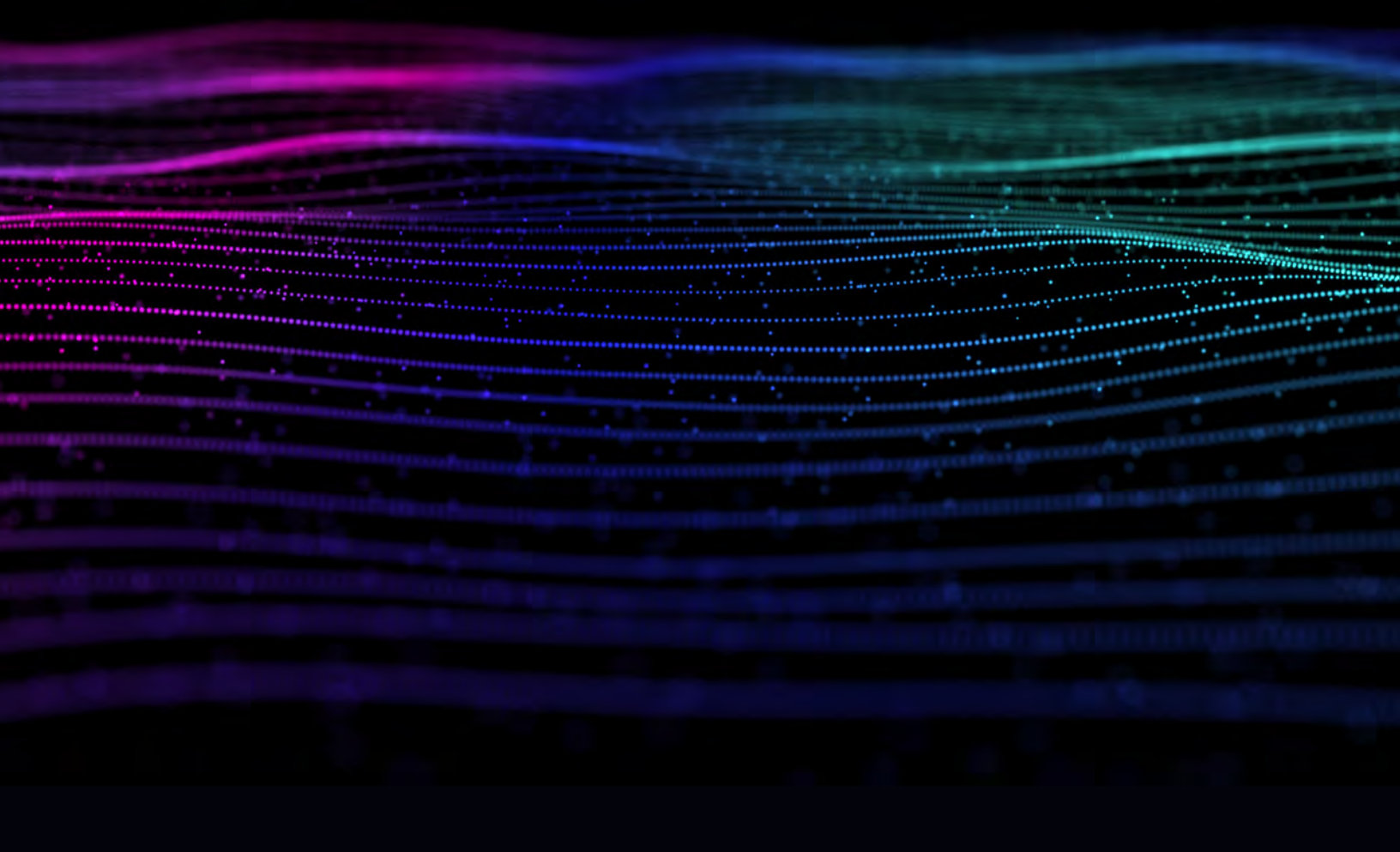


Point of View

Delivering Fast, Secure, and Scalable Solutions

The Agile Approach to Digital Transformation



In an ultra-competitive landscape, it is necessary to challenge norms and drive enhanced value for your clients continually. In the wealth management space, this can be as significant as the transformation of a core SaaS environment to an enhanced platform. A strategic approach to this digital transformation becomes critical to ensure supportive pillars around people, processes, and technology are aligned and in place. Through this lens, it is possible to reimagine and realize client and investor experiences and empower users through technology.

Enabling a successful transformation program requires a comprehensive engineering undertaking focusing on customer experience, automation, quality, and security by design. It also involves engaging and upskilling staff at the same time.

To borrow from Mark Hartley's recent blog, "Digital Transformation @ Large," there are several initial factors critical to a successful transformation. They include visible executive member support, lofty aspirations, and comprehensive change management infrastructure.

