daffodil

Success Story

Transitional Care Management (TCM) Platform Development for a US-based Healthcare Provider - Elite Care

Customer	Country	Industry
Elite Care	United States	Healthcare

About the Client

Elite Care is a US-based transitional care provider dedicated to revolutionizing patient care through innovative technology solutions. With a focus on streamlining transitional care management (TCM), Elite Care seamlessly connects care providers in real time, enhancing the quality of care in the post-acute care setting. Elite Care's versatile and robust platform is designed to cater to the diverse needs of various transitional care stakeholders. By leveraging cutting-edge technology, Elite Care synchronizes care stages and optimizes communication among providers, ensuring that every transition in the care continuum is smooth, efficient, and patient-centered.

Tech Stack

Business Situation

As per statistics, nearly 1 in every 5 Medicare patients discharged from the hospital are re-admitted within 30 days due to inefficient care coordination post-discharge. However, effective Transitional Care Management (TCM) can help reduce the chances of re-hospitalization by over 80%. In general, the TCM process includes the physician staff contacting eligible patients after their discharge. However, this process becomes challenging with the hospitals operating in silos and not coordinating with primary care physicians and clinics.

The market opportunity behind developing a holistic TCM solution

Despite its importance, no existing healthcare firms were effectively tackling the challenges of managing transitional care for patients. The market lacked a comprehensive tool to handle the multifaceted tasks involved in the process, such as follow-ups, medication reconciliation, and coordination between various care settings.

Recognizing this significant gap, Elite Care envisioned developing a unique platform that would comprehensively address these challenges. The client's goal was to offer healthcare providers clear and accurate access to patient data, ensure timely follow-ups and interventions, and improve overall care quality while reducing readmissions. Additionally, streamlining transitional care tasks would alleviate the administrative burden on healthcare providers, enabling them to focus more on delivering better patient care.

Elite Care was looking for a technology partner to deliver the solution in a short span for which it reached out to Daffodil Software for its astute expertise in transforming vision to market-fit software platforms at pace, specifically for the healthcare industry.

Daffodil Software was expected to:

- ✅ Conceptualize and develop the TCM solution, including, UI/UX, architecture design, development, and testing of the solution using the most efficient technology stack.

- ✅ Establish a solid architectural framework that not only supports the overall functionality of the platform but also enables rapid deployment.

- ✅ Develop user-friendly portals for practice and facility management to streamline & manage tasks and oversee patient information effectively.

- ✅ Enable interoperability between various EHRs for seamless data flow.

- ✅ Ensure compliance with industry regulations and standards such as HIPAA.

- ✅ Complete the entire project within a stipulated timeline of just 15 weeks.

The Solution

A seamless journey from requirement to release – powered by Locomo

To execute this project on a tight timeline, Team Daffodil chose to build the client's web application using its proprietary project management tool called Locomo.

Locomo embraces an architecture-first approach and defines the top-level architecture of the solution right at the beginning. The application was decomposed into well-defined decoupled modules based on which all requirements were documented in the form of user stories. This ensured a clear and structured roadmap for development, allowing the team to focus on specific functionalities without losing sight of the overall system.

Going forward, the team designed the core UI/UX components to create an intuitive and user-friendly interface. They focused on ensuring that healthcare providers could easily navigate the platform, access vital patient information, and manage tasks effectively.

Locomo's built-in visual tool [leveraging entity-relationship (ER) diagrams] enabled the team to automatically map the relationships between various components – such as patient records, tasks, and provider interactions. This significantly enhanced the speed and efficiency of the team by laying out a clear picture of different components, their functions, and interactions – through an automated visual view.

By aligning schemas and APIs, Team Daffodil improved the platform's interoperability and streamlined data exchange, while enabling seamless integrations with EHRs such as AdvancedMD.

Locomo's in-built testing automation framework helped to identify and resolve issues early on, ensuring the platform's reliability and performance. This structured approach enabled the team to focus on specific functionalities within each Release Unit, facilitating timely adjustments and improvements before deployment, so they do not disrupt the overall effectiveness of TCM delivery.

As a result, the final platform was a robust, reliable, and high-performing solution that effectively transformed transitional care delivery. It empowered healthcare providers with intuitive tools for managing patient information and coordinating care, ultimately improving patient outcomes.

Our development focused on several key aspects, including:

Enhancing patient management through EHR integrations:

A critical component behind the platform's working was its integration with Redox, a middleware solution facilitating seamless data exchange among various Electronic Health Records (EHR) systems.

