Advisor Software (ASI): Extensive Set of Cloud Platforms and Solutions for Financial Advisors and Institutions

Site:	advisorsoftware.com
Established:	1995
Value proposition:	Provider of a wide choice of wealth-management solutions (including automated digital advice, goal-based financial planning, rebalancing tools, investment proposals, behavioral finance, and FinTech APIs) for the advisor market, and a cloud-based, wealth-management platform.
The executive team:	Andrew Rudd, CEO and Chairman Michael Granger, Vice-President and Product Mark Ferrari, Chief Research Scientist Steve Bradley, Vice President Operations and Client Implementation Rob Freedman, Director of Marketing Rishi Srivastava, Director of Engineering

Advisor Software (ASI) is a leading WealthTech company that provides a cloud platform with streamlined access to a comprehensive range of financial services and resources. They have a broad selection of app solutions covering all the modern focus areas, such as rebalancing and constructing portfolios. Also, they have a dramatic catalog of APIs in categories including high-value analytics, value-added services, and administrative features. The company aim to empower financial institutions using a scientific approach, analytics, and innovation.

ASI's office is located at Mt. Diablo Plaza in Walnut Creek, California. I was lucky enough to meet with four members of ASI's executive team:

Andrew Rudd, CEO and Chairman

Andrew has a PhD and is an acclaimed expert in modern portfolio theory, quantitative analysis, asset allocation, and risk management. Previously he spearheaded Barra, which led the market in portfolio risk management. In 1995, he sold Barra to Morgan Stanley Capital International. Instead of sitting back and doing nothing, he started ASI—which is still going strong.

Mike Granger, Vice-President and Product

Mike has worked in wealth management since 1986. He met Andrew at Barra, where he was a project manager, and then helped him to establish ASI. He is responsible for managing a number of solutions—for instance, the client acquisition, portfolio rebalancing, and self-directed solutions.

Rishi Srivastava, Director of Engineering

Rishi has worked in engineering since 1995, and entered into wealth management in 2001. One of his notable projects was with Quantal International, Inc., where he had been the CTO for over 15 years. This company offered a suite of advanced portfolio-management products. Rishi was in charge of their technology strategy, implementation and deployment, back-end integration, etc.

Rob Freedman, Director of Marketing

Rob has a vast track record in marketing. Before ASI, he cofounded the RainShine Foundation, which is a nonprofit dedicated to building and supporting schools in remote Congolese communities.

Before establishing ASI, Andrew and Mike were working with Anton Honikman, CEO at **MyVest**, who also started at Barra, Inc.

During the interview, we discussed ASI's products; their team; their product-management styles, strategies, and insights; and their plans for the future.

The concept

As described above, most of the executives at ASI were pioneers in the industry. They were among the first to try creating digital products to ensure financial well-being. They saw that the world was in need of innovation and advanced financial technologies, so their idea was to help wealth management enter the digital age.

> **Andrew Rudd:** "While technology can improve the way advisors manage the financial lives of their clients, the advisor–client relationship is the most important part of the equation. All of our applications have been developed with this in mind, advancing the science of wealth planning so [that] advisors can focus on the art of advice delivery."

ASI incorporates a great deal of science, which provides extra opportunities for clients. The company is built around academic knowledge that is competently attached to commercial implementation. They came to the all-in-one solution model evolutionally by automating the separate parts of wealth-management activities. Now, they stand in line with industry-leading solutions such as **Trizic**, **AdvisorEngine**, **Oranj**, and **Bridge FT**.

A science-driven, multiple-solution platform

Over approximately 28 years in business, they have built a lot of applications concerning the different aspects of wealth management. Some of them are popular and well-known, and some are complex and even too advanced for the average user. Clients can license multiple applications or just one. The list includes:

- *Digital advisor*. A full-cycle, automated wealth-management platform for advisors, which integrates external modules.
- *Behavioral IQ*. A risk-scoring, mathematical model, which measures a person's relevant behaviors in order to allow them to make better financial decisions.

Andrew Rudd: "We've selected various important behavioral characteristics—like loss aversion, the hyperbolic discount function, and so on—[then] estimated that by essentially getting 15,000 people to answer a questionnaire. That enables us to estimate the likelihood of having a loss aversion or various other characteristics, which we [can] then relate to their behavior."

Andrew confesses that this solution is hard to sell right now because clients have their own questionnaires that cost them nothing and serve the same function at a sufficient level.

