DevOps and Product Management Together At Last and Kickin’ Butt

James Heimbuck
The magic of containers

What we thought: “It will only take a month to launch this container orchestration platform. Everyone will use it! Everyone will love us!”

What actually happened: It took 6 months to stand-up. There were only a dozen cron jobs running on it. Nobody notices when it goes down but us.
What is this talk about?

- Some of the product practices Sendgrid Tech Ops teams have used when building and launching products.
- Some tools you can apply in your work to deliver faster results and better outcomes for your users.
- Reminder #1 - These are just tools, not magic bullets.
Who is this guy?

- Product Manager, Infrastructure at Twilio Sendgrid.
- For the past 14 years I have been working with teams of 2 to 100 to find, prioritize opportunities and launch B2B, B2C and internal facing products.
- I use Office Space to explain my job.
Why would an Ops team need a Product Manager?

- Your platform, services and infrastructure are products and have customers.
- Product Managers unpack the problems a customer is having and what they are *trying* to do.
Oh boy here he goes with the buzzwords . . unpack

- Qualify the problem.
- Quantify the problem.
- Now use that to prioritize . . but more on that later.
- Unpack to learn about the customer and their problem.
Things built by people who “knew their customer”

- Segway
- Betamax
- Zune
- New Coke
How can your platform/tooling/services avoid a similar fate?

- Build, Measure and Learn
- Learn, Build, Measure
- Repeat, repeat, repeat
Learning - Customer Interviews

- Problems and workarounds.
- Pain of migration vs. pain of staying.
- Learn new things & validate hypothesis.
Learning - Customer Interviews

- Schedule dedicated time.
- Ask open ended questions.
- Bring a note taker.
- Cross check problems across teams/customers.
Learning - Story Maps

- What is a story map?
  - “Story mapping keeps us focused on users and their experience, and the result is a better conversation, and ultimately a better product” - Jeff Patton, User Story Mapping

- Story Maps are focused on outcomes. Not outputs.

- The outcome we drive for should solve the problem we validated.
User Stories - As a [Persona], I want to [do a thing], so that I [benefit].

Bad User Story
As a developer who waits for builds
I want to have a new build system
So that my builds are faster

Good User Story
As a Java developer who waits for builds
I want to have builds that finish in 5 minutes
So that I can spend more time writing code
<table>
<thead>
<tr>
<th>Task</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Take Shower</td>
<td>Snooze Alarm</td>
<td>Get out of bed</td>
<td>Shave</td>
<td>Brush teeth</td>
<td>Floss teeth</td>
<td>Take multi-vitamin</td>
<td></td>
</tr>
<tr>
<td>Read the news</td>
<td>Check the Weather</td>
<td>Check social media</td>
<td>Pack laptop</td>
<td>Grab keys</td>
<td>Eat</td>
<td>Make coffee</td>
<td></td>
</tr>
<tr>
<td>Blowdry hair</td>
<td>Give spouse a kiss</td>
<td>Wake up spouse</td>
<td>Pick out clothing</td>
<td>Get dressed</td>
<td>Iron shirt</td>
<td>Drink Coffee</td>
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<td>@jheimbuck</td>
</tr>
</tbody>
</table>
Group

Snooze Alarm
Check the Weather
Read the news
Check social media
Pack laptop
Grab keys
Get out of bed
Take Shower

Pick out clothing
Get dressed
Iron shirt
Floss teeth
Shave
Brush teeth
Blowdry hair

Give spouse a kiss
Wake up spouse
Take multi-vitamin
Eat
Make coffee
Drink Coffee

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Constraints: You only have 15 minutes

- Wake
- Hygiene
- Clothing
- Nutrition
- Personal Time
- Get out the door

Time:
- Get out of bed
- Take Shower
- Brush teeth
- Pick out clothing
- Get dressed
- Make coffee & put in togo cup
- Drink Coffee
- Eat Omlette
- Take multivitamin
- Check Weather
- Check social media
- Read the news
- Pack laptop
- Grab keys

Necessity:
- Snooze Alarm
- Floss teeth
- Iron shirt
- Eat Omlette
- Take multivitamin

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Story Maps are not a great fit for all projects

- Adding small features to existing tools.
- When there are systems outside your control.
- It’s not a roadmap.
- Reminder #2 - It’s just a tool, not magic hammer.
An interlude on prioritization

- You can’t have 25 #1 priorities.
- “Not right now” is easier to hear than “No” . . . even if you mean no.
- Re-prioritization is making a trade off and/or uncommitting.
An interlude on prioritization - Some Tools

- LOE vs. Impact
- RICE - (Reach x Impact x Confidence) / Effort
  - https://sendgrid.com/blog/double-your-velocity-without-growing-your-team-with-rice/
- Force Rank

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Build - Now we can go fast!

WELCOME TO AGILE

WHERE THE STORIES ARE MADE UP
AND THE POINTS DON'T MATTER

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Some Agile Do’s

● DO - deliver an outcome in each sprint for the customer (even if not released)
● DO - use spikes to answer specific questions like “can this DB meet our known throughput needs?”
● DO - keep epics to a reasonable length and keep the WIP at 1 or 2.

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Some Agile Traps

- DON’T - Accept from your Manager or Product Manager stories with unclear or missing Acceptance Criteria
- DON’T - Accept epics masquerading as stories
- DON’T - Let a story drag on sprint after sprint.
Before you launch a product

- Dog food is your friend.
- Write all the docs and test them.
- Test your onboarding / transition plan.
Launching a product

- Handoffs not drop offs.
- Marketing is how you convince people.
- Remember your new teammate who starts in 6 months and needs to use this.
Measure

- Quantify - Capture data points you intended to change.
- Qualify - How did the change impact your customer?
Repeat

- Learn - did we meet our objectives?
- Build - Go to the next slice of your story map or the next problem.
- Measure - Keep an eye on metrics and adoption but know when it’s good enough.
Sunsetting an existing tool/platform/service

- Sometimes a new platform or service just fails.
- If it doesn’t get used kill it with fire to reduce maintenance.
- New platforms can solve problems and replace tech debt.
- Make a transition plan for existing users to new systems.
Recap - These are tools

- Learn
- Build / Dog Food
- Measure
- Repeat

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Rate today’s session

Cyberconflict: A new era of war, sabotage, and fear
9:55am-10:10am Wednesday, March 27, 2019
Location: Ballroom
Secondary topics: Security and Privacy

We’re living in a new era of constant sabotage, misinformation, and fear, in which everyone is a target, and you’re often the collateral damage in a growing conflict among states. From crippling infrastructure to sowing discord and doubt, cyber is now the weapon of choice for democracies, dictators, and terrorists.

David Sanger explains how the rise of cyberweapons has transformed geopolitics like nothing since the invention of the atomic bomb. Moving from the White House Situation Room to the dens of Chinese, Russian, North Korean, and Iranian hackers to the boardrooms of Silicon Valley, David reveals a world coming face-to-face with the perils of technological revolution—a conflict that the United States helped start when it began using cyberweapons against Iranian nuclear plants and North Korean missile launches. But now we find ourselves in a conflict we’re uncertain how to control, as our adversaries exploit vulnerabilities in our hyperconnected nation and we struggle to figure out how to deter these complex, short-of-war attacks.

David Sanger
The New York Times

David E. Sanger is the national security correspondent for The New York Times as well as a national security and political contributor for CNN and a frequent guest on CBS This Morning, Face the Nation, and many PBS shows.
Thank you!

THANK YOU

STAY CLASSY

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