

IoTWeek

Dublin — June 20-23, 2022

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Shifting Left: Integrating Security Testing into Development Operations of a Research Project

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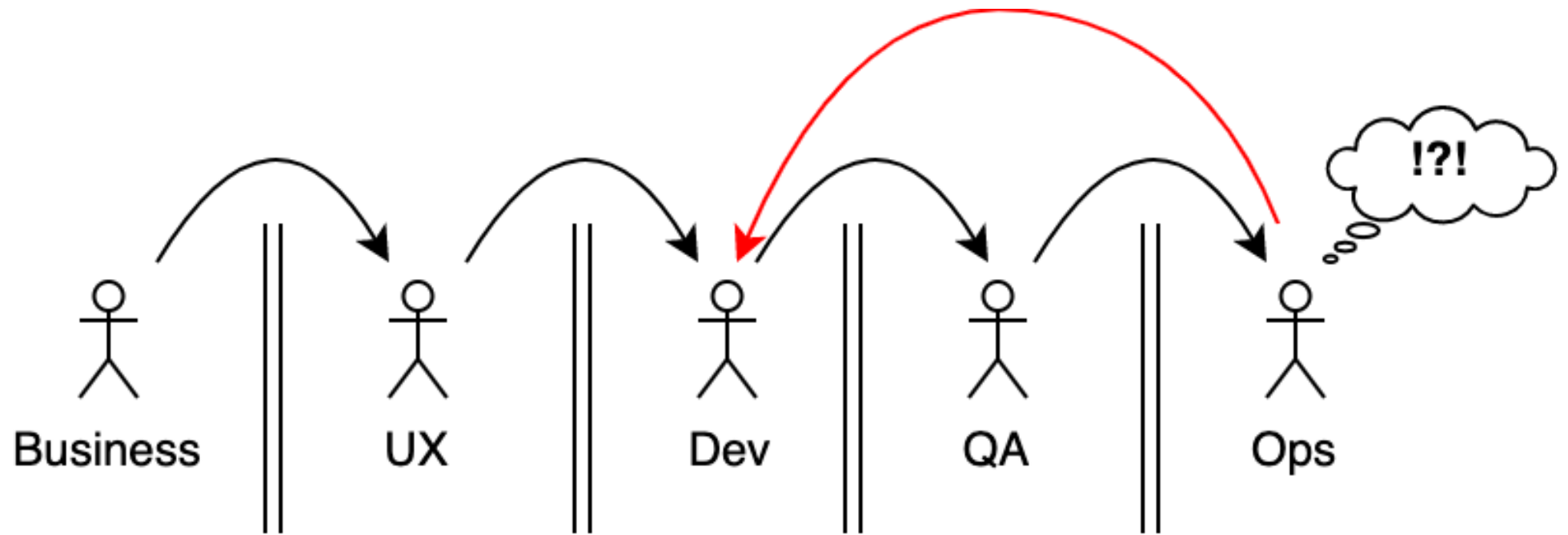
Software Engineer, Netcompany-Intrasoft

GLOBAL VISION:

IoT TODAY AND BEYOND

IoTForum

Traditional Software Engineering



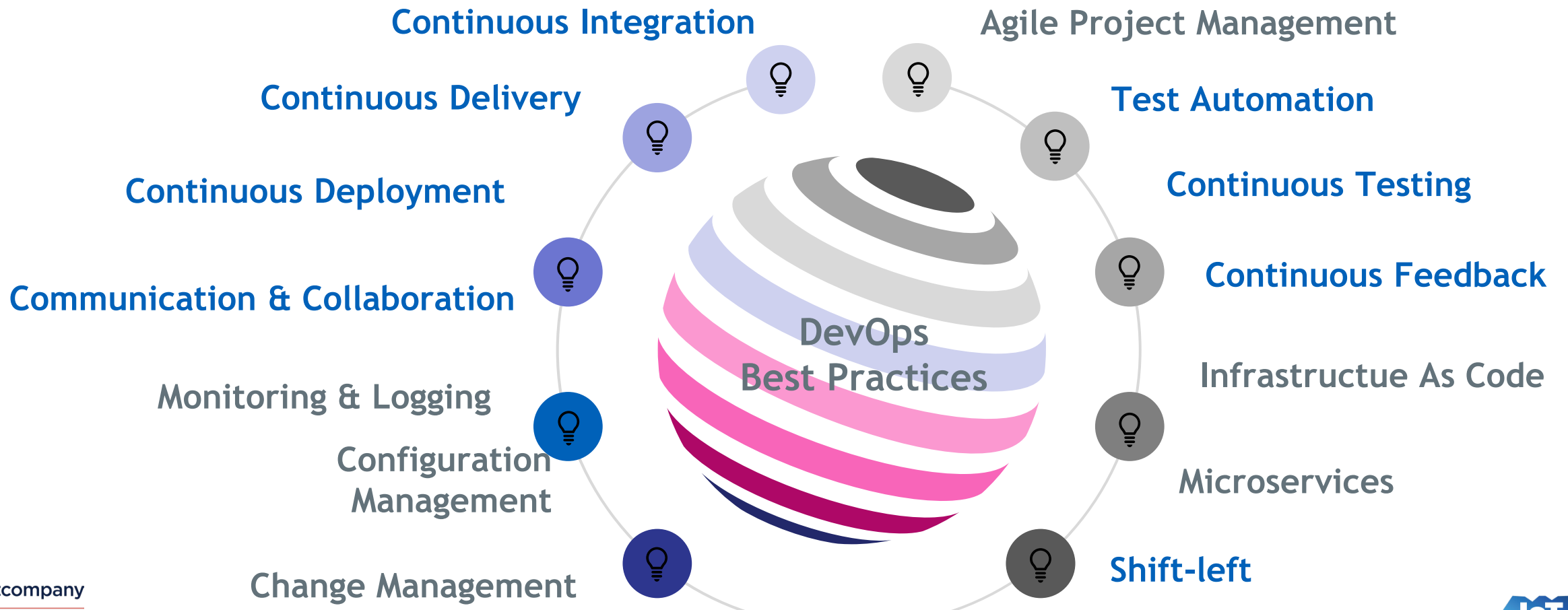
The Wall of Confusion in Project Teams



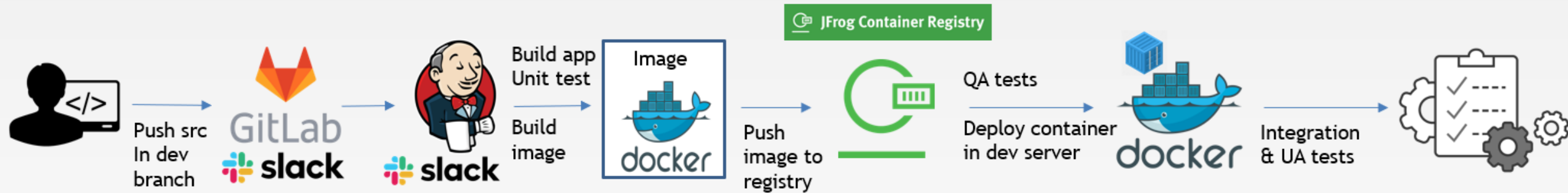
DevOps & CI/CD

DevOps stands for **Development & Operations** - A business drive to improve communication and collaboration among development and operations teams, in order to increase the speed and quality of software deployment

