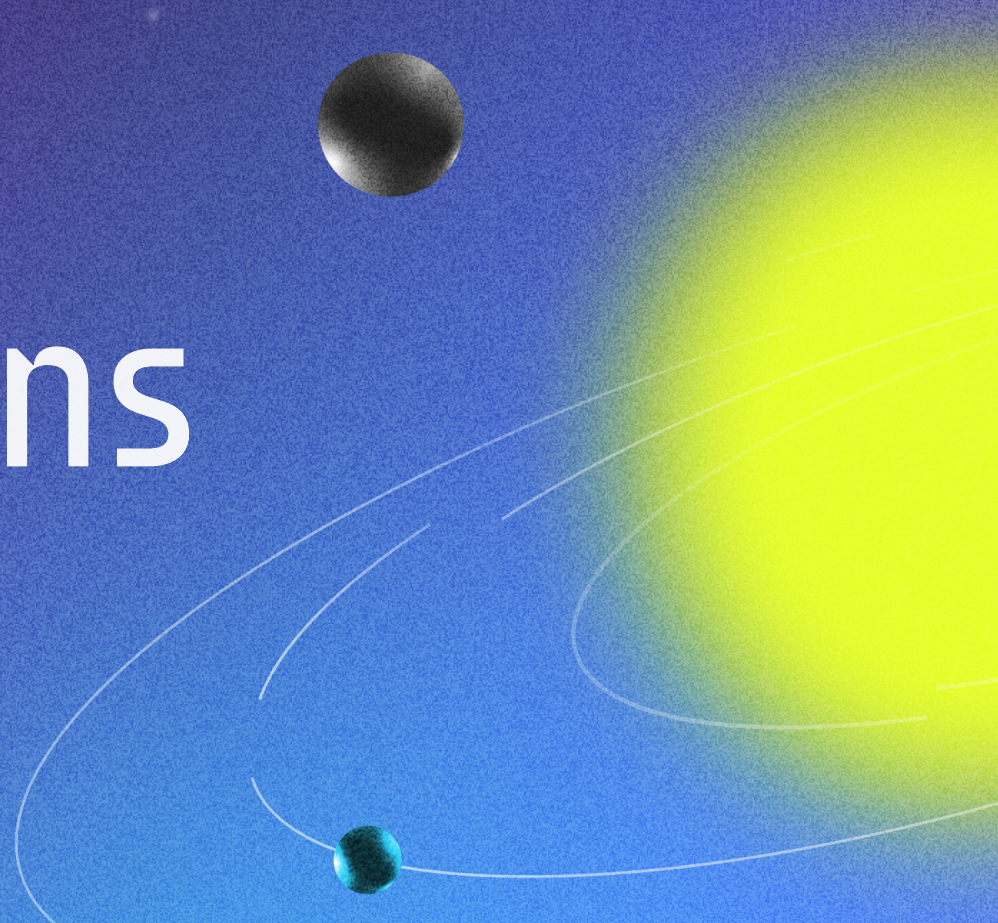


TRAJECTORY

2022

Talk Illustrations

LaunchDarkly →



Introduction

Trajectory 2022 was the fourth installment of our annual thought leadership conference. This two-day event gathered industry thought leaders and practitioners, as well as LaunchDarkly users, customers, and partners, to share and discuss the latest software industry trends and best practices and showcase cutting-edge development and delivery on a global scale.

Mind's Eye Creative captured each of our 25+ keynotes and conversations, creating entertaining and informative illustrations that provide a fun, high-level overview of the conference.

Mind's Eye Creative

mindseyecreative.ca

@mindseyeccf

LaunchDarkly 

STATE OF FEATURE MANAGEMENT

EDITH HARBAUGH

FEATURE FLAGS
DECOUPLE DEPLOYMENT FROM RELEASES

FEATURE MANAGEMENT
USING FEATURE FLAGS AT SCALE

WHY

- ✓ PSYCHOLOGICAL SAFETY
- ✓ SMOOTH RELEASES
- ✓ AVOID DISASTERS
- ✓ IMPROVE SOFTWARE QUALITY

20+ FEATURES TRILLION IN ONE DAY

- FLAGS IN A WORKFLOW
- FLAGS THAT DEPEND ON EACH OTHER
- INCORPORATE INTO OVERALL SOFTWARE PROCESS

MATTERS TO OVER 4000 CUSTOMERS



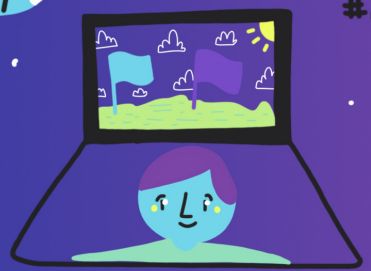
SURVEY 1000+

SOFTWARE & IT PROFESSIONALS

HOW DO YOU CURRENTLY USE OR PLAN TO USE FEATURE FLAGS?



WHY FEATURE FLAGS
#1 QUALITY



FEATURE MANAGEMENT ROI

#1 GREATER CONFIDENCE & LESS STRESS WHEN RELEASING SOFTWARE

USE CASES



LaunchDarkly →

TRAJECTORY

PRODUCT VISION

JOHN KODUMAL

DOESN'T GUARANTEE BUSINESS VALUE

IS RISKY WITHOUT GUARDRAILS

SPEED



THE QUEST FOR SPEED DELIVERS

IN A SOFTWARE POWERED WORLD, SPEED DRIVES SUCCESS

FEATURE MANAGEMENT

SPEED WITHOUT RISK

SPEED WITH MEASURABLE BUSINESS VALUE

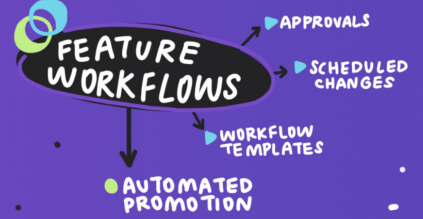


A FEATURE ISN'T ALWAYS RELEASED TO A USER

NEW CUSTOM CONTEXTS



UNLOCK CUSTOM USER EXPERIENCES



INCREASED CONTROL

AUTOMATION



BUSINESS IMPACT

TEAM INSIGHTS



CONNECT DATA TO INDIVIDUAL RELEASES

EXPERIMENTATION

ENHANCED COLLABORATION

TRUSTWORTHY DECISION-MAKING

MAXIMIZE VALUE

SAMPLE RATIO MISMATCH ALERTS

RESULTS DATA VISUALIZATIONS

WE DON'T JUST DELIVER SOFTWARE TO USERS. WE DELIVER TO EVERYTHING

NEW EARLY ACCESS ACCELERATE



RELEASE METRICS



FLAG HEALTH OVERVIEW

FLAG INSIGHTS



LaunchDarkly

TRAJECTORY

OPENING KEYNOTE

GENE KIM



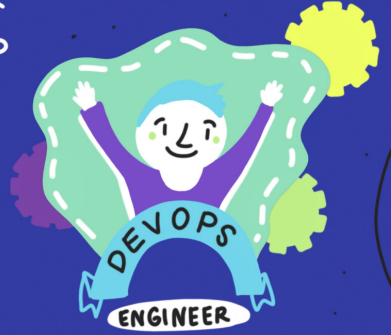
ARCHITECTURE
ONE OF THE TOP PREDICTORS OF PERFORMANCE

THERE IS ALWAYS SOMEONE DOING THE MOST IMPORTANT WORK

HOW EASY IS IT FOR THEM TO DO THEIR WORK



IMPACT
HOW WORK IS PERFORMED



WHAT CREATES GREATNESS?

