For more information, please contact
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Winner of InsuranceERM Awards

Milliman Mind was named Best end-user computing risk management solution at InsuranceERM Awards 2018/2019 and Stress scenarios software of the year for 2020.

The judges were impressed with Milliman Mind's innovative approach, and the way it blends the ease of use of Excel, with the governance, security and audit trails..

InsuranceERM
Awards
2018/19
Winner

Best end-user
computing risk
management solution

InsuranceERM
Awards
2020
Winner

Stress scenarios
software of the year

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