Locomo enabled seamless integration of Redox with the TCM platform. This was done to pull comprehensive patient data from EHRs (such as AdvancedMD). To ensure that the information stays relevant, this data is being pulled every 7 days post-patient creation and at the time of discharge; enabling accurate medication reconciliation and patient management.

With access to such vital data – including admissions, discharges, transition details between inpatient facilities, medication summaries, diagnoses, and other key care events – practice admins were able to make timely, informed decisions based on the most accurate patient information. Additionally, they could also update details on the platform regarding patient visits, summary notes, etc.

Ensuring a compliance-focused journey for our client:

In order to develop a HIPAA-compliant application, Team Daffodil implemented encryption for patient data both at rest and in transit to prevent any unauthorized access. Team Daffodil established role-based access controls to restrict data access to authorized personnel only. Two-factor authentication was leveraged to safeguard against any unauthorized access. Periodic security audits were also conducted to maintain compliance and address potential vulnerabilities.

Enabling seamless TCM with the development of admin portals:

Team Daffodil leveraged Locomo to develop the Facility Admin and Practice Admin portals, essential for effective care coordination. Its modular design facilitated rapid feature development, while the in-built deployment automation enabled swift & error-free deployment.

Key features of the portals were:

Dashboard: A central hub providing real-time updates and a comprehensive view of patient details and care tasks. This feature allows users to monitor patient transitions and manage care efficiently. Dashboard stats show TCM completion in the last 30 days. An 'Encounter' is considered 'TCM complete' if its tasks are done within 14 days, otherwise, the encounter is marked as a 'TCM miss' on the dashboard to help identify the reason and resolve it in the future.

Facilities: Showcases various healthcare facilities to streamline patient data management and ensure smooth transitions between different care settings.

Chat: An internal communication tool for real-time collaboration among care team members, enhancing coordination and ensuring effective management of patient care.

Tasks: Manages and tracks transitional care tasks such as medication reconciliation, visit scheduling, and patient follow-ups. This feature automates task management and ensures that all required actions are completed within specified timeframes.

Admin: Provides tools for managing user roles, access controls, and system settings. This feature supports platform customization and ensures adherence to care management protocols.

Patient Chats: A secure messaging feature enabling direct communication for specific patients by their care teams. This enables follow-up discussions and ongoing support.

Alerts: The system provides real-time alerts for different roles to make things happen in a time-bound manner. For instance, the care team is notified when there is an outstanding task due in the next 24 hours.

TCM note: Once TCM is completed for a patient, the option to generate and download a TCM note in a PDF format is made available on the platform. TCM note is a summary of all the TCM tasks along with related details of the tasks that were done post-patient discharge.

Impact

The collaboration with Daffodil Software resulted in a powerful, HIPAA-compliant TCM platform that supports healthcare providers in managing transitional care delivery more effectively. Through an architecture-first approach, Team Daffodil was able to accelerate feature releases by up to 50%, enabling faster time-to-market, i.e. just 15 weeks – to deliver the TCM solution. This expedited approach enabled Daffodil Software, to establish Elite Care as a benchmark for innovation in the healthcare industry.

The success of this initiative also highlights Locomo's critical contribution in enabling the client to deliver high-quality, patient-centered care, reduce patient re-admission rates, streamline administrative processes, and enhance interoperability among care providers and facilities.

