

Top CI/CD Patterns for -DevOps Teams

© Harness 2021



Presented by:

Ravi Lachhman Evangelist / Harness



APPDYNAMICS

Suffered from FoD – Fear of Deploying



Believer of Patterns

Red Hat

	T I

What are we talking about?

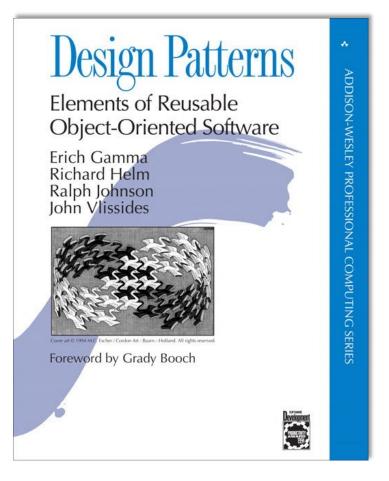
• Why the Need for Patterns

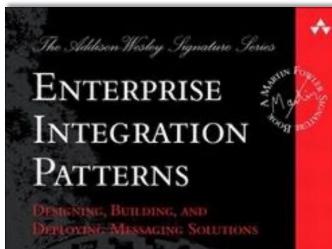
- Common CI/CD Patterns
- Antipatterns to Avoid

Why Patterns?



Software is About Patterns





GREGOR HOHPE BOBBY WOOLF With Contransitions at Kyle Baown Conrad E D'Cale Martin Fortune

MAN NEVILLE MICHARI J. RETTIG JONATHAN SIMON

Forewords by John Crupi and Martin Fowler

Time For a New Job!





How To Grow Your Career



WineForPets.com



Bulge Bracket Bank

Come Work For Us, Developer!

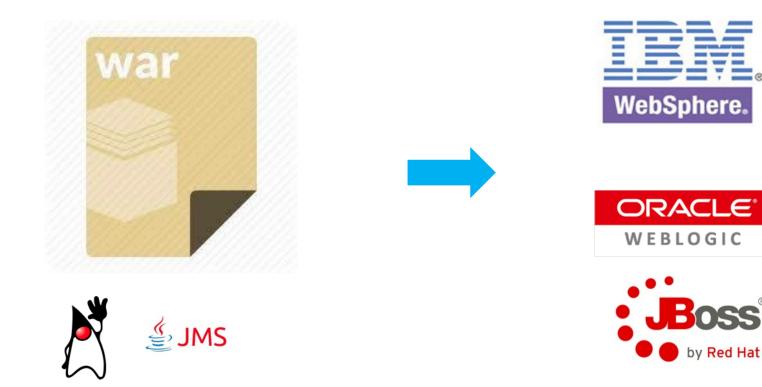


cifi a	HSBC	
Citi	CONTRACTOR OF A DESCRIPTION OF A DESCRIP	
and the state of t	INA LITER AND ADDIAVS	
	IN TRACE AND A DOT NOT AND A D	
The second production of the		
and the second state of th	ALTERNATION AND A REPORT OF A	
and the low sector state of the manual of the sector of th	A REAL PROVIDENCE PROVIDENCE	
COLUMN TO DESCRIPTION OF	ALCONTACT AND A DESCRIPTION OF A DESCRIP	
1, Martin al Bane, 27 Bares (Prop.)	and a second sec	
La service a ser	at PALET BALL AND THE MOTOR & BIR	
Teamar and a	and a first and a state of a stat	
Trans BC PAge	a character of sales of the spectrum	
	a state from the second second second	
AND IN THE OWNER OF ANY ADDRESS OF ANY ADDRESS OF ADDRE	EN ATAXABLE INC. INC. INC. INC. INC.	
Sign of the second second second		
A REAL PROPERTY AND A REAL	PLUTINE (C)	

Looking For Devs with:



Software Engineering of Days Gone By



Software Engineering Today



Who Owns the Deployment? – Conway's Law



System Engineer?



DevOps Engineer?



Developer?

WANTE



Release Engineer?

Who is Going to Be Deploying?