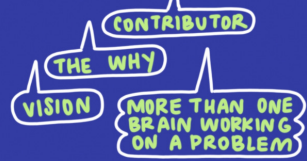
1 RABINOW'S LAW

IF YOU HAVE A DOPE AT THE TOP YOU WILL HAVE DOPES ALL THE WAY DOWN

2 TECHNOLOGICAL MAESTRO

- HIGH ENERGY
- HIGH STANDARDS
- GREAT IN THE LARGE
- GREAT IN THE SMALL
- LOVE WALKING THE FLOOR

TRANSACTIONAL VS. CO-CREATION



- ROLE IS IN DEMAND
- ONE OF THE HIGHEST PAID

WHAT IS IN COMMON WITH

- DEVOPS
- AGILE
- RESILIENCE ENGINEERING
- TOYOTA PRODUCTION SYSTEMS
- SAFETY CULTURE

THEY ARE INCOMPLETE EXPRESSIONS OF A WHOLE



YOUR WORK MATTERS MORE NOW THAN EVER

PAIR UP WITH SOMEONE

IN A DIFFERENT DOMAIN FROM YOU

WHAT DOES IDEAL LOOK LIKE:
• SOONER • SAFER • HAPPIER •

STATE OF LAUNCHDARKLY experimentation

JAMES FROST


1 ARE WE DELIVERING THE RIGHT THINGS?

2 ARE WE DELIVERING AT THE RIGHT PACE?



EXPERIMENTATION IS A DECISION MAKING TOOL

SET UP A WELL DESIGNED EXPERIMENT



EMPOWERED TEAMS



▶ SET OF KEY METRICS
GUARDRAIL METRICS

▶ CREATIVITY UNLOCKED

▶ CLEAR OBJECTIVE



✓ ✓ ✓ AUTOMATIC HEALTH CHECKS

● MINIMIZE RISK

CONSISTENT CONTROL AT SCALE



INTUITIVE RESULTS



COMING SOON!

TEAMS SHARING A SINGLE CONTROL SURFACE DELIVER FASTER, MORE SAFELY


★ RELEASE IMPACT

AUTOMATICALLY MEASURE EVERY CHANGE & MINIMIZE THE POTENTIAL BLAST RADIUS

C. 2018 EXPERIMENTATION INTRODUCED

C. 2020 EXPERIMENTATION IMPROVEMENTS

JUNE 2022 ANY TEAM CAN MAKE INFORMED DECISIONS & CONFIDENTLY SHIP THE BEST EXPERIENCE



INTRODUCING CUSTOM CONTEXTS, ACCELERATE AND FLAG LIFECYCLE

JON SCHULMAN

CUSTOM CONTEXTS



NEW CONTEXTS DASHBOARD

MULTI-CONTEXT TARGETING



MOVE BEYOND TARGETING THE INDIVIDUAL USER. RELEASE FEATURES FOR THEIR DEVICE, REGION & MORE!

CONTEXT "KIND" MANAGEMENT

MANY NEW FEATURES COMING SOON!

LICENSING REGION

DEVICE TYPE

PLAN TIER



WAY THEY CONSUME THE MEDIA

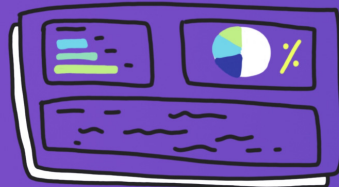
EG. STREAMING SERVICE

FLAG LIFECYCLE



FLAG HEALTH OVERVIEW

ENSURE THAT TEAMS CAN CONTINUE TO MOVE FAST WITHOUT ACCRUING TECHNICAL DEBT FROM USING FEATURE FLAGS AT SCALE.



FLAG INSIGHTS



RELEASE INSIGHTS



DEPLOYMENT INSIGHTS

ACCELERATE

EARLY ACCESS

ACCELERATE COMBINES KEY ENGINEERING METRICS IN ONE PLACE TO HIGHLIGHT BOTTLENECKS & TRACK LONG-TERM TRENDS

FEATURE FLAGS IMPACT THE KEY DORA METRICS



SPEED & STABILITY

BUILDING DYNAMIC CONFIGURATION INTO TERRAFORM

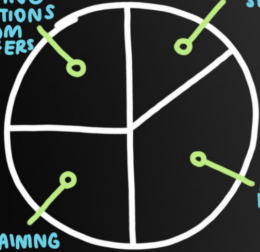
ISABELLE MILLER

HOSH SADIQ



FIELDING QUESTIONS FROM ENGINEERS

REVIEW 1-3-LINE SIMPLE PRS



COMPLAINING

ACTUAL DEVOPS-y THINGS

HOW THE AVERAGE DEVOPS ENGINEER SPEND THEIR TIME

WHY

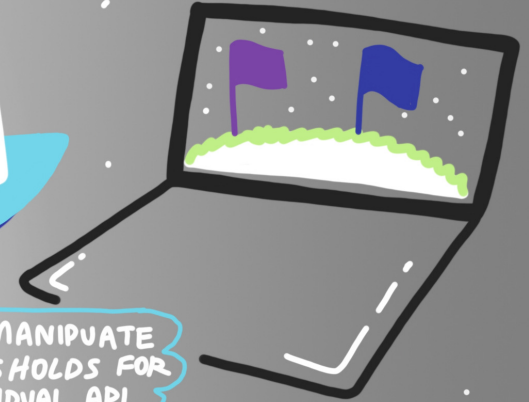
FEATURE MANAGEMENT IN TERRAFORM

CONTROLLED ACCESS

AVOID SMALL CODE CHANGES

MORE INDEPENDENCE

- SMALL, NON-DESTRUCTIVE CHANGES
- ATTRIBUTES WITH STATIC DATA TYPES - MINIMIZE FAILED APPLIES
- SELF-EXPLANATORY ATTRIBUTES



FLAGS EVALUATION PROVIDER FOR TERRAFORM

FOR TERRAFORM



PROVIDE ANYONE WITH CONTROLLED ACCESS

TWEAK & MANIPULATE THE THRESHOLDS FOR THEIR INDIVIDUAL API SLOS BY A FEATURE FLAG

UPDATE CONFIGURATIONS

FIRESIDE CHAT

WITH ROBERT GREVILLE **VODAFONE**

WITH JESSICA CREGG

TRANSFORMATION JOURNEY SO FAR

WHY LAUNCHDARKLY

- DIGITAL FIRST
- RIGHT PRODUCTS AT THE RIGHT TIME
- MICROSERVICES ARCHITECTURE FROM THE GROUND UP
- AGILITY
- REBUILT OUR FRONT END
- CONSISTENT DESIGN
- ENGINEERING CULTURE

WE WANT OUR TEAMS TO HAVE **AUTONOMY** TO RELEASE INTO PRODUCTION AS PART OF A WELL DEFINED CI/CD PIPELINE

DRIVE TOWARDS TRUNK BASED DEVELOPMENT

MORE CONFIDENCE IN OUR TEAMS

HUNDREDS OF RELEASE PER MONTH



9000 ENGINEERS

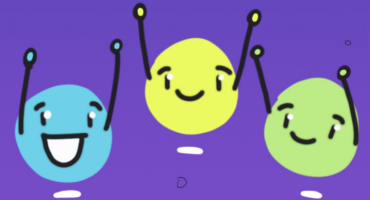
- SHARED CAPABILITIES
- SHARED RESOURCES

ADVICE

LESSONS

NOTHING COMES FOR FREE

ONCE PEOPLE SEE THE BENEFITS OTHER TEAMS WANT IT



TRAINING DAYS FOR TEAMS

ENCOURAGE REUSE

BUT

WANT TO SUPPORT INNOVATION



INTRODUCE: PRINCIPAL ENGINEERING

RECENT HACKATHON

EXPERIMENT & LEARN FROM THEM



BE TEAM LED



LaunchDarkly → TRAJECTORY

GENERAL MOTORS' JOURNEY TO FEATURE FLAGS WITH LAUNCHDARKLY

JIM DEMERCURIO



INCREASE RELEASE FREQUENCY



REDUCE DEVELOPMENT CYCLE TIME

COMPLEXITY



TIME BETWEEN DEPLOYMENTS

TESTING COMPLEXITY



FEEDBACK



LEARNING

TEST OUR EARLY FEATURES IN PRODUCTION WITH COMPANY VEHICLE DRIVERS



PROBLEM



BIG BANG RELEASES

NO ABILITY TO LEARN FROM CUSTOMERS

ALL OR NOTHING

LONG INTEGRATION CYCLES



CONTINUOUS DEPLOY / RELEASE WITH TARGETED SWITCHES

"i _ i"

