Praxent ⌘

ClickModel® Overview Guide

Our see-it-before-you-build-it user prototyping method

Introduction

Your company is probably already exploring the role that custom software development can play in your plans for competitive strategy and business growth. You're likely wanting to understand how working with an outside development firm could help you achieve those goals. In fact, you may be talking to different vendors and evaluating which may be the best fit for your project and your organization.

This guide is an overview of ClickModel — our approach to developing custom web-based software solutions for businesses leaders wanting to take their business to the next level.

Resulting from more than fifteen years building hundreds of custom software solutions, mobile apps, and websites — the principles outlined in this guide are drawn from industry best practices in the software development, user experience (UX), design, and lean startup disciplines. Our team of software development and user experience experts have refined (and continue to refine) these practices to work well in an agency/client project collaboration.

CLICKMODEL OVERVIEW GUIDE

What is ClickModel?

ClickModel is our process for quickly turning your software idea or concept into an interactive prototype.

During a ClickModel engagement, our team of user experience experts works with you to identify your business goals and your users' needs and then build upon that strategic foundation to solidify the important decisions and tradeoffs that will shape the users' experience of your software concept. From there, we create a clickable/tappable prototype that you, your stakeholders, and potential users can experience on actual desktop, laptop, tablet and smartphone devices.

WHY PROTOTYPE THE USER EXPERIENCE? ⸻

Fifteen years in the software development industry has taught us that we really don't learn how well something works until people have a chance to experience it. That's why we believe strongly in building an interactive prototype before engaging in programming development. Interacting with a ClickModel prototype allows a level of engagement that a wireframe or mockup cannot convey: on-screen behaviors, transitions, form interactions, viewport re-sizing, conditional display of elements based on screen size, etc.

The prototype provides a usable model of how the final interactions should work so there are fewer questions during the development process.

With a ClickModel prototype established and approved, a clearly defined scope of work can be identified. This will be documented as a list of user stories from which a reliable production estimate can be generated and against which the development team can work.

KEY BENEFITS OF A CLICKMODEL PROTOTYPING ENGAGEMENT

There are five crucial benefits of investing in the ClickModel process:

- It's a proving-ground for ideas — surfacing as many feasibility issues as possible at the outset of the project.
- It's the least expensive time for experimentation and "what-if?" exercises.
- It allows you to get reliable estimates of development cost and duration.
- It provides a holistic way to validate and prioritize the scope of your project.
- It enables you to provide developers with robust user requirements with maximum clarity of the desired result.
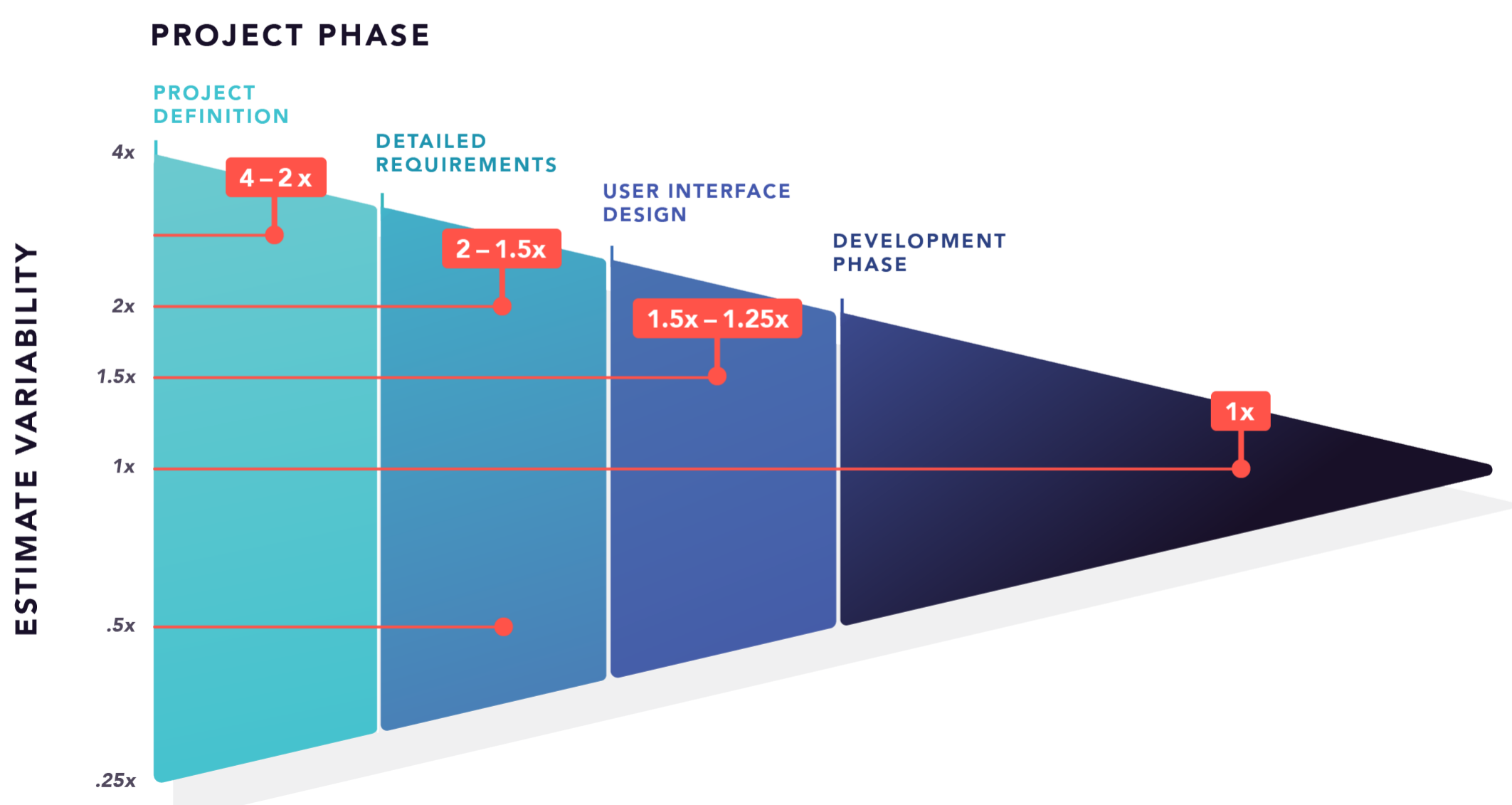
This makes a world of difference to the success of your software project. As one of our client partners stated:

