DRC SYSTEMS

How DRC Systems Simplifies Mutual Fund Investments With Digital Solutions?

Project Overview

A fintech company approached DRC Systems for the purpose of building a mobile platform that simplifies financial investments in mutual funds, making them affordable and accessible to Indians, specifically for small cities, minors, NRIs, etc. They also wanted to acquire information about the right web service provider that collects data on different mutual funds for investments.

DRC Systems researched different components required to build the platform, allowing investment products and improving integration with financial product providers like mutual funds and fixed deposits. Besides this, they also allow embedded or infrastructure APIs for third-party companies to provide investment products.

Key Objectives

Besides building the core investment platform, the project also demanded improvements in domain-specific needs like smooth onboarding, regulatory compliance, and integrations with different financial systems. The primary objectives included:

Time to market

Implement the investment platform to quickly launch their investment products by reducing the time in integration with multiple product providers and managing operational costs.

Unit-based infrastructure

Build APIs, SDKs, or white-label tools that can be reused, are safe, and adopted by multiple clients with different investment products.

Low deployment and operation costs

Limit developer efforts, agency management costs, and dependencies on different external systems for each product. This will reduce the capex/OPEX for the platform and its customers.

User-based experience

Smooth onboarding and different user types support provide a smooth user experience along with offering micro-investment, transparency, simple KYC, and UI/UX.

Regulatory and compliance readiness

Make sure the integration is smooth with the right mutual fund registrars or agents, and the NAV or transaction data is accurate. Audit trails must also be mentioned along with KYC/AML compliance.

Key Challenges

Some of the challenges that we faced while developing the investment platform for our client are:

- **Scattered systems**

  Bringing mutual funds, RTAs, and KYC processes together under a single and smooth workflow was a major challenge since all of them use different APIs.

- **Compliance and user identity**

  Making sure that compliance with SEBI, other regulatory bodies, PAN, and bank details is maintained.

- **Simple user interface**

  The UX must be simple for people from outside metro cities. Processes like payment, KYC, and risk assessment must be managed well.

- **Scalability and growth**

  Integrating many financial product providers leads to an increase in volume, so the platform must handle load and latency issues, maintain data integrity, and security.

- **API resolutions**

  Coordinating with third-party API providers like BSEStarMF, MorningStar, and CAMS to understand their API structure was complex.

Solutions Provided

We created a simple and smooth investment platform from scratch by exploring different third-party APIs and executed a strong Python-based backend for data processing and API integrations.

✓ Backend Control

We used **Python** for complex mutual fund transactions, API integrations, and data processing that included:

- Acquiring bank details with IFSC code lookups.
- KYC verification automation through SMS services.
- Confirming accurate client details before transactions.
- Generating ADF and NACH Mandate forms as per BSE requirements.

✓ Investment Management Features

We connected our **Python-based APIs** with our **native iOS and Android apps** to develop primary investment features like:

- **Purchasing** mutual funds directly from the app.
- **Selling**/redemption of the investments with real-time updates.
- View **Portfolio History** to track returns and holdings.
- **Financial Calculators** to display SIPs, FMT, and IRR for their portfolios.

✓ Goal-based Investment Tracking

We used different **Python**-based algorithms to calculate:

- PMT for goal-based investments.
- Internal Rate of Return (IRR) for client portfolios.

These results were displayed in native mobile apps as a **Dynamic Goal Summary**, offering users a live view of their progress in their financial goals and recommendations so they can stay on track.

Tech Stack

- Python
- Native IOS
- Native Android

Business Impact

The investment platf orm was beneficial to our client because:

Faster time-to-market

With white-label, API, or SDK infrastructure, our client and its partners were able to launch new investments, fixed deposits, and mutual fund products relatively faster than building them from scratch.

Cost-efficiency

Due to common infrastructure, limiting the need for individual integration with multiple RTAs and using shared devices lowered both operational and development costs. The founders claim to have saved 80% of costs and go to market 8-10x quicker with the platform's tech stack.

Increased outreach

The platform found an extensive audience from NRIs and minors due to small ticket sizes that ranged as low as Rs 100. This attracted customers from tier II and tier III cities.

Product diversification

This platform has provided multiple investment product types like mutual funds, equity advisory, peer-to-peer lending, fixed deposits, digital gold, and many more which increases the proposition value for users, reducing churn and increasing revenue.

Improved user experience

Smooth onboarding, simple UI, transparent fees, and risk profiling features have improved user trust and retention.

Conclusion

The mobile investment platform went from a simple consumer-facing app to an infrastructure offering app. Investing in APIs, SDKs, or white-label capabilities, managing backend complexity of investment product integration, and focusing on user experience has helped our client increase their offerings. It has also helped the platform owners save time and resources to launch it and invite a larger audience to India's wealth environment.