DEFENSIVE FLAG

KILL SWITCH

OUR FIRST INTRODUCTION TO FEATURE FLAGS



NEXT STEPS

MORE A/B TESTING

AUTOMATIC FEATURE SWITCH RAMP UP/DOWN

MAKE DEPLOYMENT A NON-EVENT

UNLOCKING THE MONOLITH

LESSONS LEARNED FROM NAVIANCE'S JOURNEY

ADAM HISLEY

MONOLITH VS. MICROSERVICES

WHAT'S THE BEST OPTION FOR YOU?

MONOLITH PRODUCTIVITY

AS TEAM INCREASES
↑
THE DEVELOPER OUTPUT DECREASES
↓

GOAL

ENABLE LOOSELY COUPLED, HIGH VELOCITY TEAMS TO DELIVER VALUE TO THE CUSTOMER



CHALLENGES

DATA IS HARDER THAN CODE

AVOID 'BIG BANG' RELEASES

EXPECT TO IMPROVE OVER TIME

GOOD ARCHITECTURE IS SYNONYMOUS WITH A STRONG ROLLOUT PLAN

INTERNAL 'TESTING IN PRODUCTION' IS ESSENTIAL FOR HIGH CONFIDENCE

ZERO BUILD-TIME DEPENDENCIES BETWEEN THE MONOLITH & OUR NEW DOMAIN EXPERIENCE

SEPARATE VI EXPERIENCES

MICRO FRONTENDS



OUR BLUEPRINT



DOMAIN API

≈ 25 LOC (INCLUDES UI + FULL IAC)

DAILY CODE DEPLOYMENT

↑ TECH
TYPESCRIPT
SERVERLESS
CDK

90-100% UNIT TEST COVERAGE (PLUS E2E AUTOMATION)



TIERED RELEASE STRATEGY



NEW DB + DATA MIGRATION

? CAN IT BE RERUN

? HOW DO I PLAN TO PREEMPTIVELY DETECT ISSUES

USE FEATURE FLAGS WITH OUR DATA MIGRATION

WE CAN HAVE CONTROL

LaunchDarkly →

TRAJECTORY

The Journey with LaunchDarkly at One Medical

BEN YEE

FOUNDED IN 2007

250+ ENGINEERS

ONE MEDICAL



IN 2020 KICKED OFF

ADR

ARCHITECTURE REVIEW DECISION

WE NEED TO HAVE:

- ✓ FLAG HISTORY, PERMISSIONS, APPROVAL WORKFLOW SUPPORT
- ✓ HIPAA COMPLIANT
- ✓ HIGHLY SCALABLE & CONFIGURABLE
- ✓ ROBUST FEATURE FLAG TARGETING CAPABILITIES
- ✓ MULTIPLE LANGUAGE SDK SUPPORT
- ✓ EASY TO USE ADMIN UI & DETAILED DEBUGGING



IDENTITY MANAGEMENT

SDK IMPLEMENTATIONS ASYNCHRONOUS LOGIC

LaunchDarkly

INTRODUCING

- SINGLE PRODUCT MODEL
- SCOPE FLAG KEY NAME
- USE TAGGING
- APPROVAL WORKFLOW

DOCUMENTATION

FAQS

SPECIFIC FLAG CONFIGURATION SCENARIOS

EXAMPLE APPLICATION/PLATFORM CODE IMPLEMENTATION

PASSWORD-LESS REGISTRATION

VIDEO CHAT WAIT TIMES

ADDITIONAL PAYMENT METHODS



EXPERIMENTATION

LaunchDarkly

TRAJECTORY

INCIDENTS

THE CUSTOMER EMPATHY WORKSHOP YOU NEVER WANTED

RYAN MCDONALD

CUSTOMER empathy

THE ACTION OF UNDERSTANDING, BEING AWARE OF, BEING SENSITIVE TO, & VICARIOUSLY EXPERIENCING THE FEELINGS OF YOUR CUSTOMER



INCIDENTS SUCK LESS
IT WILL FEEL BETTER TO WORK THROUGH INCIDENTS TOGETHER

BETTER PROCESS & PRODUCT IMPROVEMENTS

DEEPER LEARNING

UNDERSTAND CUSTOMER EXPECTATIONS

1 GAIN PRODUCT EXPERIENCE

• INTERACT WITH THE PRODUCT

2 SURFACE CUSTOMER IMPACT DURING INCIDENTS

• ON THE SAME PAGE ON WHY YOU ARE ALL HERE

CUSTOMER SUPPORT



PUT THE TIME UPFRONT

CREATES OPPORTUNITY FOR SPONTANEOUS A-HA MOMENTS



BROADEN INCIDENT RETROSPECTIVES

MAKE SPACE FOR CUSTOMER-FACING RESPONDERS

INCIDENT RETROSPECTIVES

CAPTURE ALL IMPROVEMENTS, NOT JUST TECHNICAL ONES

ASK



1 PROACTIVITY BUILD RAPPORT WITH SUPPORT

BRING THEM INTO YOUR RESEARCH

BUILD RELATIONSHIPS

INVITE THEM OUT

2 CLEAR/CRISP COMMUNICATION INTERFACES

KEEP PEOPLE IN THE LOOP

3 LET SUPPORT BEHIND THE 'RESPONDER CURTAIN'

INCLUDE THEM

THIS COULD TAKE SOME WORK

BONUS

THEY CAN BE A SECRET DOMAIN EXPERT & HIRING BENCH

THEY CAN PROVIDE FEEDBACK FROM CUSTOMER POINT OF VIEW

THEY CAN HELP WITH CONTINUITY & CONTEXT

THEY CAN TEST CHANGES



HELPS YOU UNDERSTAND:

IMPACTED BUSINESS METRICS

LaunchDarkly

TRAJECTORY

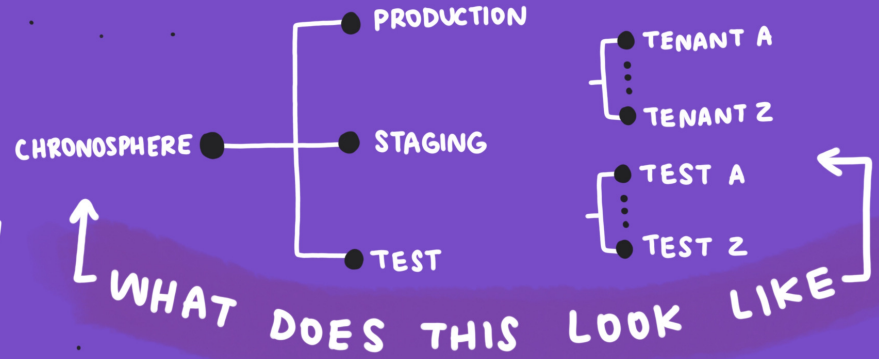
HOW CHRONOSPHERE RELEASES FEATURES AT MASSIVE CLOUD NATIVE SCALE

SIDNEY WIJNGAARDE

OUR USE CASES



- 1 FEATURE RELEASES
- 2 TENANT CONFIGURATION
- 3 EXTERNAL CLIENTS CONTROL PLANE
- 4 INSTANCE DEBUGGING



RELIABILITY TWEAKS

▶ LAUNCH DARKLY CLIENT WRAPPER



CONTEXT: MAKES SURE WE HAVE THE RIGHT FLAG

▶ PERSISTING OUR FEATURE FLAGS



BACK UP FEATURE FLAG DATA



OUTCOMES

ISO + 3 FEATURE FLAGS IN PRODUCTION



EFFICIENCY GAINS



SHIFT THE FEEDBACK CYCLE LEFT WITH FEATURE FLAGS & CLOUD DEVELOPMENT ENVIRONMENTS

RAMIRO BERELLEZA



HELP YOU DECOUPLE CODE RELEASE FROM FEATURE RELEASE



- ✓ NO LONGER LIMITED BY YOUR LOCAL MACHINE
- ✓ SHARABLE
- ✓ DON'T HAVE TO WAIT UNTIL STAGING OR PROD

FEATURE FLAGS



EG. CINDY'S MOVIES DEMO

SHIFTING COLLABORATION LEFT MAKES THE ENTIRE SOFTWARE LIFECYCLE FASTER



EARLY FEEDBACK MEANS GOING TO MARKET FASTER

ALL DONE BEFORE IT'S SHIPPED

YOU CAN GET FEEDBACK FROM PEOPLE



ENABLE ADMIN PANEL

REACT APP

CONNECT LAUNCHDARKLY

ALL CODE CHANGES WILL SYNCHRONIZE FROM LOCAL MACHINE TO REMOTE ENVIRONMENT

I CAN SEND TO PEOPLE SO THEY CAN SEE IT LIVE



ENVIRONMENT IS RUNNING REMOTELY

I HAVE A URL

I HAVE ALL THE FLAGS!

ALSO INCLUDES LAUNCHDARKLY ENVIRONMENT

NOW YOU HAVE A COPY OF THE ENVIRONMENT

LAUNCH

PICK REPO

DEPLOY OWN ENVIRONMENT

5 OPEN SOURCE SECURITY TOOLS

ALL DEVELOPERS SHOULD KNOW ABOUT

SHLOMI KUSHCHI

YOU NEED TO MAKE YOUR CODE SECURE!



M MINIMUM
V VIABLE
S SECURITY

START EARLY
SHIFT-LEFT
ITERATIVE

SECRET DETECTION
DEPENDENCY CHECK YOUR LIBRARIES
INFRASTRUCTURE MISCONFIGURATION
CONTAINER SCANNING
RUNTIME SCANNING

TOKEN
KEY
PASSWORD
CREDIT CARD
SECRET DETECTION
GITLEAKS
CONTAINER SCANNING
TRIVY
RUNTIME SCANNING
ZAP
DYNAMIC APPLICATION SECURITY TESTING

DEPENDENCY CHECK YOUR LIBRARIES
SOFTWARE COMPOSITION ANALYSIS
OWASP DEPENDENCY-CHECK

NO LOGGING
INFRASTRUCTURE MISCONFIGURATION
BROAD PERMISSIONS
KICS
DEFAULT PORT
MISSING ENCRYPTION

SECURITY CATEGORIES

HOW TO CHOOSE

- ACCOUNTABILITY
- USABILITY
- ACCURACY

JIT TAKING IT TO THE NEXT LEVEL

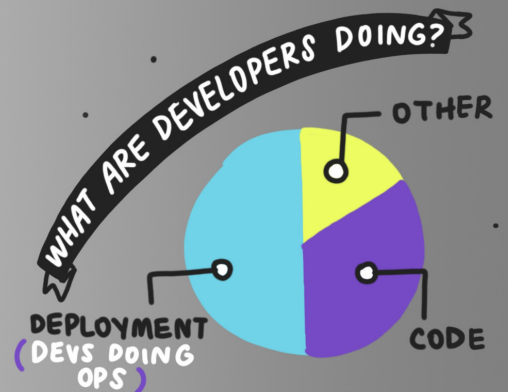
AUTOMATING SECURITY PLANS USING OSS SECURITY TOOLS ORCHESTRATION

LaunchDarkly →
TRAJECTORY

SHIFTING CLOUD NATIVE SECURITY TO THE LEFT



SO MUCH OBSERVABILITY DATA



SHIFT LEFT

TAKE BACK CONTROL



COME OUT OF THE RAIN

✗ SPEND MORE MONEY

✗ SHORT-TERM FIX

✗ STOP COLLECTING SO MUCH DATA

✗ ADD MORE TOOLS

HELP CUSTOMERS GET TO REMEDIATION AS QUICKLY AS POSSIBLE

KNOW TRIAGE UNDERSTAND

REMEDATION

CONTROL

RE-SHAPE DATA ON THE FLY

ERIC D. SCHABELL

INSIGHT

INTERACTIVE METRICS & CARDINALITY PROFILING

AWARENESS

REAL TIME METRICS

USING OBSERVABILITY TO ACCELERATE CONTINUOUS INTEGRATION

BORJA BURGOS

SHIFT-LEFT...