> ## "Finally. Someone who understands my vision and has a clear plan for realizing it."
>
> — GREG CRABTREE, CEO • CRABTREE, ROWE & BERGER, P.C.

ESTIMATING AND "THE CONE OF UNCERTAINTY"

Software engineering expert Barry W. Boehm outlines what he calls the "Cone of Uncertainty" relative to estimating the cost and duration of software development projects in his comprehensive analysis titled Software Engineering Economics. To briefly summarize: the earlier in a project that we create an estimate, the less accurate that estimate can be…with variances as much as 200% - 400% or more.

PROJECT PHASE

PROJECT DEFINITION

DETAILED REQUIREMENTS

USER INTERFACE DESIGN

DEVELOPMENT PHASE

ESTIMATE VARIABILITY

4x — 4 – 2x

2x — 2 – 1.5x

1.5x — 1.5x – 1.25x

1x — 1x

.5x

.25x

Our fifteen year history working with clients to build software development projects indicates that most clients have a limited tolerance for uncertainty regarding project budgets and duration. In fact, our experience shows that most clients can likely tolerate an estimate variance of between 25% - 50%, but no more.

This is why we developed the ClickModel prototyping engagement. As detailed in the chart above, Boehm's research demonstrates that by the time the User Interface Design has been established, the likely estimation variance lands comfortably in the 25% - 50% zone. Our goal with ClickModel is to surface the important questions and decisions that will allow us to produce a reliable estimate of the production cost and duration of your software project.

FUNDAMENTALS OF A CLICKMODEL PROTOTYPING ENGAGEMENT

Effective software prototyping ensures that essential decisions are nailed-down in 5 key areas of focus: strategy, scope, structure, skeleton & surface.

Strategy	Scope	Structure	Skeleton	Surface
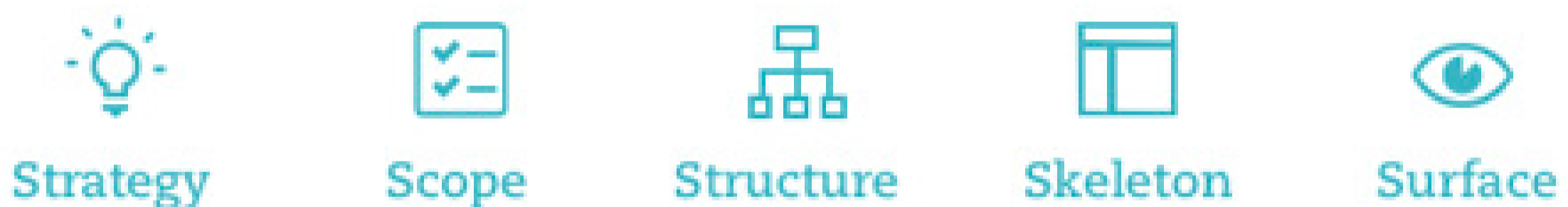
Choices made in each of these areas depend on decisions made in the preceding supporting areas and, together, comprise a holistic approach to a successful prototype of your user experience. We begin our approach by establishing the strategy for your software concept and advance from there to increasingly more concrete and detailed decisions impacting the user experience until we end up establishing the final sensory experience of your software's visual design.

