

Using developer portals to enhance developer happiness (and productivity!)

Why Spotify created and shared Backstage.io



Emma Indal

Web Engineer, Spotify



Rebekah Dumouchelle

Director, Technical Product Marketing



What we'll talk about today:

- What causes developer unhappiness?
- How Spotify created a developer portal to solve developer happiness
- Create your own: Open source Backstage developer portal platform
- Demo: Enhancing your dev portal with the Stack Overflow plug-in
- Q&A

Developer culture can be complex and confusing:

Spotify Engineering Culture

Part 1 of 2

Harik Knibers
Jan 2014

Cross-pollination > Standardization

How does Spotify X?
Depends on which Squad

Internal Open-source model

Small + frequent releases

Agile > Scrum
Principles > Practices
Servant > Master

Agile Coach Scrum Master

Autonomous Squads
Be autonomous, but don't suboptimize!

OPTIONAL

Task, Velocity, Estimation, Burndown chart

Rules are a good start, then break them when needed.

Scrum theories!

Loosely coupled, tightly aligned squads

Alignment enables Autonomy

high

low

low

high

Autonomy

Alignment

We need to cross the river. Build a bridge.

We need to cross the river. Figure out how.

Hope someone is working on the river problem.

Decoupled releases

WTF! #!

Self-service model enable > serve

Infrastructure squads

Client App squads

Feature squads

enable + support

Handoffs

enable + support

Community > Structure

If you need to know exactly who is making decisions, you are in the wrong place.

Focus on Motivation

Hi everyone, Our employee satisfaction survey says 91% enjoy working here, and 4% don't.

This is of course not satisfactory, and we want to fix it.

If you're one of those unhappy 4%, please contact us. We're here for your sake, and nothing else.

91% → 94%

Trust > Control

Agile at scale requires Trust at scale

Politics Fear

People > *

My colleagues are awesome!

Ego

1200+ employees
30+ countries

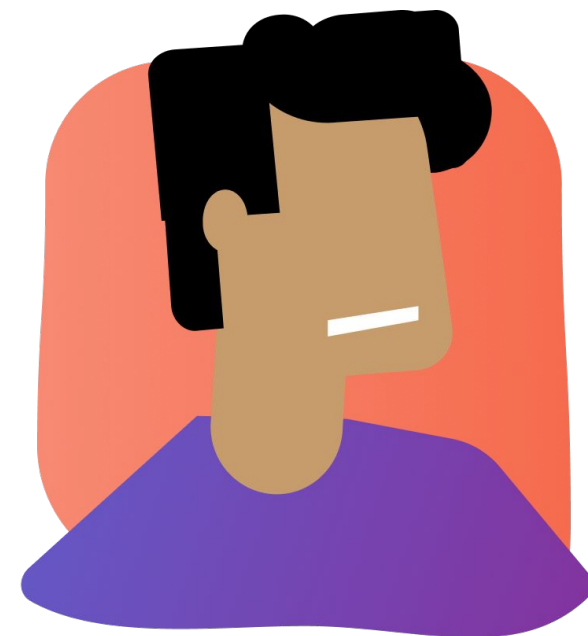
Release Trains + Feature Toggles

Week 1
Week 2

Feature A
Feature B
Feature C
Feature D

Spotify developers faced several common challenges:

- Slow onboarding time
- Trying to organize many developer tools and systems
- Finding documentation – and the owner of the documentation
- Keeping documentation and knowledge up to date



Other organizations face similar problems:

- ! 2 out of 3 of developers encounter a knowledge silo once a week
- ! One quarter of developers spend more than an hour each day searching for answers, and 62% spend more than 30 minutes/day
- ! Nearly half (46%) of developers spend 30 minutes a day answering their coworkers' questions



Spotify set out to **prioritize developers and their software to create the most **effective developer experience (DX)** in the world**

