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DevOps challenges in a microservices world

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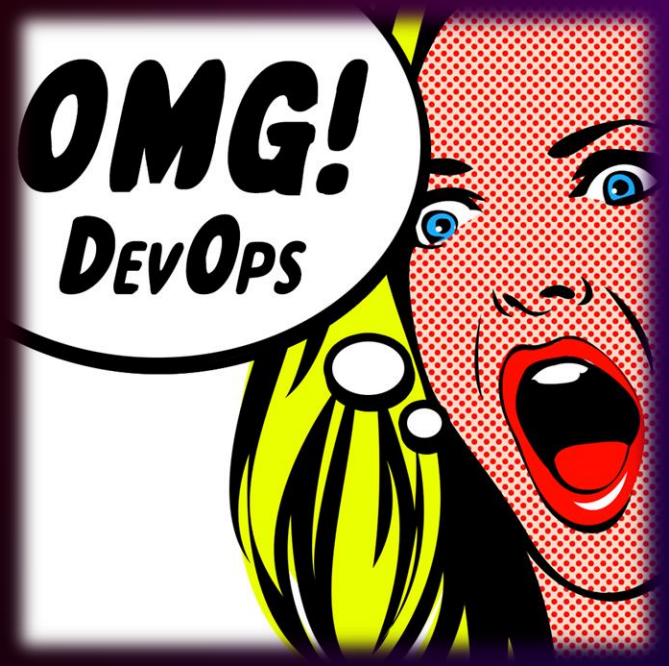
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Challenges in cloud security

- Lack of subject-matter expertise
  - Infrastructure as code (IaC) requires programming, operations, and security skill sets . . .

    . . . in the same person!
  - DevOps skill set has far too much variance
    - Good DevOps engineers are scarce and expensive: $200K+
    - Difficult to retain the good ones!



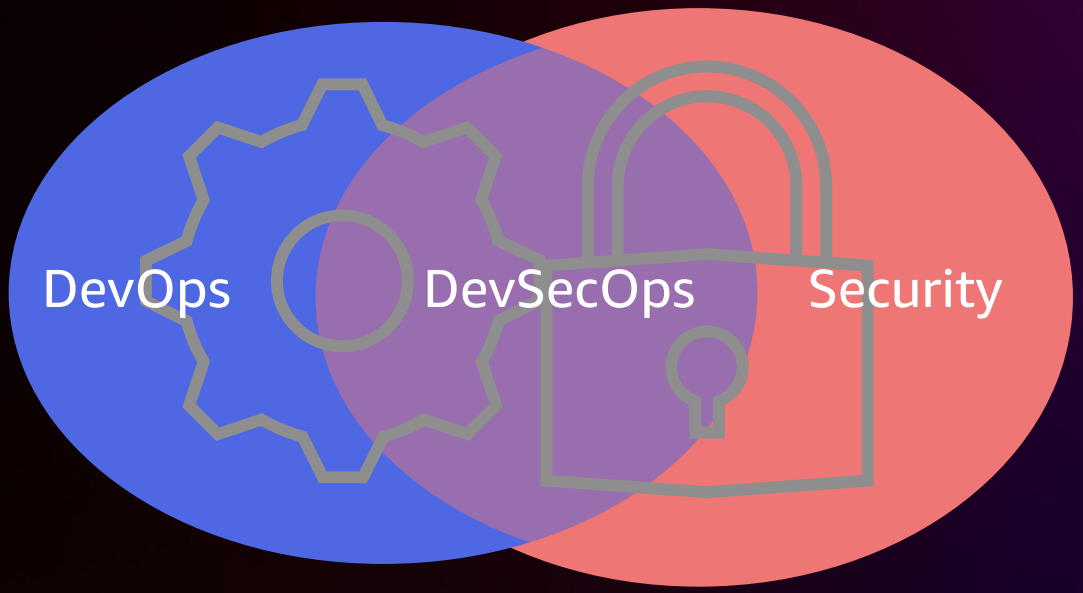
- Fragmented infrastructure
  - Microservices have too many moving pieces
    - Kubernetes is an operational beast
  - New developer-friendly services add to ops and security burden