THE DETECTION OF APPLICATION PROBLEMS EARLIER IN THE SOFTWARE DEVELOPMENT PROCESS

OBSERVABILITY

BUILD & SHIP BETTER SOFTWARE FASTER

✓ REDUCE MTR

DISTRIBUTED TRACING

GOALS

✓ INCREASE MTBF

! FLAKY TESTS

UNDERSTAND FLAKY BEHAVIOR

✓ INCREASE DEVELOPER PRODUCTIVITY

ENABLING PROFILING

DEBUG WITHOUT REPRODUCING TEST

✓ ACCELERATE FEEDBACK CYCLE

TEST IMPACT ANALYSIS

✓ DETECT PROBLEMS EARLIER

CATCH IT BEFORE PRODUCTION

COMMIT A 187 ms
COMMIT B 774 ms

4.13x SLOWER

THE POWER OF TARGETING VIA ATTRIBUTES

SUNNY GUDURU



TARGETING RULES ARE **POWERFUL**

USE REGULAR EXPRESSION

SELF-DOCUMENTING

DON'T NEED TO REDEPLOY CODE

LIKE WRITING CODE BUT IN LAUNCHDARKLY



TARGETING RULES

INDIVIDUAL TARGETING

GLOBAL TARGETING



BEST PRACTICES

- ✓ CLEAN UP RULES OFTEN
- ✓ NAME TARGETING RULES REALLY WELL
- ✓ CREATE A DIAGRAM OF EXPECTED BEHAVIOR

PITFALLS

- REMEMBER DEFAULT VARIATIONS
- TEST DURING IMPLEMENTATION
- ONE FEATURE FLAG FOR EVERYTHING IS A DOUBLE-EDGED SWORD

DYNAMIC USER ATTRIBUTES WILL NEED TO USE THE SERVER SIDE SDK

CUSTOM USER ATTRIBUTE

CAN BE A STRING, BOOLEAN, NUMBER OR ARRAY

CAN BE USED IN TARGETING RULE

CAN BE CHANGED FOR EVERY FLAG EVALUATION



TARGETING RULES CAN ABSTRACT BUSINESS LOGIC FROM YOUR CODEBASE ENABLING YOU TO DELIVER SAFELY WITH LAUNCHDARKLY



EXPERIMENT

DEVELOPER'S
GUIDE TO
EXPERIMENTATION



PROVIDE DATA FOR THE METRICS WE WANT TO RECORD

CREATED A FLAG
CREATED EXPERIMENT ON THE FLAG

CREATED CODE FOR METRICS
PUSH START

RUN FOR A WEEK OR TWO

ON EXPERIMENT IN LAUNCHDARKLY

HYPOTHESIS SHOULD BE MEASURABLE & CLEAR



WATCH FOR VAGUE OR MISSING PROBLEM STATEMENT

HOW DID WE GET THIS PROJECTION

AARON MONTANA

GIDEON GOLDMAN

MAKING AN IMPRESSION



CONTROL WHICH USERS ARE INCLUDED IN AN EXPERIMENT

DELAY CALLING VARIATION

ALL FLAGS OR VARIATION CALLS

METRICS

DO THESE METRICS ALREADY EXIST

USE A BUILT-IN METRIC

CUSTOM METRICS

TRACK CALL

SEND TO REST API



SUPPORT POST-ANALYSIS

ONE TIME THING

LAUNCHDARKLY ARCHITECTURE

RELEASING FEATURES AT GLOBAL SCALE

CODY DE ARKLAND

FLAG DELIVERY NETWORK

DELIVERING 20 TRILLION FEATURE FLAGS DAILY



GLOBAL DISTRIBUTED (100+) POINTS OF PRESENCE CACHE & SERVE FLAG & RULE PAYLOADS



ONLY EVALUATED FLAG VALUES ARE TRANSMITTED TO CLIENTS, PROTECTING SENSITIVE DATA

SEPARATE CLIENT SIDE & SERVER SIDE SDK

WHAT HAPPENS IF MY APPLICATION CAN'T REACH LAUNCHDARKLY



SPEED

STREAMING → DEFAULT OR PULLING
ONLY FLAG DATA CHANGED TO BE EVALUATED
200 ms

SPEED

FRACTION OF A SECOND INITIALIZATION

CONSISTENCY

ALL CLIENTS ARE GETTING THE SAME FLAGS AT THE SAME TIME

SECURITY

SDKs TRANSMIT THE MINIMUM-NECESSARY FLAG INFORMATION

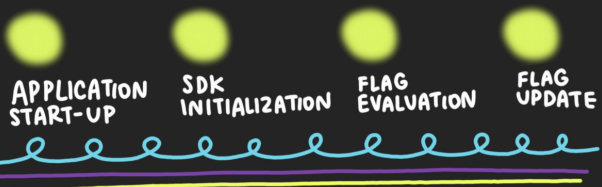
REDUNDANCY

CORE ARCHITECTURE RELAY PROXY, LOCAL MEMORY STORE & FALLBACK VALUES

SCALE

TRILLION FLAGS BACKED BY A GLOBALLY-DISTRIBUTED CDN → LOW LATENCY UPDATES

LIFECYCLE OF THE SDK



YOU SHOULD BE ABLE TO USE FEATURE FLAGS WITHOUT A PERFORMANCE BURDEN



LaunchDarkly →

TRAJECTORY

USE FEATURE FLAGS TO AVOID DOWNTIME DURING MIGRATIONS

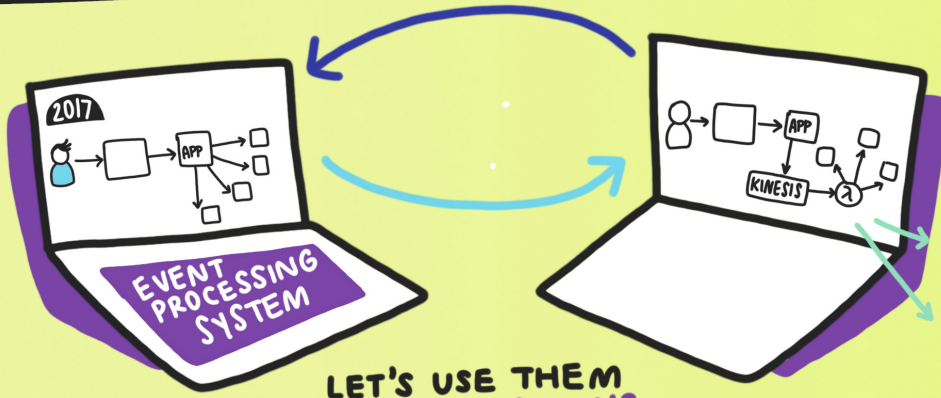
MIKE ZORN

FEATURE FLAGS



DEPLOY WHEN YOU WANT

RELEASE WHEN YOU'RE READY



LET'S USE THEM FOR MIGRATIONS

- ▶ WRITE DATA TO NEW KINESIS QUEUE
- ▶ DATA PROCESSING MOVED FROM MAIN APPLICATION INTO AUXILIARY FUNCTIONS

★ DELIVER VALUE SOONER

★ MINIMIZE DATA LOSS

★ ITERATE THROUGH ISSUES



TURN ON FOR 30% OF USERS

NOTICE A GRAPH GO UP & TO THE RIGHT

SWITCH 30% BACK TO OLD WAY

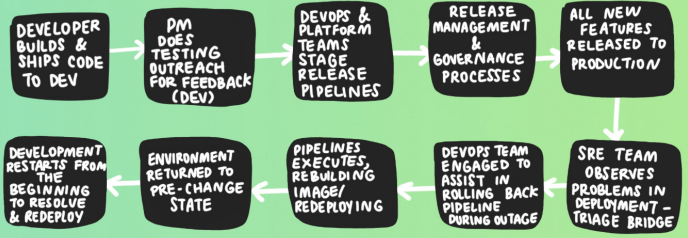
FIX THE THING THAT IMPACTED THE GRAPH & REPEAT



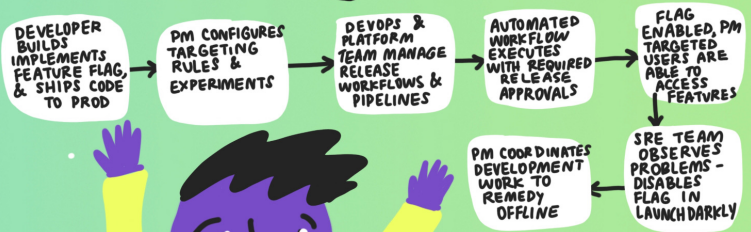
FEATURE MANAGEMENT FOR PRODUCT MANAGERS & MORE

AARON WOODS

A DAY IN THE LIFE OF SOFTWARE RELEASE



TO THIS



FROM FEATURE FLAGGING TO FEATURE MANAGEMENT

SCALES ACROSS AN ORGANIZATION!



AUTOMATING

PROGRESSIVE

DELIVERY

CHRIS DIAZ

HOW DO WE MAXIMIZE THE SPEED & EFFICIENCY OF SAFE SOFTWARE DELIVERY?

LAUNCHDARKLY WORK FLOWS

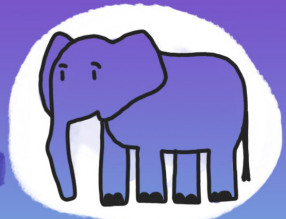
- ▶ SAFELY TEST IN PRODUCTION
- ▶ AUTOMATED
- ▶ UNLOCK OPERATIONAL MATURITY
- ▶ SCALABLE
- ▶ AUTOMATED REMEDIATION



PROGRESSIVE ROLL OUT

DEPLOY != RELEASE

TRUNK-BASED DEPLOYMENT WITH FEATURE FLAGS



SOFTWARE DEVELOPMENT IS ONE BIG GROUP PROJECT

AND GROUP PROJECTS ARE HARD!

