Bridging the Development Gap and the Commercial Use of Open Source Projects

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They need innovation, transformation, and fast time to value but they also need…

- Solid and proven solutions
- Integrate-able with what they have existing
- Easy maintenance
- Investment protection
Enterprise Users’ Challenges When Adopting Open Source Projects

- Solid and proven solutions
  - Challenge: don’t know which ones will stay, which ones are fad
- Integrate-able with what they have existing
  - Challenge: Projects don’t integrate well; integration on cross community projects is even a bigger challenge
- Easy maintenance
  - Challenge: Can’t keep up wit the latest
- Investment protection
  - Challenge: True interoperability/no vendor-lock-in is still a tall order
OpenLab Mission: Uncover the LAMP Stack of Various Open Source Use Cases

The LAMP of the PC Era

- Web Server
- Python
- Mysql
- Apache
- Linux

- Seamlessly integrate multiple open source projects to form a de-facto open source software stack for Web servers
- 70% of Web Servers today are based on LAMP stack

Identify the “LAMP” stacks for the Cloud and AI Era

- OpenLab 1.0
  - Hybrid Cloud
    - Terraform
    - Scala
    - Cloud Foundry
    - Kubernetes
    - OpenStack
  - Cloud Native
    - Knative
    - Istio
    - Spark
    - KubeFlow
    - K8S
  - AI
    - TensorFlow
    - KubeFlow
    - K8S
    - Docker
    - Chip
  - Cloud Service Aggregation
    - Service Broker
    - Operator
    - K8S

Private Clouds

AI Platforms

Public Clouds
OpenLab: an Open Source Solution Stack Verification Platform, Created by the Community, for the Community

Benefits:
1. Solve the problem of integration for open source
2. Facilitate cross community collaboration
3. Speed up the time to value of open source projects
4. A platform that everyone can play, from anywhere, at any time
An Ecosystem Development Community

- Enable the testing, reporting, and verification of open source solutions stacks.
  - Validate independently developed projects work well when used together to build larger solutions

- Provide a space driven by the community, for the community
  - Common ground for different open source communities to collaborate and work together
Benefit to Project Maintainers

- Faster feedback on code changes
- Access to architectures and hardware
- Assurance that their project works well with others
- Improved project reputation
- Less critical issues from users hitting untested scenarios
Benefit to Users

• Easier ability to evaluate open source project selection
• Less surprises after deployment
• Example configurations of larger technology stack
Benefit to Vendors

• Early feedback for support group
• Confidence in providing solutions to customers
Current OpenLab Participants

Tested Open Source Projects

- OpenSHIFT
- Ansible
- OpenStack
- Kubernetes
- etcd
- ManageIQ
- Node.js
- BOSH
- OpenCloud
- citynetwork
- geni
- Emulab
- DT Open
- Telefonica
- Linaro
- arm
- VEXXHOST
- Chameleon
- CloudLab
- HUAWEI
- Intel
- The Linux Foundation
Walkthroughs
OpenLab Governance

Program Directors
The program directors are responsible for making decisions for new testing and projects, and for promoting and engaging other projects and communities.

Operations Manager
The operations managers ensure OpenLab infrastructure is working and monitoring for issues affecting testing. They also work with contributors to help with writing test cases and understanding OpenLab capabilities.

Community Members
Members of the OpenLab community are those that write test cases, triage test failures, and make contributions that further the OpenLab mission.
Call to Action

- Become an OpenLab member
  - File an issue under https://github.com/theopenlab/openlab to be added
  - OpenLab governance will add users and close the issue when done
- Implement testing
  - Request help implementing test cases, or…
  - Write test cases in-repo or in OpenLab job definitions
- Integrate OpenLab to trigger tests
  - Integrations for Gerrit and GitHub based projects
  - More drivers can be added for other platforms
- Start receiving test results and improving code

https://openlabtesting.org/get-started
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https://openlab.groups.io/

https://twitter.com/askopenlab
Thank You!

https://openlabtesting.org/get-started