

A background graphic featuring a network of blue lines connecting yellow circular nodes, set against a dark blue gradient background.

LFN Mentorship Project Presentation

August 2020

OPNFV Barometer CI setup and test case development

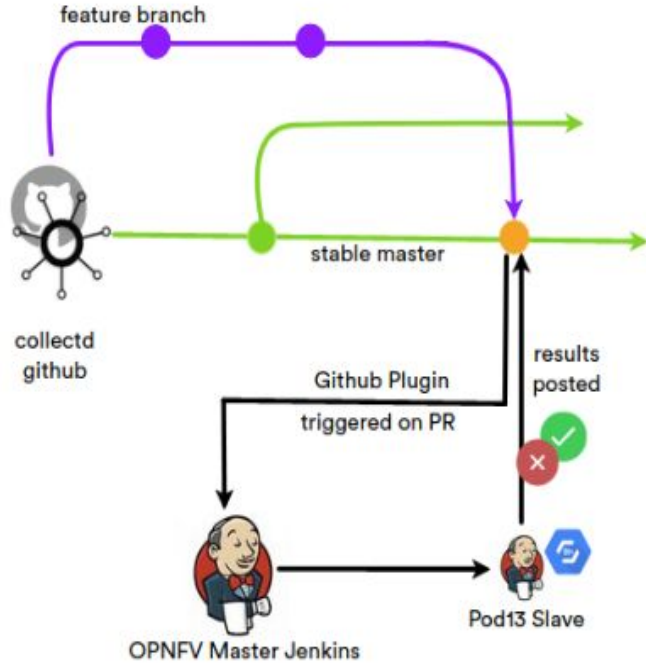
› Introduction

- › **Name:** Vishal Sharma
- › **Location:** India
- › **University:** Indian Institute of Technology, Roorkee, India
- › **Mentors:** Emma Foley, Jabir Kanhira Kadavathu, Krzysztof Kepka
- › **LFN Project:** OPNFV - Barometer

OPNFV Barometer CI setup and test case development

- › **Project Description:**
 - › Barometer collects system metrics and events for the monitoring
 - › Uses **collectd** for system metrics collection
 - › Improved test infrastructure and automated tests required:
 - › Specialised hardware requirements
 - › Introduces functional testing to collectd
 - › Helps testing efforts as part of the collectd release process
 - › Ensures nothing breaks in Barometer.

› Project Objectives:



- › Finalise Testing procedures
- › Test creation for collectd plugins
- › Set up docker container for testing
- › Set up the Jenkins Job trigger

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› **Project Deliverables:**

- › Test case creation for barometer plugins
- › Docker Container setup for running tests
- › Set up the jenkins job and trigger it upon a Github PR submission to collectd
- › New Testing Job documentation to Barometer CI

› Tasks Accomplished:

- › Test case creation and automation for the plugins
 - Capabilities Plugin
 - Logparser Plugin
- › Test Container set up for a test execution
- › Daily Jenkins Job in review for barometer
- › Reduced the job execution time from ~20 min to ~1 min
- › Github actions and status-api exploration



Build #5 (21-Aug-2020 12:35:12)



No changes.



Started by user [Vishal Sharma](#)



This run spent:

- 5 ms waiting;
- 45 sec build duration;
- 45 sec total from scheduled to completion.



Build #4 (21-Aug-2020 12:14:35)



No changes.



Started by user [Vishal Sharma](#)



This run spent:

- 6 ms waiting;
- 17 min build duration;
- 17 min total from scheduled to completion.

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› Left Deliverables:

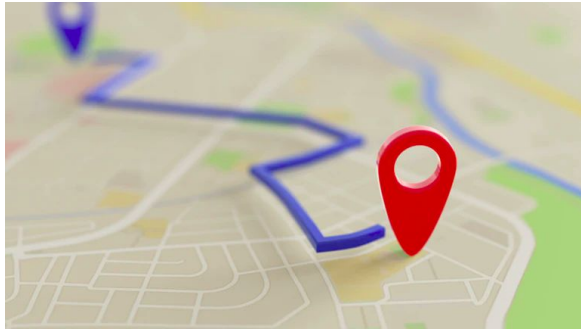
- › Configuring the job to run upon PR submission to Github-Collectd
- › Missing functional tests for plugins
- › Plugins left for test coverage (hardware limitations, difficult to automate, special requirements)

› Challenges:

- › Nature of the project
 - › Hardware requirements
- › Malformed patches to collectd breaks the existing Pull requests

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› **Future Considerations:**



- › Test case creation for new set of plugins
- › Figure out and configure the job to be triggered upon github PR
- › Report the status back to github collectd.

OPNFV Barometer CI setup and test case development

- › **Learnings and Insights Gained:**
 - › Monitoring as a service
 - › Familiarity with open source development lifecycle
 - › Jenkins and CI pipeline set-up
 - › Collaboration and Teamwork.
 - › Best practices related to test case creation.

A network diagram background consisting of numerous blue lines connecting yellow circular nodes, set against a dark blue gradient background.

THANK YOU!

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