The TCM platform not only met the client's current needs but also laid the groundwork for a more integrated and responsive healthcare system, paving the way for continued success in transitional care management.
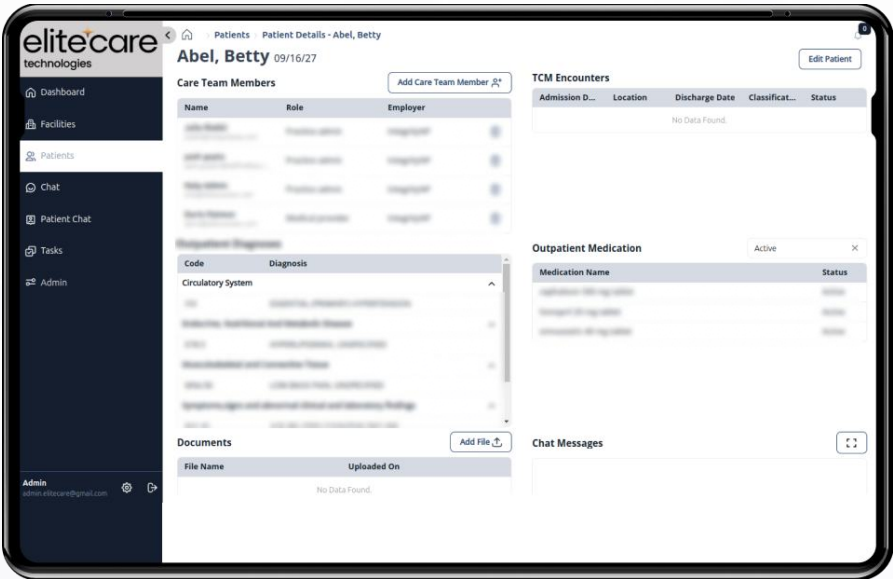
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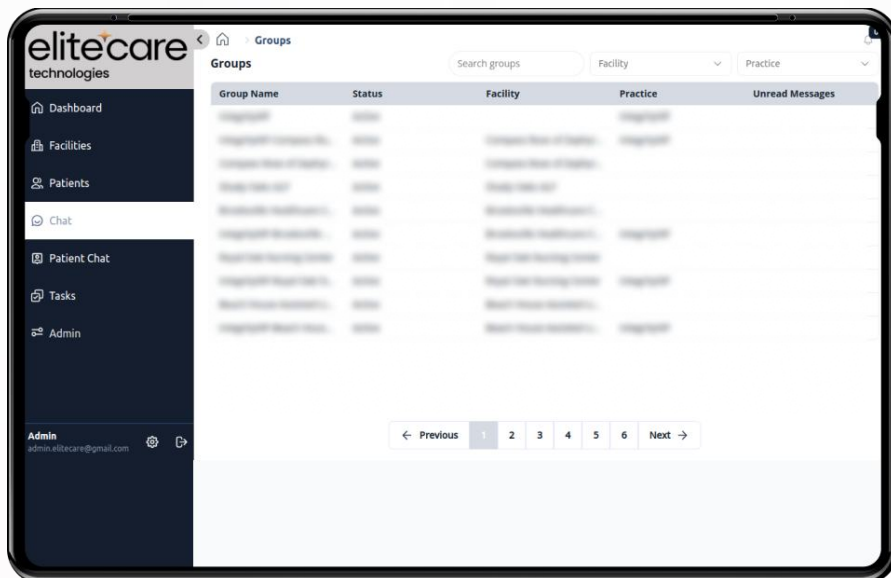**Healthcare Software Development Services**
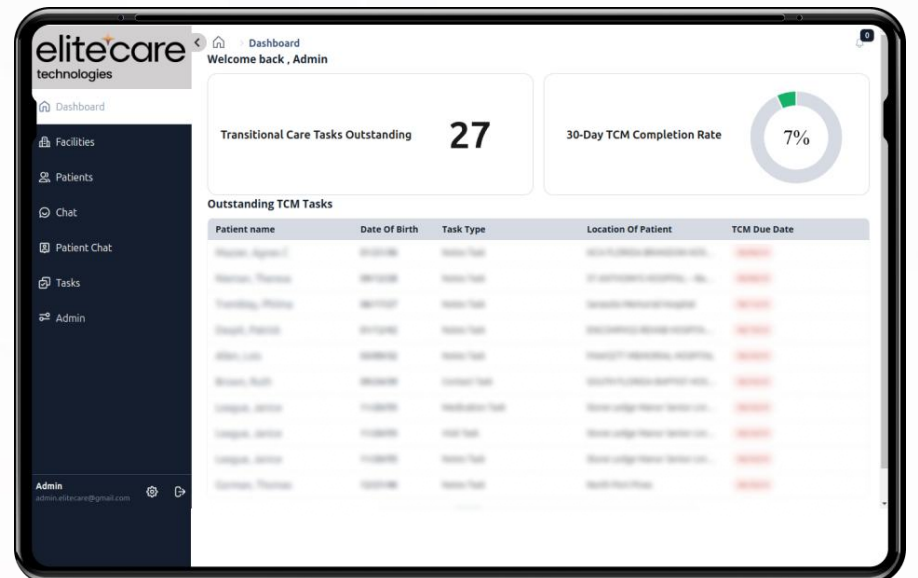