A description of the key areas of consideration breaks down as follows:
- **Surface** – visual design of interface elements / visual design of text, graphics & navigational components
- **Skeleton** – Interface behavior and layout / Navigation behavior and layout
- **Structure** – interaction workflows / information architecture
- **Scope** – functional specifications / content requirements
- **Strategy** – business objectives / user needs

These form a conceptual framework for discussing user experience challenges and the tools we may employ to solve those challenges.

Level by level we move from the abstract to the concrete, the decisions required become slightly more specific and entail greater levels of detail.

As we move through the process, each section is dependent on those that precede it. When the decisions made in one area don't align with the decisions made in the areas before and after it, the user experience will be difficult and unsatisfying to use. In addition, the development phase is likely to hit snags and fall apart causing cost overruns and missed deadlines because the development team will find themselves trying to piece together components that don't fit.

Therefore, it becomes critical to acknowledge the intertwining nature of each stage with the stages that precede and follow it to ensure a positive outcome once the project moves into active development.

ClickModel Examples

Though each project has unique stakeholders, users, requirements, and constraints — the ClickModel methodology produced sound foundations for a successful development engagements and final outcomes.

On the following pages, we highlight a couple examples of ClickModel engagements we've performed for client partners.

CISCO DEVNET

We worked with Cisco's developer program group to craft a new, more immersive user experience for Cisco DevNet, their developer resources website at http://developer.cisco.com.

THE CHALLENGE

The depth and breadth of content on DevNet had spawned hundreds of micro-sites with different organization and navigation paradigms. Existing visitors to the site would only visit a few specific pages and never be exposed to newly released tools and technologies. Additionally, new visitors to the site struggled to know where to begin or even how to find resources related to a particular platform or technology.

CLICKMODEL ENGAGEMENT

Cisco had decided they wanted to implement a new user experience to the home page of DevNet with the objective of making it much easier to dive from the home page deep within the site's resources to a particular tool or technology. Praxent was charged with prototyping the proposed user experience so it could be tested by developer focus groups for feedback and refinement.
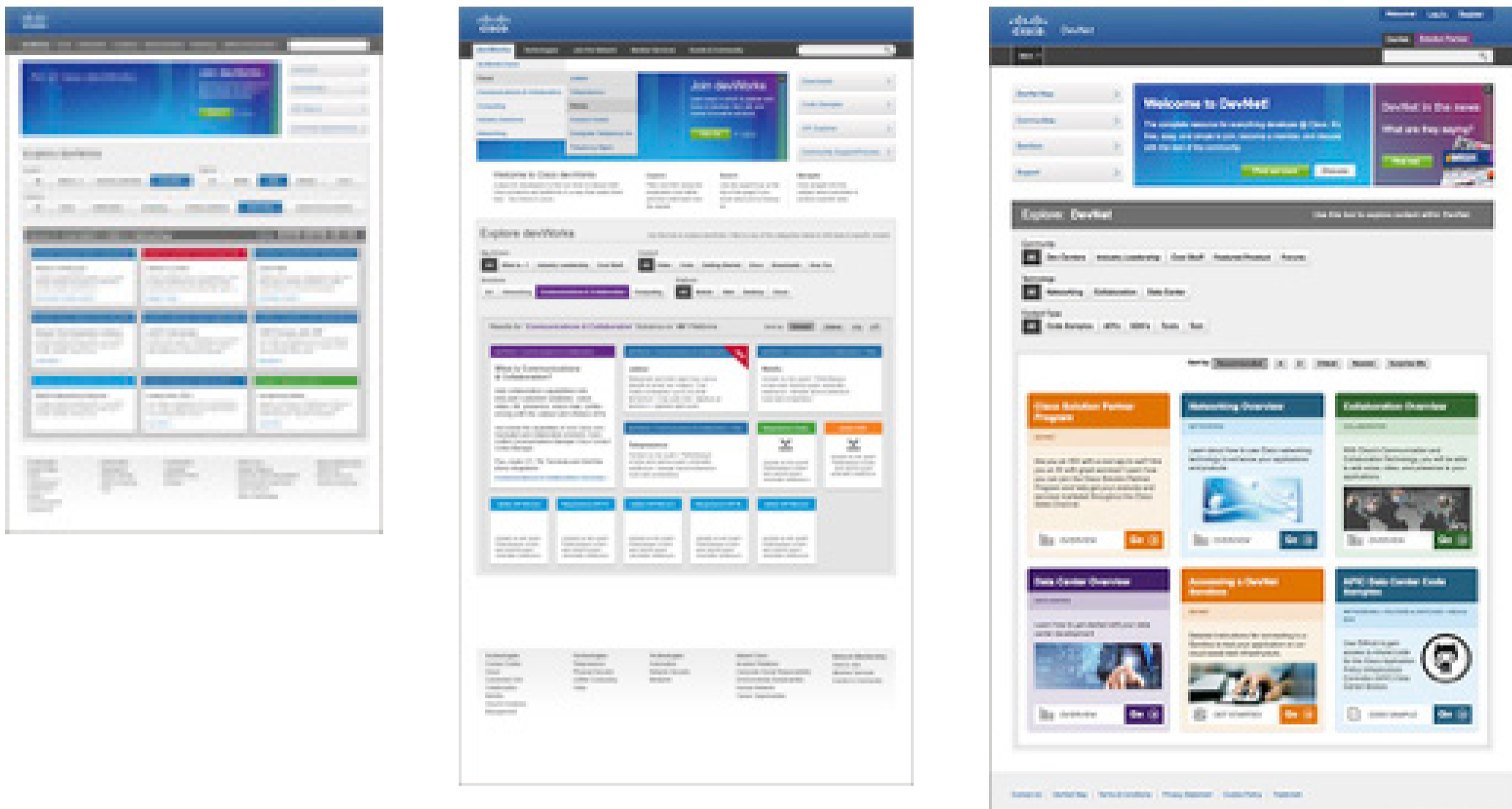
RESULTS