Although it is a "Digital Transformation," significant changes must apply across every aspect of an organization to successfully deliver a transformative technology-based solution for clients. Everything from the corporate culture to engaging and supporting external partners as they accompany this journey must be considered. The approach can be grouped into three basic themes, viewed through the lens of people, processes, and technology.

It all starts with people!

Large-scale changes within an organization can be difficult. In fact, transformation journeys can fail from underestimating the human factor. To mitigate this, significant effort must be devoted to strategies that focus on employees and the client experience.

A culture of innovation

From entry-level employees to senior management, everyone must be included when adapting to the new environment, technologies, processes, and organizational structures. To accomplish this, an **organizational change management framework** is needed to provide continuous communication and information flow between the transformation office and the rest of the organization. The approach must include employee engagement through activities such as solution-focused roadshow sessions, design drop-in sessions, and regular transformation program updates. These communication pathways are leveraged to ensure a clear understanding of what changes are on the horizon. It also helps understand what it means to individuals, their teams, and the organization. Challenges that arise from any of the organizational departments should be encouraged to be brought to the transformation program for resolution as part of the established **governance** process. It is also critical to have a pulse on how people feel as they navigate their “new way of working,” which can be accomplished through appropriate measures and goals. Here is an example of the goals that can be set:

Targets

- **Employee Satisfaction**
Year 1 \geq 80%. Year 2 \geq 90%
- **Client Satisfaction**
Year 1 \geq 80%. Year 2 \geq 97%
- **Reduced efforts in BAU**

All benefits are transferred to the BAU upon project completion, resulting in ongoing maintenance efforts and reduction for regression testing and deployment.

Talent preservation

Attrition is always a challenge during times of change. Add a job market with heightened demand for technical skills and talent preservation requires even more attention. To mitigate attrition challenges and leverage a tenured talent pool, several strategies can be developed, such as:

Talent development: Introduce strategic HR programs to ensure continuity in the event of higher-than-normal attrition. Such a program can include hire-train-deployment (HTD) of resources with transferable skills, as well as onboarding of new graduates and co-ops from top universities.

Training program and bootcamps: Ensure existing staff is upskilled according to transformational needs and provide comprehensive training in parallel.

Distributed responsibility: Resources are decentralized and leveraged across multiple locations and roles.

Client buy-in

Particularly for SaaS-based models, successful implementation of the modernized application depends on ensuring client buy-in throughout the program's lifecycle. This requires continuous demonstration of the product being built with a focus on new functionalities and streamlined product usability, ultimately resulting in improved user efficiencies. A client engagement plan encourages successful adoption across the entire client base and covers the following aspects:

Product roadmap: A high-level plan for delivering prioritized features based on usage and client feedback

Client engagement and readiness: Includes client forums and individual sessions to provide progress updates, the scope of the upcoming development plan, deliver regular product demos, showcase exciting engineering solutions, and capture specific feedback and needs from clients

Client training: Deliver comprehensive walkthrough of implemented functionality and provide accompanying documentation in various formats, including training videos

Support: Enhanced User Acceptance Testing (UAT) testing support leveraging a dedicated team and standard production warranty.

The importance of processes

Delivery

Successfully delivering a complex digital transformation in a fast-changing environment while keeping the lights on is probably the ultimate management challenge. It requires careful planning and execution in multiple dimensions, such as product, technology, people, and clients. Various strategies could be used in these initiatives, but as discussed above, client buy-in is the most important driving factor. To achieve that, a key element of the strategy is the ability to deliver product features (fast-time-to-market) frequently. They allow clients to explore, test, and use those features as they become available. This approach also provides other significant benefits for large program development. It facilitates early identification of defects, ongoing client feedback, fast course correction, capitalization on investment of delivered assets, and many others. Ultimately, this approach results in building better products while reducing program risks. Of course, there are many other aspects of the framework that are crucial for successful delivery, such as organizational change management, technology, architecture, etc. These aspects are also carefully considered, planned, and executed.

Scaled Agile is a framework that addresses many of the abovementioned challenges when implemented for digital transformation programs. It can be modified per business needs and existing processes. The modified framework can also be leveraged for defining the financial sector technology and innovation (FSTI) Agile SOP that will be applied for suitable projects going forward.