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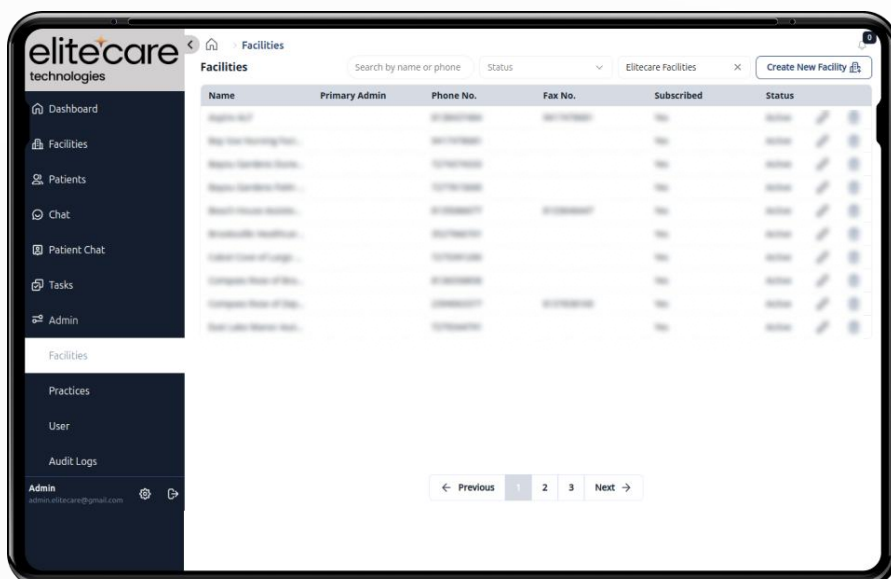
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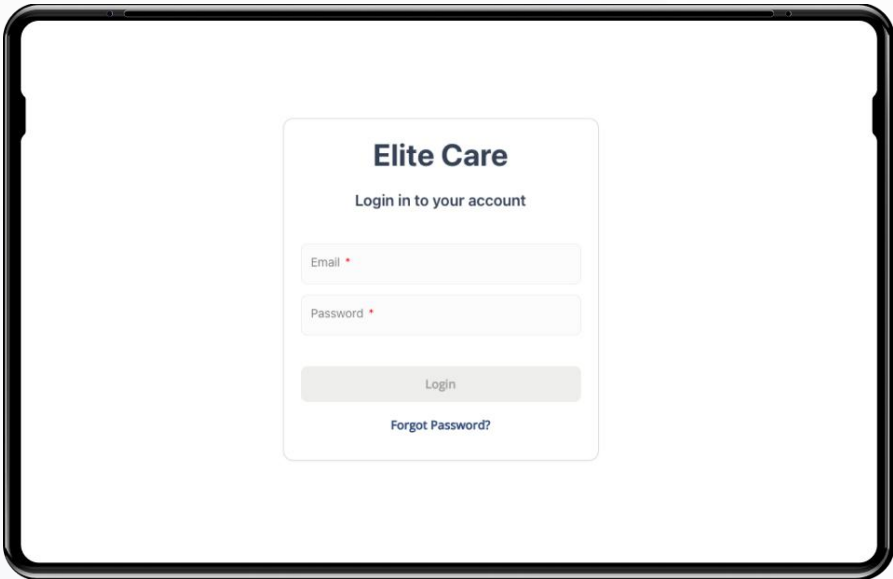
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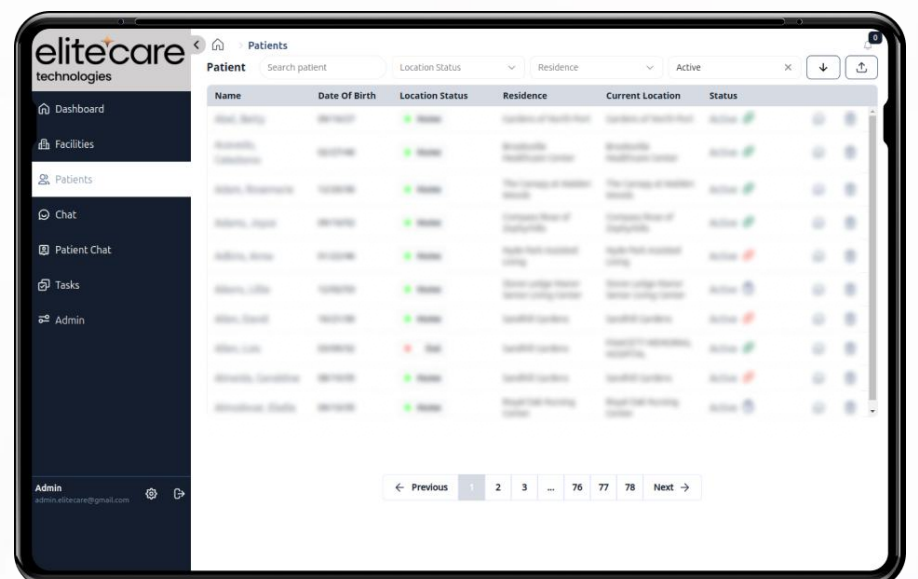

Patient Summary

Group Chats Feature

Admin Dashboard

Facilities List

Patient List

Have a software product vision in mind?
Setup a personalized consultation with our technology expert.

Let's Talk