

# **PGPCC - Mentor session**

**Week 1 & 2**

**“Docker & AWS ECS”**

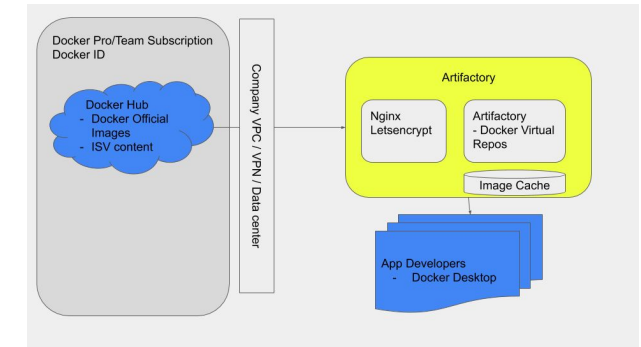
# Agenda

- Total duration 120 mins
- Docker JFrog partnership (10 mins+)
- PayPal's 2 Year Journey to 150,000 Containers - Project managers perspective (20 mins+)
- Docker implementation proposal elevator speech tips (10 mins)
- Q&A from participants (45 mins-)



# Docker and JFrog Partnership Designed to Improve the Speed and Quality of App Development Processes

- How can we ensure developers can get the images they want and trust, and make sure they can access them in whatever development process they are using from a centralized platform?
- At a high level, a solution based on the Docker and JFrog partnership looks like this (pic to the right)
- Developers can build apps with images, including Docker Official Images and images from popular OSS projects and software companies, from Docker Hub
- As images are requested, they are cached into JFrog Artifactory, where images can be managed by corporate policies, cached for high performance, and mirrored across an organization's infrastructure.
- Also, the images in Artifactory can take advantage of other features in the JFrog suite, including vulnerability scanning, CI/CD pipelines, policies and more. All without limits.
- This is an *exciting first for Docker*, as the partnership with JFrog opens up new ways of integrating leading tools to improve outcomes for developers

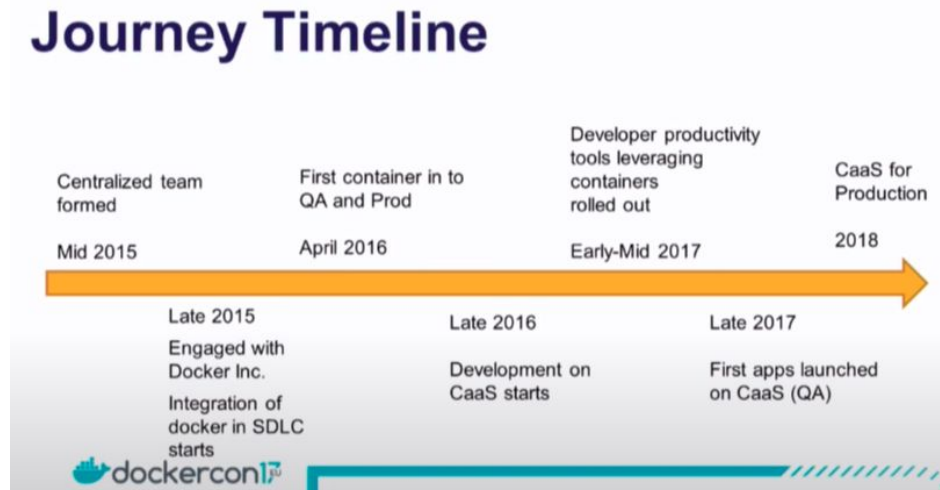


# A Story of Cultural Change: PayPal's 2 Year Journey to 150,000 Containers with Docker

- Planning the container journey is critical because there can be many options to select from
  - Container as a service
  - Serverless etc



- Containerization “is NOT the same as” Orchestration “is NOT the same as” microservices
- Don’t rush it!! It will take time



