

DEVOPS ENTERPRISE SUMMIT

AN  IT REVOLUTION EVENT



GET TOGETHER GO FASTER

October 22-24, 2018
The Cosmopolitan of Las Vegas
Las Vegas, Nevada

 Electric Cloud

 IT REVOLUTION

#DOES18



DevOps: Enabling Business Transformation in Health Care

Alice Raia Vice President, Digital Presence Technologies, Kaiser Permanente



DEVOPS
ENTERPRISE
SUMMIT

AN IT REVOLUTION EVENT

DevOps

Enabling Business
Transformation in
Health Care



KAISER PERMANENTE®

Trusted Partners in Health



105,632
Babies Delivered



22,013
Physicians



\$2.5 B
Invested to benefit
the health of our
communities



**Medicare
Star Rating**



800,000
Kids will experience our
Educational Theater
Program in 2018



138,478
Surgeries



1M+
Mammograms



216,199
Employees



Top 5
for **diversity** on the
2017 “Top 50 Companies
for Diversity” list



250,000
Volunteers



58,345
Nurses



12.2M
Members

Who Are We | Business & IT Coming Together



Alice Raia

VICE PRESIDENT

Digital Presence Technologies

Leading digital delivery &
software engineering excellence

Consumer Digital Channels

kp.org

Consumer Mobile App

Agile SDLC

DevOps



Le Quach

DIRECTOR

Strategic Design & Implementation

Designing consumer experiences that
meet human & business need

Delivery system and data driven design

Re-imagining Ambulatory Care Design

Office of Transformation



Where & How

Did We Start with DevOps, but More Importantly Why?

2015 – Our Reality

- **4 Releases per year** on digital channels
- **Low predictability** of scope
- **Large batch**, risky, manual build/deploy
- **Inefficiency**: lengthy reviews, break points, handoffs, wait times along the way
- **Manual, error prone**, “snowflake” processes, no standardization
- **10-day release process**, breaking high availability

Uh-oh Moment

ELEVATED BUSINESS EXPECTATIONS

- Enterprise “**Consumer Digital Strategy**” – new ways of digitally engaging with our members
- **Faster** time to market
- **Predictability**
- **Quality** over dates

Our Journey

Build An Engineering Practice and Mindset to Ensure High Quality, Predictable Releases Enabling Quick Time to Market for Customer/Member-Facing Features

- **DevOps Practice** was “born” in 2016
- **Value Stream Mapping**: identified inefficiencies
- **CIO-Level Investment**: focused practice build
- **Activated** practice at 80% “done”
- **Iterate**, iterate, iterate!
- **Onboard** 30 web & mobile consumer-facing teams



What, Specifically, Have We Done Differently in IT?



DevOps – Automation-first mindset, break traditional habits (like fix forward), developer self service, pipelines and process “prove” readiness, Site Reliability Engineering



Multi-Speed IT – One size does not fit all, reformulated process to support accelerated delivery (change, incident, problem), BDD, Cloud Native, MicroServices



Cultural Transformation - New attitudes and thought leadership, drop the “hero” mentality, self service for developers, visibility, transparency, learn from failure, experimentation



New Ways of Working - Design thinking, envisioning sessions, co-creation, empathy, breaking physical and logical barriers between Business and IT



All of the above are a “package deal” that enable a more holistic “transformation” that is becoming part of our DNA



Member Centric Technology

Transforming Care

A close-up portrait of a woman with long dark hair and glasses, wearing a red top. She is looking slightly to her left with a neutral expression.

Le Quach
Director, Strategic Design
and Implementation



Re-imagined “face-to-face” experience for our members in our clinics (express check-in, digital membership card, text call-to-exam-room, multi-party video, etc.)



Extending our connection and impact into the home (device kits, video visits, remote monitoring, other care delivery innovations)



Tightening relationship & blurring lines between teams to enhancing quality of solution and time to delivery (breaking traditional “business/IT” paradigms – IT shifting left, business shifting right in the software delivery)



Member & community impact: Digital channel usage (kp.org); and platforms for patients to connect to things beyond clinical needs (resources and community) to support their wellness.

How Has the IT Transformation Positively Impacted the Business & Our Members?

Digital Engagement with Our Members on kp.org & Mobile App | 2018 ANNUALIZED



~300M

visits to kp.org per year (66% from a mobile device)



6.5M

members registered on digital channels



51M

lab tests viewed



82%

member visits related to managing care



28M

prescriptions filled



28M

emails sent to physicians



170k

video visits

Member-Facing Digital Assets Are Key to Care Delivery

A close-up photograph of a person's hands holding a smartphone. The hands are positioned as if they are interacting with the screen, which shows a blurred digital interface. The background is a solid dark red color.

Kaiser Permanente

DevOps Practice by the Numbers



1300
Users utilizing
the pipelines



1064
Developers



400
Avg. code
commits / day



5
Automated test
frameworks



112
Active projects



5
Integrated platform
pipelines



82
Production
releases
\ year



>3K
Learning culture – wiki articles
written and shared



~90
Pipeline service
requests completed
\ month



30

Squads Onboarded
to DevOps Practice



Average Response Time (hrs)

	KP Actual	Industry Standard
Service Request	2.19	8
Change Request	17.4	40

KP's DevOps practice is responding to service requests 72%, and change requests 56% faster than industry standards

What's Next?

Challenges that Lie Ahead



Enterprise Spread



DataOps, ChatOps



DevSecOps



SOX Applications & Platforms



Talent / Skills / Mindsets



DEVOPS ENTERPRISE SUMMIT

AN  IT REVOLUTION EVENT



GET TOGETHER GO FASTER

October 22-24, 2018
The Cosmopolitan of Las Vegas
Las Vegas, Nevada

 Electric Cloud

 IT REVOLUTION

#DOES18