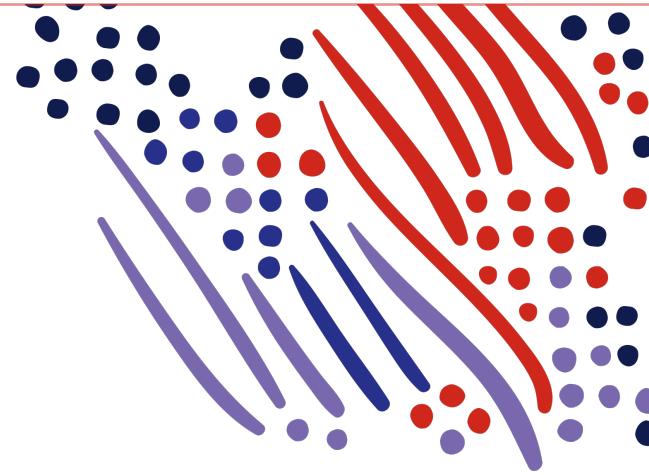


# How To Turn The Software Team Around

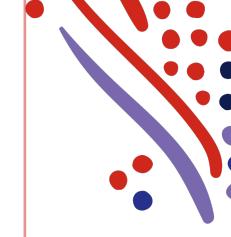
**Charles Lafferty**

Senior Director - ADP





Always Designing  
for People®



### HR services

From best practices to advice and HR consulting.

### Talent

From recruitment to retirement, getting the very best out of your people.

### Time management

Track hours worked, manage time-off requests and seamlessly integrate with payroll.

### Benefits

Employee benefits, flexible administration and business insurance.

### HR outsourcing & PEO

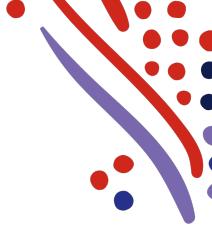
Focus on what matters most by outsourcing payroll and HR tasks, or join our PEO.

### Payroll

Fast and easy payroll and tax, so you can save time and money.

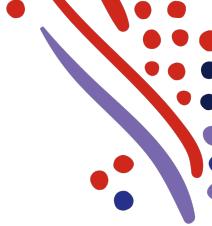
## *By the numbers*

- Founded 1949
- 1M clients worldwide
- \$3.1T+ moved in client funds FY22
- 40M workers paid worldwide
- Pays 1 in 6 workers in the US



# Workplace Resilience Study

<https://www.adpri.org/assets/workplace-resilience-study/>



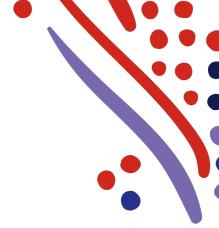
# Teams, Trust, and Leadership

A solid blue circle containing the text "2.6X" in white, bold, sans-serif font.A solid blue circle containing the text "14X" in white, bold, sans-serif font.

More Likely To Be Fully Engaged

<https://www.adpri.org/assets/workplace-resilience-study/>

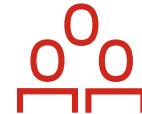
Copyright © 2022 ADP, Inc. Proprietary and Confidential.



## Self

Experience of Your Work

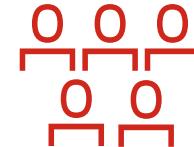
- Personal Agency
- Compartmentalization
- Strength for the work itself



## Team Leader

Behaviors of Team Leader

- Psychological Safety
- Anticipatory Communication



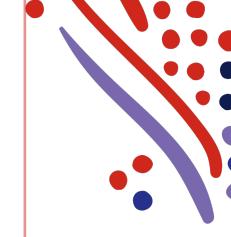
## Senior Leaders

Actions and  
Perceptions of Senior  
Leaders

- Visible Follow-Through
- Vivid Foresight

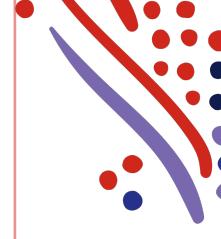
# How To Turn The Software Team Around

- *Frequently service interruptions*
- *Can't figure out what is wrong*
- *Data driven vision of the future*
- *Cooperation*
- *Measuring if they are making a difference*



Common  
5 Step Process  
Team Issues

# Autonomy



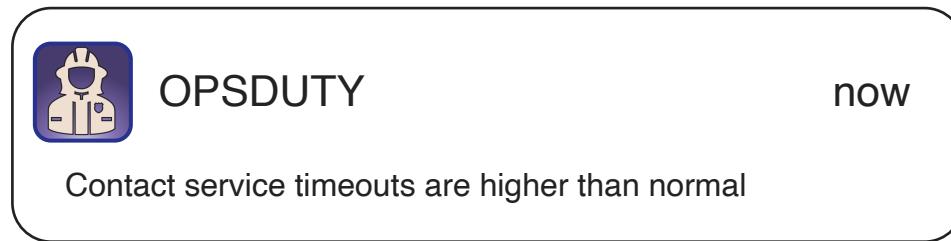
## How Do We Handle an Outage?

## 1. I'm Aware

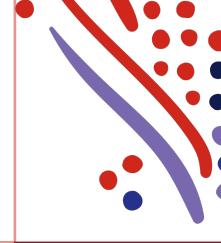
## 2. I've Assessed

## 3. I Acted

## 4. I Can Explain It



# Sight



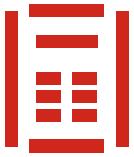
# What Do We Focus on First?