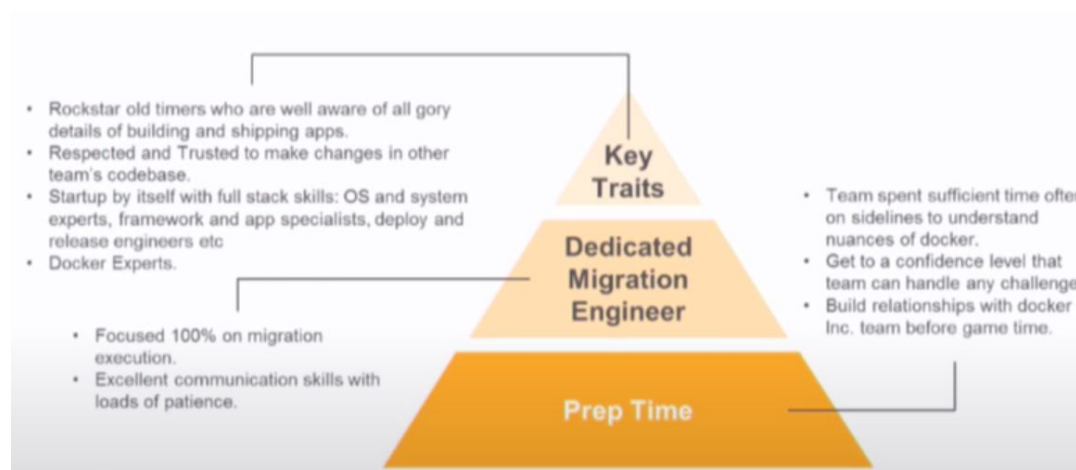
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# A Story of Cultural Change: PayPal's 2 Year Journey to 150,000 Containers with Docker

- Some guiding principles for implementation (project planning)



- Team characteristics (Decides outcomes)



Next ...

# A Story of Cultural Change: PayPal's 2 Year Journey to 150,000 Containers with Docker

## Mindset @ Phase 1

### Recognize You May Have One Shot

- Dealing with Legacy is tabooed. You have to prove it wrong.

### Spread The Knowledge

- Program has to scale and sustain with time.
- Dependent teams, key partners need to independently innovate at some point.

### Work on Full Stack (kernel/OS to SDLC changes)

- Dependent teams may not have any bandwidth to introduce this in environment.
- They are also NOT docker experts at beginning.
- Be prepared to make changes at every level of stack.

### Guilty Until Proven Innocent

- Issues will arise during migration. Debug on behalf of developers.
- Developers have trusted you with this black box change. Do not lose it.
- They are not Experts. You Are!

### Do Not Hide The Migration

- Engage with customers/developers so that they are aware of the migration.
- Black box does not imply no communication. In fact, over communicate.

### Expect Push Back

- Certain teams will be too busy to even support seamless migration.
- Be persistent, prove it to them by learning their app. Convince them.

### Minimal Ecosystem Changes

- Perceived Benefits less compared to major changes in monitoring, logging and downstream tools. Instead go for least touch points.
- Deploy and Operational topology left almost intact. Just app package and runtime changed.

### 100% laser focused on As-Is-Migration

- Not get tempted to couple program with microservices, app refactoring, CaaS, BM vs VM etc. Separation of concerns.
- Fast output essential. Project can be killed if slow pace. Show confidence in your architecture, strategy and execution plans.

## Rollout Strategy

### Train Key Folks

- Not black box to production operators and L1 support teams.
- They need SOP, basic triaging skills.

### Communicate. Communicate. Communicate.

- Opening emails to dev teams discussed migration details, benefits.
- Migration activity had channels open to both developers and operators simultaneously.
- Make it clear, its not an optional migration!

