



Integration Patterns and Practices

InvestGlass is a white-labeled, client and prospect management platform for bankers, wealth managers and advisors

Welcome!

1. Introduction
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3. Integration
4. Investment Proposal Templates and on-boarding Tools
5. Security and Encryption

1. Introduction

This document outlines the design and functionalities of InvestGlass -- the leading robot-advisor solution in the financial industry.

We recommend setting up the platform as described below.

Step 1 - Mandatory

- Set up of the platform as per your corporate guidelines
You can choose to customize (or not) the overall look & feel, the on-boarding form, and all investment templates
- Create of your employees' profiles
- Bulk import of your clients' data
- Create of your compliance lists, investment strategies and pre-defined tags
- Download a batch with all custodian data

Step 2 - Highly desirable

- Set up a discretionary mandate profiler routine
- Add research documents to relevant securities

Step 3 - On demand

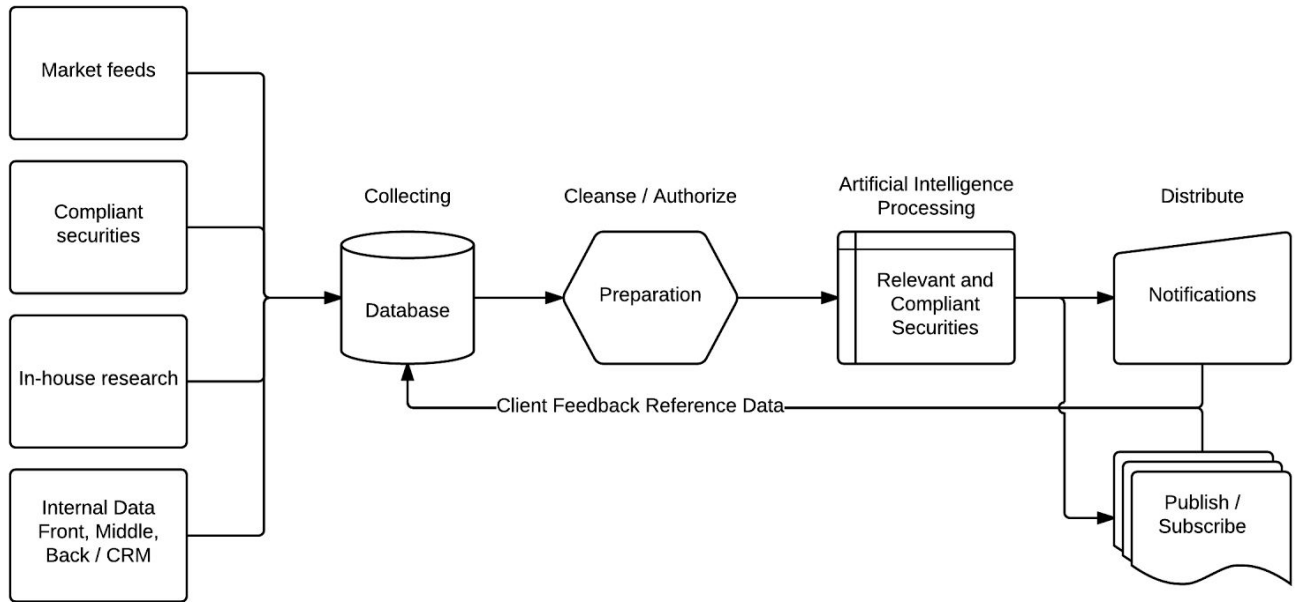
- Legacy CRM, PMS and call reports automatically linked to InvestGlass
- Additional market and news feeds added to the platform

InvestGlass' key benefits: Time Efficiency, Investment Eligibility Check and a Smart Rebalancing