Below is the full view of the SAgFe 6.0 framework:

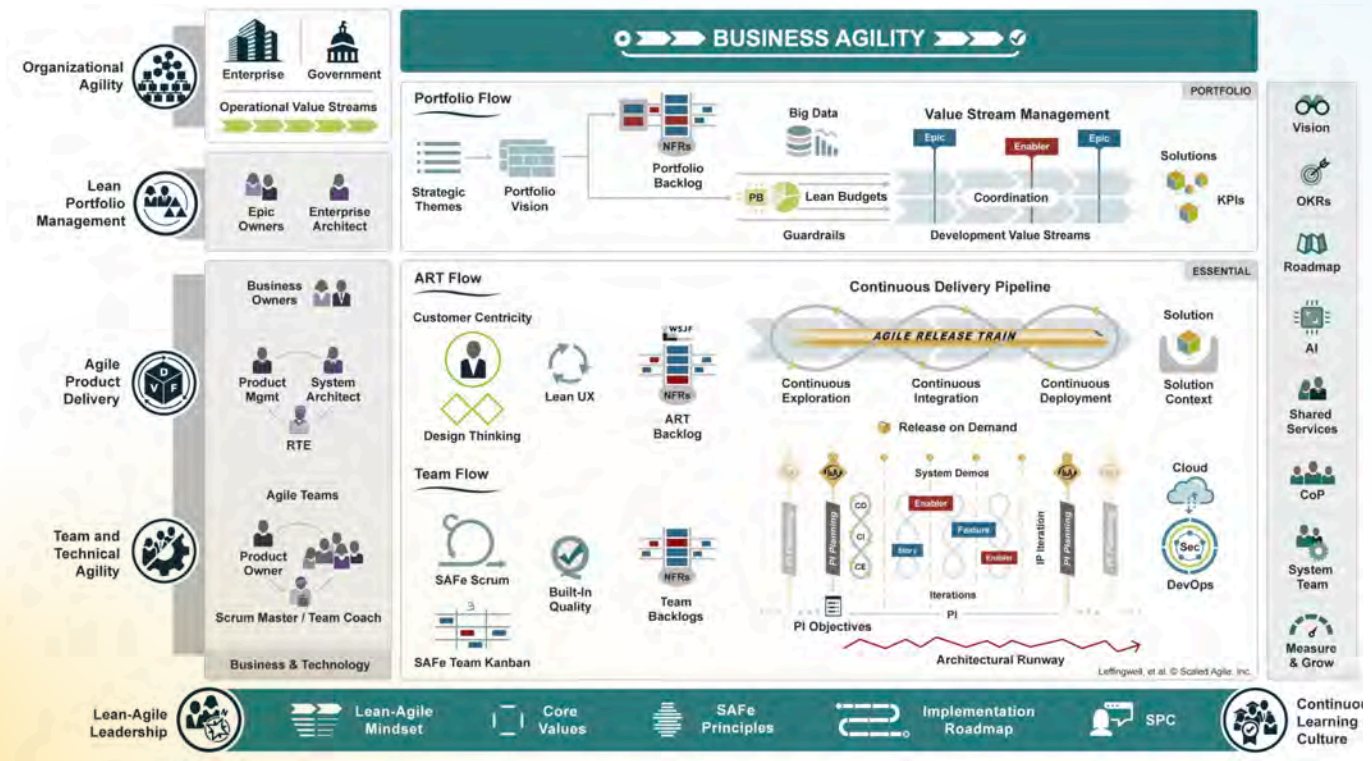


Figure 1: SAgFe 6.0, Scaled Agile, scaledagileframework.com

Technology as the enabling fabric

Investing in technology is about building for the future, changing how we operate, and enhancing how to deliver the greatest value to our clients and employees. When acting as the enabler, there are several foundational capabilities that technology needs to address. Some of them are:

Modern architecture and reusability

Consciously exposing a transfer agency platform to a large set of REST APIs enables clients to integrate the platform into the bigger wealth ecosystem. Also, the API platform allows the building of new features and products, leveraging existing complex business rules and ensuring consistent data processing through the database. This approach decouples applications from the data and creates reusable APIs. It leverages a microservices approach to enable independent scalability, remove a single point of failure, and improve maintainability. One additional aspect of the new architecture is implementing a single page application (SPA) using angular technology for a new graphic user interface (GUI) and associated online components such as online processing modules. Modern SPA technologies, such as angular, are cost-effective as they are distributed through the open-source community. Compared to server-side technologies, they are inherently faster as they run on the client/browser side, allowing for work distribution across end-user devices. Angular and other technologies also offer additional benefits such as scalability, flexibility, improved page loading time, better look and feel, and many other features that benefit enterprise-level applications.

Security

Security is a paramount aspect of application development and must be at the forefront of architectural solutions. Protecting IT assets and data through access rights, authentication, authorization, and encryption are just a few aspects of accountability throughout the entire transformation lifecycle. A specialized vulnerability detection process is implemented across all web applications to mitigate risks. The process provides complete visibility into the application's health and security throughout the development and product lifecycle. It relies heavily on a set of tools such as CAST, SonarQube, Nexus Repo, and others for vulnerability detection through Dynamic Application Security Testing (DAST), Static Application Security Testing (SAST), and Software Composition Analysis (SCA). Early detection of vulnerabilities ensures the delivery of robust, worry-free web applications.

