

ShopStorm Shopify Platform Case Study

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Case Studies give you the chance to peek behind the screen into Little Stream Software, take a closer look at specific projects that have come across my desk and see how they can improve your Shopify experience.

ShopStorm is a client that creates apps which help Shopify stores run more smoothly and bring in more revenue. They have **several apps available** and a few more in the pipeline, and they hired me to help streamline their app-development process.

As ShopStorm developers were building and maintaining their apps, they realized that there were certain sections in each app that required the same code to interface with Shopify (e.g. billing, webhooks, shop setup). Every time they built that part of an app, they were wrestling with the same issues when it came to integrating Shopify's code with the app's functionality.

I stepped in to identify that code and refine it so it could be reused in every app ShopStorm had now and in the future.

Separating App-specific Features from Platform Features

SEPARATING APP-SPECIFIC FEATURES FROM PLATFORM ...

I came on board as a Shopify development expert to look for ways to take out any clunky code and replace it with solutions that were perfectly suited to integrate ShopStorm with Shopify. I created a custom platform (Rails engine, RubyGem) that held all of the code they need for *any* app they use with Shopify.

With that platform in place, ShopStorm can start a completely new app from scratch, and with only a few lines of configuration, most of the integration is complete. No more getting bogged down in unfamiliar details or reinventing the wheel, now they can just focus on what **new features** this apps needs.

Even better is that when updates are inevitably needed, they make the changes in the platform and the app, which *automatically* updates the old apps as well. No copy and paste, and no tedious combing through code to find the right section to replace.

Money and Time

MONEY AND TIME

One of the most crucial parts of the platform managed billing. Taking care of billing wasn't a simple matter because ShopStorms' apps had a variety of payment plans. Some apps had monthly recurring billing and some had a one-time fee, and then others had limited-time accounts while another had pay-per-usage fees.

Those don't even count supporting the old, grandfathered plans their customers where on too.

Keeping tabs on all of those variables cleanly - and keeping it consistent for every app - was not a quick-and-dirty job for a dev staff that would rather have been spending time building the next innovation. And yet, they couldn't put off the job forever or their income stream would evaporate.

Making Customer Service Simple

MAKING CUSTOMER SERVICE SIMPLE

To make life easier for ShopStorm's help desk, I also built an admin panel configuration that can be set up for every app. This gives the app everything out of the box to manage their customer's store, authentication, billing, as well as a place to put the app-specific admin panels.

The backend of the admin panel also integrates with HelpScout, ShopStorm's help desk. This integration allows every app to integrate with the help desk so the support team could find the problem and help customers with installation and integration issues that may have occurred.

Good customer support means better ratings, more sales, and a reputation that keeps customers renewing their subscriptions.

Testing, Debugging, and Other Dark Corners Where Bugs Hide

TESTING, DEBUGGING, AND OTHER DARK CORNERS ...

As I was combing through the old code, I realized that the test suite was thin to nonexistent in places. This was unsettling because Shopify's integrations aren't the easiest. If you call APIs and things aren't working correctly, it might take a while before you knew that a problem existed, which could mean serious problems for customers - and an app's reputation.

To help offer ShopStorm some serious peace of mind, I created a complete test suite for the platform, starting with low-level unit level tests through high-level integration level tests, confirming that the app was installing properly and functioning correctly.

This test suite does more than confirm the app is working, it also gives their team the confidence to know the impact of any future changes. Over the lifetime of their apps, this will dramatically reduce the maintenance costs.

End Result: Leaner, Smarter Apps Today
and Tomorrow

END RESULT: LEANER, SMARTER APPS TODAY AND ...

Making all these changes resulted in a major app overhaul, but in the end, it was completely worth the effort. Here's why:

- > From start to finish, this app revision project took 4 weeks.
- > I was able to make the app complete, yet cut it down to the essentials. After all of the changes and upgrades, the new and improved app was 54% smaller than the original size with a 590% increase in the test suite size.
- > The core logic and integrations that ShopStorm needed to run the app successfully with Shopify were all standardized and thoroughly tested. Any time they need those elements for another app, all they need to do is to use the platform we created and enable the sections they need.
- > Using a specialized developer instead of having ShopStorm's team grind through the changes they needed saved them time and money. In just a few minutes, I

END RESULT: LEANER, SMARTER APPS TODAY AND ...

was able to pinpoint changes using my existing body of work that would have delayed them for days to weeks, depending on the issue.

- > Shopstorm's developers got to spend their time adding new features and functionality instead of being mired in the mundane - but crucial - details of a project.
- > An outside perspective often offers new solutions. When you're too close to a problem (and to your frustration), straightforward answers can be hard to see.

If you're wasting time slogging through errors in app integrations and authentications, [click here](#) to contact me about creating a Shopify app or platform for your company.

Thanks to Justin at ShopStorm for permission to share this case study with you.