



# Managing the Docker Change – Disrupt and Innovate

Tim Tyler

Principal Solutions  
Engineer, MetLife, Inc.



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# Our Products are Promises



Life



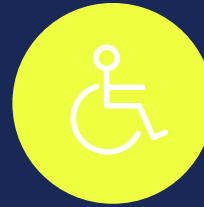
P&C



Annuity



Dental



Disability



Health



Legal



**MetLife**



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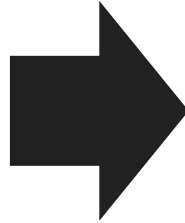
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# What Are We Facing?

## Challenges

- Market Cap ~\$57 Billion
- Global Company
- Almost 150 Years Old
- Highly Regulated
- Data Sovereignty
- Legacy Systems
- Waterfall Design
- Knowledge Silos



## RISING CUSTOMER EXPECTATIONS

- Mobile First
- The API Economy
- Internet of Things
- Social Selling
- Apps for Everything



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# Extreme value opportunity with Containers

We see a 65% to 75% reduction in infra costs with containers



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Disruption and Innovation



Unstoppable Force



Immovable Object



The ModSquad



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DevOps Nirvana Idea  
Devs Neena  
Eng Seas?  
Architects Climb Aboard  
More Cost Reductions!  
MICROSERVICES  
Ops  
Is Reality  
Complexity!  
Blue Green Deploys YAY!  
Infra Folks See Cost Reductions!  
Traditional Apps

# DISRUPTION!!!



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First things first...

Don't Boil the Ocean!!!

Start Small...



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“Innovate with small teams...”

- Julian Guthrie



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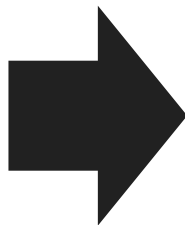




# Unstoppable Force (The ModSquad)

## The Path

- High Velocity
- Fail Fast
- Agile
- Scrum
- Kanban
- Disruptive Technology
- Innovate
- Empower



## The ModSquad

- Cross Functional Team
- Very Focused
- Highly Diverse
- Embraces Risk and Change
- Common, Open, Work Area
- Shook Up Culture and Hierarchy
- Freedom to Explore



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# Diversity

- Different points of view
- Empathy for our colleagues and our customers
- Broadens the team's perspective
- Enriches the team's overall experience



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# Team Behaviors

- We learn from mistakes and obstacles as well as successes
- Think outside of the box, there are always new ways to solve a problem
- Work outside area of expertise and comfort zone
- Don't worry about breaking things (in our labs)
- Challenge the status quo
- Think like an entrepreneur



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“Each of us can fail, but we can succeed fast,  
and we’re all going to learn together”  
Lance Roller, AVP, MetLife



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What Were Some Key Challenges?

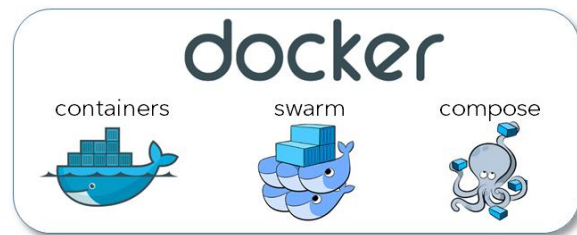


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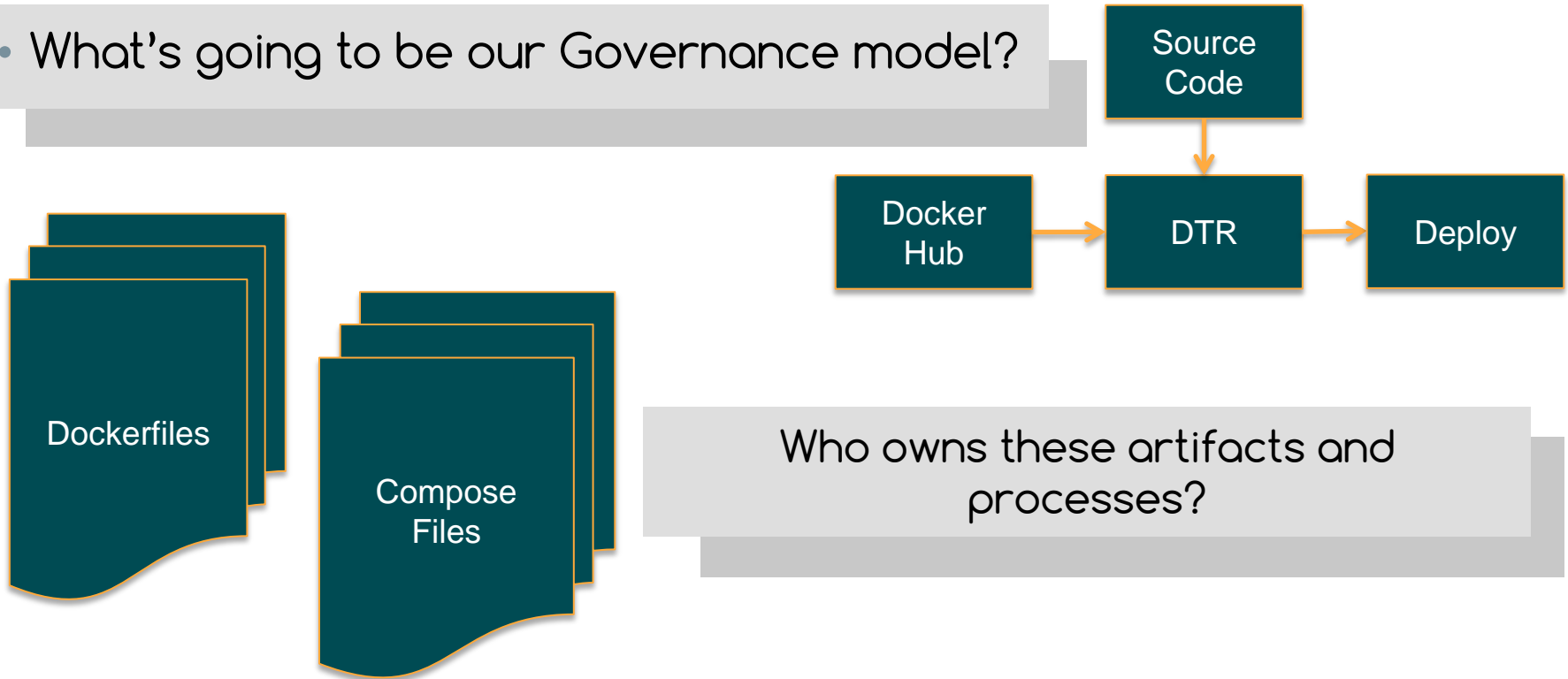
# Open Source

