

CASE STUDY

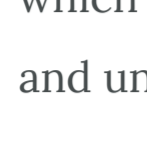
Expanding features for CRM systems products, part 3

INTRO AUTOMATIC ACCOUNT SEARCH KNOWLEDGE BASE APPLICATION FULFILLMENT OUTAGE PROCESS

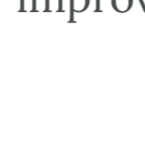
Knowledge Base

Why prioritize this feature?

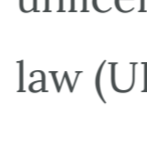
Auto account search helped dramatically increase the customer service department efficiency. However, nearly 2-3x more agents would be needed to support FileRight's objective of 4 million new customers per year. At the time, it took 3+ weeks to train a customer service agent, as each had to become an immigration expert to effectively answer customers' questions without providing legal advice. While conducting user research into the customer service agents' daily routine for [Auto Account Search](#), I observed other pain points:



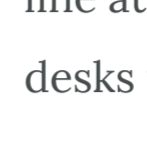
Agents were being trained one-on-one which was inefficient and unscalable



No follow up training or continuous improvement plan



Training sessions were not all compliant with unlicensed practice of law (UPL) best practices



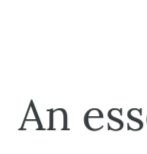
Customer service agents would stand in line at supervisor's desks for answers

User story: "As a customer service agent I need to be able to find the answer to a customer's question within 30 seconds, so I can successfully help more customers in a shorter amount of time, both contributing to the success of the business and higher customer satisfaction."

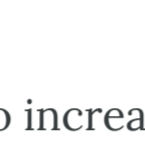
User story: "As a compliance attorney I need to be able to certify answers to questions that have been asked so that customer service agents can provide correct and UPL compliant information to customers."

Redefining the Knowledge Base product

FileRight already had a knowledge base system to store and search customer information, so I started by understanding its features and conducting qualitative user interviews with customer service agents, in-house attorneys, and department heads to understand why they weren't using it. Consistent user feedback from these interviews was the existing knowledge base had out of date and difficult to parse information. This led me to define knowledge base systems as a self service collection or resources about a specific product, service, or topic that can be accessed on demand to answer user's questions quickly. Any new knowledge base solution would need to be dynamic and have the capacity to learn and grow with the users, so it was important to support rich content such as:



Videos and links to rich media resources



FAQs, answers, and troubleshooting guides



How-to docs and news articles

An essential requirement was to increase our customer service agents' efficiency in acquiring information about immigration laws, company policies, and departmental procedures. This means it should be faster, more reliable, more accurate, and less effort than finding a human to ask. Even though we explored other solutions, it was pretty clear from the beginning that some sort of knowledge base system would still be required to achieve our objectives.

Challenges

Implementing a knowledge base system required a series dependent decisions including:



Defining requirements and features that would yield the most value for system users



Use our existing knowledge base system or implement a new one



Buy vs build the knowledge base system



Open source or paid vendor platform options



Defining the content selection and migration process



Training hundreds of people across a global organization to adopt a new system

Investigating solutions

Not building a feature or product should always be considered, as the opportunity cost of any particular feature can outweigh the expected ROI. However, in this case, taking no action would've prevented FileRight from quickly and efficiently onboarding new agents to scale the business. Another option would have been to create stronger departmental policies around usage of the current knowledge base system, while refreshing the content to be more accurate, reliable, and UPL compliant.

I had a team of dedicated engineers that could have: built a knowledge base system from scratch, used an open source platform, or extended the features and functionality of the existing system. Lastly, there was also the option of buying a SaaS solution. Using a SaaS solution would minimize implementation risks, provide a solution ready on day one, and require little to no engineering resources. However, it would require finding a solution that met 100% of our MVP requirements. Using cost and time to implement charts, I compared approaches to understand the varied cost, effort, and risk both initially and over time (See figures 7 and 8). It was clear from this analysis that a SaaS solution would be the least effort, the quickest to implement, and the least costly solution for at least the first few years.

