Platform Engineering

Improving time-to-business value with developer experience (DX)
👋 Hello

Catherine Weilaender

Senior Product Manager at GitHub for Platforms’ Delivery org

Prev. Founder of software agency 7+ years
- What
- Why
- How
- Example
What is platform engineering?
It's designing Super Mario levels for the enterprise. That's the definition.

- Luca Galante, Humanitec & Platform Weekly
Take tools and paths of an organisation to develop a paved path enabling self-service to achieve security, compliance, cost and time-to-business value.
Moving away from “you build it you run it”
Moving away from ops-teams == bottleneck
Towards an opinionated paved path
Why care?
Stakeholders
Stakeholder: Engineers
Challenge

Building a platform that is opinionated and secure to safely scale, but flexible enough to serve individual engineering team requirements.
How do Platform?
“A platform is a curated experience for engineers (the customers of the platform)”

- Manuel Pais, Co-author of Team Topologies
What do we need? (discovery)

Talking to customers

Find representative resources & paths
Minimum viable Platform (MVP)

Find repeatable E2E workflows from IDP to orchestrator
Mature and grow (iterative)

- Communicate
- Iterate
- Scale
Why Platform Engineering fails
Case Study: GitHub
Communicating Fundamentals' Requirements
Fundamentals

Goal:

[GitHub] is always available, secure, and accessible
Communicate requirements
WON'T SOMEBODY PLEASE THINK OF THE CHILDREN PLATFORM ENGINEERS?
Service Catalog = Inventory
Scorecards

Checklist

- Yes
- No
## Scorecards for services

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Service Tier</th>
<th>Unmet Scorecard</th>
<th>Exec Sponsor</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>service_a</td>
<td>1</td>
<td>incident-readiness</td>
<td>john_doe</td>
<td>github/team_a</td>
</tr>
<tr>
<td>service_x</td>
<td>1</td>
<td>code-scanning</td>
<td>jane_doe</td>
<td>github/team_x</td>
</tr>
</tbody>
</table>
Self-service Fundamentals process
DevOps is Dead!
DevOps is Dead!

Platform Engineering is the Future!
DevOps is Dead!

Platform Engineering is the Future!

We just need to utilize DevOps practices and tools to build the platforms.
DevOps is Dead!

Platform Engineering is the Future!

We just need to utilize DevOps practices and tools to build the platforms.

We just need to utilize DevOps practices and tools to build the platforms.
THANK YOU
Product Flywheel

Delightful Software Delivery

Standardization

Reduced Operational Cost

Economics of Scale

Image by: Jon Skarpeteig, Signicat
Service Catalog

Inventory of all services

ownership mapping based off `ownership.yaml` in repo.
What do we know?

???
Monolith CODEOWNERS file → inventory
Engineer creates file with Serviceowner

→ Serviceowner Ruby gem → CODEOWNERS → inventory

Enforced in CI
Platforms build without good product discipline frequently devolve into leaky abstractions
ENABLE
vs.
RESTRICT
vs.
balance?
Stakeholders

- C-levels
- Fundamentals Program
- Fundamentals champions
- Engineers, Application teams
- Security
Example
catalog
- **Deployment frequency (DF):** how frequently an organization releases new software.
- **Lead time for changes (LT):** the time taken from when a change is requested or initiated to when it is deployed.
- **Mean time to recovery (MTTR):** the average time it takes to recover from a failure.
- **Change failure rate (CFR):** the percentage of changes that result in a failure.
## CONTENTS OF THIS TEMPLATE

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</tr>
</thead>
<tbody>
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<td>An assortment of graphic resources that are suitable for use in this presentation</td>
</tr>
<tr>
<td><strong>THANKS SLIDE</strong></td>
<td>You must keep it so that proper credits for our design are given</td>
</tr>
<tr>
<td><strong>COLORS</strong></td>
<td>All the colors used in this presentation</td>
</tr>
<tr>
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<td>These can be used in the template, and their size and color can be edited</td>
</tr>
<tr>
<td><strong>EDITABLE PRESENTATION THEME</strong></td>
<td>You can edit the master slides easily. For more info, click <a href="#">here</a></td>
</tr>
</tbody>
</table>

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Mature and grow (iterative)

What do we need?
- Collaborate with internal customers
- Find representative resources

Communicate / Marketing / visualize so people know what is being offered and they don't build it themselves

Address cross-functional needs (business SLAs SLOs, GDPR and compliance)

Make use of what the industry is using - this changes
Evolve the capabilities they use

Roadmap and socialize
INTRODUCTION

OUR COMPANY

The introduction of your company in the pitch deck should include a brief overview of who you are and what you do. It should also include a brief description of why your product or service is unique and the value it provides to customers.

OUR IDEA

The “our idea” part of a pitch deck should include an explanation of your product/service, how it works, and what the customer value is. You should also explain the market opportunity for your product/service.
MAIN IDEAS OF A PITCH DECK

PRESENTATION
A great presentation for a pitch deck should be concise, clear and easy to understand. Visual elements such as charts, graphs, images, and videos can help to make the presentation engaging.

INVESTORS
When it comes to picking investors for a pitch deck, it's important to research potential investors and understand their preferences, goals and interests.

