NC TRACKER

Streamline notifications with real-time SMS and email tracking. Monitor delivery, failures, and invoicing.

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MVP Overview

Project Brief

The NorthernNC Tracker provides real-time data on delivery, invoicing, and customer notifications, helping users quickly identify and fix issues. With features like dashboards, reports, and alerts, it ensures smooth operations and timely communication.

What I did:

- User Research
- Wireframing
- Prototyping
- Usability Testing
- Information Architecture
- Wireframing and Prototyping
- UI Design

The problem

Lack of visibility, challenges in receiving alerts and tracking the regional data on shipments (sent, delivered, failed).

Manual tracking is time-consuming and prone to errors, leading to delays in resolving issues.

Inconsistent tracking methods and lack of centralized data make it difficult to monitor performance and identify trends.

Regional inconsistencies: The inability to effectively track and control data and problems arising across regions.

Challenges

- Data Integration: Combining notifications and shipment data from multiple sources to provide a unified regional view.
- Real-time Tracking: Developing a system that can track shipments and notifications in real-time, regionally.
- Reporting Flexibility: Designing a reporting system that can be customized to meet the needs of different regions.
- Scalability: Handling increasing volumes of shipments and notifications as the system grows.
- Data Accuracy: Ensuring accurate and reliable data collection and reporting, even in challenging regional environments.

User goals

- Quickly identify and resolve issues affecting shipments and notifications.
- Get real-time insights.
- Efficiently manage their workflow and track the status of their tasks.
- Collaborate with colleagues and share information.
- Improve the overall efficiency and effectiveness of their operations.
- Customize the system to meet their specific needs and preferences.
- Access the system from any device, anywhere, at any time.

The Process

Here's a high-level view of research for NC process improvement:

Data Analysis and Visualization: Collecting, analyzing, and visualizing data to identify trends, patterns, and areas for improvement.

Discover	Define	Develop	Deliver
Stakeholder Interviews Data Analysis Market Research Competitive Analysis	Problem Statement Goals and Objectives Key Performance Indicators (KPIs) Project Scope	Prototyping Usability Testing Iterative Design Feedback Collection	Implementation Training Documentation Ongoing Support

Research

Primary Research

Conducted interviews with key stakeholders (dispatchers, operations managers, and customer service representatives) to understand their challenges, pain points, and current workflows.

Observed users in their natural environment to gain insights into their tasks and how they use the system.

Administered surveys to collect quantitative data on user satisfaction and system usage.

Interviews:

Questions I asked to uncover the ideas for my goals for users and goals users and stakeholders hoped to achieve:

Some interview questions:

- *What are your current methods for tracking and fixing NC notifications?*
- *What features do you think would be most helpful in a tracking system?*
- *How do you currently handle invoicing and customer notifications?*
- *What are your biggest frustrations with the current system?*
- *If you could change one thing about the current system, what would it be?*

Once I found out my users and stakeholders' pain points, I was able to start thinking about some solutions and alternatives.

Here are some of the things I learned by conducting research and interviews with users and stakeholders:

Secondary Research

Analyzed existing documentation and software training materials to identify common themes, gaps, and pain points.

Investigated the technology stack of competitors' software to understand industry standards and best practices.

Researched relevant industry standards and regulations for notification tracking and reporting to ensure compliance.

Explored publicly available data sources to gain insights into market trends and customer behavior.

Reviewed academic research papers and articles on related topics to stay informed about the latest advancements.

Performance Metrics: Analyze performance metrics and reports from existing systems to gauge effectiveness and identify areas for improvement.

Target Audience

The target audience for NorthernNC NMS and Email tracker System includes:

1. Network Administrators: Individuals responsible for maintaining network systems and requiring efficient tracking and monitoring of notifications.
2. IT Customer Support Teams: Professionals who need real-time updates on communication statuses to handle inquiries and resolve issues promptly.
3. Compliance Officers: Personnel tasked with ensuring adherence to regulatory standards, requiring detailed reports and logs for audit purposes.
4. Finance Department Responsible for reconciling invoices with notification records and managing billing discrepancies.
5. IT Administrators: Technical staff managing system integrations and ensuring the stability of notification tracking systems.
6. Regional Managers: Executives who oversee operations in specific regions and need summarized data to make informed decisions.

Research Summary

The research aimed to understand current notification tracking challenges, including time and delays, integration with existing tools, and regional variations. Key findings revealed inefficiencies in manual tracking, inconsistent data formats, and a need for real-time updates. Recommendations include implementing automated tracking, standardizing data formats, and developing a centralized dashboard for efficiency, communication, and data accuracy.

Persona

Based on the data gathered during the research, I set up three personas, I referred to them throughout the entire process:

Michael Hayden is a software engineer, a developer and a problem solver.

Sandra Ray is a Network Administrator with a keen eye for detail and a passion for ensuring seamless communication within her organization.