Not You

You





Common CI/CD Patterns



Drivers of Pipelines

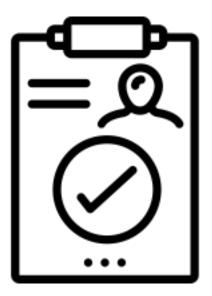


Environments

Tests

Services

Drivers of Pipelines - Continued



Outcomes



People

Scoring



Agility



Complexity of Pipeline



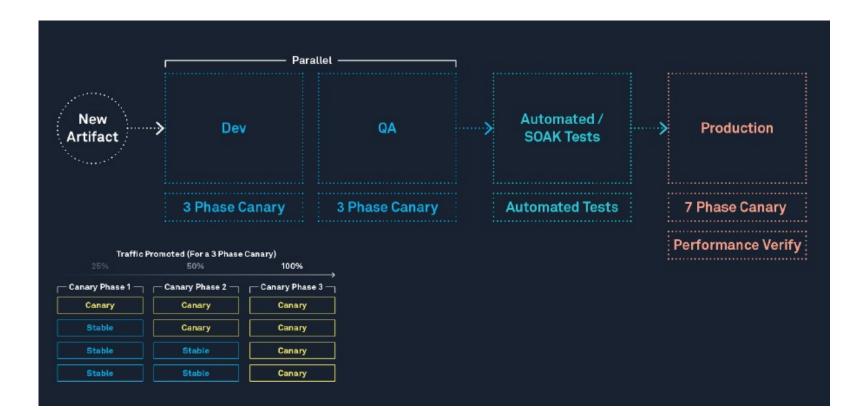
Administration



Risk of Change Failure

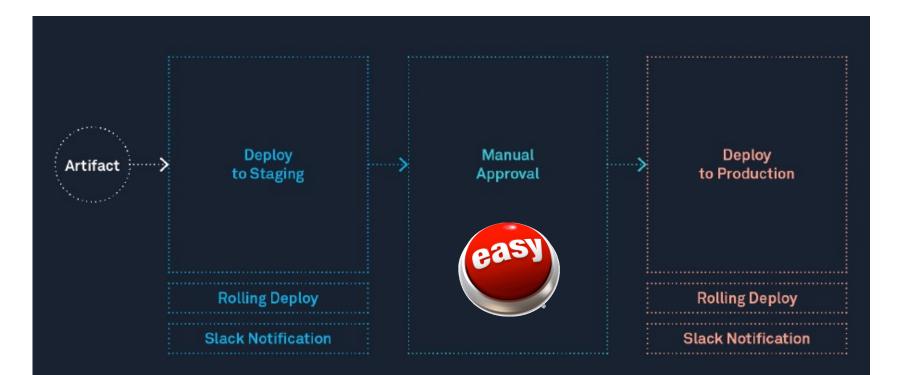
Outcome Centric Pattern

Agility: High Complexity of Pipeline: Low Administration: Medium Risk of Change Failure: Low



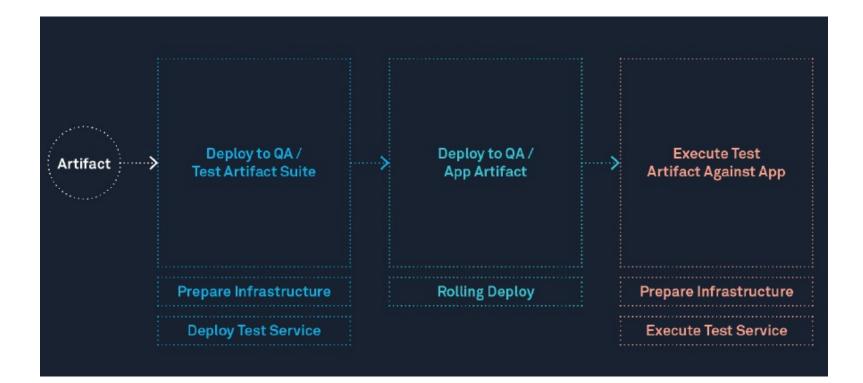
Button Push Pattern

Agility: Low to Medium Complexity of Pipeline: Low to Medium Administration: Low Risk of Change Failure: Low to Medium



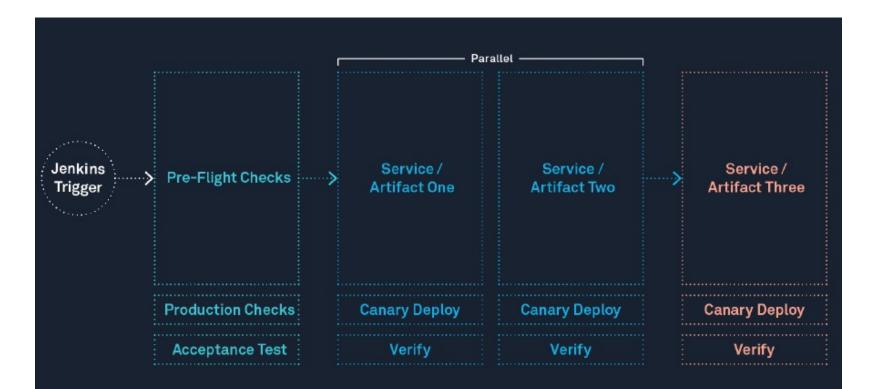
Test Automation Pattern

Agility: Medium Complexity of Pipeline: Medium Administration: Low Risk of Change Failure: Low



