S ROAD TO FASTER MOBILE PRODUCT ITERATIONS

FASTER. HARDER. STRONGER. FREQUENTER.
DPE IN 2023

ONE DOES NOT SIMPLY MAKE A RELEASE PROCESS CHANGE
WE ARE HERE TO HELP WITH SHIPPING FEATURES TO USERS
**Valera Zakharov**

Q1 for folks working on a mobile application (not only developers): How frequently does your organization currently release a new binary to external customers?

- **Multiple times per week**: 0%
- **Weekly**: 38.5%
- **Every 2 weeks**: 41%
- **> Every 2 weeks**: 20.5%

78 votes · Final results

**Valera Zakharov**

Q2 for folks working on a mobile application: How frequently would you like your organization to release a new binary to external customers?

- **Multiple times per week**: 10.7%
- **Weekly**: 57.1%
- **Every 2 weeks**: 25%
- **> Every 2 weeks**: 7.1%

28 votes · Final results

Created by [valera](https://twitter.com/valera) with /poll

**Romain Guy**

Please stop sending me updates all the time, thank you :)

5:56 PM · Feb 8, 2022
Imagine you were driving a car down a windy road. If you could only touch the steering wheel once every ten minutes, how fast would you drive?
A team’s speed is a function of the frequency and quality of its feedback loops
MIN ITERATION CYCLE ON WEB

~1 DAY

MIN ITERATION ON MOBILE*

40+ DAYS

*Slack Apps in 2022
CADENCE: 2 WEEKS
DURATION: 11 DAYS
CADENCE: 2 WEEKS  
DURATION: 11 DAYS
CADENCE: 2 WEEKS
DURATION: 11 DAYS
46 DAYS
CADENCE: 2 WEEKS
DURATION: 11 DAYS

Time (in days)

0  7  14  21  28  35  42  49  56

Release
Detect
Fix

46 DAYS

46 DAYS
CADENCE: 1 WEEK
DURATION: 11 DAYS

Time (in days):

0 7 14 21 28 35 42 49 56

Release
Detect
Fix

39 DAYS
46 DAYS
RELEASE MORE FREQUENTLY OR FASTER?

Why don’t we have both?
CADENCE: 1 WEEK
DURATION: 3 DAYS
<table>
<thead>
<tr>
<th>Software delivery performance metric</th>
<th>Elite</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deployment frequency</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>For the primary application or service you work on, how often does your organization deploy code to production or release it to end users?</td>
<td>On-demand (multiple deploys per day)</td>
<td>Between once per week and once per month</td>
<td>Between once per month and once every 6 months</td>
<td>Fewer than once per six months</td>
</tr>
<tr>
<td><strong>Lead time for changes</strong></td>
<td></td>
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</tr>
<tr>
<td>For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code committed to code successfully running in production)?</td>
<td>Less than one hour</td>
<td>Between one day and one week</td>
<td>Between one month and six months</td>
<td>More than six months</td>
</tr>
<tr>
<td><strong>Time to restore service</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>For the primary application or service you work on, how long does it generally take to restore service when a service incident or a defect that impacts users occurs (e.g., unplanned outage or service impairment)?</td>
<td>Less than one hour</td>
<td>Less than one day</td>
<td>Between one day and one week</td>
<td>More than six months</td>
</tr>
<tr>
<td><strong>Change failure rate</strong></td>
<td></td>
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</tr>
<tr>
<td>For the primary application or service you work on, what percentage of changes to production or released to users result in degraded service (e.g., lead to service impairment or service outage) and subsequently require remediation (e.g., require a hotfix, rollback, fix forward, patch)?</td>
<td>0%-15%</td>
<td>16%-30%</td>
<td>16%-30%</td>
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MOBILE IS DIFFERENT
MOBILE IS DIFFERENT

- App Store review takes days. Sometimes multiple rounds.
- No fast rollbacks
- Users not guaranteed to install your update right away or ever
- Cost of a mistake is high
DIVING DEEPER
Slack Mobile Releases in 2022