VISIBILITY EASILY SAFELY MAKE DECISIONS



NEW & COMING SOON

- ACTIONS & SHORTCUTS
- MAINTENANCE WINDOWS
- FLAG PROMOTION WORKFLOWS

CUSTOM WORKFLOW

STAGE 1 / SCHEDULE

SET TARGETING TO ON

RULE 1

STAGE 2

START WORKFLOW

SAVE AS A TEMPLATE

LaunchDarkly → TRAJECTORY

SCALING LAUNCHDARKLY TO TEAMS OF TEAMS

EMILY KOEHLER



all IN all LAUNCHDARKLY

WE NEED:
SECURITY
((((&))))
COMPLIANCE

NEW
REQUEST APPROVAL FROM TEAMS

NEW
INVITE & ASSIGN MEMBERS TO TEAMS

COMING SOON
TEAMS AS FLAG MAINTAINERS

COMING SOON
TEAM ASSIGNMENT WITH SAML

ROBUST ENTERPRISE FEATURES

- ✓ SAML SSO & SCIM
- ✓ CUSTOM ROLES
- ✓ FULL AUDIT LOG & ACCOUNT HISTORY

NEW
TEAMS IN TERRAFORM

NEW
TEAM SYNC WITH SCIM

NEW
BULK MEMBER UPDATES

NEW
VIEW RESTRICTION ENHANCEMENTS

TEAMS PROVIDE
ORG-WIDE TRANSPARENCY

TEAM AUTONOMY

SECURITY & COMPLIANCE

OUR VISION

TEAMS WILL HAVE A HOME
MAKE THINGS EASIER

HOW LAUNCHDARKLY USES LAUNCHDARKLY

STACY HARRISON

API RATE LIMITING

- ◆ BY ROUTE, ACCOUNT, AUTHENTICATION TYPE, & AUTHENTICATION TOKEN



DOGFOOD
RATE LIMITING BY ACCOUNT

WE USE CUSTOM CONTEXTS
MULTI CONTEXT
USER & A REQUEST

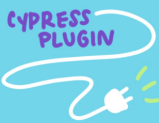
SKIPPING FLAKY TESTS

- ▶ HAVE TO BE ABLE TO DO THIS QUICKLY



'USER' IS REALLY A TEST CUSTOM CONTEXT

- SUITE NAME
- TESTNAME
- TAGS



AUTO-ROUTING SUPPORT ESCALATIONS

- ▶ CUSTOMER OPEN SUPPORT TICKET
- ▶ SUPPORT NOTIFIES ENGINEERING VIA 'SHORTCUT'
- ▶ 'PRODUCT AREA' CUSTOM FIELD / SCRIPT
- ▶ ANONYMOUS: TRUE



NOTIFICATION IN THE RIGHT SLACK CHANNEL THROUGH AUTOMATION

DATABASE MIGRATION

USE FEATURE FLAGS TO DO THIS SAFELY AND QUICKLY

- MODE A**
 - CONTINUE READING & WRITING TO THE LEGACY DATABASE: MONGO
- MODE AB**
 - OPERATIONS ARE PERFORMED AGAINST BOTH DATABASES
 - IT'S THE DATA FROM MONGO THAT IS RETURNED TO USERS
 - MEASURE PERFORMANCE
- MODE BA**
 - COCKROACH DB IS THE MAIN DATABASE
 - CONTINUE WITH MONGO
- MODE B**
 - COCKROACH DB IS THE MAIN DATABASE

ROUTE OWNERSHIP

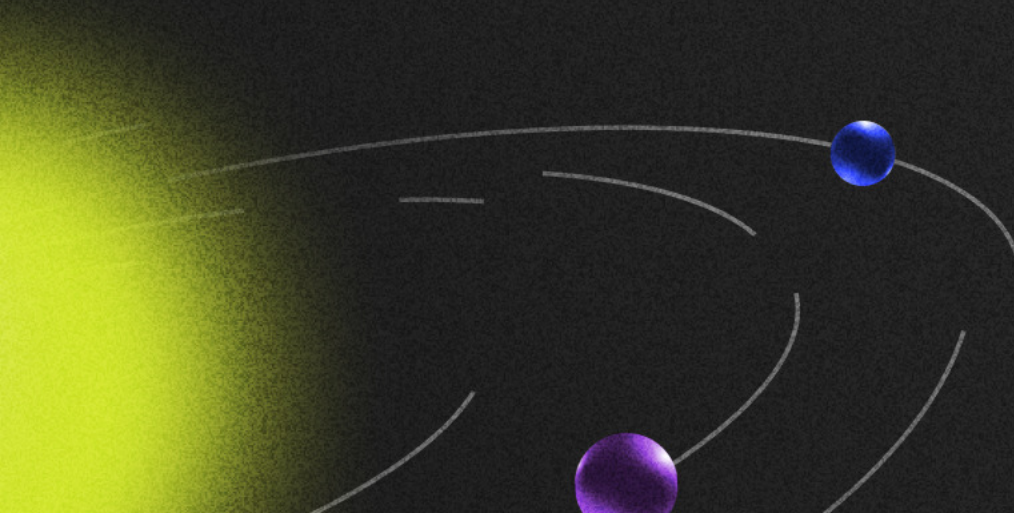
- ADD ROUTE OWNER TO TRACING BASED ON VALUE FROM FEATURE FLAG

ROUTE OWNER FLAG WILL RETURN THE CORRESPONDING SQUAD AS THE VALUE



COMPARE DATA WITH VERIFIER FUNCTION

Partner Summit



LaunchDarkly →

OPENING REMARKS

JUSTIN HOWLETT

DOUG GOULD



LaunchDarkly →

FOUNDED 2014

\$300M RAISED

550+ EMPLOYEES

3800+ CUSTOMERS



FEATURE-LED DEVELOPMENT TO MEET CHALLENGES

WE EMPOWER TEAMS TO LAUNCH, CONTROL & MEASURE THEIR SOFTWARE

FEATURE MANAGEMENT HELPS SOFTWARE TEAMS BECOME ELITE

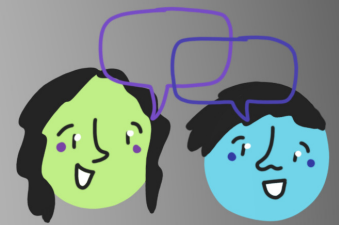
245% ROI OVER 3 YEARS

9x INCREASE IN DEPLOYMENT FREQUENCY

75% DECREASE IN CHANGE LEAD TIME

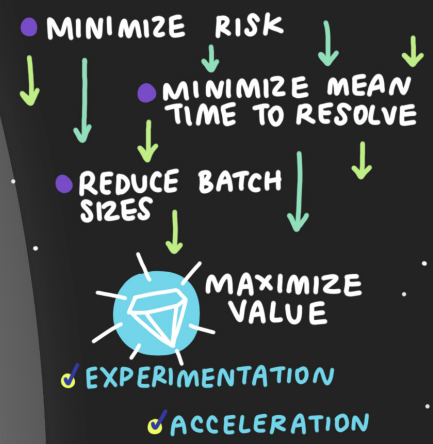
90% REDUCTION IN MTTR

WE NEED PARTNERS



SERVICE & RESELLER PROGRAMS

TECH PARTNER PROGRAM RELAUNCH



LaunchDarkly →

TRAJECTORY

FIRESIDE CHAT

WITH EDITH HARBAUGH

LAUNCHDARKLY
STARTED

8 YEARS AGO

WITH THE MISSION:

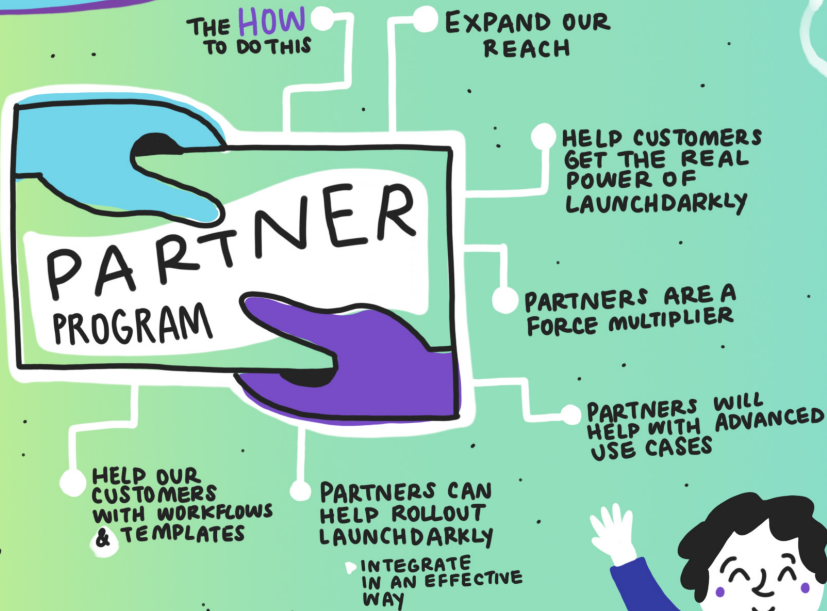
LAUNCH



MEASURE



CONTROL



PARTNERS CAN HELP TAKE PILOT PROJECTS AND EXPAND THEM ACROSS THE ORGANIZATION

WE CROSSED
100 MILLION \$
IN RECURRING REVENUE



WE HELP ORGANIZATIONS
LAUNCH SOFTWARE
WITH LESS RISK



LAUNCHDARKLY'S
FUTURE IS VERY
BRIGHT

BUILD FEATURE-LED DEVELOPMENT SOLUTIONS WITH LAUNCHDARKLY

DANIEL O'BRIEN



INTEGRATION

REST API

INTEGRATION FRAMEWORK

INBOUND EVENTS / DATA EXPORT

13

CATEGORIES

BUILDING BLOCKS

FORM VARIABLES

- ▶ DESCRIPTION
- ▶ SPECIFIC VALUES
- ▶ CONTROL CONFIGURATION

PARSERS

- ▶ DATA SENT TO LAUNCHDARKLY

TEMPLATES

- ▶ BUILT USING HANDLEBAR LOGIC

MANIFEST

CAPABILITIES

AUDIT LOGS EVENTS HOOK

CUSTOM ROLES

FLAG CHANGES

RICH INTEGRATION STATUSES

GLOBAL FORM VARIABLES

RESERVED CUSTOM PROPERTIES

ONLY VISIBLE WHEN INTEGRATION IS CONFIGURED

PROVIDES A STANDARD CUSTOM PROPERTY NAME, KEY & DESCRIPTION

APPROVALS

OAuth CONSUMER

APPROVAL STATUS PARSERS

FLAG FORM VARIABLES

ENVIRONMENT FORM VARIABLES

TEMPLATED HTTP REQUESTS

FLAG LINK

BRAND-NEW 'LINKS' TAB

LINK BACK TO THE SOURCE WHERE A FLAG REFERENCE WAS MADE

NEW CONCEPT OF "UI BLOCKS"

TRIGGER

TOGGLE A SPECIFIC FEATURE FLAG ON OR OFF BASED ON URL

UNGUESSABLE URL AUTH



WHAT TO EXPECT WHEN CO-SELLING WITH LAUNCHDARKLY

SHAWN PENRICE



! HAVE WE LOOKED FOR OPPORTUNITY TO INTRODUCE A PARTNER ?

! IS THERE A CHANNEL PARTNER ENGAGED IN THIS DEAL ?

! TRULY PLAN TOGETHER

! WHERE CAN WE BOTH HAVE IMPACT ?

THE MARKET OPPORTUNITY IS AMAZING

WE'RE STARTING TO HAVE PARTNERS
JOIN FORECAST CALLS
& TERRITORY PLANNING



! SALES & ENGINEERING LEADERSHIP

! ANNUAL PLANNING TOGETHER


! WANT TO SET YOU UP FOR SUCCESS

PARTNERS CAN HELP PAINT THE BIGGER VISION



WE NEED PARTNERS TO HELP US SCALE

TRANSACTION



1 → OK
2 → GREAT
3 → WHERE THE TRANSFORMATION HAPPENS

PARTNER PROGRAM BENEFITS



• IEVA URBAITE • ELLI OLSON • ALIZA KOGAN •

PARTNERS ARE A FORCE MULTIPLIER

SERVICE PARTNERS

FOR LEADING EDGE PARTNERS WHO WANT TO DIFFERENTIATE CAPABILITIES WHILE INCREASING DELIVERY CAPACITY

DEVELOPMENT & GTM SUPPORT

SERVICE OPPORTUNITY REFERRALS

COLLABORATION WITH PROFESSIONAL SERVICES TEAM

RESELL PARTNERS

SELL ON BEHALF OF LAUNCHDARKLY, INTO NEW MARKETS AND ORGANIZATIONS

DIRECT ENGAGEMENT WITH FIELD SELLERS

DEAL REGISTRATION, PROTECTION, & DISCOUNTING

GTm ENABLEMENT

EXECUTIVE SPONSORSHIP

SOLUTIONS DESIGN GUIDANCE

DISCOUNTS FOR INTERNAL USE

TECHNOLOGY PARTNERS

BUILD & LAUNCH INTEGRATIONS FOR LAUNCHDARKLY'S CUSTOMERS



INTEGRATIONS

TECH

ENABLEMENT

MARKETING

BRANDING PROGRAM GUIDE

COMING JANUARY 2023

- ✓ LISTED IN THE APP
- ✓ EARLY ACCESS TO FEATURES

LAUNCH YOUR INTEGRATION

- 1 DISCOVER
- 2 ENABLE
- 3 BUILD
- 4 LAUNCH



PARTNERS

EXPAND OUR REACH

AUGMENT OUR CAPABILITIES

BENEFITS FOR ALL



MARKETING BENEFITS

SOCIAL MEDIA

BLOG POSTS

CO-MARKETING CAMPAIGN

RIGHTS TO USE OUR LOGO

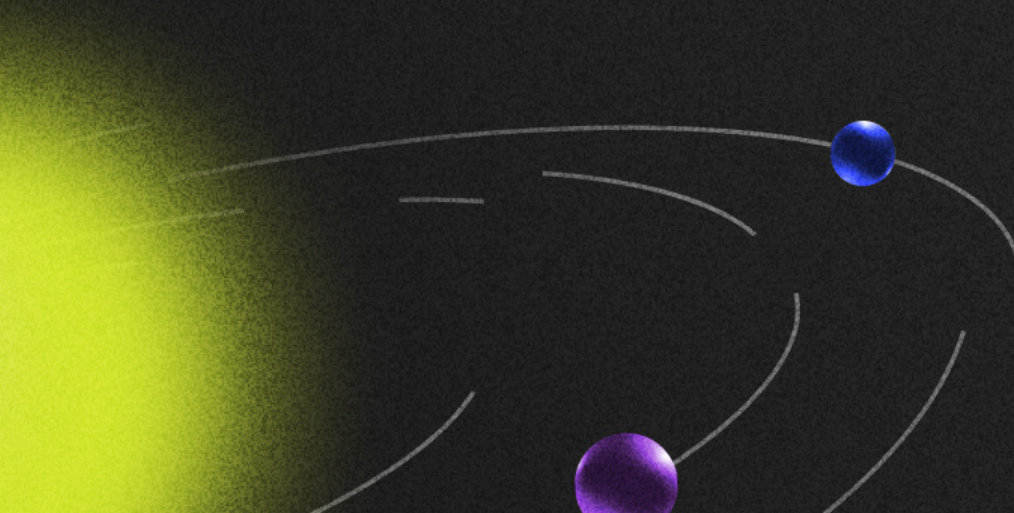
FOR SOME: MARKET DEVELOPMENT FUNDS

CONSIDERATION TO SPONSOR EVENTS

FOR SOME: MICROSITES

Workshops and Demos

LaunchDarkly →



FLIGHT SCHOOL

TRAINING SESSION

KATRINA MILLER

PHIL ZONA

PRE-FLIGHT CHECK

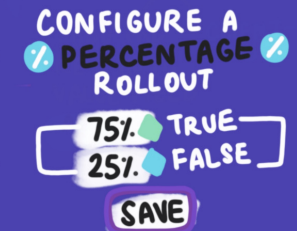
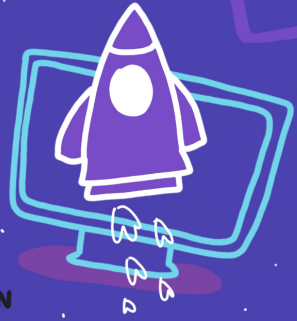