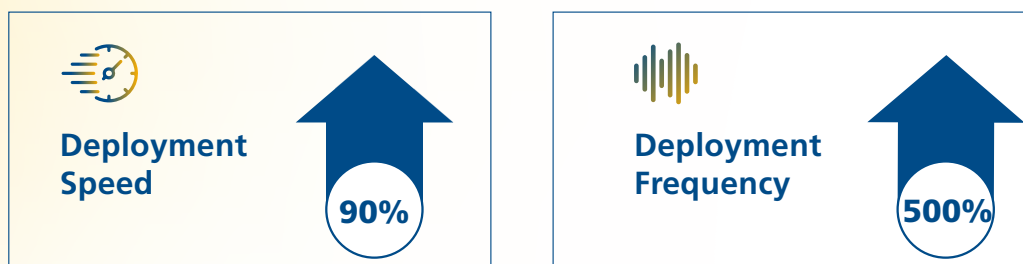
Quality

A lot can be said about modern quality engineering practices, but the linchpin of a transformation program is the automation of core QA activities. Automation ensures transactional equivalency, functional equivalency, and efficient regression testing. Leveraging an automation-first approach can result in greater coverage and higher quality at greater velocity. Integration with AI tools further optimizes regression test cases. Some results we have realized from experience are:

- 50% faster regression testing
- 40% defect reduction per release
- On track for 80% automation; Ability to determine defects early in the development cycle, reducing the amount of refactoring post-SQA testing

Deployment automation

As development progresses, the project lifecycle deployment frequency accelerates, requiring an automated deployment process. This can be achieved by creating a continuous integration and continuous deployment (CI/CD) pipeline. Leveraging this process ensures a fast and consistent deployment process integrated with automated testing scripts. The entire process of managing deployment, environment provisioning, and app monitoring through automation serves as the foundation for DevSecOps. Value realization based on DevOps enablement we have witnessed has been nothing short of impressive:

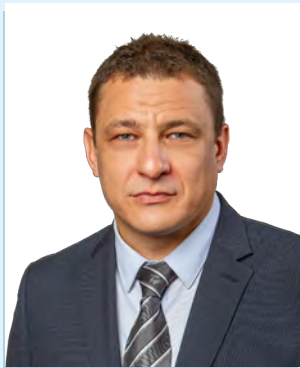


Keep the lights on during transformation

As re-imagined modules and functionality become available for clients to adopt, legacy functions must continue to serve users and meet ongoing regulatory and customer requirements. A gating process can be introduced to capture impacted projects to ensure efficient implementation of these changes with minimal refactoring efforts. Solutions to those projects can be designed according to standard design patterns established to suit ongoing maintenance and digital transformation needs ahead.

In conclusion

Every digital transformation journey is unique and has its own set of challenges. Given the scale, cost, and impact on every member of an organization, it is critical that it starts and concludes with top-to-bottom commitment, a clear strategy, and an engaged staff and client base. A thoughtful, transparent, purposeful approach will ensure this significant investment in technology puts the pieces in play to grow together and build for the future.



Stanislav Hristov
Head, Enterprise Engineering

Stanislav is the Head of Enterprise Engineering with over twenty five years of experience in software engineering, application development and consulting practices. The majority of that time has been in leading engineering teams for TA record keeping platforms in Canada. Stanislav is responsible for leading the LTIMindtree Canada delivery team in new ways of working, application stability & quality, delivery automation/efficiency, and technology innovation across our platform ecosystem – all with a deep customer focus.

He has graduated from Ryerson Polytechnic University with a B.Com. in Information Technology Management. Stanislav's greatest strengths are his leadership, team building, dedication, drive and passion for technology.

Headquartered in Mississauga, Ontario, LTIMindtree Financial Services Technologies Inc. ("LTIMindtree Canada") is a wholly owned subsidiary of Larsen & Toubro Infotech, a leading global technology consulting and digital solutions company.

With over two decades of rich experience, LTIMindtree Canada with its flagship product – Unitrax® – a SaaS-based transfer agency record-keeping suite, is one of the leading wealth and asset management platform in Canada, with Assets Under Administration in excess of CAD \$1Tril+, enabling fund manufacturers and insurance providers to address their record-keeping needs across the product spectrum such as Mutual Funds, GICs, Hedge Funds, Alternative Investments, Institutional Funds and Insurance Wealth Products – all under one platform.

LTIMindtree Canada has a deep understanding of disruptive technologies, and partners with top Canadian financial services firms to accelerate digital journeys of its clients through end-to-end consulting and implementation solutions, Smart Automation and Advanced Data Analytics, Cloud Infra & Security, Assurance Services and Business Process Management. Follow us @LTI_Canada