# Cloud Native SIG. 2018-09-17 Meeting

Face-2-face meeting at DevOps World | Jenkins World during the <u>Jenkins contributor summit</u> in San Francisco.

• Time: 9:00AM local time ...

• Meeting notes: yes (here)

Video recording: noRemote call-in: unlikely

Link to this doc: <a href="http://bit.ly/jw2018-cloud-native-bof">http://bit.ly/jw2018-cloud-native-bof</a>

### Agenda

- 10:00AM Project updates including Cloud Native SIG ones...
  - o Oleg, Jesse Cloud Native Jenkins project update
  - Ewelina, Nicolas Jenkins Configurations as Code
- 1.00PM-3:00PM Cloud Native SIG Meeting (BoF table)
  - o All Shifting Gears & Cloud Native SIG
  - Pham Vu Tuan <u>Remoting over Kafka</u> presentation
  - Other topics (unconference)
- 3.30PM Ignite Talks
  - Program will be discussed during the summit
  - Feel free to propose your ideas!
  - Current ideas:
    - Oleg Nenashev "JCasC + Custom War Packager + Jenkinsfile Runner" combination for single-shot masters (demo)
    - **...**
- 5:00PM Wrap-up
- 5:00 7:00 PM Reception evening, staff the Ask the Expert booth in the exhibit hall
- 7:15PM Contributor dinner, all summit participants are invited

More info: <a href="https://jenkins.io/blog/2018/07/25/contributor-summit/">https://jenkins.io/blog/2018/07/25/contributor-summit/</a>. RSVP here: <a href="https://www.eventbrite.com/e/jenkins-contributor-summit-san-francisco-tickets-48285340754">https://www.eventbrite.com/e/jenkins-contributor-summit-san-francisco-tickets-48285340754</a>

## **Participants**

- Oleg Nenashev host
- Jesse Glick host
- ...

#### Links

- Pluggable storage:
  - https://jenkins.io/sigs/cloud-native/pluggable-storage/
- External Artifact Manager
  - JEP-202 External Artifact Storage
- External Configuration Storage
  - o <u>JEP-213</u> External XML Configuration Storage
- External Logging:
  - JEP-207 External Build Logging support in the core
  - JEP-210 External log storage for Pipeline
  - <u>JEP-212</u> External Logging API Plugin
  - <u>JEP-206</u> Use UTF-8 for Pipeline build logs

### Meeting notes

- Shifting gears:
  <a href="https://speakerdeck.com/onenashev/swiss-jam-state-of-jenkins-and-configuration-as-code">https://speakerdeck.com/onenashev/swiss-jam-state-of-jenkins-and-configuration-as-code</a>
  e
- Feedback:
  - Jeff: Deployment to "Kubernetes on AWS"?
    - Jesse: GitOps?
      - Jeff: I would expect a step in Declarative Pipeline
      - Jesse: Jenkins X kinda addresses it,
    - more declarative definition of what should be deployed, rather than heavy/custom Pipeline work
    - Oleg: would be a "K8s Deploy Step" plugin or so. So far does not require changes in the architecture
  - Single-shot masters?
    - https://jenkins.io/blog/2018/09/12/speaker-blog-a-cloud-native-jenkins/
    - Demo by Oleg: <link>
    - Demo by Jesse:
      - Single-shot master
      - Kubernetes, EKS, S3, CloudWatch
      - Kubernetes Plugin for provisioning agents
      - Vishal, Adobe: How logs are browsed? Do I need to use CloudWatch UI
        - Now yes. Still an open guestion how
        - Background:

- S3 backups of JENKINS\_HOME. Jenkins used a lot of plugins and used to crash, so we needed solutions
- 2000 instances
- Our solution:
  - ES/Logstash for logs
  - Artifactory
- Lots of artifacts, overload JENKINS\_HOME
- Interested in Apache Kafka for streaming logs
  - Logstash plugin does not do that
  - Performance (mirroring instead of direct communication)
- Jeff: This approach simplifies management of the things
  - Vishal: Same with Multi-Branch, higher level of management
  - Jeff: If something changes in node.js, jobs might succeed for the developer locally, but fail in Jenkins. This could solve this problem
- Vishal: Upgrade management. Build reproducibility. Imagine an enterprise with thouthands of instances
  - Nazrul: If we hook up it with Configuration as Code?
    - Vishal: Yes, but I how do I debug it when it fails?
    - NazruL environment preview
- Vishal: credentials?
  - External ones (K8s, CyberARK, ...)
  - o Internal keep a part of config-as-code and encrypt
- Cloud Native SIG:
  - How to join?...
    - Click links in <a href="https://jenkins.io/sigs/cloud-native/">https://jenkins.io/sigs/cloud-native/</a>
  - Nazrul: Another way to contribute is to try the plugins
  - How to setup EKS?
    - Nazrul: Some guidelines on the CloudBees website
- Oleg: what if Cloud Native Jenkins is a WebUI-less master?
  - Jeff: Build logs are the most critical things
    - Oleg: problem is with annotations
  - Vishal: It would be a big Jump for Jenkins
    - What if we had a separate master running and showing classic Uls?
      - Oleg: only for completed builds?
      - Vishal: hyperlink to an external service would be OK
    - Vishal: I would highly recommend keeping UI
    - Jeff/Vishal: Like taking BlueOcean out of Jenkins
    - Ryan: necessary to separate consoles

- Vu Tuan: Remoting over Kafka
  - o slide link

https://docs.google.com/presentation/d/1drRIDNvDKdBE-VuuLFXIWRB0NhSFr1aWrq2p8qrF3co/edit?usp=sharinq?

- o GitHub
- JIRA long term plans: https://issues.jenkins-ci.org/browse/JENKINS-53417
- < TODO: link and notes>
  - Vishal: security concerns for secret-driven connection
    - Oleg: also certificates and end-to-end encryption
  - Vishal: Nice for long-running agents, especially Windows
  - Nice for enterprise environments which already have Kafka
  - Logging over Kafka?
    - Oleg: It could be done, requires External Logging API work to be finalized
- PC: We have already started working on Pluggable Storage implementation for Azure.
  - Interested in details about Artifact management
  - Jesse: New versions allow to implement storages
    - JEP-202
    - JClouds under the hood to simplify the implementation
    - Pre-signed URLs for artifact submission
      - Azure: Our implementation is similar.
        - Jesse: links have expiration dates
    - Testina:
      - Jesse: Test suites in Artifact Manager
      - Oleg: Some experiments with Integration tests
  - Evergreen example
    - PC: We are interested to
- Jeff: Do you have a list of of tasks to pick?
  - Nope, but you can join and we will find

#### Action items