The ClickModel prototype prompted insightful feedback from the developer focus groups regarding both Cisco's proposed information architecture as well as the priority and placement of various navigational elements on the home page and subsequent interior landing pages.

Additionally, the prototype made it much easier to collect feedback and test the utility of a proposed color coding scheme for quickly identifying which of the three major technology categories a particular resource belonged to.

The completed ClickModel prototype was handed-off to Cisco's developer program group for implementation within their in-house content management system. The finished solution is used daily by thousands of developers worldwide.

OUR CISCO PARTNER HAD THIS TO SAY ABOUT THE CLICKMODEL EXPERIENCE:

"DeveloperProgram.com run developer programs for some of the world's largest technology and telecoms companies. We rely on our partner Praxent who understands our business, our clients, the developer's needs, and are able to articulate that into a portal design that is easy to navigate and understand, with the foresight to create an infrastructure that allows for untethered growth. The design team is a pleasure to work with, quickly comprehending our needs and

converting that to tangible deliverables, on time and always outstanding."

— STEVE GLAGOW, EXECUTIVE VICE PRESIDENT • DEVELOPERPROGRAM.COM

NORCAL MUTUAL INSURANCE

In the wake of a corporate merger, NORCAL came to Praxent looking to build an online portal for their insurance brokers to review their book of business and track which policyholders were behind on payments.

