

bond it.



JULY 2020



BONDIT AT A GLANCE

- BondIT is a platform for fixed income portfolio management leveraging proprietary optimization and machine learning algorithms
- The BondIT platform supports the entire fixed income portfolio lifecycle
 - Generate new portfolios
 - Analyze and rebalance existing portfolios
 - Define and manage universes
 - Leverage multiple market, analyst and quantitative data sources as well as an organization's own proprietary and strategic data
- 40 data scientists, machine learning algorithm specialists, and fixed income market professionals
- Offices in Israel and New York City

BONDIT VALUE ADD

Achieve Scale and Efficiency

- Portfolio generation, rebalancing of existing portfolios, and proposals generated in real time rather than hours
- Optimization built to be seamless and on-demand given team member workflows

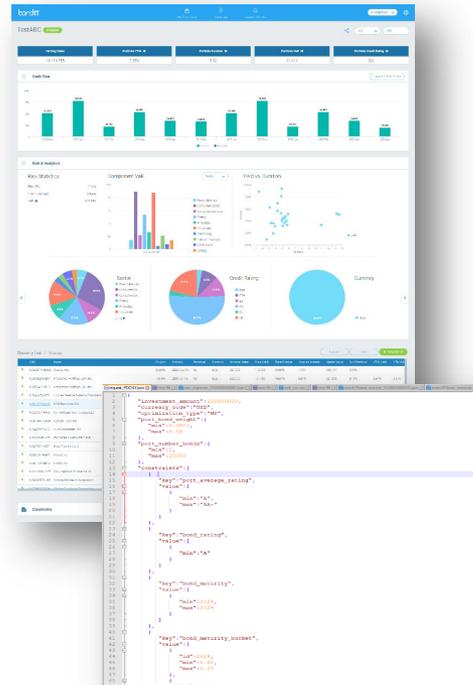
Identify Opportunities

- Capture relative value opportunities leveraging optimization engine and configurable constraints
- Portfolio manager experience in intuitive UI

Digitize and Distribute

- Digitize views on Duration, Curve, Credit, Sectors, Issuers, Liquidity, ESG
- Use that data to enable access to technology-driven strategies and distribution channels

BondIT Intuitive UI + Full API Toolkit



Manage Evolving Risks

- Ability to aggregate risk characteristics across all or a subset of portfolios in BondIT dashboard view
- Drill down to individual portfolios or characteristics to identify & address the underlying source exposures

Remote (Work from Home) Capabilities

- Assign and share investment portfolios across businesses and functions in any geography
- Collaborate and re-route work based on resource availability

Diversify Your Tech Stack

- Independent, Cloud-hosted, API-ready platform
- Seamlessly integrates with internal and external data, models, and order management & execution systems



BONDIT DATA SCIENCE TECHNOLOGY ■

Optimization

Solving Convex Optimization problem in multi-dimensional constraints space:

- Accommodated for the special cases of Fixed Income portfolios
- Flexible configuration allows for linear and non-linear constraints.

Data Science:

- **Data:** Use of data regularization, anomaly detection and NLP methods to unify sources and create normalized data structures, set specifically for Fixed Income analysis
- **Modelling/Value Predictions:** Volatility predictions and covariance modelling used for risk estimation in cases of incomplete information, various regressions for term structures
- **Additional Optimizations:** Dimension reduction for accuracy and efficacy and various optimization techniques depending on sought objective



