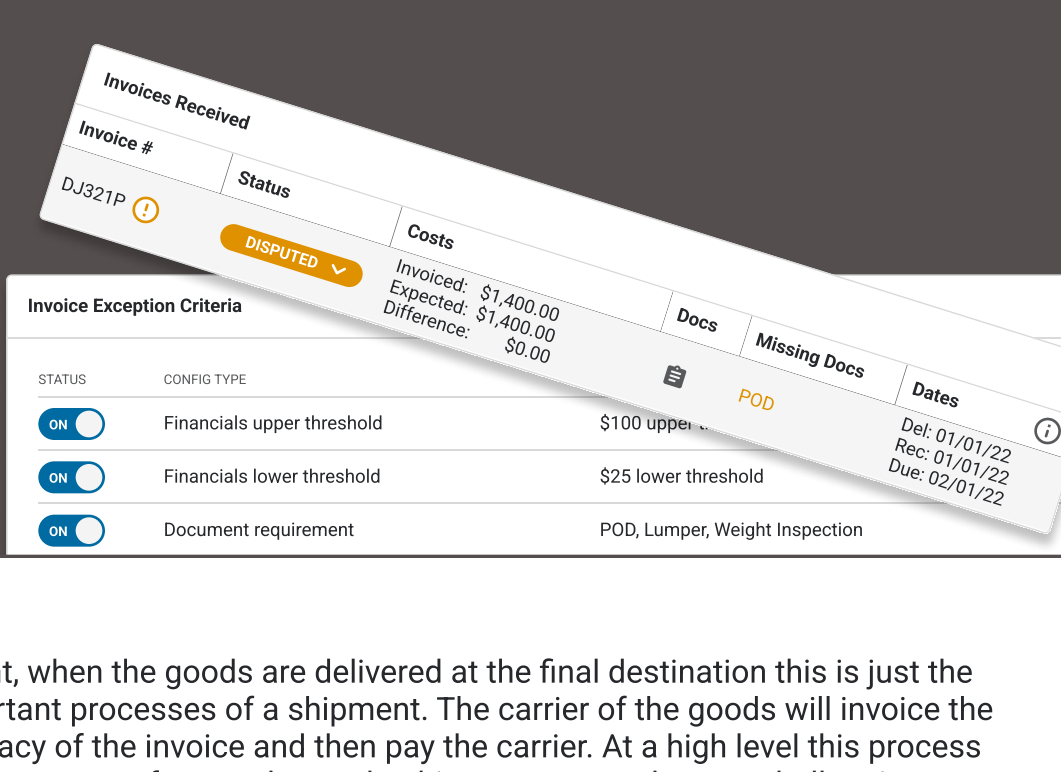


Freight Settlement

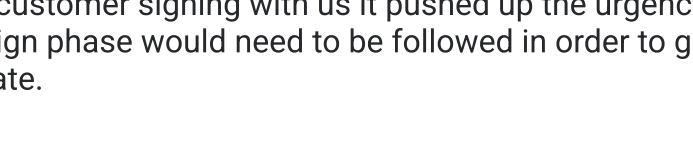
ROLE
Lead Product Designer

PLATFORM
Web



Background

In the lifecycle of a freight shipment, when the goods are delivered at the final destination this is just the beginning of one of the most important processes of a shipment. The carrier of the goods will invoice the shipper, who will validate the accuracy of the invoice and then pay the carrier. At a high level this process is simple but in the real world there are many factors that make this process much more challenging. These challenges create a complex workflow that involves much collaboration between shippers and carriers to resolve disputes and close out a shipment.



Business Case

Shipwell needed the ability to create and process invoices to cover the full lifecycle of a shipment. While we already had the ability record and manage shipment financials between shippers and carriers, intaking an invoice and verifying it against shipment information was not possible. This item was on our product roadmap but due to a large customer signing with us it pushed up the urgency for it. This meant an expedited research and design phase would need to be followed in order to get development completed by this customers' go-live date.

Discovery

1 Customer Survey

I wrote a customer survey to get quick, high-level feedback from a large group of our users. The goal was to collect data on their current invoice reconciliation process. I also used the survey to find customers who would be willing to participate in the design sprint and give feedback throughout the development process.