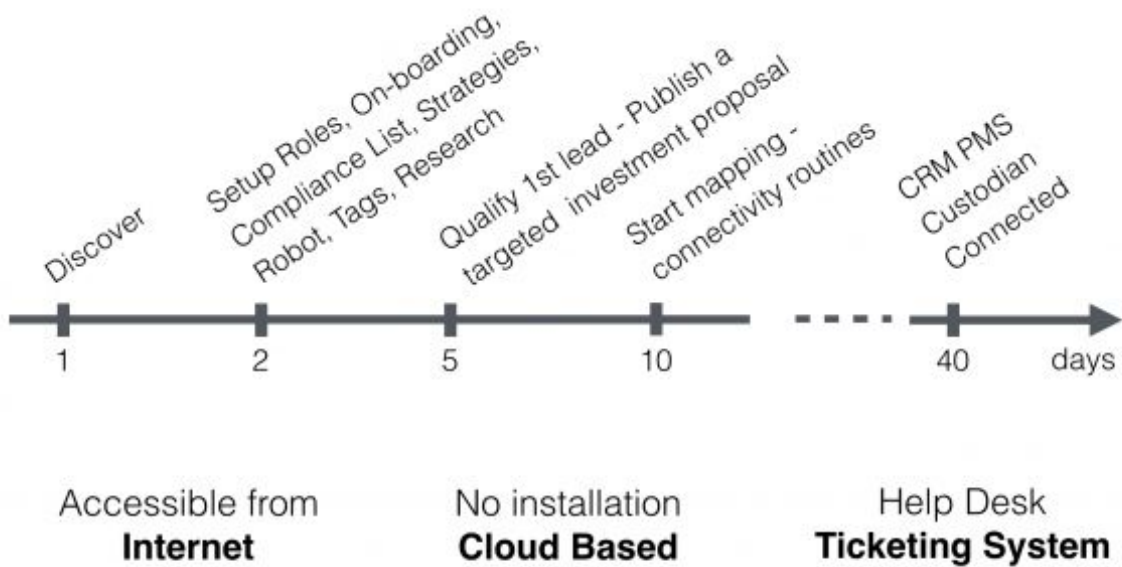
Our team is available to answer any questions you may have. You can reach us at support@investglass.com or +41 22 552 03 26. We are looking forward to working with you!