VALUE
The value of a product is determined by how much customers are willing to pay for it. It's a combination of factors, including the quality of the product, its features, and how well it meets customer needs.
KEY IDEAS IN MARKET OPPORTUNITY

- **RESEARCH NEW MARKETS**
  Analyze existing customer needs and identify gaps in the market to find new opportunities

- **STAY AHEAD OF TRENDS**
  Monitor changes in the marketplace, such as shifts in consumer behavior or emerging technologies, to stay competitive and capitalize on new opportunities and trends

- **INNOVATIVE SOLUTIONS**
  Utilize technology and customer feedback to come up with novel solutions that meet your customer’s demands or needs

- **SEASONAL SPIKES**
  Identify times of year when demand for certain products may spike, such as holidays or special occasions, and use these times to target customers or maximize sales
SIX RECOMMENDATIONS

KEEP IT SIMPLE
Structure your pitch deck clearly and make sure all the important points are easy to understand.

USE VISUALS
Incorporate visuals or graphics to illustrate your message and keep the audience engaged.

KEEP IT SHORT
A good pitch deck should be concise and clear; avoid trying to cram in too much information.

LET'S MAKE IT
Include impactful stories, statistics, or facts that will help your audience remember your message afterwards.

TEST & ITERATE
Practice presenting your deck beforehand with friends or colleagues for feedback, then use this input to refine it further.

MAIN POINTS
A pitch deck is an overview of your business; focus on key points that get the most important ideas across.
333,000
Users bought our product

9h 55m 23s
Estimated delivery time per unit

386,000 km
Avg. distance travelled by logistics team
4,498,300,000

Number of users analyzed in our market research
Follow the link in the graph to modify its data and then paste the new one here. For more info, click here.
<table>
<thead>
<tr>
<th>FEATURES</th>
<th>VALUE</th>
<th>PRICING</th>
<th>TRIAL</th>
<th>COMPETENCE</th>
<th>SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company A</td>
<td>Fuel economy</td>
<td>Special offers</td>
<td>$23,000</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Company B</td>
<td>Design</td>
<td>Reliability</td>
<td>$27,000</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Company C</td>
<td>Performance</td>
<td>Repairs</td>
<td>$30,000</td>
<td>Yes</td>
<td>High</td>
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<tr>
<td>Company D</td>
<td>Safety features</td>
<td>Marketing</td>
<td>$24,000</td>
<td>No</td>
<td>High</td>
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<td>Company E</td>
<td>Technology</td>
<td>Customers</td>
<td>$32,000</td>
<td>Yes</td>
<td>Low</td>
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<tr>
<td>Company F</td>
<td>Comfort</td>
<td>Best prices</td>
<td>$15,000</td>
<td>Yes</td>
<td>High</td>
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<td>Company G</td>
<td>Customization</td>
<td>Brand name</td>
<td>$45,000</td>
<td>No</td>
<td>Low</td>
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</tbody>
</table>
PRODUCT INFOGRAPHIC

VISUALS
Showcase the design of your product

PRICE
Share the cost and price with investors

AVAILABILITY
When will the product be ready?

FEATURES
What makes your product unique?

USERS
Speak about the target audience

UPDATES
Do you plan on updating it?
TIMELINE OF YOUR PRESENTATION

1. Provide a brief overview of the pitch deck's content
2. Engage the audience with a compelling introduction
3. Identify the customer's pain points and challenges
4. Describe how your product or service can solve the problem
5. Highlight the unique value proposition and benefits of your specific solution
6. Analyze the target market size, growth potential, and competition briefly
7. Explain your financial needs and briefly outline your funding allocation
8. End with a clear and concise call to action
MARKET SIZE OVERVIEW

OUTER CIRCLE
Include the total size of the market, which represents the entire potential customer base for the product or service.

MIDDLE CIRCLE
Identify the target market for the product or service, which may be a subset of the total market. This could be based on factors such as demographics, geography, or specific needs.

INNER CIRCLE
Indicate the current market size, which represents the portion of the target market that the company has successfully captured.
## ROADMAP INFOGRAPHIC

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>OBJECTIVE</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding</td>
<td>Analyze and understand the needs of your target audience</td>
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<tr>
<td>Conduct research</td>
<td>Research existing products in the industry and analyze them</td>
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<tr>
<td>Brainstorm ideas</td>
<td>Generate ideas based on user feedback and research findings</td>
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<tr>
<td>Develop a prototype</td>
<td>Create a basic version of the product to show investors</td>
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<tr>
<td>Test for usability</td>
<td>Put the prototype through rigorous testing processes</td>
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<td>Analyze feedback</td>
<td>Analyze feedback</td>
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</tr>
</tbody>
</table>
# KPI DASHBOARD

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>UNITS</th>
<th>REVENUE</th>
<th>RETURNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>500</td>
<td>2,000,000</td>
<td>40</td>
</tr>
<tr>
<td>Item 2</td>
<td>1,000</td>
<td>50,750</td>
<td>10</td>
</tr>
<tr>
<td>Item 3</td>
<td>250</td>
<td>1,500,000</td>
<td>300</td>
</tr>
<tr>
<td>Item 4</td>
<td>500</td>
<td>2,000,000</td>
<td>40</td>
</tr>
<tr>
<td>Item 5</td>
<td>1,000</td>
<td>50,750</td>
<td>10</td>
</tr>
<tr>
<td>Item 6</td>
<td>250</td>
<td>1,500,000</td>
<td>300</td>
</tr>
<tr>
<td>Item 7</td>
<td>500</td>
<td>2,000,000</td>
<td>40</td>
</tr>
<tr>
<td>Item 8</td>
<td>1,000</td>
<td>50,750</td>
<td>10</td>
</tr>
</tbody>
</table>

- **Revenue:** $4,000,000
- **General costs:** $100,000
- **Benefit:** $5,000

Follow the link in the graph to modify its data and then paste the new one here. [For more info, click here](#)
THANKS!

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- #00cada
- #110e24
- #46406b
- #69639c
- #afaf6
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