# Saturn V Rocket Engine – F1

- Developed By Rocketdyne
- Started Development in 1955
- Delivered in 1963
- 18.5ft tall, 12.2ft wide, Weight 18.5k Lbs
- Thrust at sea level 1,500,000 lbf



# Observability



## Logging

- Splunk
- Logstash
- Elastic
- OpenSearch



## Monitoring

- Dynatrace
- Datadog
- App Dynamics
- New Relic



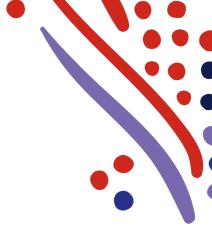
## Tracing

- Lightstep
- Honeycomb

<https://landscape.cncf.io/>

# Future Vision

Where are we  
going?



# What does good look like?

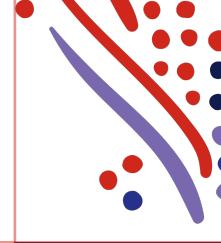


# ACCELERATE State of DevOps 2022

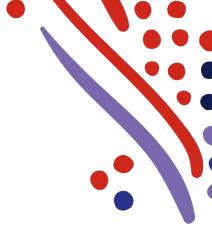
Software Delivery Performance Metric	Low	Medium	High
<b>Deployment Frequency</b>	Between once per month and once every 6 months	Between once per week and once per month	On-demand (multiple deploys per day)
<b>Lead Time for Changes</b>	Between one month and six months	Between one week and one month	Between one day and one week
<b>Time to restore service</b>	Between one week and one month	Between one day and one week	Less than one day
<b>Change failure rate</b>	46%-60%	16%-30%	0%-15%

<https://www.devops-research.com/>

# Cooperation



## How Are We Going Treat Each Other?



Do you feel like  
every day is battle?

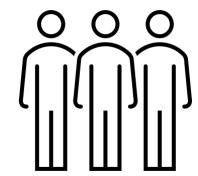


# Have you ever thought?

- *No one listens to me*
- *Nobody will like my idea*
- *I am afraid what others will think of my proposal*
- *I never get a chance to finish my sentence*
- *I don't want to upset anyone*

*Why even try...*

# Tuckman's Stages of Group Development



**Forming**



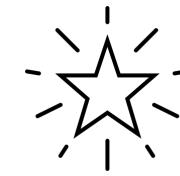
**Storming**



**Norming**



**Performing**



**Adjourning**

**How do you get from Storming to Norming?**

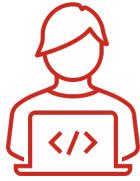
# Code of Hammurabi

- ~3700 Years Old!
- 282 Rules established standards for commercial interaction, set fines, and punishments
- Code of Laws carved into a massive black stone stele



## Create a Manual of Collaboration

# Examples: Guides



## Developer Guide

How Developers Work

- Code styling
- Tool choices
- Refactoring practices
- Unit test coverage practices



## Team Guide

How Teams Standardize

- How to use story tracker
- How to fix an environment
- What to do during outages
- Branching strategy



## Deployment Guide

How code is deployed

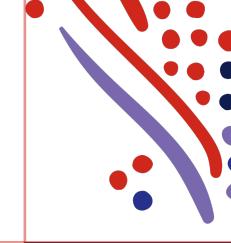
- Code Promotion
- Deployment deadlines
- Configuration practices
- Feature flag practices

# How To Focus The Discussion

## The Rules For Debate

- Cannot use You or a Name
- Focus on problem/solution. No side topics
- Don't interrupt. Listen. Limit the use of "Let me speak", "sorry to interrupt" Wait for people to finish their point
- Use "Yes and" not "no but"
- Prepare to defend opposing point
- Timeboxed
- No work or idea is "bad". Its just work
- A call for more discussion can be a decision





How Do We Know We  
are  
Headed in the Right  
Direction?

A photograph showing a person's hands working on a red toolbox filled with various tools like screwdrivers and wrenches. In the background, there are shelves stacked high with books, suggesting a workshop or library setting.

*"If you can't measure  
it, You can't improve it"*

*Peter Drucker*

# 50 Things You Can Measure

## Dev Team Metrics

1. Defects opened
2. Incident Hours
3. Deployment hours
4. CICD Pipeline timings
5. PR Cycle Time
6. Lead Time
7. Change Failure Rate
8. Deployment Frequency
9. PR Merge time
10. Automated test length
11. Test Pass/Fail rate
12. Testing Time
13. Total WIP
14. Total Stories delivered
15. Time on unplanned work
16. Unit Test Coverage
17. Build Time
18. # of Vulnerabilities
19. Cost / Spend
20. # of Unplanned changes

## Adoption

21. Logins per day
22. # of Users
23. Browser Versions
24. NPS
25. Feature clicks

## Stability

35. Timeouts
36. Server-side errors
37. Client-side errors
38. CIRT call length
39. # people on CIRT call

## Support

46. Total Problem Tickets
47. Problem tickets closed
48. Problem tickets opened
49. Time to Recover (MTTR)
50. Time to Detect Error (MTTD)

## Infrastructure

26. Latency
27. CPU
28. Memory
29. Total API Calls
30. Uptime
31. Pod restarts
32. Disk Usage
33. # of Pods
34. DB Size

## Performance

40. Page load time
41. JS Bundle Sizes
42. Session Size
43. Slowest calls
44. Most frequent Calls
45. # of calls per page

# In Conclusion

**Autonomy** - Handle those outages with AAA

**Sight** - Observability first

**Future Vision** - Find what good looks like

**Cooperation** - Find common ground, write it down

**Measure** - Measure what's important, improve





# Thank You!

<connect/>

**Twitter & LinkedIn**

@ChuckLafferty