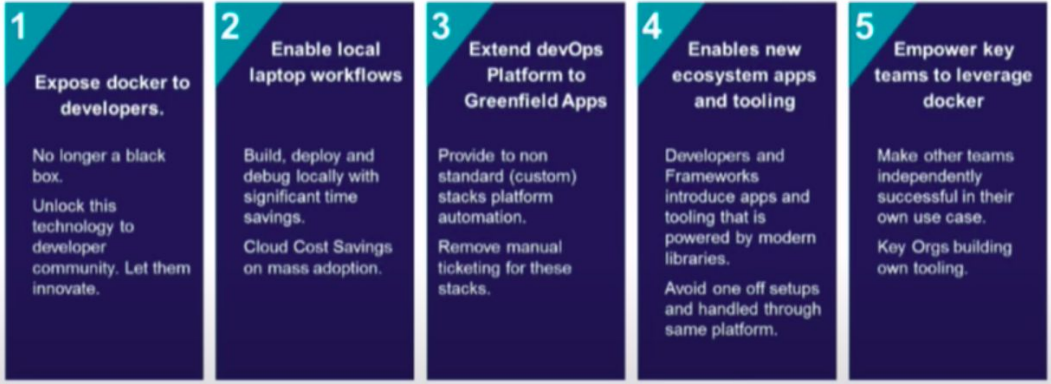
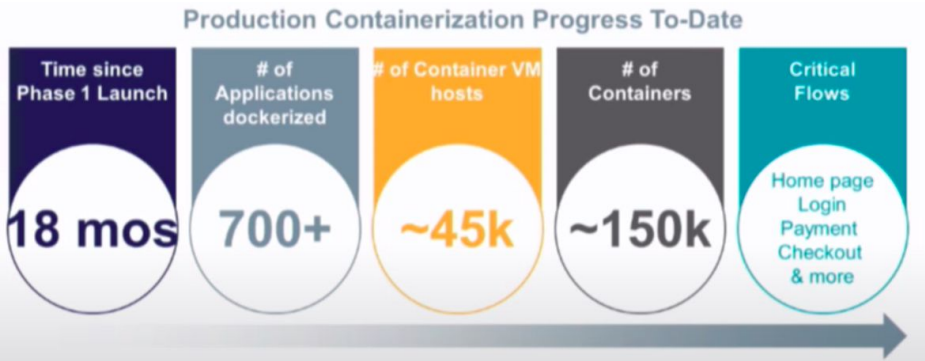
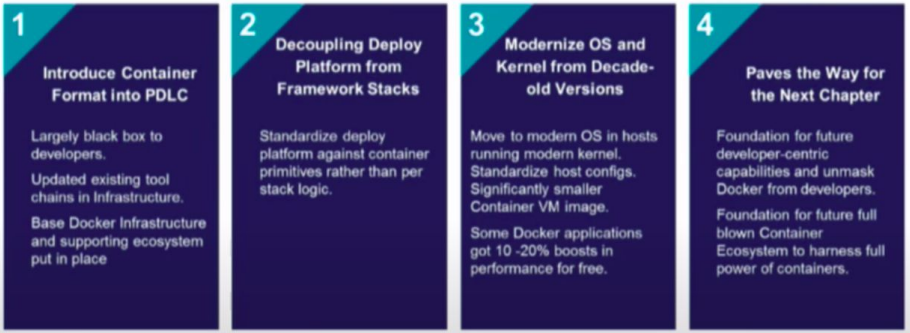
### Find Champions

- Critical for word of mouth and patient on rough edges.

Next ...

# A Story of Cultural Change: PayPal's 2 Year Journey to 150,000 Containers with Docker

- Execution strategy

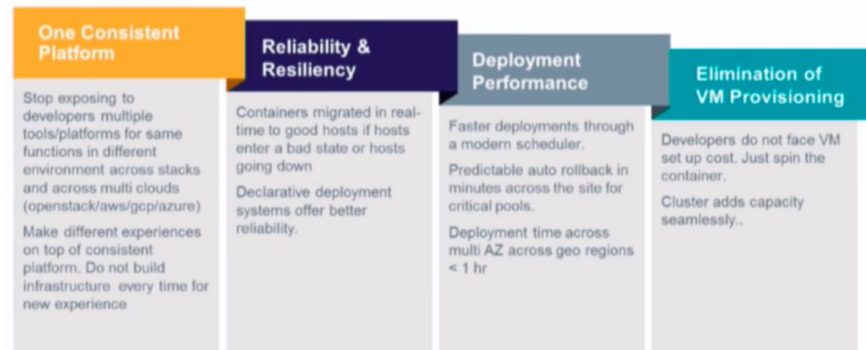


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# A Story of Cultural Change: PayPal's 2 Year Journey to 150,000 Containers with Docker

- Developer benefits



- Multi phase implementation timeline





# Docker adoption in your organization - Elevator speech tips

## Benefits of Docker

- Environment standardization
- Faster configuration with consistency
- Better disaster recovery
- Improvement in adoption of DevOps

## Adoption strategy

- Don't expect company-wide adoption overnight
- Not only for deployment, use Docker in workflow
- Provide incentives to use Docker
- Prepare a set of Docker setup instructions for QA

You can use the above points to structure a proposal for Docker implementation.

# Q&A

Have questions?

# Thank you

Happy Learning!