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Challenges in cloud security

Developer self-service

- DevOps automations created for the efficiency of DevOps teams
  - → NOT for developer self-service
- Building a DevOps automation platform is often not part of a DevOps engineer's skill set
  - DevOps automation is mostly scripts



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Need for “shift left” security

- Security is still not embedded in DevOps workflows
  - Most DevOps teams build security based on best practices or what they know best
    instead of following a well-established framework
  - Compliance standards and security frameworks are often an afterthought
    or typically considered overhead
- Security vendors focused on post-provisioning security
  - Provisioning time security using cloud provider configuration
    DevOps engineers manually create Terraform scripts
  - Some vendors working on ready-made compliant modules via linting IaC



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Shift-left security

MAKING DEVELOPERS, DEVOPS, AND SECOPS WORK TOGETHER

- Embed security (SecOps) into the core DevOps workflow
- Go with a standard early on
  PCI is a well balanced, prescriptive and practical framework
- Determine amount of developer self-service early
- Be honest about automation and set KPIs
  Labor requirements, developer self-service, time to compliance, scope of services
- If you are a modern cloud-native organization, then invest in a platform
  Buy vs. build



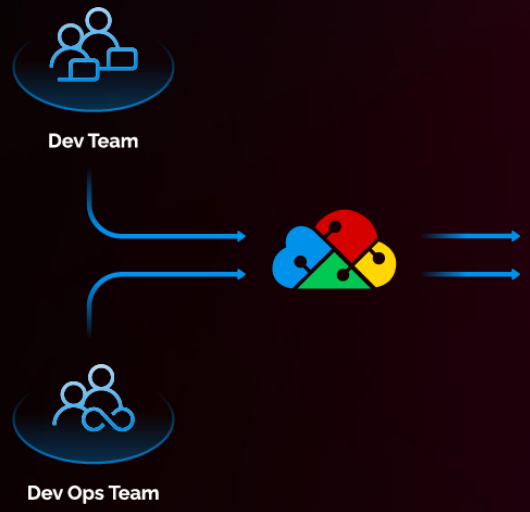
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DevSecOps as a service

THE NEXT FRONTIER IN CLOUD OPERATIONS

- Developer provides high-level specification
  - ☑ Multiple environments
  - ☑ Secure
  - ☑ Compliant to required standards
  - ☑ CI/CD and self-service
  - ☑ Monitoring and alerting





All-in-One DevOps platform

- Platform auto-generates the configuration
- All compliance controls built into the infrastructure at provisioning time!
  Reduces human (error) element

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DuploCloud Product Demo (AWS)