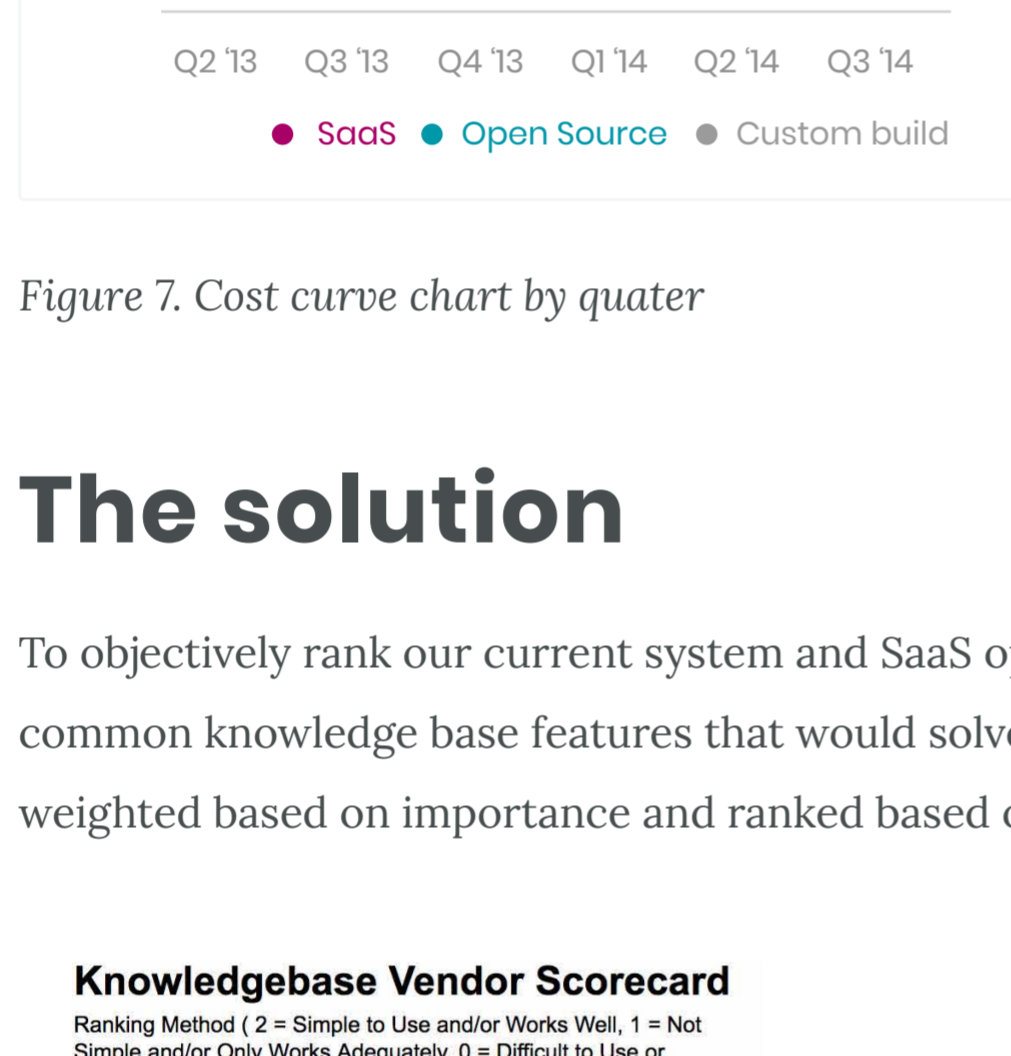


Figure 7. Cost curve chart by quarter

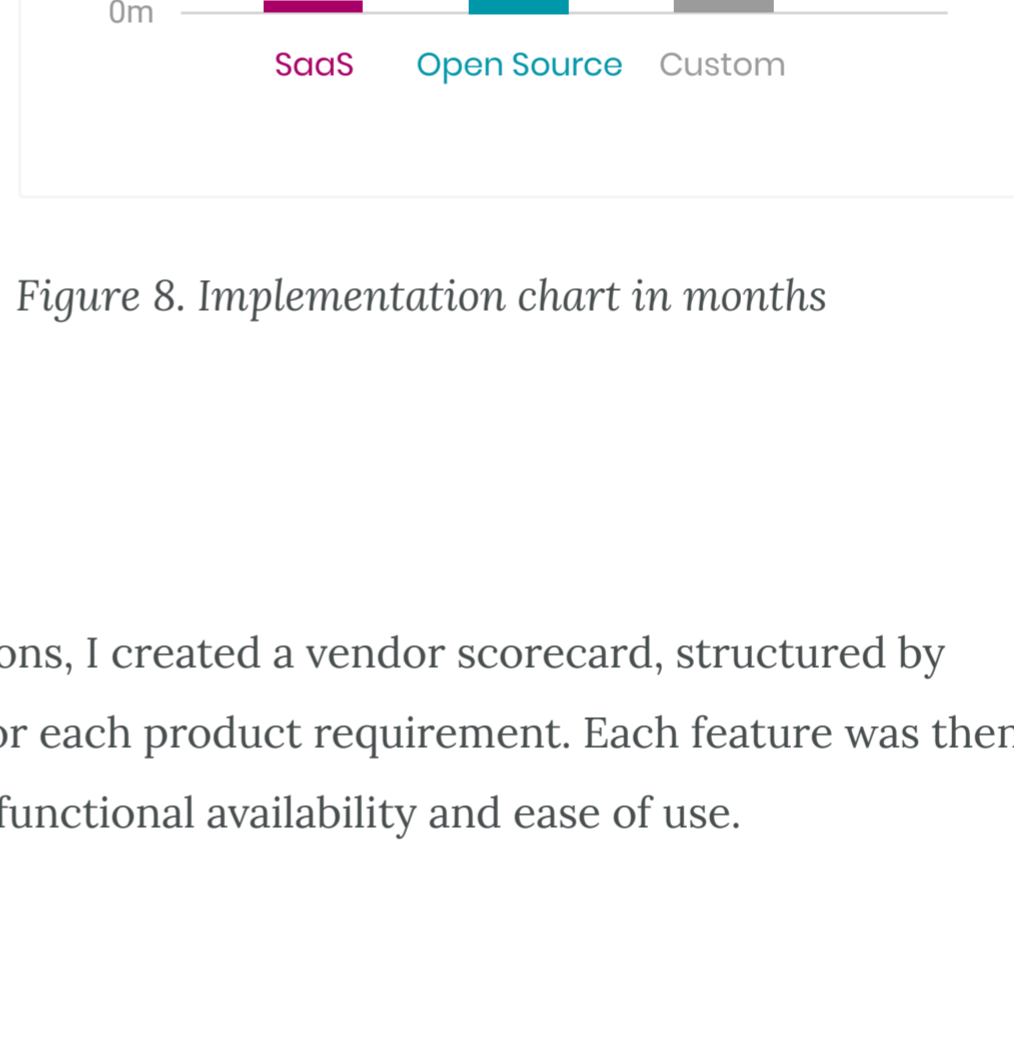


Figure 8. Implementation chart in months

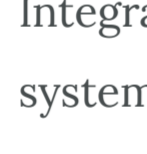
The solution

To objectively rank our current system and SaaS options, I created a vendor scorecard, structured by common knowledge base features that would solve for each product requirement. Each feature was then weighted based on importance and ranked based on functional availability and ease of use.