The InvestGlass Team

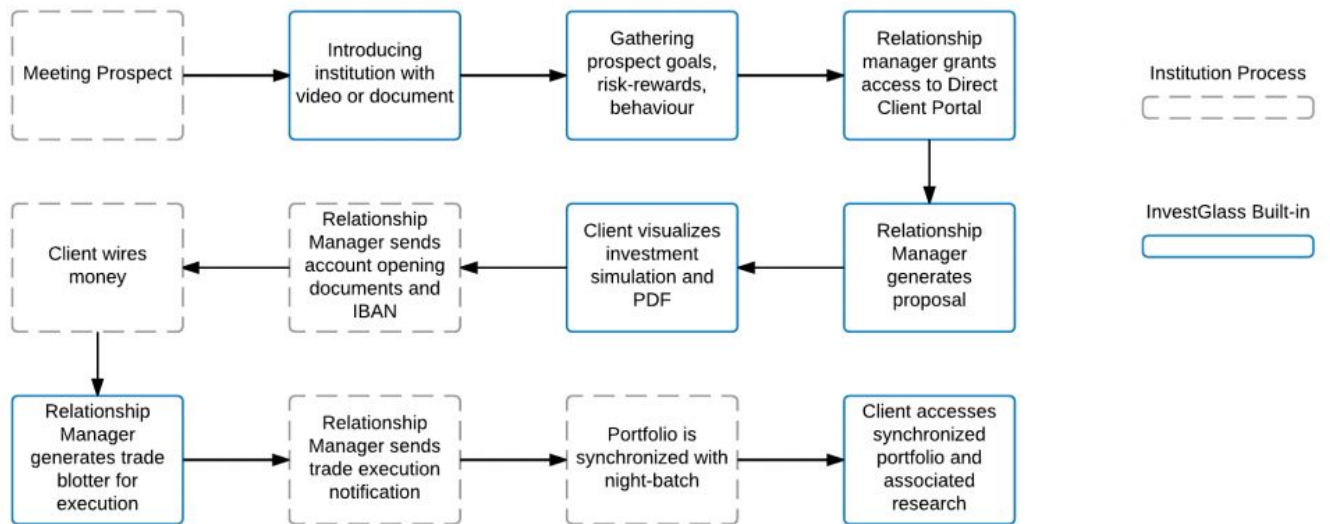
General View



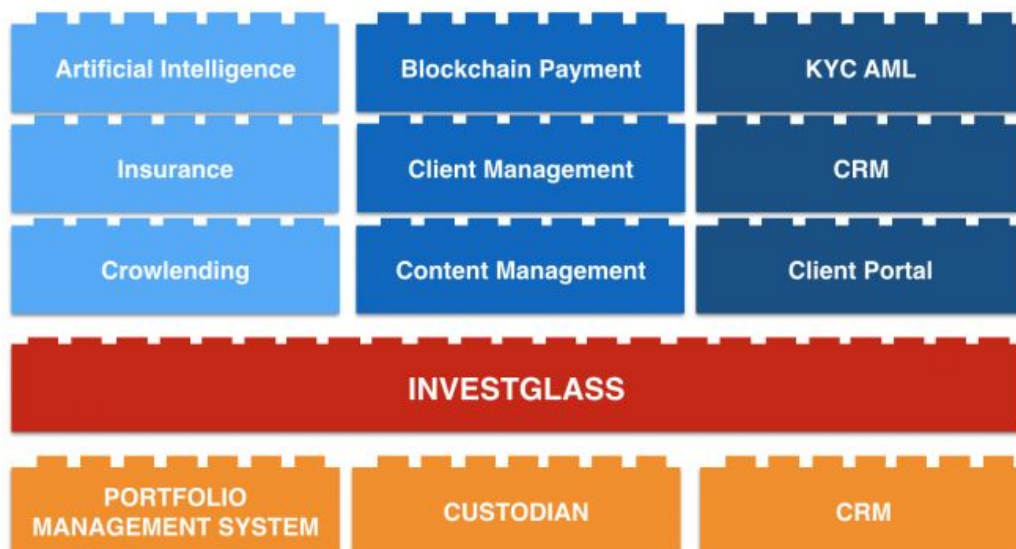
Typical Integration



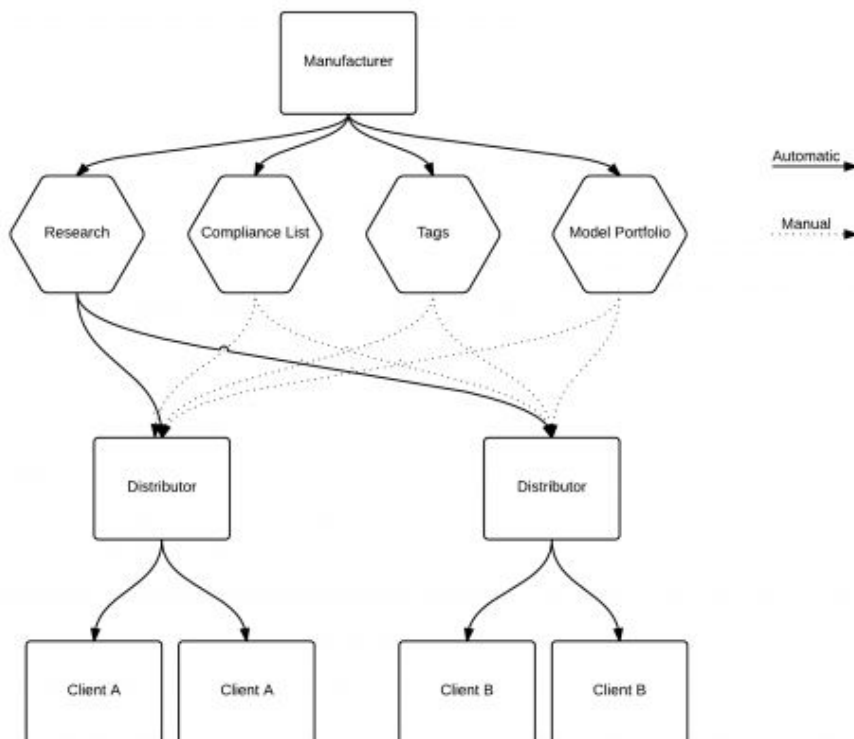
InvestGlass and your Institution



Plug in



Third Party Data Dispatch



2. Roles and Access

Administration

Access permissions amongst users are structured as described below.

Master Administrator:

- He/She is the owner of the Company and cannot be deleted.

Administrators:

- can create and change the role of other Managers/Users;
- can set up company groups and templates;
- can add or modify company compliance lists;
- can add or modify tags, securities' research documents, group strategies and model portfolios, custom securities;
- can add or modify on-boarding forms; and
- can set up Managers / Users paternity for each client as well as edit their KYC's and Call Reports.

Managers:

- can change Users paternity for each client within his/her group of Users;
- can create a New User or Manager within his group; and
- cannot create Company's Compliance List nor a group.

Users:

- can access and edit the information of his/her clients;
- can duplicate group strategies to tailor their recommendations strategy; and
- cannot manage, nor edit Company's resource.

3. Integration

Custodian Data

To get this stream, we require a flat file. Information can be delivered on a XML or CSV format. We also accept JSON web services delivery. Internal IDs are similar to your CRM or PMS references.