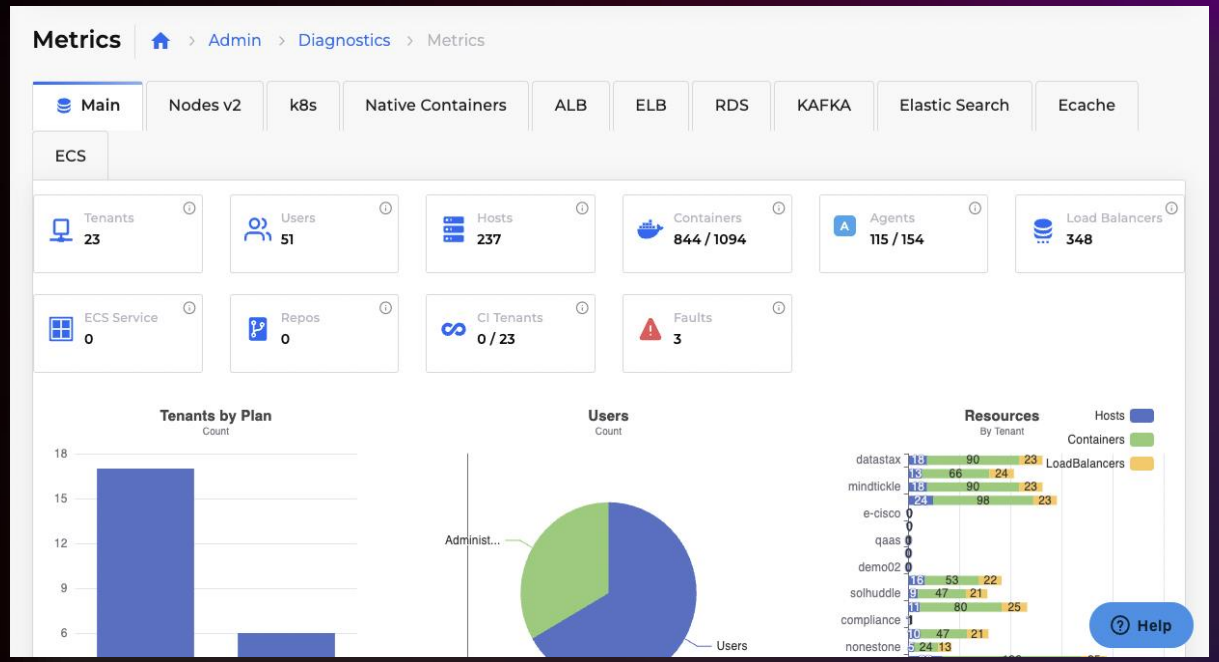


DuploCloud

Case study

uniphore

- Hundreds of cloud services
- Thousands of containers
- Thousands of monthly infra changes
- 50+ developers using self-service
- Just 2 DevOps
- Out-of-box security and compliance



Uniphore is using AI to solve a frontier problem for the world, bridging the gap between people and machines using video, speech, and voice to ensure that every person can be heard.

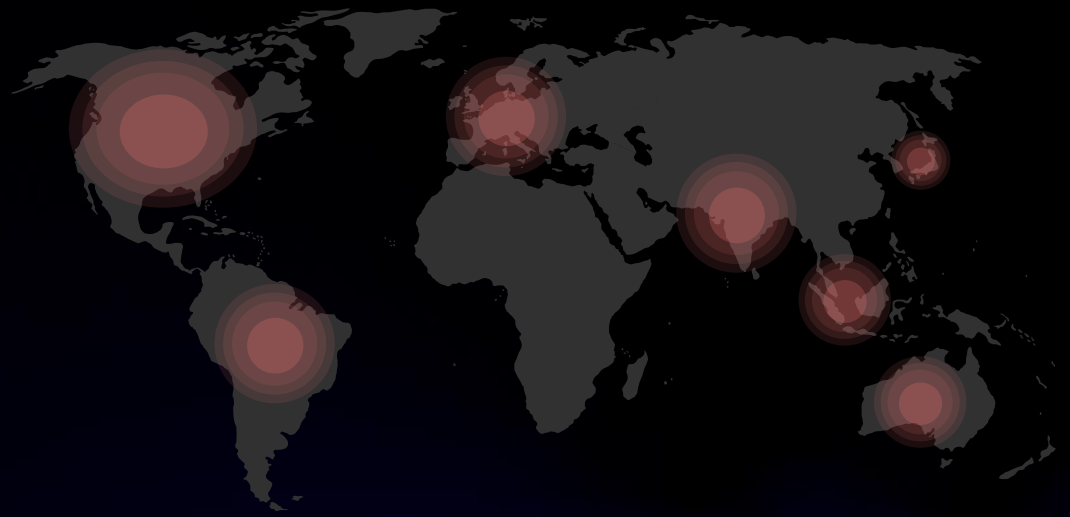
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DuploCloud – Corporate overview

75+	1,000+	50K+	200+	45+
CUSTOMERS	PLATFORM USERS	INFRA CHANGES PER MONTH	CLOUD SERVICES	COMPLIANCE CERTIFICATIONS/YR

- Advanced automation platform for application developers, data scientists, AI/ML engineers, and DevOps
- Focused on modernizing your applications and building microservices without being slowed down by DevOps
- Out of the box, supports compliance standards for PCI-DSS, ISO-27001, SOC 2, HIPAA, NIST, HITRUST, GDPR, and more



One of the fastest-growing DevOps companies

2018	17.5M	170%
Year founded	Capital raised	YoY growth

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Thank you!

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