- READER
- WRITER
- ADMIN
- OWNER

FEATURE FLAG MANAGEMENT

- ▶ TAGGING
 - ▶ NAME THEM
 - ▶ CUSTOM DASHBOARDS
 - ▶ CODE REFERENCES

CREATE FOR SPECIFIC TASK
LEAST PRIVILEGE
MONITOR
TEST POLICIES



SDK

USE THE TEMPLATE

COPY SDK KEY INTO VALUE FIELD
ADD NEW SECRET
CLIENT-SIDE

FEATURE FLAG:
IS A SOFTWARE DEVELOPMENT TECHNIQUE THAT IS USED TO ENABLE OR DISABLE FUNCTIONALITY REMOTELY WITHOUT CHANGING CODE

TARGETING USERS

ADD RULE:
IF **KEY** **CONTAINS** **FLIGHTSCHOOL**
SERVE **FLAG**



REVIEW & SAVE

FLAGGING THE JAMSTACK

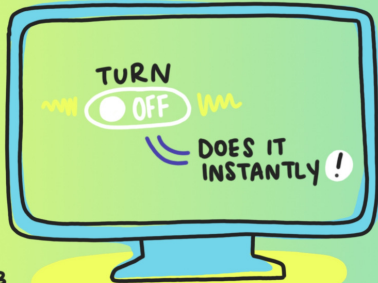
CODY DE ARKLAND

CREATE A GITHUB ACCOUNT

CREATE A NETLIFY ACCOUNT

FORK THE REPO

- GIVES YOU A COPY
- EASILY EDIT IN GITHUB
- UPDATE WITH SDK KEY



BUILD COMMAND
CI= FALSE NPM RUN BUILD

NETLIFY OFFERS A GENEROUS FREE TIER

DEPLOY SITE ON NETIFY

SITE SETTINGS
CHANGE SITE NAME

YOUR FIRST FEATURE FLAG

CREATE THESE FEATURE FLAGS IN LAUNCHDARKLY TO INDEPENDENT CONTROL FEATURE RELEASES VS. DEPLOYMENT



CODE COMMENTS ARE IN PLACE TO HELP YOU FLIP THEM INTO PLACE

NETLIFY WILL REBUILD & DEPLOY THE UPDATED CODE AS CHANGES ROLL IN

GET CREDENTIALS SAVE LOCALLY

CLIENT KEY SERVER KEY

INDEX.JS

CLIENT SIDE ID REPLACE

COMMIT CHANGE

ENVIRONMENTS

CREATE A FEATURE FLAG

KEY NEEDS TO MATCH CODE

SAVE!

DEFINE FEATURE FLAG

ENABLE LOGIN SCREEN

LINES 35-39

54 DELETE

LOGIN IS TRUE RUN THIS CODE

BEYOND BOOLEAN FLAGS

TRUE OR FALSE



CHANGE BACKGROUND IMAGE

REACT -> SEND VALUE

- UNCOMMENT LINE 21 & 22
- COMMENT OUT LINE 23

ON - VARIATION 1
OFF - VARIATION 2

TARGETING
DEVICE
USER

EXPERIMENT WITH A BANNER

LOGICAL NEXT STEP

AD BANNER



MEASURE

APP.JS

ADBANNER.JS

LINES 30-32
UNCOMMENT

AD BANNER STRING FLAG

DEPLOY CODE REFERENCES

GIVES A CODE LEVEL VIEW OF FEATURE FLAGS

WORK ACROSS MULTIPLE GIT PROVIDERS

AUTHORIZATION
ACCESS TOKENS
CREATE TOKEN
THIS IS A SERVICE TOKEN

WORKFLOWS
CREATE ACTIONS.YML
PASTE IN ACCESS TOKEN

CREATE SECRET IN YOUR GITHUB REPO

TURN ON & SEE RESULTS

HELPS WITH FLAG LIFECYCLE & ONBOARDING NEW MEMBERS

HYPOTHESIS

NEW FOLDER: LAUNCHDARKLY

CODEREFS.YAML

- PROJECTS
- 1-KEY: ID-CAUSAL-SWIFT
- DIR: SRC
- ALIASES:
- TYPE: CAMEL CASE

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TRAJECTORY

LAUNCHDARKLY DEMO

TOM TOTENBERG

AT SCALE:

RULES BASED TARGETING

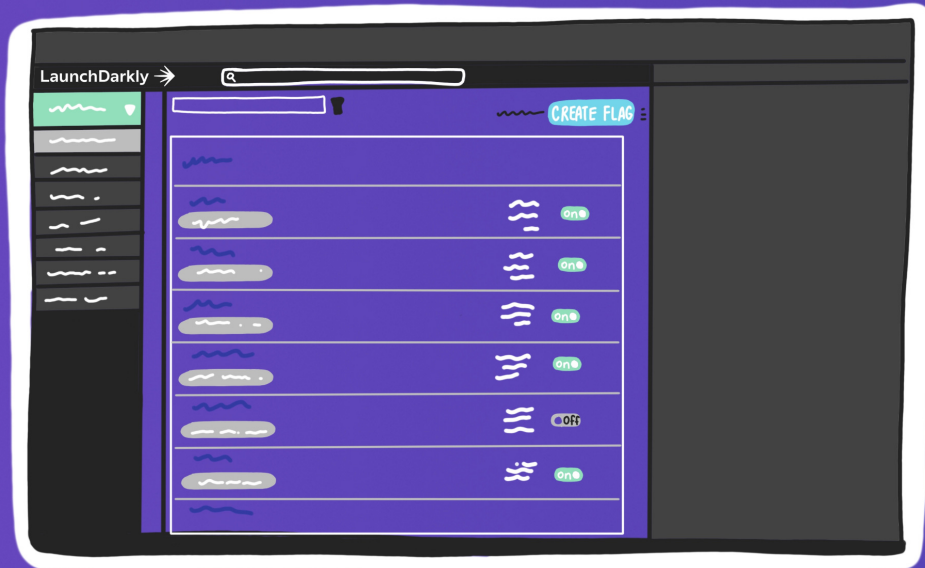
RULE

EMAIL ENDS WITH @LAUNCHDARKLY.COM

RULE

OPERATING SYSTEM IS ONE OF IOS

WE ARE HERE TO MAKE SURE YOUR RELEASE STRATEGY IS SUPPORTED THROUGH THE RULES YOU DEFINE IN LAUNCHDARKLY



TRIGGERS FOR PRODUCTION

KILLSWITCH

AUTOMATION

INTEGRATE WITH OTHER TOOLS



WORK FLOWS

CREATE CONSISTENT TEMPLATED SYSTEMS

TEMPLATE	PROGRESSIVE ROLLOUT
MAINTENANCE WINDOW	CUSTOM WORKFLOW

ARCHIVE THE FLAG

WHOA CODE REFERENCES



FILTER TO REFINE YOUR SEARCH

STATUS ▾ IS NEW ADD

LaunchDarkly → TRAJECTORY

Learn more tips and tricks

These illustrations are a great overview of each Trajectory 2022 session, but for more in-depth recaps, check out our full speaker presentations. You can watch all the talks from Trajectory 2022, and many more from previous years, at the link below.

Watch Now

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TRAJECTORY

launchdarkly.com/trajectory