- *Portfolio rebalancer*. A rebalancing module that can rebalance everything at the aggregate level. In addition, it can go down to an individual lot level and have the tax side of it.
- *Client acquisition*. Another digital advisor module that is associated with client onboarding. Andrew says it is now close now to having 200,000 users.
- *goalgamiPro.* An express financial-planning tool for constructing goal-based financial plans and professional goal-achievement reports. It contains predefined asset-allocation strategies created by ASI's research group.
- *Wealth-management APIs*. Following **Hydrogen**, they shared with the community the APIs used for building solutions for their clients. However, to build a solution with these APIs, companies should implement their own UI.

Mike Granger: "We had 270 APIs, a vast majority of which we can expose externally. However, they're allowing clients to go away and build their own digital advice platform if that's what they want to do. In that context, we are prepared to sell the API to allow people to re-utilize ASI's strengths rather than having to buy an application."

Today, the company predicts they will have a billion dollars under management by the end of 2018. Right now, they are at approximately 800 million dollars.

The company's internal organization

ASI is a great company with a complex inner structure. They have legacy systems and modules, which are still maintained and integrated. They also have products that they actually sell in the market, and some new projects at the research stage.

Integrations

Unlike many other WealthTech companies, ASI is more focused on integration with large institutions, which often requires a white-label license. Some of their applications have been sold white-labeled for a particular institution and integrated into their ecosystems.

> **Mike Granger:** "ASI's integrations with popular tools—such as **Quovo** and **Hubspot**—and custodians—such as **TD Ameritrade** and **Folio**—let advisors move seamlessly between applications and automate routine workflows, saving them time and unlocking new operational efficiencies."

The financial tool driven by ASI, goalgamiPro, is integrated with **Redtail**. According to Mike, they have **Apex** in their integrations pipeline and they are making other integrations into the portfolio-management systems.

> **Mike Granger:** "With over 175 unique APIs and patented technology, Advisor Software is able to build customized solutions for enterprises of any size. We can deploy our digital-advisor platform in a matter of days, not weeks or months."

Agenda and company structure

ASI has a rich client-base with various experience and knowledge, and they draw upon that client-base to influence their own directional products. As Mike says, the third angle is really drawing upon the analytical side and how can they move the market the right way.

> **Rob Freedman:** "The wealth-management sector is experiencing disruptive changes as clients now expect to be served digitally, be it via a self-directed tool or with the help of an advisor. Wealth managers who leverage these technologies future-proof themselves and lay the groundwork for success in terms of scale, client services, and business growth."

The agenda of ASI is multi-faceted because they are constantly listening to the client's feedback—ranging from small advisory firms to large corporations.

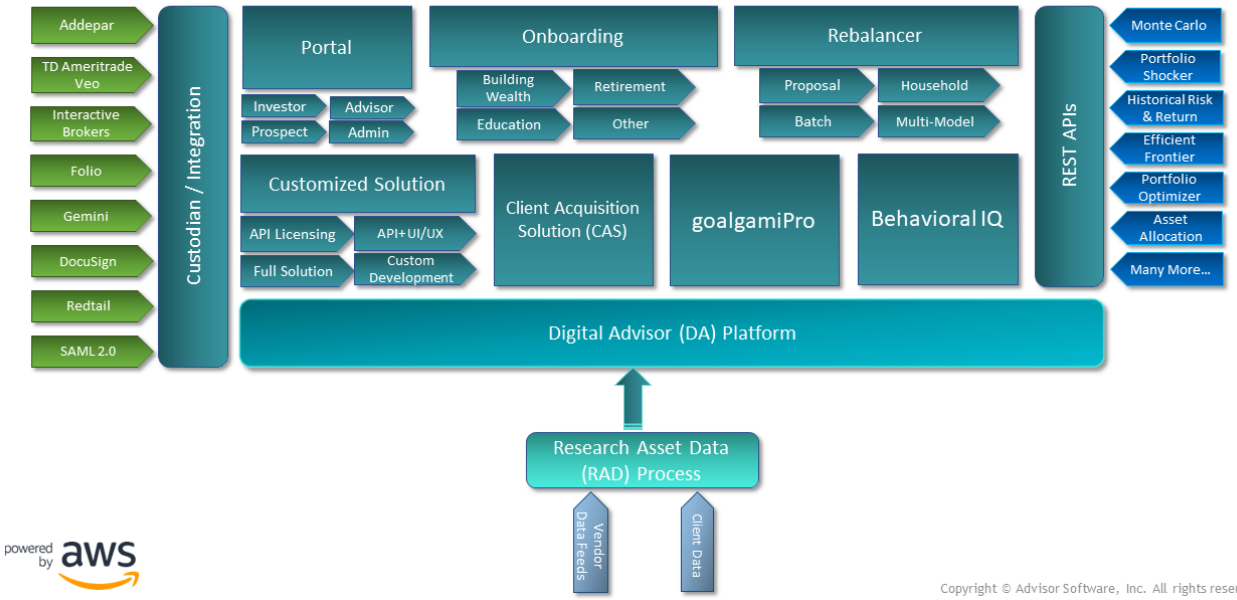
> **Mike Granger:** "We're always [considering] how we create things that would improve the lives of the advisors from an operational efficiency to a numerical perspective, and what other additional information they care [about]. [...] It's really driving the majority of the roadmap."