- **STRING TRANSLATION**
- **RELEASE NOTES**
- **TESTING**
- **APP STORE REVIEW**
- **ROLLOUT**

Time (in days)
<table>
<thead>
<tr>
<th>0</th>
<th>7</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri</td>
<td>Sat</td>
<td>Sun</td>
</tr>
<tr>
<td>Mon</td>
<td>Tue</td>
<td>Wed</td>
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<td>Thu</td>
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<td>Sun</td>
<td>Mon</td>
<td>Tue</td>
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<tr>
<td>Wed</td>
<td>Thu</td>
<td>Fri</td>
</tr>
</tbody>
</table>

- **R1**
  - **Testing**
    - VENDOR TESTING
    - TRIAGE OF VENDOR RESULTS
    - INTERNAL QA/VALIDATION OF HOTFIXES
    - DOGFOOD
    - EXTERNAL BETA
Time (in days)

<table>
<thead>
<tr>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
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<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
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<tbody>
<tr>
<td>VENDOR TESTING</td>
<td>TESTING</td>
<td>KEPT SAME VENDOR TEST COVERAGE</td>
<td>OPTIMIZED TRIAGE OF VENDOR FINDINGS</td>
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</tr>
<tr>
<td></td>
<td>TRIAGE OF VENDOR RESULTS</td>
<td>MOVED INTERNAL QA/VALIDATION OF HOTFIXES TO TEAMS</td>
<td></td>
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<tr>
<td></td>
<td>BUFFER FOR HOTFIXES</td>
<td>INCREASED DOGFOOD ADOPTION TO COMPENSATE FOR SHORTER BAKE TIME</td>
<td></td>
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<tr>
<td></td>
<td>DOGFOOD</td>
<td>Released external beta sooner</td>
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<tr>
<td></td>
<td>EXTERNAL BETA</td>
<td>LOWER TOLERANCE FOR LATE HOTFIXES</td>
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</tbody>
</table>
HOTFIXES

THIS IS FINE.
Time (in days)

- **R2**: Release Tasks
  - Cadence: 2 Weeks
  - Duration: 11 Days

- **R1**: App Store Review

- **Rollout**
CADENCE: 1 WEEK  
DURATION: 7 DAYS
CADENCE: 1 WEEK
DURATION: 7 DAYS
Slack has consistently shown why release notes should be written by the marketing team.

Look at this beauty!

What's New
Version 21.07.20

What's new
- How's everybody doing out there? Are you getting enough sleep? Drinking enough water? Eating some vegetables here and there? We don't have any big updates this time around, so we wanted to use this space to remind you to be kind to yourself and those around you. That's all. Love ya.
**RELEASE NOTES**

**STRING TRANSLATION**

**APP STORE REVIEW**

**ROLLOUT**

**TESTING**

Collection starts earlier

Goes with next release if didn't make it in time
AUTOMATION MERGED STRING
TRANSLATION ONLY INTO MAIN BRANCH
STRING FREEZE 2 DAYS PRIOR TO CODE FREEZE
1-2 DAYS!

VERY THOROUGH
(5X REJECTION RATE OF ANDROID)

~4 HOURS

LESS STRICT

NICE TO USE WEEKEND

NO MORE THAN 1 SUBMISSION/ROLLOUT CONCURRENTLY

APP STORE REVIEW

ROLLOUT
HAD TO MOVE TO WEEKDAY
0% -> 50% -> 100%

Observe crash rates and error reports

Can be accelerated to 1 day, but prefer 2 to reduce risk

Takes another few days for majority of users to install update
CADENCE: 1 WEEK
DURATION: 3 DAYS
CADENCE: 1 WEEK
DURATION: ~7 DAYS
THE PROCESS OF CHANGE
THE PROCESS OF CHANGE

- Talk to Folks
- Survey
- Instrument the Process
- Make the Change
- Let It Bake
- Survey
- Gather Metrics
- Evaluate
- Rollback
- Mitigate Risk
- Communicate, Communicate, Communicate
- Celebrate
THE PROCESS OF CHANGE

- Hopes
  - Faster iterations
  - More clarity on schedule
  - Reduced pressure to catch the train
  - Better stability

- Fears
  - Lower stability with reduced test time
  - Increased pressure to catch the train

Not just developers

Success Criteria

- Increased velocity
- Increased clarity
- Reduced pressure
- No regression in stability
THE PROCESS OF CHANGE