Fields

| | Mandatory | Desirable | Not required |
|---|-----------|-----------|--------------|
| Relationship Manager internal ID | | x | |
| Client's internal ID | x | | |
| Portfolio's internal ID | x | | |
| Portfolio's Reference Currency | x | | |
| Date of the last change in the portfolio | | x | |
| Custodian Return (performance) | | x | |
| Cash Account in all existing currencies | x | | |
| Estimated Balance | | x | |
| <i>For each security :</i> | | | |
| ISIN | | x | |
| FIGI | | x | |
| Marketplace | | x | |
| Marketplace MIC code | | x | |
| Title of the security | x | | |
| Reference Currency | x | | |
| Symbol | | x | |
| Asset Class Denomination | | x | |
| Industry (ICB only) | | x | |
| Country | | x | |
| Quantity | x | | |
| Buy/Sell price in the security's reference currency | x | | |
| Buy/Sell date (partial execution) | | | x |
| Last Price - Custodian Valuation | x | | |
| Exchange rate at the time of Buy/Sell | | x | |
| Trading Date (effective execution) | | x | |
| Clearing Date | | x | |
| Custodian Date | | x | |
| Trading Name (i.e. broker) | | x | |
| Clearing Name | | x | |
| Custodian Name | | x | |
| Transaction Fee Cost | | x | |

Fields description

| | Data Type | Description |
|---|-----------|--|
| Relationship Manager internal ID | String | Relationship manager ID in your CRM / PMS |
| Client's internal ID | String | Client ID in your CRM / PMS |
| Portfolio's internal ID | String | Portfolio ID in your CRM / PMS |
| Portfolio's Reference Currency | String | Reference currency of the portfolio |
| Date of the last change in the portfolio | Date | Date of the last change in the portfolio. E.g. 2015-11-24 14:51:38 |
| Custodian Return (performance) | Float | Performance of the portfolio |
| Cash Account in all existing currencies | Float | Cash accounts with reference currency, amount and exchange rate |
| Estimated Balance | Float | Estimated balance of the portfolio |
| <i>For each security :</i> | | |
| ISIN | String | ISIN of the security |
| FIGI | String | FIGI (Financial Instrument Global Identifier) of the security |
| Marketplace | String | Name of the marketplace |
| Marketplace MIC code | String | MIC code of the marketplace |
| Title of the security | String | Title / Name of the security |
| Reference Currency | String | Reference currency of the security |
| Symbol | String | Symbol of the security |
| Asset Class Denomination | String | Available values : Alternative, Bond, Collectible, Commodity, Derivative, Equity, Fixed Interest, Fund, Real Estate, Unlisted Equity |
| Industry (ICB only) | String | Industry Classification Benchmark (ICB) |
| Country | String | Country for the security |
| Quantity | Float | Quantity currently in the portfolio |
| Buy/Sell price in the security's reference currency | Float | Average execution price |
| Buy/Sell date (partial execution) | Date | Date of partial execution |
| Last Price - Custodian Valuation | Float | Last price of the security |
| Exchange rate at the time of Buy/Sell | Float | Exchange rate at the time of Buy/Sell |
| Trading Date (effective execution) | Date | Trading date |
| Clearing Date | Date | Clearing date |
| Custodian Date | Date | Custodian date |
| Trading Name (ie. broker) | String | Trading name (i.e. broker) |
| Clearing Name | String | Clearing name |
| Custodian Name | String | Custodian name |
| Transaction Fee Cost | Float | Transaction fee cost |

KYC Fields

| Contact - Not Required | Wealth Profile - Desirable |
|-------------------------------------|-----------------------------------|
| Title | Financial Estimation of Wealth |
| Salutation | Currently Managed by User |
| First Name | Business Capital |
| Last Name | Diverse Property |
| Email | Art Collection |
| Date Welcome Letter Sent | Financial Investment |
| Phone (Home) | Other |
| Phone (Office) | Origin of the Fund |
| Phone (Mobile) | Tax Domicile |
| Fax (Home) | |
| Fax (Office) | Background - Desirable |
| Best Way to Contact | Financial Professional Experience |
| Best Time to Contact (UTC time) | Business Profile / Profession |
| Frequency of Contact (every X days) | Company |
| Country of Domicile | Date of Birth |
| Home Address Street | Date Client Received |
| Home Address ZIP Code / Locality | Date AML Passed |
| Home Address Supplement | Client Type |
| Home Address Country | Client Origin |
| Office Address Street | |
| Office Address ZIP Code / Locality | Interest - Desirable |
| Office Address Supplement | Business Sectors |
| Office Address Country | Market Experience |
| Mailing Address Street | Currencies |
| Mailing Address ZIP Code / Locality | Country |
| Mailing Address Supplement | |
| Mailing Address Country | |

Compliance, Strategies, Custom Securities and Tags

Compliance information and investment strategies are used to make sure that portfolios and investment recommendations are in-line with individual objectives, your company's convictions, as well as compliant distribution lists. We recommend the creation of one compliance list per clients segment (e.g. countries, risk profiles, tax schemes, distribution clearance, cultural specifics or risk factors.)

