

Driving Innovation and Growth to Scale Success

CLIENT |  **Savvy Aviation**



Software Engineering

Software Development

Technical Integration

25+ years of driving technology innovation for startups and high-growth companies.

Expert in scalable solutions, notably led Uber's JUMP integration, growing from 0 to 45k vehicles and from 0 to 2M+ rides.

Growth-focused consultant, helping businesses eliminate software bottlenecks for consistent, high-quality software delivery.

Thanos Diacakis

Fractional CTO

Technology Leader

Business Problem

Savvy Aviation faced legacy technology and limited resources, restricting their ability to scale and launch new services.

Output by Frac CTO

Modernized Savvy Aviation's platform, introduced scalable services, and drove customer growth with innovative, AI-driven solutions.

Impact for Client

Experienced 10x customer growth, industry leadership, enhanced user experience, and increased operational efficiency.



Client Background



Industry / Business Type

Aviation – General aviation services for small aircraft owners



Client Size / Stage

SME – Bootstrapped, steadily growing

Challenge

Savvy Aviation, a bootstrapped SME in the aviation space, initially offered a single maintenance management service for aircraft owners. The company lacked deep **technical expertise** and relied on **outdated and clunky systems, including a Joomla-based platform**, which severely limited scalability and innovation.

Key challenges included:

- **Lack of technical expertise:** The company had aviation experience but lacked software development skills to develop modern web applications.
- **Outdated architecture:** The existing platform's poor design hindered functionality expansion.
- **Resource constraints:** Being a bootstrapped company, they couldn't afford a full-time CTO or a top-tier engineering team.
- **Growth demands:** The company needed to launch an engine analysis service to capitalize on a fast-evolving market.

Role of Fractional CTO

Engagement Model

Flexible, task-based, and later evolved into a revenue-sharing model.

Primary Responsibility

- Introduced as a **technical partner** to build the engine analysis service.
- **Overhauled the architecture** of the existing system to enable scalability.
- **Educated the client** on effective software engineering practices.
- **Managed the transition to modern platforms**, including a Django-based stack.
- **Built and managed an offshore engineering team** to handle ongoing development and support.

The Strategic Value of Fractional Work

Savvy Aviation gained access to **senior-level expertise** without the financial burden of a full-time hire. The fractional CTO model provided:

- **Expertise on demand:** Enabled the company to rapidly develop, deploy, and scale new services.
- **Cost-effectiveness:** A revenue-sharing model ensured alignment between incentives and deliverables.
- **Long-term strategic guidance:** Thanos evolved from an implementation role to a strategic advisor, overseeing architecture, team management, and product strategy.

Actions and Approach

Immediate Steps

Thanos **built and launched the engine analysis service, leveraging Django**, within the first year. This service analyzed engine data to provide actionable insights for aircraft owners.

He **addressed architectural issues** by replacing the outdated Joomla-based system with modern Django platforms.

Long-term Strategy

Thanos consolidated the platform by unifying services to enhance scalability and improve user experience.

He enabled the diversification of services, introducing new offerings across price points, including mid-tier QA and breakdown assistance in partnership with an insurance provider.

He modernized the infrastructure by implementing CI/CD pipelines, version control, and cloud-native architectures with AWS.

He streamlined the user experience and simplified technical implementation by reducing service offerings from six to four.

Cross-functional Collaboration

- Established recurring strategic and tactical meetings to align engineering, product management, and leadership.
- Collaborated with aviation experts to incorporate deep domain knowledge into product development.

Tools or Methodologies Used

- Tech Stack: Django, React, AWS, DevOps principles.
- Agile Practices: Lean Kanban with a focus on minimal viable product.
- Custom AI Models: Developed predictive analytics for engine health monitoring, identifying potential failures 20–100 hours before they occurred.

Results and Impact

Quantitative Impact

- **10x growth in customer base:** Grew from hundreds of customers to thousands over 12 years, capturing a significant share of the general aviation market.
- **Industry leadership:** Became the standard for engine analysis, borescope image analysis and flight management in general aviation, with over 6 million flights analyzed.
- **High retention rates:** Achieved renewal rates of 80–90% for premium services, reflecting exceptional customer satisfaction.

Qualitative Impact

Enhanced user experience by transitioning from clunky, outdated systems to a modern, streamlined platform with rich interactions.

Improved operational efficiency through automated deployments, advanced testing environments, and lean development practices.

Innovated predictive analytics with industry-first AI-driven features, enabling proactive engine maintenance and reducing downtime for aircraft owners.

Key Milestones

- **Launched the engine analysis service**, which quickly outpaced the original offering in customer adoption.
- **Introduced Breakdown Assistance**, providing pilots with real-time expert support during emergencies.
- **Consolidated and simplified the product offering to four core services**, aligning with business and user needs.

Takeaways for Other Businesses

Why This Case Matters

This case exemplifies how fractional leadership can drive long-term success for SMEs in resource-constrained industries.

By combining technical expertise with a deep understanding of the aviation domain, the fractional CTO model helped Savvy Aviation scale sustainably while maintaining its lean operational approach.

Key Insights

- **Start Small, Scale Strategically:** Launching a new service proved a catalyst for growth, enabling incremental improvements over time.
- **Align Incentives:** A revenue-sharing model ensured alignment between the fractional CTO and the company's goals.
- **Focus on Retention:** Exceptional customer satisfaction and retention rates fueled sustainable growth, even in a niche industry.
- **Leverage Predictive Analytics:** Data-driven insights created competitive advantages, setting the company apart in a crowded market.



Thanos has contributed immeasurably to Savvy's success. Without question, the body of software developed and maintained by Thanos and his team has become the company's single most important asset.



Mike Busch
CEO @ Savvy Aviation