- This was not trivial!
- Disruptive
- Who 'ya gonna call?
- Its not just some guy in a garage...
- Begin to change culture
- Do we need an Open Source Governance Model?



# Process and Procedure

- What's going to be our Governance model?



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# Sweat the Little Stuff

- The Devil is in the Details!!!
- Tag and Label cluster engines and nodes
- Label early and label often
  - geo code, charge back, expected count, max count, test script, expected results, subscription id's, failure domain, environment, maturity, cloud, maintainer, support group, ops guide location, etc.
- Follow a labeling convention
  - com.company.docker.something.helpfull
- Ensure that metadata is managed conveniently
- Microservices need appropriate constraints, affinities, and anti-affinities
- Employ garbage collectors



# Test, Test More, Then Test Again

- Build a culture of test driven engineering!
- Lint your YAML and compose files with rules
- Audit your deployment
- Microservices should have health endpoints – and you should check them
- Build Tests for everything
- Break your cluster repeatedly, bring on the chaos
- Hold War Games with your Operations Teams!
- Do it all again...

SHALL WE PLAY A GAME?



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# Be Ready to Demo This Thing!

- Everyone wants to see the eye candy
- Especially executives
- Have a stable Demo environment
- A few folks should be able to pitch a demo on demand
- “Break” it, watch it heal
- Record it!



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# Training

- Your innovation team is going to hand this off to someone
- Do not throw it over the wall
- Operations and Tactical Engineering Teams will need training
- Expect resistance
- They are busy and they might not show up
- Plan shallow dives and deep dives
- Do it over several days, at different times
- Plan to do it again, and probably again...



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# Immovable Object

- Operational Handoff
- Do not underestimate this!
- Your Ops Team may be wide and far flung
- Many or most may not know what a microservice is
- **Everything you are giving them is probably new**
- How cleanly does your shiny, new, cost reducing, super agile, infrastructure fit to existing business processes?
- How do you monitor it?
- How do you prevent sprawl?



Is this done?



Is that done?



Ops guides?



Level 1 trained?



Offshore trained?



Monitors up?



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# How Are Things Shaping Up Today?



