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WEBINAR
5C's Series
Faster Innovation with Confidence
How CI/CD & Containers Help Arrayent Go Faster
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5 C's That Changed the Future

CI, CD, Containers, Cloud & Culture

Case studies in creating sustainable systems that empower the business to deliver innovation faster, with predictability.

- **REPLAY – Prodea/Arrayent - CI/CD, Containers & Culture**
- **REPLAY – nDimensional - Cloud Infrastructure & Culture**
- **Tue, May 15 – LendingHome - Cloud Migration & Containers**

SAVE THE DATES

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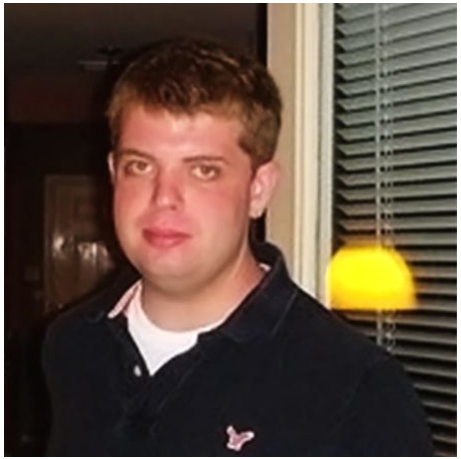
Faster Innovation with Confidence

How CI/CD & Containers Help Arrayent Go Faster

Jarrod Sinclair
Chief Architect, Prodea Systems



Doug Cliche
Solutions Architect, AWS

JT Giri
CEO & Co-founder, nClouds

CURRENT STATE - SPRING 2016

- 3 - 6 months to release new features
- Major planning to perform an upgrade
- “Eventful deployments” involving all of Ops
- Low confidence in release timing & quality
- The future was a wall in front of us
  - Multiple data centers
  - Security
  - “Funding challenged”

CURRENT STATE - FALL 2017

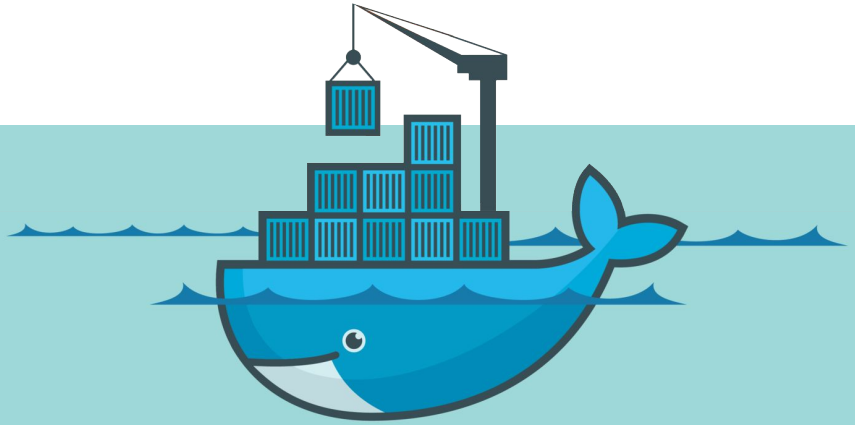
- 10x+ faster delivery - concept to production
- Reduced defect rate
- Ability to release as the business demands
- Internal & client confidence in iterative development
- Blameless culture, collaboration rules
- Acquired by Prodea

STRATEGY

- We’re on a journey
- Started with the question, “Is it possible to cloudify this environment?”
- Multiple iterations
- Localized environment

