The Road to Interoperability in CI/CD

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Openness, Integration, and Interoperability

Integration => often glue code needed

- Engineering effort
- Maintenance costs
- Replacing services can be hard work

Interoperability => openly defined interfaces and metadata

- Easier access to services
- Can have multiple, independent implementations of a service’s interface
- Ease of switching between implementations of a service
Continuous Delivery Landscape

This landscape is intended as a map to explore the Continuous Delivery community, and also shows the member organizations of the Continuous Delivery Foundation.
Interoperability in CI/CD Context

- Pipeline standardization/languages
- Connecting/integrating pipelines
- Pipeline data for traceability/visualization
- Events in CI/CD

Continuous Delivery Foundation Interoperability Whitepaper

Case Study
Enter Continuous Delivery Foundation

CDF was founded during March 2019 and hosted by Linux Foundation

A Neutral Home for the Next Generation of Continuous Delivery Collaboration

Members from webscale, cloud, fintech, telecom, e-commerce, IT, CI/CD industries

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<th>Hosted Projects</th>
<th>Special Interest Groups</th>
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<tr>
<td>Jenkins</td>
<td>Security, MLOps, Interoperability, Best Practices</td>
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<td>Spinnaker</td>
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<td>JENKINSX</td>
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<td>Screwdriver.cd</td>
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Special Interest Group Interoperability

- Approved by CDF Technical Oversight Committee during January 2020
- Aims to increase collaboration to address interoperability challenges

Communities

- Jenkins
- JenkinsX
- TEKTON
- Spinnaker
- Eiffel
- keptn
- LF Networking
- Cloud Native Computing Foundation

Industries

- Webscale
- Cloud
- Telecommunications
- E-Commerce
- Entertainment
- CI/CD
- IT Operations
- Software
Progress so far

- First contribution to CI/CD Domain: “Rosetta Stone for CI/CD”
- Released the first version of the SIG Roadmap
- Established Events in CI/CD Workstream
- Initiated the work on Standardized Metadata
- Worked on a whitepaper which will be released soon by CDF
Future

● Exploring reusable libraries and providing home for them

● Collaborating with CDF End User Council on user challenges and needs

● *and the interoperability challenges you bring in...*
Conclusions

- Most of the work in CI/CD domain is driven by communities.
- Ideas incubated and specifications developed by communities are candidates to become "de-facto standards" (e.g. cloudevents).
- Cross collaboration and pollination across communities and industries is key to addressing challenges.
- Continuous Delivery Foundation provides neutral home for collaboration.
Q&A
Links

- CD Foundation
- CDF Continuous Delivery Landscape
- CDF SIG Interoperability