Their billing department was being inundated with phone inquiries from brokers asking for information about specific policyholder accounts and it was hindering their ability to attend to billing tasks.
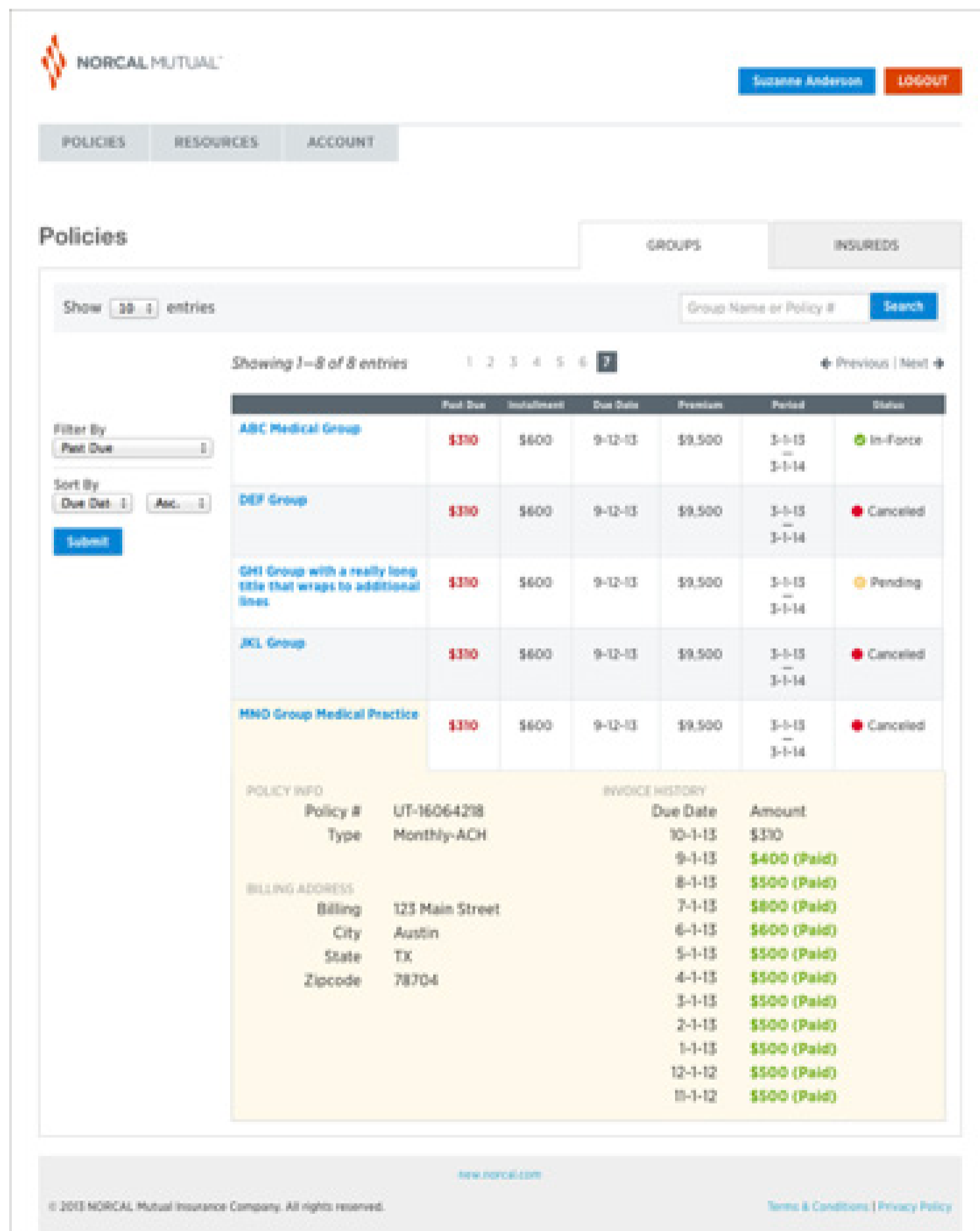
THE NORCAL MUTUAL BROKER PORTAL'S COMPLEX RESPONSIVE DATA TABLES WERE TESTED AND REFINED DURING THE CLICKMODEL℠ PROTOTYPING PHASE BEFORE DEVELOPMENT

THE CHALLENGE

Since NORCAL's insurance brokers are constantly on-the-go, it was crucial that the proposed portal not only be accessible by mobile smartphones and tablets, but be optimized for use on those devices.

While a native app solution was discussed, NORCAL determined that they wanted to invest in a responsive web application that could be accessed on desktops and mobile devices both by their internal teams as well as brokers in the field.

CLICKMODEL ENGAGEMENT

The primary user experience challenge tackled during the ClickModel engagement was how to display complex data tables in a way that would be equally useful on large screen desktop computers as well as handheld smartphone screens.

Since multitouch smartphone devices do not have cursors, they cannot display information via hover states as can desktop computers.

During the ClickModel process, Praxent was able to prototype various on- and off-screen methods of data interaction displays for NORCAL's team to review and test. The ability to experience the clickable prototype on both desktop and mobile devices helped NORCAL determine what pieces of data were most essential to be displayed on the smaller smartphone screens and which additional data fields would be displayed only on desktop screens.

ClickModel's iterative prototyping process provided a clear-cut way for stakeholders from billing, marketing and engineering to communicate effectively about the user experience and reach agreement regarding feature requirements and scope in a streamlined manner.

Next Steps

Are you looking to define what a minimum viable product might be for your software idea?

Do you need to validate the feasibility of your software concept? Do you need to identify of the investment of time and cost involved in bringing a software concept to life?

Now that you have a better idea of what ClickModel entails, contact us to schedule a phone consultation to discuss your software concept and how ClickModel might help you make it a reality.

Talk to one of our experts to learn more about how ClickModel Prototyping can benefit your project:

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