- Based on success criteria from interviews
- Baseline for human perception
- Chance to
  - gather more info
  - let everyone be heard
## THE PROCESS OF CHANGE

### SURVEY

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Schedule Clarity</th>
<th>Velocity</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm feeling</td>
<td>I have clarity</td>
<td>I have clarity</td>
<td>I am satisfied</td>
</tr>
<tr>
<td>the release train</td>
<td>around when a</td>
<td>around when a</td>
<td>with the speed</td>
</tr>
<tr>
<td>around string/</td>
<td>change merged</td>
<td>change merged</td>
<td>at which</td>
</tr>
<tr>
<td>code freeze</td>
<td>into the main</td>
<td>into the main</td>
<td>changes from</td>
</tr>
<tr>
<td></td>
<td>branch will be</td>
<td>branch will</td>
<td>main branch</td>
</tr>
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<td></td>
<td>available to</td>
<td>become</td>
<td>become</td>
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<tr>
<td></td>
<td>dogfood users.</td>
<td>available</td>
<td>available to</td>
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<td></td>
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<td>to all</td>
<td>all external</td>
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<td></td>
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<td>external</td>
<td>users.</td>
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<td>users.</td>
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</tr>
<tr>
<td><strong>Average</strong></td>
<td>3.50</td>
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<td>2.88</td>
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<td><strong>Scale</strong></td>
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</tr>
<tr>
<td>5 = Strongly Agree</td>
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<tr>
<td>4 = Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 = Neutral</td>
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<td></td>
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</tr>
<tr>
<td>2 = Disagree</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 = Strongly Disagree</td>
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<td></td>
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<tr>
<td><strong>Average by</strong></td>
<td>Development</td>
<td>Engineering</td>
<td>Product Management</td>
</tr>
<tr>
<td><strong>discipline</strong></td>
<td></td>
<td>Management</td>
<td></td>
</tr>
<tr>
<td><strong>Legend</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average by</strong></td>
<td>Product Engineering</td>
<td>Other</td>
<td>Infrastructure</td>
</tr>
<tr>
<td><strong>Product/Infra</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Platform</strong></td>
<td>Android</td>
<td>Android/OS</td>
<td>iOS</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>3.25</td>
<td>3.89</td>
<td>3.07</td>
</tr>
</tbody>
</table>

**Feature flagging is an effective way to mitigate risk for changes in our app.**
# The Process of Change Survey

<table>
<thead>
<tr>
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<th>Schedule Clarity</th>
<th>Velocity</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm sure if the release train around string/code freeze.</td>
<td>3.50</td>
<td>3.53</td>
<td>2.88</td>
<td>3.57</td>
</tr>
<tr>
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</tbody>
</table>

## Scale

- 5 = Strongly Agree
- 4 = Agree
- 3 = Neutral
- 2 = Disagree
- 1 = Strongly Disagree

### Average by Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Pressure</th>
<th>Schedule Clarity</th>
<th>Velocity</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>3.14</td>
<td>3.86</td>
<td>2.95</td>
<td>3.61</td>
</tr>
<tr>
<td>Design</td>
<td>3.80</td>
<td>2.60</td>
<td>2.60</td>
<td>2.80</td>
</tr>
<tr>
<td>Engineering Management</td>
<td>3.22</td>
<td>3.78</td>
<td>2.88</td>
<td>3.67</td>
</tr>
<tr>
<td>Product Management</td>
<td>4.00</td>
<td>2.79</td>
<td>2.36</td>
<td>3.36</td>
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<tr>
<td>Quality Engineering</td>
<td>3.71</td>
<td>4.00</td>
<td>3.29</td>
<td>3.29</td>
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<tr>
<td>Program Management</td>
<td>3.50</td>
<td>5.00</td>
<td>5.00</td>
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</table>

### Average by Product/Infra

<table>
<thead>
<tr>
<th>Product/Infra</th>
<th>Pressure</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Product Engineering</td>
<td>3.81</td>
<td>3.60</td>
<td>2.95</td>
<td>3.67</td>
</tr>
<tr>
<td>Other</td>
<td>3.33</td>
<td>2.67</td>
<td>2.95</td>
<td>2.50</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>2.30</td>
<td>3.60</td>
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### Average by Platform