Multiservice Pattern

Agility: Medium to High Complexity of Pipeline: Medium Administration: Medium Risk of Change Failure: Low to Medium



Antipattern(s)



Approval Centric



Ravi Lachhman 12:51 PM @Skye can you approve this please? https://harness.atlassian.net/browse/HD-20243



Skye 1:00 PM

no



Ravi Lachhman 1:00 PM Please?

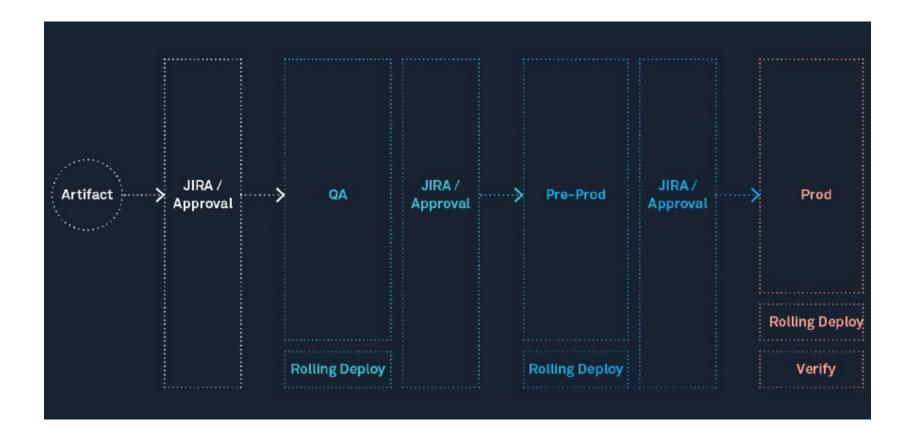


Skye 1:01 PM

nope, next time keep your time in AWS down 👀

Full Approval Pattern

Agility: Low Complexity of Pipeline: Medium Administration: High Risk of Change Failure: Low



Learn More!



All and More in Harness

Deploy to Dev Deploy to QA Deploy to Production		duction Pipel	elines / Retail Production (Execution ID: 15) Environments (2) Development, Production				EXPIRED	Start time	3/11/2021 12:16:39 PM	🚡 11m 59s	C
or Or Deploy to Dev Deploy to QA Deploy to Production or Or Or Or Production or Or Service Infrastructure Execution or Execution Infrastructure Execution or Or Or Or Or or Infrastructure Execution Infrastructure Infrastructure or Or Or Or Or Or or Infrastructure Execution Infrastructure Infrastructure Image: Service Infrastructure Canary Deploy Infrastructure Infrastructure		es 📈 Inputs								Console Vi	ew 🔿
Deploy to Dev Deploy to QA Deploy to Production											
ga ga Image: Service Infrastructure Execution		•			}{{}}						[
Image: Service Infrastructure Execution Image: Service In			Deploy to Dev	Deploy to QA							
B Cervice Infrastructure Execution Canary Deploy. B Canary Deploy. Canary						rioudetion					
s s Service Infrastructure Canary Deploy											
15 16 19 19 10 10 10 10 10 10 10 10 10 10											
1S Service Infrastructure Canary Deploy											
s Service Infrastructure Canary Deploy	Deploy_to	Production 💌	Service Infra	astructure Execut	tion						
Service Infrastructure Canary Deploy	✓ Deploy_to.	Production 🔻	Service Infra	astructure Execut	tion						
Service Infrastructure Canary Deploy	🖉 Deploy_to.	Production 🔻	Service Infra	astructure Execut							
				- e)				
				- e							
					Execution	ary Deploy	 				
					Execution	nary Deploy	 -				
					Execution	ary Deploy	 -••				
	•				Execution	ary Deploy	 -••				

Get Your Copy



https://harness.io/ebook-pipeline-patterns



Follow us on:



Contact us on:

www.harness.io