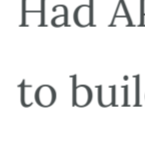
Functional Area or Requirement	Weighting	Notes	KnowledgebaseForce (Current)	Bloomfire	Crowdbase
General Usability					
General information layout and intuitiveness of controls (buttons, links)	3		0	3	3
Grant permissions to features based on role (Manager, Supervisor, Agent, Compliance, etc)	3		2	3	3
Degree of system responsiveness	3		2	3	3
General Features					
Internal only - meaning that only authorized users can view/access	3		3	3	3
Questions are searchable	3		1	3	3
The system should have the ability to socially collaborate around a question ("like")	3		1	3	3
Any authorized user should be able to ask a question	3		2	3	3
Any authorized user should be able to respond to a question	3		2	3	3
Any authorized user should be able to vote on the usefulness of questions answered	3		1	3	3
Users should be able to upvote answers	3		0	3	3
Users should be able to downvote answers	3		0	3	3
Users should be able to comment on specific answers	3		0	3	3
Compliance staff (attys) should be able to edit and then uniquely certify specific responses	3		0	3	3
Admins should be able to group/tag questions to facilitate search. (by brand, conduct, issue, etc.) - this can be done "after the fact"	3		3	3	3

Figure 9. Vendor scorecard of common knowledge base features related to MVP requirements

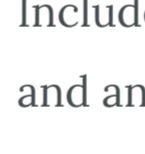
At the time, Bloomfire and Crowdbase were the top 2 solutions that satisfied all of our essential product requirements. Ultimately, Bloomfire was selected because their system:



Integrated with a SaaS CRM system we were considering



Had APIs that could be used to build our own integrations



Included a robust reporting and analytic feature set

The programmatic extensibility of the Bloomfire knowledge base system was a great fit our vision of the new system's role in reducing customer service department training costs and increasing customer service agent efficiency.

Data migration, QA, and launch

Content selection

After getting stakeholder buy in on the Bloomfire knowledge base system, I spent sometime determining the value of the current content in our existing knowledge base system and what types of new content would be needed. Working with our in-house attorney Hana & and customer service agent Mitzy, we crafted a method to determine if content should be migrated, created, updated, or deleted. We called this process K3, which is short for knowledge base keep / kill exercise. This involved cataloguing all current knowledge articles into a spreadsheet, which was then vetted by our in-house attorney.

Figure 10. Knowledge base content review replica replaced with ipsum to protect company IP

Migration and user permissions

Since my engineering team was already committed to building out other CRM Systems features, I manually migrated and properly tagged all vetted content from the old system into the new one over the course of two days. I next set out to define and setup the system's user permissions that were based on the 5 personas created during the product definition phase. These user permission took into account an attorney review and approval process I crafted for newly generated content.

	Agents	Supervisors	Compliance	Curator	Admin
Subscribe to Daily Digest	-	-	-	X	X
Subscribe to Weekly Digest	-	X	-	-	X
Subscribe to all new posts	-	-	-	X	-
Subscribe to all new questions	-	-	-	X	-
Subscribe to all new series	-	-	-	X	-
Notify me when a new member joins my community	-	X	-	X	-
Notify me when I get a new follower	X	-	-	-	-
Notify me of activity on contributions I am following	X	X	X	X	X
Notify me when someone I follow posts something new	X	X	X	X	X

Figure 11. Knowledgebase User Permissions

Training, promotion, and launch

In the weeks leading up to launch, I promoted the new knowledge base system and trained customer service agents on a checklist of tasks. For each customer service agent, if they successfully demonstrated proficiency they were awarded a passing grade. I even created an incentive program to ensure the new system would be adopted. During launch week (as I had done in previous launches), I found a desk in the customer service department to work from so I could answer questions and receive feedback in real time.

"It reminds me of Facebook"

RAFA, CUSTOMER SERVICE AGENT

Conclusion

By providing ongoing access to consistent, and (UPL) compliant immigration knowledge and best practices, the customer service agents became more independent and knowledgeable. Meanwhile customer service supervisors were freed up to focus on their own responsibilities. Reducing the amount of time it took to onboard agents, resulted in a 2x increase in personnel size over the span of a few months. Overall this new system implementation was a departmental success, and I was able to accomplish this entirely without engineering resources.



100% adoption

by the customer service department within weeks after launch



2x reduction

in customer service agent lines at supervisors desks from 3 to 1 people at a time



2x improvement

in the onboarding time of customer service agents from 3+ weeks to 1 week

CONTINUE TO PART 4: APPLICATION FULFILLMENT INTEGRATION