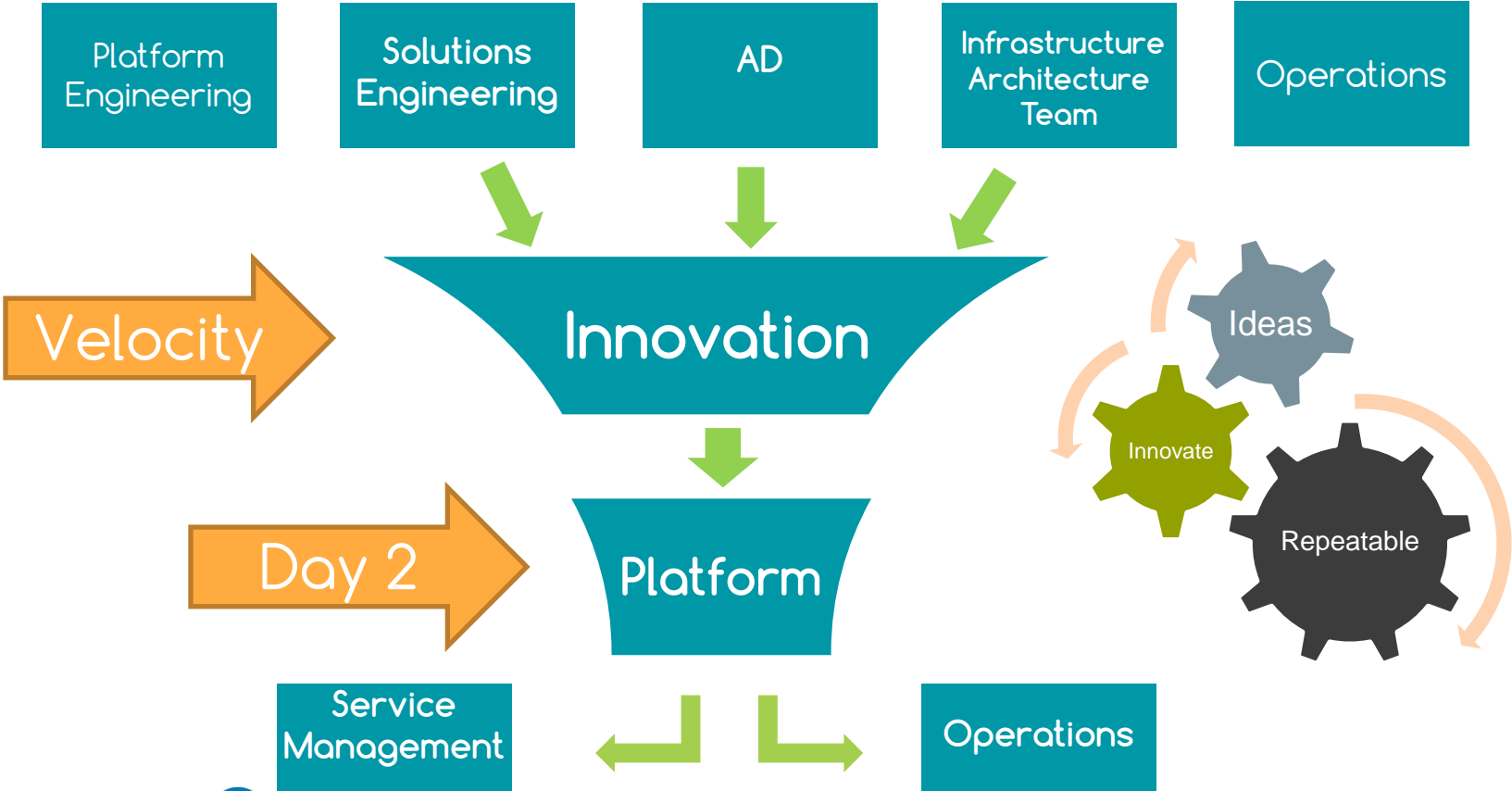
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# How Innovation Feeds Production



Executive Steering Committee

SVP Engineering – Executive Sponsor

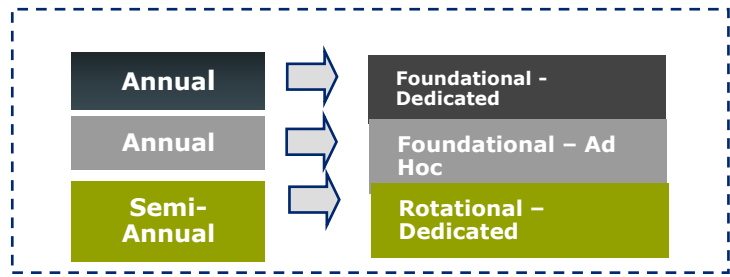


ModSquad Composition



- Quarterly executive steering committee meetings
- The steering committee will set priorities
- Monthly meeting with the SVP Engineering
- ModSquad focuses on one or two disruptive innovations at a time

Rotational Program





# Success Factors

- Executive recognition, top down support
- Frequent visibility to executives and business
- Equality of team members and situational leadership – Build Mentors
- Diversity of team
- Complex problems and shiny things!



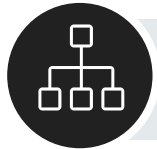
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# Things We Learned



Focus on a Minimum Viable Product



Innovation Team does not operationalize!!!



Encourage Subject Matter Experts



Innovate through Open AND Ad-Hoc discussions



Pay attention to Norms



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“You and the wider team collectively defined a new model for collaboration that not only helped address a critical challenge for MetLife, but is one that we will look to deploy more broadly across GTO.”



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# Can YOU Do This??

- MetLife's recipe may not fit everyone
- But if MetLife can do this anyone can
- Seek Executive support
- Ensure Executive visibility
- Build and Empower a diverse team





## Blog – Learn Fast, Fail Fast, Deliver Fast

<https://goo.gl/dwdys6>



## DockerCon EU 2017 Talk

<https://goo.gl/2WkAaw>



## DockerCon Austin 2017 Talk

<https://goo.gl/ivcBpM>



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# Functionally Speaking...

Rotational, dedicated team resources are fully dedicated during rotation

Members day to day work will be assigned by the squad

Do not hold onto technologies for > 4 months

Focus on one disruptive innovation at a time (or two)

ModSquad leadership will be key contributors to year-end performance reviews

Platform and Ops engaged early to insure smooth transition



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