BONDIT TECHNOLOGY

Cloud based

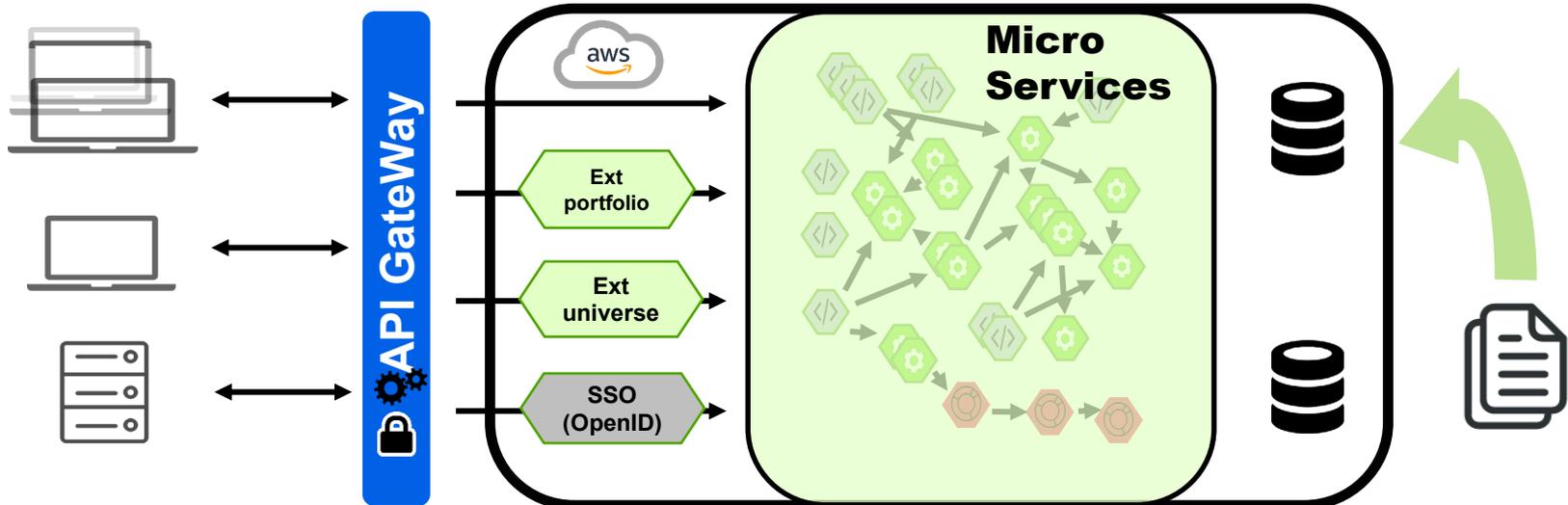
Cloud-Deployment to assure availability and scalability

Architecture

Highly modular, micro-services-based architecture, to allow stability & agile development

API's

API-first approach allows easy externalization of endpoints to consume/update same content both via web-application and API's