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<tr>
<td>Android</td>
<td>3.25</td>
<td>3.63</td>
<td>3.25</td>
<td>3.94</td>
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<td>Android/iOS</td>
<td>3.89</td>
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<td>2.81</td>
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## Legend

- Green = Good
- Red = Bad

---

This survey collects data on the process of change within an organization, focusing on various aspects such as pressure, schedule clarity, velocity, and safety. The data is presented in a table format, allowing for easy comparison across different disciplines, products, and platforms. The scale ranges from 1 to 5, with higher numbers indicating greater satisfaction or clarity. The average scores provide insights into areas that may need improvement or optimization.
“WE TRY AND SQUEEZE UPDATES AND IMPROVEMENTS IN THE UPCOMING RELEASE, BECAUSE THE NEXT ONE IS TOO FAR. BY THE TIME THE CUSTOMER SEES OUR WORK – IT'S 1 MONTH OUT. IT SLOWS DOWN PACE OF SHIPPING, EXPERIMENTATION AND LEARNING ON MOBILE PLATFORMS. DESKTOP IS ABLE TO SHIP TO GA IN A DAY (WHICH WOULD BE THE DREAM). BUT, I CAN ONLY HOPE WE CAN MAKE IT QUICKER THAN WHAT IT IS TODAY.”

Designer at Slack
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<td>My team feel(s) pressure to &quot;catch the release train&quot; around string/code freeze.</td>
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<td>4 = Agree</td>
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</tr>
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<tr>
<td>Average by discipline</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Development</td>
<td>3.14</td>
<td>3.96</td>
<td>2.95</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>3.80</td>
<td>2.60</td>
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<td></td>
</tr>
<tr>
<td>Engineering Management</td>
<td>3.22</td>
<td>3.76</td>
<td>2.69</td>
<td></td>
</tr>
<tr>
<td>Product Management</td>
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<td>2.79</td>
<td>2.36</td>
<td></td>
</tr>
<tr>
<td>Quality Engineering</td>
<td>3.71</td>
<td>4.00</td>
<td>3.29</td>
<td></td>
</tr>
<tr>
<td>Program Management</td>
<td>3.50</td>
<td>5.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Legend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Engineering</td>
<td>3.81</td>
<td>3.60</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
<td>3.33</td>
<td>2.67</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>2.30</td>
<td>3.80</td>
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<td>Average by Product/Infra</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>iOS</td>
<td>3.07</td>
<td>3.80</td>
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<td></td>
</tr>
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<td>Average by Platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ON CLARITY AROUND SCHEDULE

SURVEY

"I HAVE NO IDEA — WHAT ARE EXTERNAL BETA USERS?"

A PRODUCT MANAGER

"THERE ARE SEVERAL CUT OFFS THAT I HAVE TO CONSISTENTLY ASK AGAIN OR SECOND GUESS JUST IN CASE I CONFUSE MYSELF OR CONFUSE OTHERS."

A DEVELOPER
### THE PROCESS OF CHANGE

#### SURVEY

<table>
<thead>
<tr>
<th></th>
<th>Pressure</th>
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<th>Velocity</th>
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#### Scale
- 5 = Strongly Agree
- 4 = Agree
- 3 = Neutral
- 2 = Disagree
- 1 = Strongly Disagree

#### Average by discipline
- Development
- Design
- Engineering Management
- Product Management
- Quality Engineering
- Program Management

#### Average by Product/Infra
- Product Engineering
- Other
- Infrastructure

#### Average by Platform
- Android
- Android/iOS
- iOS

---

Legend:
- Feature flagging is an effective way to mitigate risk for changes in our app.
ON RELEASE SPEED

SURVEY

“A OTHER PLACES I’VE BEEN THE WAIT HAS BEEN EVEN LONGER. I FIND SLACK’S CURRENT TIMING FINE.”