Emily Rodriguez is a dedicated Customer Service Representative who is passionate about providing exceptional support to customers.

Quickly identify and address issues affecting regional notification performance.

Has streamlined issue to handle tasks more effectively and reduce manual work.

Customer Journey Map

I created a customer journey map to map the emotional and physical ups and downs that customers face and where we can improve. Mapping out the customer's experience helped me empathize with their needs and pain points.

Steps	Setup and Configuration	Data Integration	Data Collection	Issue Identification
Thinking	I hope the system integrates easily with our existing tools.	What are the best practices for integrating data from different sources?	How can I ensure the data I'm collecting is accurate and reliable?	What's the most likely cause of this issue? Is it a data problem or a system problem?
Doing	I'm configuring the API keys and setting up the connections.	I'm writing scripts to map data fields and transform data formats.	I'm monitoring the data flow and checking for errors.	I'm running diagnostic tools and analyzing system logs.
Feeling	😐	😕	😐	😎
Pain Points	The documentation is unclear, and I'm not sure where to find the information I need.	The data mapping tools are not intuitive, and I'm struggling to get the data to map correctly.	The data quality is poor, and I'm seeing a lot of missing or incorrect values.	Troubleshooting is difficult because the system doesn't provide enough information about errors.
Opportunity	Provide clear, step-by-step guides and tutorials. Offer a setup wizard to simplify the process. Provide sample configurations.	Develop user-friendly data mapping tools. Provide data validation and cleansing features. Offer pre-built integrations with popular systems.	Implement data quality checks and alerts. Provide data profiling and reporting tools. Offer data cleansing services.	Improve error logging and reporting. Provide more detailed diagnostic tools. Offer a knowledge base with troubleshooting articles.

Information Architecture Design

The information architecture for the NorthernNC NMS and Email Tracker System organizes data into key areas. Hierarchical structures categorize notifications, shipments, and user interactions. Navigation menus and dashboards provide intuitive access to real-time tracking, historical data, and troubleshooting tools, ensuring efficient navigation and management of notification statuses and system performance.

- paper wireframes

I mostly start the design process with rapid paper sketches. This way I can iterate through design options quickly.

I create many designs and pick the best ones to move forward to digital wireframes for testing in the InVision app.

Wireframes

Wireframes are commonly used by layout architect and functionality on a page which the end users and viewers will see and how. Wireframes can also help to the development process to establish the base of the page before visual design and content is added.

Visual Design

The visual design was developed by blending from mood boards to the UI and finally to creating a full version.

I like the usability heuristic and minimalist. It would not change the first version. My goal was to make a visual identity that aligned with the brand's vision and core message. Also, I'm therefore the simplification and clean colleg into the my catalog of reference for

Color palette

- Primary color

- Secondary color

- Font family

Aa Aa Aa

Font family

H1 - 58px

H2-14px

H3- 12px

H4- 10px

- Font size

I used a modular scale to create a harmonious and consistent typographic hierarchy. This helps to establish clear visual relationships between different text elements and improves readability. The scale is based on a ratio of 1.25 (Major Third), which provides a noticeable but not overwhelming difference between each size.

User testing and feedback

1 Interface Intuitiveness: Evaluate how easily users can navigate the system to track notifications, sent, failed, delivered, and resolved.

2 Error Handling: Assess the clarity and effectiveness of notifications and error messages (e.g., failed messages).

3 Real-Time Updates: Test the responsiveness of the system in displaying real-time updates on the status of notifications.

4 User Satisfaction: Gather feedback on overall satisfaction with the system, including ease of use and areas for improvement.

5 Accessibility: Ensure the system is accessible to all users, including those with disabilities, and test the interface on various devices and screen sizes.

CONCLUSION

The NC Tracker System aims to offer a real-time and efficient tool to track significant insights and improvements. The usability testing highlighted how users find the system's interface generally intuitive, while also suggesting the following areas for improvement: Enhanced Error Handling: Implementing more specific and user-friendly error messages to guide users in resolving issues. Streamlined Navigation: Simplifying the navigation flow to reduce the number of steps required to access frequently used features. Improved Visual Feedback: Providing clearer visual cues to indicate the status of actions and system responses.

Additionally, the integration of real-time tracking within the notification system has not only improved, but has also significantly reduced the time required to identify and resolve issues. This has not only enhanced the overall efficiency of the system but has also led to increased user satisfaction.

The feedback and insights collected from the testing phase will be used to refine and improve the system. By addressing the identified issues and implementing the suggested improvements, I aim to create a more robust, user-friendly, and efficient system. These improvements will help the system better meet the needs of its users and contribute to the overall success of the project.

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INTERACTION IS THE RESPONSE. IT'S ALL ABOUT SOMETHING IN BETWEEN.

— Steven Holtzman

"A famous designer quote on interaction design"

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