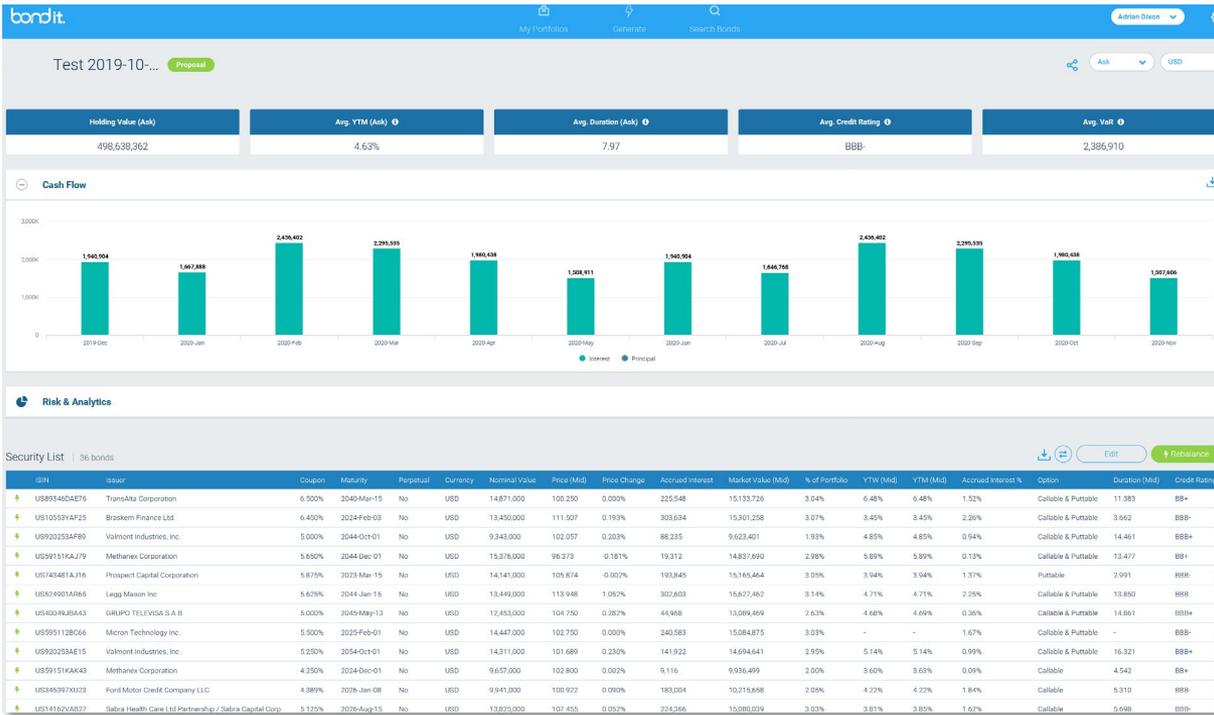


GENERATE

Portfolio objectives and bond level constraints are established as the inputs into the Algorithms. These can all be customized and configured.



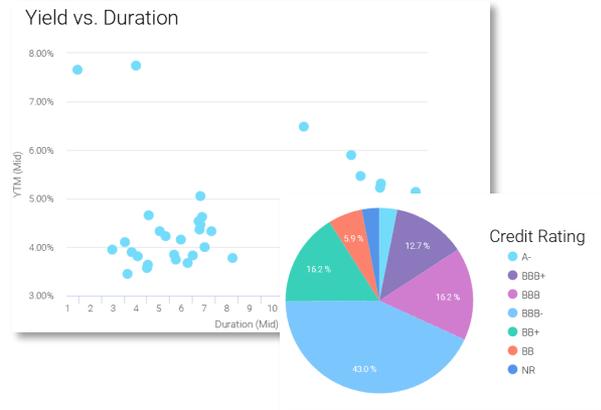
ANALYZE



Analytics are available across portfolio allocation and risk metrics and are configurable to include any custom data attributes.

Risk Statistics

Risk (SD)	3.27%
YTM / Risk (SD)	1.4217
VaR 1	0.4793%



REBALANCE

Objectives Constraints

Portfolio Name: (required)

Nominal per Bond: Min 1.01 % USD 502622: Max 2.07 % USD 103012€ **1.01 - 2.07**

Max No. of Transactions:

Cash to Add / Withdraw:

Universe:

Target Optimization:

Portfolio Avg. Yield 2.5% 3.5% 0% >30%

Portfolio Avg. Res... A3 AAA AAA CC01

Portfolio Avg. Dur... 4 6 0 >20

Rebalance a portfolio taking into account market shifts, change in portfolio strategy or revised constraints.

The number of transactions can be specified to control turnover and transaction costs, as well as taking into account increases and decreases in cash positions.

OPTIMIZATION + LADDERING

Cash Flow Ladder:

Maturity (number of years):

5

Start Date:

2021-01-01



Cash Flow Frequency:

Month



Cash Flow Type:

Principal and Interest



While utilizing optimization engine, construct and rebalance portfolios adhering to laddering of cash flows.

Decumulation of assets, unique cash flow necessities, and general liability driven investing all made possible while optimizing in real time.

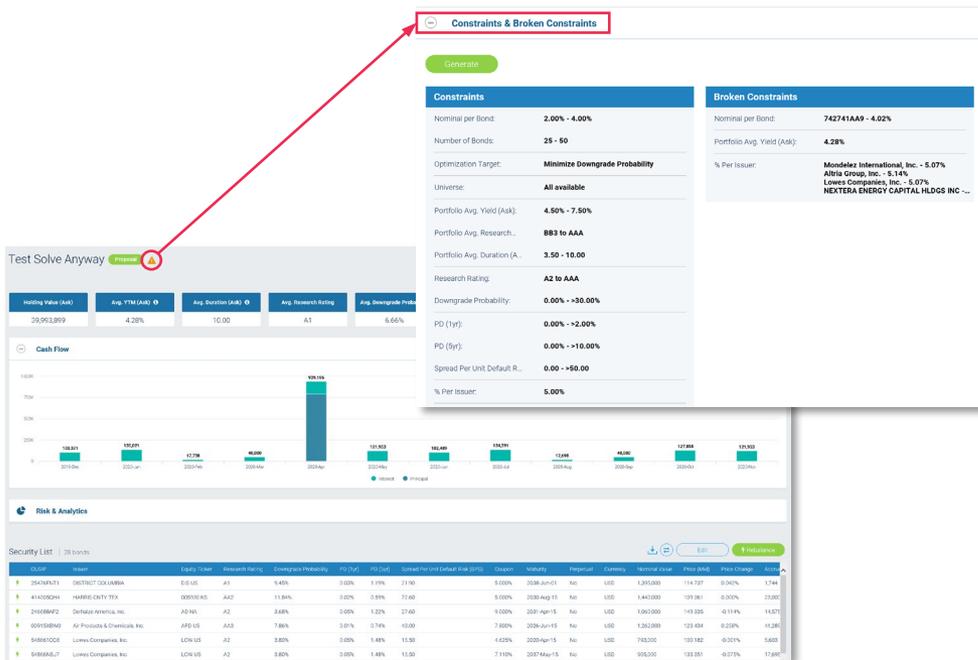
Min Cash Flow Requirements:

USD %

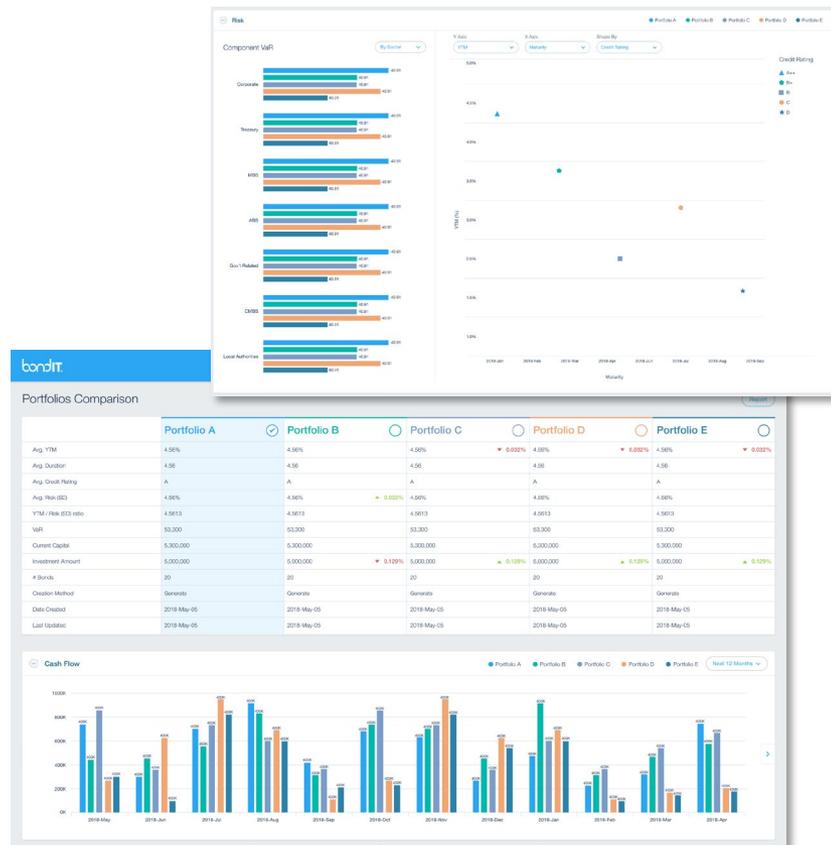
	Period	Payment Period (Any)	Cash Flow (USD)	Cash Flow (%)
1	2021 JANUARY	Any Time	166,666	1
2	2021 FEBRUARY	Any Time	166,666	1

All laddering functionality built from an LDI framework allowing for detailed period by period inputs. Made to be as simple or as sophisticated as client needs dictate.