CONTAINERS

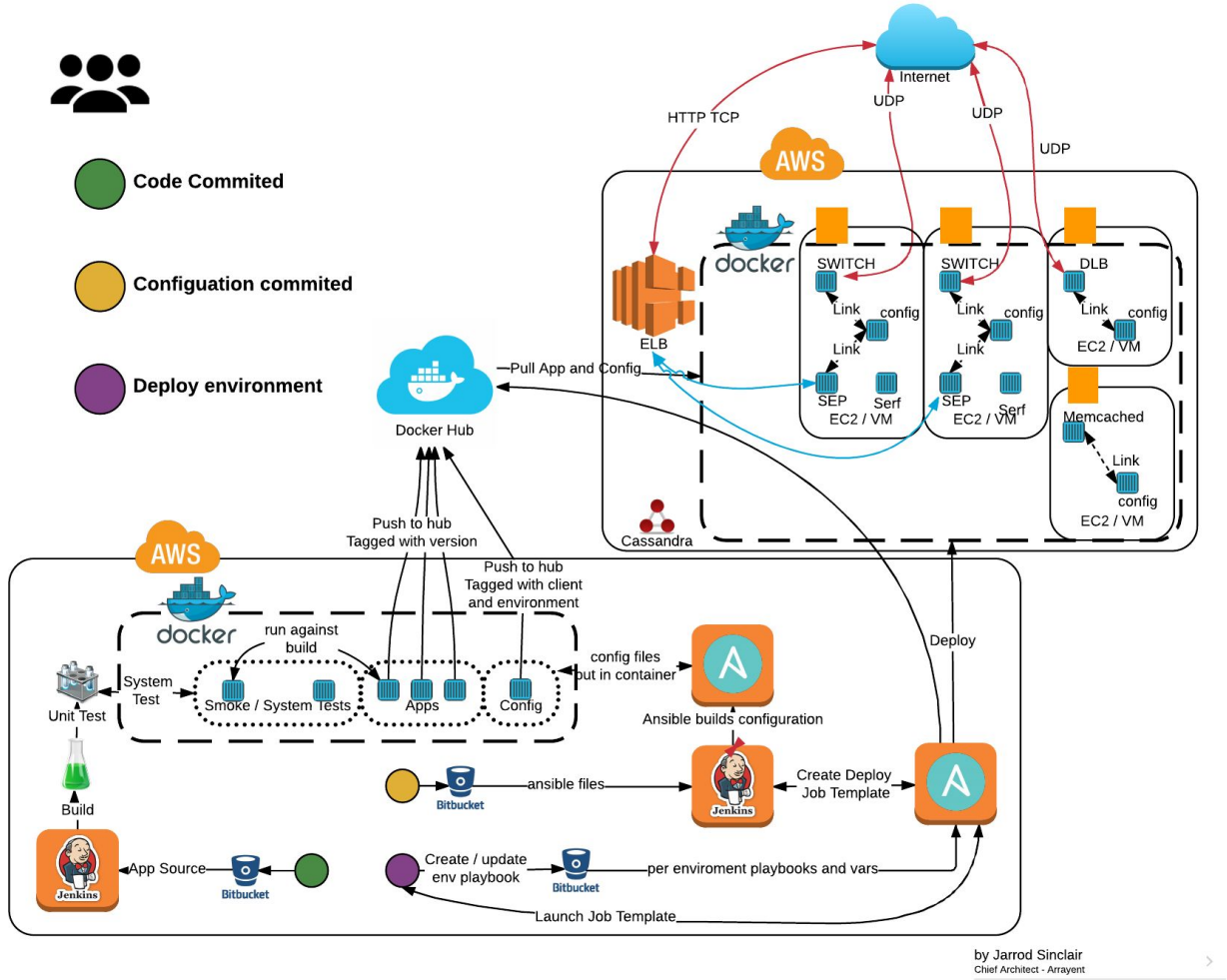
- Docker Compose to build local environment
- Demonstrating the “art of the possible”



Gained confidence and support from executive team

DEVOPS PROCESS

Initial DevOps Plan

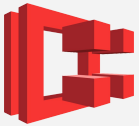


by Jarrod Sinclair
Chief Architect - Arrayent

CLOUD

- Started with Dev and Test environments in the cloud
- Kept legacy platform up and running until we gained confidence
- It’s not all or nothing - incremental

CLOUD



ECS

Jenkins server kicks off build and test tasks to workers in an auto-scaling ECS cluster