Scan to
submit
your
questions



Components of a good Developer Experience



A seamless onboarding experience



A sense of belonging and community



The ability to deploy code quickly



Access to the right tools



Access to information and collaboration

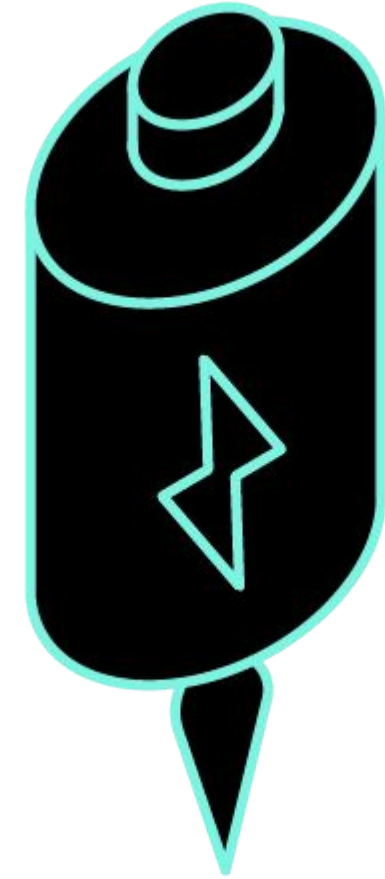


Support for learning and development



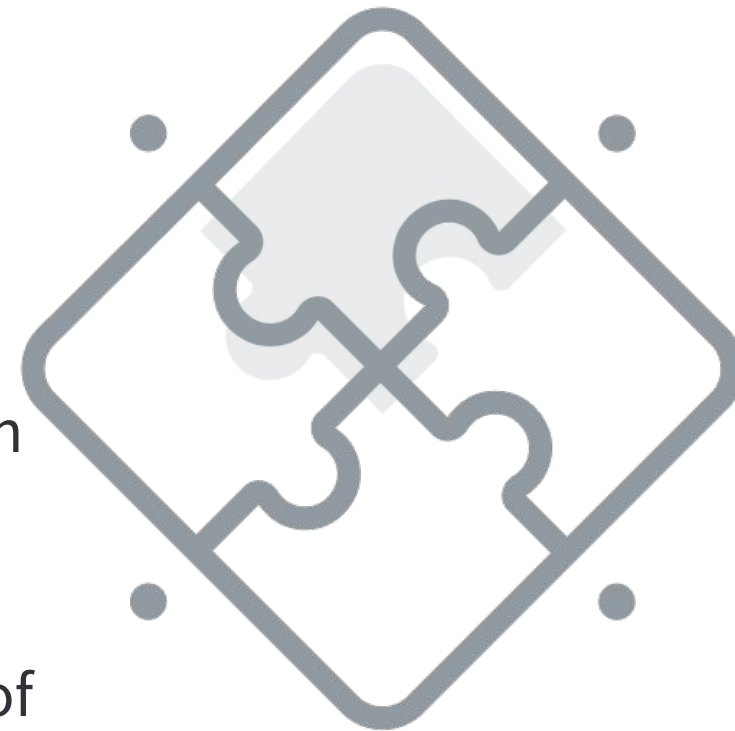
Smooth interoperability

Developer portals improve DX



A developer portal = one frontend for your entire infrastructure

- Unifies all your tooling, services, apps, data, and docs with a single, consistent UI
- Makes sense of everything in your ecosystem, regardless of how and where individual components are running
- Let developers focus on what they do best (leading to much less activity in #aaargh Slack channel)



How does a great developer portal improve happiness?

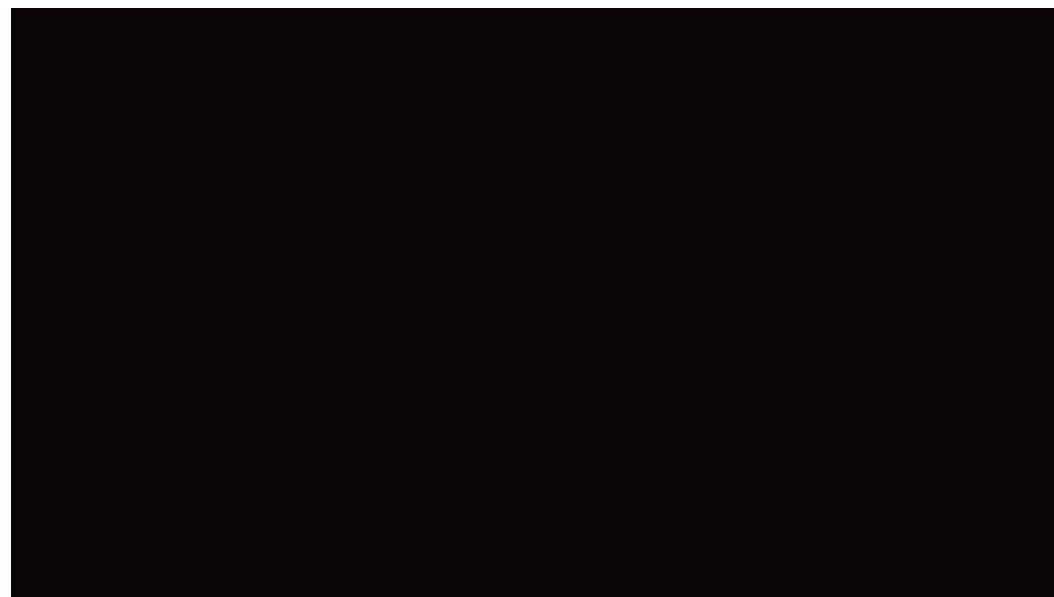
Developers can:

- Onboard with fewer hiccups or frustrations
- Explore the entire software ecosystem, finding the tools they need
- Collaborate with others across the org
- Manage all the software they own in one location
- Create new software quickly, following best practices
- Stay focused on the work they love

Backstage is an open source developer portal platform

Created and shared by Spotify, Backstage lets any **organization:**

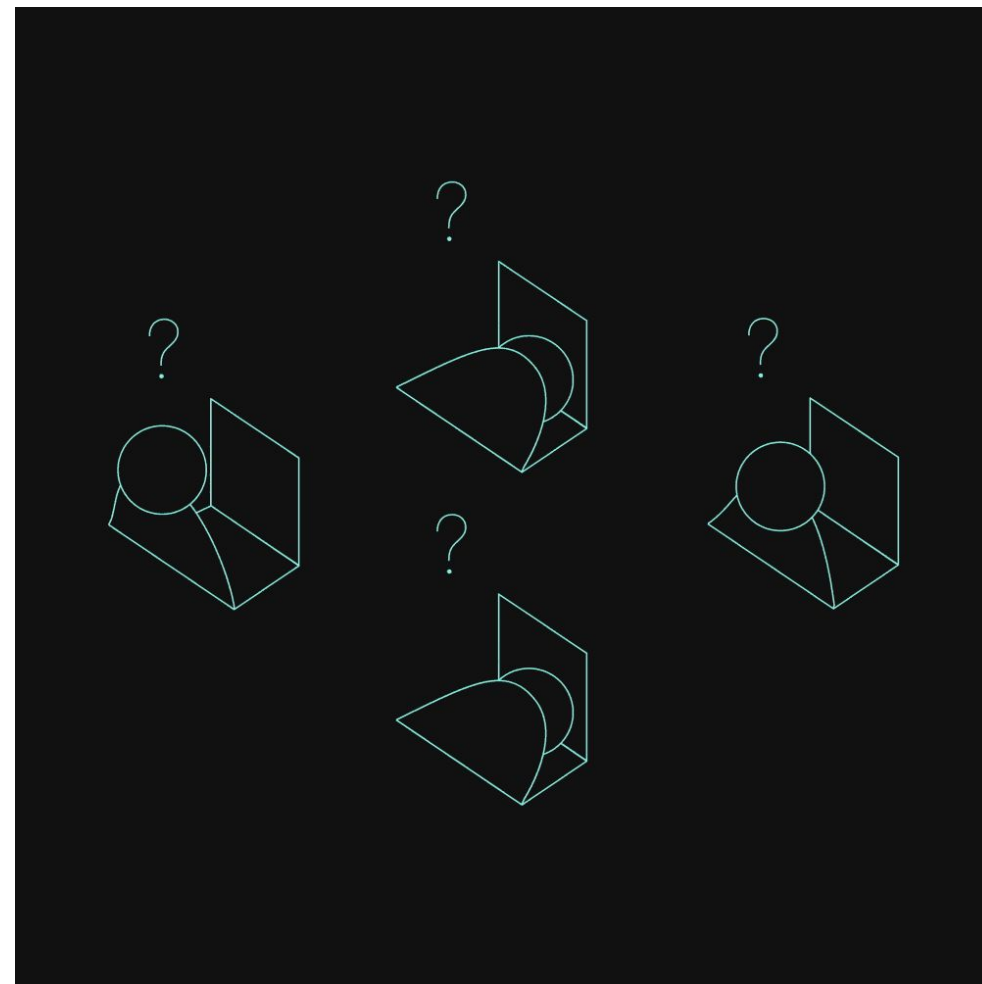
- Identify their needs and set up a dev portal that solve those
- Manage the complexity of a scaling org and software ecosystem.
- Turn infrastructure chaos into rocket fuel.



Backstage is an open source developer portal platform

Created and shared by Spotify, Backstage lets any **developer**:

- **Create** new software in seconds, aligned to your best practices
- **Manage** all the software they own in one centralized location
- **Explore** the entire software ecosystem, enabling collaboration across the org.



Combine Backstage and Stack Overflow for even more happiness!

With the Stack Overflow plug-in, you can pull Stack Overflow for Teams knowledge from directly into your dev portal

- Speed up time to answers
- Specify the tags or keywords you want the plug-in to sync to focus results
- Avoid searching through entire, lengthy documentation write-ups

Want to contribute? Find relevant links at <https://bck.st/links>.

Live Demo of plug-in

Build a culture of knowledge sharing and collaboration with developer portals and Stack Overflow

- Developers are collaborative on complex, interesting problems
- Developers are more self-sufficient during onboarding, on day-to-day tasks and solving common roadblocks
- Reduces complexity
- Scales with your organization

slido



Audience Q&A Session

① Start presenting to display the audience questions on this slide.

**Thank you for joining
us!**