Compliance lists, group strategies and model portfolios can only be created or updated by an Administrator. Group strategies can be cloned by Managers and Users if they wish to tailor them. InvestGlass also records compliance status each time a Call Report is created, in order to make sure that only compliant securities are being recommended and meet the actual regulatory requirements.

Custom securities are managed by Administrators. They can be created one by one, with Bulk Import, or via automatic custodian link (flat file, web services).

Tags and Tag Categories are created or updated by Administrators. Only Administrators can tag securities and research. Users and Managers can tag their clients. Tags can be imported and managed through custom securities bulk Import/ Export (CSV or Excel format makes it easier to modify those lists.)

Market Securities Feeds and Financial News

Professional coverage - Data Supplier

- NYSE Euronext (Indices, Stocks, Bonds)
- Euronext Indices and Components
- Nasdaq
- Exfeed
- TradeGate
- BATS CHIX
- Equiduct
- Turquoise
- NEWS (PR Newswire, Hugin, Company News)
- Forex Live
- Commodity (Brent, WTI, Gold, Silver, Platinum, Palladium)
- Macro indices
- On demand Morningstar feed

On Client Demand

- Professional-grade EOD stock prices, dividends, adjustments and splits for all publicly-traded US stock
- Morningstar Global Coverage and full depth data
- Global coverage equity / bonds level 2
- Zacks Investment Research
- OptionWorks
- DataYes China
- Delphx
- Quantcha
- Pysch Signal
- Steven Analytics
- Sharadar

4. Platform customization

Customization options

InvestGlass offers the possibility to fully customize your platform.

- Set up a look & feel according to the corporate guidelines (e.g. logo, colours, disclaimers)
- Create pre-defined investment recommendations templates (discretionary mandate, advisory for bespoke portfolio, single security)
- Build your own on-boarding forms

On-boarding Tool

How to build your own form ?

1. Create a new form and chose a title and a picture (optional).
2. Select which employees groups can use this form.
3. Add your profiles linked to your model portfolios.
4. Customize the form pages that will contain your questions and answers.
 - a. Add questions to a page and choose how answers will be displayed.
 - b. Add answers to your question.
 - c. For each profile, adjust answer weight and chose if the answer must block the profile.

Answering a form

- While answering the form questions, a chart shows how the answers affect the profile choice, based on the answers weights (see 4.c above);
- When done, you'll see which profile has been suggested, with a summary of its model portfolio;
- Selected profile can be overridden;
- You can then generate a PDF with your own visual template to send the proposition to your prospect; or
- Create a new portfolio for your client. This will create a call report with the client's answers and the suggested and selected profile.

Publish and Export Investment Recommendations

- Publish single security financial data with your investment rationales: All roles
- Publish discretionary mandate portfolios: All roles
- Publish portfolios: All roles

- Export clients: Administrators can export all clients. Managers can export only those in their group. Users can export their own clients' information.
- Export compliance lists: All roles
- Export model portfolio : All roles
- Export custom securities: Administrator only
- Export research: Administrator only
- Export tags : Administrator only

5. Security and Encryption

InvestGlass SA is hosted in Swiss bank level security servers with SafeHost in Plan-les-Ouates, Geneva Canton.

The application level security is based on the Ruby language and its web applications framework Rails, plus some security gems (Ruby libraries).

As Security is our priority, we also have additional security layers, including:

- Encrypted password (minimum length 8 characters);
- Automatic logout;
- Anonymous Tokenisation of access with InvestGlassID;
- Symantec Class 3 Extended Validation SHA256 SSL CA, ECDHE_RSA as the key exchange mechanism;
- TLS 1.2 Connection Type; and
- Daily database backup with SafeHost.

Clients personal information (full name, email, telephone, address) is not mandatory to use InvestGlass – only a pseudonym is required.

InvestGlass

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