

BUILDING FAST AND SCALING WITH LIBRATO AND PAPERTRAIL

About Product Hunt

Product Hunt, founded in 2013, showcases new products every day in a dynamic, interactive web environment in which techies, trend spotters, and enthusiasts can geek out about the latest mobile apps, websites, hardware projects, books, games, and other tech creations.

Lead Engineer Lukas Fittl is a founding member of Product Hunt and helped to build the full infrastructure for the application. Fittl discusses how the Product Hunt team has used Papertrail and Librato since the application's early days and how they quickly grew it into the remarkable business *Forbes* called "somewhat of the tech industry's 'Holy Grail.'"

According to Fittl, while the Product Hunt engineering team has broad experience, their main focus is on continuing to build and grow the Product Hunt site, rather than manually monitoring their infrastructure, critical though it is. This is where Librato and Papertrail come in.

"Our core business is running our site and improving that site, it's not running infrastructure. At a basic level, we could set up some open source software or pull logs manually. However, I think the big ROI for Librato and Papertrail is that we don't have to spend developer hours on these things. The setup is so easy, and with alerting, we don't need to pull the logs - we can just get notifications in Slack. So if you think about it like that, we've easily saved 10, 20, or 30 developer hours per month because we're using Librato and Papertrail and not doing something else. The ROI is obvious."

Logging with Papertrail

Fittl said his team initially opted for Papertrail, a cloud-based log management solution, because Heroku recommended it as part of their standard add-on stack. Recently Product Hunt was experiencing Postgres locking problems in which one query would lock a table and prevent another query from executing. With Papertrail, Fittl and team were able to monitor the PostgreSQL server statistics and quickly identify the problem.

"I've used Papertrail before at other companies and it's the most useful of the logging tools. Comparing to others like Logentries - all of those tools feel like they're not solving the problem. With Papertrail, I know that my logs are right there, they are easily searchable, and I can find what I need as fast as possible."

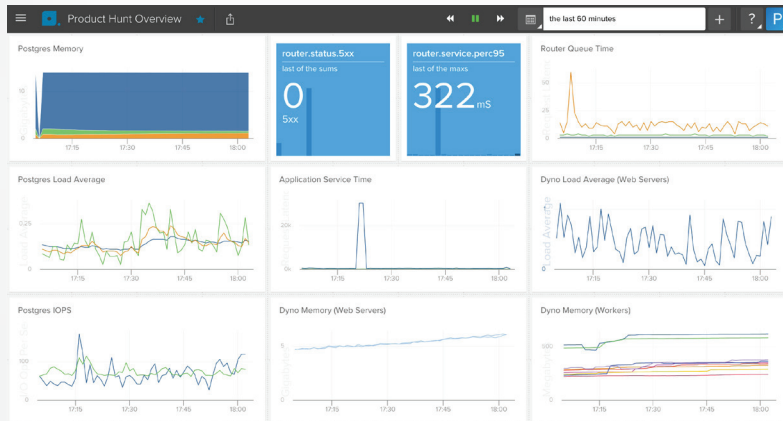


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WHAT DOES YOUR STACK LOOK LIKE?

- Hosted on Heroku, considering moving some things to AWS directly
- Ruby on Rails with a lot of Node.js
- Multiple services for the main product and web application
- Microservices for components like the activity feed (a separate Node.js app) and file services
- Logging to Papertrail

Monitoring with Librato



For Librato, the Product Hunt team similarly acted on referrals when seeking a real-time cloud monitoring solution.

“We started using Librato because we kept hearing, ‘if you want to visualize anything, if you like metrics, you need to use Librato.’ One of our engineers was super excited to add it – not to mention Heroku themselves have been strong supporters of it. For us, Librato provides a really good overview to see if everything is doing well.”

According to Fittl, some ways in which Librato has been helpful are in keeping an eye on the Postgres database performance and in understanding which dynos are in use in Heroku to prevent hitting memory limits.

“One way Librato has been really helpful is in understanding Heroku’s dynos in detail. One of the frequently recurring topics for our team have been memory issues related to the Ruby on Rails framework. Specifically the questions of how many processes we should run per dyno, considering each dyno’s memory limit. From time to time I’ve run into issues where the memory limit would be hit, we would get errors, and the whole site would behave strangely. And that is where Librato is helpful, because you can just graph all that out and graph it together with logs to really look at them.”

While Fittl said his team uses a number of products to monitor and manage their environment, “in short, Librato is the best high-level overview on how our application is doing.”

Visualizing application performance

The Product Hunt team also uses Librato and Papertrail together to get both the broad view of the application’s performance and for the ability to drill down into any issues with detailed log insight. For example, they use Librato to determine if a Postgres instance runs as expected or if it goes over its memory limits.

“Being able to filter and customise almost every aspect of the solution ensures that we see exactly what we need to know without being inundated with unnecessary information.”

“We’ve had some issues where we had an add-on to the Postgres database that was consuming a lot of memory, and in Papertrail we would see an error message, then with Librato we could see the trend over time of what has happened with memory. Together, Librato and Papertrail are critical on the DevOps and engineering side of things.”

Debugging microservices amidst rapid growth

Product Hunt’s growth is accelerating, and it recently introduced new product categories for books and games as well as a new podcast channel. The site’s need for scalability, though, is of primary concern for the engineering team, who must keep up with developing new components and microservices – and make sure they are running as they should.

“What we launch publicly is different from what engineering needs to do internally. So launching new categories actually hasn’t been much of an issue, but what’s more challenging and interesting is that there are basically components that you outgrow. For example, we had an activity feed on a site that showed a user’s friends’ activities – what they did and what they commented on, etc. – and early on we would just do a simple database query for that, but obviously at some point that doesn’t scale.”

Fittl said his team has noticed components which are very contained on the Product Hunt site and would extract them and move them to their own services. Papertrail and Librato make it easy for them to continue monitoring these specialized services as they scale.

“We’re moving away from this monolithic Rails application serving everything to more specialized services. For example, we may have one or two team members spend a week building something really smart, and with these separate microservices, we can still have Papertrail showing us consolidated logs. I think that’s a huge benefit there. And if we want to look at all metrics across multiple applications, we have Librato.”

As Product Hunt continues to grow, Librato and Papertrail will continue to provide critical visibility and support.

Librato and Papertrail are part of the SolarWinds family.

“ Librato – beautiful visualizations, Papertrail – super useful tool. Keep doing what you’re doing. ”

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7171 Southwest Parkway, Building 400 | Austin, Texas 78735 | P: 866.530.8100

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