A DEVELOPER

“2 WEEKS IS A LONG TIME IN THE MODERN WORLD OF SOFTWARE”

A DESIGNER
## THE PROCESS OF CHANGE

## SURVEY

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<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

### Legend

- **Law = Good**
- **bad**
- **green = good**

### Average by Product/Infra

<table>
<thead>
<tr>
<th>Product Engineering</th>
<th>Other</th>
<th>Infrastructure</th>
<th>Average by Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.81</td>
<td>3.60</td>
<td>2.95</td>
<td>3.67</td>
</tr>
<tr>
<td>3.33</td>
<td>2.67</td>
<td>2.90</td>
<td>2.50</td>
</tr>
<tr>
<td>2.30</td>
<td>3.80</td>
<td>2.87</td>
<td>3.80</td>
</tr>
</tbody>
</table>

### Average by Platform

<table>
<thead>
<tr>
<th>Android</th>
<th>Android/iOS</th>
<th>iOS</th>
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</tr>
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<tbody>
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</tr>
<tr>
<td>3.20</td>
<td>3.80</td>
<td>2.60</td>
<td>3.73</td>
</tr>
</tbody>
</table>
ON RELEASING WITHOUT MANUAL QA

SURVEY

“WE NEED TO IMPROVE (A LOT) ON OUR AUTOMATE TESTING BEFORE I CAN COMFORTABLE WITH THIS.”

A DEVELOPER

“JUST BECAUSE THE BUILD IS “GREEN”, IT DOESN’T MEAN THAT THERE ARE NO CRITICAL ISSUES. WE SHOULD ALWAYS HAVE MANUAL REGRESSION PASS BEFORE RELEASING TO EXTERNAL USERS”

AN ENGINEERING MANAGER
THE PROCESS OF CHANGE

- Talk to Folks
- Survey
- Instrument the Process
- Make the Change
- Let It Bake
- Survey
- Evaluate
- Gather Metrics
- Mitigate Risk
- Communicate, Communicate, Communicate
- Rollback
- Celebrate
THE PROCESS OF CHANGE

INSTRUMENT THE PROCESS

GITHUB

APP/PLAY STORE

CI

HUMAN INPUT

TRACING

41  1.32
33  0.42
1    2
2    2

19.55  3.14  4.36  1.52  14.45
THE PROCESS OF CHANGE

INSTRUMENT THE PROCESS

HUMAN INPUT
THE PROCESS OF CHANGE

INSTRUMENT THE PROCESS

Release Quality

- Attempted Releases: 77
- Successful Releases: 69
- Abandoned Releases: 1
- Pending Releases: 3

Hotfixes Per Release: 1.47
Late Hotfixes Per Release: 0.38
Releases with Production Patch: 2
Total Number of Production Patches: 2

SWITCH TO WEEKLY CADENCE
FASTER RELEASE TRAINS
THE PROCESS OF CHANGE

INSTRUMENT THE PROCESS

SWITCH TO WEEKLY CADENCE

FASTER RELEASE TRAINS
THE PROCESS OF CHANGE

INSTRUMENT THE PROCESS

SWITCH TO WEEKLY CADENCE

FASTER RELEASE TRAINS
THE PROCESS OF CHANGE

Make the change incrementally

- Stage 1: Increase release frequency
- Stage 2: Increase release speed

MITIGATE RISK

https://www.pocketmindfulness.com/baby-steps-approach/
Practice with a dry-run

Go through the process, but skip rollout
# THE PROCESS OF CHANGE

<table>
<thead>
<tr>
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<td>3.53</td>
<td>2.68</td>
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</tbody>
</table>

## Scale

5 = Strongly Agree  
4 = Agree  
3 = Neutral  
2 = Disagree  
1 = Strongly Disagree  

### Average by discipline

<table>
<thead>
<tr>
<th></th>
<th>Development</th>
<th>Design</th>
<th>Engineering Management</th>
<th>Product Management</th>
<th>Quality Engineering</th>
<th>Program Management</th>
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<td>2.80</td>
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<td>3.71</td>
<td>4.00</td>
</tr>
<tr>
<td>1 = Strongly Disagree</td>
<td>3.95</td>
<td>3.00</td>
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<td>3.86</td>
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</table>

### Average by Product/Infra

<table>
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<td>2.50</td>
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<td>3.35</td>
<td>3.00</td>
<td>4.00</td>
</tr>
</tbody>
</table>