2 Competitor & Market Research

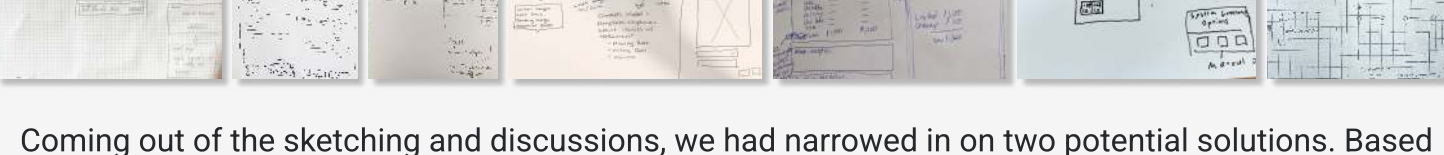
Our most direct competitors in the TMS space are legacy softwares that don't have an interface I would want to replicate but they did help me to understand the flow and most common features. From there, I branched out to products that specialized in freight invoice reconciliation as well as more general financial management systems to take note of common patterns and interactions.

3 Design Sprint

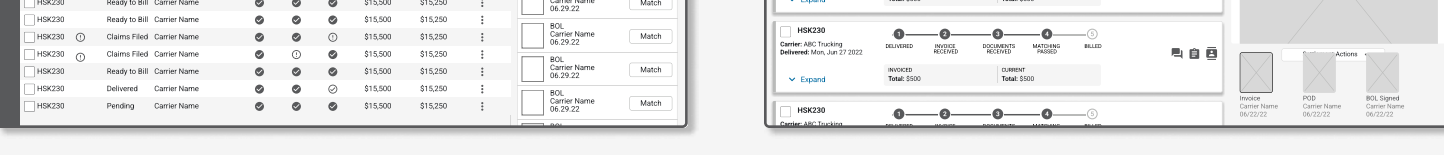
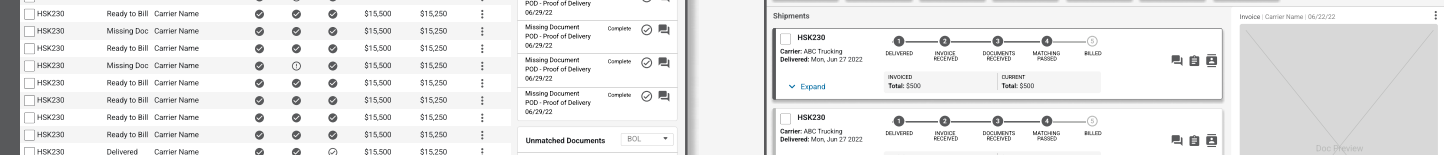
I led a weeklong design sprint that involved members of multiple teams within Shipwell. After working through ideation and discussion sessions with these team members I presented prototypes to customers in order to get feedback on the overall design direction. You can learn more about the full design sprint process in an upcoming case study

DESIGN SPRINT HIGHLIGHTS

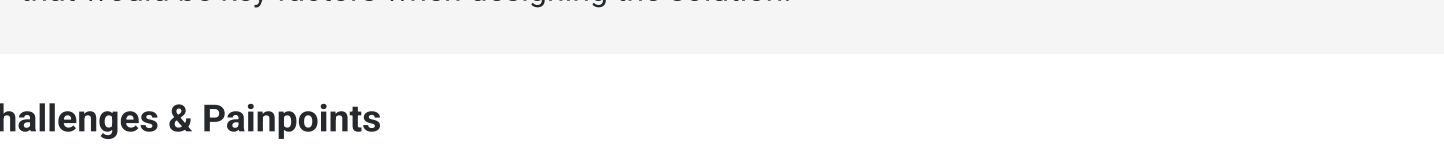
- I walked participants through the background of the problem and a user flow to help give them an understanding of what we were trying to solve. Before we started sketching, I provided them with the primary persona, a specific scenario and the Jobs-to-be-Done in order to keep their sketches focused.



