

# DevOps - ett kundcase



**RISING ST★RS**

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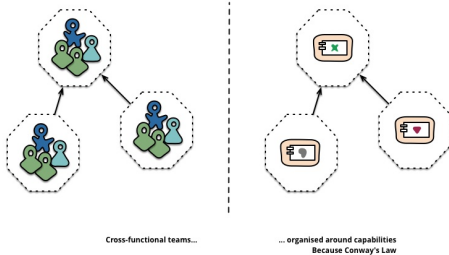
# Kundbeskrivning

- ett företag i finansbranchen
- vill förbättra shoppingupplevelsen
- huvudsakligen digitala tjänster



# Organisation

- några hundra produktteam om vardera 5-10 personer
  - varje team har fullt ansvar för sin tjänst
- de flesta teamen har tjänster som hanterar konsumentdata
- ingen driftsorganisation
  - några team har tjänster som används av andra team



# Tekniska val

- huvudsakligen AWS
- ett fåtal egna servrar
- Tech Radar



# Tech Radar

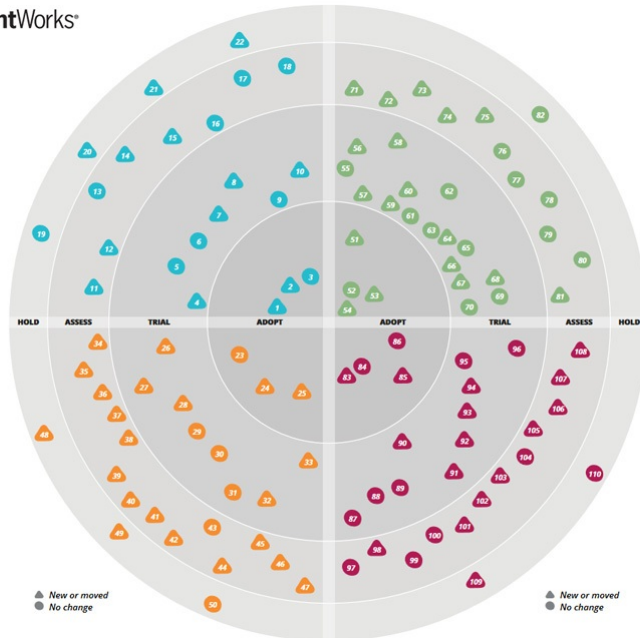
## THE RADAR ThoughtWorks

### TECHNIQUES

- ADOPT**
1. Consumer-driven contract testing
  2. Pipelines as code (NEW)
  3. Threat modeling
- TRIAL**
4. API as a product (NEW)
  5. Big bounce!
  6. Data Lake
  7. Hosting PII data in the EU
  8. Lightweight Architecture Decision Records (NEW)
  9. Reactive architectures
  10. Serverless architecture
- ASSESS**
11. Client-directed query (NEW)
  12. Container security scanning (NEW)
  13. Consistent Security Policies
  14. Differential privacy (NEW)
  15. Micro frontends (NEW)
  16. OWASP A10S
  17. Unlabeled
  18. VR beyond gaming
- HOLD**
19. A single CI instance for all teams
  20. Atomic REST (NEW)
  21. Big Data amy
  22. Cloud lift and shift

### PLATFORMS

- ADOPT**
23. Docker
  24. HSTS
  25. Linux security modules
- TRIAL**
26. Apache Mesos
  27. AuthD (NEW)
  28. AWS Lambda
  29. Kubernetes
  30. Private Cloud Foundry
  31. Rancher
  32. Realm
  33. Unity beyond gaming (NEW)
- ASSESS**
34. .NET Core
  35. Amazon API Gateway
  36. Apache Flink
  37. AWS Application Load Balancer (NEW)
  38. Cassandra credibility (NEW)
  39. Electron (NEW)
  40. Ethernal (NEW)
  41. HoloLens (NEW)
  42. InfaStack (NEW)
  43. Netmix
  44. Nuance Mix (NEW)
  45. Openfit (NEW)
  46. Targentool (NEW)
  47. wslai (NEW)
- HOLD**
48. CMS as a platform
  49. Overambitious API gateway
  50. Superficial private cloud



### TOOLS

- ADOPT**
51. Babel (NEW)
  52. Consul
  53. Grafana (NEW)
  54. Flocker
- TRIAL**
55. Apache Kafka
  56. Espresso
  57. Fastlane (NEW)
  58. Gatin (NEW)
  59. HashiCorp Vault
  60. JCHassart (NEW)
  61. Let's Encrypt
  62. Load Impact
  63. OWASP Dependency-Check
  64. PaTty (NEW)
  65. Semaphore
  66. Tailman (NEW)
  67. Terraform
  68. Umato (NEW)
  69. Webpack
  70. Zipkin
- ASSESS**
71. Android-ADB (NEW)
  72. avoc (NEW)
  73. Bottled Water (NEW)
  74. Cjoxide (NEW)
  75. FBSnapshotTestcase (NEW)
  76. Grap
  77. LambdaCD
  78. Ringoist
  79. Pilest
  80. Rapichest
  81. Sockio-learn (NEW)
- HOLD**
82. Jenkins as a deployment pipeline