ALTERNATE SOLUTIONS



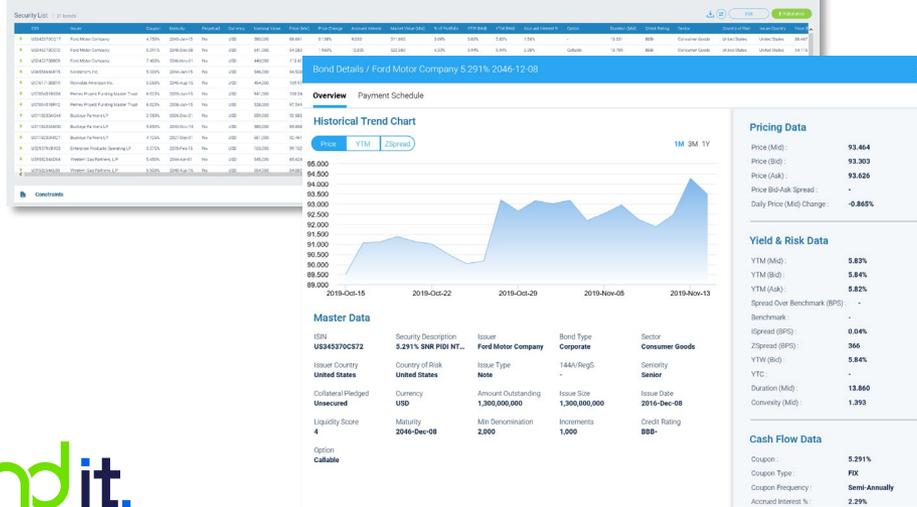
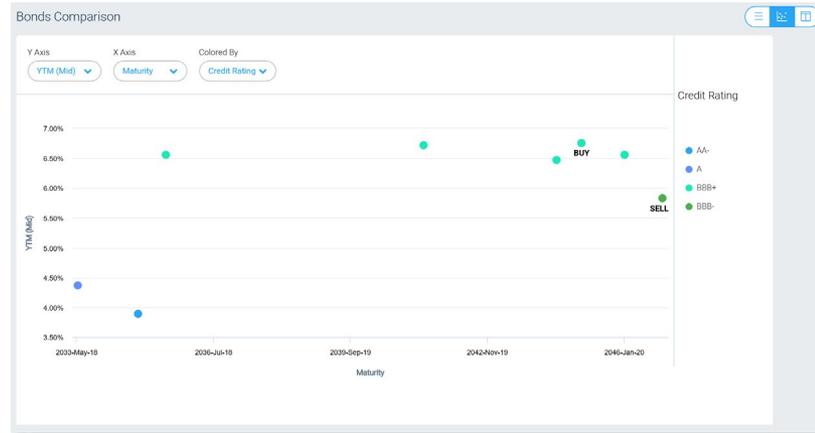
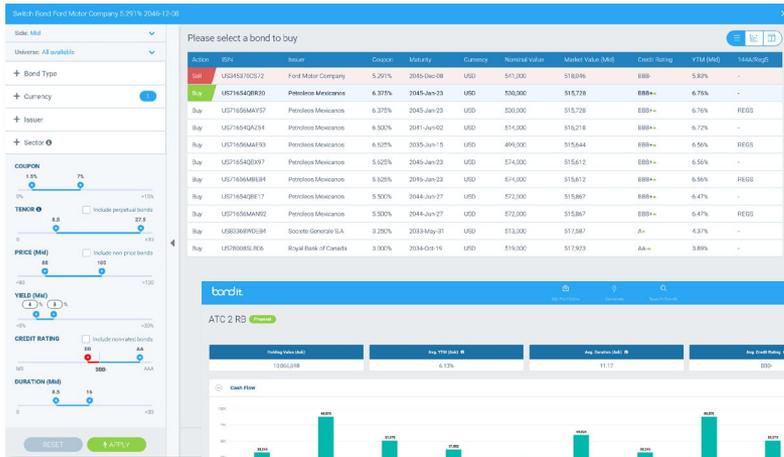
When it's infeasible to generate a portfolio due to the constraints being too restrictive the BondIT platform will "solve anyway" and produce the closest portfolio possible, highlighting which constraints were relaxed to achieve the result.



Providing trade-off analysis for multiple portfolio solutions.



TRADE SWITCH AND ANALYTICS



Bringing capabilities to enable easy and efficient trade switch analysis using both market data and proprietary data.



CONFIGURABLE

Universe:

All available 

- All available
- 1. USD Corporate Universe
- 2. ESG
- 3. Research Recommended
- 4. Compliance Approved

BondIT allows for each organization's UI to be built bespoke to their workflow. Starting from their Universe of investable bonds, to their target Optimization, to bond level constraints. Levels of customization are nearly endless, with inputs, treatments, and multi step processes allowable in BondIT.