- We performed two sketching sessions. In the first session, referred to as '6-Ups', each participant generated six ideas to solve the problem. Everyone was encouraged to not be constrained by tech limitations or level of effort. The point was to think creatively and out-of-the-box. After 30 minutes, everyone discussed their sketches and the thought process behind them. The second sketching session, referred to as a '1-Up', participants sketched one idea or flow based on their favorite ideas from the previous sketches they had reviewed. This session was also followed-up with a discussion of the sketches.



- Coming out of the sketching and discussions, we had narrowed in on two potential solutions. Based around a common set of actions, I designed lo-fi screens for both solutions. I then created two prototypes for these designs. Meetings were scheduled with the original participants, internal experts, senior leadership and 4 customers. I walked through each prototype and then sought feedback.



- At the end of the workshop, a clear direction was established for the design vision. Customers preferred the table layout. The primary user of this feature would be accounting teams and they were familiar with spreadsheets. The table layout felt consistent with the tools they used and also made it easier to consume the pertinent information for a large volume of invoices.
- Through the design sprint, many important discoveries were made about this flow and the painpoints that would be key factors when designing the solution.

Challenges & Painpoints

- Validating differences in cost that occurred during the shipment
- Different user managing shipment (logistics manager) than settling invoice (accounting team)
- Each accounting team has a different process
- Volume of invoices - manually reviewing every single one is inefficient
- Communication & documentation is dispersed through phone calls, emails and internal notes

Design Keys

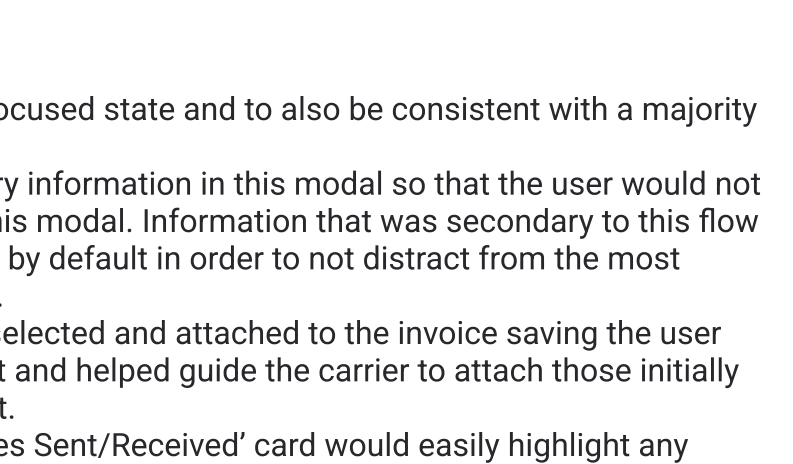
- Customization to support different processes
- "Manage by Exception" = Automation
- Simple & flexible
- Present all data and actions on a single page
- Keep communication & documentation in the platform

Problem Statement

Shippers need an efficient and flexible way to validate invoice charges and pay carriers in a timely manner. In order to do this they need all of the relevant information in one place and need an easy way to collaborate with carriers and manage by exception.