~> **A new culture/mindset + practices + tools**



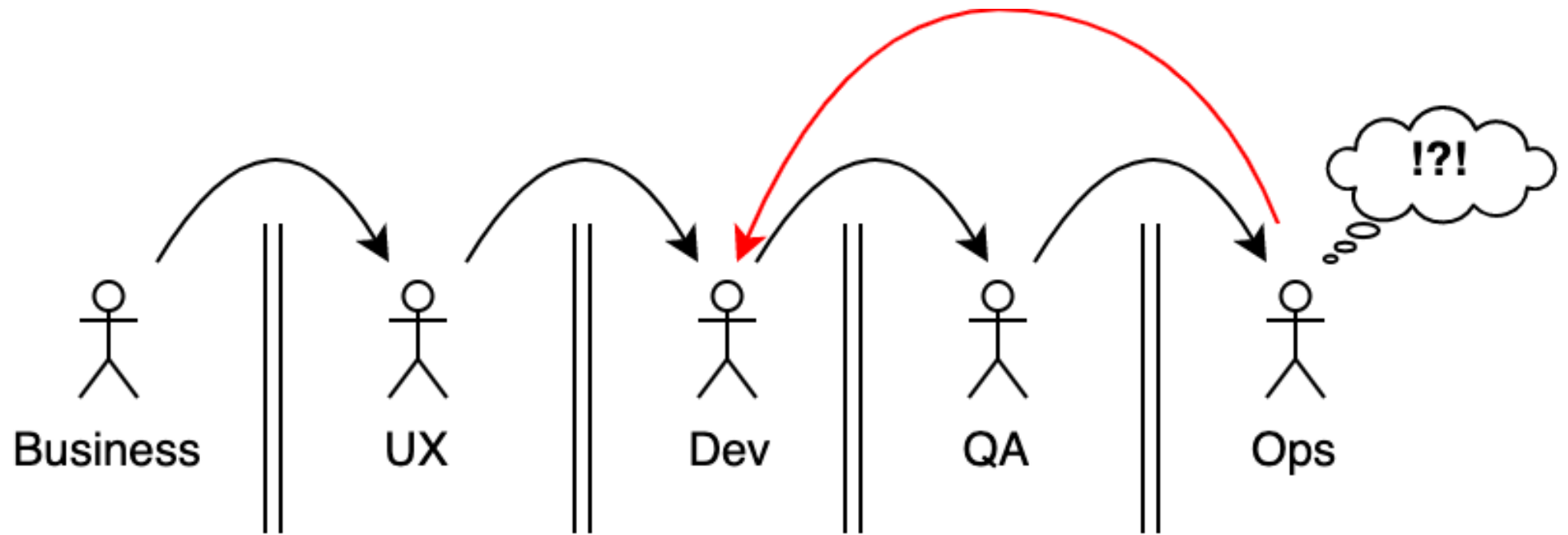
Typical Workflow with Automation



- ✓ Teams focus on business requirements and high-quality code
- ✓ Multiple deployments per day if needed: faster-to-market/pilot sites
 - ✓ Significantly lower change failure rate

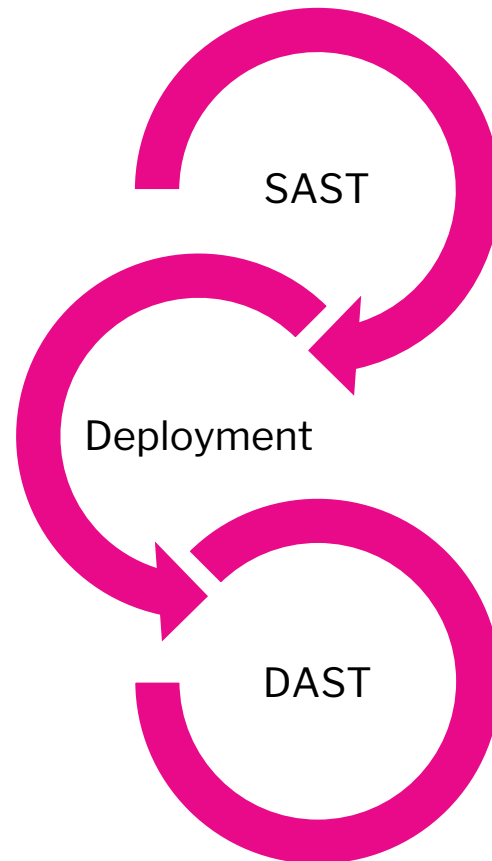
Embracing DevOps principles is
above all a change in
Organizational Culture.

But where are the Security Tests?



From DevOps to DevSecOps

DevSecOps automates the integration of security at every phase of the software development lifecycle, from initial design through integration, testing, deployment, and software delivery!