Target Optimization:

Maximize Yield 

- Minimize Standard Deviation
- Minimize Standard Deviation ML
- Minimize Spread Duration
- Minimize Tracking Error
- Minimize Default Probability

 ESG

Include All Exclude All

A

B

C

D

E

BONDIT: ENABLING GROWTH

Problem

Australia's largest fixed income specialist (Broker-Dealer, Custodian), servicing 7500+ HNW with over \$10B AUD AUM

- Concerned about keeping pace with market growth
- Challenged by inconsistent sales processes and high costs to serve clients
- Aging non scalable IT systems and many manual processes
- Recognized that data must be leveraged to differentiate from competitors

Solution

BondIT was selected to create a unique offering through integration to an eco-system consisting of other market leading vendors including Simcorp, Broadridge, Markit, Bloomberg, ICE and SS&C

BondIT provides a front-office workflow solution to relationship managers and portfolio managers that allows them to:

- Connect relevant and strategic data to the portfolio construction process
- Rapidly iterate through optimal solutions to provide the best advice for clients

IMPACT

Efficiency gains of 2x-3x:

Compared to previous tools and systems, BondIT allows RM's to service 2x-3x the current client load

Delivering right-sized

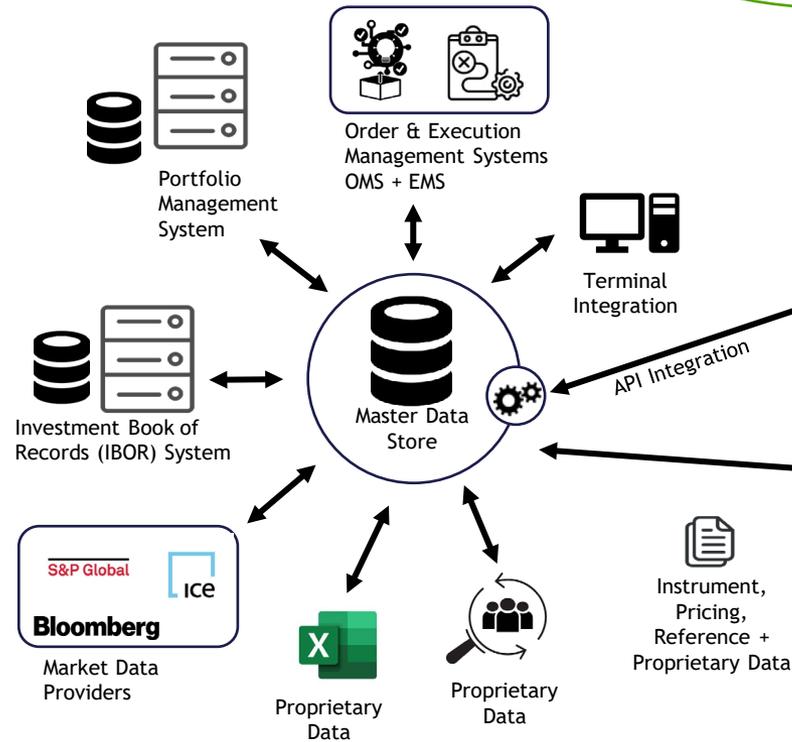
proposals - faster: Proposals delivered are leading to faster and more effective client servicing