Lambda

Chatbot
Ability to do A/B testing

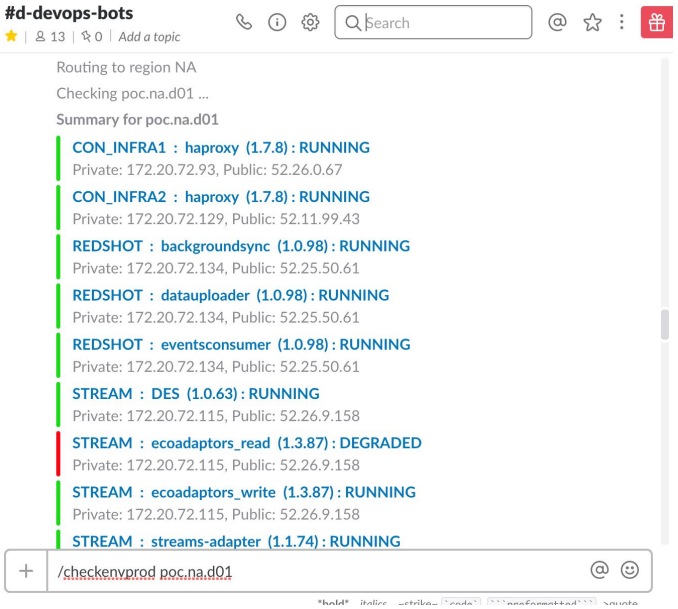
Route 53

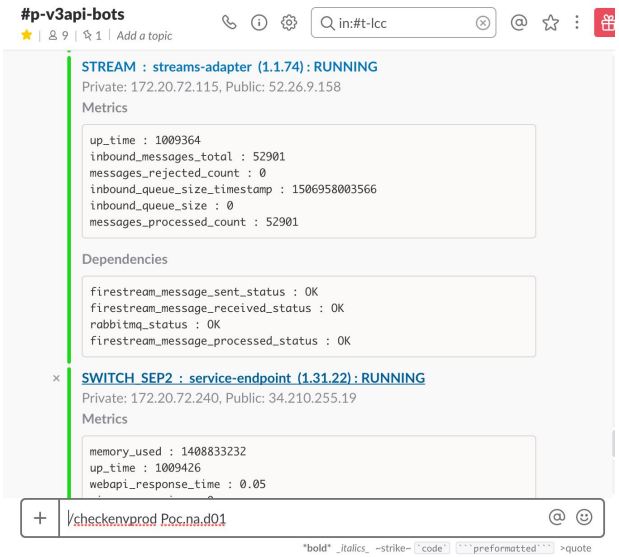
Scripted process to move DNS name around with Route 53, making it easy to stop resources and bring up and move the DNS

Resulting in cost savings

CHATBOT

Uses Slack and AWS Lambda





CI/CD

Tools

Jenkins

Robot Framework

Amazon EC2 Container Service (ECS)

AWS Lambda

Amazon CloudWatch

CI/CD

Streamlined, automated testing

- Smoke test - takes hours (not days), and integrated with deployment pipeline
- Performance testing

CULTURE

Believe in the process

- “Burn the ships” - once you gain confidence
- Eliminating the ability for developers / operations to SSH and fix issues manually
- Finding root causes and incorporating into the process

BUSINESS IMPACT

- Customer (and internal) confidence went up
- Software quality went up - giving us the bandwidth to modernize
- Updates used to be a big deal - now they’re routine
- Blameless culture, enabled by feedback and consistency across the dev, test and prod environments
- DevOps culture & innovation speed made us attractive - we were acquired by Prodea

WHAT'S NEXT?

- Continuous improvement
- Extend & accelerate DevOps journey and culture
- Replicate Arrayent DevOps practices within Prodea

nclouds
Your DevOps Partner

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Q&A - Faster Innovation with Confidence

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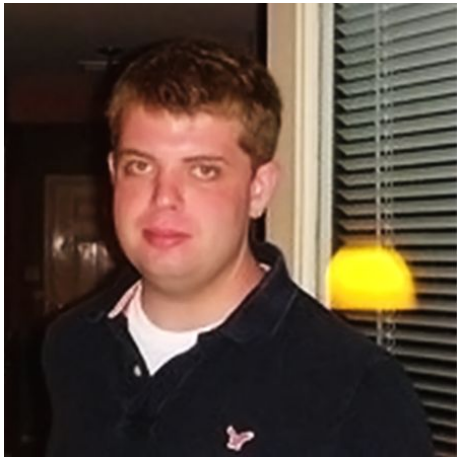
Chief Architect, Prodea Systems

prodea

Entrepreneur.com lists Prodea's Arrayent as one of "25 Innovative IoT Companies and Products You Need to Know."



Doug Cliche

Solutions Architect, AWS

aws

For 11 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud platform.

JT Giri

CEO & Co-founder, nClouds

nclouds

CIOReview named nClouds to their "20 Most Promising DevOps Solution Providers - 2017." AWS Advanced Consulting Partner

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