### Legend

- **red** = less satisfied  
- **green** = satisfied  

### Average by Platform

<table>
<thead>
<tr>
<th></th>
<th>Android</th>
<th>Android</th>
<th>iOS</th>
<th>IOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 = Strongly Agree</td>
<td>3.25</td>
<td>3.89</td>
<td>3.07</td>
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</tr>
<tr>
<td>2 = Disagree</td>
<td>3.94</td>
<td>3.56</td>
<td>3.20</td>
<td></td>
</tr>
<tr>
<td>1 = Strongly Disagree</td>
<td>4.00</td>
<td>3.22</td>
<td>3.73</td>
<td></td>
</tr>
</tbody>
</table>

- **red** = less satisfied  
- **green** = satisfied  

---

Note: The table above represents a survey or assessment of how teams feel about the process of change, with ratings on a scale from 1 to 5. The table categorizes responses by discipline, product/infrastructure, and platform, indicating levels of agreement or satisfaction.
THE PROCESS OF CHANGE

- Feature flags
  - Not a silver bullet
  - Measure % or change behind flag?

MITIGATE RISK

Spend $$$ on AI to save devs a few minutes per day

Spend $$$ on AI to analyze unstructured data for benefit of reliability
THE PROCESS OF CHANGE

MITIGATE RISK

- Dogfood (internal testing)
- Reduced time to catch errors
- Compensated by increase in usage

⚠️ Update Available
Some tasty new bytes from Slack.

⚠️ Update Available
Some tasty new bytes from Slack.
THE PROCESS OF CHANGE

LIVE WITH RISK

I also like to live dangerously
THE PROCESS OF CHANGE

- Repetition
- Repetition
- Keep it Real
- Educate
- Emphasis: Experimentation and Success Criteria

COMMUNICATE, COMMUNICATE, COMMUNICATE
MAKE THE CHANGE

Time (in days):

0 7 14 21 28 35

Release Tasks
App Store Review
Rollout
MAKE THE CHANGE

Time (in days)

Release Tasks

App Store Review

Rollout
MAKE THE CHANGE
THE PROCESS OF CHANGE

TALK TO FOLKS

SURVEY

INSTRUMENT THE PROCESS

MAKE THE CHANGE

LET IT BAKE

SURVEY

GATHER METRICS

EVALUATE

ROLLBACK

CELEBRATE

MITIGATE RISK

COMMUNICATE, COMMUNICATE, COMMUNICATE
THE PROCESS OF CHANGE

GATHER METRICS

LET IT BAKE
## The Process of Change

### After Switch to Weekly Releases

<table>
<thead>
<tr>
<th></th>
<th>2022Q1</th>
<th>2022Q2</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have clarity around when a change merged into the main branch will be available to dogfood users.</td>
<td>3.50</td>
<td>3.95</td>
<td>0.45</td>
</tr>
<tr>
<td>I have clarity around when a change merged into the main branch will become available to external beta users.</td>
<td>2.88</td>
<td>3.28</td>
<td>0.40</td>
</tr>
<tr>
<td>I have clarity around when a change merged into the main branch will become available to all external users.</td>
<td>3.57</td>
<td>3.73</td>
<td>0.16</td>
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<tr>
<td>I am satisfied with the speed at which changes from main branch become available to dogfood users.</td>
<td>3.57</td>
<td>3.67</td>
<td>0.10</td>
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<td>3.83</td>
<td>3.67</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

**THIS USED TO BE A STRESSFUL REALITY, BUT THANKS TO OUR WEEKLY RELEASE SCHEDULE (AND THE MOVING OF STRING)**

**A DEVELOPER**

**WITHOUT PROJECT GROUNDHOG AND WEEKLY RELEASES, I FELT THE RELEASES WERE TOO INFREQUENT AND WE WOULD WAIT OR RESORT TO HOT FIXES MORE OFTEN.**

**A DEVELOPER**

**A WEEK AND A HALF FEELS LIKE A LONG TIME.**

**A DESIGNER**

### Survey:

- **Scale**
  - 5 = Strongly Agree
  - 4 = Agree
  - 3 = Neutral
  - 2 = Disagree
  - 1 = Strongly Disagree

- **Average by discipline**
  - Development: 3.90
  - Product Management: 4.70
  - Design: 4.90
  - Quality Engineering: 3.60
  - Program Management: 5.00
  - Engineering Management: 5.90

- **Legend**
  - Bad: Product Engineering Infrastructure
  - Good: Other

- **Average by Layer**
  - Average: 4.03
  - Android: 3.71
  - iOS: 4.04
  - Android/iOS: 4.44
THE PROCESS OF CHANGE

AFTER SWITCH TO FASTER TRAIN

I would say the pressure is less than what it was with longer train.

