

Devsinc



A 120 Year USA Brand Goes Headless for Regional Expansion

How Devsinc Built a Scalable Platform for Abbott Frozen Custard's Market Entry





Client Overview

Abbott Frozen Custard is a Rochester, New York founded dessert brand with a legacy spanning more than 120 years, serving frozen custard, ice cream, cones, bakery items, and specialty desserts across its retail locations. The brand operates through a franchise model, with locations spanning multiple states and a recent entry into the Texas market as part of its broader franchise footprint.

Business Challenges

Green Hill's separate B2C/B2B systems, once manageable, became barriers to growth as demand surged. Maintaining parallel platforms consumed 20% more operational resources, while inventory discrepancies caused 15% order fulfillment delays during peak seasons.

Legacy Architecture Constraining Regional Expansion

Abbott's legacy platform was never built to support multiple independent regions, so every new market entry meant duplicating infrastructure instead of simply extending it. This slowed time to market for Texas and put the business's regional growth plans at risk.

Content Bottlenecks Delaying Time To Market

Without a CMS, every content change depended on engineering availability rather than the marketing team's own release cadence. Promotions and seasonal campaigns that needed to launch quickly instead sat in a development backlog, delaying time to market on every initiative.

Rising Technical Debt Inflating Total Cost Of Ownership

An architecture that could not absorb new integrations or markets without accumulating technical debt steadily inflated the total cost of ownership. Abbott needed a foundation that improved return on future investment rather than eroding it.

Performance Gaps Driving Down Conversion Rates

Slow load times and inconsistent mobile layouts degraded the customer experience at every touchpoint, directly suppressing conversion rates. Each underperforming session represented lost revenue to competitors offering a faster, more reliable experience.

Tight Coupling Increasing Business Continuity Risk

Because one tightly coupled system served every market, a single regional change carried real business continuity risk for the entire platform. That risk forced teams to move cautiously, extending delivery timelines well beyond the Texas rollout.

Together, these gaps meant that nearly every interaction a customer or partner had with IGI ran through a person rather than the product, limiting reach and slowing an insurer that otherwise had six lines of business to offer digitally.

The Approach

The Abbott platform was built on a headless architecture, separating the frontend, content layer, and backend into independent services so each could scale and evolve on its own. This structure allows content updates to ship without code deployments, while keeping the overall system maintainable as Abbott's footprint grows.



Scope of Engagement

Abbott required a dedicated, independent platform for its Texas market entry, built separately from its existing system so the regional team could manage content without relying on engineering. Devsinc was selected following a competitive evaluation, based on proven replatforming expertise and the ability to deliver a modern, scalable architecture from the ground up.



Key Priorities

- ✓ A dedicated regional website for Texas, fully independent of Abbott's existing platform, giving the new market its own codebase and release
- ✓ A custom CMS built in Nuxt.js, enabling administrators to manage banners, pages, and site content without engineering involvement.
- ✓ A responsive, component based frontend built in React with reusable sections, delivering a consistent experience across devices.
- ✓ Backend integration with Python based REST APIs, serving dynamic content and business data to the frontend in real time.
- ✓ A modular, scalable architecture separating frontend, CMS, and backend into independent services built to support future features and integrations.

The Solution

The Abbott platform was built on a headless architecture, separating the frontend, content layer, and backend into independent services so each could scale and evolve on its own. This structure allows content updates to ship without code deployments, while keeping the overall system maintainable as Abbott's footprint grows.

A Dynamic, Reusable Experience

Built in React with TypeScript for reliability and Tailwind CSS for responsive styling, the frontend uses reusable components, including Hero Banner, Categories, Gallery Grid, and Menu sections, that render CMS managed content dynamically. Vite powers fast builds and optimized performance across desktop and mobile.

A Custom CMS in Nuxt.js

A purpose built CMS developed in Nuxt.js gives administrators direct control over banners, pages, menus, and navigation, with every update reflected on the live site through backend APIs, removing engineering from the day to day publishing process.

Python Powered APIs

A Python backend exposes REST APIs that deliver content and business data to the frontend, with TypeScript models ensuring reliable, type safe integration. Google Maps API integration adds store locator functionality, while Git and GitHub support version control and deployment workflows.

The result: a unified headless platform connecting a modern React frontend, a custom Nuxt.js CMS, and a Python powered backend, replacing a single rigid codebase with a modular, scalable system built to support Abbott's continued growth.

Tech Stack

Frontend

faster B2B order processing
auto-approved bulk pricing and one-click
reorders reduced vendor checkout time
from 12 to 5 minutes.

React: Built the user interface using a reusable, component based architecture.

TypeScript: Added static typing for improved code quality and long term maintainability.

Vite: Used as the build tool for fast development, hot module replacement, and optimized production builds.

Tailwind CSS: Delivered responsive, utility first styling across the entire application.

Content Management

Nuxt.js: Powers a custom built CMS that lets administrators manage website content, banners, navigation, and pages without any code changes.

Maps and External Services

Google Maps API: Integrated for location based features and store locator functionality.

Backend

Python: Powers the backend services and exposes REST APIs consumed by the frontend.

REST APIs: Used for dynamic content delivery and communication between the CMS, backend, and frontend.

Development and Version Control

Git and GitHub: Used for source control, collaboration, and deployment workflows.

The Outcomes

The new platform gives Abbott the structural outcomes its Texas entry required, and a foundation the wider franchise can build on.