Design Process

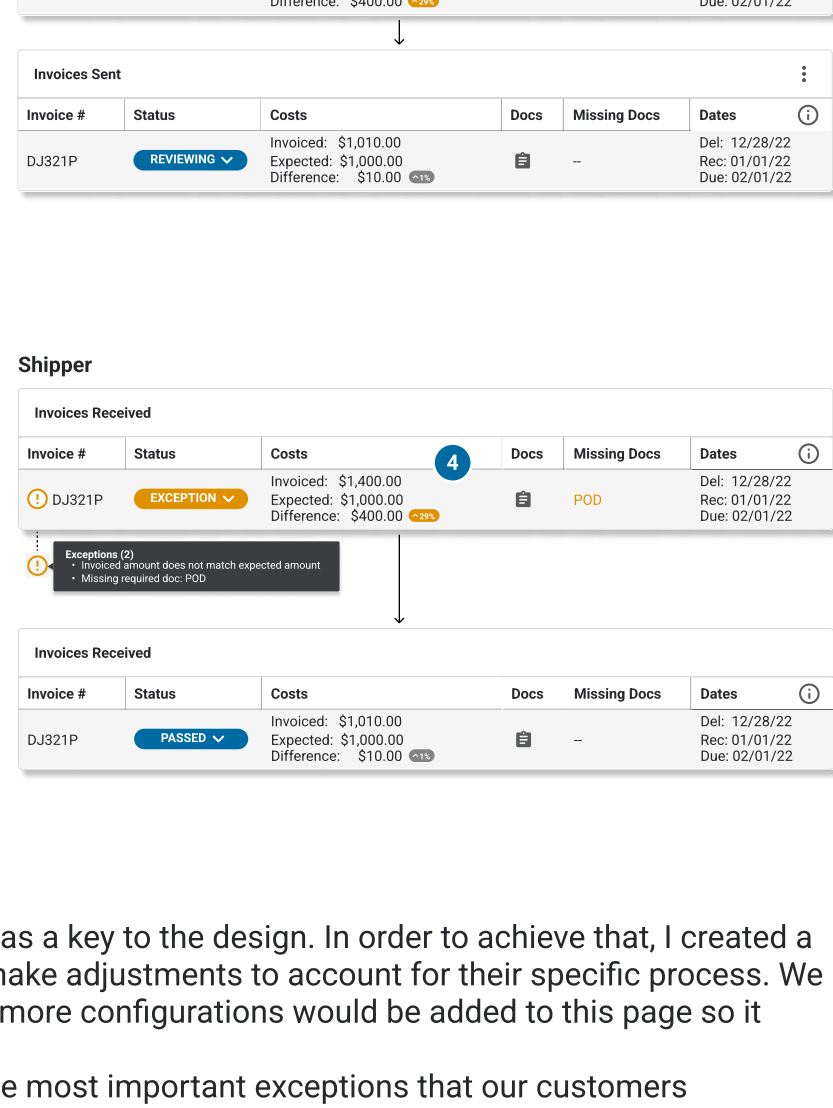
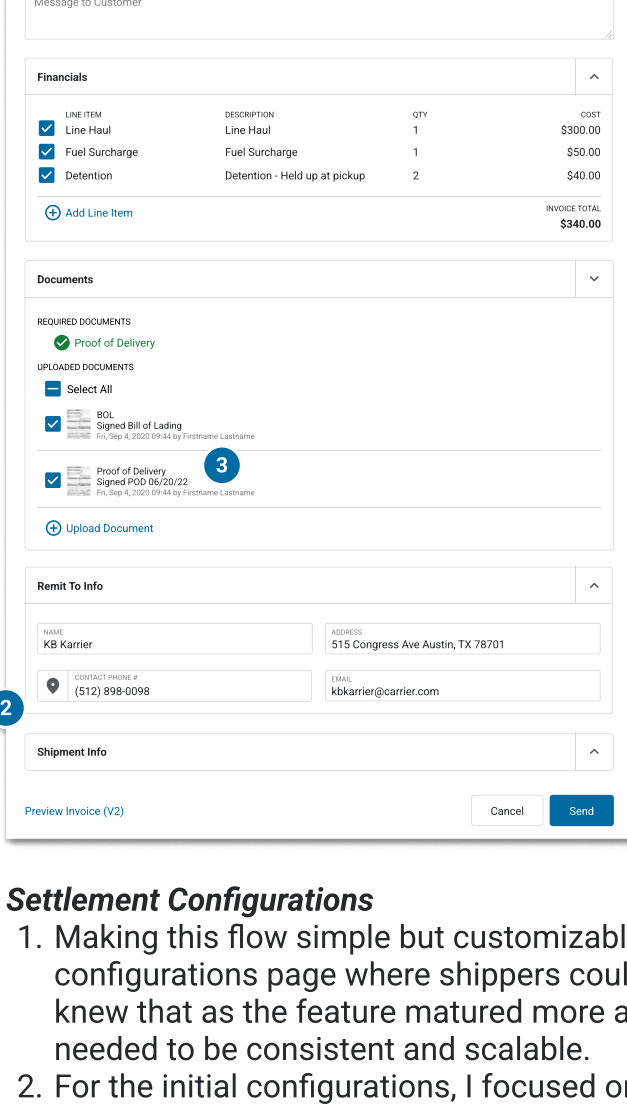
- Feedback, early and often
- Cross-functional collaboration
- Customer feedback
- Facilitating tough conversations with designs/diagrams
- Iterative design approach
- Deliverables: User flows, diagrams, wireframes, hi-fidelity designs, documentation, prototypes
- Product reviews (QA)