At ASI there is a fairly traditional organizational structure. They have three departments: marketing, engineering, and product. The teams are practicing Scrum and are located across Argentina and India—being agile and distributed is necessary for wealth-management firms because their clients are operating in a regulated industry.

Architecture and releases

Rishi says they have very small teams that are servicing small components of the system, which enables their quick release. Rob also reveals they have a cloud-based architecture:

> **Rob Freedman:** "Advisor Software's wealth-management cloud helps financial institutions and wealth managers to deliver better advice to their customer in a more flexible, efficient, and scalable way. With our cloud-based platform, we can have our clients up and running in days. Faster deployments save firms money and headaches."



According to Rishi, ASI is a blend of legacy products and more modern ones, so the architecture tends to be distributed and often employs microservices.

> **Rishi Srivastava:** "We apply […] technologies like continuous integration and deployment methodologies in which we are actually trying to get more product releases and fewer cycles. Also, we are using ECS and Fargate technologies for a scalable architecture."

ASI uses technologies like JIRA and Confluence to organize workflows. All of their repositories are based on Git or Bitbucket. The DevOps team uses continuous delivery and integration technology to automate the software release process and to deliver updates more quickly.

> **Rishi Srivastava:** "It's a very rapid development team. When we get the requirement, we just transform that concept or requirement to reality [in] the fastest possible way."

Tech stack

ASI offers a distributed enterprise platform that provides seamless SSO (single sign-on) access to all ASI products—DA, CAS, Goal-Based Planning, MCS, Rebalancer, and Restful API library. They use multiple databases and caches, like PostgreSQL, MS-SQL, Redis, and S3 bucket.

> **Rishi Srivastava:** "[A one-size] database approach doesn't fit in a highly distributed application. Transitioning to microservice container-based architecture makes our platform high[ly] scalable, with uniform response times."

For deploying and scaling the images, they use Docker containers and TreeScale to actually validate the APIs. Tools such as NGINX and Apache are distributed across the products. For orchestration, they use ECS elastic container.

Most of the projects are deployed in Java, although they use Python and NumPy Array for some computing-intensive applications. For front-end, they basically choose Angular or React.

Formal training

The approaches to knowledge-sharing differ for product management and engineering. In the former, they strive to hire specialists that already have some level of financial literacy. Additionally, they train them to reach a better level of understanding that is necessary to efficiently work at the company. With engineers, however, things are slightly different. Andrew confesses that the professionals they hire usually have no relevant experience in the industry, so they conduct formal training for them to understand the existing products. In addition, they have sustainable product guides and demonstrations, as well as working one-on-one with them to make things clear.

Future plans and challenges

The main challenge of the company is that the plethora of legacy apps prevents them from focusing on particular products and providing these out of the box. Obviously, it also causes problems with integration and sets some limitations on the new functionality. Rishi says they have found a way to largely eliminate the negative influence of the legacy code: dividing into core components and visualization. At ASI, the core code remains intact and is a gold-mine for the company; visualization, however, may change from one system to another.

Another challenge is finding talent with appropriate experience in the market. To eliminate this problem, they introduced formal training and clear documentation on the projects.

One more issue pertains to data security and how data moves across multiple vendors. However, Mike says they have found a way to overcome this challenge, too:

> **Mike Granger:** "We've actually removed all PII from it so that the entity can license APIs [and] use the APIs without really ever disclosing their client at the back-end. [...] By utilizing that approach, we've really eliminated that problem and it's helped us culminate too."

Speaking about future plans, Rishi says they are on their path towards GDPR, ISO-2700, and Cloud Security Alliance compliance. Also, they are currently undertaking a development to enable them to switch from ECS to Kubernetes.

Takeaways

ASI is an immeasurably more experience-rich company compared to recent startups. They incorporate vast scientific knowledge into business, and that is great. Their solutions will help many advisors to automate routine tasks and generate more clients, as well as more wealth.

INSART

Written by Vasyl Soloshchuk, CEO and co-owner at INSART, FinTech & Java engineering company. Vasyl is also the author of WealthTech Club, which conducts research into Fortune and Startup Robo-advisor and Wealth Management companies in terms of the technology ecosystem.