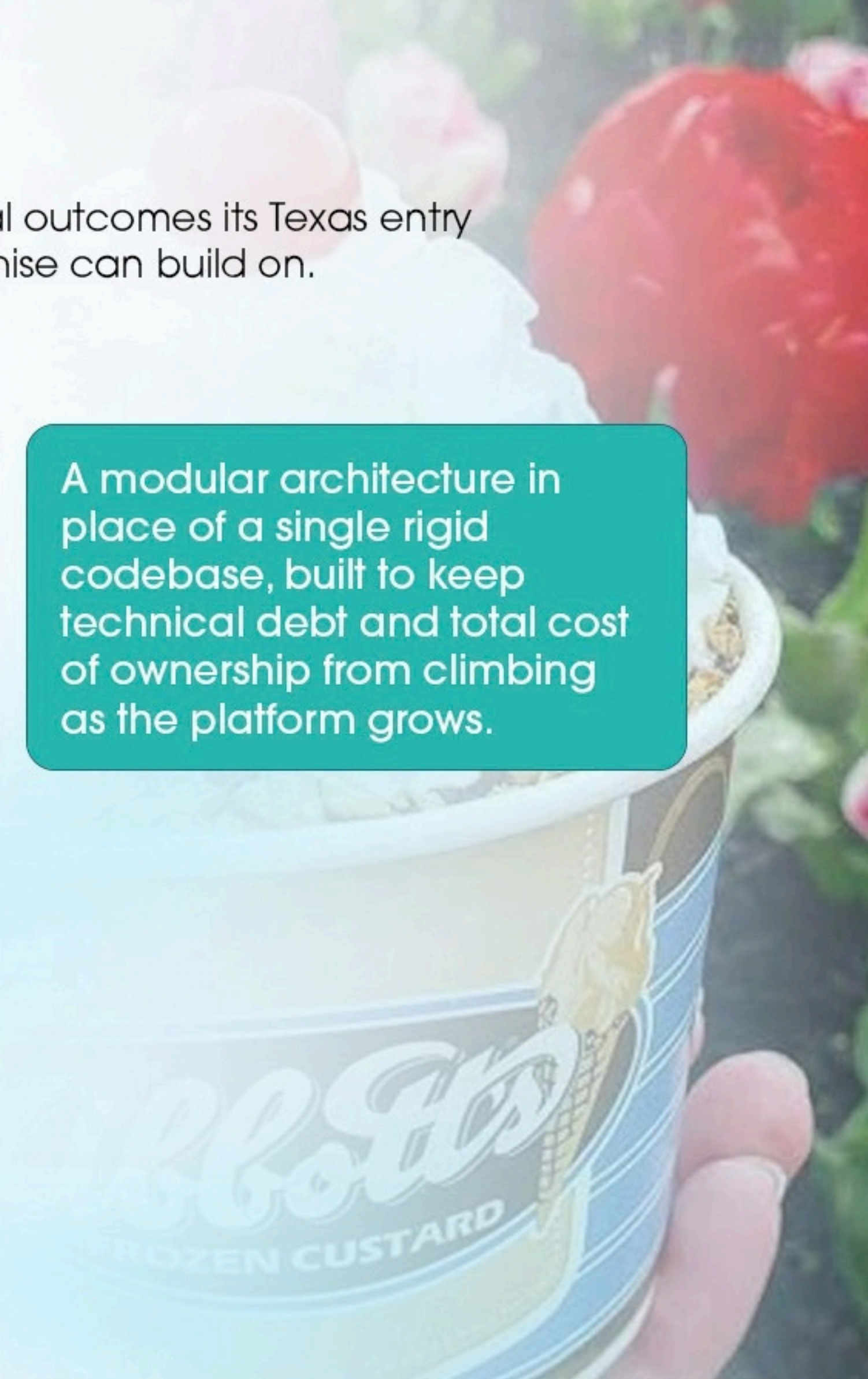
A dedicated Texas platform running on its own codebase and release cycle, fully independent of Abbott's existing system.

Frontend, CMS, and backend scale independently, so new regions, features, and integrations can be added without disturbing what already works.

A modular architecture in place of a single rigid codebase, built to keep technical debt and total cost of ownership from climbing as the platform grows.

Content publishing moved from engineering to marketing, with banners, pages, menus, and navigation updated through the CMS without code deployments.

A consistent, responsive experience across desktop and mobile, delivered through reusable frontend components.





Future Outlook

With a dedicated Texas platform now live and fully independent of Abbott's legacy system, the brand is positioned to extend its digital footprint rather than rebuild it with every new market. Because the architecture separates frontend, CMS, and backend into independent services, new regions, features, and integrations can be added without disturbing what already works, whether that means launching additional state specific sites, expanding the CMS to support new content types, or connecting new backend services as the franchise network grows. Content that once depended on engineering now publishes on the marketing team's own timeline, a foundation built to scale alongside Abbott's continued expansion.

Let's talk about building scalable, high performance web platforms tailored to your business needs.

About Devsinc

Devsinc is a global technology partner helping enterprises across North America, the UAE, APAC, and the wider MENA region turn technology into a competitive and lasting growth advantage. With 15+ years of experience, 3,000+ successful projects, and 230+ active clients across 23 countries, we bring together deep engineering expertise, platform capabilities, and proven delivery to help businesses modernize, scale, and build what comes next.

Our capabilities span Application Engineering, Data & AI, Enterprise Applications, Staff Augmentation, and end-to-end digital transformation, enabling us to take organizations from strategy through execution. We build custom digital products and connected technology ecosystems while helping enterprises maximize the value of their existing platforms.

As a Microsoft, Salesforce, and Shopify partner, we combine platform expertise with custom engineering to modernize enterprise applications, extend CRM and ERP capabilities, transform commerce experiences, and build new digital products. We also help organizations identify high-value opportunities for AI and embed intelligence into the products, applications, and workflows that drive their business.

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