Design Highlights

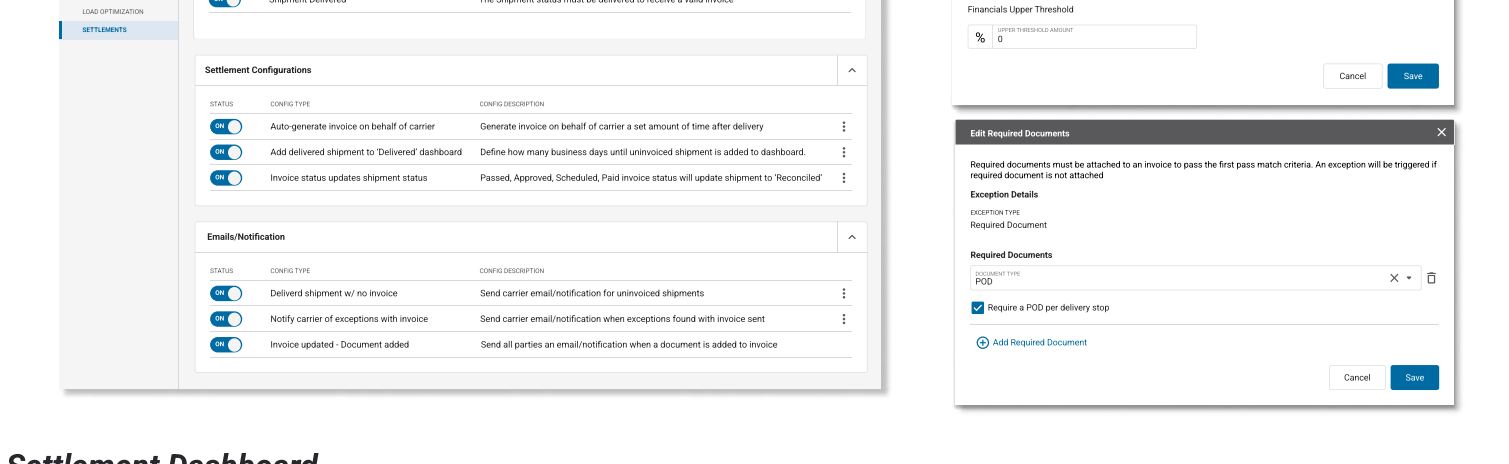
Invoice Creation

- Used a modal for invoice creation to create a focused state and to also be consistent with a majority of the other creation flows in the product.
- The other key was providing all of the necessary information in this modal so that the user would not need to use another tab in order to complete this modal. Information that was secondary to this flow (shipping items and stops) would be collapsed by default in order to not distract from the most important steps but was available if necessary.
- The shipment documents were automatically selected and attached to the invoice saving the user clicks. Any required documents were called out and helped guide the carrier to attach those initially rather than having to come back at a later point.
- Once the carrier created the invoice the 'Invoices Sent/Received' card would easily highlight any problem areas that may need to be addressed. Important areas like delivery dates, financial misalignment and missing documents were all called out in orange to signal a potential issue. This color pattern was used throughout the flow helping the user to easily recognize issues.



Settlement Configurations

- Making this flow simple but customizable was a key to the design. In order to achieve that, I created a configurations page where shippers could make adjustments to account for their specific process. We knew that as the feature matured more and more configurations would be added to this page so it needed to be consistent and scalable.
- For the initial configurations, I focused on the most important exceptions that our customers discussed; upper and lower financial thresholds and required documents. These configurations would trigger an exception and automatically change the status on the settlement dashboard. These configurations gave each shipper the flexibility to adjust the flow to their existing process.
- These configurations achieved another main goal, automation. By setting up these thresholds, invoices would automatically move to a status that the user needed to look at. Not only did this remove the manual review step but it also helped achieve the 'manage by exception' ethos we heard many times.