### LANGUAGES & FRAMEWORKS

- ADOPT**
83. Ember.js
  84. React.js
  85. Redux
  86. Spring Boot
- TRIAL**
87. Busterinife
  88. Dagger
  89. Dagger
  90. Elvir
  91. Enzyme (NEW)
  92. Immutable.js
  93. Phoenix (NEW)
  94. Quick and tombo (NEW)
  95. React Native
  96. Robolelectric
- ASSESS**
97. Aurelia
  98. ECMAScript 2017 (NEW)
  99. Elm
  100. GraphQL
  101. JUnit (NEW)
  102. Physical Web (NEW)
  103. Rapichest (NEW)
  104. React.js
  105. Redux (NEW)
  106. Three.js (NEW)
  107. Vue.js (NEW)
  108. WebRTC (NEW)

# Tekniska rekommendationer

- kommunikation
  - G Suite
  - Slack
- versionshantering
  - Bitbucket
- platform
  - GNU Linux - CentOS
  - virtuella servrar (AWS EC2)
  - docker (AWS ECS)
- mätning, monitorering och loggning
  - Datadog
  - Splunk



# Tekniska rekommendationer

- Iarmhantering
  - OpsGenie
- automatisering
  - Jenkins
  - Concourse
- konfigurationshantering
  - Ansible
- språk
  - Java
  - Node
  - Python



# DevOps?

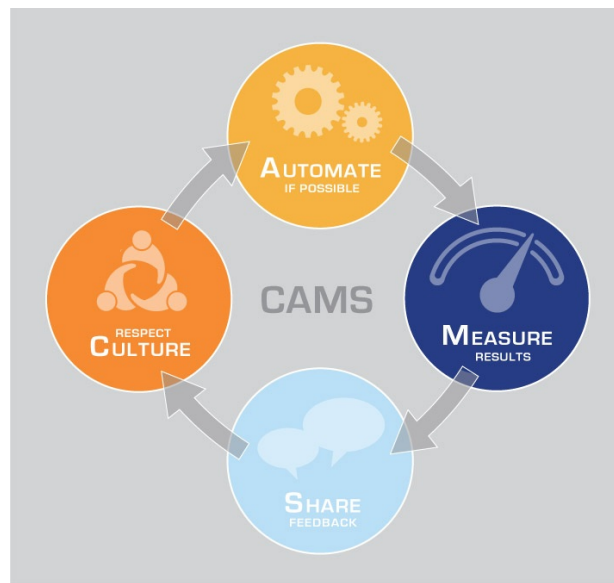
- empowered teams
- end-to-end responsibility
- automated builds and testing
- metrics and monitoring
- blameless post mortems
- experimentation platform





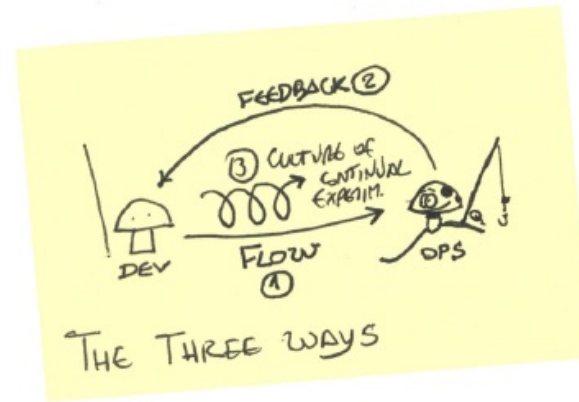
# C.A.M.S.

- Culture
  - empowered teams
  - end-to-end responsibility
  - experimentation platform
- Automation
  - automated builds and testing
- Metrics
  - metrics and monitoring
- Sharing
  - blameless post mortems



# The three ways

- First way - systems thinking
  - empowered teams
  - end-to-end responsibility
- Second way - feedback loop
  - metrics and monitoring
  - blameless post mortems
- Third way - culture of continuous e
  - automated builds and testing
  - experimentation platform



# DevOps i praktiken - problem ett

- ett team tillhandahåller Jenkins-servrar till övriga team
- policyn säger att säkerhetspatchar ska appliceras inom 30 dagar
- vem ansvarar?



# DevOps i praktiken - problem två

- vissa nätverksändringar sker via JIRA-ticket
- en DNS-ändring kan ta en vecka



# DevOps i praktiken - problem tre

- alla utvecklare använder samma licensserver
- okända kostnader för produktteamen



# DevOps i praktiken - problem fyra

- under Thanksgiving och Jul är det ändringsstopp
- stressade ändringar innan
- ansamlade ändringar efter
- undantag om man implementerat continuous delivery



# Sammanfattning

- kunden vet hur de vill att det ska fungera
- men kulturförändringar är svårt
- DevOps är kanske mer ett mål än ett medel



# Tack för ordet!



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