Static Application Security Testing

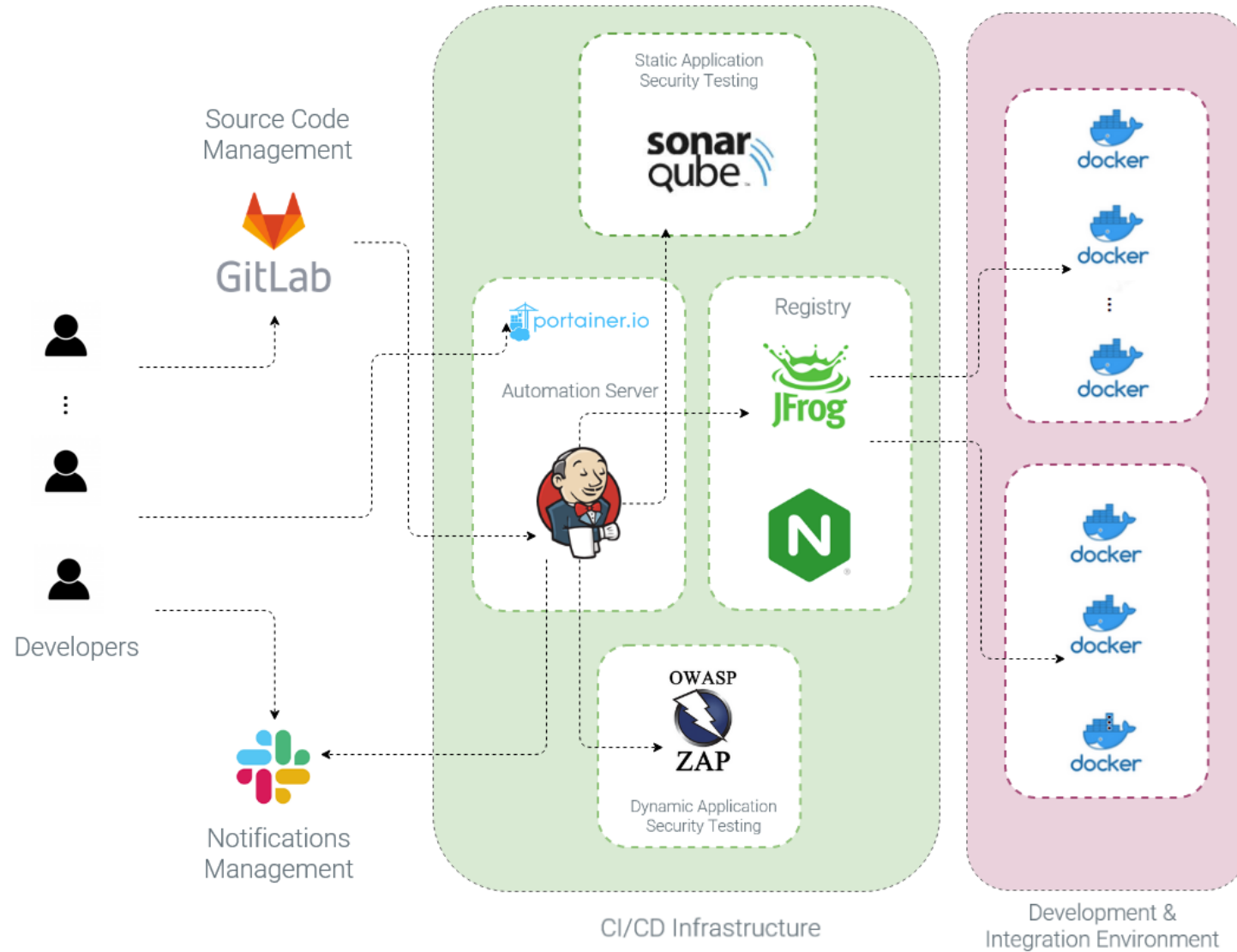
- Directly **on Code**
- Language Specific
- Does not Require Deployment



Dynamic Application Security Testing

- Requires Deployment
- Runs Directly **Against the Application**
- Simulates Malicious Parties' Behaviour

IoTAC CI/CD Platform





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Thank you!

Find more:

- **IoTAC project:** <https://iotac.eu/>
- **A.M. Despotopoulou:** <https://www.linkedin.com/in/amdespotopoulou/>
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