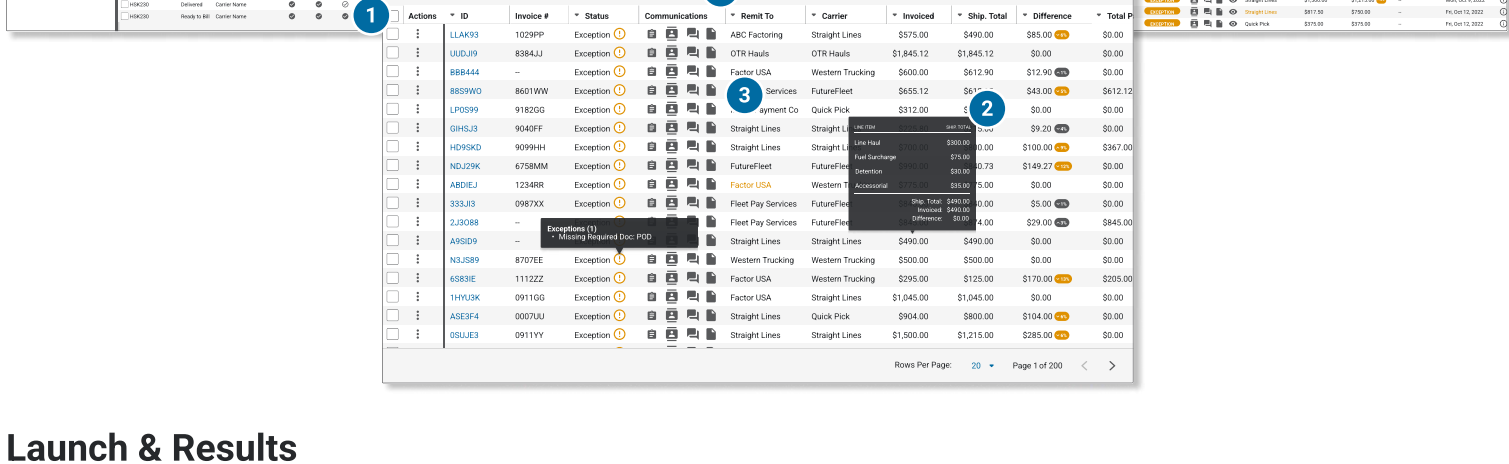


Settlement Dashboard

The design sprint had focused the designs around an invoice table but this initial vision went through many iterations before ending up at what is in the product today.

- To make the large amount of data consumable I met with internal experts and customers to get feedback on what the most important data was to make decisions. Using that information, I arranged columns from left to right in order of importance. This meant that key information would be visible immediately and the user would not have to horizontally scroll to find it.
- There were specific columns that held large amounts of information. Rather than trying to fit all of that information into a single cell, I would put the high level data in the cell and then expose supporting information in a tooltip when the user hovered over it.
- I surfaced key actions on the dashboard so that the user did not have to go into the details page. Actions like updating the status, messaging a carrier, viewing and attaching documents were all important to the user and could be performed from the dashboard.
- The most important data was contextual to which part of the process the invoice was in. Trying to create a consistent hierarchy of data was proving very difficult. I revisited my designs from the workshop and one thing from the 'compass' approach was that the information in the shipment cards could be contextual based on which dashboard you were looking at. After numerous iterations and rounds of feedback I landed on a 'pill' tab at the top of the dashboard. Each pill represented a group of invoice statuses. The columns would be different for each tab and display the most relevant information at that step.

Iterations & Final Design



Launch & Results

Due in large part to having a well-established MVP and great collaboration between product and engineering, this project was released on time for our newest customers go-live date. To ensure that our CS and sales team knew about all the features, my product manager and I led a session where I demoed all of the settlement functionality in the platform as well as shared a prototype of enhancements in development.