A DEVELOPER

As long as we continue to feel confident about our ability to test the app before it goes out to external customers, this pace is fantastic!

A DEVELOPER

The 5-day schedule works great when everything goes smoothly. In practice, there are several pain points that make the release process higher-risk, and less-flexible...

THE RELEASE MANAGER
THE PROCESS OF CHANGE

- TALK TO FOLKS
- INSTRUMENT THE PROCESS
- MAKE THE CHANGE
- LET IT BAKE
- SURVEY
- GATHER METRICS
- MITIGATE RISK
- COMMUNICATE, COMMUNICATE, COMMUNICATE
- EVALUATE
- ROLLBACK
- CELEBRATE
The Process of Change

EVALUATE

Success Criteria

- Increased velocity
- Increased clarity
- Reduced pressure
- No regression in stability
Success Criteria

- Increased velocity
- Increased clarity
- Reduced pressure
- No regression in stability
THE PROCESS OF CHANGE

Success Criteria

- Increased velocity
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THE PROCESS OF CHANGE

Success Criteria

- Increased velocity
- Increased clarity
- Reduced pressure
- No regression in stability
THE PROCESS OF CHANGE

- Success Criteria
  - Increased velocity
  - Increased clarity
  - Reduced pressure
- No regression in stability
Positive: fix for keyboard issue gets out to customers super fast! (edited)

Sarah Nason
Oh, good. 😊 Please let me know if it's still broken in .25, once you update.

Weekly releases are amazing!

Fred Hui ☀️ 9:46 PM
This comes at the right timing as we were able to benefit from the weekly release cadence for some of our work on GovSlack with respect to the GA date. If it was the 2 week cadence, we would have to ship some more features post GA!

Overall faster iterations is always appreciated from both the Product and Engineering teams, especially in my pillar Expansion where we're very experiment focused with fast iterations being 🙌.
THE PROCESS OF CHANGE

TALK TO FOLKS

SURVEY

INSTRUMENT THE PROCESS

MAKE THE CHANGE

LET IT BAKE

GATHER METRICS

SURVEY

EVALUATE

MITIGATE RISK

COMMUNICATE, COMMUNICATE, COMMUNICATE

ROLLBACK

CELEBRATE
FUTURE POSSIBILITIES
<table>
<thead>
<tr>
<th>Software delivery performance metric</th>
<th>Elite</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deployment frequency</strong></td>
<td>On-demand (multiple deploys per day)</td>
<td>Between once per week and once per month</td>
<td>Between once per month and once every 6 months</td>
<td>Fewer than once per six months</td>
</tr>
<tr>
<td><strong>Lead time for changes</strong></td>
<td>Less than</td>
<td>Between one day and one week</td>
<td>Between one month and six months</td>
<td>More than six months</td>
</tr>
<tr>
<td><strong>Time to restore service</strong></td>
<td>Less than one day</td>
<td>Between one day and one week</td>
<td>More than six months</td>
<td></td>
</tr>
<tr>
<td><strong>Change failure rate</strong></td>
<td>0%-15%</td>
<td>16%-30%</td>
<td>16%-30%</td>
<td>16%-30%</td>
</tr>
</tbody>
</table>
THE FUTURE

OPPORTUNITIES

- Iterate with “closer” audiences
  - Early prototypes to key stakeholders
  - Internal users
  - External beta users
- Shift Left
  - Reduce risk of hotfixes
  - Get to releasing a green build from main
- AI
FINAL THOUGHTS
THE END
Change triggers fear

“Fear is the mind killer”

It’s easy to get into a comfort zone

With the right approach we can reach a new level of productivity

Which, if you have read book 4 of the dune series, is something that we probably don’t want to do. But that philosophical talk for next year. If AI hasn’t become sentient and taken over by then. See you all in the future.