



Customer Success Story

Daffodil enables Sagitarix to provide affordable healthcare delivery across Kenya through an integrated on-demand healthcare application



Customer: Sagitarix (iSikCure)
Country: Kenya
Industry: Healthcare
Our Role: Product Engineering



About Client

Sagitarix Ltd is a private health technology and concierge medicine distribution company based out of Nairobi, Kenya. It provides on-demand access to various healthcare services such as doctors, physicians, pharmacies, pathologists, etc. through a single mobile app. The organization's mission is to help underserved patients access safe, affordable healthcare and medicines through a mobile platform called iSikcure. It is the only platform in Kenya, which vertically integrates and directly links all the stakeholders in the healthcare ecosystem such as pharmaceutical companies, distributors, insurers and healthcare providers with the patients.

25000+
users

1000+
medical experts
registered

100+
pharmacies onboard

2000+
online consultations per
day



"I express my sincere appreciation to Daffodil for fantastic work leading up to the launch of iSikCure. I deeply appreciate the continuous support of the team during and after the project delivery for their outstanding knowledge and acumen in software development and client service."

Dr Moka Lantum

Founder & CEO, Sagitarix

The Situation

Sagitarix aimed to provide on-demand and cost-effective access to healthcare in Kenya by developing a platform that connects all the stakeholders in the healthcare sector. However, they were unaware of the technical requirements to mobilize the healthcare information electronically across all the stakeholders while complying with healthcare regulations. Hence Sagitarix was in the lookout for an experienced technology partner that could turn their vision into a market fit product. Sagitarix singled out Daffodil Software for its hands-on knowledge of operations, compliances, and experience in developing breakthrough applications for the healthcare sector. The key challenges that Daffodil was presented with were:

- To develop a real-time, secure and integrated healthcare information exchange platform with innovative features such as telehealth and telemedicine modules, that brings together all the stakeholders in the healthcare delivery ecosystem.
- To build a platform using the Offline-first application architecture that enables the application to work with offline access for areas that have slow network connectivity in Africa.
- To simplify the prescription process to save doctor's and patient's time and integrate additional features such as Medpoints and gamification to the application for enhanced user experience.
- To minimize the cost of health-related data management by creating a central repository to store patient health records while ensuring adherence to compliances such as HIPAA and data breach laws.

The Solution

The engagement started with the Daffodil team setting up a strategic requirement gathering process in place. This was done through our unique Discover & Frame workshop, wherein we document app ideas, target market, persona, business model, competition, revenue streams, etc. This helps us get a clear understanding of what is the client's expectations and effectively develop a project roadmap. Once, all the aforementioned aspects were documented, our expert business analyst team analyzed the application requirements, created user stories, feature lists, process flow diagrams and clickable prototypes of the application. On the techno-commercial front, they suggested the most viable technology stack, identified third party tools and Integration and proposed a block level architecture of the application.

Keeping all of Sagitarix's requirements into consideration, Daffodil recommended developing a health information exchange (HIE) platform. The platform could enable users to access information on how, when and where they could seek quality medical care, diagnostics, and medicine in and around their area. iSikCure, an integrated platform was developed, wherein healthcare professionals, physicians, pharmacies and diagnostics centers could register themselves, and the patients could connect with them.

The frontend architecture was built using modern technologies such as AngularJS and Ionic to deliver the best in class User experience. The API was developed using NodeJS and MongoDB which helped us make iSikCure a high-performance and scalable application. The application was developed in adherence to the HIPAA compliance and the data breach laws to ensure confidentiality which is vital for a healthcare solution like iSikCure.

Some of the key modules that Daffodil developed were:

Telehealth Module: This feature enables the medical practitioners to remotely monitor the patient's health and prescribe them health advisory accordingly. This also includes a medicine adherence module in which doctors could prescribe medication and remind patients to take their medication, on defined intervals.