The feedback from customers was very positive and we saw rapid adoption. The Settlement feature is one of the most successful projects Shipwell has had. It continues to be one of the biggest selling points and differentiators for our sales team.

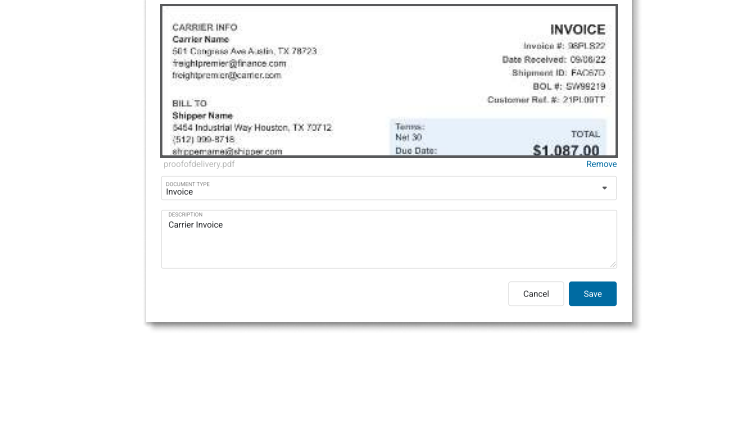
The Settlement feature had a 35% monthly growth rate. As of September 2023, 4000 invoices per week were being run through the platform.

Customer Feedback & Feature Enhancements

As expected, we received many requests for new configurations that would help shippers replicate their current process. The settlements configuration page would scale to allow this and many of these requests were implemented within 2-3 sprints. Based on customer feedback there were other enhancements that we worked on to get implemented right away:

1 Dispute Invoice

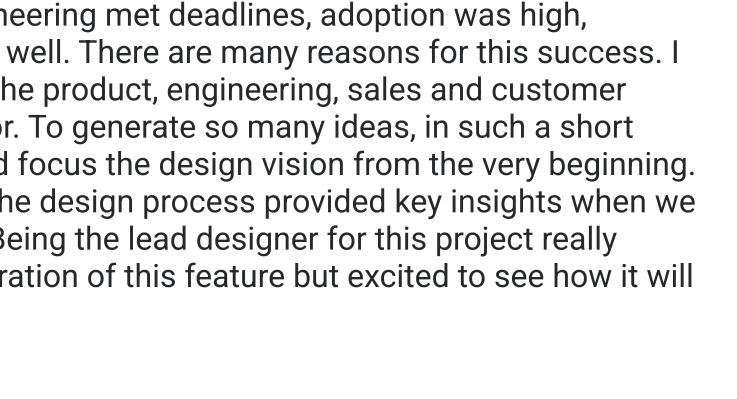
Disputing an invoice notifies carriers that they need to correct one or more aspects of an invoice before the shipper will approve it. This puts the onus on the carrier and frees up the shipper to work on other invoices furthering the theme of 'Manage by exception'. A configuration was also added to automatically dispute an invoice based on defined criteria which gave users more automation.



2 Invoice Creation Methods

Not all carriers were willing to manually create invoices in the platform. Shippers needed additional methods to create invoices.

- Shipper on Behalf of a Carrier - Shippers can create the invoice on behalf of the carrier using the same creation flow
- Upload Invoice - Users can upload a document to the shipment with the type 'Invoice' and the data will be extracted and used to create an invoice.
- Upload Rendition Packet - A rendition packet is a pdf made up of multiple documents including an invoice. Users can upload this rendition packet to the shipment and we will extract the info from the invoice and then upload the additional docs to the shipment



Conclusion

By every metric this project was a huge success. Engineering met deadlines, adoption was high, enhancements were implemented and designs scaled well. There are many reasons for this success. I believe the biggest factor was collaboration between the product, engineering, sales and customer success teams. The design sprint was also a big factor. To generate so many ideas, in such a short amount of time with such a diverse group really helped focus the design vision from the very beginning. Engaging with customers early and often throughout the design process provided key insights when we needed it and kept us focused on the core problems. Being the lead designer for this project really inspired me and I'm not only excited for the current iteration of this feature but excited to see how it will grow.