Capitalize on FI market

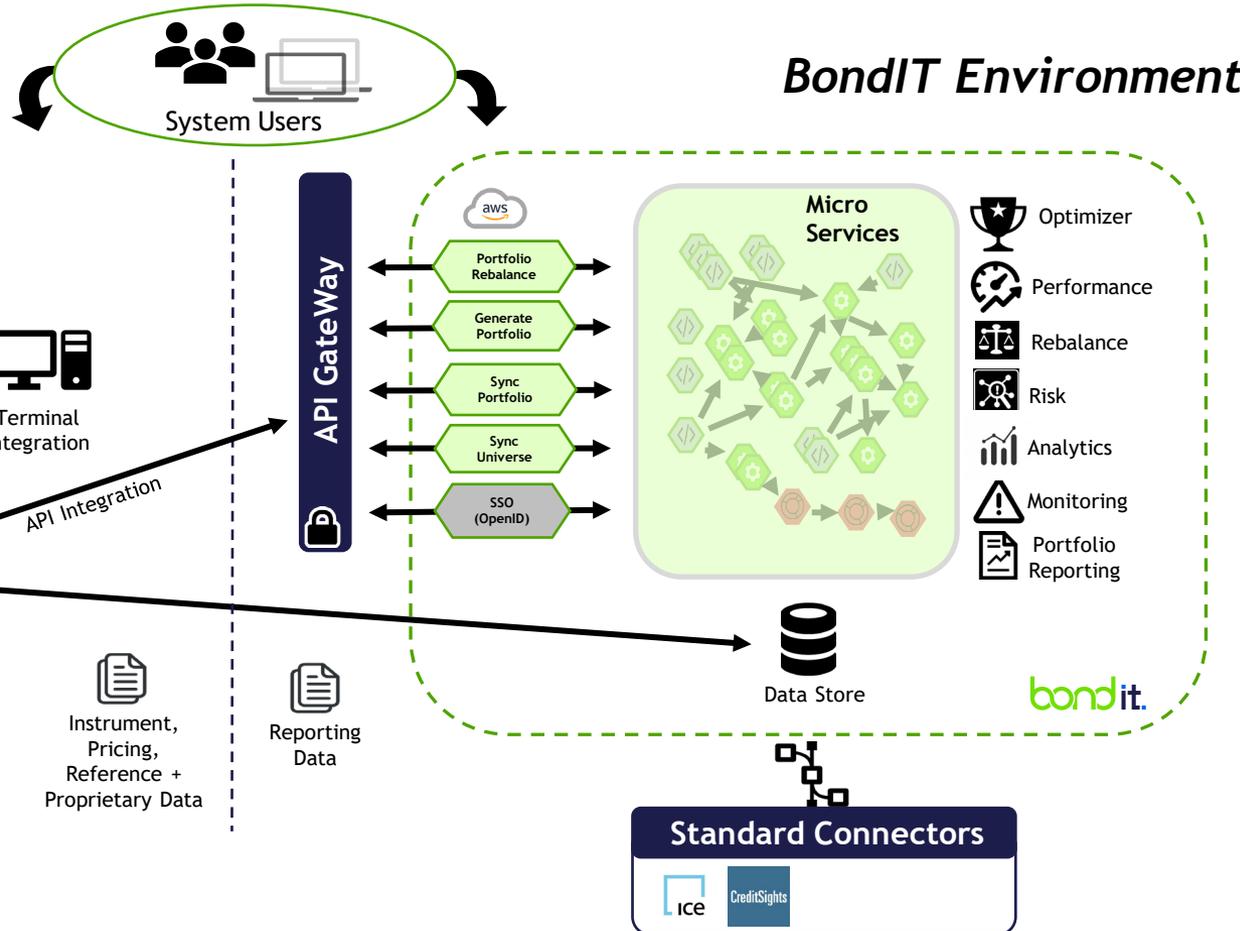
growth: enable to grow AUM at pace of >10% per year, largely supported by these operational efficiencies

BONDIT INTEGRATION

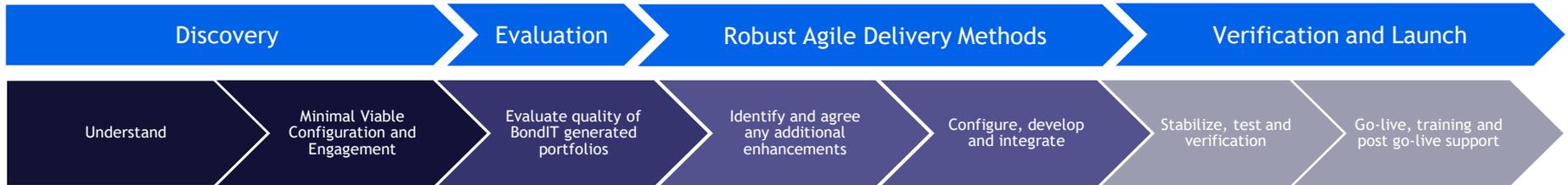
Client Environment



BondIT Environment



DISCOVERY TO DELIVERY



Develop understanding of the platform capabilities and client specific use-cases