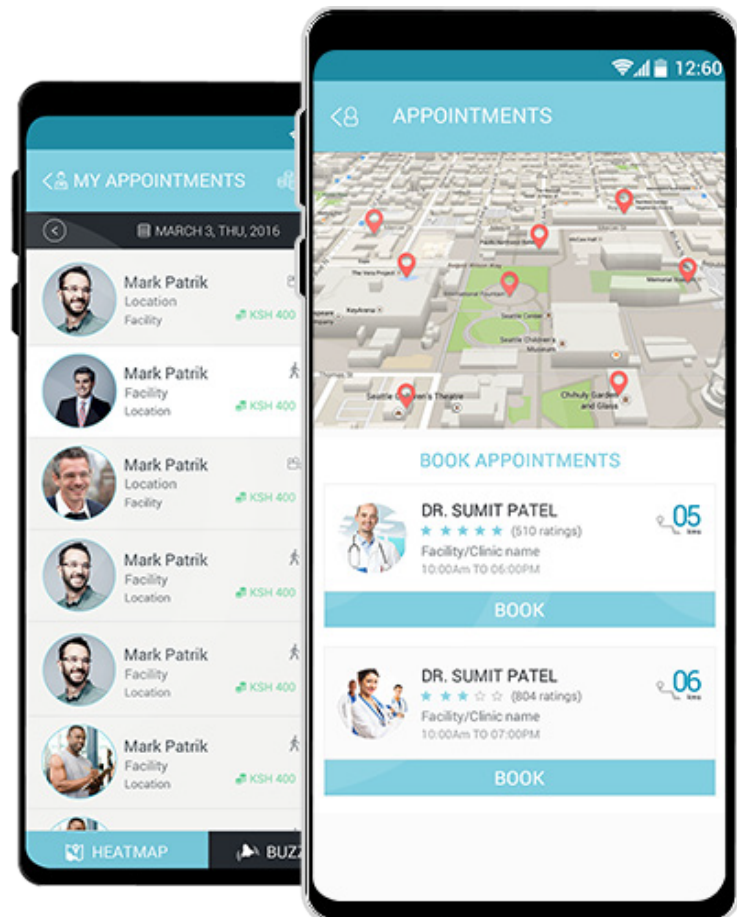
Electronic Record Management System (ERMS): This feature was added to keep a consolidated record of the medical history of the patients including symptoms, prescription, appointment details, etc.

Appointment Booking System: This allows patients to book appointments using the mobile application to connect and communicate with doctors, labs, pharmacies, and health counselors.

Offline Support: This feature enables users to have a seamless experience in slow or no network connection. Caching, manual replication and real-time data synchronization approaches were followed to develop an offline-first application architecture. This was done considering the telecom infrastructure in Africa.

Integrated Gamification: This feature enables higher user retention by setting up an integrated reward point system in place, called the Medpoints. Its goal was to make users interact with the application and experience a sense of accomplishment each time they receive MedPoints. Hence, making them repeat the required actions acting as a successful reward and loyalty program in the long run.

Database System: A detailed database of medicine was developed in MongoDB which allows document-oriented storage and is easy to scale, for faster retrieval of medicine details on the user's request.



Impact

Sagitarix successfully launched the iSikCure mobile application, which was scalable, resilient and optimized for an excellent performance. The app delivered top-notch user experience and helped Sagitarix realize its market potential at the earliest as the go-to-market time of the application was reduced by 36% by using innovative methodologies to escalate the development process. The app acquired more than 18,000 users in less than 6 months of its inception. In addition to that, the app received the prestigious Medica App Award in 2017. iSikCure seamlessly addresses the connectivity challenges between the patient, doctors, and other healthcare providers, thereby making medical services accessible and affordable in Kenya. It currently has more than 1000 registered doctors and 100+ pharmacies on board.



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Technology Stack













- ASP.NET Core
- Angular7
- DevOps
- MongoDB
- NodeJs

About Daffodil

Daffodil Software is a software engineering partner to 100+ organizations across the globe and has been helping them in making their software products more robust, teams more productive and processes more efficient. Our ability to look beyond technologies to deliver innovative solutions with scale and speed has been lauded by our clients as well as the tech community worldwide.

Since our inception, we have invested in organic growth; building on our engineering capabilities, organizational processes, and culture required to deliver a truly collaborative ecosystem for solving technology challenges. At the core of Daffodil lies a culture rooted in innovation, learning and a result-oriented mindset.

GRANDVILLE, USA

2885, Sanford Ave SW
#28585, Grandville,
MI 49418 USA

GURGAON, INDIA

9th Floor, Tower B1,
DLF SEZ Silokhera,
Sector 30, Gurgaon
122001

DUBAI, UAE

Suite No.: 407- 412,
Clover Bay Tower,
Business Bay, Dubai
United Arab Emirates

HISAR, INDIA

6th Floor, Metropolis Mall,
Industrial Area, Hisar,
Haryana - 125005



✉ info@daffodilsw.com

🌐 www.daffodilsw.com